# Cloud Partner Perspectives

### HAVE YOU EMBRACED THE CLOUD?

The following section highlights Oracle partners that provide and support the hosting and managing of IT solutions on the Internet. From infrastructure to storage to applications, moving part or all of your IT environment to the cloud means moving IT costs from a capital expense to an operating expense. This frees up capital dollars for