

# InformationWeek



**Honoring organizations** using IT for maximizing business impact



## editorial

Srikanth RP / Senior Associate Editor

## Saluting India's finest business technology leaders

Is IT a function that supports the business or does it lead the business? If you posed this question to people five years ago, most respondents would have unequivocally said that IT supports the business. Today, IT is seen as a transformational agent, and a function that can create new markets for companies. IT is hence, not just a key business enabler, but also a function that gives companies the 'EDGE' they need over the competition.

We have seen this trait emerging extremely strongly among the list of entries we received for EDGE-our annual initiative to identify, recognize and honor end-user companies in India that have demonstrated the best use of technology to solve a business problem and improve business competitiveness. This special issue of EDGE has several interesting case studies-some projects are brilliant in execution, some show a new way of doing business, while others demonstrate how it is possible to fulfill ambitious aspirations using limited resources.

For us at InformationWeek, it is a privilege to honor some of the most interesting and innovative technology deployments in the IT industry. Besides industry mammoths, it's inspiring to see how smaller institutions are leveraging emerging technologies such as cloud computing to solve their business problems. Take the case of SEDS, an NGO that has intelligently leveraged the cloud to build a census information management system that generates unique IDs for more than 40,000 members living below the poverty line in Anantapur district, India's second-most drought-prone district. That said, do not forget to also read about how the market leaders are redefining their business value. Marico, for instance, has generated additional income of ₹4 crore for farmers through a mobile application.

Finally, do not miss the section on the Future Strategist Award winnersour initiative to identify the next CIO-in-the-making. These young leaders deserve special recognition for the way they have responded to a business situation, and succeeded in deploying technology intelligently.

We do hope this special issue will serve as a valuable guide in inspiring and encouraging your firm's progress on its path towards excellence.

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Srikanth RP is Senior Associate Editor of InformationWeek India

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# Customer experience: The primary driver for UC adoption in BFSI segment

Customers use different channels to reach out to the business. CIOs feel UC will help them handle interactions through these channels more efficiently

By Harshal Kallyanpur

With the economic recession behind them, organizations across various industries are looking at capitalizing on new business growth opportunities and IT is expected to act as a catalyst and an enabler for the business. One such technology that the IT department can turn to for reducing overall operating costs is UC. At a CIO roundtable held earlier this month, hosted by *InformationWeek* along with Microland and Cisco, CIOs from major BFSI companies shared their view on UC and its impact on the business.

Manoj Agarwal, CIO, SBI General Insurance said, "Customer experience is a driving force for our growth. Hence, the key focus for implementing UC is on how we can make this experience better."

Manoj Chandiramani, formerly Senior VP, APAC
Head IT OP's at MF Global, provided a different take
on the reasons for adoption of UC: "From a back-end
perspective, I would approach areas where interaction is the
highest and most important. Any communication issues here
delay the work and could be targeted with UC."

However, choosing a UC solution can be quite a task since it comprises different smaller individual communication solutions. S Raghunath Reddy, Vice President - IT, UTI Asset Management said, "If you go to different vendors for different products, there would be integration challenges and finger pointing with one blaming the other for the overall implementation not working properly. Getting it from one vendor means less integration challenges and a single point of contact in case of any issues."

Agarwal explained that instead of implementing a UC solution one piece at a time, one can take the Big Bang approach and go all out with the implementation. However, according to Minhaj Zia, National Sales Manager, Unified Communications, Cisco India & SAARC, "There will be some customers who may go with the Big Bang approach. Others would make constrained efforts due to the existing legacy infrastructure. They would then need to look at what can be utilized and what needs to be replaced to achieve their goal of



UC implementation."

"When evaluating a vendor, organizations need to look at vendors whose products are open and interoperable. They need to check if the vendor is offering products that support industry standards, open web interfaces, and if the vendor is publishing its APIs and has an ecosystem of applications based on these APIs," said Zia.

Zia further added, "One needs to make a decision based on platforms and architectures and not products. If the architecture is open, any vendor should be able to plug into it. If not, then he's not the right vendor."

Jawahar Bekay, Chief Operating Officer at Microland added his vendor perspective: "When you invest a rupee on the technology, you invest five, if not 10, on support and manageability. Hence, it is necessary to keep this aspect in mind when choosing solutions—rather than taking the approach of first choosing the technology and then thinking about managing it."

Harshal Kallyanpur (harshal.kallyanpur@ubm.com)

## Tapping the RIM market in India

Experts discuss the opportunities and challenges surrounding the RIM market at the Nasscom Infrastructure Management Summit 2010



By Ayushman Baruah

Globally there is a consolidation of infrastructure happening and companies are looking to cut costs in their data centers. Most of these are manpower costs required to manage the data centers. This makes Remote Infrastructure Management (RIM) an attractive proposition for India. According to Nasscom, this sector is estimated to have aggregated export revenues of USD 4.3 billion in FY 2010 and employed 90,000 people. It is estimated that by 2020. RIM can contribute more than a third of total IT services revenues for India. At the Nasscom Infrastructure Management Summit 2010, experts discuss the opportunities and challenges surrounding the RIM market.

In light of the huge opportunity in the RIM market, there are challenges holding us back to take full advantage of it. How do we address these challenges? Pradeep Kar, Chairman and MD, Microland, explained that contrary to the general perception, the RIM business needs an element of process. "At Nasscom, we are trying to expand the talent force beyond engineering and trying to make a BSc graduate or a diploma holder an L1 engineer, for example," he said.

On the skills front, Deepak Jain, Senior VP and Global Head, Technology Infrastructure Services, Wipro, highlighted his company's unique program called 'non-linearity' which aims at growing revenue without increasing the resources you need to run that business. "Globally 85 percent of activities are done using human resources and 15 percent are done using tools. We believe this 15 percent can go up to 50 percent. In this way, the resources required in terms of people will really come down. The second challenge is how to go the next level of scale," Jain said.

Standard Chartered Bank has its unique methodology too. "We cross-functionally train people, make them attuned to wider skillsets and then put them in the high-end of problem and change management. In this way the outcome is much better," said Sarabjit Singh Anand, Head - IT, India, South Asia & GSSC of Standard Chartered.

It's not uncommon for enterprises to spread their operations over many overseas locations. From an infrastructure perspective, how does a service provider manage infrastructure in the extended enterprise? Addressing this, Jain from Wipro said the company is supporting customers who have operations in many countries. "The first thing we found was the language challenge. The heterogeneity of the environment was a big

#### **KEY STATISTICS**

- > RIM exports in FY 2010 touch USD 4.3 billion
- > RIM market grew by 11 percent in FY 2010
- > Domestic RIM market estimated at USD 475 million in FY 2010
- > Twenty-five percent incremental IT exports revenue growth in the last four years
- > BFSI contributed 52 percent to RIM exports
- > By 2020, RIM is expected to account for 43 percent of incremental IT services revenue growth

Source: Nasscom

challenge," he said.

Singh from Standard Chartered highlighted the factors that enterprises should consider when going in for RIM services and also on the steps involved in it. "First, we make a strategic decision to figure out whether or not we really require it from an organizational standpoint. Once that is decided and we can say that our network and data center services can be run by a service provider, then we would go out and put in an RFP that this is how we would like our outcome to be. We would then invite partners and meet them one-on-one to understand their challenges. Finally, it would come to proposals, agreements, SLAs and selecting one of them through a reverse-auction process and picking up that service provider."

With laaS offering many benefits, the panel also discussed how Indian enterprises are latching onto this trend. According to Singh, "It's a doable thing but the important point is to understand what we would want to do it for. It will depend on what ROI it is going to generate."

In light of new trends such as laaS, one might wonder if traditional business models will survive. Wipro's Jain attempted to explain this by speaking of a scenario wherein customers who currently have servers in their own offices might have servers with different service providers in the future. The point Jain was making is that somebody has to manage the servers.

Ayushman Baruah (ayushman.baruah@ubm.com)



#### Over 50 percent of information residing in Indian enterprises is classifi ed as sensitive

Source: Symantec – IDC study on rising risk of data loss in Indian enterprises

#### **ENTERPRISE APPLICATIONS**

### Ramco launches RODE 2.0

#### According to Springboard Research,

the SaaS-based ERP market in Asia Pacific is estimated to grow from USD 35 million in 2008 to USD 193 million by 2012. Ramco is trying to leverage this demand with the launch of Ramco OnDemand ERP 2.0.

RODE 2.0 is a full-fledged ERP over the cloud with a quick deployment time of seven days-considering that complex deployments take almost three months.

"RODE 2.0 is a complete revamp of the earlier version. While the previous version was targeted at mostly SMBs, RODE 2.0 comes with a lot of advanced features to make it suitable for enterprises



as well. Some of the new features include extendibility with other ERP solutions, smartphones and PDAs, report customization and business intelligence. Letting users access the ERP system on the move is a big advantage for many organizations," said P R Venketrama Raja, Vice Chairman, Managing Director and CEO, Ramco Systems.

S Sivakumar, Chief Executive, Agri Business ITC (eChoupal) said, "We have been using RODE for more than a year now. The SaaS solution helps us to make modifications in the system based on our changing business needs without too much fuss. It has been a boon for our eChoupal project in which we have new business partners every year."

S Badrinarayan, Vice President, RTE—Brakes India said. "We are an SMB with changing business requirements and periodically changing business processes. With most ERPs, you need to adopt your business processes based on the system—which, in our case, was not possible. Ramco OnDemand ERP has helped us gain competitive edge by giving us the ease to make quick modifications and customizations based on our changing needs."

> Varun Aggarwal (varun.aggarwal@ubm.com)

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## interview

# 'Virtual Computing will enable consumerization of IT'

Bv Brian Pereira

Want a quick update on the latest in enterprise technology? Then spend an hour or so with **Mark Templeton**, President and CEO of Citrix. Templeton speaks passionately about everything from tablets to virtualization, virtual computing data centers. And then we realize he is talking about the products and services of his own company.

"As a company we're participating in a broad range of transformations in computing," says Templeton. "One end of this transformation is driving how people work (virtual work styles), and at the other end how IT is transforming the way it works and how the whole system is managed as an on-demand service. We're also participating in these huge transformations in the data center, in terms of how you build data centers, and how you deliver desktops and applications in a virtual way to achieve business objectives."

Templeton referred to the trend of virtual work styles, where the consumer

works from anywhere and uses a variety of devices to access enterprise data.

Another surprising fact that came up in this conversation is that 10 percent of Citrix's workforce is right here in India; 15 percent of its senior leadership (on a global basis) are Indians (VP level). And Citrix has just upgraded its R&D center in Bengaluru (its largest outside the US)-increasing its team of engineers from 75 to 500 in four years, with the possibility of doubling that in the coming years. These engineers work on core innovation (design, coding, engineering management)-not just testing. That means core development for diverse projects ranging from mobile computing to 3D graphics, virtualization and SaaS.

Apart from the R&D team in Bengaluru, 25 percent of the team there participates in Citrix's global operations and are involved in activities such as supply chain, IT services, facilities, product management etc. And this range of diverse activities makes Citrix's Bengaluru R&D center unique. The R&D center and its new sales operation in Mumbai will also serve the Indian market.

"Citrix can't run day-to-day and Citrix can't grow into the future without our Bengaluru team executing well and growing," said Templeton, with a twinkle in his eye. "Many companies come to India because of cost. We come here because of talent."

Virtual Computing is a key focus area for Citrix and it already has products to address tasks such as virtual meetings (GoToMeeting), on-demand support and assistance (GoToAssist) and a virtual desktop business.

"We're the leader when it comes to virtualization technology on the desktop, at the end points. India is a key market for us because a huge number of offshore projects are conducted here using our software and applications," informed Templeton.

Templeton also spoke about an emerging trend wherein users will access data using a device of choice (Android powered, iPhone etc). The enabling technology is a piece of software called Citrix Receiver, which is a universal client for IT services. The backend infrastructure broadcasts services (from the data center) to the Citrix Receiver on the user's device. Citrix Receiver is already available on most mobile platforms.

"The younger generation wants to use their own devices. IT organizations are now embracing this concept of consumerization of IT, because users are more comfortable with their own devices. Secondly, the organization does not have to own the device or the network," said Templeton. "Virtual Computing is an enabler for this. It keeps the physical (assets) in the enterprise and the logical part on a personal device."

This model also brings about other advantages. For one, it offers better security. Also, the IT manager has better control over his assets. And of course, there are huge cost savings because there is no need to buy and upgrade PCs or software. Also, employees will be able to work from anywhere.

But this model is network-dependent and needs reliable connectivity. So it will really take off once 3G networks become widespread and affordable here.

Brian Pereira (brian.pereira@ubm.com)



## **Nurturing tomorrow's CIOs today**

What does it take to be a future CIO? What will the role be like? Ask our pick of 15 'Future Strategists'

17	Sr. Manager (IT), NTPC	32	Assistant Vice President - Information Systems, Highbar Technologies
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	GM - Business Applications, Eveready industries india	3/1	RAJIV SHARAF
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	Head of IT Infrastructure and CISO / DGM -IS, Hero Honda Motors	35	NARESH SHARMA Head IT / DGM IT (DYB), RSWM
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20	Divisional Manager - IT Infrastructure, Mercedes-Benz India	36	Group Executive Vice President & CTO-Banking Solutions, YES Bank
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**VISHAL ANAND GUPTA** Deputy Manager - Systems, The Calcutta Medical Research Institute

**NIKHIL GUNDALE** 

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### **Future Strategist Award**

# Nurturing tomorrow's CIOs today

What does it take to be a future CIO? What will the role be like? Ask our pick of 15 'Future Strategists'

By Brian Pereira

The CIO's role has evolved and continues to evolve. There was a time when a CIO (then called Head-EDP or equivalent) was concerned mainly with IT procurement or the supervision of data processing or software development activities in the erstwhile EDP department. Today, he/she advises the business on key decisions (such as M&A), and how IT will support those decisions and take the business forward. Going forward, we at *InformationWeek* see the CIO playing a more active role in business strategy. So the CIO title is likely to morph into something else. Since we are unsure what that might be, let's just call it 'Future Strategist' for now.

We at *InformationWeek* have been working closely with the CIO community through this magazine, forums and other initiatives, to recognize success stories and individuals who could serve as a source of inspiration and guidance to others. A key input during these various discussions and interactions was the role played by the CIO's team and the lack of a credible forum to recognize their contributions and talent. We observed that the person next in line for the CIO role made a big contribution in projects that directly supported business growth and excellence. This person faces similar challenges as the CIO, yet is responsible for quality deliveries within tight deadlines. And this person is mentored by the CIO in preparation for a leadership role, tomorrow.

So why not recognize his/her talent today?

This is what set us thinking about an award for tomorrow's IT leaders—who we call 'Future Strategists.' We invited CIOs in India to nominate their Future Strategists and the response we got within a short span was phenomenal. We received 45 nominations and are giving this award to 15 Future Strategists. These winners were selected by a jury comprising the three *InformationWeek* Global CIOs for 2010, our partner Ernst & Young, and the *InformationWeek* editors. The awards will be presented at a gala ceremony at Interop-Mumbai on 28 September, 2010. Congratulations to all the winners!

You can read about them in this issue.



PEEYUSH ARYA Sr. Manager (IT), NTPC

Mentor: Dinesh Kumar ED (IT), NTPC

TPC is India's largest power corporation with an installed capacity of 29,894 MW. It contributed nearly 28.5 percent to the entire country's power needs during the year 2007-2008 and plans to become a 75,000 MW power company by 2017. It has 15 coal-based and seven gas-based power stations; and four joint ventures. Given the massive breadth of its operations one can imagine the complexity and scale of projects at NTPC. These cannot be executed without the hard work, commitment and sincerity of its workforce. And Peeyush Arya is an employee whose contribution deserves special recognition. With an extensive track record spanning 20 years and with his special qualities, Arya is undoubtedly a special asset at NTPC. His mentor Dinesh Kumar believes Arya is a "go-getter," is completely dedicated to projects, and has a great ability to take on new initiatives. He notes that, with Arya's help, all activities in the process chain are delivered efficiently, and on time.

Arya has a B.E. (Electronics & Communications) degree and a PGDM (HRM). He began his career in 1990 as a Graduate Engineer Trainee with the Tata Power Company. He then joined NTPC in January 1993, and was instrumental in the design, development and implementation of online applications and the Executive Information System at this corporation. Arya has also contributed to the development

and implementation of systems to capture information about monitoring thermal projects across the country.

He was also the project coordinator and member of the Project Management Team for Project 'Lakshya'-for the implementation of SAP across NTPC. The project covered implementation of all modules of SAP including SAP ECC, SRM, BI, C-folders, KM and ESS for all 25,000 employees of the organization. Additionally, he is also the BI Team lead and member of the Plant Maintenance Team.

The ERP project has yielded numerous benefits for the organization and has received recognition in India and abroad. The project was honored with SAP ACE Award in 2007 for the best implementation in Utilities, and in 2008 as the most comprehensive implementation in 2008. It is due to his valuable contribution that NTPC has been able to implement the ERP across the organization in record time. He is now looking 'Beyond ERP' for the adoption of technologies such as RFID. GPS, and GIS. These, he believes, can add value to the transactional systems and lead to operational excellence and productivity improvement.

#### TRACK RECORD

With a career spanning 20 years, Peevush Arva has helped design, develop and implement online applications and the Executive Information system at NTPC. He has also helped develop systems to capture information about monitoring thermal projects across the country.

#### CAREER ACHIEVEMENTS

Project 'Lakshya' is a notable achievement for Arya. This involved the implementation of SAP across NTPC and he played a crucial role in the Project Management team. Thanks to his contribution NTPC has been able to implement ERP across the organization, in record time.

#### PERSONAL BELIEF

Arya opines that technology must fit with the users' goals in order to be utilized effectively. Technology should help improve operational excellence and enhance productivity. A large IT implementation requires buy-in from all stakeholders for successful implementation of technology. Arya believes success is achievable if one works with the business team rather than working for them. To be an effective CIO, one must have knowledge of not only technology, but also about all organizational processes.



## Future Strategist Award



respect but also has a 'rub-off' effect on his entire team.

Banerjee has over 15 years of IT experience. Prior to Reliance, Banerjee worked in IT consulting roles with GE, PricewaterhouseCoopers, along with product management roles with IT start-up firms in the wireless telecom domain. He began with PwC in the SAP R/3 consulting practice at a time when ERP implementations were starting to take off in India, in the late 90s.

During the Dot-com boom, he ran offshore Product
Management for an IT start-up firm in wireless telecom data
applications. He later moved to Singapore and worked in
Data warehousing and BI implementation projects. Banerjee
relocated to India and worked for GE in their Consumer Finance
business. Banerjee was responsible for setting up analytical
CRM and Marketing automation solutions for multiple GE
Money businesses in Asia, Europe and Australia.

Banerjee is an alumnus of IIT Kharagpur and IIM Kolkata.

#### ▲ SUDIP M BANERJEE

VP & Head - IT, Reliance General Insurance

Mentor: Sriram Naganathan Chief Technology & Operations Officer, Reliance General Insurance

Services functions at Reliance General Insurance. In his present role, Banerjee executes on IT strategies, which help Reliance General compete effectively in the market. Over the last two and a half years, Banerjee managed an impressive set of application development and rollouts around core insurance applications such as policy administration, new product rollouts, claims management, CRM, operational and analytical BI. He has also delivered on an enterprise architecture of SOA-enabled services, which help to integrate applications both within and outside the company.

He leads a motivated team of IT employees and a partner ecosystem comprising Tier I and II IT system integrators. Despite the difficult macroeconomic situation of the past two years, particularly for BFSI companies, Banerjee has been able to deliver even with 50 percent cut in IT spends. His efforts have been rewarded in the form of multiple awards from IT trade publications in India and abroad, and several case studies with IT product vendors.

Mentor Sriram Naganathan says Banerjee's special qualities are his temperament and attitude at work. He says that Banerjee's calm approach to situations has helped in challenging situations. His calm nature has not only earned him

#### TRACK RECORD

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During the Dot-com boom, he ran offshore Product Management for an IT start-up firm in wireless telecom data applications. He later moved to Singapore and worked in Data warehousing and BI implementation projects. Banerjee relocated to India and worked for GE in their Consumer Finance business.

#### ACCORDING TO HIS MENTOR...

Mentor Sriram Naganathan says Banerjee's special qualities are his temperament and attitude at work. He says Banerjee's calm and composed approach to situations have helped in challenging situations. His calm nature has not only earned him respect but also has a 'rub-off' effect on his entire team.



AMITAVA BATABYAL GM - Business Applications, Eveready Industries India

• Mentor: Arup Choudhury Senior GM - IT, Eveready Industries India

ith a strong understanding of the financial side of the business, Amitava Batabyal crossed over to the IT side six years ago. Before that he served as a Cost Accountant in an FMCG company for 20 years. Within IT he was responsible for two projects at Eveready Industries: ERP implementation and ASCP (Advanced Supply Chain Planning) and Oracle Demantra. In his present role, his charter is to map the entire business process within the IT framework and ITenable all the new business initiatives. This includes regularly seeking opportunities to ease operational processes.

Eveready is an FMCG company with a vast portfolio of products including a diverse mix of carbon zinc and alkaline batteries, torches, packet tea, mosquito repellents, CFL lamps, GLS lamps and rechargeable batteries. It serves both domestic and International markets. The company has a wide distribution network that covers 3.5 million retail outlets across India. The company faced challenges such as enterprise-wide availability of information, reduction in working capital, utilization of funds, and operating costs. It wanted to increase revenue, streamline processes and create a demand-driven organization.

Hence, the company initiated Project Unibiz and appointed Batabyal as Project Manager in 2004. This was an ERP project to map the existing framework to a 'Next Practices' model driven by new ideas being generated within the organisation, with the objective of meeting business goals.

The project was successfully implemented and helped centralize all the purchasing and payment processing functions. It reduced the purchase-to-pay lead time by 15 days. Settlement of customer claims is now done in seven days from the time the claim is submitted. Previously, it used to take 60 to 90 days. This has increased customer satisfaction. Efficient fund management has reduced average period of vendor outstanding from 60 to 28 days.

During this project, Batabyal proved his ability to do timely project delivery with limited resources. His mentor Arup Choudhury says Batabyal has a strong functional background. Considering his experience as a cost accountant, and the various roles he has donned such as Plant Account Head and Regional Commercial Manager, Batabyal certainly has a thorough understanding of the business operations—and this helped during the execution of the project. "He has a unique quality of knowing which resources to turn, to get a job done," says Choudhury.

#### TRACK RECORD

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#### CAREER ACHIEVEMENTS

Within IT, he was responsible for two projects at Eveready Industries: ERP implementation and ASCP & Demantra. In his present role, his charter is to map the entire business process within the IT framework and IT-enable all the new business initiatives. And this includes seeking opportunities to ease operational processes on a regular basis.

#### HIS PHILOSOPHY

Batabyal believes that nothing is impossible in life if one is clear about the requirements of the targeted group. He says that clarity about the actual requirement and about who initiates the requirement can help one think logically about how to address the requirement.



## Future Strategist Award



improving customer satisfaction and hence impacting both the top line and bottom line of the organization.

#### FROM BUSINESS TO STRATEGY

Prior to Hero Honda, Brahmachari served Ranbaxy Laboratories in the capacity of Senior Manager Information Systems. There his key areas of responsibility included managing the rollout and maintenance of Global IT Infrastructure for enterprise-wide applications like SAP, an e-mail Intranet application, information security and global networking. Brahmachari also led the team in winning a BS 7799 certification for its data center operation, and this certification was later upgraded to ISO 27001.

Before Ranbaxy Brahmachari worked for PC Solutions as Area Manager - Support & Services. Here he contributed to projects involving domains such as OS, Microsoft applications, servers and networking.

For most of his career Brahmachari has managed technical challenges. But he has now delved into the strategic side of husiness

#### **▲ SUJOY BRAHMACHARI**

Head of IT Infrastructure and CISO / DGM - IS, Hero Honda Motors

Mentor: Vijay Sethi Vice President IS and CIO, Hero Honda Motors

ujoy Brahmachari has more than 17 years of experience in planning, designing, implementing and handling IT Infrastructure solutions to enhance business productivity, competitiveness and continuity—both in user and service industries

In his present role as Head of IT Infrastructure and CISO / DGM - IS, Brahmachari is responsible for all IT infrastructure operations and information security activities. Apart from this, he plays a vital role in the IT enablement of the organization. Brahmachari is also part of cross-functional teams and IT steering committees for various projects.

#### PROFESSIONAL ACCOMPLISHMENTS

Brahmachari has been involved in various projects the notable ones being SAP ECC upgrade, Dealer Management System rollout, and Product Lifecycle Management System. He recently led an initiative for acquiring ISO 27001 certification for the organization.

His main charter is to lead projects or be part of the Project Management Team or a steering committee for projects. These projects have helped the organization in terms of reducing costs, improving productivity, improving security,

#### TRACK RECORD

Sujoy Brahmachari has around 17 years of IT experience and has served organizations such as PC Solutions, Ranbaxy Laboratories and now Hero Honda Motors. This breadth of experience has helped him appreciate the business needs and how IT can help business and how IT actions and priorities can be aligned to business priorities. For most of his career Brahmachari has managed technical challenges. But he has now delved into the strategic side of business.

#### **CAREER ACHIEVEMENTS**

Brahmachari has been involved in various projects—the notable ones being a SAP ECC upgrade, a Dealer Management System rollout, and a Product Lifecycle Management System. He recently led an initiative for acquiring ISO 27001 certificate for his organization.

#### **BELIEFS AND ASPIRATIONS**

Brahmachari aspires to leverage his understanding of technology and use it to solve core business issues. His focus is on driving business-driven IT solutions with a long-term vision and is a quick learner who can map business needs with IT technology in a very efficient way.



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problem solving and organizational abilities.

Deshmukh has an impressive track record and has led several projects during his career. He has set up a dealers' network enabled with VSAT and MPLS technologies. He is also responsible for the IT setup for the new factory at Chakan. The project included building a new network, an IP telephony system, a data center, and the dealers' network. Deshmukh helped implement information security policies by enhancing the infrastructure and educating users. He has received an ITIL certification and also introduced the ITIL process and implemented CA Unicenter. Deshmukh implemented ERP across the organization.

Apart from his illustrious academic record, he also holds a number of IT certifications and has participated in numerous technical workshops and training sessions.

Deshmukh began his career as a programmer. He has been with Mercedes-Benz India since 2006. Before that he served Aurangabad Electricals and as Corporate IT Head he was responsible for 14 units at five different locations.

#### SANJAY DESHMUKH

Divisional Manager - IT Infrastructure, Mercedes-Benz India

Mentor: Rajeev Jorapur Head IT, Mercedes-Benz India

ne of the biggest challenges faced by Sanjay Deshmukh at Mercedes-Benz is to balance increasing business requirements for the Indian market, global standards and new technology adoption/adaptation. So Deshmukh keeps himself abreast with the latest advances in technology and tries to see the business value that the organization can derive by using the technology.

Deshmukh is a dynamic professional with nearly 23 years of experience in strategic planning and management, IT operations, IT infrastructure management, project management, network management, system administration, business continuity planning, new technology implementation, process improvement and team management.

People who have worked with him say he's a keen planner, strategist and implementer who has demonstrated his abilities in IT operations management and new technology implementation for streamlining IT-related operations. He has expertise in spearheading numerous IT projects; ensuring delivery of projects in compliance to quality, time and cost parameters. And then he has those essential skills for managing teams, and motivating people to achieve business and individual goals. He's also an effective communicator with excellent relationship building and interpersonal skills. Apart from that he has strong analytical,

#### TRACK RECORD

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#### **CAREER ACHIEVEMENTS**

Deshmukh has led several projects during his career. He has set up a dealers' network enabled with VSAT and MPLS technologies. He is also responsible for the IT setup for the new factory at Chakan. The project included building a new network, an IP telephony system, a data center, and the dealers' network.

Deshmukh helped implement information security policies by enhancing the infrastructure and educating users. He has received an ITIL certification and also introduced the ITIL process and implemented CA Unicenter within the organization. He has also implemented ERP across the organization.



#### A RAMU DUVUR

Manager - Global Data Network Engineering and Operations, Applied Materials India

🕀 Mentor: Nagaraj Bhat Director, Global Information Services, Applied Materials India

s Manager of Global Data Engineering and Operations, Ramu Duvur is responsible for Applied Materials' global network infrastructure. Based in India, he leads a global team that supports more than 18,000 users at over 100 locations in America, Europe, and Asia. Currently, he drives major global IT initiatives including Wi-Fi network refresh, WAN optimization and a new technology solution called Applied Virtual Office (AVO)—a dedicated applied router that extends the network into the home.

A 17-year veteran of the networking industry, Duvur started consulting for Applied Materials in Santa Clara, California in 2002 and later joined the company in June 2007. During the same year, Applied Materials moved to a managed services model with one of the Indian IT service providers supporting its North America IT infrastructure. Duvur was instrumental in driving the transition of network and telecom services as the India Service Delivery Manager. In addition, he supported India network and telecom services and was Site Manager for the newly-acquired Chennai office as part of the M&A.

The M&A IT integration involved more than 100 engineers from the product software group in Chennai, that became part of the Applied Materials India family. Duvur delivered

all projects to the satisfaction of the business unit that he supported. Over the last two years, Duyur continued to take on additional responsibilities by first supporting the Asia network and telecom services, and recently the Global Data Network Engineering and Operations. He now has direct responsibility for people, process and technology for the Americas, EMEA and Asia geographies while continuing to be based in India.

Previously, he held many design, implementation and operational support roles for multiple start-ups and also for Wipro British Telecom. Duvur has grown guickly in the last three years, handling multi-disciplinary responsibilities and moving up the value chain to deliver global leadership from the India center.

Duvur is an engineering graduate from Maduraj Kamaraj University and has a CISSP certification. He recently completed his Executive Management program from the Indian Institute of Management, Bangalore.

Mentor Nagaraj Bhat says Duvur has demonstrated to the global leadership, a strong sense of urgency while dealing with production issues. Duvur has the right mix of business and technology understanding-both of which are key qualities for a CIO in the making.

#### TRACK RECORD

A 17-year veteran of the networking industry, Duvur started consulting for Applied Materials in Santa Clara, California in 2002 and later joined the company in June 2007. During the same year, Applied Materials moved to a managed services model with one of the Indian IT service providers supporting its North America IT infrastructure.

#### **CAREER ACHIEVEMENTS**

Duvur was instrumental in driving the transition of network and telecom services as the India Service Delivery Manager. In addition, he supported India network and telecom services and was the Site Manager for the newly-acquired Chennai office as part of the M&A. Previously, he held many design, implementation and operational support roles for multiple start-ups and also for Wipro British Telecom.

#### **HIS STRENGTHS**

Duvur believes that hard work and dedication to his craft, are the foundation of his success. His penchant for handling multi-disciplinary responsibilities has helped him move up the value chain to deliver global leadership from the India center.



## Future Strategist Award o



processes, which he could then translate into the IT roadmap.

During his long stint in broadcast media, some of Gundale's major achievements were a successful nationwide rollout of the multi-million dollar Broadcast Management system (BMS) to manage broadcast operations (broadly categorizing 12 departments) on a single unified platform; conceptualizing IP rights management platform; integration of ops systems with finance ERP and conceptualizing and implementing a Business Intelligence system which could integrate external data sources like TAM (viewership research agency) with multiple internal data sources giving the organization a 360 degree view.

At Lowe Lintas (Inter Public Group) Gundale's charter is to streamline business solutions to ensure complete platform unification. "Today, the media business has become highly competitive and long-term business solutions using a unification focus holds the key to gaining an edge over the competition," states Gundale.

Gundale spends his time strategizing and implementing with his CTO and mentor, Pravin Savant. The domains he deals with include collaboration, BI, monitoring and unification.

#### NIKHIL GUNDALE

Associate Vice President, Systems and Technology, Lowe Lintas India

Mentor: Pravin Savant CTO, Lowe Lintas India

efining long-term and unified IT strategies that are tightly integrated with business processes within the Media vertical is the only way for gaining competitive advantage in today's dynamic business environment believes Nikhil Gundale, Associate Vice President - Systems and Technology, Lowe Lintas India.

In a career spanning over 12 years, Nikhil Gundale has worked with large-scale IT multinationals managing various international technology projects. He has also worked with media giants, conceptualizing and implementing large-scale enterprise solutions.

After making significant contributions to IT at organizations such as LionBridge and Tata, Gundale joined Star India (News Corporation). Here he served in a leading business solutions group, and developed the technology vision in the areas of enterprise application initiatives for Broadcast and Media processes. At Star India, Gundale faced many challenges related to change management, such as migrating business processes managed using Excel sheets to high-end unified solutions such as Broadcast Management System (ERP for broadcast industry). To handle these challenges, Gundale worked out a threephased IT strategy 'Legacy - Consolidation - Unification.' While defining this strategy he first focused on mastering the business

#### TRACK RECORD

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#### **CAREER ACHIEVEMENTS**

In the broadcast media domain, some of Gundale's major achievements were a successful nationwide rollout of the multi-million dollar Broadcast Management system (BMS) to manage broadcast operations (broadly categorizing 12 departments) on a single unifi ed platform; conceptualizing IP rights management platform; integration of ops systems with fi nance ERP and conceptualizing and implementing a Business Intelligence system which could integrate external data sources like TAM (viewership research agency) with multiple internal data sources giving the organization a 360 degree view.

#### PERSONAL BELIEF

He believes IT leadership today has to be business-oriented and that it is not enough to just be a technocrat. This is how the role of IT can be transformed into a strategic partner to the business—not just a support function.



#### VISHAL ANAND GUPTA

Deputy Manager - Systems, The Calcutta Medical Research Institute

Mentor: Vishnu Gupta CIO. The Calcutta Medical Research Institute

uring a career spanning 14 years, Vishal Anand Gupta has handled various business functions. As Deputy Manager-Systems at the Calcutta Medical Research Institute, Gupta works closely with the CIO to align all IT initiatives with business operations. He contributes significantly to all the IT management activities of the Institute. This includes IT security and IT compliance.

Gupta entered the booming Healthcare industry in August 2009 and joined The Calcutta Medical Research Institute, Kolkata. For him, this was not just a job, but also a platform to share and grow acquired knowledge-and then convert it into tangible results. Here Gupta embraced core activities such as optimizing customer support, drafting departmental level IT polices, SOPs and balance score cards; vendor SLAs, uninterrupted IT infrastructure, and of course, the successful implementation of technology for business.

At the Institute Gupta is credited with projects such as Project Embrace Green, which is aimed at earning financial and carbon credits for the organization. The project had three main objectives: paperless MIS, virtualization of desktop and low power consumption PCs. Gupta was also involved in other project activities such as drafting business score cards for the department till L4 level (L1-CIO), enforcing

SLAs in outsourcing and vendor management; increasing the efficiency of the IT help desk: Internal Auditor for '5 S' and 'ISO 9000:2008.'

Earlier Gupta worked at Dell International Services, Bengaluru as Senior Technical Support Specialist, Here he received the Dell Commander Cross Award and Certificate of Commitment. He played the role of team mentor and senior technical support advisor to solve moderately complex end user or field technician issues on Dell products.

Gupta also served L G W Ltd as Asst. Manager Operations & Communications. Here he led a team on the development of internal communication strategies and policies for internal and external clients. At Prowiser, Bengaluru he helped plan and implement the communications and operation administration department's day-to-day work around activities.

Mentor Vishnu Gupta admires Vishal Gupta's strong sense of responsibility and desire to excel at every task by integrating, managing and collaborating every available resource and then implementing a business-centric technology.

#### TRACK RECORD

During his career spanning 14 years, Vishal Anand Gupta handled various business functions. And in the past three and a half years he was involved in many IT projects. Gupta entered the booming Healthcare industry in August 2009 and joined The Calcutta Medical Research Institute. Kolkata. As Deputy Manager-Systems he works closely with the CIO to align all IT initiatives with the business operations. He contributes significantly to all the IT management activities of the Institute, and this includes tasks such as ensuring IT security and IT compliance.

#### BELIEFS AND ASPIRATIONS

Vishal Anand Gupta aspires to achieve an IT leadership role that employs the right IT strategy and technology to achieve business goals, by accelerating the performance of the organization's operations and business strategy.

#### ACCORDING TO HIS MENTOR...

Mentor Vishnu Gupta admires Vishal Gupta's strong sense of responsibility and desire to excel at every task by integrating, managing and collaborating every available resource and then implementing a business-centric technology.



## Future Strategist Award



initiative was a huge success and the whole organization got involved; this in turn also helped users to appreciate the strength of IT, to add business value.

Currently, Kunkolienkar plays a value-added role in the Information Systems department of the company in the areas of strategy and planning, control, business processes and for strategic IT initiatives. He is concerned with such tasks as aligning IT objectives with enterprise objectives and strategies and aligning the IT team with the enterprise performance objective. He is also concerned with controling the performance objective through KRA and IT budgets—and in selecting, managing and controlling IT providers and managing outsourced services.

His mentor, Satish Pendse, President at Highbar Technologies, is highly impressed with Kunkolienkar's rapport with internal customers and even with his own team members. Pendse says Kunkolienkar has good knowledge and insights about the HCC Group and its IT expectations. He aligns himself well to this and works towards delivering them through his human resource connect, and managerial abilities.

#### A MAHENDRA KUNKOLIENKAR

Assistant Vice President - Information Systems, Highbar Technologies (Hindustan Construction Company)

Mentor: Satish Pendse
 President, Highbar Technologies
 (Hindustan Construction Company)

ahendra Kunkolienkar has had a long and fruitful innings in a career spanning over 25 years in construction, power and steel companies. He's been at Highbar Technologies (an HCC Group Company), for the past 18 years where he successfully led IT functions and business process transformations. He was instrumental in the implementation of SAP ERP, EP, BPR, an engineering solution, a logistic solution around core business processes and in mapping various processes into an IT solution. After the implementation of SAP Kunkolienkar led the change management drive at HCC. He is an ITIL-certified professional and has implemented the ITIL framework for the company's service function.

While the SAP implementation was a milestone for the company, transforming this into a business value was the larger objective. Post implementation, Kunkolienkar was instrumental in designing methodologies and processes to track the value being created through proper utilization of SAP. He played a key role in driving the organization to achieve this by assigning value creation targets to each project/department and in continuously monitoring this. The

#### TRACK RECORD

Mahendra Kunkolienkar gets the credit for making SAP implementation part of the work culture at HCC. He played a crucial role in the change management process that facilitated HCC to better leverage the investments made for the SAP deployment.

#### **CAREER ACHIEVEMENTS**

Kunkolienkar is responsible for the implementation of end-to-end business processes in the Infrastructure/Construction industry spanning planning, logistics, fi nance, and HR.

#### HIS PHILOSOPHY

Kunkolienkar believes that logical thinking is the key to success. He advises all to recognize IT as a value creator—not as a service department. Perhaps his favorite piece of advice would be: "Your mind should orient towards a solution provider—and not a technologist."

#### ACCORDING TO HIS MENTOR...

Kunkolienkar's mentor Satish Pendse, President at Highbar Technologies, is highly impressed with Kunkonlienkar's rapport with internal customers and with his own team members.



returns the program offers the business.

In the current role of Vice President - IT at Vodafone Essar (VEL), Nigam is the custodian of all customer-facing applications such as CRM, all self-service channels, voice, Internet-facing applications etc. Some of his achievements at VEL include voice technology transformation to WVR; establishing CRM as the centerstage customer master in a complex disparate IT environment; developing USSD as the most cost-effective and user-penetrable self-service channel; and consolidating all outbound dialing platforms. The common element in all these transformations was the need to enhance the customer experience and reduce costs.

After completing an M.Tech degree in Computer Science and Technology from IIT Roorkee, Nigam served various global Telecom companies during the 15 years of his IT career. While serving organizations such as O<sub>2</sub> GMBH, Telfort, Telephonica Spain, MobileRom, Reliance Communications and now Vodafone Essar, Nigam always bestowed the business or technology shift-and that's what defines his experience.

#### 🔺 MANOJ NIGAM

Vice President - IT. Vodafone Essar

Mentor: Navin Chadha CIO, Vodafone Essar

eing in the eye of the Indian telecom hurricane is a challenging proposition for any senior executive in the Indian telecom industry. There's fierce competition with new players entering the ring every year. As if that wasn't enough, one has to deal with regulatory compliance, growth regimes (3G, WiMax, mCommerce), support of customer growth, and falling ARPU. One also has to work hard to optimize business cost. Customer loyalty and product innovation are key to retaining good revenue, otherwise most new customer growth is driven through the phenomenon called 'multi-SIM'.

When Manoj Nigam joined the company almost two years ago, there was already a big vacuum in the customer-facing application leadership, and the team was very transactional in nature. Business, supporting the trend, had shelved many transformational initiatives due to IT's non-interest. It took consistent drive both within the IT team and with business users, who gradually started believing in IT as a future growth support engine.

Manoj believes in blending customer and business focus with strategic IT needs, to ensure that IT stays ahead of the rapidly transforming telecom curve. At Vodafone, he ensures that the team evaluates all IT programs in light of critical objectives. Nigam allocates the budget and focuses on the

#### TRACK RECORD

Manoj Nigam served various global Telecom companies during the 15 years of his IT career. While serving organizations such as O. GMBH, Telfort, Telephonica Spain, MobileRom, Reliance Communications and now Vodafone Essar, Nigam always bestowed the business or technology shift-—and that's what defi nes his experience.

#### CAREER ACHIEVEMENTS

At Vodafone Essar (VEL), Nigam is the custodian of all customer-facing applications such as CRM, all self-service channels, voice, Internet-facing applications etc. Some of his achievements at VEL include voice technology transformation to WVR; establishing CRM as the centerstage customer master in a complex disparate IT environment; developing USSD as the most cost-effective and user-penetrable self-service channel; and consolidating all outbound dialing platforms.

#### **HIS PHILOSOPHY**

"Be passionate about your life, work, and manage your priorities well," is perhaps the most important piece of wisdom he has received from his mentor. Being technology-savvy and business-oriented, Nigam strives to create a difference through his leadership at all levels.



## Future Strategist Award



#### A RAJIV SHARAF

AVP (IT), Reliance Infrastructure

Mentor: Dr Prashun K Dutta Sr EVP (IT & Quality), Reliance Infrastructure

ajiv Sharaf has a rich experience in the telecom industry with a diverse background in Marketing, Business Development, and Finance. Top that with strong entrepreneurial and team-building skills. Sharaf was once a scientist at the Space Application Center, Ahmedabad, where he worked on the Insat IIB project. He has also contributed his knowledge and expertise to many government institutions in the country. Another notable project he was involved in is the establishment of a Radio Paging Network for EasyCall in Gujarat, back in 1995.

Sharaf has more than 22 years of experience in Telecom, Broadcast and IT Infrastructure. He has been with Reliance Infrastructure (then known as BSES Telecom) since 2001. Here he was involved in setting up the optical fibre network in the Western suburbs of Mumbai. Thanks to his project execution, team building and problem-solving skills, the company could provide customers broadband connections within a year.

When Reliance ADA took over BSES in 2003, he was assigned as Project Manager for Project - Parivartan. The project aimed for a turnaround of Delhi Discoms. By January 2004, Sharaf became the Head of IT infrastructure and networks for the Mumbai Discom. He was responsible for setting up a robust IT Infrastructure and increasing the penetration of IT within the organization. The project included the establishment of WAN,

LAN, and data center infrastructure. It included automation projects such as Automatic Meter Reading, Equipment Monitoring system, CTTV-based access control and surveillance system. The projects received national and international recognition. All operations of Mumbai Discom have received ISO 9000 and ISO 27000 certifications. And his team is now aiming for ISO2000 and CMMI3 certifications.

At Reliance Infrastructure, Sharaf was responsible for the data cleansing activity required for the implementation of ISU CCS. He is also involved in the company's business initiative to participate at the 'IT consultant' and 'IT Implementation agency' under RAPDRP program of MoP. He is currently responsible for the implementation of IT systems for the company's Road and Sea Link businesses, in addition to Mumbai distribution.

Sharaf is an Electronics and Telecommunication engineering degree from the M.S. University of Vadodara, with a Post Graduate Diploma in Business Management from ICFAI University. Mentor Dr Prashun K Dutta says Sharaf's business acumen and entrepreneurial skills have enabled him to build a team of professionals. His analytical skills coupled with a technical background help him understand the problems faced by the business and to provide the appropriate IT solution.

#### TRACK RECORD

Rajiv Sharaf has more than 22 years of experience in Telecom, Broadcast and IT Infrastructure. He has been with Reliance Infrastructure since 2001. He was once a scientist at the Space Application Center, Ahmedabad, where he worked on the Insat IIB project.

#### **BELIEFS AND ASPIRATIONS**

Sharaf has the highest regard for hard work, sincerity, having a value system and positive attitudes towards work. He believes each challenge provides an opportunity to demonstrate one's capability and learning. Sharaf says one should not be afraid of failure—failure is important for growth and effectiveness in any situation that requires robust planning and execution.

#### ACCORDING TO HIS MENTOR...

Mentor Dr Prashun K Dutta says Sharaf's business acumen and entrepreneurial skills have enabled him to build a team of professionals. His analytical skills coupled with a technical background help him understand the problems faced by the business and to provide the appropriate IT solution.



He is also credited with the implementation of security for gateway, firewall, load balancing over multiple ISP's, and also user security.

#### CHANGE MANAGEMENT CHALLENGE

Handling change management processes was perhaps the most challenging task for Sharma. He did this on more than one occasion-first for various migrations on Lotus Notes solutions with workflow and Intranet-based applications. And then for wide area networks, from VSAT based technologies to Virtual Private Network, with managed solutions for network monitoring and packet-saving devices.

His most recent project was the transformation of VSAT technology to MPLS VPN connectivity, across all locations at the company. After implementing this, users enjoy the benefit of better connectivity speeds at a low cost.

#### NARESH SHARMA Head IT / DGM IT (DYB), RSWM

Mentor: Rajeev Jain Unit Head / COO, RSWM

n his current role as Deputy General Manager - IT at RSWM, Sharma oversees the ERP/IT administrator function of the marketing offices and the corporate commercial division of the Dyed Yard Business (DYB) in this textile manufacturing business. He has been associated with RSWM (an LNJ Bhilwara Group company) for the past 16 years and he designs IT strategies and policies for the business. Sharma was also actively involved in the implementation of ERP across the organization.

Delving deeper into the software side, he learnt to apply IT in a textile manufacturing organization. Subsequent to the ERP implementation, he was appointed as the line function leader for maintaining uptime for hardware, networking and software. And Sharma has successfully delivered these three objectives continuously for more than five years at RSWM.

#### LEADER OF MANY INITIATIVES

Sharma has led user training and initiated faster responses to user needs-both of which are crucial in the changing global scenario.

Sharma also initiated the concept of, and developed the Intranet services for employees of RSWM. The Intranet offers information across the organization, much to the satisfaction of all employees.

#### TRACK RECORD

In his current role as Dy. General Manager - IT at RSWM, Sharma oversees the ERP/IT administrator function of the marketing offices and the corporate commercial division of the Dyed Yard Business in this textile manufacturing business. He has been associated with RSWM (an LNJ Bhilwara Group company) for the past 16 years.

#### CAREER ACHIEVEMENTS

Sharma also initiated the concept of, and developed the Intranet Services for employees of RSWM. The Intranet offers information across the organization, much to the satisfaction of all employees. Besides, he has played an active role in implementing ERP across the organization. He also handled the change management processes for various technology migrations in the organization. He has also designed various IT strategy and policies for the Dyed Yarn Business.

#### **BELIEFS AND ASPIRATIONS**

Influenced by the book 'Effectiveness to Greatness – 8th Habit,' Sharma says he is now a lot more concerned about people around him. He believes in the upliftment of the younger generation—professionally or otherwise.



## Future Strategist Award O



#### SURENDRA SHETTY

Group Executive Vice President & CTO-Banking Solutions, YES Bank

Mentor: Umesh Jain President & CIO, YES Bank

urendra Shetty is responsible for conceptualizing and designing the IT strategic roadmap for YES Bank. He has also helped set up the entire IT infrastructure of YES Bank, including the core banking, wealth management, and treasury system implementation. He has complete ownership of the banking solution which includes all strategic, tactical and operational projects.

More recently his focus is on transformational projects which include:

- Kaleidoscope (YES Bank's BI solution)
- > Oneview (360 degree view of the customer)

The projects undertaken by him have helped the business by improving revenue generation, cost reduction and productivity gains.

Shetty brings with him more than 19 years of experience in Banking. His valuable industry insights have helped YES Bank to draft and design the IT Outsourcing Agreement with Wipro, a first-of-its-kind strategic partnership in India based on the novel concept of pay-per-use for IT Infrastructure.

Prior to joining YES Bank, Shetty was with Flexcel International as its Chief Technology Officer (CTO), responsible for implementation and services for its ASP clients.

Shetty has also worked as Head - Implementation for

Cashtech Solutions, where he led multiple projects for Global Banking majors. Prior to that, Shetty worked with HDFC Bank, heading their centralized data operations besides implementation of a wide spectrum of IT projects like Y2K compliances, system analysis and design for image-based clearing automation, system performance audit, and branch-level implementation, among others.

Shetty began his banking career in August 1990 with Credit Lyonnais, where he handled different IT roles including Data Centre operation, for nearly five years.

Shetty's mentor, Umesh Jain, who is President and CIO of YES Bank, is convinced that Shetty demonstrates in-depth knowledge of the banking industry and has a high business acumen. This gives him the expertise to align and leverage technology for the advantage of the organization. According to Jain, Shetty shows a high level of accountability and responsibility for all strategic and tactical initiatives undertaken by him. Shetty is proficient in directing and supervising people, projects, resources, budgets, vendors and other business partners with high levels of execution capability. He is also an accomplished team builder, motivator, coach and mentor.

#### TRACK RECORD

Surendra Shetty has more than 19 years of experience in Banking. He is using his rich experience to conceptualize and design the IT Strategic roadmap for YES Bank. He has been instrumental in setting up the entire IT Infrastructure of YES Bank including the Core Banking, wealth management and Treasury System implementation.

#### CAREER ACHIEVEMENTS

Shetty has helped his organization YES Bank, to draft and design the IT Outsourcing Agreement with Wipro—a first-of-its-kind strategic partnership in India based on the novel concept of pay-per-use for IT.

#### SPECIAL ABILITIES

He demonstrates in-depth knowledge of the banking industry and has a high business acumen. This gives him the expertise to align and leverage technology for the advantage of the organization. Setting priorities, assigning the appropriate resources against those priorities, and delivering projects on time and on budget are qualities that make Shetty unique.



#### SATVINDER PAL SINGH

DGM IT, Fortis Healthcare

 Mentor: J S Puri VP IT, Fortis Healthcare

atvinder Pal Singh is a distinguished IT professional with more than 15 years experience serving industry verticals such as Automotive, Pharmaceutical, Media, Commodity and FMCG. His areas of specialization are Business and IT Strategy, Process Design/Re-engineering and IT Consulting. He has extensive experiences in end-to-end SAP implementation, Program Management, Solution Architecture, Solution Development, Consulting and Delivery Management. He also has expertise in SAP R/3, MFG/Pro and PPI - Peter Pepe Media (prepress software for the media industry).

As Head of IT for Fortis Healthcare, Singh is responsible for conceptualizing and driving the strategic IT initiatives for the Company. Currently he is associated with a major project for the establishment of a private cloud for Fortis. The cloud will host enterprise applications such as ERP and a Hospital Information System for the entire Fortis group.

Before Fortis, Singh gained significant experience in IT delivery/process at organizations such as HCL Technologies, Tata Consultancy Services and EDS. At HCL Technologies, Singh was Global Delivery Manager responsible for Multi Service Delivery Account across three regions (EMEA, APAC, North America).

At TCS Singh set up the Global SAP Centre of Excellence for Automotive and Pharma verticals. The company delivered several path-breaking projects requiring rare skills across diverse industries: Resources, Discrete and Process Manufacturing, Retail (CPG), Print Media and Farming (Commodity). One of the Pharmaceutical implementations has been rated the best by SAP under the category 'Best Process Sector Implementation' (Chemical and Pharmaceuticals). Before TCS, Singh worked on several IT projects as a functional consultant, developer and project manager. Singh gained strong BPR experience at AT Kearney. Apart from this, he has consulted for several large Fortune 500 companies such as General Motors, Delphi, Cadbury Shweppes, Philip Morris and Bungee among others. He has also supported large Indian corporates like Nicholas Piramal, Cadilla Pharma and Mahindra & Mahindra among others.

Singh has also worked in large bid teams as Thought Leader and Solution Architect on RFP values that range from USD 50 million to USD 150 million. Singh holds a Bachelors degree in Engineering (Computer Science) from Gulbarga University, Karnataka, India.

Mentor J S Puri says Healthcare was a new domain for Singh, yet he quickly learned the intricacies. Puri believes Singh has great ability to think strategically and this helped him formulate the right IT strategy aligned with Fortis's vision and business strategy.

#### TRACK RECORD

Satvinder Pal Singh has more than 15 years experience serving industry verticals such as Automotive, Pharmaceutical, Media, Commodity and FMCG. His areas of specialization are Business and IT Strategy, Process Design/Re-engineering and IT Consulting.

#### CAREER ACHIEVEMENTS

Before Fortis, Singh gained signifi cant experience in IT delivery/process at organizations such as HCL Technologies, Tata Consultancy Services and EDS. At HCL Technologies Singh was Global Delivery Manager responsible for Multi Service Delivery Account across three regions (EMEA, APAC, North America). At TCS Singh set up the Global SAP Centre of Excellence for Automotive and Pharma verticals.

#### **BELIEFS AND ASPIRATIONS**

Singh's firm belief is that IT is a key enabler on the path to achieving a company's vision. IT has to be carefully woven into strategies framed towards this vision. He aspires to be instrumental in shaping the future of Healthcare IT in India, which is at an exciting new frontier.



## Future Strategist Award o



#### A PRASANNA WADKE

Sr. Manager - Corporate IT, Voltas

Mentor: Asmita Junnarkar CIO, Voltas

uring his 17-year stint in IT Prasanna Wadke has been involved in a plethora of projects including BPR, implementing a barcode solution, CRM on a SaaS platform, Avalon ERP, SAP, and a portal. This rich experience has taught him to counter unforseen challenges. After all these implementations, Wadke has devised a mantra: For maximum success of any implementation, one needs to study the system at all places where it will be used. Wadke indeed has a knack of coming up with innovative solutions to unexpected problems. For instance, while implementing the SAP MRP system at Voltas, he realised that the MRP module of SAP in its standard form cannot suitably forecast the spares requirements or re-order-level (ROL). To address this problem, he made ROL report in BIW with a special formula which would forecast the spares requirement at each branch-with an accuracy of 80 percent.

Wadke joined the Cooling Appliances Business Division of Voltas in 2001. His first assignment was the Business Process Re-engineering (BPR) initiative. Here, he and his team changed many work processes to make them more efficient and they also automated a few processes. The following year, he was instrumental in implementing CRM software on the SaaS platform—still a new concept at that time. His team also attempted to re-implemented an ERP solution called 'Avalon.'

In 2003, the company decided to implement SAP. Wadke and

his team implemented most of the modules. In addition, they also implemented SAP CRM and a portal. What's commendable here is that the ROI of the project was achieved in three years. In 2004, they implemented a barcode solution for their warehouse and billing application. In 2005 - 2006 the team developed various custom applications on the SAP platform. These include an AMC offer-letter generation module, service commission and secondary sales data capture module. In 2007 - 2008 they decided to extend the CRM to the external call center and also to the dealer community. The project objectives were achieved in a cost-effective manner and the ROI was realised in just 18 months. These achievements earned Wadke a place in the Corporate IT department in 2009.

Previously Wadke was at Videocon International where he helped develop and implement a CRM System. He began his career at Voltas' Home Appliances division in 1993.

His mentor Asmita Junnarkar admires Wadke's ability to get to the root of a problem through in-depth analysis of business and technical processes. Wadke can go to the lowest level of granularity as well as take a top view of any scenario. This, coupled with his positive attitude, has often led Voltas to innovative solutions.

#### TRACK RECORD

During his 17-year stint in IT, Prasanna Wadke has been involved in a plethora of projects including BPR, CRM on a SaaS platform, Avalon ERP, SAP. This rich experience has taught him to counter unforseen challenges. After all these implementations, Wadke has devised a mantra: For maximum success of any implementation, one needs to study the system at all places where it will be used. Wadke indeed has the knack of devising innovative solutions to unexpected problems.

#### HIS PHILOSOPHY

Wadke says business is driven by creative people. It takes both the left and right brain to know their expectations and convert these into technology solutions. He believes it is important to have a strong connect with the end user. Professionally, he aspires to be a technologist, who works towards bridging the gap between strategic vision, business practice and software implementation.

#### ACCORDING TO HIS MENTOR...

Mentor Asmita Junnarkar admires how Wadke gets to the root of a problem through in-depth analysis of business and technical processes





Diamond EDGE winners 43 to 47



Silver EDGE winners 48 to 62



EDGE winners 63 to 136

## **EDGE Methodology**

n July 2010, the *InformationWeek* editorial team sent out invitations to IT Heads of user companies, system integrators, and PR agencies to nominate their clients for the EDGE awards.

We received a phenomenal response to our call for entries, with more than 200 companies submitting their projects. In totality, we received 240 projects. In the first phase, redundant and incomplete entries were removed from the list. Based on an internal assessment framework that focused broadly on the parameters of innovation, cost savings, scale and efficiency, this list was subsequently narrowed down to 147 projects.

From this illustrious list of 147 projects, a filter was again applied, using the same parameters, to select 20 of the best projects. Projects of these 20 companies were submitted to an external jury who evaluated the projects on multiple parameters such as innovation; complexity of the problem and success of the solution; improvement in market share, efficiency or productivity; cost savings; employee productivity;

#### PARAMETERS FOR EDGE

- > Innovation/originality/uniqueness of concept
- > Role of the solution in addressing a business issue
- > Complexity of the project
- > Criticality of the solution to the overall business
- > Business impact/benefi ts(cost savings, improvement in effi ciency,customer service, employee productivity, etc)
- > 'Own Assessment' score (Jury assessment score for the overall project)

and the criticality of the solution to the overall business. In addition to these parameters, we added an 'Own Assessment' score that could be used by the jury member to rate a project based on his overall assessment. This score is the jury member's overall assessment of the project. This could also be used if the jury member felt the project was unique, and the parameters as described, did not adequately capture its success/efficiency.

We decided the five Diamond EDGE winners based on the combined score arrived at after totaling the scores for the parameters and the overall assessment score by the jury. The remaining 15 projects were conferred with the Silver EDGE award citation.

The broad list of parameters we have used ensures that every project has an equal opportunity to score. While some companies score on cost savings, others may have an advantage in terms of competitive ability. For example, a project in the area of BI or analytics may score high in the 'Improving market share' parameter, but less on 'Innovation.' Projects in the area of security may be critical to the competitiveness of a business, but may not give returns in terms of say, an increase in market share. Similarly, a project on disaster recovery may not show returns in terms of cost savings, but may have been extremely crucial to the survival of the business.

In totality, we have five Diamond EDGE winners (chosen by the jury from the list of 20 projects), 15 Silver EDGE winners (chosen from the list of 147 projects), and 127 EDGE winners (chosen from the list of 240 projects).



## Meet the Jury o



**Dr Bharat** Bhasker, Professor of Information Technology and Systems, Head of Internet Commerce Research Center, IIM Lucknow

Dr Bharat Bhasker is currently the Professor of Information Technology and Systems, Head of Internet Commerce Research Center and former Dean of the Indian Institute of Management (IIM), Lucknow.

Dr Bhasker is also a visiting professor at the ESSEC Business School, France; Chung-Ang University, Seoul, Korea; School of Business, University of Maryland; University of California; and University of Texas. Dr Bhasker holds a Bachelor's degree in Electronics & Communications Engineering from IIT Roorkee; and Master's and Doctorate degrees in Computer Science from Virginia Polytechnic Institute and State University.

Dr Bhasker has been conferred the 'Best Professor of Information Technology Management' at the recentlyconcluded Asia's Best B-School Awards in Singapore. He was earlier conferred the 'Best Professor of Information Technology' at the Dewang Mehta Business School Awards at Mumbai held in September 2008. In January 2004, he was honoured as the Best Researcher in the field of Electronic

Commerce by the McMaster World Congress, Hamilton, Canada. In 2001, Rotary Club awarded him a Scroll of Honor for his work and public service in the field of Information Technology and Management. He won NASA's Best Research Productivity Award in 1992 in recognition of his research contributions.

Prior to joining IIM Lucknow, Dr Bhasker spent 11 years working in leading research establishments in the USA. He spent seven years with the Goddard Space Flight Center of NASA in leading research and research management positions. His research contributions in Heterogeneous distributed database management systems, Heterogeneous distributed information management, Information retrieval from mass repositories, and Network Information Retrieval protocols won him NASA's Best Research Productivity Award in 1992 in recognition of his research contributions.

Dr Bhasker was a member of the High Performance Computer and Communications (HPCC) initiative of NASA that lead to the Information Superhighway project. He worked for four years with MDL Information Systems and Sybase, California, USA and was the architect of the massively parallel DBMS, Sybase MPP.

Dr Bhasker serves in several advisory committees of the Indian Government. He is an honorary expert to the National Science Education and Research council of Canada, and a member of Governing Boards of several Engineering and Management Institutes. He has also served in several IT task forces and committees of the UP Government.

Dr Bhasker was a member of the High Performance Computer and Communications (HPCC) initiative of NASA that lead to the Information Superhighway project



Sushanto Mitra. Chief Executive Officer. Society for Innovation & Entrepreneurship (SINE), IIT Bombay

Sushanto Mitra is the CEO of the Society for Innovation and Entrepreneurship (SINE). SINE is the technology business incubator at IIT Bombay, which promotes early-stage technology ventures.

Mitra is a management graduate with over 20 years experience in technology and finance verticals. Before SINE, Mitra worked with Techcap India, a human resources and financial consulting services firm, which he founded in 1999. He has also held senior leadership positions at firms such as PriceWaterhouseCoopers and HCL Infosystems. Mitra is a regular contributor to technology and business magazines. He is also a frequent speaker at industry events such as CSI, TIE and PANIIT.



## Meet the Jury o



Prof. Pradeep Pendse, Dean, Welingkar Institute of Management, Mumbai

Professor Pradeep Pendse has been associated with the Welingkar Institute of Management for more than 13 years. As Dean, Prof. Pendse defines the formal process for launching new programs. He also nurtures the internal innovation process within Welingkar. He has designed MBA-level and other post graduate programs. He is now drafting the first MMS (Systems) curriculum for the University of Mumbai.

Prof. Pendse has had a long innings spanning 25 years, of which he served 20 years in the industry. During this time he also devoted 15 years to academics. While serving the industry

he assumed various roles like Systems/Business Analyst and CIO/IT Consultant for numerous companies. He was also the Founder/CEO of a 100-employee IT solutions company that served nearly 50 corporates for 15 years. Many remember Prof. Pendse for his two workshops on Project Leadership and Business Analysis wherein he trained over 3,000 participants drawn from leading IT companies in India. He has also spoken on these topics at industry forums and community gatherings such as SPIN, PMI, CSI, ISACA Mumbai, TCS, Mastek Solutions Community, Marcus Evans, and CIO Club.

Prof. Pendse is a visiting faculty to many leading B-schools in Mumbai such as S P Jain Institute of Management, Jamnalal Bajaj Institute of Management Studies, Narsee Monjee Institute of Management Studies, TISS, and VJTI, to name a few. He has served on the Board of Studies, and as a paper setter/examiner for the University of Mumbai. He also served on the Board of Studies of the Pune HSC/SSC Board, where he helped design a suitable IT curriculum under the IT Policy. Prof. Pendse is a Trained Lead Assessor for ISO 9000, BS7799. He is also the recipient of awards such as the Dewang Mehta Award for Best IT Teacher in Business School, CSI Chapter Patron Award for outstanding contribution, and Distinguished Alumnus Award by the Narsee Monjee Institute of Management.



Dr Nandlal L Sarda, Professor, Department of Computer Science and Engineering, IIT Bombay

Dr Nandlal L Sarda is a professor in the Dept. of Computer Science and Engineering at IIT Bombay. After receiving his M.Tech. and Ph.D. degrees from IIT Bombay, he joined as faculty in 1972, where he has been teaching ever since. He was also a Visiting Associate Professor at the University of New Brunswick, Canada, between 1986 and 1988. Between 1994 and 1997, he was Head of the Computer Science and Engineering Department at IIT Bombay. In 2006, he was appointed Head of the Shailesh J Mehta School of Management.

As Dean of Academic Programmes, IIT Bombay, Prof. Sarda co-ordinated with the IIT Senate and its various academic departments for creating, revising, implementing and

supervising the institution's academic programmes. He served as Professor-in-Charge of Innovation and Entrepreneurship, from October 2004 to February 2006. In this role he coordinated with the Society for Innovation and Entrepreneurship (SINE) hosted by IIT Bombay, to encourage and actively facilitate IIT Bombay's faculty and students to convert intellectual property developed by them into business ventures.

Prof. Sarda's main research interests are in the areas of Database Systems and Software Engineering. Recent research areas include temporal databases, data warehousing, and ontology-based schema integration. His research has been widely published in international journals and at conferences.

He has also participated in many conferences. For instance, he was Programme Co-chair of VLDB'96, a premier international database conference, held in Mumbai. He was Programme Chair for the annual event of the Computer Society of India in December 2004. He was honored as Fellow of Computer Society of India at its convention in November 2006.

Prof. Sarda is closely associated with many companies and government institutions as a consultant, offering advice on planning, selection, implementation and evaluation of information technology solutions. He is a Director on the Board of Directors of Union Bank of India. He is on the Board of Directors of Clearing Corporation of India. He is also on the editorial board of some international journals.



## Diamond Edge O

## SAP implementation brings 'Harmony' to Mahindra & Mahindra's business

In 2007, Mahindra & Mahindra looked at creating a common IT platform for common processes across the Group. The Group, which comprises over 100 companies operating across different sectors, had no common IT processes or shared services. It was running several projects on multiple instances with no standardization of processes, systems or data related to customers, partners, vendors, employees or even products.

Creating a common shared-services platform would enable the Group exploit synergies better, improve efficiencies and effectiveness-while reducing overall costs. It would also help the Group to grow both organically and inorganically. With this objective in mind, the Group implemented SAP ECC 6.0.

During the implementation phase which lasted eight months, the IT team implemented harmonized processes for HR, finance, accounts and procurement, employee and manager self-service, and logistics processes for the manufacturing and services companies within the Group. A Common Business Analytics strategy was drafted prior to the actual implementation and Business Analytics (BW, BOBJ), was implemented. Besides implementing Master Data Management and Governance, Risk and Compliance (GRC), the team looked at integrating the overall system with other systems such as SAP SCM and dealer portals.

The most important change in the IT infrastructure was that all individual SAP instances that previously ran on separate servers were consolidated into a single SAP ECC 6.0 instance. Some of the new companies in the Group were also integrated into Harmony, implementing SAP for the first time.

Given the huge scale of the project, a 400-person team of over 40 companies and consulting partners worked together during the implementation phase. There were two mock runs with 100 percent data which required a migration time of less than 24 hours. A special tool was developed to tackle the huge volume of data (approximately 90 million records). It could extract data from the legacy system, convert it automatically as per the new data structure in the Harmony system and upload it to the new system. The IT team was thus able to reduce the downtime from the estimated four days to less than 24 hours. The



V S Parthasarathy, Group CIO, Executive VP - Finance and Mergers & Acquisitions Services, Mahindra & Mahindra

implementation phase went live in just eight months making it one of the fastest implemented projects of its size.

#### THE BENEFITS

The company now has a common invoice format for all the Group companies having different businesses. The system provides a common view of customers, partners, vendors, employees and products. The employee self-services capabilities allows employees to have direct access to their information, eliminating the need to go to the HR department. In the 'Go Live' stage, the project has about 14,000 users from across 100 different cities together on a single consolidated instance with over 40 harmonized processes. The project has not only brought together over 40 company codes on a single ERP instance, but has also seen almost 20 horizontal and industry-specific SAP solutions being implemented in parallel, which is unprecedented in the SAP world.

#### **HIGHLIGHTS**

- > 40 of the company's IT processes harmonized into a single SAP ECC 6.0 instance
- > Data volume of approximately 90 million records was migrated within 24 hours against the estimated four-day period
- > Implementation completed in a record timeframe of eight months

#### SNAPSHOT

#### Company:

Mahindra & Mahindra

**Project:** Project Harmony: Implementation of a single enterprise-wide ERP instance

#### **Project Head:**

V S Parthasarathy, Group CIO, Executive VP - Finance and Mergers & Acquisitions Services



## Diamond Edge O

## Integrated e-Procurement solution reduces lead time by half

As one of the largest producers of aluminum, cost-efficient procurement of raw material plays a very important role in determining the overall profitability of Vedanta Aluminium. To achieve this objective, the firm built an Integrated Procurement to Payment Automation solution. The solution covers auto requisition to auto payment, DMRP (Dynamic Material Requirement Planning), e-NFA (Electronic Note for Approval), DPE (Dynamic Pricing Engine), and a customized and automated Vendor Portal.

### INTEGRATED PROCUREMENT TO PAYMENT AUTOMATION

The **DMRP** module is an automated process that runs daily at night to generate purchase requisitions based on certain parameters.

**DPE** leverages the Internet and Internet technology to build a dynamic negotiation environment between qualified suppliers, to drive the price of goods being acquired towards the current market price. DPE is integrated with a strong strategic sourcing process and an intelligent choice of a sourcing format.

Post bidding, or manual negotiation by **e-NFA**, an event buyer can generate an electronic note for approval via e-mail and SMS based on approval matrix. When final, the approval system automatically creates a purchase order and sends it to the selected partner.

The **Vendor Portal** is used to disseminate information—this reduces the data-entry load at the security gate and provides in-transit material tracking for inward material. The portal registers new vendors, and organizes reverse and forward auctions. The company says its vendors are satisfied with the online services—which are transparent in nature.

#### BENEFITS OF THE SOLUTION

The integrated solution has helped the firm in reducing its working capital requirements, optimizing quantity requirement, avoiding scrap generation and most importantly, ensuring material availability for production and maintenance in time.

With the integrated procurement process in place, the firm has saved 18 percent as compared to the last purchase price. The e-Procurement process has brought down the lead time by more than 50 percent. Timely payment to vendors and proactive information updates in the portal have increased trust among vendors.

▲ Subrata Banerjee, Head - IT, Vedanta Aluminium

The time to process payments has been reduced from seven days to a couple of hours. The time taken to process good receipts has been reduced from three to eight days, to a few minutes. The firm has visibility of in-transit stock. The vendor receives a proof of delivery from the system, while an SMS alert to the unloading person saves unloading time and truck turnaround time.

The solution has also helped in reducing quality manpower, i.e. of close to 30 chartered accountants, for activities related to GRN preparation, passing bills, capturing excise, generating cheques and payment advice. The solution has helped in increasing trust and satisfaction among the company's suppliers by implementing reverse auction and auto payment on the date on which these are due. The online portal provides all the required information.

Other benefits include a faster and more transparent approval process; paperless approval; equal opportunity to all vendors and a reduction in the lead time to source materials.

#### **HIGHLIGHTS**

- > The e-Procurement process has brought down the lead time by more than 50 percent
- > The solution has reduced the firm's working capital by 20 percent
- > With the integrated procurement process in place, the firm has saved 18 percent as compared to the last purchase price

#### SNAPSHOT

#### Company:

Vedanta Aluminum

#### Project:

Integrated Procurement to Payment Automation

#### SI Partner:

Wipro Technologies

#### **Project Head:**

Subrata Banerjee, Head - IT

## Dabur targets incremental growth through supply chain efficiencies

Dabur, India's fourth largest Consumer Packaged Goods (CPG) firm, has seen robust growth over the last four years clocking a CAGR of 18 percent in net revenue and 33 percent in PAT. Despite this robust growth, the Dabur management felt there was potential to derive incremental growth of about ₹50 crore of potential benefits through supply chain efficiencies. Dabur believed there was substantial opportunity to enhance customer service, reduce working capital and reduce the cost base. Since the company was running on high efficiency, it was a challenge for the management to further increase the company's efficiency to improve its profitability and increase its bottom line.

With help from IT, Dabur management captured the total opportunity potential from a supply chain exercise across the different levers. It was observed that incremental revenue through lost sales could account for six percent revenue. Cost reduction was cited as an area where the company could become more profitable. Damaged goods formed about 10 percent of the existing spend.

The company has implemented SAP APO modules: DP (demand planning) and SNP (supply network planning) and integrated them with some existing

legacy applications.

#### THE CHALLENGE

Dabur's supply chain is far more complex than other FMCG firms in India given its diverse product portfolio:

- More than 800 SKUs spanning multiple shelf-life foods, personal care, home and healthcare products
- A fragmented and multi-tiered distribution network, more than 10 plants, more than 40 warehouses and 1.500 distributors
- It also has a large fragmented frontend: general trade has direct reach to 1.5 million retail outlets and indirect reach to more than six million outlets: modern trade consists of B2B and B2C institutional sales
- Seasonal products with a significant

To manage these challenges, Dabur innovatively used the APO capabilities in forecasting and SNP by modeling several internal and external variables for improving key performance levers. In addition, the program was supported by a well-managed KPI dashboard-which was supported by the IT system.

#### POST DEPLOYMENT

Ever since the FMCG major reached

Anil Garg, General Manager - IT. Dabur India

out to new areas using BI or analytics, it has seen an improvement in its market share. The initiative is expected to deliver about six percent incremental revenue for Dabur, which is guite significant, given it is already growing in double digits.

In terms of costs, Dabur has observed about 20 percent savings in stockist subsidy reduction and 10 percent spend in SLOB (slow moving and obsolete) and damaged goods. The company has seen an improvement of 8 to 10 percent in DIFOT (a measure of the delivery performance in a supply chain) to customers and 6 percent in incremental sales. With elaborate Excel planning being replaced by the solution, the planning team now actually does reviews, analysis, monitoring and followups. Earlier, most of their time was spent in doing the planning manually. Post implementation, there is job enrichment for the team in addition to increased productivity. Supply chain being the backbone of FMCG companies, Dabur believes the solution is delivering the need of the hour.

#### **HIGHLIGHTS**

- > Growing at a CAGR of 18 percent in net revenues and 33 percent in PAT
- > Potential incremental growth of ₹50 crore through supply chain effi ciencies
- > Improved DIFOT to customers by 8 to 10 percent
- > Increase in customer service resulted in six percent incremental sales

#### **SNAPSHOT**

Company: Dabur India

**Project:** Implementation of SAP APO modules: DP (demand planning) and SNP (supply network planning)

Project Head: Anil Garg. General Manager - IT



## Diamond Edge O

## Cloud vision accelerates delivery for Infosys

For the Computers and Communication Division (CCD), the Global IT team of Infosys, meeting business demands means building and running large, efficient and complex IT infrastructure and services and enhancing value as the core IT partner for business performance and growth. Currently, the IT infrastructure provided by CCD, is used by 109,882 employees, supports over 5,000 IT projects, caters to more than 560 clients from diverse industries, and demands varied flavors of computing platforms. It operates out of over 50 offices and development centers in India, China, Australia, the Czech Republic, Poland, the UK, Canada and Japan. In addition to catering to business demands, the IT infrastructure deployed has to be agile and adapt to rapid changes in technology and the market while aligning IT with business. In doing so, the CCD faces a lot of business challenges-internal or external.

Each client requires a dedicated hosting infrastructure for itself. This leads to under-utilization of project/client-specific computing infrastructure; support for each engagement can be fragmented. Internal users use a desktop/laptop as the primary interface and typically seek additional desktops and servers

for application/solution development and testing. In addition to this, IT infrastructure is deployed to support demo labs, Centers of Excellence etc. With such complex and varied requirements, efficiently allocating and de-allocating IT resources to ensure optimal utilization is a major challenge.

With over 1,00,000 nodes, security, performance and integration-flexibility were a major challenge. Patch management and compliance on additional desktops also proved to be a major effort. Allocating new hardware requires two days if this is in stock; and six weeks if it needs to be procured. Standalone desktops and servers allocated to projects lead to additional power and cooling demands and raise security, scalability and availability concerns. The company also observed an interest in PaaS and SaaS from the external side of its business.

To address these challenges, CCD embarked upon a cloud initiative called 'Cloudvolution' in 2009. The core objectives of this initiative were to conceptualize, design and deploy three types of cloud-'MyCloud' (an intuitive self-service portal to provide project-specific IT infrastructure by which projects develop and test applications



▲ Murali Krishna K, VP, Group Head - Computers and Communication Division (CCD), Infosys Technologies

and solutions); 'Collaboration Cloud' (provides a platform for employees to co-create solutions working with external parties); and the 'Data Center Microcosm Cloud' (that would allow an idea to be developed into an integrated solution and realized in production, enabling remote application delivery to clients).

With the cloud deployment, the allocation time for project infrastructure has been reduced from two days to eight hours. OS-build time has reduced from the manual installation time of three hours to less than 30 minutes. A previous machine snapshot can be restored within five minutes in case of a disaster. The deployment has also resulted in major cost savings for Infosys with more than 50 percent reduction in the effort cost of leveraging the Global Delivery Model. Virtualizing and consolidating its infrastructure has helped the company achieve a 22 percent reduction in costs and power consumption for additional desktops; project-specific servers have reduced by 80 percent.

#### **HIGHLIGHTS**

- > Twin cloud centers built in record 5.5 months with more than 30 services and two clients going live
- > More than 50 percent reduction in the effort cost by leveraging Global Delivery Model
- > Around 80 percent reduction in the power demand by additional desktops and project-specific servers

#### **SNAPSHOT**

#### Company:

Infosys Technologies

Project: 'Cloudvolution'— Deployment of a Cloud Infrastructure within the company

Project Head: Murali Krishna K, Vice President, Group Head, Computers and Communication Division (CCD)

## Mobile application boosts productivity, benefits farmers

For Saffola, one of the premium brands of Marico. Kardi seeds are a critical raw material. Marico hence started a contract farming initiative to enrol farmers to produce Kardi seeds as a crop. Under this initiative, Marico provides the know-how and the basic support to start the farming process. Over the last two years, the acreage increased to 80,000 acres. The total farmers enrolled in the program have increased to 31,000 across 2,000 villages and 10 states. Since the initiative is growing in size, it called for tools and techniques to gather information and sharpen the decisionmaking process.

At Marico, Field Agri Representatives (FAR) are the backbone of the contract farming operations. FAR are the field forces who sell the idea of contract farming and enrol farmers into the program. Given the nature of their work, Marico designed a solution that could be easily loaded on a cell phone.

An easy-to-use J2ME application was built in-house to track and record information on a low-cost Nokia handset (which could also transmit photos). The FAR record photographs of soil conditions and crop growth and also of critical operations such as application

of pesticides with geo-tagging. This information is then relaved to the analysts in the corporate office.

Using GPS on the phone, the efficiency of the FAR (including his route and the time spent at each location) can be also tracked in real time by the management team. This does away with the need for physical audits. Unique identification of the FAR by the IMEI number of his mobile. ensures the required security and confidentiality.

The mobile application feeds into a central consolidation application which sorts information based on the state, villages and farmers. This creates a central repository of farmers. Thus, Marico can then relay information via SMS pertaining to the weather, sowing inputs, schemes, etc.

#### THE RESULTS

The coupling of the mobile application and the central application ensures real-time information in an otherwise difficult geography. The real-time flow of information also ensures that the right information is available at the right time and place to accelerate decision making. Innovative use of geo-tagging allows managers to check the efficiency of the field force



▲ Girish Rao, Head - IT, Marico

and also track the progress of the crop at the contract farming sites.

Post deployment of the mobile application, productivity has increased by 30 percent from 1.78 to 2.33 quintals per acre. Damage to crops has reduced by 50 percent-from 31 percent to 17 percent of sowing acreage. This has increased satisfaction among stakeholders (especially farmers) in the value chain-thereby increasing Marico's equity. The company says it has been able to gain additional 2,000 MT of seeds from the same acreage. This has resulted in additional income of ₹ 4 crore for the farmers.

Formation of a central farmer database helps to accelerate the settlement of dues and also provides the necessary information to the farmers in terms of weather forecasts, pesticide information, etc.

By using tools and technologies, the need to recruit additional support staff has been reduced. Thus, despite a growth of 30 percent in operations, the support staff has remained the same.

#### **HIGHLIGHTS**

- > Despite 30 percent growth in operations, support staff have remained the same
- > Productivity increased by 30 percent—from 1.78 to 2.33 quintals per acre
- > Damage to crops has been reduced by 50 percentfrom 31 to 17 percent of sowing acreage

#### **SNAPSHOT**

Company: Marico Project: J2ME Mobile Application

**Project Head:** Girish Rao. Head - IT

## Intelligent PDA solution transforms productivity of Sales personnel

To better understand the needs of doctors, pharmaceutical major Allergan, was looking at an innovative technology solution that could capture and offer real-time field information on a daily basis to the management. Simultaneously, Allergan also wanted to track the quality and accuracy of data gathered by its salesforce of over 230 personnel who interacted with more than 10.000 doctors across the nation. The company wanted to analyze this data to improve the frequency and quality of its coverage, to get precise information on customer perception of its products and to monitor the on-field implementation of it's marketing strategy.

Allergan hence developed a mobilebased salesforce automation tool. Today, Sales executives/Territory managers carry an HTC Windows Mobile loaded with all the details of the territory doctors/chemists, capture actual transactions on their mobiles, and sync the details daily with GPRS connectivity. This data is then used for analysis.

#### PROJECT HIGHLIGHTS

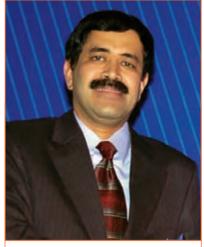
The solution captures vital information on transactions that occur in a doctor's chamber immediately. Prior to the mobile solution, this information had a lag of over seven to 10 days and was only partially captured. Earlier, a medical representative felt lost in the field with minimal real-time communication.

Today, detailed information of the entire territory is available on his PDA. The solution also provides a platform for medical representatives to be connected virtually with their supervisors and the head office.

The solution has also significantly improved customer service. Since all the Sales users and their managers are available online, customer's requests and queries can be addressed quickly. Now when a doctor gives feedback to a representative, it is immediately relayed across the organization and suitably addressed by the concerned person. This has greatly enhanced the company's reputation among physicians.

A planning module on the PDA helps field employees plan what to discuss with customers. The efficiencies in time gained have enabled Allergan to increase the frequency of coverage. This has helped improve the territory's productivity since the productivity is directly proportional to the percentage of doctors covered.

The solution has also helped in driving R&D and product promotional strategies, as medical representatives



K T Rajan, Director Operations, Information Systems and Projects, Allergan

can capture perceptions on products during the short period of interaction with the doctor. The solution has also helped in facilitating chemist audits, and in refining Allergan's marketing strategies on a dynamic basis.

Allergan increased its market share from 16.3 to 17.04 percent in six months post deployment. Customer reach has increased from 85 to 95 percent, while core customer coverage has increased from 80 to 98 percent. With this solution, the call average has increased from nine to 10 doctor calls per day, which amounts to a 10 percent increase in business.

Other benefits include improved networking among employees across the organization and an improvement in the quality of information reporting. Employee productivity has improved since there is less waste of productive time. Further, the transition time of the representatives has been reduced to two days (this earlier took a month).

#### **HIGHLIGHTS**

- > Solution is used by a salesforce of over 225 personnel who interact with more than 10,000 doctors across the nation
- > Market share has increased from 16.3 to 17.04 percent
- > Customer reach has increased from 85 to 95 percent

#### **SNAPSHOT**

Company: Allergan

**Project:** Mobile-based solution for capturing field-level intelligence

**Project Head:** K T Rajan, Director Operations, Information Systems and Projects

# Using 'Nagios,' JSL reduced downtime by over 50 percent

With a presence in eight locations across India, JSL's business operations are supported by a complex mesh of systems and networks. As the manufacturing processes are tightly integrated and enabled through IT, the availability of the IT infrastructure is crucial for the functioning of the business. Hence, JSL's IT administrators need to have real-time information on the usage, performance and status of every device or application on the network. In the absence of an automated network monitoring tool. the IT administrators become aware of problems in the network only when users report problems.

In an IT landscape that consisted of over 100 servers, 2,500 desktops, 50 network printers and 20 Wi-Fi devices, manually finding possible faults was an inefficient and timeconsuming process. Every component in the network represents a potential point of failure, and it became difficult for JSL to identify any point of failure using manual diagnosis processes. For example, if a server is unreachable from the Intranet, one may not be able to tell if the problem is with the server, any of the switches between the server and user community, the WAN link or the

router itself. This was akin to finding a needle in a havstack.

In a business where downtime can severely affect the business performance of the company, JSL needed a proactive fault identification and reporting mechanism to monitor its IT infrastructure. However, the high cost of commercial IT infrastructure management tools was a huge deterrent especially in times of recession.

#### OPEN SOURCE 'NAGIOS' TOOL **BOOSTS PRODUCTIVITY**

After a series of comparative tests, JSL decided to adopt an open source infrastructure management tool called 'Nagios.' The entire implementation was done without the help of any external vendor. The team extensively researched documentation available on the Internet to tweak the software according to JSL's specific monitoring needs.

Post implementation, the IT team can monitor applications, services, OS, network protocols, system metrics and infrastructure components with a single tool. Infrastructure outages can be quickly detected since the relevant alerts are delivered to technical staff via e-mail or SMS.

Nagios performs the role of an ICU



Ajay Kumar Dhir, Group CIO, JSL

center for JSL, since the tool provides predictive reports on the health of the entire IT infrastructure. The system generates reports which provide a historical record of outages, events. notifications and responses. This can later be analyzed to detect the root cause of the defects.

Nagios has been configured to monitor the CPU load, disk space, memory usage, and uptime for all Windows-based servers across all locations. The IT team can thus proactively identify necessary infrastructure upgrades before failures occur. The tool currently monitors over 450 services and 100 hosts.

Post deployment, the productivity of the infrastructure management team has increased manifold as they are able to address issues at the warning level itself-before they hit the critical threshold. Further, since the product is based on open source, there are no licensing costs involved.

#### HIGHLIGHTS

- > Post implementation, average downtime has been reduced to less than half
- > Implementation costs have been limited to procuring a server and modem-which works out to ₹ 10 lakh. The company estimates that a comparative commercial system would have easily cost at least ₹ 40 lakh.

#### SNAPSHOT

Company: JSL

Project: Open Source Infrastructure Management tool 'Nagios'

Project Head: Ajay Kumar Dhir, Group CIO

# Automation cuts data collection time from 300 to 3.75 man hours per month

As a leading two-wheeler manufacturing company, TVS Motor has to constantly be at par with the pace of the market growth. The company has more than 600 machines which are used in the manufacturing process and cannot afford to have machinery breakdowns and line stoppages. Prior to the deployment of the Wireless Machine Data Acquisition system, the production line supervisor would manually record production-related data at the end of a shift and calculate the overall equipment efficiency (OEE). This was a rather time-consuming activity and made data analysis a difficult task. The dependency on the personnel and the possibility of human error in any calculation rendered the process susceptible to inefficiencies.

TVS Motor hence decided to automate the process of production machinery monitoring and reporting. The company decided to design and develop a Wireless Machine Data Acquisition system to monitor the machine operating conditions and calculate OEE. This data could then be analyzed, and machinery breakdowns in the production line could be predicted. The company would thus be better prepared to tackle breakdowns, thereby improving the overall line

utilization. TVS Motor then designed and developed a wireless microcontroller-based machine data acquisition and analysis system that could record the machine operation status. This could be retrieved by a request-response method. The data would be captured from the microcontroller by middleware application software and uploaded to the server, wherein data-driven reports are generated.

### AUTOMATION BOOSTS PRODUCTIVITY

With the implementation, data is available online and can be accessed from anywhere within the company. Accurate machine data is also available on an hourly basis. This has not only improved employee efficiency but also the overall OEE figures. Production loss was reduced due to minimal line breakdowns. This was achieved by efficient tracking and analysis of machine data. This has increased the OEE in the machine shop from 73 to 87 percent.

With the process automation, the dependency on human personnel for information has been reduced. Employee productivity has increased from 80 to



▲ T G Dhandapani, CIO, TVS Motor Company

89 percent. Automation has also led to better utilization of manpower due to a reduction in non value-added activities such as recording production data, collecting operator self-log cards and reporting line breakdowns.

Data collection time in terms of man hours has been reduced from 300 to just 3.75 man hours per month. Earlier, the company required 45 employees—each spending 120 minutes during his shift—to collect and analyze the production data. With the automated data collection system, only one person is required for the job. This person now spends only 15 minutes of his total shift time analyzing the already-collected data.

This has also translated into considerable cost savings for the company. Prior to the implementation, 90 man hours were spent per day during the data acquisition and analysis process. Post implementation, this figure has been drastically reduced to just 15 minutes a day.

#### **HIGHLIGHTS**

- > Data collection time reduced from 300 man hours per month to just 3.75 man hours per month
- > Manpower requirement for running the system was reduced from 45 employees to just one employee
- > Cost of manpower for the data acquisition and analysis system has been reduced by ₹7,49,000

#### SNAPSHOT

**Company:** TVS Motor Company

**Project:** Wireless Machine Data Acquisition System

**Project Head:** T G Dhandapani, CIO

# **GMR Infrastructure builds seamless Unified Communications platform**

Infrastructure development by its very nature is spread over multiple sites which are often guite remote. Easy, fast and cost-effective means of communication, information-sharing and collaboration between sites and the corporate office, and with external partners, is indispensable to the success of a project.

Given this scenario, the senior management of GMR Group embarked on a project to deploy a seamless collaborative platform for UC, Intranet, document and knowledge management. They recognized that collaboration and knowledge management are the key needs of the organization. This platform would ensure that the experiential learning of employees in projects is captured, archived and disseminated in a structured and secure manner. Microsoft messaging, UC, Office Sharepoint Server 2007 were identified as the platform to build the collaboration and knowledge management system.

The overall objective of the collaboration and knowledge management initiative was to create a set of tools and processes by which the GMR employee community could store and share their knowledge-and to enable them to interact and exchange information with each other in the most effective manner. The role played by the IT team in implementing this initiative was primarily that of an orchestrator to ensure that all instruments were being played in harmony.

#### BETTER COLLABORATION AND KNOWLEDGE MANAGEMENT

The collaborative and knowledge management solution provides a comprehensive archive of the experiential learning of GMR group. This information is easily searchable and available for reuse to prepare bids for new projects, as well as to resolve issues in project execution. Some of the major ROI contributing factors include a reduction in cycle times; reduction in travel costs (by 25 percent); increase in employee productivity; and standardization of platforms.

The collaboration and knowledge management portal enables crossfunctional teams to come together for various initiatives. The project room provides the functionality to manage project schedules, issues, risks and documents, and ensures that the distributed teams have a unified view of the project with a proper rights



Subbarao Heade, CTO. **GMR** Infrastructure

management feature.

Some of the other benefits accrued by the organization from the implementation of the integrated project initiative are an improvement in quality, reduction in various lead times, improvement in productivity, compliance with environmental regulations, and work-life balance.

#### FACTS AND FIGURES

GMR became the first customer in India to 'go live in production environment' on Microsoft Exchange 2010 with virtualization and DR, and the sixth customer globally.

Overall, there have been savings of around ₹ 1.5 crore. The company has achieved an overall customer satisfaction of over 90 percent with around 3,000 active users, average 2 lakh minutes usage per month (for conference calls), more than 20 lakh instant messages per month, and VoIP usage of around 70,000 minutes per month.

#### **HIGHLIGHTS**

- > GMR became the fi rst customer in India to 'go live in production environment' on Microsoft Exchange 2010 with virtualization and DR, and the sixth customer globally
- > The company achieved a 25 percent reduction in travel costs—amounting to savings of around ₹ 1.5 crore

#### SNAPSHOT

Company: GMR Infrastructure

**Project:** Deployment of a seamless collaborative platform for UC. Intranet. Document and Knowledge Management

Project Head: Subbarao Hegde, CTO

# Reliance Consumer Finance boosts collections through mobile solution

Aligning with its business plans to focus on improving productivity and thereby increasing profitability, the Collections function at Reliance Consumer Finance (Reliance Capital) was looking for a solution to improve its process turnaround times, in addition to improving employee as well as collection agent productivity.

The firm felt its earlier manual collection process was not optimal. A solution had to be found to reduce response times at every stage-from reaching customers, keeping track of collections, reporting and updating the collection status. This solution also had to be easy to use and implement across the nation.

### MOBILE SOLUTION PROVIDES INFORMATION ON-THE-GO

To address this issue, the firm conceptualized a mobile solution for collection agents, i.e. the MFOS (Mobile Feet On Street) module. MFOS turns a simple cellphone into a powerful collection tool. It allows collection agents to access customer information from wherever they are, saving time in liaising with the office for that information (as was the earlier practice). It has also allowed for instant updates of information—for the agent, the company

and the customer-and immediate status reports to superiors. Moreover, the technology has been made even more flexible with a built-in capacity for both offline and online information updates.

Stringent security measures have been built in, thus preventing data leakage. For example, the first level of protection is the use of a username/password to log in to a mobile application. Password checking is done at the server side and only after successful authentication, does the client program proceed with the user interface screens. In addition, if a device is stolen, or if a user is no longer authorized to access an application, the administrator can deactivate the username and password at the server side.

#### BENEFITS OF THE SOLUTION

The MFOS system arms collectors with detailed customer information on their mobile phones, including their case history, amount to be collected, payment details and the next appointment date and time.

It has increased productivity by up to 20 percent, since the time that was earlier spent contacting the office to gather information or report status, is now spent in the field. As usage



▲ Shashi Kumar Ravulapaty, CTO, Reliance Consumer Finance

increases, efficiency is expected to go up by 40 percent. By enabling collection managers to regularly track the movement and progress of their agents online, all-round TATs have significantly improved.

With the MFOS solution, a branch manager or collection head can monitor the activities of his collection agents when required. Collection managers are now empowered to proactively ask for the collection amount and numbers that simultaneously reflect in the system. Earlier, this was under the control of the agency and the collectors.

Field collection executives are able to target and follow up with delinquent customers more effectively, as they are armed with detailed information at their fingertips. They are also able to give real-time feedback and collection information to superiors, including information on the amount collected and receipts issued against the payment received.

#### **HIGHLIGHTS**

- > Additional collections expected to be made due to this medium estimated to be ₹ 167.20 million
- > Productivity improvement, which is currently up by 20 percent, is expected to improve up to 40 percent. In terms of value, this translates to ₹ 6.66 million

#### SNAPSHOT

**Company:** Reliance Consumer Finance

**Project:** Mobile solution for empowering collection agents

**Project Head:** Shashi Kumar Ravulapaty, CTO

# Home-grown BI solution delivers intelligent insights to YES Bank

YES Bank was facing multiple business challenges with obtaining BI coupled with information security risks. For instance, nearly 200 reports were prepared manually by users in various departments of the Bank. This mechanical activity was unproductive and costly as each department had a dedicated set of resources for these tasks. Lack of integration between systems made it difficult to generate certain MIS-resulting in lost business opportunities.

#### A 'KALEIDOSCOPE' OF BENEFITS

Given these challenges, YES Bank decided to implement a BI platform in a unique and innovative way. For the BI implementation to be successful and have the greatest organizational impact, the solution would need to be agile, flexible, actionable and cater to the masses. Further, the implementation had to be completed in less than six months. However, in the existing scenario, BI solutions that were available across the market cost a few millions, were inflexible and took a very long time to implement.

Hence, the Bank conceptualized the creation of Kaleidoscope-YES

Bank's in-house BI solution that aims at providing financial, operational, risk and regulatory, and productivity-related information and analysis relevant to various YES Bank stakeholders in an automated manner. This would empower all stakeholders to take on-time, wellinformed business-critical decisions.

What makes this BI solution unique is the fact that business and IT functions have partnered to develop the solution. A Business Intelligence Center of Excellence (BICoE) has been set up constituting technology and business users. The entire BI program is being run in-house using in-house expertise and without any implementation partner, by using a freeware LogiXML as the reporting frontend integrated with a custom-built application.

The deployment was completed at an accelerated pace-the entire application was extended to production within two months. Kaleidoscope has been extended to the lowest user-and not just a few power users.

Post the BI rollout, more than 200 reports which were earlier generated manually by various teams, are automated and delivered to the end user. This automation has eradicated manual



Umesh Jain, CIO, YES Bank

errors in the reports.

The cost savings from automating reports/MIS in terms of FTE (Full Time Employee) savings is nearly ₹ 70 lakh per annum. Further, the Bank has achieved cost savings of nearly ₹ 3 to 5 crore.

With 'Customer OneView' being integrated in Kaleidoscope, users are able to view all the relationships of a customer with YES Bank at the click of a button-enabling superior service, better cross-selling and deepening relationships.

There are huge productivity gains. As of date, there are more than 2,300 users of the system across the Bank. Users no longer need to manually collate and verify the data. The total productivity gains accrued till date are estimated to be ₹ 6 crore across all users in the Bank.

The Bank believes that the in-house BI solution is unique since it not only presents relevant information to the users but also allows them to act on it through integrated workflows.

#### **HIGHLIGHTS**

- > The cost savings from automation of reports/MIS in terms of FTE (Full Time Employee) savings is nearly ₹70 lakh per annum
- > Having implemented the solution in-house, the Bank has achieved cost savings of nearly ₹ 5 crore
- > BI has been used by many users, and not restricted to power users

#### SNAPSHOT

Company: YES Bank

Project: 'Kaleidoscope'— Development of In-house BI solution

Project Head: Umesh Jain, CIO

# IOCL saves close to ₹45 crore by automating payment collection

The E-collection process at Indian Oil Corporation Limited (IOCL) traditionally involved downloading payment advices from a bank's website and uploading them into transaction processing systems such as ERP backend systems. Another variant employed sFTP (secure File Transfer Protocol) to upload and download payment advices.

Earlier, once the customer made a payment to IOCL's account, this would get credited to IOCL's bank account. The bank would then upload the payment advice to its website. An IOCL executive would log on to the bank's website and download the payment advices to his workstation. He would then log on to the SAP ERP system and upload the payment advice using the custom program. The customer's credit balance would then get updated. IOCL decided to automate this process with an aim to replace manual intervention at any stage of the E-collection process.

The company decided to leverage on its existing B2B Exchange platform, which it had deployed for carrying out oil exchanges, and developed the E-collection process in-house. With the new system, payment advices from participating banks are transferred to IOCL's SAP ERP system as XML messages through the Internet on a near real-time basis and customer's

balances are updated immediately.

The company used SAP's Process Integration solution as the middleware, which maps and transforms XML messages coming from banks into IDoc (SAP's standard message format). The IDoc is then posted into the SAP ERP backend system and the customer's credit balances are updated immediately. IOCL currently has SBI, HDFC Bank, BNP Paribas participating in the system.

#### BENEFITS OF E-COLLECTION

With the implementation, only one cash receipt is posted against one advice. Manual activities such as downloading and uploading collection advices have been completely eliminated, thereby removing any scope of malpractice.

Post implementation, five employees who were earlier responsible for downloading and uploading payment advices from the banks, have been reassigned to handle E-collection enquiries and reconciliation.

The deployment has also allowed the bank to reduce the time taken to update a customer's credit records, from the time she deposits a cheque. The time taken to update a customer's balance has been reduced from a couple of days to few hours. There are also less



▲ S Ramasamy, Executive Director (IS), Indian Oil Corporation (IOCL)

errors in updating a customer's credit

IOCL designed and developed the E-collection business process in-house employing open standards/ protocols such as HTTPS (SSL over HTTP) and XML thus ensuring greater interoperability of the solution. Running the solution on open source x86\_64 hardware and a Linux environment has helped the company save on capital costs. Having built the solution on an existing SAP platform, the company did not require to make any further capital investments.

There are currently almost 29,505 customers using the system. Savings of ₹ 45 crore have been realized on an E-collection volume of ₹ 1, 20,500 crore between March 2009 and April 2010.

Of the total payment collections of ₹ 21,968 crore in June 2010, 74 percent were from the E-collection process. On an average, the process has contributed payment collections worth ₹ 16,000 crore per month.

#### **HIGHLIGHTS**

- > Savings of ₹ 45 crore realized on a total E-collection volume of ₹ 1,20,500 crore for the period between March 2009 and April 2010
- > Of the total payment collections of ₹ 21,968 crore in June 2010, 74 percent have come from the E-collection process

#### SNAPSHOT

**Company:** Indian Oil Corporation (IOCL)

**Project:** Payment E-collection automation

**Project Head:** S Ramasamy, Executive Director (IS)

# NGO uses cloud computing platform to build Census Management system

As India's second-most drought-prone area, villagers living in Anantapur District are now looking forward to the benefits of another cloud-one created by technology. An NGO called Social Education and Development Society (SEDS) has built a cloud-based Census Information Management System (CIMS) that has the potential to transform the lives of more than 40,000 members living below the poverty line. SEDS partnered with Bangalore-based cloud computing and PaaS platform creator, WOLF Frameworks, to build this SaaS application.

Since the NGO manages the needs of 250 villages, the scale of the projects it works on is huge. To automate the process of data gathering, SEDS wanted to create a CIMS that would help it collect and analyze information more accurately.

SEDS' IT budget was minimal. The CIMS needed to be scalable and secure to manage the needs of a large population. The PaaS platform offered by WOLF Frameworks offered SEDS a pre-built SaaS architecture to rapidly build applications using a point-and-click design environment. The advantage for SEDS-it could build a custom application without writing a single piece of code, despite not having a full-fledged IT team. Instead of taking the traditional

route of buying hardware and licensing software, building a team of developers, and writing programming language, SEDS used the WOLF cloud computing platform stack to design and use their application and pay as per use.

It took SEDS and WOLF Frameworks just 120 hours to design, develop and deploy India's first CIMS serving bottomof-the-pyramid customers. An important feature of the CIMS is that it can be used even from low-bandwidth Internet connections prevalent in Anantapur district. The application also allows SEDS to add new program surveys and analytics as required, without any delay.

#### A 'UNIQUE' SOLUTION

The CIMS allows SEDS to collect and consolidate data into a central repository. It automates the process of data analysis and presents reports on different metrics at the click of a button. It also generates a Unique Identification Number (UID) that helps SEDS locate individual data. The application also imports data records of the last five years.

With UIDs for individuals being auto-generated, CIMS enabled SEDS to track the effectiveness of the program from the mandal-level (mandal is a geographical unit of land) down to the individual level. This ensures a uniform



Manil Jayasena, CEO, Social Education and Development Society (SEDS)

distribution of benefits and that the NGO's efforts are concentrated in the right direction.

Maintaining the NGO's large repositories of historical data presented several security concerns with a high probability of sensitive data falling into the wrong hands. Moreover, data loss was frequent-presenting huge overheads in the form of rework. With CIMS. SEDS was offered a role-based access structure, automated data back-up and risk mitigation as a part of their standard offering. In addition, members gain speedy access to various government schemes such as pension, housing or NREGS.

SEDS will also benefit from the openness of the cloud to disseminate information. The CIMS has proved to be a turning point when reaching out to donors and stakeholders across the globe. In case donors are interested in contributing to SEDS programs, they can now contact the team for details of a village and its resources, or a particular development program.

#### **HIGHLIGHTS**

- > It took SEDS and WOLF Frameworks just 120 hours to design, develop and deploy India's fi rstCIMS serving bottom-of-thepyramid customers
- > The application stores and manages data of 250 villages, 980 self-help groups and auto-generates UIDs for more than 40,000 individuals.

#### **SNAPSHOT**

Company: Social Education and Development Society

Project: Cloud-based Census Information Management System

Project Head: Manil Jayasena, CEO



# Sardar Patel Institute of Technology shows how the Cloud can transform education

The computer laboratory at Sardar Patel Institute of Technology was being used extensively by students, teaching and non-teaching staff alike. Students used the computers to perform practical experiments, work on various projects, and for online research. The faculty used the systems for research and development, while the non-teaching staff performed administrative tasks on the computers. The laboratory assistant needed the systems for maintenance or for installing third-party software.

However, the extensive use of the IT infrastructure by these stakeholders created certain issues. Since there was no centralized storage, student data was stored in duplicate on different systems or on flash-based pen drives (that are notorious for spreading malware). There was no central repository to store final-year projects which were hence maintained in hard copies.

Internet connectivity was either used inefficiently or misused by stakeholders to access unauthorized websites via proxy server software. In case of system failure, the laboratory assistant had to set up the machine afresh. Purchasing new machines or hardware refreshes led to an increase in costs due to fresh hardware and licensing costs.

### OPEN SOURCE-BASED PRIVATE CLOUD DEPLOYMENT

To overcome these issues, the Institute adopted a private cloud. Using Eucalyptus Systems' private cloud solution, the Institute built an internal, private cloud based on open source technologies and compatible with Amazon's cloud services. Some of the existing desktops were clustered to create the cloud infrastructure and no additional hardware had to be purchased.

The Institute has been one of the early adopters in the educational sector to adopt an open source-based private cloud. Post deployment, the Institute can create machine instances on-the-fly and create an infrastructure according to requirements. It does not have to invest in additional infrastructure. In the year prior to the deployment, the college scrapped out 75 legacy machines. Post deployment, the Institute can reuse a lot of its existing infrastructure and does not require to invest in additional capacity.

#### **CLOUD BENEFITS**

Each department is allotted ₹ 10 lakh as its annual IT budget. Post deployment, IT spends for each department have reduced by 70 percent resulting in annual savings of up to ₹ 7 lakh. Each



▲ Dr Deven Shah, Sardar Patel Institute of Technology, HOD - IT Dept.

student has his own storage space in the cloud. Students can use the cloud storage space to store their daily experiments. College projects would still be available to the college for reference even after the student attains his degree. The private cloud also allows students to launch multiple virtual machine instances (based on various practical experiments) from any computer system. A student and can attach her storage space to that particular instance to save any work done. In case a particular instance gets infected by a virus, the infection remains in that particular instance, and does not affect other running instances. This ensures a higher level of security.

The deployment has also allowed the college to ensure optimum usage of bandwidth. Each virtual machine instance is allotted a fixed amount of Internet bandwidth, restricted to a few MBs in terms of data transfer caps. This ensures that students do not misuse the connectivity to download large multimedia files or software or surf unauthorized websites.

#### **HIGHLIGHTS**

- > IT cost savings of almost ₹ 7 lakh—a 70 percent reduction in IT spending per department
- > Existing infrastructure reused, no additional investments in hardware resources post deployment
- > Each student has his/her storage space in the cloud

#### **SNAPSHOT**

**Company:** Sardar Patel Institute of Technology

**Project:** Deployment of a private cloud within the college campus

**Project Head:** Dr Deven Shah, HOD - IT Dept.

# Sheela Foam aligns business systems by plugging its weakest link

Sheela Foam manufactures slab stock polyurethane foam in the Asia-Pacific region, with over 2,000 employees in India. The company had several parameters to measure business outcomes and performance, which conflicted between departments. Hence, there was a need to align all parameters to achieve an overall business objective.

To achieve this, the concept of TOC was adopted. TOC (Theory of Constraints) is a popular business philosophy that guides organizations to improve by focusing on few issues that are constraints to ongoing profitability. Just as the strength of a chain is governed by its weakest link, the TOC focuses on the ability of any organization to achieve its goal by improving its single but most important constraint.

The project 'Align Business Systems with TOC (Theory of Constraints)' was implemented in 2009 with the objective of aligning all performance parameters with the concept of TOC and measuring performance on a weekly basis rather than a monthly basis (as done earlier). This concept was implemented and four performance indicators were identified. which were to be measured on a weekly basis to achieve the overall business objective. These indicators are TP

(Throughput), OE (Operating Expenses), Investments and OTIF (On Time in Full). TP is the main (primary) performance indicator; all other existing performance parameters were required to be aligned with TP. TP takes care of both the top line and the bottom line—the parameters around which each business revolves.

OE and investments, especially dead investments, were to be constantly monitored so that they did not increase drastically. OTIF refers to delivery efficiency i.e. the order should be supplied in full quantity on time. The TP for each transaction is calculated at the order level. The order is not released for further processing if the TP is below the defined percentage.

Similarly, OTIF for each transaction is calculated right up to the dealer level, so that the product is made available in the market without any delay. The entire management team and other associated employees are updated about TP and other supporting performance parameters through an auto-generated morning SMS.

The TOC concept and its measurement have been implemented through the company's home-grown ERP Greatplus. The ERP has also been integrated with the SMS gateway.



Pertisth Mankotia. IT Head, Sheela Foam

#### PROJECT HIGHLIGHTS

When Sheela Foam adopted the concept of TOC, its average weekly TP which was approx 145 lakh per week has now increased to approximately 220 lakh per week (approximately 52 percent) and the turnover has gone up by 45 percent. The company was able to increase the OTIF from 76 to 89 percent.

This growth has come despite a recession and slowdown in the economy. This was possible due to focused weekly monitoring, strong update mechanisms, aligning all business processes in one direction, and displaying the key performance indicators on the home page as frequent reminders.

Operating expenses have also dropped by approximately 5 percent in a year's time. This has become possible just by monitoring OE at a weekly interval. The TP concept has also enabled Sheela Foam to increase its profits and market share. SMS for monitoring performance have now become a habit for the management team and they eagerly await it.

#### **HIGHLIGHTS**

- > Average weekly TP increased from around 145 lakh per week to around 220 lakh per week (52 percent growth)
- > OTIF increased from 76 percent to 89 percent
- > OPEX dropped by approximately fi vepercent in one year
- > Forty-five percent increase in turnover

#### **SNAPSHOT**

Company: Sheela Foam

**Project:** Alignment of Business Systems with TOC (Theory of Constraints)

Project Head: Pertisth Mankotia. IT Head

# AICTE deploys e-Governance project to manage core processes

The All India Council for Technical Education (AICTE) was set up in November 1945. AICTE is a national-level apex advisory body that promotes technical education development in the country in a co-ordinated and integrated manner.

The core processes of AICTE include registration of applications; payment of registration fees; scrutiny of application for new college; selection and deputation of experts; inspection of facilities of the college premises; grievance redressals etc. Earlier, AICTE did not use any computerized system for its day-to-day activities. Hence, there were several problems related to the college database, application approval history, analysis of information etc.

#### NEW E-GOVERNANCE MODEL

To overcome these challenges, AICTE began a project with the objective of developing an e-Governance system to bring in transparency, accountability and speed in the overall functioning of AICTE, and to provide efficiency and accuracy of services to all stakeholders. As part of this project, the AICTE management stipulated a complete revamp of the AICTE website; developing a college portal to collect and maintain institute data; bringing in transparency in the registration process; automating various approval and

accreditation-related steps and processes; automating various processes executed by the AICTE bureaus and regional offices; reporting requirements and BI.

The salient features of the e-Governance system implemented include a Siebel solution (college portal) that is accessible by over 20,000 institutes; an automated system to create, submit and track applications for new institute approvals; extension of existing approvals in a transparent manner; portal configuration with more than 20 screens to collect and maintain institute information, and a complete redesign of the website with links to e-Governance applications.

One of the unique features of the solution implemented includes Payment Gateway integration for online payment of fees for new colleges and approval fees for annual extension. This ensures that fees are received on time and as per the stipulations of AICTE. It offers biometric integration to capture faculty data. It is an online system for submission of applications and payment of fees 24/7. Applicant institutes are now able to complete their transactions without visiting an AICTE office.

#### **KEY BENEFITS**

This project has brought in



Dr S S Mantha, Chairman, AICTE

major transformation in the Indian education sector and has created a new governance model for other government agencies to follow. Transforming a manual system into an automated one in a record time of six weeks is a benchmark in this space.

Some of the key benefits achieved through this project include total transparency in the area of approval and regulatory processes; visibility into the governance process and report status through periodic updates; better facilities for students; superior quality of education; elimination of irregularities in the field of technical education.

Mandatory disclosure by colleges and institutions helps AICTE govern more effectively. Going further this initiative has the potential to be turned into a 'Green' initiative since it allows for e-submission of the documents required for approval.

#### **HIGHLIGHTS**

- > e-Governance system implemented is accessible by over 20,000 institutes
- > Completely online system for submission of applications, processing fees through payment gateway without visiting an AICTE office

#### **SNAPSHOT**

**Company:** All India Council for Technical Education (AICTE)

SI Partner: L&T Infotech

**Project:** e-Governance project for managing core processes of AICTE

**Project Head:** 

Dr S S Mantha, Chairman

# Project 'SMILE' brings happiness and profits to Bajaj Electricals

Part of the ₹ 20,000 crore Bajaj Group, Bajaj Electricals specializes in consumer electrical products and lighting solutions. The firm has 19 branch offices. 600 distributors, 3,000 authorized dealers, more than 2.5 lakh retail outlets and over 230 service franchises spread across the country.

While business was growing fast for Bajaj Electricals, it realized that its legacy systems and processes were unable to support business growth. Legacy systems were more than 12 years old and were very costly and difficult to maintain. These legacy systems were based on 12-year old business processes, which lacked the required business controls for an already-grown business.

#### ROLLOUT OF PROJECT 'SMILE'

To address these issues, the corporate management council decided to launch a project to focus on improving business processes and also deploy IT systems to support these new processes. Leading management consultants were engaged to study all the business processes and IT application architecture and recommend necessary improvements.

This project was named 'Project

SMILE' and a suite of Oracle Ready application products offering best-ofbreed functionalities was selected for the implementation. These included ERP, CRM, SCM and BI. This was a very complex implementation from a technical as well as business perspective. Integration was the key challenge for the project to be successful and to make the integrated applications work in a seamless manner. The Sales cycle of Pre-sales and Order to Cash flows from Siebel impacted several departments. The supply chain solution (ASCP) depend on the demand estimated by the Sales team in Oracle Demantra.

#### IMPLEMENTATION BENEFITS

The project was completed in less than a year and got stabilized within the first two months. The firm went live in just 363 days in a major way at all its branches, godowns, factories, business units. Bajaj Electricals believes it is probably the first company in the world to have implemented best-of-breed CRM, SCM, ERP and BI with complete integration at one time, simultaneously.

The implementation of the Siebel Dynamic Pricing Module has given the company's consumer durable appliances



Pratap Gharge, VP and CIO, Baiai Electricals

business units the ability to define complex discounts schemes and deliver it consistently to pre-defined market areas. With a dynamic tool available, the firm was able to control its discounts delivery in a flexible yet controlled manner across India. This has resulted in savings at 0.5 percent extra discount which amounts to savings of ₹11.5 crore on the turnover of ₹ 2,300 crore in 2009 - 2010. Additionally, profitability has jumped from 20 to 31 percent post implementation.

The Oracle ERP solution has streamlined order execution, inventory management process and procurement. Better inventory management practices have brought in accountability into inventory shortages with the firm's C&F agents. The firm is now able to recover shortages from the C&F agents and reduce thefts and leakages in inventory. With an inventory holding of ₹100 crore (year end), Bajaj Electricals has achieved a 2 percent reduction in leakage and saved ₹ 2 crore per annum.

#### **HIGHLIGHTS**

- > Probably the fi rstcompany in the world to have implemented best-of-breed CRM, SCM, ERP and BI with complete integration at one time. The entire project was completed in just 363 days.
- > Two percent reduction in inventory leakages and savings of ₹ 2 crore p.a.
- > Profi tabilityhas jumped from 20 to 31 percent

#### SNAPSHOT

Company: Bajaj Electricals

Project: SMILE

Project Head: Pratap Gharge VP and CIO

# Max New York Life insures itself with server virtualization

The high growth trajectory in Max New York Life Insurance (MNYL) in the last couple of years has led to unprecedented pressure on its IT Infrastructure. This resulted in an increase in the purchase of IT hardware which was decentralized in various locations. As the business grew. there was an increased demand to create different types of simulated environments on which business scenarios could be run. This resulted in low efficiencies with respect to higher turnaround time-and hence a loss in business time. Due to increased pressure on the IT infrastructure. the company had to expend more resources on buying its IT infrastructure, which eventually led to an increase in the data center space, higher cooling needs, and more power bills.

Keeping the above scenario in mind, the management decided to pursue server virtualization to reduce costs, improve server utilization, reduce physical inventory and achieve first-level DR.

#### THE CHALLENGE & SOLUTION

At the initial phase of the project, there were issues in storage LUN mapping and VMotion and DRS utility was not worked properly. These issues were addressed and resolved with the help of these respective

application teams.

After the system evaluation phase, the MNYL team decided to deploy a virtualization solution on VMware platform. This will also become the standard practice for deploying any new infrastructure in the data center. Apart from the VMware solution, the company also started using Microsoft's HyperV to control costs and reduce dependency. The server administrator uses a software application to divide one physical server into multiple isolated virtual environments.

This project was implemented in two phases: Phase I (less critical servers, having low/no impact to business) and Phase II (highly critical servers, having high impact to business were considered on successful completion of Phase I). There were 48 servers (mid-class and old) and 48 desktops in the data center. There was a server sprawl (a situation in which multiple, under-utilized servers take up more space and consume more resources than can be justified by their workload) that occurred in the production environment.

This project reduced the number of servers and space in the MNYL data center. It not only increased the server



▲ Hitesh Arora, CIO, Executive VP & Head - IT, Max New York Life Insurance

utilization, but also increased server deployment and created first-level DR for MNYL. It also helped in reducing the TCO by reducing server sprawls and physical footprints and, in turn, added to Green IT.

#### **IMPLEMENTATION BENEFITS**

With the proposed VMware solution, the number of servers through virtualization was reduced from 96 to 15 resulting in a saving of 82.7 percent—with a target consolidation ratio of 4 to 1.

With the reduction in the overall number of servers, operation power reduced by 28.954 watts, cooling power by 36.168 watts and data center space savings were 163 sq. feet. There was a reduction of 762,903 lbs (364 tonnes) of carbon emission–equivalent to the average emission of taking 64 cars off the road per year.

The company achieved an ROI of 73 percent from an investment of ₹ 67,62,000 in VMware infrastructure, and projected direct savings of ₹ 49 lakh.

#### HIGHLIGHTS

- > With virtualization, the number of servers was reduced from 96 to 15—a saving of 82.7 percent, with a target consolidation ratio of 4 to 1
- > Virtualization helped the fi rmreduce 762,903 lbs (364 tonnes) of carbon emission equivalent to the average emission of taking 64 cars off the road per year

#### SNAPSHOT

**Company:** Max New York Life Insurance (MNYL)

**Project:** Server virtualization project to reduce costs, improve server utilization, reduce physical inventory and achieve first-level DR

**Project Head:** Hitesh Arora, CIO. Executive VP & Head - IT

# SBI consolidates all DCs and DRCs to single location

State Bank of India (SBI) currently has 125 overseas offices across 23 countries. Its international offices earlier operated out of three data centers (DC) in Tampa (USA), Swindon (UK) and Belapur (India) and three disaster recovery centers (DRC) in Houston (USA), London (UK) and Chennai (India) after rolling out a Finacle core banking solution at all its overseas offices during 2004 - 2007.

The Bank faced certain challenges in operating its international operations from the three DCs and DRCs including the high cost of operations of the DCs in the US and UK; problems in version control of hardware, operating systems, databases and applications; difficulties in rolling out new functionalities across various DCs; and difficulties in consolidation of MIS and other Reporting (including risk reporting).

In order to resolve these issues. the Bank embarked on a project to consolidate all the DCs and DRCs at a single location in India. The project was initiated in April 2008 and completed in May 2009. The process of consolidation was very complicated as it involved regulatory approvals from the regulators in each country for migrating and

processing customer data in India. Hence, all the relevant controls required by the regulators were built while finalizing the solution.

The project had the following major objectives: To consolidate the US and UK DC/DR sites into the India DC at Mumbai and DR at Chennai: platform migration from HP PA-RISC to HP Itanium; infrastructure upgrade for higher performance (OS and database); application platform migration and version upgrade (for core banking, treasury, Internet banking, messaging and report distribution applications).

As part of the DC consolidation project, a WAN optimization solution was deployed to improve the experience of remote users in Europe and North America-which could have been impacted due to an increase in RTT from shifting the DC from US/UK to India-and to optimize the bandwidth utilization.

#### PROJECT HIGHLIGHTS AND BENEFITS

WAN Optimisation helped in average bandwidth reduction of more than 50 percent. It offered clear visibility into the statistical volume of each application traffic and also of branch-to-branch



A Krishna Kumar, Deputy MD, IT, State Bank of India

application flows. It helped in centralized staging at Singapore where all devices were made plug-n-play before installation at branches. This, along with parallel site preparations, helped fast-track the entire project considering the tight timelines of the project.

The project has led to a reduced cost of operations and human resources. In terms of operational costs, the Bank has been able to save around USD 1.06 million per annum.

Overseas manpower costs have been reduced to USD 0.37 million per annum. The Bank succeeded in saving around USD 2 million per annum. Having consolidated the DCs at one place along with the domestic network, routing messages from domestic to foreign offices and between foreign offices in all centers (except US) was eliminated. With the centralization of operations, there has been a faster rollout of new products to cater to emerging business requirements.

#### HIGHLIGHTS

- > OPEX savings of USD 1.06 million per annum
- > Reduction of overseas manpower cost to USD 0.37 million per annum
- > Savings of USD 2 million per annum due to the consolidation of DCs at one place along with the domestic network
- > Average bandwidth reduction of more than 50 percent

#### SNAPSHOT

Company: State Bank of India

Project: Consolidation of all the DCs and DRCs at a single location in India

Project Head: A Krishna Kumar, Deputy Managing Director, IT



# Mobile Pre-Inspection Module boosts profitability for RGI

Reliance General Insurance (RGI) is in the business of providing insurance to the property and casualty needs of retail and corporate customers. Since the motor business comprises 60 percent of its portfolio size, the firm had to be extremely careful in classifying good and bad risks.

Insurance is a contract of ubrema fides i.e. utmost good faith. Therefore, before a risk is accepted, it is prudent to have it properly verified for factual information. This also helps in controlling the veracity of fraudulent claims at a later stage of contract inception. Hence, inspection forms part of basic quality checks. Most insurers grapple with deadlines and process lags within which the inspections need to be accomplished. Subsequent to this, domain experts have to give their opinion for acceptance or rejection of a risk. The whole process has inherent complexities and consumes a lot of resources. A typical inspection process takes between two to four days before the decision is conveved to a customer.

To address this problem, RGI partnered with ARCIS to develop an Integrated Pre-Inspection Module. In this process, a request for pre-inspection is logged by a Sales manager/intermediary in CRM for generating a service request.

This service request is then sent to an initiator. The CRM application allocates this lead to ARCIS. ARCIS gets all the customer details in their system through CRM along with interaction with Fleet on Street (FOS) who call customers to fix an appointment for the inspection. A representative of ARCIS conducts the inspection from a mobile which has the pre-loaded application in his GPRS handset. These handsets can take good-quality pictures and key in data in real time in standard forms. Real-time synchronization is enabled once the inspection is done.

Once the data gets synced and replicated in ARCIS back-end systems, it also initiates similar call to applications in RGI-in this case, the CRM application. The initiator also gets an SMS for the inspection report with the status of recommendations or comments. In case of recommended proposals, the initiator issues a cover note and a relevant cheque is collected from the customer.

### PROJECT HIGHLIGHTS AND BENEFITS

The new system launched a pilot in Delhi, UP and Rajasthan. It has helped the firm save close to ₹ 3.75 lakh for around 200 pre-inspection proposals



▲ Naganathan Sriram, CTO & Operations Officer, Reliance General Insurance

per day. This has also helped the firm weed out lot of bad risk business from its books-thus driving profitability.

A key metric 'Rejection ratio' has increased from 3 to 15 percent since manipulation through the system is not possible. Further cost of inspection has also come down by half since dependence on domain experts has decreased; the system-driven process guides even outsourced FOS to do the same job in a more secure and real-time manner.

The firm estimates direct savings of ₹ 20 lakh realized over three months post deployment of the solution (due to reduced paper work)—and indirect savings of around ₹ 50 lakh due to reduced fraudulent claims.

Given that 50 percent of the general insurance business is from the motor line of business, the system—which offers better underwriting control and thereby better risk management, portfolio quality and cost optimization—has proved vital for the company.

#### **HIGHLIGHTS**

- > The new system which launched a pilot in Delhi, UP and Rajasthan has helped the fi rmsave ₹ 3.75 lakh for around 200 pre-inspection proposals per day
- > Direct savings of ₹ 20 lakh realized over last three months. Indirect savings of around ₹ 50 lakh due to reduced fraudulent claims

#### **SNAPSHOT**

**Company:** Reliance General Insurance (RGI)

**Project:** Mobile Pre-Inspection Module

Project Head: Naganathan Sriram, CTO & Operations Offi cer;and Sudip Banerjee, VP, Head - IT & Customer Services

# Banks can now outsource ATM operations

Setting up an ATM center can be guite a challenge for a bank. Site identification. power arrangements, ATM installation and connectivity require dedicated teams. Banks also need to consider the tradeoff between investments versus benefits. Due to the high CAPEX involved, it is not easy to move if the ATM does not meet its purpose in terms of the number of transactions or visibility. To help banks overcome these challenges, AGS Infotech and Bharti Airtel came up with a unique solution that handles the bank's ATM establishment process from end-to-end or part of the process.

AGS handles all activities from site identification, UPS, ATM, Interiors to VSAT installation and ATM commissioning. It offers a transactionbased model that allows banks to outsource their ATM operations. The bank would pay AGS a per transaction fee for using this service.

#### HIGHLIGHTS

- > Banks can outsource setting up and operating ATMs on a payper-transaction fee basis
- > AGS estimates it will be able to recover the ATM CAPEX in four years, using this model

AGS has partnered with Bharti Airtel to provide VSAT connectivity and MPLS backhaul to AGS Data Center for authentication. With Airtel's MPLS infrastructure spanning across the country with over 1,10,000 km of fiber network and the VSAT network. AGS can set up ATMs anywhere in India. This can be done in minimum time; without limitation of reach; and regardless of fiber or copper infrastructure presence.

With this model, banks can provide

#### SNAPSHOT

Company: AGS Infotech SI: Bharti Airtel

**Project:** Outsourced ATM Services

Project Head: Sunil Udupa,

ATM services even in remote corners of India with no major limitations on physical infrastructure reach or the risk of fixed investment. Banks can save on branch operation costs and dedicate their resources on core activities rather than deploying and managing ATMs.

AGS estimates it will be able to recover the ATM CAPEX in just four years for a single location using this model. The company currently has delivered more than 100 ATMs under this model.

### What drives Asia Motor Works ahead

Service is a key differentiator in the commercial vehicle industry and speed of response is critical to the business. For Asia Motor Works (AMW), the challenge was in terms of visibility into vehicle maintenance-either at the corporate or the dealer level. Dealers would create job cards or service orders manually, in their own format, and these documents would not be passed on to the company.

AMW needed a system that enabled a centralized database for the sales

and service functions. It was imperative that a history of service orders or maintenance logs of all vehicles sold be available to dealers and service centers across India centrally.

It would enable the functions to view the past services done on the vehicles, capture the problem reported in the vehicles and the action taken to resolve the problem. There was also a need to know how many vehicles reported for service or breakdown in a day, and how

much time it takes to service a vehicle and also whether the vehicle reported the same problem again.

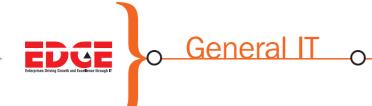
The company implemented a Webbased application that would enable multiple views of a common, centralized service database. This database was linked to the BI tool for detailed analysis, and the SMS application for sending alerts. Post implementation, all dealers enter job card/service order information in a single database which can now be viewed by all authorized employees and dealers. High-quality responses were possible due to faster access to service records and an inventory of parts across the country. Coupled with an SMSquerying facility, this further speeded up the response mechanism. With the past history of vehicle maintenance available, dealers can now service a vehicle faster and better. This has improved the overall customer service.

#### **HIGHLIGHTS**

- > Upto 25 percent savings on overall costs post deployment
- > Employee productivity improved by 20 percent

#### SNAPSHOT

Company: Asia Motor Works Project: Centralized Service Information Database



### Asian Paints finds a new 'Awaaz'

As one of the biggest paint manufacturers in India, Asian Paints had dealers from across the country telephoning to place orders. The dealer would call a local Asian Paints depot (about 100 depots exist across the country) to place the order. The order would be noted down and fed into the company's SAP-based system manually. It would then be processed to generate the invoice followed by the final dispatch.

Since this was a manual process, there were certain challenges. Dealers were identified and orders were taken over the telephone. There was no system to provide immediate visibility into the stocks, credit limits of the dealer, transaction history of the dealer, status of any complaints placed by the dealer etc. Most of the interactions seemed incomplete in terms of information fulfillment. Hence, the ordering process proved inefficient.

#### HIGHLIGHTS

- > Post deployment, service window availability increased by 33 percent
- > Average call-handling time and manpower count dropped by more than 40 percent

### SNAPSHOT

Company: Asian Paints

**Project:** Automated Order Processing System

**Project Head:** Manish Choksi, Chief – Corporate Strategy & CIO

To overcome these challenges, Asian Paints set up an SAP-based automated order processing system called 'Awaaz.' The system provides a Dealer Interaction Dashboard for the Service Personnel with a 360° view of the dealer thereby enabling the service personnel to address all the requirements of the dealer. The dashboard has been integrated with the Telephony system. This allows the service personnel to identify the dealer calling in even before

the call began. This enables the service personnal to have a more relevant discussion with the dealer.

The system also includes a new query handling process wherein a separate set of people handle all dealer queries. These queries would shortly move to a self-service format. The system also allows setting, measuring and monitoring service-related benchmarks and reporting them on a regular basis.

# How BSES Power resolves complaints faster

Given the volume of its reach, the main challenge faced by BSES Power was to handle consumer complaints regarding electricity supply and breakdowns and shutdowns, and supervising the relevant equipment in the minimum timeframe as per the guidelines of the Delhi Electricity Regulatory Commission (DERC).

To do this, functional units within the company such as Operations & Maintenance (O&M) require data exchange and communication with related support functions such as stores and meter management. The department also needed greater visibility into the electricity network. However if this data is not updated online, it leads to a delay in fault restoration and long outages—resulting in poor customer service. It also affects the business due to Aggregate Technical and Commercial (AT&C) losses. Further, a structured data source is also required for manpower and resource

planning. To overcome these challenges, BSES Power implemented CORE (Converged Operational and Reporting Engine)—an integration of high-end, critical, live applications such as SAP, GIS, OMS (Outage Management System) and databases.

OMS is the main O&M module used to monitor electricity supply through grids, Sub Stations, Transformers, Feeders, and Cables. The implementation involved automating this module. It also has an automated SMS escalation of faults and breakdowns. The OMS was integrated with the SAP systems for stores and meter management and also with the GIS. With this, the equipment used in O&M could be tagged in GIS to find out fault locations with their occurrence. Since the time required for fault rectification was reduced, there are time savings for consumers and performance figures have improved.

#### **HIGHLIGHTS**

- > Post deployment, power outages have decreased by 98 percent
- > Transformer failure rate reduced from 15 percent to less than 1 percent thereby leading to major cost savings

#### **SNAPSHOT**

Company: BSES Power

**Project:** 

Converged Operational and Reporting Engine (CORE)

Project Head: K B Singh, Vice President - IT (Head IT)

# Now, you can track your tax refunds online

Automation of Central Excise and Service Tax (ACES), an initiative by the Central Board of Excise and Customs (CBEC), aims at improving tax-payer services, transparency, accountability and efficiency in the indirect tax administration in India. ACES is a mission-mode project under the National e-Governance Plan (NeGP) of the Government of India.

Keeping CBEC's priorities in mind, Wipro developed a new centralized automated solution aimed at automating all the major processes in Central Excise & Service (CES) tax through a workflowbased application. The application brings a diverse set of procedures and business functionalities-covering the entire gamut of CES tax-under one centralized platform, to enable an efficient tax system. A key objective of the project includes reducing face-to-face interaction between tax payers and tax collectors,

#### HIGHLIGHTS

> Central Excise and Service Tax Registrations fi ledin the ACES project has crossed the ₹ 2 lakh mark. Central Excise and Service Tax returns fi led online in ACES is ₹ 2 lakh

#### SNAPSHOT

Company: CBEC, Directorate of Systems; SI Partner: Wipro **Project:** Automating Central Excise and Service Tax Project Head: D P Dash, Addl. Director General

thus enabling faster registration and submission of returns.

In the new system, taxpayers can register themselves, file their returns and claim their refunds online as against the earlier system wherein CES forms and returns were filled manually. Department officials can also use this facility to scrutinize details filed in returns and claims; manage the adjudication process; manage the risk; create audit profiles; reconcile accounts; and generate MIS

reports. The Web-based workflow solution enhances productivity; ensures flexibility through a rules configuration engine: ensures ease in changing business rules; and also provides collection and analysis of metrics. This has reduced tabulation time and paperwork and led to less human error.

The success of the portal can be judged from the fact that it has received more than 11 crore hits ever since it went live, and this number is growing.

# Financial position of Gujarat available 24/7/365

The Finance department is the lifeline to the functioning of the entire State Government. It is imperative for this department to effectively manage the budget, expenditure and revenue and provide support to the other departments of the State Government. Previously, the Finance department mostly depended on manual operations and standalone distributed systems. This caused a lot of delay in getting the right information at the right time.

The data was maintained in multiple application systems and there was no decision support system for the Finance department. The Government of Gujarat therefore decided to implement an Integrated Financial Management System (IFMS). IFMS offers an integrated solution that provides real-time details of state government financial position by automating the major functions carried out by the Finance department, directorate of Accounts and Treasury,

directorate of Pension and Provident Fund, Treasury and Sub Treasury offices. Local Audit Fund offices, Drawing and Disbursement Officer (DDO) offices spread across the state.

Benefits of deploying this system include fast clearance of bills submitted for payment to Governments; faster credit to pensioners/vendors due to ECS; exhaustive and reliable data storage; generation of standard and typical reports; increased efficiency since executives can now spend quality time on core business activities; reduced cost and time of service; and readily available information with 24/7/365 access.

IFMS is replicable across various government organizations especially the State Governments in India. This is as per basic rules of accounting laid down by the Comptroller and Auditor General of India.

#### **HIGHLIGHTS**

- > Treasury bill processing cycle has been reduced from fi veto seven days to three days
- > Time required to write cheques has been reduced by 70 percent

#### SNAPSHOT

Company: Finance Dept... Gujarat Govt; SI Partner: TCS **Project:** Integrated Financial Management System Project Head: Atanu Chakraborty, Secretary (Economic Affairs)

# **HMIS** reforms hospital healthcare

HMIS is a state-of the-art healthcare solution to provide better care to patients by addressing all the major functional areas of a hospital and the entire gamut of hospital activities. The HMIS project was necessitated to overcome the following hurdles faced by the government administration such as the time consuming process for manual preparation of reports and long review and approval cycles.

The solution helps to monitor and analyze health delivery systems. It provides a state-wide holistic view of hospital's day-to-day functioning. It also provides workflow-enabled less-paper processes and parameterized alarms and triggers during the patient treatment cycle. The application controls the functioning of hospital departments such as Management Information System (MIS), Executive Information System (EIS), Registration, Finance, HR, etc.

#### **HIGHLIGHTS**

- > HMIS implementation has made the hospital's processes and workfl owscompliant with standards such as ICD-10, HL-7 and MCCD
- > Time is saved in inventory control, report generation, payroll, billing, etc

#### **SNAPSHOT**

Company: Health & Fly.
Welfare Dept., Gujarat Govt.
SI Partner: TCS
Project: Hospital

Management Information System (HMIS)

**Project Head:** Vijya Laxmi Joshi, Commissioner of Health

Patients can now avail of a consolidated report from a central location instead of going to collect their laboratory report from respective labs.

The implementation has revolutionized the MIS and EIS reporting at the state level. Faster and more accurate report generation has made the decision making process quicker, easier

and more reliable. Reports such as the Hospital daily dashboard and daily CDMO report have substantially improved the decision making process at the Hospital level as well

HMIS helps to monitor and analyze health delivery systems and provides a State-wide holistic view of a hospital's day-to-day functioning.

# **Delivering efficiency through e-Procurement**

The e-Procurement project is an innovation on the existing procurement system. e-Procurement is the process wherein physical tendering activity is carried out online using the Internet and associated technologies. e-Procurement enables the user to introduce ease and efficiency without compromising the required procedures of the organization.

One of the prime objectives of the

Government is to secure efficiency benefits from e-enablement of business process. Purchasing is often an area where the greatest savings can be made within any organization. E-enabling purchasing helps to achieve those savings sooner. It also brings other benefits such as best practice processes and quality management information.

The e-procurement project is an

innovation on the existing procurement system—wherein the physical tendering activity is carried out online using the Internet and associated technologies.

The project was initiated along with (n)Code Solutions, with the vision of achieving these goals. Currently, more than 35,000 tenders aggregating over ₹75,000 crore have been processed on the portal.

The project has resulted in many benefits such as a significant reduction in advertisement expenses; saving in tender evaluation time was observed; reduction in traveling costs for vendors and reduction in administrative costs.

There has been improvement in delivery in the form of shorter procurement cycles, better costs through competition, greater transparency through confidentiality of the purchase process and availability of better reports due to the computerized process.

#### **HIGHLIGHTS**

- > Total savings of 23.5 man days per tender
- > Total savings of ₹ 48,60,00,000
- > Benefi tsinclude a reduction in administrative costs, shorter procurement cycles, and better costs through competition

#### SNAPSHOT

Company: Industries & Mines Dept., Govt. of Gujarat; SI Partner: (n)Code Solutions Project: e-Procurement Project Head: Maheshwar Sahu, Principal Secretary (Industries & Mines)

# **Computerizing the VAT regime**

With the government of Gujarat deciding to adapt a VAT regime from April 1, 2006, the Commissioner of Commercial Taxes decided to computerize the VAT-related business processes simultaneously.

It was well-known that as the VAT processes are deployed, there could be resistance from the dealer community. This would necessitate modifications and amendments in VAT-related rules and processes and could impact the computerization project and application development. However, the simultaneous exercise insured that the legal system had adequate provisions encapsulating e-Governance.

The project was initiated to ensure prompt capturing of data at its origin in digitized form so that the VAT administration could be more informed and controlled.

The implementation of the

#### HIGHLIGHTS

- > Reduced registration time to less than a month, from three months
- > Data dashboard is updated daily; MIS provides informed proactive decision support

#### **SNAPSHOT**

Company: Offi ceof Commissioner of Commercial Taxes, Gujarat

SI Partner: TCS
Project: VAT Computerization

**Project Head:** Mukesh Puri, Commissioner of Commercial Taxes

computerization project has lead to the following benefits for the government:

- > Informed decision making
- > Improved analytical studies
- > Increased compliance
- > Improved administrative control

Benefits for dealers/citizens:

- > Transparency
- > Direct communication through the

Web portal which is a single window for services

Benefits to Tax Administrators/ Commissionerate:

- Holistic view of state-level transactions and health of tax revenue collection
- Self-compliance results in better monitoring support

# **Automating the Sales Tax function**

To improve the quality of service to the taxpayer, the Dept. of Sales Tax approached Mastek to develop MAHAVIKAS (Maharashtra Vikrikar Automation System)—an application for automation of the department. The outsourcing was based on a BOOR (Build, Own, Operate and Refresh) model.

Today, post implementation, the administrative efficiency of the

department has increased. An audit trail of each case in the MAHAVIKAS application has lead to improved transparency in the system. Similarly, due to the availability of pending file lists in the application and more than 200 operation and MIS reports has ensured accountability is ensured. Today, returns can be processed immediately and the actions against the defaulting dealers can be initiated within

a week's time as compared to the earlier timeframe of three months.

The solution also links the Tax Identification Number to the PAN number—making Maharashtra the only state in the country to have achieved this linkage. This ensures that there are no bogus dealers. The benefits for the taxpayer too are significant as the taxpayer does not need to visit the Sales Tax office to obtain CST forms. He can upload his e-return, eRefund application, e-audit Report and application for e-registration from his office or home.

The department has set up an Economic Intelligence Unit which collects and analyzes the information from dealers and various branches of the department. The department is expecting to collect additional 75 TB of data over the period of next three years after the implementation of e-Annexure and other eServices modules.

#### **HIGHLIGHTS**

- > Centralized application is accessed by 38 Sales Tax offi ces across the state of Maharashtra
- > Since inception, 42.5 lakh electronic returns have been accepted online

#### SNAPSHOT

Company: Dept. of Sales Tax, Government of Maharashtra SI Partner: Electronic Corporation of India Project: Automation of Sales Tax function

**Project Head:** R R Patil, Joint Commissioner of Sales Tax

# Fullerton India achieves savings of ₹ 15 million

Despite falling telecommunication rates, the telecom-related expenditure for Fullerton India was huge and had a severe impact on profitability. This triggered a proactive approach within the firm to streamline the management of telecommunication expenditure.

Fullerton India realized that it did not have the expertise to understand complex charging mechanisms, nor the sophisticated tools required to neutralize the metrics loaded in favor of the telecom carrier. It hence decided to engage the services of Airsoft, a specialist in this domain. The client firm used Airsoft's Pricing Analysis services to drive down telecommunication-related prices with no impact on the users.

Airsoft used an automated unified enterprise-wide solution to solve challenges related to control and visibility through a number of procedures, including business process

#### **HIGHLIGHTS**

- > Provided Fullerton India with an accurate and detailed account of telecom expense data
- > The project has achieved savings of ₹ 15 million

#### **SNAPSHOT**

Company: Fullerton India SI Partner: Airsoft Project: Streamlining the management of telecom expenditure

Project Head: Ajay Vernekar, Director - Technology Infrastructure

reforms. The solution is a unified, enterprise-wide effort to gain control and visibility over the lifecycle-and is customized to Fullerton India.

As the accounts payable function is integrated with expense allocation, it has provided the company with an accurate and detailed account of telecom expense data, including appropriate allocations of all expenses to their internal cost centers.

Centralizing the management

of telecom assets; standardizing the business processes across hundreds of FICC locations; and computerizing for enterprise-wide uniformity has brought in significant operational efficiencies and enhanced employee productivity. For example, thousands of bills for landlines, mobiles, ADSL etc (from hundreds of location) are collected in a central server and consolidated into a central data warehouse.

# Laboratory automation boosts efficiency

As a premier hospital, G
Kuppuswamy Naidu Memorial Hospital
wanted to reduce the manual errors
in reporting the results of laboratory
investigations. Additionally, the entire
process of reporting was time-consuming
for the laboratory, and the required
manpower to complete the task was
found to be very high.

Laboratory results used to be typed and the printed results were sent to obtain signatures. Since the patient identification number was written on the specimen tube by the blood collection staff, there were manual errors. The results for the patients were taken in the laboratory and a staff from the ward collected the results when it was ready.

Today, an integrated Laboratory Information Management System (LIMS) ensures that doctors can view the patient laboratory results anywhere with a browser, instead of being confined to the hospital premises. Printed results for in-patients can be taken in the concerned wards with the help of digital signatures. As the laboratory analyzer is integrated with the LIMS, it is more reliable and has helped eliminate manual errors. An online auditing report can be taken through the LIMS without manual interruption.

Thanks to LIMS, the waiting time of the patient has been reduced and the new process eliminates the manual errors in the reports. This has led to improved customer service and patient care. Due to automation, fewer technicians are involved in sample processing. This reduced the recurring cost of the hospital. Printing cost has also been reduced by this innovation.

Automating the laboratory services has improved the healthcare service to a greater extent by providing online and timely results to doctors.

#### **HIGHLIGHTS**

- > Laboratory results can be seen online anywhere in the hospital and outside the premises
- > Laboratory analyzer integrated with LIMS is more reliable and has eliminated manual errors

#### SNAPSHOT

**Company:** G Kuppuswamy Naidu Memorial Hospital

**Project:** Integrated Lab. Management System

**Project Head:** Biju Velayudhan

# IT initiatives boost profitability at Hexaware

To boost efficiencies and bring in greater cost control, Hexaware embarked on an organization-wise integration project. The project aimed at effective integration of multi-platform/technology applications that enabled effective data flow, implemented better controls and could ultimately deliver value to the organization in terms of better reports and forecasts.

Hexaware started by automating the finance function wherein the accounting systems were replaced with the industry-standard ERP. Subsequently, a travel management system was developed.

To gain operational efficiencies, internal applications were integrated and a new Project Organization was formed. The new project organization was structured to more effectively address the business needs. To give a top-down, business-centric approach to automation, a Business Process Operations Council

#### **HIGHLIGHTS**

- > IT initiatives have contributed cost savings of approximately
   ₹ 50 lakh per annum
- > Increased operating margins on a Quarter-on-Quarter basis by 49.8 percent

#### SNAPSHOT

Company: Hexaware Technologies

**Project:** IT initiatives to transform the organization

Project Head: N Nataraj

(BPOC) was formed.

To enable better forecasting of revenue, Hexaware implemented an industry-standard CRM system and a Sales dashboard. The firm also deployed a contract management system to enable an automated mechanism for reviews of legal and commercial documents by various stakeholders. Tor improve revenue utilization, many interfaces were created between various operational systems to ensure that all billable

resources were billed on time. The firm also created a portal to help delivery heads track service delivery according to parameters such as defects, efforts and schedule.

Another portal was created to track collections. The collection portal ensures that invoices reaches customers on time, that the Accounts Receivable was followed up periodically, which in turn improved the collection efficiencies and reduced the DSO.

## Low-bandwidth website delights customers

ICICI Securities has been a pioneer in the online share trading business since SEBI permitted this in 2000. The firm felt the need to build a platform which could be used by its customers to trade over slow Internet connections especially in remote locations. To meet the needs of such customers, the firm decided to create a low-bandwidth website that allows customers to access the site over slow Internet connections or on their GPRS-enabled mobile phones.

The firm took care to ensure that the screen size is optimized for mobile devices. There is no need to install any client application software on to the handset as it works through a browser.

Today, the low-bandwidth site provides all customers an alternative option to access the site wherein they faced Internet speed issues. This website is also compatible with all mobile handsets and the provision of light pages makes rendering pages extremely fast.

On an average, the portal has 10 million hits generating about 500,000 trades per day through 80,000 unique customers. The ICICIdirect.com trading site is the largest online trading platform in India and amongst the top 5 in the world in terms of transaction volume. Today, 15 percent of the firm's customers have already used this channel. The firm has also gained from a good increase in trading volumes as a result of this additional channel. The website also gives the firm access to a growing number of mobile users who access the Internet on their mobiles.

As of now about 15 percent customers have used the channel. The company expects this to grow to about 25 to 30 percent by the end of 2010. ICICI Securities finds there has been a good increase in trading volumes as a result of this additional channel.

#### **HIGHLIGHTS**

> 15 percent of the fi rm's customer base has already used this channel. The fi rmexpects this to grow to about 25 to 30 percent by the end of 2010

#### SNAPSHOT

**Company:** ICICI Securities **Project:** Low-bandwidth website

**Project Head:** Joydeep Dutta, Chief Technology Offi cer

# Portal transforms project service delivery

To streamline project delivery and exceed clients' expectations of high-quality service at lesser cost, iGATE decided to incorporate radical changes in its project and portfolio execution methodology. The firm believed that this could be achieved using a flexible and scalable portal that enabled collaborative project and portfolio management across the enterprise.

To achieve these objectives, iGATE's Information System team conceptualized, designed and rolled out a portal called 'ManageMe' across the organization. This was done within a record period of seven months and 15 days. ManageMe is a methodology-driven Expert System and helps iGate manage global projects and portfolios for exceptional delivery and operational performance.

The portal provides a seamlessly integrated platform with systems like CRM, HRMS, Finance and Attendance to

#### **HIGHLIGHTS**

- > Portal has improved productivity for functions such as delivery, audit and quality by 4.5 percent
- > Savings of close to 25,000 hours on a weekly basis

#### SNAPSHOT

**Company:** iGATE Global Solutions

**Project:** Portal to transform service delivery

**Project Head:** Shivam M, VP and CIO

facilitate automated data flow for project setup. An appropriate methodology is automatically determined by the system for guiding the team to execute the project. The methodology generates a predefined Work Breakdown Structure (WBS) that can be further customized.

The automated quantitative and qualitative project performance indicators have reduced management and execution overhead significantly. The portal not only empowers project and

portfolio management and execution at all levels but also provides a consolidated near real-time dashboard of key indicators such as span, utilization, risks and variance to the leadership. This has helped iGATE manage business and operational risks effectively and make better-informed decisions more quickly.

The portal has helped iGATE grow organically in a non-linear way, and in moving from a fixed-cost model to a variable-cost model.

# Creating an e-Governed municipal corporation

Kalyan Dombivli Municipal Corporation (KDMC) serves a citizenry of about 1.3 million people to provide more than 100 civic services like water supply, electricity, urban infrastructure of roads, drainage, providing birth and death certificates and a host of other services.

The then Municipal Commissioner of KDMC, Kant Singh felt the need to re-engineer many of the legacy business processes in KDMC. Prior to the implementation of e-governance, availing any service from KDMC meant inconvenience and indifference on the part of the staff. To resolve these problems, a project named 'MAINet' (Municipal Administration Information Network) was deployed. This offers end-to-end computerization for creating an e-governed municipal corporation involving all departments

and more than 100 citizen services rendered in a time-bound manner through Citizen Facilitation Centers and the Internet

Customer Facilitation Centres (CFCs)—one of the major initiatives—is covered in MAINet along with other modules. KDMC today has more than six CFCs across the city delivering 100 types of different G2C and G2B services across the counter to citizens.

The Government of Maharashtra took a decision in 2009, to adopt this software across all the 231 urban local bodies in Maharashtra, by sanctioning an outlay of ₹ 107 crore.

The largest benefit has been to the citizens in terms of hassle-free single touchpoint interactions for citizens. This means citizens no longer need to visit different departments to avail of any service or register a civic complaint.

#### **HIGHLIGHTS**

- > Unique allotment of Citizen ID saves a citizen's time in fi lling personal information in service and complaint forms
- > Effective MIS ensures transparency in the system
- > Hassle-free single touchpoint interactions for citizens

#### SNAPSHOT

Company: Kalyan Dombivli Municipal Corporation

**SI Partner:** ABM Knowledgeware

**Project:** MAINet (Municipal Administration Information Network)

Project Head: Anil Lad

# **Buttressing the performance with KRIS**

The challenge faced by Kotak Mahindra Old Mutual Life Insurance (Kotak Life) was related to capturing and monitoring the performance information for an agency salesforce of more than 35,000; and rewarding this workforce for their performance in a timely and transparent manner.

In a highly competitive and rapidlygrowing industry, performance-driven compensation that drives sales and recognizes and rewards long-term consistent performers is a key driver of business success. However, the variables, metrics and rules for these programs change frequently in tune with a changing business environment.

Historically, this had been achieved with periodic data extraction from core systems. This data was subsequently manipulated/computed using complex spreadsheets by a highly-skilled team. The process was time-consuming and

#### HIGHLIGHTS

- > Average cost savings were about 30 percent
- > Increased effi ciencyand reduced costs of managing end-to-end Agent Life Cycle

#### SNAPSHOT

Company: Kotak Mahindra Old Mutual Life Insurance

**Project:** KRIS (Kotak Rewards And Incentive System)

Project Head: Dhiresh

Rustogi

error-prone. It also did not meet one essential principles-prior performance visibility that would allow proactive sales management actions. To overcome these challenges, KRIS (Kotak Rewards and Incentive System) was implemented.

KRIS automates the entire process of reward program setup, data integration, computation and reward determination. It also makes performance and earned reward data available on a daily basis to all stakeholders-beneficiaries, managers

and branch/corporate staff.

Post deployment, the following benefits were observed: improved visibility of sales performance and rewards, improved sales performance through targeted Incentive and Reward and Recognition (R&R) schemes, etc. There is a very high level of user adoption with named users in the KRIS system in excess of 35,000. It has very quickly become a tool that the sales hierarchy uses to manage business.

## EMS reduces manual work, saves time

In majority of organizations, the administrative staff-responsible for the entire workforce-performs their duties manually. As the organization grows, managing administrative duties become increasingly difficult with the manual paradigm adding to the workload. Processing requests also become complicated with inadequate or incomplete information and limited time. Larsen & Toubro (L&T) Infotech was facing a similar problem recently. To tackle it,

the company employed Establishment Management System (EMS).

EMS ensures that an organization can fulfill all the administrative tasks required to achieve its objectives efficiently. It is a systematic framework of processes and procedures that provides an integrated solution to various administrative requirements of an organization, thereby reducing manual work.

Apart from addressing operational issues, it is crucial that the system be nonintrusive; built using open source; provide multiple channels of communication; and be portable and easily maintainable.

Prior to deploying EMS, administrative services at L&T Infotech were not accomplished on time as information was often received late and the data provided was inadequate. Manual processing of requests added to the worries.

Now, EMS provides all the services online. It reduces manual work and saves time. Services are provided on time since request is initiated via the Web or e-mail. It is now no longer a problem to book a hotel room, car or other service at the last moment, since this booking is now done online. The data collected via EMS has helped in analysis and better prediction of organization requirements.

EMS has also made it easier to track returnable items such as laptops, products via automation—as compared to gate passes issued manually earlier.

#### **HIGHLIGHTS**

- > Mobile telephony saved a total cost of approximately ₹ 40,000
- > Savings of ₹ 4 lakh per staff member per annum

#### SNAPSHOT

Company: Larsen & Toubro Infotech

Project: Establishment Management System (EMS)

Project Head: Bharati Lele, Head, Innovation Labs

# How LG gets a pulse of the market

With a turnover of over USD 2.5 billion, LG Electronics (LGEIL) is a market leader in consumer durables. LGEIL's operations are spread across the country as it operates with two manufacturing plants, 48 branch offices, 47 stock points and over 158 area offices. LGEIL's widespread operational network poses a big challenge for IT to enable tight business integration of various key functions such as finance, procurement, supply chain, sales and service. This was addressed by rolling out ERP in 2005. However, effective management of store sales executives (SSE) who are spread across geography posed a great challenge. In order to overcome this challenge, LGEIL implemented a Webbased SSE Management System.

Prior to the implementation, activities such as approval, recruitment, attendance, sales reported by SSEs, reimbursement details and incentive

#### **HIGHLIGHTS**

- > Overall market share increased more than 20 percent in 2010
- > System allows the company to to identify weak sales areas and take corrective action

#### SNAPSHOT

Company: LG Electronics

**Project:** Web-based SSE Management System

Project Head: Daya Prakash

calculation and inventory management were done manually. Furthermore, the frequency of these activities was monthly, resulting in delayed action.

Post implementation of the new Web-based SSE Management system, these activities have become online. This has resulted in reduced errors, quicker decision making, and data security. With SMS-based reporting of sales, the company has a daily pulse of the secondary movement in the market,

helping the top management make quick decisions and take control measures at the right time.

The SSE portal handles SSE recruitment/allotment/monitoring; tracks product training of SSEs; set targets and evaluation through performance monitors; conducts SMS tracking of daily sales reported by SSEs; calculates SSE incentives; tracks secondary/tertiary sales; analyzes product performance by region, branch and dealer, etc.

# Internet based E-auction platform

Auctions to buy and sell large volumes of commodities are an important part of the country's product supply chain in diverse regions. Auctions are conducted in open outcry manner, wherein a group of buyers and sellers gather together in a *mandi*. In an effort to improve efficiency, auctions have been experimenting with online formats, where the physical auction environment is simulated almost exactly in an online setting. Appreciating the imperative

needs of the intermediate supply chain in the Indian context, Reliance Spot Exchange leveraged IT to virtually cluster all the value chain participants. Internet-based E-auction platform is an initiative, where traders, producers, processors from all *mandis*/product markets across the country can participate from their respective locations.

The benefits of the online environment include lower transaction costs for buyers and sellers, 24/7 operation, better price and product information, transparency in the price formation process and a more streamlined supply chain. Rationalized procurement costs, reduced process times and lower inventory are some of the key advantages of this platform.

Minimizing intermediaries involved, traders can get better pricing for their products through online participation. Real-time information and customized knowledge provided by E-auction enables farmers to take decisions, align their farm output with market demands and secure quality and productivity. There is better price realization for farmers and producers and cost efficiency for users and consumers. Virtualization of servers has helped save on costs related to administration staff required to manage servers, server space required and reduced cooling and power requirements.

#### **HIGHLIGHTS**

- > Complete automation of member registration and back offi ce has enhanced operational performance by 70 percent
- > No geographical or time constraints

#### SNAPSHOT

**Company:** Reliance Spot Exchange Infrastructure

Project: E-auction platform Project Head: Anurag Chaturvedi

### A healthcare solution that cares

Rajiv Gandhi Cancer Institute and Research Center (RGCI) treats about 30,000 patients every year. Delivering care for cancer patients involves several interventions such as regular consultations in the OPD. Diagnostics and Radiation therapy.

Earlier, at RGCI, disparate systems (for billing, finance, inventory, etc) led to inconsistencies and increased cycle times and errors. Since no standard was followed, the data captured was inconsistent across multiple departments. Due to manual handling of most diagnostics like radiology, lab and blood bank, information was not available on time for physicians to diagnose. To address these challenges. RGCI used best-of-breed technologies to implement a healthcare solution that includes PARAS HMIS solution from Srishti Software Applications for nonclinical and para-clinical; Vista for the

#### HIGHLIGHTS

- > Complete integration and instant availability of lab and radiology test results
- > Instant availability of relevant information to physicians leading to improved patient care

#### SNAPSHOT

Company: Rajiv Gandhi Cancer Institute and Research Center: SI Partner: Srishti Software Applications **Project:** Healthcare Solution Project Head: Sundaresan R, Chief Financial Offi cer

clinical part; and another third party for Radiology Imaging.

The solution addresses the business problem of making information readily available to the care provider so that there is effective patient care. The software provides an evolving framework for incorporating, disseminating and sharing best practices across clinicians and paramedical staff. This IT implementation ensures that hospital management activities are automated

towards being less paper-intensive and more efficient

Post implementation benefits include a reduction in patient discharge time and reduced cycle times in functions such as discharge. Laboratory and radiology results are now available faster. Employee productivity has improved since the same number of people can be used to service more patients. Further, an improvement in inventory management has resulted in cost savings.

# IFFCO tracks fertilizer stock efficiently

As a company with sales of more than 11 million MT of fertilizers annually. IFFCO, a leading fertilizer manufacturing company faced a herculean task in controlling and monitoring the transportation of fertilizer from the manufacturing plants to the various godowns and sales outlets. Since fertilizer is an essential commodity governed by the ECA act of the Government of India, IFFCO needed an effective fertilizer tracking mechanism.

To achieve this objective, IFFCO (Aonla Unit) developed a Product Dispatch System (PDS). In addition to MIS reporting, this system provides decision support to distribute fertilizer on time, as per seasonal demands and GOI allocation, throughout the country via road, rail and sea.

The information from this system forms the basic input for the finished goods, inventory management and sales, for the marketing division of

IFFCO. This information also fulfills the statutory requirement of updating daily production, distribution and sales data onto the Fertilizer Monitoring System (FMS) of the Department of Fertilizers, Government of India.

Post deployment, state-wise, districtwise and area-wise dispatch details are available online. This has helped in planning for supply of fertilizer in deficit areas. Further, planning for railway wagons for transport is done more effectively. This has helped in reducing demurrage charges-a charge levied on railway customers if they fail to load or unload the wagons within a prescribed time limit. Further, timely updating of information onto the FMS has resulted in regular disbursement of subsidy by the Government of India-as against dispatches made on a daily/monthly basis by plants.

#### HIGHLIGHTS

> Productivity has increased from 6158 MT per employee in 2007 to 2008 to 7885 MT per employee in 2009 to 2010

#### SNAPSHOT

Company: IFFCO

**Project:** Product Dispatch System

Project Head: Seema Gaur, Deputy General Manager (Systems)

# NSE helps traders increase market presence

Globally, leading stock exchanges do not offer market data and trading terminals to their users. They simply provide standardized APIs and multiple modes of connectivity. Users either develop their own in-house software to transact on the exchanges or use the products offered by exchange-certified Info Solution Vendors (ISVs). Exchanges also charge separately for providing real-time market data. Thus, users have to effectively pay to get market data feed from vendors.

NSE Infotech was looking at enabling small- and medium-sized members to set up an efficient, low-cost uninterrupted trading mechanism via the Internet for their business expansion, as well as offering direct trading facilities to their clients to help them retain their client base.

To achieve this, the company launched a low-cost Web-based trading

#### HIGHLIGHTS

> The company describes the implementation as one of the largest centralized shared infrastructures set up for trading wherein 20,000 concurrent users are actively trading

#### SNAPSHOT

**Company:** NSE Infotech Services

**Project:** Automated Order Processing System

Project Head: N Muralidaran,

CEO

portal called 'NSE on Web' or NOW.

The solution provides a trading facility to financial intermediaries such as brokers, sub-brokers and franchisees as well as people who want to invest in capital markets. It offers comprehensive and fully-integrated order collection, execution and management, administration and risk management flows, market data and the ability to trade in multiple asset classes (Equities and Commodities, Futures and Options

(F&O), Currencies, Mutual Funds, etc) on the Indian Exchanges, through multiple channels (regular trading work stations, Web browsers, mobile devices etc) and binds all entities of a firm such as dealers (both proprietary and client), clients, remote branches, sub-brokers and individual investors.

NOW provides access to the NSE cash segment, NSE F&O segment, NSE currency derivatives segment and NCDEX.

# Unified portal improves customer satisfation

With a customer base of 110 million (as of June 2010)—including over 2.5 million individual overseas retail customers—Reliance Communications ranks among the top 5 telecom companies in the world according to the number of customers in a single country.

The company deployed 'My Services,' a comprehensive customer management platform for all its Lines of Business (LoB). This platform includes a customer self-service portal with a multi-lingual capability. It has a seamless and uniform integration across the contact center, lead management system, channel distribution network, fulfillment-assurance billing systems and the enterprise product catalogue.

For My Services, Reliance Communications used a unique mix of technology since it had to be integrated with the Operation Support System and Business Support System to provide a unified view of services opted for by the customer.

Post deployment, there has been a reduction in the call volume of customer and channel partners in the contact center. The company states that its Average Handle Time (AHT) for each call has now gone down; while First Time Resolution (FTR) has increased. Other benefits include a reduction in IT and customer service costs, an increase in average revenue per user, customer satisfaction (CSAT) and savings on online payment and recharge commission.

The company says it has had a seven percent increase in online sales and a 12 percent increase in ARPU. IT and customer service costs have been reduced by 25 percent. Savings in online payment and recharge commission stand at five percent; and there has been a 27 percent CSAT improvement.

#### **HIGHLIGHTS**

> Post deployment, there has been a 25 percent reduction in IT and customer service costs; and fi vepercent savings on online payment and recharge commission

#### **SNAPSHOT**

Company:

Reliance Communications

**Project:** Customer Management platform

Project Head: Alpna Doshi, CIO

# RGI tracks motor insurance policies better

For Reliance General Insurance (RGI) motor insurance business comprises 60 percent of its total business volume. However due to detariffication and intense competition, business is sourced through high levels of discount. This caused considerable monetary losses for the business. The underwriting department wanted to track each motor proposal to ensure that the right risk is sourced at the right price by implementing motor underwriting guidelines. The company hence implemented a solution called Blaze Advisor Business Rules Engine by Fair Isaac. Motor proposals coming from all RGI branches, the web portal and POS are fed into the company's policy administration system. A Web service call is made to the Blaze Advisor rules engine, where guidelines are implemented as business rules. The system then returns a decision (whether

#### HIGHLIGHTS

> Off the 20,000 proposals checked during the fi rstmonth of deployment, 2,000 have been rejected resulting in a commission payout of ₹ 20 lakh

#### SNAPSHOT

Company: Reliance General Insurance

Project: Blaze Advisor **Business Rules Engine** 

Project Head: Naganathan Sriram, CTO and Sudip Banerjee, VP, Head - IT & **Customer Services** 

and why guidelines are breached) and a case is registered for underwriters.

The underwriter checks the proposal deviations, approves/rejects cases or escalates to higher authority. The underwriting team at the corporate office can view deviations in an OLAP dashboard to analyze patterns and trends in guideline deviations by branch/ region/Sales manager etc.

With the deployment underwriters can now exercise pricing control on a pan-India basis which was not possible pre-implementation. Most importantly they can now monitor and understand revenue leakages, erring sales managers and channels and control commission payouts to intermediaries better, so that the company rewards only those channels who bring the right risk at the right price.

# Focusing on quality through DARPAN

To sustain its focus on the quality of its product and services. Marico created an interactive Web-based IT-integrated quality portal called DARPAN.

All consumer complaints, queries are recorded in this system. The consumer gets a unique complaint/query number on his mobile/via mail once his complaint gets registered for future tracking. Trade complaints can be registered. The Mould Management system covers mould information from development,

commissioning, revalidation to decommissioning the mould. The Artwork Management System (AMS), that has been integrated with DARPAN makes the portal a one-point access for all AMS users. Benchmarking is an interactive Web-based workflow designed module which captures benchmarking data and triggers information/action to the concerned stakeholders.

In a pre-DARPAN era, quality management was done through multiple

applications which had a transactional view. Decision makers had to consolidate several sources and arrive at analytical information. Several sources were offline or restricted due to lack of the tools and technologies for sharing as well as compiling information.

Post implementation, Darpan came to the aid as a digital tool that consolidated all quality efforts under one roof and offered an integrated quality initiative with all processes. It also offered cross process linkage to aid interprocess visibility.

The portal has several innovative features such as: 'One click option' for quick and easy navigation; online MIS reports that are customizable according to requirements; an auto color-coding system for helping users prioritize on the basis of visual inputs; instant alerts on sensitive complaints through SMS, etc.

#### **HIGHLIGHTS**

- > Consumer queries increased almost 10 times in two years
- > Saved manpower costs of up to ₹6 lakh per annum
- > 50 percent reduction in the timecycle

#### SNAPSHOT

Company: Marico

Project: Web-based IT integrated portal 'DARPAN'

Project Head: Girish Rao, Head - IT

# Co-operation leads to optimum results

The co-operative sector in India is growing steadily. This also means that it has to compete with local players and stay ahead in the game. The co-operatives are emphasizing more on customer service and developing effective data gathering tools. They are steadily adopting ICT but the systems are useful only within the local area.

The farmers who give their produce (in this case, chiku fruits), have to g o to the co-operative society for price-related issues. The officials of the co-operative then manually generate chiku-loading data for every truck, transfer this to .pdf format, and e-mail this file manually to the dealer. The dealer then checks the information sent by the co-operative and sends the final sales rate along with his commission after all the produce is sold.

Another issue the co-operative faced was integrating the fruit dealer's system with those of the co-operatives since

#### **HIGHLIGHTS**

> Farmers can get fruit rate information before selling their produce. They can compare the rate with the co-operative rate and get a better price for their produce

#### SNAPSHOT

Company: Amalsad Vibhag Vividh Karyakari Sahkari Khedut Mandali SI Partner: Synergy Info Solutions Project: Fruit market price tracking application Project Head: Hemantbhai Naik, CEO and Sanjaybhai Naik, Manager

they exchange a lot of data between themselves. Earlier, e-mail was used as a medium for this data exchange.

To address these challenges, Amalsad Vibhag created a Web-based application called 'Chiku Rates' that provides accurate and timely information to farmers, cooperatives and dealers. This application automatically synchronizes data between the co-operatives' local database server

and a common Web server. There are two modules—one for the viewer to check produce rates and the other for the dealer who sells the produce in the open market. With this application, a viewer can view chiku rates on a particular day just by entering that date. On the dealer side, the system automatically synchronizes billing, lorry receipts and material-sent data with the dealer system.

# Taj Group redefines hospitality through iTV

To provide a better customer experience to its guests, the IT Department of Taj Hotels Resorts and Palaces has implemented the 'iTV' in the flagship properties of the Taj. iTV is the acronym for 'Interactive Television', though the television part of it acts as a mere high-definition video display in the whole system. The iTV system was developed with cutting-edge technologies to integrate the following systems in a micro-form factor set-

top-box: general television; on-demand movies, video and music; Internet browsing; Internet Radio; hotel and travel information.

The system is fully integrated with the hotel's property management system for billing and guest check-in/out information. Prior to iTV, Taj provided standard multi-channel television as the only form of entertainment for guests. In some cases, a DVD player/amplifier was provided to the guests to enhance their audio and video experience. This setup offered limited entertainment with no multimedia experience. To enhance the entertainment experience, Taj designed and implemented iTV in conjunction with speech and software Technologies.

Since the architecture is based on open standards, the hotel can host innovative customized applications such as in-room environmental control systems interfaced with in-room-communication, guest satisfaction surveys, in-room dining, virtual concierge, event list display, property way finder, games, maps, weather information, currency conversion etc.

The hotel has also succeeded in generating revenue through advertisements by luxury brands such as Jaguar, Louis Vuitton, etc, and by providing services like personal video conferencing using the existing infrastructure in the room.

#### **HIGHLIGHTS**

> iTV is expected to generate signifi cantrevenue through its services and offerings. The hotel has generated revenue through advertisements by luxury brands

#### SNAPSHOT

**Company:** Indian Hotels Company

Project: Interactive Television Project Head: Prakash V Shukla, Sr. VP - Technology & CIO

# Farmers in Orissa get a 'smart' tool

When the Government of Orissa conducted a study to identify issues impeding the growth of agriculture in the state, it found that farmers are not aware of the importance of soil profile for different crops. Those that were informed did not have immediate access to a soil-testing lab since it was located at a distance. There was no facility for the farmers to track the availability and cost of various agricultural inputs such as seeds and fertilizers, or weather changes.

The farmers had to depend on the local village agricultural worker or village experts for identification of crop disease and treatment. They had no option to know the current market demand or the current price of his produce, and would end up selling the produce at meager prices.

Further more, the farmer's level of awareness of different Government schemes was poor. There was no single

#### **HIGHLIGHTS**

- > Soil information reporting time reduced from 30 to fi vedays
- > Complaints related to crop diseases addressed by experts within two hours

#### **SNAPSHOT**

**Company:** Orissa e-Governance Services

Project: Project Smart Krishi

Project Head: D N Gupta, Commissioner-cum-Secretary, IT Dept, Govt. of Orissa and Chairman, OeSL

window facility to apply for Government schemes such as application of irrigation/ establishment of Krishi Sahayak Kendra.

The Government deployed a Web 2.0-based application under the project Smart Krishi, which aims to provide facilities for online information on soil conditions to the farmer at his doorstep. The application is designed to provide advisory services based

on current weather forecasting and preventive measures against crop/ vegetable diseases. The solution can inform the farmer about the availability of different types of seeds and fertilizers at the nearest location along with their price and also help get the best price for his farming produce with respect to urban areas. This project has currently benefited 214 villages in different parts of Orissa.

# PVMI gets faster claim management system

Claim settlement at Perfetti Van Melle India () was a manual process based on an outsourcing model. All PVMI distributor claims were verified and submitted for approval by a third-party BPO. Since this information was not stored in a centralized system, the turnaround time for settling claims was higher. It required additional resources to verify the claims data submitted by the third party before the payments were processed. This process was completely

manual—with the amount of errors and chances of errors being high.

To resolve these challenges, the company deployed a SAP-based automated claims settlement called Distributors Claim Management System (DCMS). The system was designed to capture the distributor claims received from various distributors of the company, across India.

The related operational challenges of processing such a huge number of claims

was to be addressed through automating the entire flow using DCMS. It aimed at a centralized control mechanism to make the process more transparent and visible throughout the system. DCMS would increase employee productivity by reducing the manual process of claims settlement and data.

The deployment has completely automated the claims settlement process which is now executed inhouse centrally. This has not only ensured faster turnaround time when settling claims but also ensured better enforcement of controls, greater process transparency and improved productivity. Earlier, three resources per branch were engaged in verifying the claims. Now, only one resource is engaged in data entry; the other two can be assigned other productive work. Faster claim settlement has also ensured improved customer experience and business reputation.

#### **HIGHLIGHTS**

- Claims settlement turnaround time has improved by 50 percent
- > Manpower requirements have reduced from 12 to 6 resources

#### **SNAPSHOT**

Company: Perfetti Van Melle India (PVMI)

**Project:** Distributors Claim Management System (DCMS)

**Project Head:** Basant Kumar Chaturvedi, Controller IT

# Pimpri-Chinchwad: In a league of its own

Developed as a supporting township for Pune, Pimpri-Chinchwad has emerged as an alternative in its own right with strong auto and auto-ancillary industries at its core. Considering the changing requirements of the city, a major change was required in the way Pimpri Chinchwad Municipal Corporation (PCMC) served its citizens. PCMC hence embarked on developing an integrated e-governance programme to improve transparency, efficiency and build a citizen-centric governance.

This project involved 11 corporation departments, that are computerized. The Citizen Facilitation Center (CFC) is a successful project that provides services to citizens with more than 99 percent efficiency. In addition to CFC, PCMC delivers the following services online to its citizens:

SMS-based complaint monitoring system has led to faster resolution

#### **HIGHLIGHTS**

> Under the e-Tendering project, the cost of annual printing of tender documents (earlier around ₹ 50 lakh) has been reduced to nil since no printing is required post implementation

of complaints due to a continuous reminder system

- Solid Waste Management allows citizen grievance regarding garbage collection to be attended to immediately
- Building Permission Management has reduced the time required to provide residential and commerical building permission
- E-tendering system has reduced the tender evaluation and award time

#### SNAPSHOT

Company: Pimpri Chinchwad Municipal Corporation

Project: e-Governance

Project Head: Nilkantha D

Poman

- Property and Water Revenue Management: Prompt payment of taxes has helped in cash flow management: faster access of tax defaulter's information helps in taking corrective measures
- Dashboard for Works Management records the expenditure and assets created during the year, and has led to better project management since the current status of project is available to a senior engineer

# ReGen automates business processes

Reliance Life Sciences (RLS). a biotechnology-led, life sciences organization, is developing business opportunities in the domains of medical, plant and industrial biotechnology.

ReGen is an integrated system that addresses the current and future requirements of the regenerative initiative of RLS. ReGen was conceived to address the lacunae in the existing solutions that partly addressed the

business requirements of cord blood logistics. ReGen supports the current and future needs of cord blood and stem cell research at RLS and will enable the business to effectively interface with its customers.

ReGen has enabled the business development group to focus on its customers more effectively through timely alerts that are provided to the field staff about their customers. Some of the measurable benefits that have

come about for field force are:

- Immediate alert on any enquiry through SMS, enabling a better response from field staff and therefore higher conversion of prospects
- Ability to respond to customer queries and requests on 24/7 basis
- Ability to provide information about samples to customers on real-time
- Sales team's efficiency Benefits of an integrated system such as ReGen go beyond cost optimization in respect of enablement of business process. Deployment of ReGen has enabled the business to process higher volumes of samples with the same amount of resources in a more efficient manner.

#### **HIGHLIGHTS**

> Calculations during accessioning, cell viability and cell count tests are done from the system. Users can now concentrate on their core work instead of doing calculations

#### **SNAPSHOT**

Company: Reliance Life Sciences

Project: ReGen

Project Head: Gopal Rangaraj

# ERP leads to increased agility for RML

Reuters Market Light (RML), part of the Thomson Reuters group. offers Indian farmers up-to-date, local and customized commodity pricing information, news and weather updates through SMS-based subscription.

There was a challenge in terms of discrete systems being employed for voucher management, inventory and activation; user profiling, content and complaint management. As a result, the customer support executives had to access multiple systems at the time of activation and complaint redressal which resulted in delays and errors. There was also no method of tracking vouchers from the company warehouse to the district-level distributors to the final resellers. Financials backend were not totally integrated with the Sales and Support front end in a single system. This made it very difficult for the management to have a holistic

#### HIGHLIGHTS

> RML now provides information on over 150 crops, 1,000 markets and 2.000 weather locations to over 200.000 farmers across 12 states of India

#### SNAPSHOT

Company: Reuters Market Light (RML)

SI Partner: Greytrix India Project: Sage CRM along with Sage Accpac ERP **Project Head:** 

Chitra Rajalakshmy

view of the entire customer business intelligence.

Sage Accpac ERP, tightly integrated with Sage CRM, has unified the disparate systems to create a single platform. This has ensured seamless flow of information from one system to the other. Sage Accpac ERP maintains an inventory of vouchers and tracks the flow of vouchers through two levels of distribution. Sage CRM is tightly

integrated with user-profiling system and a content management system. This ensures that updates and changes in customer requirements are automatically pushed to the user profiling system which sends out SMS messages. As a result, a 360° view of the customer database, usage patterns, crop metadata and information requirements, has improved the efficiency of the call center during service activation.

# Great Eastern Shipping Co. navigates smoothly

Like any other major shipping company, the Great Eastern Shipping company faced a major challenge with respect to day-to-day fleet management. The company required that data be gathered from a huge number of different sources. The diversity of sources-ranging from proprietary applications such as ERP, spreadsheets, printed documents-made the task of collecting and analyzing data a tedious process.

To aid in better and faster access to information, the firm wanted to make all the relevant data available to employees from a single central location. Accordingly, the firm deployed a software solution called LIVIS, i.e. Live Vessel Information System.

The system is designed for all users to view any operational data in a single central place. The data and documents are pulled from different systems from

respective systems such as ERP, DMS and proprietary ship-based applications. Today, thanks to the system, business leaders can quickly access relevant data online. The system works like a search engine for the organization which pulls any set of data based on a combination of parameters selected by a user. This has significantly increased the overall efficiency and productivity.

The system has a proper access control mechanism mapping with a Windows Active directory. Access to data is available only to authorized users.

The system also plots the geographical position of each ship (around 37 ships) on the World Globe of Google Earth, based on latitude and longitude supplied by a third party vendor (Purple Finder) through e-mail. The system reads e-mail automatically, when it reaches a specific mailbox, and plots the position accordingly.

#### **HIGHLIGHTS**

> Post deployment, instant availability of data and corresponding analysis of information has brought in huge effi ciencygains for the whole organization

#### SNAPSHOT

Company: The Great Eastern Shipping Company

Project: Live Vessel Information System (LIVIS)

Project Head: Anjab Deb,

CIO

# TCI ensures timely payment to vendors

As a premier logistics company, Transport Corporation of India (TCI). wanted to ensure that its vendors received timely payment for their services. While the firm had different software applications to pay vendors, such as Vehicle Vendor Payment, Business Associates Payment and Octroi Agent Payment Module, these applications were decentralized.

As a result, payment to vendors was not systematic and as per schedule. TCI decided to centralize the payment mechanism, and automate the process of payments. In the centralized payment system, the solution automatically generates a date-wise liability against respective documents and credits the respective vendor. Subsequently, the corporate office makes the payment as per schedule, and issues the payment to the vendor. The amount gets credited in his bank account via online bank

#### HIGHLIGHTS

> Automated mode of payment has reduced the time required to pay vendors from a week to half a day

#### SNAPSHOT

Company: Transport Corporation of India (TCI)

**Project:** Automating payment to vendors

Project Head: Sudesh Jain, Senior VP - IT

transfers.

Prior to this solution, payment of vendors, business associates and Octroi agents was being done manually with limited control. Today, the automated mode of payment has ensured strict control mechanisms and timely payment which in turn has resulted in reduction of cost due to on time payment through auto credit.

This has made the mode of payment faster, more systematic and automated

and reduced the time required from a week to half a day. There is better utilization of finance since the accounts department knows how much it has to pay on any particular day. The overall fund management has also improved.

There is better utilization of finance since the Accounts department knows how much it has to pay on any particular day and fund management is improved. There is a single window of control and it requires no manual intervention.

# Visitors welcomed more efficiently at Trident

Trident is the only 5 star hotel within Bandra Kurla Complex, a financial and commercial district of North Mumbai. For Trident, it was important to consider security challenges and design systems which give more information and make processes as secure as possible.

Considering the above, the Visitor Management System (VMS) was evaluated and implemented to overcome operational challenges arising from such factors as a manual register process,

tedious reporting at the end of month, the lack of a visitor company database. and call costs to the inside team when visitors arrived. To overcome these challenges, Trident evaluated fully automatic applications or systems that could perform the above tasks, with less human interaction and thus save time, costs and more importantly, keep track of the identity of each visitor.

Trident decided to deploy a VMS system from Cogent Solutions-tuned to meet its specific requirements.

The VMS is Web-based solution that works on SQL 2005 express edition as the backend. Different products have been integrated with the VMS software. These include a card scanner, Web camera, barcode reader, digital signature, colour printer and an SMS module.

The system monitors traffic through the reception in any given time period and provides information on waiting time in the reception.Flexible and automated communication processes have helped save time. It captures visitor information in a computerized log. Employees are emailed on arrival of visitors. The system using built-in reports or employees can create their own reports.It also provides a 'Look out/Watch' list with photographs. The system also ensures that there are no repetitive data entries, that unregistered or unplanned visitors are dealt with efficiently.

#### **HIGHLIGHTS**

- > Provides complete management information on reception activities
- > Saves time through fl exible and automated communication processes

#### SNAPSHOT

Company: Trident

**Project:** Visitor Management

Systems

Project Head: Ravish Jhala,

Head - IT

# How MSRTC improved its ticketing process

Maharashtra State Road Transport Corporation (MSRTC), India's largest state government transportation corporation, was facing key challenges related to ticketing, data integrity, BI, and customer centricity.

MSRTC planned India's first statewide Electronic Ticket Issuing Machine (ETIM) and Online Reservation System (ORS). The overall objective of this project was to modernize the existing passenger ticketing and manual seat reservation system with effective use of IT, to provide maximum benefits to citizens and MSRTC.

The project involved connecting all 247 bus depots of MSRTC to MSRTC's Mumbai Central head office on a network. ETIM is the mechanism wherein a handheld device is used to generate tickets between locations on the basis of programmed information. ORS is a hosted Web application to

#### **HIGHLIGHTS**

- > MSRTC brought down the cost of ticketing to only 38.88 percent of the pre-deployment cost
- > 68 depots saved more than 180 man days as compared with working on older systems

#### SNAPSHOT

Company: Maharashtra State Road Transport Corporation (MSRTC)

SI Partner: Trimax IT Infrastructure & Services Project: Electronic Ticket Issuing Machine and Online Reservation System

facilitate passengers in booking their journey tickets over the Internet. Post deployment of ETIM:

- Printing and distribution of paper tickets is not required
- Data collection and report generation require less resources, time and energy
- There have been savings of 9.84 crore ticket leaves

The ORS system has resolved problems such as delayed revenue

reconciliation and revenue data consolidation. Cash deployment and management have improved since calculations and auditing are done by the systems instantly. Thus, the scope of mistakes or leakage has been diminished. The new system has also optimized fleet management since it provides several cross-database analytical reports such as data of buses carrying underutilized capacity of passengers.

# A step closer towards financial inclusion

ATMs cannot be installed in remote places due to high costs and recurring maintenance expenses—unless there is a clear case of business viability and sufficient density of banking population around. Atom Technologies developed Cash@POS solution for Union Bank of India (UBI), where cash withdrawal would be possible from a point-of-sale terminal

at merchant locations.

The first 'Cash@POS' terminal for UBI at Jamburi Habsi village a few kilometers away from Indore in MP. Eleven machines have been deployed at different merchant points (in villages of UP and MP where there no ATMs) in less than two months since the project began.

Post deployment of Cash@POS, the

following benefits were seen:

- Improved customer satisfaction: The service is also available at the nearest stores which helps UBI capture new customers.
- The solution has helped the merchant to manage the cash in more efficient way by providing the cash withdrawal facility at the store
- Deploying POS@Cash machines has helped UBI reach more customers, thus increasing its reach/presence in as yet untapped regions
- As on May 31, 2009, the number of ATMs and POS terminals in the country stood at 44,857 and 4,70,237 respectively. Cash@POS can help solve the problem of bringing people under the financial ecosystem, thereby making financial inclusion a reality rather than just rhetoric.

#### **HIGHLIGHTS**

> Providing banking facilities to 6 lakh villages in India is difficult for fi nancialinstitutions. The Point of Sale (POS) terminals are the latest tools to achieve 100 percent fi nancialinclusion since the cost of setting up ATMs at remote locations is much higher than POS terminals

#### SNAPSHOT

Company: Union Bank of India (UBI)
SI Partner: Atom
Technologies

**Project:** Cash@POS implemented at retail points for UBI

# Online application boosts revenue for Axis

For Axis Asset Management, the biggest challenge was to have maximum points of presence in the shortest possible time before the launch of its first new fund offer Equity scheme. The company currently has 62 branch offices across India. Setting up the required infrastructure at all these branches would prove to be time consuming.

The company required a secured e-transactions platform that would allow investors/distributors to transact from any location with ease. It would also provide daily notifications and reporting. It would give the investors to act immediately in volatile market conditions.

Hence, Axis Asset Management deployed a Web-based application that would allow users to transact online until its branches were set up across its 62 locations. The application looked at making most of its internal operations

#### HIGHLIGHTS

> Within three months of deployment, the application has generated business worth ₹ 63 lakh through e-transactions. There are more than 3,000 registered investors till date

paperless with modules such as 'Employee Expense Management.' This system allows the Finance department to track local conveyance and miscellaneous expenses online. It issues reimbursements in a faster and more organized manner.

The application also has a system called 'Leave and Attendance Management' that allows the payroll department to track employee leave and attendance-across the 62 branch offices-with greater ease online.

#### SNAPSHOT

Company: Axis Asset Management Company

**Project:** Online e-transaction application

Project Head: Tejas B Shah

Post deployment, the company has observed several benefits. Investors can act immediately during a volatile market situation. There have been infrastructure savings pertaining to setting up branches, electricity and manpower. Daily notification and reporting is now possible. The application provides a secure platform for e-transactions. Within three months of its launch, ₹ 63 lakh worth of business was generated via the application, with more than 3,000 investors having registered till date.

# **OSKAR** boosts knowledge sharing

Knowledge management is vital in improving productivity at the business level for any IT services company. The challenge for Mahindra Satyam was to establish a knowledge sharing platform for around 250,000 associates working globally. Associates had to invest much time in locating the owners of information and then in verifying the authenticity and accuracy of this information. This posed a huge challenge in the absence of a unified

view of the knowledge repository. The business heads encouraged knowledge augmentation and segmentation, since there was no other mechanism available to deliver solutions. This resulted in a lot of duplication in activities.

To overcome these challenges Mahindra Satyam devised OSKAR (Organization's Strategic Knowledge Assets Realization) program, in 2009. The OSKAR framework has a unique knowledge asset evaluation model,

an expert evaluation model, and an integrated knowledge maturity model which objectively and continuously rates individual business units as well as the organization as a whole on a scale of 0 to 5. A highlight of this solution is 'Communities of Passion' or CoPassion, which is a unique mix of technologies and a core strategy developed to ignite the entire OSKAR platform.

Post deployment, knowledge management processes, servers and tools were seamlessly integrated into the OSKAR platform. Employees spent 80 percent less time finding knowledge specific to their roles. In fact employees were inducted into a new customer engagement faster by a factor of 60 percent. This has improved customer service as customers now receive products with less defects and at 25 percent lower costs, due to reuse of knowledge assets.

#### HIGHLIGHTS

- > 20 new service offerings were discovered, packaged and published to Mahindra Satyam customers in just six months
- > 15 customers placed repeat orders due to better knowledge

#### SNAPSHOT

Company: Mahindra Satyam

Project: OSKAR program (Organization's Strategic Knowledge Assets Realization)

**Project Head:** 

Rajan Nagarajan, CIO; Rajiv B Deo (Implementor)

### SMS service disseminates information faster

For the Agricultural Department of Maharashtra, the traditional system of distributing information about crop management, crop health, etc to farmers had the agricultural officers visiting each farmer to provide him with this information. Since the earlier process was time-consuming and manual, information on important events and schemes was not available to farmers on time. The information was disseminated in a paper-based document—this increased the chances of errors.

Passing information on a mass level meant that state-level, division-level and sub-divisional level officers communicated with farmers through camps. The smallest communication between the staff of the Department or between the Department and the media was passed on through these meetings. This rendered the approach ineffective and time consuming.

#### **HIGHLIGHTS**

> Farmers will get timely and location-specific information about crops, pesticides, weather, important events and schemes

#### SNAPSHOT

Company: Vidya Pratishthan's Institute of IT Project: MahaAgriSMS

Services
Project Head: Dr Amol C

Goje, Director

To resolve these issue, Vidya
Pratishthan's Institute of IT deployed
an application for the Agricultural
Department of Maharashtra that
would allow the department to pass on
information to farmers via SMS. The
service, which is called 'MahaAgriSMS,'
is designed to allow department officers
to send information about new pests,
fertilizers, pesticides, weather forecasts
via SMS. The messages are available in
English and Marathi and can be sent to

farmers as per their requirements.

The SMS service can also be used to communicate with other staff members, media and MLAs. The software has an Admin. dashboard which gives detailed information about crops, farmers, agriculture department officers and offices. The application also allows officers to view various various reports related to farmer details, date-wise SMS reports, taluka-wise farmer reports and crop-wise farmer reports.

# Accelerating towards greater efficiency

Motorcycle manufacturer, Yamaha India wanted its customers to have the best possible experience at its dealerships and services centers. This could only be possible with a solution that connected the organization with its dealers on every aspect from sales, service to spares and accessories.

The solution created by its IT arm brings together relevant data from legacy applications and other enterprise applications for powering efficient business processes and handling Sales, Service and Spares functions at the dealer's side. The system also interfaces with an SMS gateway and utilizes mobile technology for establishing connects with customer. Earlier, the information was sitting in multiple systems leading to duplication of effort, inaccuracy in data and reporting, which increased employee effort and increased costs significantly.

With its new Dealer Management System (DMS), Yamaha and its dealers are able to provide a one-point service to its customers. Additionally, inefficient planning of spare parts and capacity is now a thing of the past. The DMS ensures there are no delays in availability of parts and accessories, nor is there an excess supply. Increase in accuracy has enabled the company to significantly reduce inventory holding costs for its dealers.

With data sitting across multiple systems, loyalty programs were difficult to roll-out at a national level. However, with the in-built CRM module, the firm is able to efficiently track and reward loyal customers. Overall, expenses incurred on free services have been reduced by 30 percent. The savings have mainly been in inventory holding, free service coupon redemption cycle and repeat business.

Yamaha says this software is versatile and cost-effective with free upgrades and no long-term contracts.

#### **HIGHLIGHTS**

> Expenses incurred on free services have been reduced by 30 percent. Savings are in the areas of inventory holding, free service coupon redemption cycle and repeat business

#### **SNAPSHOT**

Company: Yamaha India Project: Dealer Management

System (DMS)

Project Head: Sanjay

Aggarwal

# Lowe Lintas simplifies content management

One of India's top advertising agencies. Lowe Lintas prides itself on using the latest technologies to improve its operations and customer satisfaction. However, there was no central repository of creative work for future reference or any other business usage. This limitation led to constraints in collaboration and effective knowledge management.

The company needed a solution that would make it easy for top executives to communicate directly to employeesother than via the common e-mail route; a place to promote employee and team achievements; and a location wherein multiple groups could manage and store information that employees required on a daily basis.

To achieve these objectives, the firm implemented Microsoft Office SharePoint Server 2007 to power its Intranet portal. Besides increasing collaboration and providing users with a UC platform, the

#### HIGHLIGHTS

> The discussion forums help employees collaborate while keeping a complete thread, which can be retrieved for any future reference

#### SNAPSHOT

Company: Lowe Lintas **Project:** Intranet Portal Project Head: Pravin Savant. Chief Technology Offi cer

firm plans to leverage the platform to capture new business leads and key customer contacts.

The Intranet portal helps utilize many ready-to-use features saving time and cost. For example, an organization-wide survey would have demanded higher cost and time apart from logistics challenges. However, with the new solution, the company is able to implement it with complete ease.

Given the line of its business,

creativity and collaboration is mission critical for the company. The discussion forums help employees collaborate while keeping a complete thread which can be retrieved for any future reference. In addition, the regional office teams find it much easier to keep in pace with what's happening around the organization. The Brain Food section helps retain and share useful information, which can be eventually developed as knowledge management.

# ICT intervention for livestock productivity

The project is an attempt for enhancement of livestock productivity through ICT intervention. The project envisions reducing the inter-calving period and adopting an appropriate breeding policy in the state of Orissa. The project has been sponsored by UNDP through the Department of IT, Government of India, and subsequently by the Government of Orissa.

In the livestock sector, the situation before the project initiative was

unorganized. The service delivery mechanism of the government was clinic-centered and focused on curative services, rather than preventive services and capacity building. The productivity of the dairy animals was poor-this made dairy farming a non-remunerative enterprise. Due to rising urbanization and a higher growth in per capita income of the urban population, there has been rapid growth in the demand for food of animal origin. To meet this inceasing

livestock systems have to be developed much faster. monitoring mechanism of the entire

demand for milk and milk products, the

In a post deployment scenario, the reproductive cycle of the crossbred cows have been developed with the active involvement of veterinary departmental officers/service providers and retired veterinary professionals. The initiative facilitates a friendly environment between livestock farmers and service providers. Re-orienting and re-structuring current veterinary services has been done with the target of enhancing productivity. A useful database has been developed to provide a decision support system to government departments/functionaries, to plan different interventions and for assured service delivery to citizens. A village livestock resource repository has been developed.

#### HIGHLIGHTS

- > Increased livestock ownership in poor rural households has been achieved
- > Improved livestock inventory and viable information have helped in decision support systems in link industries

#### SNAPSHOT

Company: Orissa e-Governance Services

Project: ICT intervention for livestock productivity

Project Head: D N Gupta, Commissioner-cum-Secretary, IT. Government of Orissa



### Enterprise Applications o

### Online presence boosts sales for AEGON Religare

As one of the new insurance companies, AEGON Religare Life Insurance wanted to introduce a new concept wherein the client had the option of buying insurance through an online medium.

To achieve this, the firm launched an e-Sales portal, which is said to be the first in the Indian life insurance industry. Using this portal, the customer can determine the ideal insurance amount needed, compare it with other insurance products of a similar category, fill basic information about oneself and one's family, make the necessary payment and get secure immediately.

In the background, the e-Sales portal talks to various core systems like policy administration system, customer relationship management system and workflow system. The eSales portal is designed to do automated underwriting with the help of rule engines. This

#### **HIGHLIGHTS**

- > Turnaround time for issuing policies has come down to fi ve minutes from three days
- > Project has helped the fi rm garner ₹ 3 crore in the fi rstfi ve months of the portal's launch

#### SNAPSHOT

**Company:** AEGON Religare Life Insurance Company

Project: e-Sales project

**Project Head:** 

Srinivasan Iyengar, Director – IT & Operations

project was executed on agile project management techniques using a framework from CORDYS, which uses agile development. By using CORDYS, the solution was developed and deployed in just five weeks.

For the first time in the history of the Indian insurance industry, the customer could identify his need and buy a life protection with a policy schedule in less than five minutes. The online portal also

helped the insurance firm get a new sales and delivery channel for reaching out to customers. At the end of the sale, the customer gets the policy schedule, acknowledgement receipt and the premium receipt.

The success of the platform can be seen from the fact that the new online channel has helped the firm garner around ₹ 3 crore in the first five months of the portal's launch.

# Bajaj drives core functions to the cloud

Bajaj Finserv recently moved its consumables, financing and cross-sell divisions onto Salesforce.com. Thus, it has extended the functionality of cloud-based CRM to 300 employees across over 50 Indian cities.

Among the multiple reasons for moving to a single platform CRM was a need to achieve a greater ability to drive the loan product in the stores. The firm needed the CRM solution to have unlimited scalability for end-to-end new loan underwriting. In addition, Bajaj wanted to build campaign management systems for targeting customers with a good payment record by extending the personal loan offers available to them. These typically involved identifying 1.5 million eligible customers from a database of around six million and then

managing these contacts through an end-to-end sales cycle.

Wipro delivered the Salesforce CRM for 300 users in April 2009 and Bajaj set about using the system's intuitive customization toolset to bring all the division's major processes online with the integration of a call center application dialer, internal dedupe system, credit bureau, and corporate mobile services (for SMS notification functionality) and more recently Google Maps (to access customer locations from within Salesforce.com). The facility for sending SMS directly from Salesforce.com to dealers to communicate loan approval has had a significant impact on loan turnaround times.

Post deployment, the firm has seen a 66 percent increase in business volume at the counter. Additionally, Bajaj has achieved 100 percent decision accuracy within the underwriting function.

#### **HIGHLIGHTS**

- > Post deployment, the fi rmhas seen 166 percent increase in business volume at the counter
- > Cross sell conversion rates have gone up by 66 percent from Q1 to Q2 after the implementation of Salesforce.com

#### **SNAPSHOT**

Company: Bajaj FinServ

Project: Moving onto Salesforce.com, extending the functionality of cloud-based CRM

SI Partner: Wipro

Project Head: Jaykrishnan C

### **SAP** powers Carnation's drive

Carnation is a start-up with less than two years of commercial business operations. This is primarily driven through a brick and mortar auto solution hub network spread across India. Each auto solution hub caters to customers through seven business verticals-regular mechanical servicing and accident repairs, car customization, pre-owned cars, car exchange, workshop on wheels, financing and insurance. As the business model of the firm has no precedents in the country, the firm wanted to use technology as a key driver to accelerate the company's business.

Accordingly, in the first year of its inception, the company took a strategic decision to implement SAP ECC 6.0 DBM (Dealer Business Management 7.0). This is the first implementation of SAP ECC 6.0 DBM in the Asia-Pacific region for a multi-brand automotive service chain.

The project was successfully

#### HIGHLIGHTS

- > Carnation has successfully expanded operations in 13 cities in just 15 months
- > Centralized technology infrastructure has enabled the firmto monitor the new business model on a more granular level

#### SNAPSHOT

Company: Carnation Auto India

Project: SAP ECC 6.0 DBM (Dealer Business Management 7.0) implementation

Project Head: Mohit Agarwal, VP - IT

implemented in a record four months and rolled out in almost 20 locations pan-India. It is significant that this was done in a start-up environment with an evolving business model. During the implementation, the organization added three new business verticals and these verticals were successfully integrated in the implementation

The implementation has allowed the

firm to successfully expand operations into 13 cities with 20 locations in approximately 15 months. The SAPenabled system processes have allowed workflows to be implemented for automated hierarchical approvals and controls. This enables tasks to be completed automatically rather than with manual follow-up from 20 locations and across multiple hierarchies.

# Coromandel accelerates data capture using ERP

Coromandel International, a part of USD 3 billion Murugappa Group, is primarily in the business of selling fertilizers, pesticides and specialty nutrients.

The firm ventured into rural retail from April 2008. The plan was to set up around 430 rural retail stores in the state of Andhra Pradesh. To aid its business operations, the firm decided to implement an ERP for its rural business.

However, considering that rural retail stores were located in the deep interior parts of Andhra Pradesh, there were challenges faced in terms of erratic power and network connectivity. To overcome this, Coromandel chose an online off-line application for its retail ERP venture. The firm has deployed Microsoft Dynamics NAV at the head office and LS Retail at the rural retail store location, keeping in view the

skillsets of rural end-users.

The firm has implemented Purchase. Supply Chain, Finance, Merchandising modules, POS and In-Store Management applications. Currently Coromandel has connected 424 rural retail stores, five lifestyle distribution centers and 25 pesticide godowns. These locations connect to a central server using Citrix. The project is scheduled to cover around 5.000 farmers.

Today, thanks to the ERP, 98 percent of retail store data is captured at the head office before the month closure. This has enabled the firm to close the entire retail operation on the 2<sup>nd</sup> of every month. Further, analysis of information in the system enables the firm to know purchase trends, farmer requirements and develop promotions as per requirements.

#### **HIGHLIGHTS**

- > Monthly closing of entire retail operation is done on the 2<sup>nd</sup> of every month
- > 98 percent of retail store data is captured before monthly book closure

#### SNAPSHOT

Company: Coromandel International

SI Partner: Datasoft Comnet

**Project:** Implementation of **ERP** for Rural Retail

Project Head: Vikram Alwa, Vice President - IT



### Enterprise Applications o

# Dr Reddy's slashes chargeback processing time

All pharmaceutical companies are shifting their focus on maximizing revenue from their programs and contracts while ensuring regulatory compliance. When a pharma product goes out into distribution channels in the US, the dollar revenues do not come back in full. The pharma industry deals with rebates to government entities and incentives to certain retailers.

Chargeback is the difference between the price at which a product is sold to wholesalers and the short realization at negotiated prices with end customers. This must be reconciled with the wholesale prices. There are also product returns whose cost must be verified. All these claims, discounting or inventory reconciliation represent potential revenue losses for the manufacturer if not properly reconciled. The lost revenue—'leakage'— amounts to 4.4 percent of industry revenue.

#### HIGHLIGHTS

- > Twenty-five percent savings in costs incurred on chargeback transaction processing
- > Reduction of around 150 to 200 man days effort to process the chargebacks

#### SNAPSHOT

Company: Dr Reddy's Laboratories

**Project: Implementation** of SAP – Chargeback Management solution

**Project Heads:** 

Saumen Chakraborthy, CIO B V Srinivas, Deputy CIO

To handle the entire chargeback processing, the firm selected SAP Chargeback Management Solution, an add-on (Vistex) to SAP. The solution has been implemented for the first time in India for a generics company.

The contracts with the retail parties are now in SAP. This is a major benefit since the other aspects of the customer, along with the pricing conditions and

the regular sales transactions etc are already in SAP. The new system also has the roadmap to government pricing and rebates process. These transactions give adequate oversight into the data on rebates and realizations from the customers. Further, the time taken for closure of books has reduced significantly, since all the transactions are in one system.

# Essar Projects simplifies project management

Essar Projects is an EPC company skilled in handling Industrial, Marine and Pipeline projects with operations across India and abroad. For this firm, creation of standardized and unified service activity codes for different projects was always a challenge. Additionally, the firm had no capability for analyzing the cost of work. Project E-Smart was

an approach to simplify service code creation with control on duplication and the facilitation of comparisons of costs.

The solution allows employees to codify, create and track all service activities in an organized manner. Users are able to generate unique service activities by a simple click-and-choose method from a pre-defined template for a service type. The created service activity is defined according to workflows for quick approval. Approved service requests translate into a service master record and get pushed into SAP. This software application transforms the current antiquated paper and filing approval and manual updation process in SAP into a highly functional workflowenabled system.

Post deployment of E-Smart, the service codification happens automatically from a pre-defined template logic without the need for manual intervention.

Due to the unification of the service activity codes in E-smart, a comparisons of rates across projects and vendors for the same service can be done. This solution has proved to be extremely relevant in environments where multiple execution points exist.

#### HIGHLIGHTS

- > The solution can help analyze and improve the quality of recurring services
- > A comparison of the rates across different projects and vendors for the same service can be done

#### SNAPSHOT

Company: Essar Projects
Project: Project E-Smart to
simplify service code creation
with control on duplication

Project Head: Tata Srinivas

# ERP helps Essel Propack boost profitability

As one of the largest manufacturers in the country, Essel Propack has its manufacturing spread across 10 countries and 21 locations. All these manufacturing units were running disparate systems due to numerous company acquisitions by Essel Propack across the globe. Each country had its own local systems. Hence, there was no consolidated MIS for timely decisionmaking.

The company was looking at deploying an ERP with a single instance in seven languages for improving its topline and bottomline. The objective was to streamline and seamlessly integrate business processes that impacted the supply chain.

Hence, Essel Propack decided to migrate all its legacy systems to SAP ECC version 6.0. The objective was to standardize the ERP system across 21 locations for better productivity, and

#### HIGHLIGHTS

> Reduction in man hours for closing monthly balance sheet and P&L resulted in savings of USD 300,000 per year

#### SNAPSHOT

Company: Essel Propack

**Project:** Enterprise-wide implementation of a single ERP instance

Project Head: Suresh Kumar R

enable accurate reporting for timely decision-making. Today, the company has standardized the operational process into a single global process across all 21 manufacturing locations. It has also consolidated all the data centers and Active Directory servers spread across 21 locations into a single location in India for ease of operation, maintenance and to save costs.

Post implementation, the company has completely consolidated its

operations into a single process run out of India with specific IP Schemas for each plant. Closing monthly balance sheet and Profit & Loss which would earlier take a month for completion is now done within five days.

Accounts receivable has improved by 10 percent and inventory has been reduced by 21 percent. Further, the machine efficiency has improved by 5 percent, while scrap has been reduced by 2 percent.

### **Eveready saves** ₹ 10 crore in just six months

Having started as a battery company, Eveready has diversified into a true FMCG company with a deep and wide distribution network covering 2.5 retail outlets across India. To enable the supply of products at the right place and time, the firm required an efficient and agile supply chain. As the product mix got diversified, it resulted in inefficiencies across various parts of the supply chain. Accordingly, Eveready embarked on a drive to redesign the supply chain.

Further, the sales forecast was completely based on the perception of individual sales force personnel. This resulted in a considerable gap between the forecasted demand and actual sales. This gap created an imbalance in production planning and distribution planning which in turn created an imbalance in pipeline inventory. Another system was required to automate the demand forecasting process by giving proper statistical forecasts based on past

historical trends. This system gave inputs to the supply chain system. A structured analysis between the actual operation and the projected one was not available. So, a third system was required for real-time sales and operations planning, which would get real-time data from the demand forecasting, supply chain planning and the base ERP systems.

To achieve this objective, the firm implemented Oracle Demantra demand forecasting. With the help of the Forecast Engine in Demantra, the sales force got a fair idea about the prospective sales in their region.

Today, the organization has transitioned from producing to capacity into a more realistic production environment. This, in turn, has unlocked valuable working capital. The firm expects a reduction in pipeline inventory by 5 percent and a forecast accuracy of nearly 85 percent by March 2011.

#### **HIGHLIGHTS**

> Post deployment, pipeline inventory has reduced by 10 percent resulting in a cost savings of ₹ 10 crore in just six months

#### SNAPSHOT

Company:

**Eveready Industries** 

Project:

Supply Chain Automation

**Project Head:** 

Arup Chowdhury



### Enterprise Applications O

# PLM streamlines production process for Globus

For a major retail store such as Globus, owned brands constitute about 65 percent of its sales. However, prior to the deployment, the production process was a black box and processes were human-centric in nature. Production reporting was human-dependent and error-prone. There was no effective control mechanism to raise early alarms. The firm also faced inter-departmental disputes between production and buying.

To resolve these issues, the company designed an in-house PLM application using Visual Basic as the front-end and SQL 2005 as the back-end. The firm also gave users access to a business intelligence platform. This helped the IT function in reducing the time taken to develop reports. Today, end-users can generate their own reports without the IT department coming into the picture.

Prior to PLM, every production merchandiser had to spend at least

#### **HIGHLIGHTS**

> Prior to the implementation, merchandisers spent 30 percent of their time generating reports. Today, these reports are available at the click of a button

#### SNAPSHOT

Company: Globus Stores
Project: Home-grown PLM
Project Head: Meheriar Patel,
CTO & Head- HR & Admin

30 percent of his time and effort to generate reports. Now all the required reports are available at the click of a button. The solution has helped the company take early and correct decisions based on these reports. It has also saved a lot of time and effort for the merchandizing team.

The implementation has given the company better control over the production process. It has also helped in bringing appropriate merchandize on the floor on time. This has made a significant impact on the customer service.

The company estimates that the application will bring tremendous ROI for the organization. It has also helped in saving money since a proprietary fashion PLM software deployment would have cost Globus more than ₹ 60 lakh.

The implementation has helped the firm in tracking the production process instead of the final output in terms of production quantity.

# CRM gives Godrej Properties competitive edge

As a relatively young entrant to the world of real estate, Godrej Properties had access to lead data from several sources like SMS, phone calls, websites, walk-ins and e-mail. However, the firm had no mechanism to consolidate and assign these leads to the appropriate sales personnel. In some instances, the same flat was being booked or almost booked by two different customers due to the lack of co-ordination between sales executives. The firm

also observed that the sales and the post-sales processes that were followed varied across sites. Hence, a customer would experience different customer service processes at two different sites of the company. The firm also had no formal method of registering customer complaints. Hence, it could not track the solutions that were implemented, the responses, the turn-around time and more importantly the feedback.

To address these issues, the firm

implemented Salesforce CRM. Today, post deployment, the CRM ensures that all conversations with the customer and the outcome of each conversation are captured. All leads from different sources are captured centrally-thereby ensuring that no lead is lost due to lack of follow-up. Leads once tagged as 'hot,' have a follow-up date and time. This automatically creates a task in the system and reminds the lead owner to follow-up with the lead. Assigning of status to a flat has ensured that no multiple bookings are done for the same flat. Today, the firm can also measure the success of a campaign with respect to spend versus return.

With special comment boxes and drop down boxes that become mandatory in case of certain scenarios, the firm has been able to capture customer requirements and feedback more effectively.

#### **HIGHLIGHTS**

> Better insights into customer behavior has helped in increasing the organization's competitive edge

#### SNAPSHOT

**Company:** Godrej Properties **Project:** Implementation of Salesforce CRM

**Project Head:** Shailesh Joshi, Associate VP - IT

# **APM** simplifies IT landscape for ICICI Bank

ICICI Bank was concerned that it was spending an increasing amount of human and capital resources maintaining an ever-growing inventory of applications and supporting infrastructure. While self-discipline had helped maintain order. ICICI felt that it could do much better to manage its technology portfolio of applications, tools and infrastructure across the Bank and Group companies.

It is in this context that the Bank embarked upon an initiative to set up an Application Portfolio Management (APM) function. The primary objective of the function was to simplify the overall IT landscape, and at the same time to increase the business value delivered through existing assets.

Subsequently, the function established a core inventory of applications. These were mapped with the business services, products, departments and geographies that

#### HIGHLIGHTS

> APM is now a fully functional application repository encompassing over 500 applications of ICICI Bank

#### SNAPSHOT

Company: ICICI Bank

**Project:** Application Portfolio Management (APM)

Project Head: Pravir Vora, Group Chief Technology Offi cer

these applications supported. The Bank has also created an Enterprise Level Architecture that depicts the application inter-connections and the data interchanged amongst them.

Today, using APM, the Bank can measure an application with respect to different parameters. This information is important to make management decisions to justify an expansion of the scope of an application. APM also captures information on the business

value and risk of an application. The analysis done on the data in APM helps in identifying applications which have greater technology risks and less business value.

APM has helped managers and senior executives identify areas for improvement and cost optimization with real cost data, quantify savings and track IT operational costs over time to ensure that benefits are delivered as promised.

# **Automated scheduling transforms Indian Rayon**

Though an ERP system was implemented for Indian Rayon, a manufacturer of rayon, the production data was still captured in a legacy Oracle system, due to complexities of operation in the spinning section. The output was measured in a number of cones but SAP was designed to measure production and sales in kilograms. Hence, the production data from Oracle had to be manually reentered in SAP.

**HIGHLIGHTS** 

Additionally, the scheduling was entirely manual for each batch on close to 88 machines. This was a mammoth and challenging activity as the firm used to run 600 batches per day. In case there was absentees, the firm had to reschedule man and machine allocations. The firm decided to improve its efficiency by automating the process of machine scheduling, workmen allocation, and production data capture.

#### SNAPSHOT

> The time taken to schedule production has been reduced to 1 hour instead of 4 hours per shift. This works out to a saving of 15 man months per annum

Company: Indian Rayon **Project:** Automated scheduling of batch jobs Project Head: H Krishnan, Assistant VP - IT

As the output of spinning machines was generally fixed, a logic was developed to estimate production based on running hours of the machines. Indian Rayon developed a system wherein once the required production quantity of a particular product was entered-the system could calculate number and type of machines required.

Scheduling the output on available machines, visual rescheduling, attaching a group of machines to workmen, regrouping based on actual attendance were some of the features incorporated.

The integration of Oracle and SAP systems seamlessly, with user-friendly screens has enabled quick acceptance and deployment. The scheduling system also automatically calculates the batch allowances, with features of adjustments for equitable distribution.



### Enterprise Applications o

# ITZ Cash Card streamlines business processes

With an increase in business volume and complexity, the time required to complete certain activities and consolidate information was increasing for ITZCash, India's first multi-purpose prepaid cash card company. The firm also needed to comply with various regulatory requirements.

ItzCash's unique business model meant that it did not completely fit into any of SAP's existing industry categories. Further, almost all activities revolved around the legacy business transactional system. Hence, the challenge in implementing SAP within ItzCash was that it needed to seamlessly communicate with the ItzCash business systems in real time.

The firm decided to tackle this by implementing the XI module of SAP and using web services for real-time bi-directional exchange of information. The modules implemented included MM,

#### **HIGHLIGHTS**

> Distributor enrolment and card activation has become faster, which has further translated into an increase in revenue

#### SNAPSHOT

Company: ITZ Cash Cards
Project: SAP Implementation
Project Head:
Prakash Pawar, CTO

SD, HR and FI. Post deployment, card activation (which was earlier a manual process) was completely automated. This allowed the firm to reassign manpower, extend service hours and drastically reduce the time taken to activate cards. This led to an improvement in ROI and satisfaction levels throughout the firm's distribution network. Employee productivity has also increased.

The inventory management and distribution activities were managed

through SAP and the business system was updated in real time.

All HR activities were carried out through SAP. All employees were given a login ID for employee-related activities. The firm also integrated SAP with the firm's proprietary cash system. This ensured synchronization of data in real time. Since the management had access to data on a real-time basis, they could take quick decisions based on the available information.

# ERP powers Jagran Prakashan's readership

Media powerhouse, Jagran
Prakashan, was keen to deploy a
system that could consolidate all its
business operations into a uniform and
enterprise-wide system environment.
With this objective, the firm developed
a homegrown ERP system, JOIS, which
could be accessed from any of the 210
locations of the firm across the country.

This was supplemented with a webenabled online MIS system as well as a dynamic and configurable Business Intelligence (BI) system to enable quick and effective decision-making by the management.

Post deployment, the ERP has played a pivotal role in maximizing revenue. This has been achieved in the advertisement and circulation functions by monitoring variance against targets, improvising intelligent tools to explore new avenues ahead of competition, and improving the

distribution and dispatch systems.

Usage of BI tools based on information gathered from the advertisement market survey data has helped the management, space marketing team and decision makers to crunch and intelligently analyze information. This includes the ability to track readers down to the household level, track lost business, and exploit existing revenue streams to the full.

IT now has to manage a single instance of each application in an application hub, rather than using manual processes to install applications at every location. This has enabled a tremendous reduction in CAPEX and OPEX costs.

Post deployment, all security policies can be deployed centrally. Further, since applications are deployed centrally, they are standardized.

#### HIGHLIGHTS

- > Expenses in the fi nancialyear increased by a mere 0.76 percent, despite huge business expansion and consolidation
- > Paperless approval workfl ows have led to better cost transparency and control

#### **SNAPSHOT**

Company: Jagran Prakashan Project: Homegrown ERP Project Head: Sarbani Bhatia, Vice President - IT

# Janalakshmi scales up business with Salesforce

Established in 2006, Janalakshmi Financial Services caters to people who are normally outside the scope of financial services. Due to rapid growth in its early years, the company required a highly manageable solution for tracking collections, which were becoming a challenge. Accordingly, the search for a CRM system began and Wipro was quickly engaged to provide a solution.

The primary objectives were to streamline the process of capturing new customer leads, provide easy access to loan documentation, track collections and analyse account status, and manage all customer data effectively.

Faced with the technical challenges of integrating its existing applications into the chosen CRM solution, Janalakshmi opted for Salesforce.com's cloud-based CRM system on the strength of its ability to provide a centralized, cohesive view of each customer account

#### **HIGHLIGHTS**

> Implementation has enabled Janalakshmi to quickly scale up and open up new branches

via a single web interface.

Wipro partnered the firm in streamlining functions such as sales process, loyalty, retention, and enabled the company to bring in new business. This has enhanced productivity levels with increased profitability in all areas impacted by the CRM. Today, post deployment, the firm has an integrated view of all customer activities through a single interface. This has helped immensely in analysing customer trends.

#### SNAPSHOT

Company: Janalakshmi Financial Services

**Project:** Implementation of Salesforce CRM

**Project Head:** 

Dasarathy Ramaswamy, VP - Special Projects

There have also been significant improvements in core business processes such as loan collection updates and tracking recoveries. Customer satisfaction too has improved significantly with reduced turnaround time to process loans.

Dashboards that deliver detailed customer analysis have provided the firm with potential sales avenues and opportunities for cross-selling.

# Group CRM provides single view of customer

To leverage synergies and exploit cross-selling opportunities, Landmark Group was looking to synergize loyaltyrelated programs across all its Group companies in India. Accordingly, the Group decided to implement a Group CRM for all companies in the Group.

The process of data collection was a challenge since it involved integrating the new system with the Point of Sale (POS) standalone databases running on FoxPro. Initially, the process was

designed around a web-based module. which would then connect to the POS database and transfer the data to a central Oracle database. However, since some of the Group companies had POS systems with other databases, this proved difficult.

To address this, the IT team devised a solution which uploaded a text file from the POS system containing all the sales data, to a central server. This consolidated information about the

customer gave the company a complete view into the buying habits of a customer across the Group.

A single loyalty card issued by the Group is now valid across all the Group companies. A customer can earn loyalty points anywhere and use it across any of the Group companies. Customers can check their respective balance points by sending an SMS to the system. Registered customers have the option of checking their statements online.

Information about each customer in any company is now immediately available to the Group companies for cross-selling activities or targeted promotions. The company invested close to ₹ 20 lakh for the entire project, and expects a payback in less than 24 months

#### **HIGHLIGHTS**

> A customer can earn loyalty points and use it across any of the Group companies

#### SNAPSHOT

Company: Landmark Group **Project:** Implementation of Group CRM

**Project Head:** 

Sudesh Agarwal, VP, IT



### Enterprise Applications o

# CRM helps Lavasa transform sales function

India's first and largest hill station, Lavasa, did not have any CRM application. Since there was no CRM solution in place, the sales, services, marketing and customer interaction processes were not optimized.

Manual entry and merging of data and other such tasks choked employee bandwidth while reducing efficiency and often compromising accuracy. Poor integration resulted in a lack of updated real-time information to respond to customer queries.

The Lavasa management identified the need for an integrated CRM solution, and chose Microsoft Dynamics as the CRM platform. The solution was customized by 25 percent to meet the organization's functional and operational requirements. The sales module was customized and enhanced with features for product management, lead and contact management, customer

#### **HIGHLIGHTS**

> Microsoft Dynamics CRM has increased sales effi ciencyby 60 percent and productivity by 30 percent

#### SNAPSHOT

Company: Lavasa

**Project:** Implementation of Microsoft Dynamics CRM

Project Head:

Vinod Vyas, VP, IT

management, letter generation, web integration, site visit module and data migration.

The sales module now manages the sales process along with other standard CRM features. The solution creates and manages property inventory along with payment schedules, generates receipts for every payment received, and keeps track of all the bookings and available property.

For the sales team, the solution has reduced overheads for multiple letter

generations for properties. The firm can also accurately track all payments received and dues from or by the customer. The entire sales operations are now streamlined, resulting in savings of 20 percent in payroll. Instead of collating data, sales executives now spend more time in interacting with customers, generating new leads and in tracking and closing existing leads. Further, the response time to customers' queries has reduced from one day to immediate action as responses are automated.

### ERP and CRM increase fleet utilization for Meru

While Meru Cab's business was growing at 100 percent every year, its in-house systems could not provide best practices from the perspective of governance, controls and audits. There was a dire need for integrated systems that could support the organization in its quest for a large-scale business with sustained profitability.

So Meru Cabs opted for a comprehensive ERP & CRM system. The

HIGHLIGHTS

Siebel CRM system to manage a driver's lifecycle. This includes activities such as recruitment, training, on-boarding, cab allocation, performance, discipline, grievances and separation. Oracle Financials addresses a driver's daily receivables. Fleet Management is the largest cost element for the company and this entire process with required controls is handled by Oracle Enterprise Asset Management.

SNAPSHOT

> The CRM system manages the lifecycle of over 5,000 drivers Pro

> Utilization of cabs has increased by 1 percent resulting in annual revenue increase by ₹ 12 million Company: Meru Cab Company Project: ERP and CRM Implementation

Project Head: Nilesh Sangoi, CTO A biometric solution was integrated with Siebel CRM to ensure that a driver who was terminated previously due to discipline issues does not get recruited again by changing his name or driving license. Siebel CRM is also an effective sales force automation tool for the advertising sales team with integrated

For the Fleet maintenance business, the system automatically creates the PO from the work order. Item-wise rates for spares and labor charges are taken from centrally defined masters. The invoice is automatically matched with PO by the system. This helps in significantly plugging the leakage.

Meru has been a trend-setter since it is the first cab company to implement a comprehensive ERP and CRM system. In doing so, it is setting new standards for the Indian transportation industry.

# ERP helps Naprod slash inventory levels

Biotech firm Naprod Life Sciences needed real-time access to information on its operations and inventory levels. It needed a solution that gave it visibility into the manufacturing pipeline-to handle all its own manufacturing complexity, quality, intercompany sales, export and import, along with compliance to Indian taxation for its manufacturing and contract manufacturing, otherwise called Loan Licensing.

Naprod opted for a solution called Microsoft Dynamics NAV 2009, which was implemented by Tectura Infotech. Tectura also developed a tailored solution to cater to Naprod's multiple business streams in their own formulations and an API, along with the different contract manufacturing business, which they manage for large customers.

The solution has helped Naprod in driving greater efficiency across

#### HIGHLIGHTS

> With real-time visibility into inventory levels and operations, the company has reduced the total cost of its inventory by 30 percent

#### SNAPSHOT

Company:

Naprod Life Sciences

**Project:** Implementation of Microsoft Dynamics NAV 2009

**Project Head:** 

Manoj Agarwal, IT Manager

its operations thereby increasing its competitiveness in the industry, and ultimately strengthening its bottomline. Business data is now consolidated in a single repository giving Naprod enhanced insights into operations.

Additionally, access to up-to-the minute data ensures accurate planning and decision making. Microsoft Dynamics NAV has increased plant throughput, contained costs and improved delivery performance, thus helping the company

make better-informed, real-time decisions. By gaining visibility into the manufacturing pipeline with a fully integrated system. Naprod achieved tighter controls over the sales-order process, enabling better decision-making.

Other benefits include reduced cost of laboratory operations through automated laboratory procedures and increased productivity, enhanced analytics and consistency in the reporting system.

### **Automation helps NSE improve compliance**

At the National Stock Exchange (NSE), a people-centric approach resulted in the lack of agility to cope with changing regulatory policies and growth resulting from increased number of members governed by the Exchange and the regulatory body. The heavy dependency on people also meant a lot of paper-based processes that required manual synchronization of various data.

At the NSE, there are over 300 process steps that needed to be

orchestrated for integrating all functional units involved, enforcing policies and optimizing decision making.

The project initiative was to develop a compliancy management system (CMS) that would ensure 100 percent paperless processes and be able to cope with dynamic changes in the business. The solution was to integrate all the functional areas associated with compliancy management, which include planning, auditing/inspection,

enforcement as well as meeting or activities carried out by corrective action committees.

A CMS solution was designed using a standards-based enterprise application infrastructure (BizAPP Studio) from AppPoint Software Solution. Post deployment, NSE has improved its agility to accommodate newer regulatory rules, with improved visibility into the compliancy process. It has also succeeded in reducing the overall time spent on inspections. The superior reporting capability has eliminated laborious tasks associated in manually creating reports.

Besides ensuring a paper-less management of end-to-end compliancy process, NSE has also eliminated manual hand-offs by integrating recommendation, inspection, enforcement and meeting processes.

#### **HIGHLIGHTS**

- > Automated enforcement of all statutory/regulatory rules minimizing manual intervention
- > Improved collaboration between users participating in the compliancy process

#### SNAPSHOT

Company:

National Stock Exchange

**Project:** Compliance Management System (CMS)

Project Head: G M Shenoy



### Enterprise Applications O

### 'Sambandh' helps NDPL delight customers

Power utilities company, North Delhi Power (NDPL), faced the challenge of delivering new connections in time and also monitoring the power usage of its consumers. It also had to manage its employees and internal processes on the commercial, financial, operational, and administration side, in the most efficient manner. NDPL decided to leverage IT to introduce several unique initiatives targeting the consumer as well as its employees. Many innovative applications were developed in-house to provide end-to-end solutions to manage important functions across its various operations.

NDPL also decided to develop its own customized commercial package, called 'SAMBANDH' (Building Relationships), a robust CRM application, which would get integrated with its online billing software (DEBS), Geographical Information System (GIS), the NDPL website and SAP-R/3. The GIS contains the actual layout of the

#### HIGHLIGHTS

- > Average time (in days) to release a new connection was reduced from 17.31 in 2008-2009, to 8.81 days in 2009-2010
- > Consumer satisfaction index has improved from 62 to 82 percent
- > Completely parameterized and work-flow based tracking

electrical network in NDPL with mapping to its consumers.

SAMBANDH facilitates the logging and tracking of consumer requests related to connections, billing and metering, in line with the strategic objective of delighting the customer. Once a request is logged in SAMBANDH, from any NDPL helpline desk or consumer care center, the complaint is automatically forwarded to the

#### SNAPSHOT

Company: North Delhi Power

**Project:** SAMBANDH— Workflow-based CRM

**Project Head:** 

Vijayender Kumar Gupta, Head - IT

concerned department or official with defined timelines for completion of activity. If there is a delay, the concerned user is informed and this is escalated to the next level. The consumer is informed about the status of the request or complaint at all stages.

The application has resulted in greater accountability towards consumers and has brought down the turnaround time to close complaints.

# Premier Inn slashes costs using hosted model

One of the leading budget hospitality brands in the UK, Premier Inn was looking to set up operations in India. The organization wanted to set up an IT infrastructure which would require lower CAPEX and OPEX, while simultaneously helping the organization adhere to its brand image and offer customers the highest level of guest satisfaction.

Accordingly, the company decided to implement a hosted Property Management System (PMS) called Opera Express along with Oracle's hosted back office offering, Oracle on Demand and a hosted inventory management system by Myinventory. The company also deployed a Cisco IP Converged Network to bring the hotel onto a single converged network. The company claims that the adoption of these systems is a first by any budget segment organization in the hospitality industry in India.

With this implementation, the hotel does not need to deploy IT manpower

at each location since the solution is managed centrally. The most important feature of the solution is the Payment at Check-in option which is available via the PMS deployment. This has helped the hotel achieve a zero checkout time due to customers requiring less time to check out. It has greatly improved the overall customer experience.

All hotel reservations are via a call center using the centralized PMS application. This has reduced the number of people required at the hotel reception. Also deploying a converged IP network allows the hotel to manage telephony remotely. Since voice, data and video is delivered via a single communication medium, the company can save on costs of deploying and managing additional structured cabling when setting up operations at new locations.

#### **HIGHLIGHTS**

> The hosted model has helped the organization save up to 30 percent on CAPEX costs and upto 70 percent on OPEX costs

#### SNAPSHOT

Company: Premier Inn India Project: Hosted Property Management System (PMS) Project Head: C G Prasad (Head Information Systems)

# Innovative project improves productivity

Traditionally Reliance Power had project management and document management as separate processes with all project management data on a separate server and related documents in user e-mails. Due to the lack of integration, it took a lot of time to manually collect the data, reconcile and prepare relevant reports.

The objective hence was to streamline Project Management together with Document Management by implementing an application that would address Project Management and Document Management requirements together in a collaborative platform.

To achieve this objective, the company implemented the Enovia Suite of products with integrators for desktop and back-end applications. The implementation also looked at addressing re-engineering the business processes followed and practised. The

#### **HIGHLIGHTS**

- > Information collection and reconciliation has been automated thereby reducing manual efforts
- > Project reporting from multiple locations has been streamlined and simplifi ed

#### SNAPSHOT

Company: Reliance Power **Project:** Integrating Project Management with Document Management

Project Head: M V Sreeram. Vice President - IT

most prominent feature of the project is that the company has looked at integrating its systems by implementing a product and its features.

The integration has allowed the company to create a document repository to understand the design basis in the long term. Islands of data in e-mails have now been made available centrally. Information collection. reconciliation and reporting status of the projects has been automated thereby reducing manual effort. The handover of projects to operations is smoother and information can be replicated for similar projects. This has helped in reducing the overall effort.

With the implementation, the firm is expecting cost savings and productivity improvements due to re-engineering of processes, which in turn has eliminated unproductive practices.

# **SOA** helps Royal Sundaram slash processing time

With growing business volumes coupled with different channels and systems of policy issuance and servicing, Royal Sundaram Alliance Insurance Company (RSA) was experiencing performance and stability issues with its core platform.

As part of the technology roadmap and architecture, RSA was looking at implementing a solution that could delink the product configuration, business rules and rating from the application,

and make it configurable. To address these issues, the firm implemented an SOA based e-Policy Administration System (ePAS) that provides a single policy transaction system for all lines of business for all business channels. The solution allows policy issuance, policy endorsements and renewals for over 100 products across different lines of business. The SOA architecture also allows the IT function to manage new product rollouts, underwriting

guidelines and rating logic without any programming effort.

The adoption of the SOA platform has provided IT and the business with the agility to manage changing business and regulatory policy guidelines with respect to product configuration, underwriting, rating etc. It has also helped create a common business service layer for multiple applications to consume, thus enabling reuse and consistency. Today, post implementation, the average time to roll out a new product has gone down from a week to one to two days.

Similarly, the average time to make any regulatory change has reduced to a couple of days, compared to weeks taken earlier. The self-service option has enabled intermediaries to issue policies online significantly. This has reduced the time required for issuing policies from around four days to 15 minutes.

#### **HIGHLIGHTS**

> Around 40 percent improvement in productivity of policy processing

#### SNAPSHOT

Company: Royal Sundaram Alliance Insurance Company

Project: SOA based e-Policy Administration System

**Project Head:** 

T M Shyam Sunder, CIO



### Enterprise Applications O

# ERP reduces unmanaged spends by 40 percent

Singareni Collieries Company is a coal mining company under the control of the Government of Andhra Pradesh, having its operations spread across four districts in the State. The company also has a huge workforce of around 70,000 employees.

To improve its overall business performance and provide information on real-time basis, the firm felt the need to have an an integrated IT-based solution.

After exploring its options, the firm decided to implement SAP. However, it faced challenges in implementation as this was the first project in the coal mining industry in the public sector in India. Further, as all the locations were in remote areas, there was a problem of network availability. Huge manpower and complex payscale structures and business rules were also an issue. Another challenge was that marketing of coal was governed by various regulations

#### HIGHLIGHTS

> Post deployment, the company has been able to settle customer bills within a day instead of the pre-deployment timeframe of 30 days

#### SNAPSHOT

Company: The Singareni Collieries Company

**Project:** SAP implementation

Project Head: M Satyanarayana, Project Manager - ERP

imposed by the Government which had to be enforced.

Despite the challenges, the firm went ahead with the implementation and has been able to achieve considerable benefits post deployment. A basic infrastructure was established for the ERP through a combination of RF, wired, MPLS and VPN technologies.

Today, post deployment, material requirement planning time has reduced by 80 percent. The time taken to settle

customer accounts has reduced by 30 percent. With bills being settled in a day instead of the previous one month time, customer satisfaction has vastly improved. The time taken to close annual accounts has reduced by 50 percent. Unmanaged spend has reduced by 40 percent.

Additionally, the firm has reduced the time taken for online approvals, while the productivity of its manpower has been enhanced.

# S Tel improves customer experience with CRM

As a new company, S Tel had plans of rapid expansion of its business right from day one. Hence the company was looking to adopt technologies that could match its growth in the future.

The company was keen on automated workflows and sought a solution with good tracking features to provide quality services to its customers. Hence, the company looked for a solution which would have end-to-end management of the

customer lifecycle, call center, campaign management, loyalty management and customer verification. In addition, it wanted a solution which could provide customized management information and automation of supplementary processes. To accomplish its goal, S Tel opted for Microsoft's Dynamics CRM 4.0 for 300 users housed at its outsourced call center.

Post implementation, all customer information is available in a centralized

database and can be accessed in a single window, making it easier for employees to check the customer details. The solution integrates seven applications, giving real-time information across departments and resulting business efficiencies across the organization.

S Tel had to train its employees for various applications required for different customer queries. Consequently on an average, six trainings were scheduled every month. With Dynamics CRM, the training programs have come down to one training per month. Prior to the implementation, the average handling and holding time for a customer call was 165 seconds. This has now been reduced to 145 seconds and the average hold time has come down by 10 percent. With millions of customer calls per month, this initiative has translated into enormous savings for the firm.

#### **HIGHLIGHTS**

> Deployment has helped company reduce average call handling time by 20 seconds and average hold time by 10 percent

#### **SNAPSHOT**

Company: S Tel

Project: Microsoft Dynamics

CRM deployment

Project Head: Dr Selvam K. CIO

### **OneView gives** YES Bank unified view of customer

YES Bank houses many applications, each storing certain customer-specific data. This made it impossible for the sales and service staff to log into each application separately and collate information while interacting with the customer in real time. In addition to this, there was no understanding as to what products could be cross-sold by the Bank to the customer thus leading to lost opportunities in generating revenue.

In an extremely competitive industry such as banking, with almost identical products being offered by various banks to customers-customer service. engagement and delivery become critical for establishing competitive advantage and reducing customer churn. The Bank developed and deployed an application called 'OneView' which provides an integrated view of all the Bank's relationships with a customer. The information present in OneView includes customer demographics and customer profiles. It includes financial relationships with the Bank such as current and savings account, fixed deposit accounts. mutual funds and insurance.

Functions such as trade finance. treasury and loan information are also integrated to help in providing the complete financial portfolio of the customer. The application also provides registration and usage of various channels such as ATMs, Internet banking, mobile banking and phone banking.

#### SNAPSHOT

Company: YES Bank Project: OneView

Project Head: Umesh Jain, CIO

### **CRM** improves customer service

The sales team at ICICI Securities was unsure about which product could be offered to specific customers.

To overcome this issue, the company developed and deployed a custombuilt CRM application for its salesforce called Wealth GRIP. The sales teams across all branches are provided with an automated version of the Wealth GRIP tool that helps them collect information from their customers and generate their Wealth GRIP charts.

A copy of this personalized report is provided to the customer over email to enable the customer to better understand his risk capability and financial position. The tool is available for different segments of customers including corporate and retail customers. The questionnaire is suitably customized based on the segment.

The tool is available to customers both over the salesforce CRM tool and over the company's online trading portal icicidirect.com.

The implementation has helped the company cross-sell products identified as appropriate to the customer in the process of customer profiling. It has also reduced customer acquisition costs due to selling additional products to existing customers. This has translated into an increase in sales, especially in the sales of insurance products.

It has also helped the customer to get a holistic view of his financial goals. savings, risk-taking ability and various commitments.

#### SNAPSHOT

Company: ICICI Securities Project: Custom-built CRM application - Wealth GRIP Project Head: Joydeep Dutta.

Chief Technology Officer

### CRM helps Y-Axis chart new path

#### SNAPSHOT

Company:

Y-Axis Overseas Careers

**Project:** Implementation of Salesforce.com CRM

**Project Head:** 

Xavier Augustin, CEO

Y-Axis Overseas Careers, India's largest overseas career and immigration consultant, is among the largest adopter of Salesforce.com's Enterprise Edition in India. Y-Axis's 300 consultants use the technology for every transaction conducted. About 10,000 inquiries are handled every month and 5,000 live case files are handled using Salesforce.com. Y-Axis accomplished this with the help of Locuz, that first provided an MPLS Network connecting 17 of its offices in eight cities in India and Lister that

implemented Salesforce.com.

Post deployment, productivity remains high throughout the month with daily targets, as opposed to the previous system which encouraged employees to gain momentum in the run up to month end. As a result, sales has grown by 25 percent since deployment.

With this deployment, there is greater clarity concerning the source of inquiry. It has helped the firm to manage its advertisements. It has also helped it understand clearly which campaign was successful. Deeper insights into transactions have allowed the firm to emulate success achieved and intervene early when problems arise. A 360 degree view of the customer allows sales consultants to effectively and efficiently manage leads and service clients. Multiple-level escalation rules within the CRM enable the firm to address customer gueries within 48 hours.



### Enterprise Applications O

### Essar sets benchmark for EPC projects

Essar embarked upon an ambitious plan of enhancing the refining capacity at Vadinar from 10 MMTPA to 16 MMTPA on a fast-track basis. To manage this mammoth task of generating specifications for millions of items required and their timely availability for construction; various Material Management applications were evaluated. Further, meticulous planning and complete co-ordination was required between the Engineering, Procurement and Construction teams.

After brief evaluation of various systems and based on following specific user requirements, the firm decided to implement Smart Plant Materials (SPM) of Intergraph. With this deployment, Essar became the first company in South East Asia to deploy all modules of Smart Plant Material having tight integration with 3D Plant Design Systems and SAP on a live mega project.

A major obstacle was the implementation of the system in the midst of the project execution, as engineering projects were already underway when the decision was taken to deploy the system. Since there were multiple agencies and about six detailed engineering contractors who were involved in engineering, Essar had to take a host of innovative measures to ensure smooth adoption of new processes and systems.

The biggest challenge was to replace existing material codes with a unique rule-based material codification system for engineering items and integrating this with the modeling system. This was done to ensure the usage of a single database for managing procurement and construction activities thereby avoiding duplicate material codes.

Since the cutover activities were being done in the midst of the project, there was a lot of resistance from detailed engineering contractors as it would affect their database, and any delay in execution would have resulted

#### **HIGHLIGHTS**

- Post deployment, around 4,000 man hours of savings have been achieved due to automated creation of requisitions.
   Estimated savings are close to ₹ 40 lakh
- > Surplus material was reduced to 1-2 percent of the material ordered. The typical benchmark for EPC projects is 3-4 percent.
- > Approximate savings in material costs are close to ₹ 10 crore

#### **SNAPSHOT**

**Company:** Essar Projects **Project:** Implementation of Smart Plant Material

Project Head: Tata Srinivas

in a delay of the project. Inconsistencies in the database would have resulted in huge rework resulting in the loss of expensive man hours. Routines were innovatively designed to update the database tables to ensure minimum downtime.

#### POST DEPLOYMENT

Today, all material have unique codes which help in tracking the material at all stages of the project. Through unique coding, material can be monitored at all stages of a project. This helps the firm to track surplus material and shortages. Material can be traced across Engineering, Procurement and Construction activities. Further, the bill of the material is directly imported into the system using interfaces with 3D Design systems thereby avoiding errors due to manual intervention.

EPC projects are capital-intensive in nature and any delay in availability of critical material leads to insurmountable losses. By deploying SPM applications, Essar has improved its project schedule through integration with design system such as PDS and other systems such as SAP. Further, transparency and visibility of engineering and procurement data have resulted in procurement of essential materials on a need basis.

The generation of a standard codification system has significantly improved efficiency. Engineering material co-ordination activity which required 12 people was reduced to four people. Availability of the latest engineering material information at the site enabled material reservation and material allocation at the site.

Post deployment, around 4,000 man hours of savings have been achieved due to automated creation of requisitions. The firm estimates the savings to be around ₹ 40 lakh. Additionally, around 10,000 man hours have been saved at the construction site. The firm has also managed to reduce surplus material was reduced to 1 to 2 percent of the material ordered. The typical benchmark for EPC projects is 3 to 4 percent. On a conservative estimate, approximate savings in material costs are close to ₹ 10 crore.

The project is significant as there are very few EPC companies in the world that have implemented integrated material management systems cutting across Design Systems, Material Requisitions, Purchase, Expediting, Material Reservation, Material Receipt and Allocation.



### Unified Communications O

# **Essar Group reduces communication costs**

Following the need to collaborate, the Essar Group started its UC journey in early 2009. The deployment was aimed at overcoming legacy-based telecommunication systems, and providing tools to enable better communication across multiple Essar offices and locations, supporting a user base of 50.000.

The UC solution comprises VoIP, Video Conference, Netmeeting, Office Communicator, Voice Group CUG Solution and WebEx Conferencing.

Internal communication via VoIP has resulted in significant telecom cost savings. The Video Conference solution has enabled users to take on meetings across any location. Netmeeting (Microsoft) has powered document collaboration, customer sharing, telecommuting, distance learning and technical support. Office Communicator (Microsoft) has allowed

#### **HIGHLIGHTS**

- > The enterprise-wide UC deployment supports over 50,000 users
- > The company is able to communicate with remote sites and offices within minutes

#### SNAPSHOT

Company: Essar Group Project: Essar UC solution Project Head: Jayantha N Prabhu

for effective exchange of various business communication. The Voice Group CUG solution has been configured with a GSM gateway and equipped with a centralized telecom helpline. This extends CUG benefits to Essar employees across the globe. WebEx Conferencing has acted as a catalyst for a centralized service desk while serving clients over the Internet.

The solution has helped reduce legacy network OPEX and travel costs.

The company is able to communicate with remote sites and offices within minutes which would have earlier incurred physical travel involving time and costs. It has provided a collaboration platform and group messaging.

The deployment has also boosted employee productivity. Due to a reduction in travel, employees have gained time. This, in effect, has resulted in maximum usage of video conferences, VoIP usage and the audio bridge.

### **UC** delivers significant savings for Hikal

Established in 1988, Hikal has grown steadily over the last decade with its business of R&D, manufacturing and marketing of chemicals for the Pharmaceutical and Agrochemical industries. However, its legacy analog telephone system was not able to cope with its changing business requirements.

The system posed several challenges. There was no facility to track missed calls or manage voice messages. The voice quality was poor. Customers were not receiving a proper response to their calls as no tracking was available. There was no possibility of adding new extension numbers. There was a loss in productivity since employees had to call the telephone operator for internal calls.

To overcome all these issues, Hikal decided to migrate to a UC platform. It chose Avaya Global Communication for providing Voice system with end points, Reliance Communication for PRI base communication, IBM/Vodafone

BlackBerry for e-mail integration and Business Octane for video, and audio equipment from Polycom.

The deployment has tied all Hikal group employees into a single communication group. By using Video Conferences, there is no longer any need to travel for review meetings. Users find it convenient to reach their colleagues by dialing four-digit extension numbers. Voice quality has improved since communication is on a digital network. Audio conferences among internal users have helped in better exchanges of ideas and business processes. Direct communication has led to faster resolution of issues.

Overall, the cost of communication has been reduced by 15 percent. Audio conferencing has resulted in cost savings of ₹ 1.5 lakh. Internal meetings are being held via Video Conferences. This has resulted in savings of ₹ 10 lakh.

#### **HIGHLIGHTS**

- > Post deployment, communication costs for Hikal have come down by 15 percent
- > Audio conferencing has resulted in cost savings of ₹ 1.5 lakh

#### SNAPSHOT

Company: Hikal
Project: Unified
Communications Management

Project Head: Falgun Shukla,

Senior GM - IT

# IFFCO ups efficiency with UC

IFFCO set up a Virtual Private Network (VPN) using MPLS technology in 80 locations during 2006 - 2007. The IP telephony was set up at 80 locations with 200 telephones with no extra revenue expenses. It facilitated free. instantaneous and easy communication besides providing individual e-mail facilities, data transmission and remote computing. It reduced communication charges in a big way.

Today, IFFCO has more than 500 IP telephones with 100 telephones that are video-enabled. For business continuity, two more VPNs were set up from different service providers. All the three VPNs are working in load-sharing mode. There is enough Internet bandwidth for Web-based applications, Internet browsing, mobile computing and remote

Studio-based video conferencing (VC) was set up in the corporate office

#### HIGHLIGHTS

- > Increase in productivity. operations effi ciencyand environment
- > ROI achieved in three months of installation

#### SNAPSHOT

Company: IFFCO

**Project:** Virtual Private Network (VPN) using MPLS technology

Project Head: S C Mittal

with a high-definition VC kit in 2008 for Board meetings and progress reviews of their joint ventures abroad.

Many board meetings and progress reviews of the company's joint ventures abroad are now conducted using the solution. Travel has been reduced. This would earlier consume at least three to four days for the top management.

In May 2009, IFFCO conducted internal departmental interviews of employees across the country, using VC. This exercise now takes only 15 days. It used to take almost two months earlier. There was no loss of work for either the members of the committee or the employees. These two exercises have resulted in savings for the organization. The company says it saved more than what it had invested as capital costs. The recurring charges were not applicable since IFFCO used its own VPN for this purpose, ROI was achieved within three months of implementation.

### Video Touch Mart boosts revenue at Intelenet

While there has been an increase in new channels of communication. face-to-face interaction has gone down. Additionally, the high cost of labor and real estate have made it difficult to establish interactive channels.

The growing acceptance of kiosks for their ability to operate at different locations and provide self-care solutions for services such as banking and travel, encouraged Intelenet to develop a solution using interactive kiosk

methodology with audio, video and data connectivity, thereby facilitating face-toface interaction.

Hence, Intelenet Global Services developed a solution called Video Touch Mart (VTM), an interactive audio-visual call center empowered with broadband Internet and video telephony. It would enable connectivity with a live executive for better understanding of products. VTM has a transaction-ready card reader (both debit and credit) with a printer.

VTM has been functional across 35 locations in India. The solution allows the client to provide a single and/or multi-product offering from a single kiosk. It can carry out real-time transactions and generate reference numbers for easy follow-up. It provides the company a quick go-to-market, during any changes or additions to the portfolio of offerings.

The solution supports high-quality online video and audio communication between a customer (at the kiosk) and a back-end call center agent at Intelenet. It can auto-route calls to the right agent based on pre-defined skillsets. It can capture information in online forms for further processing for a specific product offering. It also has the facility to print forms and make them readily available to customers. The tamper-proof nature of the kiosks allows them to be deployed at remote locations.

#### **HIGHLIGHTS**

- > The solution has provided the company incremental revenue of ₹3 lakh per client
- > VTM facilitates leads for clients with a conversion rate of 3 percent

#### SNAPSHOT

Company: Intelenet Global Services

**Project:** Video Touch Mart

Project Head: Rajendra Deshpande



### Unified Communications O

# Virtual Office solution simplifies work

For a growing organization such as Thomson Reuters, employee communication and space optimization along with travel, time and operational costs were key challenges. Further, management and maintenance of the analog telephony systems required manpower to be trained to manage those systems specifically.

The challenge was to optimize employee mobility and to ensure that there was sufficient redundancy built into its eight facilities in India to accommodate more than 6,000 employees across India in a seamless fashion. In a phased approach, Thomson Reuters adopted a UC solution.

In the first phase, it migrated to an IP-based telephony system from Cisco. The company currently has 6,000 IP Telephony end-points deployed in India. The second phase involved providing hotdesk facilities to employees. This

#### **HIGHLIGHTS**

- > The company has 6,000 IP telephony end-points deployed in India
- > The company has two Telepresence centers in India

#### SNAPSHOT

Company: Thomson Reuters

SI Partner: Cisco India

Project: Cisco UC solution

deployment

**Project Head:** Jayasimha Varadarajan, VP - IT

was made possible through the use of an extension mobility service, a feature of Cisco UC Manager. Thomson Reuters has also deployed Cisco's Virtual Office (CVO) solution which provides extensible network services that include data, voice, video, and applications. The company also invested in Telepresence and currently has 24 rooms across the globe.

The CVO solution provides secure, rich network services to workers at locations outside the traditional

corporate office. By providing extensible network services that include data, voice, video, and applications, the solution creates a comprehensive office environment for employees regardless of their location. This provides a 'Work from Home' option to employees on the move or those who are unable to attend work. The CVO solution would also play a key role in business continuity planning process with key members of this team being a part of the first group of users.

# Vodafone transforms agent productivity

The outbound calling process at Vodafone Essar was a manual one. The operations team manually extracted customer data which is out-called by agents located either at the company's contact center or an outsourced contact center. However, there was no standard format for data extraction and data was sent across to partners through e-mail. There was no facility for call monitoring/voice recording. Manual dialing led to a wastage in manpower,

commitments of callback to customers not being met, etc. Further, what was missing was an MIS or data for analysis, a feedback/interaction capturing tool, standard technology and a backend database integration to automate the dialing process.

To resolve these issues, the company deployed a solution comprising a distributed architecture wherein the Genesys outbound dialer system is integrated with Avaya communication manager for switching and Avaya IP phones for voice calls and Nice Perform for quality monitoring.

The central application would be located at the company's data center, with media process platform distributed across eight to 10 locations or dialing zones for outbound dialing. Dialing takes place from zones with control and database integration at a central location. Outsourced partners can pick up the calls from the zone itself—thus reducing the WAN network costs.

Agent productivity has significantly improved with the number of calls taken by agents increasing from the previous 90 to 160 calls per day. Manpower requirement is down by almost 30 percent. With online validation and service writebacks and agent scripting in regional languages, customer satisfaction has also improved.

#### **HIGHLIGHTS**

- > Agent productivity has significantly improved. Calls taken by agents have increased from 90 to 160 calls per day.
- > Manpower requirement is down by almost 30 percent

#### **SNAPSHOT**

Company: Vodafone Essar Project: Consolidating Outbound Calling processes Project Head: Navin Chadha

### Virtualization leads to better CPU utilization

Apeejay Surrendra Corporate Services is a support company for the Apeejay Surrendra Group, which is a diversified industrial conglomerate with interests in tea, hospitality, real estate, shipping and financial services. With such diversity in business and with each Group company having unique requirements, its infrastructure extended to multiple locations making management increasingly difficult. Apeejay started facing several technical and businessrelated issues.

Managing more than 40 individual servers that had accumulated over a period was a huge feat that required two in-house and three outsourced manpower resources. Also server utilization rates were just 15 to 20 percent. With shrinking IT budgets it was difficult to scale horizontally on demand to support business growth and new initiatives. So Apeejay decided to go in

#### **HIGHLIGHTS**

- > Server CPU utilization level increased from 20 percent to 80 percent
- > Savings of ₹ 30,00,000 by deploying virtual machines instead of physical servers

#### SNAPSHOT

Company: Apeejay Surrendra Corporate Services

Project: Shakti - server virtualization project

Project Head: Subhasish Saha

for server virtualization and named the project 'Shakti'. With VMware ESX, the implementation consisted of 12 servers in the database category and 12 servers in business applications. The remaining servers were distributed among messaging, workflow, gateway and security. The project was implemented in 3.5 months and executed by two inhouse resources.

Post implementation, resource reallocation is happening on-the-fly based on the seasonality and statutory requirement of multiple Group company businesses. CPU utilization levels have gone up from 20 percent to 80 percent. The company has saved ₹ 30,00,000 on hardware costs by by deploying just 10 servers as virtual machines (VMs). Preimplementation the company required two in-house and three outsourced resources to manage IT. The company now has only one IT executive managing an infrastructure with 22 VMs.

### **CAD** virtualization streamlines design process

Applied Materials India's Global Development Center (GDC) in Bengaluru houses the largest number of CAD design engineers outside its HQ in USA. The engineers need to collaborate with their counterparts in the US and in other parts of the world on projects that include large, complex CAD data such as 3-D models, product renderings and product documentation.

These activities are typically performed on a high-end CAD

**HIGHLIGHTS** 

workstation capable of processing graphic and compute-intensive data. But there were some challenges with this setup. For one, the client-server model required both CAD Desktop and PLM application to be on the LAN. Secondly, a PLM instance was required at each CAD engineer site, since the application is extremely latency-sensitive. There was no remote access to CAD vault. hence all activities had to occur on the LAN. Multiple PLM instances resulted in

#### SNAPSHOT

> With anywhere and anytime online access to the application, user productivity has improved by 15 percent

Company: Applied Materials India

**Project:** CAD Virtualization Project Head: Nagaraj Bhat, Director - Global Information Services

inherent data integrity issues. Remote import of CAD files from foreign sites took too long due to latency sensitivity of the application. The CAD engineers could not use notebooks.

To overcome these issues, the company shifted CAD computing from desktops to the data center. End users can now use their smaller footprint desktops or laptops and log into CAD blades at the data center even from remote locations. They can run the CAD application and store CAD data in Teamcenter PLM vaults.

This has reduced both capital investment requirements and the total cost of ownership since the server class workstations could be replaced by cheaper desktops or laptops. There have been significant power savings due to 16 blade workstations consuming 2.5 KW of power replacing high-end CAD desktops each consuming upto 1,000W of power.



### Virtual desktops ensure data security

The key business objective for Genpact was to provide security and management at the desktop level within the organization as thare are very strict regulations in the BPO industry. Since Genpact has operations in many countries across the world, data needs have to be handled in the most secure manner. To address this challenge, Genpact decided to implement desktop virtualization across the entire organization (almost 25,000 seats).

With the help of Citrix Consulting Services, Genpact deployed an architecture that would allow scaling up to more than 5,000 desktops in two years. It deployed the company's LeanDesk offering that restricts customer networks to the data center rather than allowing access at the user level. It also deployed a virtual desktop solution by Citrix along with thin-client laptops from Wyse. This enabled users

#### **HIGHLIGHTS**

Desktops being provisioned from a single master image, have helped ensured 'desktop standardization', compliance requirements being met and prevention of data loss

#### **SNAPSHOT**

Company: Genpact

**Project:** Implementation of Desktop Virtualization

**Project Head:** 

S Chandra Mouleswaran, VP - Technology, ITO

to use the centrally-hosted desktop from any network or location and yet allowed the IT administration to make patch or application updates.

OS images in the 'virtual desktops' are provisioned from a single master image when the user logs in and de-provisions when he logs off, thus bringing in the much wanted and awaited 'desktop standardization.' It helped the company ensure the required compliance levels for laptop users, and

has eliminated the risk of data loss.

The company has also deployed diskless laptops for employees in situations where the customer is not comfortable with using laptops due to data loss concerns. The diskless laptops allow employees to connect to the company network and access the LeanDesk application without storing any data on the laptop. This eliminates any potential data loss.

# Euronet adopts open source virtualization

Euronet Worldwide is a global provider of electronic payment and transaction processing solutions for financial institutions, retailers, service providers, and individual consumers.

Euronet's customers are served from three core business segments: electronic financial transactions (EFT), including payments software, prepaid (e-pay), and money transfer. In 2009, the company processed approximately USD 50 billion in ATM, prepaid, and money transfer payments for more than 115 financial institutions, 200 mobile operators, approximately 320,000 retailer and agent locations, and millions of individual consumers across 46 countries.

As many of Euronet's IT systems are mission-critical, the company followed the 'one application, one server' approach to achieve high system performance and reliability. This approach led to uncontrolled growth of physical servers, which in turn increased the requirements for data center, energy, and other utilities. Having faced challenges with proprietary software, the company opted for consolidation and migration to an open platform.

The company implemented Red Hat Enterprise Virtualization in a phased manner by initially moving less critical applications onto the solution.

With the implementation the company has seen a 25 percent increase in application performance when compared to this running on the Microsoft Windows platform. Also, post implementation, the rejection rate during transaction processing in the application—due to technical issues, has come down from 11.7 percent to 2.3 percent. The company can now process a higher number of transactions per day.

#### **HIGHLIGHTS**

- > Post implementation, the rejection rate during transaction processing in the application has come down from 11.7 percent to 2.3 percent
- >Application performance improved by 25 percent

#### **SNAPSHOT**

**Company:** Euronet Worldwide

**Project:** Deployment of Red Hat Enterprise Virtualization

**Project Head:** Ashish Mehta, Director, IT & Infrastructure for Asia Pacifi c& Middle East

### **Hexaware** virtualizes its DC

Always keen to squeeze out more utilization from the existing IT infrastructure, mid-sized firm, Hexaware undertook a detailed capacity planning exercise to find current utilization trends and to forecast future workloads. The data collected was analysed to arrive at a consolidation ratio.

Subsequently, Hexaware designed an architecture where factors such as consolidation, high availability, prioritizing resources on business demand were considered on priority. The focus was to have the end design compliant with data center 3.0 standards.

In line with this objective, the firm deployed 10 new servers with the capacity of executing high computing workloads. With a consolidation ratio of 1:21, Hexaware succeeded in reducing 9,30,033 kg of CO<sub>2</sub> emission reduced and power saving of 1,528,987 kWh. Virtualizing 231 physical servers is estimated to have an effect of planting 4,620 trees or taking 347 cars off the highway. Additionally, Hexaware used the Unified Fabric approach to reduce cable requirements by 90 percent. N+1 redundancy was deployed for server, storage and network.

The consolidation initiative has enabled Hexaware to gain close to 25 percent reduction in upfront costs. Similarly, the overall costs for technical support are now down by over 40 percent. This has significantly helped in the reduction of Selling, General and Administrative Expense (SG&A) costs.

#### SNAPSHOT

Company: Hexaware Technologies

Project: Consolidation and Virtualization Initiative

Project Head: N Nataraj

### Virtualizing leads to efficiency gains

At Infosys, a large part of the internal IT portfolio is made of over 180 custombuilt highly-available applications on multiple technology platforms. These applications are critical to business as they enforce systems and processes amongst a diverse workforce of over 1,20,000 including subsidiaries.

As the organization grew, it faced several challenges in terms of scalability. availability and reducing the TCO.

Accordingly, an innovative virtualization solution was deployed across the storage and server stacks to address the business needs by leveraging existing investments. In the server virtualization initiative, more than 260 physical servers were consolidated into 18 high-end blade servers providing benefits of lower space, power and cooling requirements.

Similarly, Infosys virtualized over 250 TB of storage across enterprise and mid-range storage devices. With

on-demand provisioning Infosys has been able to reduce over 80 percent of the time taken to provide a service. which has thereby allowed it to serve the business better.

The virtualization initiative has also delivered 30 to 80 percent performance improvement in applications, 33 percent savings in bandwidth-related costs, and more than 90 percent savings in power and cooling requirements. More significantly, 70,000 man hours per year have been saved due to this initiative.

#### SNAPSHOT

Company: Infosys Technologies

**Project:** Virtualization Initiative Project Head: Survaprakash K. Vice President and Head - Information Systems

### Orbis Financial's IT goes virtual

#### SNAPSHOT

Company: Orbis Financial **Project:** Virtualization Project Head: Ramkumar Mohan, Senior Manager - IT

Orbis Financial is India's only privately-owned and professionallymanaged SEBI registered Custodian. As a start-up, the company wanted to implement an IT infrastructure that delivers high reliability, performance, flexibility, scalability and most importantly an alignment with the business model. They needed a strong IT backbone to support business applications such as business intelligence, ERP, DMS, BPM and backoffice settlement.

Starting with two offices, HO and operations back-office in Gurgaon and the Marketing office in Mumbai, the company decided to implement its data center in Gurgaon and the DR center in Mumbai. After a comprehensive review of the IT requirements, the company realized it required at least 30 servers initially at their primary site to support application requirements. Also it had to make provision for future requirements for up to five years.

Virtualization was the natural choice and the company decided to build its entire IT infrastructure based on this technology. It also adopted technologies such as blade servers, unified storage, Next-Generation Environmental Control System, VDI with thin clients.

With virtualization the company has saved USD 50,000 on physical hardware costs, USD 13,000 per annum on power and cooling and USD 15,000 per annum on maintenance and support.



# Thin client helps BPO secure its environment

Sparsh BPO Services, an Intelenet subsidiary, is the largest domestic BPO providing services to companies operating in India. It currently handles over 93 percent voice-based processes and the balance seven percent accounts for transaction processing activities, handled from 19 delivery centers.

Due to several acquisitions in the past, the IT Infrastructure of the organization was decentralized. There was no master inventory of assets and configuration items globally.

The management realized that rationalization and sharing infrastructure over several locations can result in increased efficiencies. Hence, Sparsh adopted a thin client architecture across the entire organization.

With the thin client architecture, no user can store any files on the thin client and all information is stored on server. It also restricts access to flash-based storage drives. This has helped the company prevent data theft.

Users would frequently complain of system crashes or boot failures. With thin clients, users cannot install, uninstall any application or delete any files. As a result, downtime is near zero, thereby leading high productivity levels.

With no hard disk drive on the thin clients, there is no data or applications to maintain. This has resulted in an annual savings of ₹1,00,000 which, the company would otherwise have spent on annual maintenance contracts.

#### SNAPSHOT

Company:

Sparsh BPO Services

**Project:** Thin client Implementation

Project Head: Bhupesh Tambe

### Trading platform goes virtual

Stewart & Mackertich was running a legacy infrastructure with tower servers which were more than four years old. These systems were slow, unreliable and required a high amount of management and maintenance. It was running one application per server and each server had direct-attached storage.

The infrastructure was plagued by unplanned downtimes. Provisioning for a new application and extra storage required laborious manual tape backup and the infrastructure lacked a proper disaster recovery mechanism. The company was spending almost 85 percent of its IT budget to keep the infrastructure up and running and had very little left for new implementations or innovations.

To overcome these issues, Stewart & Mackertich moved its servers to a virtualized infrastructure. The company was the first one in India to implement securities trading applications live on a

virtualized platform.

With virtualization, the company has reduced the number of physical servers from 26 to five, cut power and cooling costs by 65 percent, improved CPU utilization from 25 percent to 65 percent and saved up to ₹ 60 lakh in terms of one-time savings on floor space.

Post deployment, server provisioning time for new applications/environment has gone down from four weeks to just 15 minutes and downtime has reduced by 90 percent. Manpower requirement too has reduced from 3:1.

#### **SNAPSHOT**

Company:

Stewart & Mackertich

**Project:** Server Virtualization

Project Head: Atul Bansal.

AVP - IT

### Wipro's e-mail systems go virtual

#### SNAPSHOT

**Company:** Wipro Technologies **Project:** Virtualized Messaging

Infrastructure **Project Head:** 

Laxman Badiga, CIO

Wipro Technologies, was growing at a rate of 30 percent YOY. In line with this growth, the Infrastructure Management group faced several challenges in scaling up the infrastructure for critical services such as messaging. At this juncture, Wipro considered deployment of Microsoft Exchange Server 2007 to leverage on 64-bit platform, and increased the number of mailboxes per server.

With the release of Windows Server 2008 operating system with Hyper-V virtualization technology, Wipro began its pilot deployment of Virtualized Exchange Server 2007 infrastructure. Prior to the implementation, Wipro needed six physical servers and an expensive SAN to host up to 10,000 mailboxes. With the new deployment, hosting a similar number of mailboxes on Exchange Sever 2007 in a virtual environment, requires only two physical servers and low-cost direct-attached storage (DAS).

Smaller form-factor hard drives in storage reduced acquisition costs by 60 percent, space by 70 percent, and power usage by 50 percent. It also saved close to USD 5,500 for each terabyte of usable space, which is the space required to host approximately 1,200 mailboxes.

Deploying 10,000 mailboxes on Microsoft Exchange 2003 would have cost Wipro USD 110,000. The Exchange Server 2007 implementation cost the company USD 60,000-resulting in savings of USD 50,000.



# BUSINESS INTELLIGENCE





# Business Intelligence



### BI makes Alfa Laval a smarter business

Alfa Laval India (ALIL) wanted to get quick and actionable information in the area of Accounts Receivables (AR) so that the huge amount of paperbased reports currently generated could be eliminated and receivables could be controlled. ALIL also wanted to measure the company's deliveries to its customers. Its goal in this area was to measure performance so that steps could be taken to improve the same. To achieve this, ALIL decided to deploy BI across these two areas.

Using the data collected for AR, e-mail solutions were written so as to e-mail payment requests to customers. A unique solution to automatically split, zip and e-mail the pivot table reports to all the branch offices was designed.

With this solution, the branch staff were able to view the AR data pertaining to their own branch in an interactive mode—even when they were not

#### **HIGHLIGHTS**

- Delivery on Time (DOT) performance has improved from 32 percent to 92 percent
- > Sales between 2005 and 2009 increased by 50 percent; however, AR remained the same

#### SNAPSHOT

Company: Alfa Laval India SI Partner: Prosys Infotech Project: Business Intelligence

**Project Head:** 

Kishore C Daryanani

connected to the server.

After the AR module was implemented, the AR ratio to sales has shown a consistent decline. The sales over the period of 2005 to 2009 have increased by almost 50 percent. AR, in absolute terms, has mostly remained the same, and in relative terms, it has actually reduced.

The automated AR module has completely eliminated all manual work and bias in generating the KPI reports. Reports can be drilled down to the lowest level by all users thereby bringing complete transparency into reporting. The Delivery on Time (DOT) performance before the implementation of the module for the six-month period from October 2008 to March 2009 was around 32 percent on an average. Post, implementation DOT has improved to 92 percent when measured for the six-month period between January 2010 to June 2010.

# Gateway Terminals bridges the gaps with BI

Gateway Terminals India (GTIL) deals with container Cargo Terminal services in the freight domain. The company's business is highly mission-critical.

This involves high-end and varied applications across the domains of operations, services and engineering. Since each department was adding data into different systems, consolidation of reports was a huge task and accuracy was also hard to determine. There

are multiple data sources involved, as well as text-based applications making the 'timely' data analysis critical and challenging.

GTIL decided to deploy MAIA'S 1KEY BI solution primarily to bridge the time gap between the need for reports and the availability of the same. Today with this solution, GTIL has managed to not only provide standard reports, but also has enabled critical data analysis which was not possible earlier.

The savings are myriad-from time required to make the reports, the analysis to be made and faster decisions. The total implementation time for this solution was four man months. The company currently has 25 users across various departments using the solution.

GTIL estimates it will be able to get ROI in 10 man months.

The major gainer from this application is the commercial department. The productivity of the company's business users has gone up as they can now build their own reports quickly in the format they want.

The productivity of the IT team has also gone up as the team no longer needs to invest its time requesting business users to submit their reports. Team members can now use their time for productive and creative activities.

#### **HIGHLIGHTS**

- > GTIL estimates that can get the ROI of the solution in 10 months
- > Users can now build their own reports

#### **SNAPSHOT**

Company:

Gateway Terminals India

Project: BI solution

**Project Head:** 

Ananthakrishnan Ganesan



# Business Intelligence \_



# Higher sales and better analytics in retail

One of the country's largest retail chain owners, HyperCITY was faced with a challenge of low customer spending and attracting more customers during a tough year of recession. Food is a major contributor to the top line at HyperCITY. There was an opportunity to convert grocery shoppers to buy from other categories such as fashion and home needs. This was possible by tagging and analyzing customer purchase patterns and creating a customer profile.

A customer engagement program called 'Discovery Club' was developed. This was a combination of a loyalty program which is unique in the way it rewards customers, an innovative solution for creating shopping lists, and a kiosk-based customer access interface. The package was designed to be launched on a pre-determined date in a record time of 30 days.

The company therefore decided to

#### **HIGHLIGHTS**

> Discovery Club customers contribute to over 35 percent of the sales. The ticket size (Value of cash memo) is 15 percent more than the non-loyalty customers

#### SNAPSHOT

Company: HyperCITY Retail India

Project: Discovery Club

**Project Head:** 

Veneeth Purushotaman, Business Head – Technology

bundle the software with a kiosk-based program where the customer could swipe the card and get all information regarding the promotions and his point balances and also offered an innovative solution called 'Shopping List'.

The 'Shopping List' feature allowed the customer to create his own shopping list via mobile (SMS) or the Web and print it from the kiosk when he visits the store. The kiosk also doubled up as a customer feedback channel and a channel for promotions when idle.

Post the deployment, HyperCITY is now able to analyze customer buying behavior to design better promotions. The company now has over 1,00,000 members and knows that they contribute to over 35 percent of the total sales.

The average cash memo size of the Discovery Club member is 15 percent more than the walk-in customers.

### BI tool helps JK Tyre save ₹ 6 crore a year

The transactional data at JK
Tyres and Industries related to Sales,
Production, Stocks, Forecasting, and
Financials is analyzed at various levels
using the Business Warehouse module
of SAP. However, the management needs
information on the current situation of
the company along with a statistical tool
for projections and trends.

Prior to the implementation, the company got hard copies of reports from various functions extracted from the

BW module. This made the process slow, inefficient and prevented quick decision making. Hence, the company developed a Management Cockpit on identified KPIs that allow information to be summarized to the management in a certain format. This is achieved through aggregated display of performance indicators and easy-to-understand diagrams that can help with the strategic planning and management of the company.

With the implementation, the

management receives the KPIs from all business functions via the SAP application.

By making all information available centrally, the time spent in gathering information has been reduced. The management now has the ability to make faster well-informed decisions. With the system it can also get a quick overview of company data through specific presentation functions.

Timely and better availability of information has allowed the company to reduce raw materials inventory costs by ₹ 90 crore. The time for stocking finished goods in inventory has been reduced by 13 days and the outstanding time period by eight days.

Post implementation, employees can use their time more effectively for other jobs. This has improved employee productivity by 20 percent.

#### **HIGHLIGHTS**

> The company has achieved a cost savings of ₹ 6 crore a year and estimated a payback period of just 3 years

#### SNAPSHOT

Company:

JK Tyre & Industries

Project:

Management Cockpit

Project Head: S S Sharma



# BI deployment improves budgeting for Marico

Budgeting and reporting at Marico was primarily done using Microsoft Excel. This made the task of consolidating the figures from three segments-CPB, IBG and Kaya-15 entities with the group Corporate MIS team tedious and time consuming. Reporting of actuals against budgets and against the quarterly profit plans happened in excel sheets which meant manual work.

A large amount of time was spent collating data and consolidating it rather than on critical analysis and opportunity identification. Multiple iterations due to ever-changing business environments created version management issues.

For instance, one of the company SBUs had to go through 17 versions of budgets in a three month period. Entitywise and business-wise reconciliation were also becoming difficult.

The excel files would float in the system through e-mails or common

#### **HIGHLIGHTS**

- > Solution has helped the company reduce lead times for releasing budgets from fi vedays to just four hours
- > Each employee across the organization now gets a single version of any report

#### SNAPSHOT

Company: Marico

**Project:** Implementation of IBM Cognos

**Project Head:** 

Girsh Rao, Head - IT

shared folders making data integrity and data efficacy the biggest challenges. This, coupled with business dynamics at various segments and individual entity needs, created non-standardization at various reporting levels.

To overcome these issue, the company deployed IBM's Cognos TM1 solution for its budgeting, planning and aeporting processes. The company not

only extended the solution for nonfinancial reporting but also integrated it with its SAP-based systems and nonstandard data formats such as excel/text with the reporting solution. With the deployment, each employee across the organization gets a single version of any report. The solution has helped the company reduce lead times for releasing budgets from five days to just four hours.

### Data Warehousing helps SBI save ₹ 17 crore

The State Bank group, needed an Enterprise Data Warehouse to meet its requirements for regulatory, statutory and compliance reporting. It required a Management Information System for decision support; Risk Managementrelated mining and reporting; Corporate Performance Management; Financial Consolidation; and customer analysis.

Hence, as a first step towards achieving this objective, the Group developed a few data warehouse

applications in-house. It deployed tools for business controllers-providing various MIS and operational reports to the various levels, budget, performance reports, potential mapping application, branch profile and customer 'One View.'

The solution has reduced latency in accessing information thereby enabling decision support. The self-service option has empowered employees to use information effectively. Customer behavior and value assessment is now

possible with the deployment. Customer One View has helped the relationship managers in terms of business development. The central generation of reports, has resulted in significant time, effort and costs savings.

With information being managed centrally and more efficiently, the cost of data collection has reduced. With the solution, the Group has been able to reduce the number of employees involved in data collection and also the dependence on outsourced services. It has also reduced the overall information cycle and cost of audit.

The prompt availability of information and analysis on the use of alternate channels by customers has allowed the banks to increase their product offerings, cross-selling and upselling opportunities and develop specific strategies for channels.

#### **HIGHLIGHTS**

- > The group has saved up to ₹ 17 crore with the implementation
- > Increase in product offerings, cross-selling and up-selling opportunities

#### SNAPSHOT

Company: State Bank Group **Project:** Implementation of

data warehousing tools

**Project Head:** 

A Krishna Kumar, Deputy Managing Director (IT)

# Business Intelligence on the cloud: An attractive alternative

By **Dr Srinivasa Raghava Vegi**, General Manager, Wipro



he Holy Grail of business intelligence is witnessing innovative attempts by product and service providers to make it an affordable asset by ensuring early returns. Bl applications are all set to make a leap out of the CEO's office by focusing on optimal management of infrastructure using shared and expert services. Success stories like Cloud Bl and open source applications like Hadoop architecture are stealing significant revenues from on-premise vendors.

BI on the Cloud has started changing the economics of BI by making available the hardware, software, security, networking and required tools to create data marts and data warehouses on demand with pay-as-you-go approach to usage and licensing. Ideally, a cloudbased business intelligence platform makes use of infrastructure-as-a-service (laaS), complements and extends today's platform-as-a-service (PAAS), utilizes an on-demand, virtualized, elastic software and hardware environment, and delivers application-level functionality as a service (commonly referred to as software-as-a-service).

A typical BI cloud not only delivers the required reports and analytics; it also provides a framework with prebuilt reporting and analysis templates and a development platform that enables embeddable, externally facing applications to solve a function-specific data analysis problem.

The benefits of a BI cloud typically include:

 Low-Cost hardware and software infrastructure

- Predictable ongoing operating expenses
- High Scalability
- Simplified operations and no dependency on expert skills
- Easy adoption
- Better technical support

As more and more BI projects are turning on the BI cloud, the maturity curve is also rising. It's coming up with better provisioning, billing and configurable options. On the technology front, it is also looking at load balancing, scaling and fail-over options.

BI Cloud demands a much better integration between the two expert ends of product and service providers. Achieving high scalability and flexibility at low-cost is a key mantra behind the success of BI on the cloud. The future of BI cloud is ascertained by the advantages of this computing paradigm and explosion of the digital data at an unpredictable pace.

In spite of technical, operational and commercial advantages, the adoption of BI Cloud has not gained adequate traction in India. One of the main reasons is that large BI applications are dealing with highly sensitive data which demand highly proven security models. While the adoption of BI cloud in India is at a nascent stage, we will soon see a steep growth as the number of cases increase.

Within a society that values instant gratification and getting more for less, the ability to "turn on a switch" and have immediate access to valuable insights while spending less up front, will create a great pull towards the adoption of ondemand solutions.

# Ajuba finds the perfect telephony solution

As a reputed international BPO in the medical field, telephony infrastructure is a critical technology component for Ajuba Solutions. Hence, the company invested in a high-end EPABX infrastructure to support its critical telephony requirements. However, this did not fully meet all its business requirements—such as voice logging, productivity reports linked to internal applications, etc. The weak link—the inability to automate internal processes based on telecom status, wherever telecom infrastructure is used.

When IP-based Unified Contact Management solutions became available, Ajuba experimented with a new IP-based platform. However, this required high investments to cover all phones and the platform also lacked the flexibility to integrate with internal applications.

Ajuba found the solution it was looking for in Freeswitch, a scalable

#### **HIGHLIGHTS**

> Development costs were less than USD 18,000 and total project costs were less than USD 28,000. Ajuba was able to save about USD 80,000 in telecom infrastructure costs

#### SNAPSHOT

**Company:** Ajuba Solutions (India)

**Project:** Wonderpro Dialer Interface

Project Head: T Jaganathan

open source cross-platform telephony application. Ajuba developed a preview dialer interface for use from any Ajuba in-house application using a Freeswitch API called WONDERPRO. WONDERPRO helped to automatically add the results of each dialing attempt to customer data (which was earlier done manually).

Preview dialing could be initiated from practically any application screen just by clicking a Dial button from the application—without having to switch to any external dialing application. This not only saved high investments in proprietary commercial telephony solutions but it also provided enough flexibility to tightly integrate telephony with internal applications. This has significantly improved productivity for Ajuba. With development costs less than USD 18,000 and the total project cost less than USD 28,000, Ajuba was able to save about USD 80,000 in telecom infrastructure costs.

# Cleartrip scales up its travel bookings

Since its inception, Cleartrip, an online travel portal, had ambitious plans to grow rapidly and at a large scale. Cleartrip needed a technology platform that was scalable and could be tuned to perform optimally.

With its business increasing at a rapid pace, the IT team needed to ensure a high uptime of the portal for thousands of transactions daily. With flexibility, scalability, cost, performance, and security in mind, the company's IT team decided to build its infrastructure based on open source solutions. Linux-based open source solutions were an ideal fit as they not only met the company's requirements, but also allowed Cleartrip to take advantage of the rapid innovation from the open source community and avoid proprietary lock-in. Cleartrip finalized its IT infrastructure based on the Red

Hat Linux platform, and gained from the security features enabled through the Security-Enhanced Linux (SELinux) functionality.

Today, Cleartrip has its complete IT stack based on open source systems, except for its Oracle database. All its servers run on the Red Hat Enterprise Linux operating system, using Tomcat and Ruby on Rails as an application server and Apache as the web server.

Since it adopted an open source platform, Cleartrip has benefited from system reliability, increased performance, easier system manageability, and scalability. In March 2010, the company conducted a survey of nearly 28,000 users to analyze how fast one can procure an airline ticket. The survey findings revealed that an individual can book a flight online in just 26 seconds.

#### **HIGHLIGHTS**

> Hardware expenditure on open source has been less than 50 percent—compared to the cost of using alternative proprietary solutions

#### SNAPSHOT

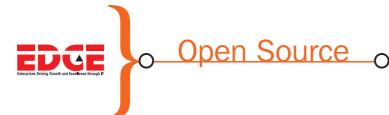
**Company:** Cleartrip Travel Services

SI Partner: Red Hat Project: Deployment of

Linux OS

**Project Head:** Sanjeev Sreedharan, VP, Software

Engineering



# **Great Offshore navigates safely**

In 2009, Great Offshore's IT team planned to undertake an ambitious IT greenfield project of building a complete SAP-based ERP solution. On the database side, the team selected IBM's DB2 database. The key objective was to build a standardized system that would cater to changing business needs and growth, and provide accurate and timely information to all users.

To run such a multi-functional system based on a combination of SAP and DB2, Great Offshore needed a stable and scalable operating platform. The IT team was also conscious of the costs of acquisition and maintenance of the operating platform and associated hardware. The team had three options: a UNIX-based platform such as HP-UX or IBM AIX; a Microsoft Windows-based platform; or a Linux-based platform.

With reliability, scalability, cost of acquisition and maintenance, and

#### **HIGHLIGHTS**

> Great Offshore foresees 60 percent cost savings over three years in comparison to using proprietary platforms

#### **SNAPSHOT**

**Company:** Great Offshore **Project:** Deployment of SAP

on Linux
SI Partner: Red Hat

Project Head: Deepak Sachdeva, Senior Manager-IT

performance in mind, the team decided to build its SAP-based ERP system on the open source Red Hat Enterprise Linux operating platform. This platform not only met the project's technical criteria, but also allowed the company to avoid proprietary lock-in. Further, it presented the company with the opportunity to take advantage of the open source community's rapid innovation model.

The system testing was conducted successfully and the system went live

without any major issues. Today, over 150 people use this system, and the total database size is approximately 250 GB. Additionally, the virtualization capabilities integrated in the Red Hat Enterprise Linux Advanced Platform have allowed the company to explore server consolidation and improve its operational efficiency. Great Offshore foresees 60 percent cost savings over three years in comparison to using proprietary platforms.

# Just Dial dials into open source

Online telephonic service provider, Just Dial, wanted to ensure that its IT infrastructure scaled up in line with business expectations. Hence, the firm decided to build its infrastructure based on open source solutions.

The firm chose Red Hat Linux as the operating system, and based its systems, both the Intranet and the Extranet, on LAMP (Linux - Apache - MySQL - PHP) architecture. Just Dial's mission-critical systems, both Web-based and telephonic,

run on Red Hat Enterprise Linux. Red Hat freed Just Dial from vendor lock-in, and enabled the organization to choose hardware platforms that delivered flexibility and high performance.

The firm chose MySQL as its database as its search was parameterized, and based on advanced artificial intelligence principles. Since the performance of MySQL was good on Linux, the firm decided to specifically adopt MySQL as the database.

#### **SNAPSHOT**

Company: Just Dial

> Red Hat Enterprise Linux powers more than 200 servers in Just Dial for its various Intranet and Extranet applications

**HIGHLIGHTS** 

SI Partner: Red Hat
Project: Deployment of open
source software and OS

**Project Head:** Sandipan Chattopadhyay, CTO

With the open source stack, Just Dial has reduced its IT costs due to simplified management and reduced maintenance of systems. The IT team which earlier managed five servers now manages more than 200 servers—with the same team size. The company expects the server count to reach 350 by year end and is confident of handling this growth with the same team.

Currently, Red Hat Enterprise Linux powers more than 200 servers in Just Dial for its various Intranet and Extranet applications. These applications are accessed by thousands of Just Dial telemarketing officers from 40 cities in India and lakhs of online users all over India on a day-to-day basis. Three years ago, Just Dial's executives attended to close to 80,000 calls per day. Post deployment of the open source software and OS, this figure has crossed 2,50,000.

### Healthcare becomes more affordable

LifeSpring Hospitals is a growing chain of maternity hospitals providing affordable, high-quality healthcare to lower-income women in India. As a growing company, it was essential for the hospital to find a way to manage its growing database of customer information, as well as smoothly coordinate its operational logistics.

With flexibility, scalability, cost and performance in mind, LifeSpring's IT team chose open source solutions, including Red Hat Enterprise Linux, Red Hat Network Satellite, and JBoss Enterprise Middleware, as an ideal technology base on which to build its IT infrastructure. LifeSpring implemented Zimbra Collaboration Suite Network Edition for fulfilling its e-mail and collaboration needs and Open Source Trouble Ticketing System (Open Ticket Request System, or OTRS) to track all the complaints raised by internal

#### HIGHLIGHTS

- > A three-member team completely manages the IT infrastructure of the hospital
- > The cost-effective nature of open source has allowed the hospital to pass benefits on to its customers

and external customers. LifeSpring used Elastix to set up a reliable VoIP communication solution and Alfresco to build a scalable, secure. and cost-effective enterprise content management solution. To address training challenges, the hospital implemented a Moodle-based learning management solution. Zabbix, an open source monitoring system, was used to monitor the entire IT infrastructure.

#### SNAPSHOT

Company: LifeSpring Hospitals

SI Partner: Red Hat

Project: Deployment of Open

Source Ecosystem

Project Head: Sujeet Kumar,

Manager, IT

Significantly, the hospital's IT team consists of only three people. LifeSpring has comfortably managed to run its entire IT infrastructure with no downtime. Customer satisfaction has increased multifold, since LifeSpring can now reach customers in a timely manner. The cost-effective nature of open source has also allowed the hospital to pass these benefits on to its customers, thereby providing affordable healthcare.

# No more technology lock-in

Mahindra & Mahindra Financial Services (MMFSL) incurred huge costs on closed source and continuous upgrades on closed source software. The company had task forces from every branch spread across different locations handling the business without any Head Office/Regional Office interference.

During an analysis of software cost against each task force, the company

found that every user was worth more than ₹1.5 lakh. But the actual cost to company of these users in remote areas was less than ₹1 lakh per annum. The closed source cost incurred per employee at the non-management level was very high. When multiplied with the head count of employees, the total closed source cost was more than the total cost of employees. Further,

# **SNAPSHOT**

Company: Mahindra & Mahindra Financial Services Limited (MMFSL)

**Project:** Implementation of open source-based applications

Project Head: Suresh A Shanmugam

not all employees had access to all the software due to limitations of closed source procedures availability and access controls. The company had to maintain multiple grades of employees to enable the access controls. To resolve these issues, the company decided to migrate to open source software.

Through a pilot project, each the company deployed a field force automation application and an insurance product application-both based on open source technologies. Even the backend operating systems were based on open source with the company adopting Red Hat's Enterprise Linux OS.

With the open source adoption, the company estimates cost savings of close to ₹ 5 crore a year. With the deployment, MMFSL has reduced connectivity, power and other recurring costs by almost 90 percent. ROI was seen within three months of implementation.

#### HIGHLIGHTS

- > The company estimates a cost saving of ₹ 5 crore a year
- > ROI seen within three months of implementation
- > As much as 90 percent reduction in connectivity, power and other recurring costs



# Mudra manages studio with mTRACT

When it comes to typical advertising agency studio operations, there are often challenges in setting up a comprehensive environment that caters to the full lifecycle. In the absence of an automated workflow management system, inefficiencies exist. The objective of the studio function is to deliver high-quality accurate artworks on time. Depending on the category being serviced, last-minute changes are a given fact. The challenges get compounded when the user short-circuits the process to meet delivery deadlines.

mTRACT (Maatra tracker for cocreative transaction) is an integrated Web-based workflow management system for studio operations. With mTRACT, all job requests are routed online through the system. Depending on the job type (line art, translation, etc), the system follows a pre-defined parameterized workflow methodology.

Dashboards provide each stakeholder (client servicing, studio manager, quality control, etc) with the relevant job-wise status. Managers can view the status of a particular job, assign jobs to operators based on the load factor, etc. All images/artwork get stored in a centralized repository in a categorized manner. The application is Web-based and can be accessed from any geography any time.

#### **SNAPSHOT**

Company: Mudra Communications

**Project:** mTRACT (Maatra tracker for co-creative transaction)

Project Head: Sebastian Joseph, Executive VP & Head - Technology

### System performance gets doubled

Operating in the business of home comfort products, Sheela Foam's business greatly depends on its proprietary ERP 'Greatplus' and its availability at its various offices, production units and subsidiaries. The firm was using UNIX as the platform to run its ERP. On one occasion, its proprietary server went down and took almost 16 hours to recover. Sheela Foam then decided to look out for an alternative platform.

The firm went in for a Dell Power Edge server with Red Hat Enterprise Linux and deployed its database to run the ERP. The trial was done with a load of 300 users. Subsequently, this was brought under production with more than 1,500 users. The firm was surprised with the results since the server performance doubled and processing time reduced drastically. For example, the processing time of exhaustive reports reduced by 60 percent-resulting in time

saving and increased productivity.

In the earlier environment, even a small increase in the load above the threshold capacity of the system, required an expensive upgrade. With RHEL and Dell, incremental load increase can be easily handled by adding another low-cost server. The reduction in servers and associated maintenance costs has resulted in savings of over ₹ 40 lakh. The firm now spends ₹ 4 lakh per year compared to ₹ 44 lakh on its previous UNIX system.

#### SNAPSHOT

Company: Sheela Foam
Project: Moving from
proprietary Unix to Open
Source Red Hat Linux

**Project Head:** Pertisth Mankotia, IT Head

### **Indian Public School ups technology**

#### SNAPSHOT

**Company:** The Indian Public School, Coimbatore

SI Partner: Indsys Infotech Services

**Project:** Mix of open source solutions and Windows platforms

**Project Head:** Ashok Kumar, Chairman

The Indian Public School, started in 2006, offers IB and IGSE courses to over 650 students. The school embarked on a project to implement IT solutions and products to automate its administration, student management, library, communication systems and Internet access. The total IT infrastructure of the school is a hybrid environment—a mix of open source

solutions and Windows platforms, i.e. Ubuntu-based customized thin client systems for students and staff, Asterix Open Source EPBX Systems for school and hostel students, Library Management Systems in Microsoft platform, IP-based surveillance systems for student monitoring. The school has used Atom-based mini desktops and Ubuntu live on flash drive as thin client.

Post deployment benefits include reduced maintenance and short duration to bring the system up, and nil virus problems at the thin clients. There have been cost savings related to maintenance, PBX systems, reduced licensing costs, bandwidth and travel costs. Employee productivity has increased due to reduced centralized management of data.

The school has two campuses spread across 25 km. This distance is no longer a barrier in management, administration, communication and faculty interaction.



### <u>Document Management</u>

# Stronger and more transparent accounting

Finolex Industries Limited (FIL), formerly Finolex Pipes, was incorporated in 1981 and has been in the Plastics business since then. FIL wanted to automate its Accounts Payable process in order to make it error-free and transparent. FIL implemented a Datamatics Accounts Payable software suite, which includes i-Q (Intelligent Document Processing Tool) and ePM (e-Payables Manager). The solution has not only centralized the process to FIL's head office, but also brought in absolute transparency and made real-time information available.

i-Q takes the scanned image of the invoices and automatically sorts documents, recognizes, captures, validates, corrects, analyzes, formats and populates the data on to SAP. ePM's flexibility has helped FIL in bringing automation, visibility and agility to its Accounts Payable process.

#### HIGHLIGHTS

> The Accounts Payable Software Suite has accelerated the invoice approval process. There has been a signifi cant improvement in employee productivity by over 15 to 20 percent.

The Accounts Payable software suite is provided as a license, which is customized to automate the entire Accounts Payable process for FIL, and integrate with their SAP-providing real-time access to various master tables. This solution is implemented at the company's Pune HO (configured and hosted on the server) and Ratnagiri (its manufacturing plant).

#### SNAPSHOT

Company: Finolex Industries

SI Partner: Datamatics Software Services

**Project:** Accounts Payable

Software Suite Project Head: P S

Subramaniam, Assistant MD

and CFO

The company achieved an increased ROI by moving from a manual to an automated invoice management system. Eliminating time-consuming invoicehandling tasks and manual matching of invoices has led to increased productivity within the organization. There has also been a significant improvement in employee productivity at FIL by over 15 to 20 percent.

### DMS improves workflow, offers high ROI

The policies issued by HDFC Standard Life (HDFCSL) have grown manifold since the inception of the company. The company decided to outsource its data processing activities to partners for faster response time and cost-effective processing.

Although an outsourcing model was already in place, there were issues with the quality of the data entered by outsourcing partners. Pinnacle was designed to achieve maximum

automation which has resulted in high accuracy without any manual intervention. Pinnacle is integrated with HDFCSL's core Policy Administration System (PAS) and enterprise workflow management system through IBM MQ Series and Web service respectively. Pinnacle has an in-built ICR engine which can capture data from proposal forms.

With Pinnacle, a single application serves all partners ensuring standardized processes. This has resulted in total cost

savings of ₹1.5 crore per year including savings of ₹ 67 lakh in office space usage-since outsourced staff are no longer required to be stationed at the company's premises.

Pinnacle has also simplified the entire workflow for HDFCSL by eliminating the file transfer process which required images to be sent to partners. Integration with PAS, enterprise workflow and DMS have eliminated the need for manual intervention to update the systems.

Being a Web-based application, Pinnacle can be accessed by all partners from any location. The application is centrally managed and available 24/7 for data processing. Real-time monitoring of data in different stages of the data processing lifecycle is possible. Two levels of quality checks have been built in to ensure minimal errors—this has improved the total turnaround time for customers.

#### **HIGHLIGHTS**

> The expected ROI for Pinnacle for a period of three years is 209 percent. The expected payback period is 11 months.

#### SNAPSHOT

Company: HDFC Standard Life Insurance

Project: Pinnacle

Project Head: Sunil Rawlani, EVP - IT, Process & Quality



### Document Management o

### Paperless wave transforms ICICI Securities

As a financial services company, ICICI Securities sent a large number of financial statements to its customers. These included digital contract notes of BSE and NSE, demat statements, trade order confirmations, and various adhoc mailers. This resulted in high printing, stationery and mailing costs.

While the company outsourced some of the print statements through a printing agency, this created data security challenges. To bring about better automation, standardization, consolidation and improved management of the statement processing, a paperless project drive was initiated.

The company identified physical statements, conducted a cost-benefit analysis and initiated an automation project. This system automates digital signing of the e-mailed statements, along with password protection for the document

#### **HIGHLIGHTS**

- > Cost savings of ₹ 4 crore per annum due to automation of physical statements
- > Over 10 million e-mail statements generated per month

#### SNAPSHOT

Company: ICICI Securities
Project: Paperless Initiative
Project Head: Joydeep Dutta,
Chief Technology Offi cer

The firm also undertook conversion of various physical statements to electronic form and sent the same through digitally-signed password-secure e-mailers. Further, bounced e-mails were collected and auto-queued for physical printing and made available for manual despatch to customers.

Today, a single standardized platform for statement printing has been adopted across the ICICI Group companies including international subsidiaries. The platform uses open source systems to send mails and is tightly integrated with various business transaction systems to fetch data in the required format for rendering and generating the statements

Due to this automation, resources have been re-deployed to conduct other activities. This has improved employee productivity across the operations team that was responsible for generating, printing and despatching the statements.

### **Cost reduction through DMS**

Part of the Zurich-based Kuoni Travel Group, VFS Global (VFS) was established in 2001 in Mumbai, as a specialist partner for diplomatic missions worldwide. VFS has labor-intensive operations and outsourced its paper-work to India by developing an automated document management workflow.

The workflow management has been customized to offer a unique solution to meet the business requirements at VFS. The existing solutions did not offer flexibility in terms of supporting multiple client operations on a single platform. The suite required customization to create separate logical cabinets. Each logical cabinet needed to support a unique hierarchy to separate different document types such as visa forms, legal forms, etc. The system was also required to support identity management to ensure that access was granted to authorized users for data processing. The capability of encrypting/decrypting

images had to be built in to the software for it to be contractual- and security-compliant. Data back-up procedures needed to be automated to eliminate manual intervention. Reporting data required customization to display relevant statistics.

While maintaining high-quality standards and improvement in operational productivity, the system has led to annual cost savings of 47 percent. The break-even has been achieved in its first year of operations and the transaction volume has increased by 100 percent YOY. With its successful implementation, VFS would extend CDPU capabilities to diversify into new lines of business such as DMS.

Thus, the choice of right technology aligned with business requirements has helped carve out a separate profit center within VFS and has also opened new opportunities for the company.

#### **HIGHLIGHTS**

> Annual cost savings of 47 percent. The break-even has been achieved in its fi rstyear of operations and the transaction volume has increased by 100 percent YOY

#### SNAPSHOT

Company: VFS Global Services

**Project:** Document Management System

Project Head: Raghavendra

Joshi



# **NETWORKING**





# SAIL gets MPLS network

Steel Authority of India Limited (SAIL) has its operations spread across 23 locations in India. Most of the plants are located in remote areas. The absence of an NMS infrastructure left the network completely unmanaged. Also, network reliability was poor due to copper links and lack of redundancy. This also made it difficult to scale up in terms of bandwidth.

To overcome these issues, the firm partnered with Reliance Communications to establish an MPLS VPN network at 23 locations. An online portal was made available to monitor the network, view network health reports and generate fault tickets. A Virtual NOC was established to provide customers with Internet-based network monitoring through a dashboard. The virtual NOC has helped the firm in avoiding the cost of ownership of NMS infrastructure at the customer site,

The dashboard tool integrates with MPLS links and routers thereby providing a complete view of network links, routers and their performance. Network monitoring and management is outsourced to the service provider under a Managed Services model.

The deployment has allowed the company to offer a highly scalable and secure network. The network is QoS aware and caters to business critical ERP and video conferencing applications with SLA.

#### **SNAPSHOT**

**Company:** Steel Authority of India Limited (SAIL)

SI Partner: Reliance Communications

**Project:** Implementation of MPLS and RF connectivity

networks

Project Head: D M Thakur

#### Eaton slashes telecom costs

Eaton is a global technology leader in electrical components and system. In addition to its four manufacturing plants, Eaton has established an engineering center, IT center, customer support center, a global sourcing center and the International Shared Services center in Pune.

Due to the company's global presence and as the technology hub for most of the engineering application development and IT support, the major challenge for IT was to control telecom expenses. Major telecom charges for Eaton were the international calls and the numerous long conference calls with overseas clients and counterparts. Eaton leveraged the global AT&T DATA EVPN MPLS network to handle data traffic. The objective of this project was to use the existing AT&T network and VoIP technologies to drive the international calls which would eventually result in cost sayings.

Eaton used the standard deployment

of IP telephony in the network instead of using TDM (Analog/Digital) based solutions. The main advantage of having the IP telephony was the reduction in operating costs in the long term and integration with the new emerging technologies.

The usage of Voice Over Global Area Network (VoGAN) for both international calls as well as calls to GSC has resulted in yearly savings of more than USD 60,000 for Eaton India.

#### SNAPSHOT

Company: Eaton India

**Project:** Implementation of Voice over Global Area Network (VoGAN)

Project Head: Viswanathan Krishnamurthi, VP – Corporate IT (APAC)

### United Bank of India connects faster

#### SNAPSHOT

Company: United Bank of India

**Project:** VSAT-based solution for providing quick connectivity to branches

**Project Head:** S L Bansal (Executive Director)

To gain a clear competitive edge over other banks, United Bank of India (UBI) wanted a solution that would allow it to network all its branches with the head office in an accelerated time frame. The Bank opted for an innovative technology, which has proved to be a pioneering effort for the rest of the industry to emulate. The technology is a joint effort between Cisco and Gilat, a leader in providing VSAT communication services. It entails insertion of a Gilat IDU

card which is inserted into the NM slot of a Cisco router.

The ability of this technology in enabling quick connectivity was proved when partner, HCL Comnet, connected 100 branches with the head office over VSAT in just a week. Today, 393 locations of UBI have been connected. The deployed solution has enabled the Bank to provide assured and hasslefree services to end customers even at remote sites.

For example, users accessing the server from remote sites over VSAT media have significantly benefited in respect of connectivity speed. The ATM services of the Bank have phenomenally improved post implementation of the solution. Branch transactions and communications have also become faster. These parameters have helped the Bank serve its customers with more reliability which is extremely crucial in today's competitive market.

### Networking o



### **NMS** boosts customer satisfaction

Reliance Infrastructure plays a pivotal role in providing reliable and quality power to its consumers.

Reliance Infrastructure's Mumbai distribution business is spread across an area of 384 km powering 2.7 million consumers through an electrical cable network of approximately 3,900 km percolating from almost 64 receiving stations (primary distribution point), 6,000 sub-stations (secondary distribution point), 50,000 mini pillars, 2 lakh service points, 75,000 street light poles followed by 2.7 million consumer end meters with varying voltages.

One challenge for the company was that the spread of underground cables, which run through marshy lands, can only be managed with a fully-automated integrated solution.

### DEPLOYMENT OF THE NETWORK MANAGEMENT SYSTEM

Reliance Infrastructure has implemented a Network Management System (NMS), an integrated system comprising a Distribution Management System (DMS) and an Equipment Monitoring System (EMS).

The DMS System monitors and controls the switchgears and fault passage indicators installed at the sub-stations. The EMS monitors and controls the critical parameters of the sub-stations. It should be noted that presently most of the technologies deployed across the world for utilities

#### HIGHLIGHTS

- > Proactive monitoring of electrical network
- > Earlier, the fi rmused to take a minimum of two hours to restore services. Post deployment, this time has come down to a maximum of fi veminutes
- > Manual process of identifying a faulty cable section or switchgear during abnormal conditions has been eliminated

#### SNAPSHOT

#### Company:

Reliance Infrastructure

#### Project:

Implementation of Network Management System

#### **Project Head:**

Dr Prashun Dutta, CIO and IT Head and Rajiv Sharaf, Additional VP

operate in silos.

### WHAT MAKES THIS SOLUTION UNIQUE

Reliance Infrastructure is probably the only organization in the world to have converged three independent solutions (Transformer Monitoring System, Automated Meter Reading and Distribution Management System) into a single comprehensive solution.

### HOW THE SOLUTION HAS BENEFITED THE COMPANY

The solution helps in remote monitoring, diagnosis, isolation and control of equipment that is installed in sub-stations including transformers and switchgears. The Geographic Information System (GIS) is also used as a workspace.

The system ensures proactive monitoring of critical parameters of transformers, avoiding breakdowns and quick resolution of faults during breakdowns.

The solution has helped Reliance Infrastructure achieve network reliability of 99.9 percent. This also ensures maximum customer satisfaction with minimal outages.

Earlier, the firm took around two hours to restore services. This time has now come down to around five minutes. The firm can also remotely isolate a faulty section and restore electric supply. This has helped in ensuring safety. It has also relieved manpower from visiting all sub-stations across affected areas.





# Wireless backbone improves connectivity

Shree Cement wanted to connect its project sites with its data center to provide IT-enabled services at its green field projects. The firm wanted to provide ERP connectivity, e-mail, Internet and VoIP along with IP surveillance from the first day of initiating the projects.

Connectivity was extremely crucial since the firm wanted to track and control projects using the ERP solution. The company wanted to use IP telephony to communicate across the Group. It also wanted to provide Internet facilities to project teams along with IP surveillance cameras that would monitor project activities from any location.

Since temporary and portable cabins were used for the firm's projects, it was not possible to lay an optic fiber network from the first day of a project. This was since portable cabins were changed frequently as per the layout of the project. Shree Cement hence decided to create a wireless zone across the entire project area.

#### 100 PERCENT CONNECTIVITY FROM DAY ONE

The most significant aspect of this project is that the firm has succeeded in achieving 100 percent connectivity at its green field project site on the first day with 100 percent availability. To ensure security, the firm used 128 bit encryption with security of SSID without SSID broadcast. The wireless field was created with restricted powers to limit wireless

#### HIGHLIGHTS

- > Creation of a wireless backbone has given the firm the ability to shift its network hub to any location. The firm can also provide connectivity at any location within the project site.
- > Usage of video conferencing has helped the firm in saving transportation costs
- > The fi rm succeeded in achieving 100 percent connectivity at its green fi eld project site on the fi rst day

#### SNAPSHOT

Company: Shree Cement Project: Wireless backbone for temporary project sites Project Head: R K Srivastava, Senior General Manager (IT)

broadcast within the project area.

The connectivity on the first day of starting the project helped in giving the projects the required agility. For example, IT-enabled services such as video conferencing have saved travel time as well as transportation costs. Each transaction is available in the ERP solution from the first day of the project.

Exchanging site layouts and technical discussions have become very easy using the Internet and the Intranet. As a result, the project team do not feel they are present at a remote project location. With direct connectivity to seniors, team members can seek the required guidance while running a project.

Today, thanks to the wireless backbone, the firm can shift its network hub to any location. It can also provide connectivity at any location within the project site.

#### IMPLEMENTATION BENEFITS

Video conferencing has helped the firm to save on travel-related costs. The IP surveillance system allows project team leaders to have a virtual presence. This has played a significant role in achieving time-bound project targets.

The wireless backbone has also helped the firm in garnering significant cost savings. For example, the total cost incurred on two sites, i.e. Suratgarh and Roorkee, was only ₹10.54 lakh (wireless) as compared to the conventional estimated cost of ₹ 46.72 lakh (for an optic fiber network).





### No more 'password fatigue' at Ajuba

Identity Management is a critical requirement for Ajuba International. Ajuba has developed a centralized Identity Management architecture using Windows Active Directory for managing resource access for all employees. This Active Directory authentication was designed to comply with complex password policy requirements and followed a well-defined procedure.

Employees had many individual authentication requirements such as access to HRMIS, in-house applications such as a Workflow Tracker, Productivity Management, Quality Review, etc. There were various systems of authentication for applications developed on different development platforms before standardization was achieved. Not only was it difficult for employees to handle multiple passwords, but the company also faced its share of security challenges. Security standards called

#### **HIGHLIGHTS**

> Operations effi ciency improved by saving the efforts of managing 10 different passwords—approximately 200 productivity days per annum for about 1,800 employees

#### SNAPSHOT

**Company:** Ajuba Solutions (India)

**Project:** Identity Management architecture

Project Head: T Jaganathan

for frequent password changes which became a complex process. Each program operated on a different platform and could not be standardized.

Post deployment of the solution, each employee now needs to manage only one identity within the organization-reducing their `password fatigue.' This not only saves time has enabled employees to work simultaneously on multiple platforms. Creating or resetting identity for

an employee is now possible with a single operation instead of 10 different triggers raised earlier. The lead time in reconfiguring passwords for hundreds of employees also got simplified.

Operations efficiency has been improved by saving the efforts of managing 10 different passwords.

The company estimates that this works out to approximately 200 productivity days per annum for about 1,800 employees.

### **CSEB** upgrades security infrastructure

Chattisgarh State Electricity Board (CSEB) had a small centralized IT team and its branches were in remote locations across the state. It frequently faced challenges such as network downtime due to the lack of timely patches or malware issues. CSEB's corporate mailing system and central Internet gateway too were subject to a lot of security threats and malware. This affected their corporate image

and business uptime. CSEB therefore looked at implementing a secure network environment from perimeter to the desktops across all locations. As the Board had limited manpower in IT, it chose to outsource its IT Security management.

CSEB deployed an anti-virus solution at the network gateway and across 1,500 user desktops. It deployed a patch management solution across all desktops and servers. It also deployed a URL filtering solution integrated with a proxy and caching appliance and an NAC solution for automated end-point security policy enforcement. Further, it deployed an SSL VPN for secure access and two-factor authentication. The entire security infrastructure is managed by HCL Comnet through its Security Operating Center (SOC).

With these deployments, the Board has been able to ensure utilization of Internet bandwidth by blocking unwanted websites. This has not only allowed the organization to provide hassle-free services to customers but also improved overall employee productivity due to a reduction in downtime caused by malware attacks and abuse of Internet facilities. It has also helped CSEB bring down the overall bandwidth costs. Transactions and communication have also become faster.

#### **HIGHLIGHTS**

> Higher level of security controls have helped the Board reduce malware attacks and abuse of Internet facilities by users

#### **SNAPSHOT**

Company: Chattisgarh State Electricity Board (CSEB) SI Partner: HCL Comnet

**Project:** IT Security Implementation

**Project Head:** K K Singh, Chief Engineer (EITC)

Litgitical (Litte

### **IBM Daksh** sharpens its risk management

Risk Management in any organization is a challenging task. When coupled with complex technological infrastructure, multiple locations and geographies, and diverse customer expectations, it is indeed a daunting task.

IBM Daksh implemented Self-Assessment for Privacy and Security (SAPS) across the organization. SAPS is a self-managed governance model based on a methodology derived from best practices in security and data privacy in a BPO. This also includes commonlyexpected controls from clients who outsourced processes such as credit card numbers, health information and other financial data. An in-house Web-based self-assessment tool complements this framework and provided a central database for reporting and analysis.

Business and functional leaders respond to a self-assessment questionnaire. Based on their responses, the tool calculates an algorithm-based risk rating. A risk-wise listing of all the processes and functions is available at the end of this exercise.

Post deployment, there has been an overall risk reduction of six percent at the enterprise level. Risks induced by contractual obligations have reduced by three percent. There has also been a reduction in effort since multiple audits have been consolidated into a single comprehensive self-assessment.

#### SNAPSHOT

Company: IBM Daksh Business Process Services

**Project: Risk Management** Project Head: Nandita Jain Mahajan (CISM, Chief Privacy & Information Security Officer)

### **Access Management solution**

At Infosys, most of Sarbanes-Oxley Act (SOX) requirements were governed manually. Hence, it was very cumbersome to meet the auditor's requirements during annual audits. Provisioning and de-provisioning of roles was done manually, so it was challenging to maintain proper access as employees moved around and out of company, Access Control Management and Segregation of Duties (SoD) were managed de-centrally, so the cost of maintenance was high.

It was crucial for Infosys to come up with innovative and integrated access management control which governs Centralized Access Management and SoD to prevent fraud, ensure the security of enterprise information systems, and comply with the SOX Act and other regulations in an integrated manner. The company deployed SAP-Access control SAP IDM and a home-grown solution to prevent fraud, ensure the security

of enterprise information systems, and comply with the SOX Act and other regulations. The implementation has allowed Infosvs to consolidate enterprise-wide risks into a single repository. This has enabled early detection and proactive prevention of SoD conflicts. While the turnaround time on SoD testing by auditors has improved by 100 percent, the effort required for access provisioning and de-provisioning efforts has benn reduced by 80 percent.

#### SNAPSHOT

Company: Infosys Technologies

**Project:** Implementation of Access Management tools

Project Head: Survaprakash K, VP and Head - Information

Systems

### Online banking becomes more secure

#### SNAPSHOT

Company: Karur Vysya Bank

Project: Two-factor **Authentication Solution** 

Project Head: S Sekar. Assistant GM & CIO

Customers at Karur Vysya Bank faced issues such as password theft and misuse of their accounts. Due to such threats, some customers did not use services such as online utility bill payments, shopping payments and online share trading. These issues resulted in a significant loss of revenue for the Bank.

Karur Vysya Bank hence decided to deploy two-factor authentication. The solution consisted of a one-time password generating token which would be used to authenticate all Internet banking-based transactions such

as funds transfer transactions for a customer within his account, or to any third-party accounts, bill payments, or RTGS/NFFT transactions.

Each customer would be provided a device which would generate a six-digit random number. Further a four-digit PIN would also be assigned to the customer. The six-digit random number and the four-digit PIN together form a key which is used to authenticate online transactions.

Post implementation, there are more than 750 transactions per day; the number of customers enrolled for Internet banking going up to 1 lakh. The Bank earns a commission from various merchants for transactions such as funds transfer; this ranges from ₹10 to ₹ 15 per transaction. With the increase in Internet banking usage, the Bank has been able to save a minimum of ₹ 50,000 per day.



### Enterprise Mobility

# Mobile app for real-time Proof of Delivery

Gati was looking for a solution that would provide customers with delivery information in real time. The solution would need to provide the customer a Proof of Delivery (POD) which would include a receiver signature, company seal, and the date and time of delivery, on the same day of delivery. It would primarily eliminate the courier costs of moving the physical copy of the POD to a centralized location. Most importantly, it would eliminate the loss incurred during the transit of the physical copy.

The company deployed handheld devices with an application developed in Java that would capture an image of the POD information. In addition, the application also handles additional features such as docket (airway bill) tracking, rate finder, transit time finder and pincode locator.

On delivery, POD information with the captured image of the POD is

#### HIGHLIGHTS

> Implementation allows delivering Proof of Delivery information in real time as opposed to the preimplementation delivery period of three days

#### SNAPSHOT

Company: Gati

**Project:** Mobile application to update Proof of Delivery information

Project Head: G S Ravi Kumar

directly updated to the central database using the handheld device with GPRS connectivity.

The company has deployed the application at more than 240 distinct locations and having over 1,200 users across the country. More than 30.000 transactions are conducted daily via the application. POD information can be delivered in real time eliminating the need for a physical copy POD and the courier cost of moving it. A POD image is now available to customers in real time as opposed to the pre-implementation time lag of three days. It has also eliminated the possibility of loss of POD copy. This has improved the invoice submission process which in turn has improved cash in flow.

The overall customer experience has also improved since the image is now available on the company website. This has consequently reduced enquiry calls from customers.

### Mobile app helps Infosys save USD 300,000

Traditionally, Infosys has been building browser-based applications hosted from a central location. This required the end-user to be connected to the Infosys network. The performance of these applications deteriorated as the user moved away from the hosting environment.

Users were often at different locations and had limited connectivity. Hence, accessibility to these applications with a guaranteed QoS (quality of

service) became a big challenge especially for last-mile users, 'Infy-onthe-go' is an initiative which addresses these challenges through enterprise mobility. This project is targeted at the mobile workforce, the last-mile users, by enabling the application to work out of their desktops without any need for network connectivity.

Through the solution, the company has exposed workflow approvals on the BlackBerry smartphone using its

proprietary mConnect platform. It has made available offline functionalities for common tools such as Outlook which users would be able to avail while being offline from the company network. The company has used Outlook to allow key transactions of native applications to be performed from familiar Outlook

The application allows users to perform their actions anytime anywhere. This, in turn, provides them an extended office and they have more productive time to spend on their core job while at the office.

Post deployment, the company has seen more than 30,000 approvals through BlackBerry smartphones across all scenarios. More than 10,000 travel approvals (around 20 percent of overall approvals) have been through the application using BlackBerry phones.

#### **HIGHLIGHTS**

> Infosys is expecting cost savings of up to USD 300,000 on a quarterly basis through this project

#### SNAPSHOT

Company: Infosvs Technologies

Project: Infy-on-the-go Project Head: Survaprakash

K. Vice President and Head - Information Systems



### Enterprise Mobility O

### Mobile CMS helps streamline data collection

The flagship company of the Nagarjuna Group, Nagarjuna Fertilizers and Chemicals, is a leading manufacturer and supplier of plant nutrients in India. The company started its operations in 1985. Today, it has an asset base worth close to ₹ 21 billion. Its portfolio of products and services includes: nutrition solutions, macro and micro fertilizers, farm management services and micro irrigation solutions.

#### THE CHALLENGE

Prior to the mobile implementation, the company had deployed an SMS-based data transmission and collection service called 'nCircle' leveraging on GSM networks. However, with this system, the company faced problems such as the loss of data, data not being delivered, and delays in SMS delivery, especially during festivals when the SMS traffic is heavy.

#### AN IN-HOUSE SOLUTION

To counter these issues, the company deployed an in-house application called One Point Mobile Content Management Solution (MCMS). This application provides both online and offline seamless data transfer facilities from remote fixed or mobile clients (desktops, laptops and PDAs) situated in remote locations of India to centralized applications such as OLTP - SAP ERP system, Lotus E-Mail and the IT helpdesk.

The solution is a CDMA (Reliance/BSNL 3G network) and WDVPN (NFCL VPN) based project developed on a .Net platform with Oracle 10g DB as the backend running on the company server. The client laptop is loaded with SQL Server 2005 DB. The application is completely integrated with the company's SAP implementation using web services and integrator services. All end-users are provided with tablet PCs with access to the application. The application can be used via these laptops in both online and offline mode.

The remote clients connect to the enterprise applications using secure

#### HIGHLIGHTS

- > The implementation has allowed the company to discontinue data entry outsourcing contracts resulting in savings of up to ₹ 15 lakh per annum
- > With the deployment, the company has saved up to ₹ 60 lakh on stationary and courier costs
- In-house development of the application has allowed the company to save up to
   ₹ 100 lakh per annum

#### SNAPSHOT

**Company:** Nagarjuna Fertilizers and Chemicals

**Project:** One Point Mobile Content Management Solution (MCMS)

Project Head: V Srinivas, CIO

WDVPN connectivity over the CDMA network. The WDVPN connectivity ensures that the end-user uses the same Internet pipe as that of the organization—thereby ensuring limited or no access to unwanted Internet sites. This hence provides a higher level of protection from websites transmitting malware.

### POST IMPLEMENTATION BENEFITS

The company has also started a subsidized scheme called OYLS (Own Your Laptop Scheme) for end-users of the application wherein the major cost of the hardware/laptop is borne by the end-user. This has helped the company reduce the capital budget outflow in a deferred manner.

The application has been successfully implemented across the company's regional offices covering more than 8,000 dealers and 150 warehouses spread across Class-B and Class-C towns in eight states. It has provided the company's Marketing and Supply Chain Management team connectivity even till the last mile. Even if there are connectivity issues, the application allows users to work offline and the changes are then synchronized.

Prior to the implementation, users spent a lot of time and manual

effort on processes such as followup and reconciliation. The solution has automated these processes and allowed them to focus on other realtime business-specific activities. With the data now available online, regional office teams, finance and supply chain department teams can effectively use their time for business analysis. Earlier, they used to spend a lot of time entering data into the ERP system. The system has helped to eliminate redundancies in work and the amount of manpower engaged in data collection at the regional office.

#### **COST SAVINGS**

The in-house development of the application has allowed the company to save up to ₹ 100 lakh per annum which it would have otherwise spent towards vendor consultation, maintenance, SMS and other miscellaneous charges from the previous implementation.

With the implementation, the company has discontinued outsourcing data entry to data entry operators on contract. This has helped the company save upto ₹15 lakh per annum on data entry costs.

The deployment has also allowed the company save up to  $\stackrel{?}{\sim}$  60 lakh on stationary and courier costs.



# DATA CENTER & STORAGE





# Data Center & Storage O EMERSO



# Aircel reduces overall DC carbon footprint

Aircel's transformation as a major pan-India telecom player involved consolidating Aircel's five separate data centers into a single data center to control operations all over Aircel's network. Aircel was facing problems in providing interoperability amongst its different circles since there was no single normalized policy.

Accordingly, Aircel initiated a Green IT initiative with the objective of creating a world-class Tier-III compliant green data center, green service management and operations, green server and storage resource management techniques, and green collaboration techniques. Aircel partnered with Wipro to set up a green-field data center of 50,000 sq. ft. in Gurgaon which met Tier-III standards as per The Uptime Institute, and was LEED-certified. Understanding that on an average, 63 percent of a data centre's energy consumption is for cooling,

#### **HIGHLIGHTS**

- > Reduction of overall carbon footprint of data center by over 400 tonnes per year
- > Effi cientlighting has reduced power consumption by 20 percent

#### SNAPSHOT

Company: Aircel
SI Partner: Wipro

Project: Consolidation of data

centers (DC)

Project Head: Ravinder Jain,

CIO

Wipro designed an energy-efficient data center using green principles. Some of the technologies implemented for the green data center: Adaptive Cooling Technology, Geo-thermal exchange, Earth Air tunnel (EAT), lighting solutions and solar thermal solutions.

Today, a centralized data center has helped to provide complete interoperability between different circles. Aircel has been able to reduce the overall carbon footprint of the data center by over 400 tonnes per year. The data center has also helped in establishing service oriented architecture (SOA) that, in turn, has enabled fast rollouts pan-India without compromising on the flexibility to adapt to business requirements. For instance, in record 59 days, eight circles were rolled out. Considering the pace at which the telecom industry is growing, Aircel forsees the need to build three more data centers of similar or higher capacity.

# Storage demands reduced by 25 percent

As a KPO, Evalueserve's focus is on research and analytics. Information is therefore critical to the business. As this information was growing exponentially at Evalueserve, the firm needed better management and control of data to meet business demands.

To address these issues, the firm undertook a project that aimed at reducing the complexity of the storage network, while ensuring faster and more secure data recovery in the event of a crisis. The firm adopted backup and data management tools from IBM. With the solution in place, the firm has been able to show significant and positive results to the management. As a result of deploying this solution, storage demands have been reduced by 25 percent.

Evalueserve has also been able to control the number of tape cartridges it was using for day-to-day backup by implementing a progressive incremental methodology for storage.

This methodology has helped the firm in increasing the data redundancy and reducing the network bandwidth and storage consumption.

The project has also helped Evalueserve in controlling storage growth. For instance, the firm has implemented hierarchical storage management (HSM) which automatically moves rarely-used or inactive files from premium primary storage to a hierarchy of a secondary low-cost storage. This solution has helped the firm reduce the cost for premium storage space.

Post initiation of this project, the firm has a reduced backup window and it can recover data quickly. Centralized and automated data protection helps the firm reduce the risk of data loss, while ensuring better compliance. Internal clients (business line) are happy with faster response and improved efficiency.

#### **HIGHLIGHTS**

- > Storage demands have been reduced by 25 percent
- > Internal clients (business line) are happy with faster response and improved effi ciency

#### **SNAPSHOT**

Company: Evalueserve
Project: Storage Management
Project Head: Sachin Jain, CIO



# Data Center & Storage O EMERSO



### Twin data centers provide added redundancy

HPCL wanted to have an agile IT infrastructure to ensure that all its business-critical IT systems could run without outages. The company could not afford to be in a situation where its business would be affected due to any failure in its IT infrastructure. With this objective, the firm started building a robust infrastructure with twin data centers at Hyderabad and Mumbai.

The two data centers use heterogeneous platforms bought from top-notch IT vendors and dedicated high-bandwidth links from two service providers, for online data and application replication. Configurable network computing architecture allows load sharing; isolation of development, testing and production environments; effective change management with audit trails. This protects the integrity and reliability of information systems.

After the first data center was built,

#### HIGHLIGHTS

- > Adaptive architecture allows hosting of applications at any of the data centers
- > Key objective of providing uninterrupted services to users has been achieved

the applications were migrated from the existing data center with minimum disruption and set up in replicated mode.

Adaptive architecture allows hosting applications that are transparent to the user at any of the data centers. For example, the ERP application can be provisioned from Hyderabad, Web applications and self-service portals can be made available from Mumbai or vice-versa. Redirecting and rerouting mechanisms at both the data centers provide high availability. In an event of

#### **SNAPSHOT**

Company: HPCL

**Project:** Setting up twin data

**Project Head:** S T Sathiavageeswaran, Head-Information Systems

any location not being able to reach one data center, the same can be rerouted from the second data center. By this method, the failure of any particular segment of access does not make any application unavailable.

This architecture makes it possible to adapt to any environmental and business change and continues to provide uninterruptible IT services. The key objective of providing uninterrupted services to users has been achieved with this architecture.

### Three-way data replication boosts data security

To effectively boost the security of its data, Karnataka Bank implemented a '3DC' model of data security which ensures zero data loss by way of threeway storage replication.

In this model, the data of critical applications such as core banking, ATMs and Internet banking is stored at a primary data center and replicated in a nearline data center and a disaster recovery (DR) site. The data center and nearline site are physically separated

across the city.

From the primary to the nearline DR site, the Bank decided that synchronous replication technology would be implemented. From the primary to the DR site, asynchronous replication would be implemented. A link was maintained between nearline and the primary DR site to allow incremental resynchronization, in case of failure of the primary site.

For this solution, the Bank chose

the joint offering of Hitachi Data Systems and Sun Microsystems. The Bank implemented Sun StorageTek 9990V Enterprise Storage Subsystem at the three sites with in-built data replication software universal replicator to implement the three-way data replication.

Today, transactions get replicated across the locations on a real-time basis, ensuring there is no data loss in the event of a disaster. With this storage level of replication and virtualization, the Bank has found it easy to manage the rapid growth of data in all the critical applications. This initiative has helped the Bank in reducing the RPO to zero and RTO from around five hours to 15 to 20 minutes. With this initiative, the Bank has achieved the dual objectives of local resiliency and remote DR from a single solution, while simplifying the operational procedures.

#### **HIGHLIGHTS**

- > Reduced the backup downtime for core banking from four hours to 10 minutes
- > Performance improvement of about 20 percent in core banking

#### SNAPSHOT

**Company:** Karnataka Bank **Project:** Three-way data replication

**Project Head:** Anantha Padmanabha B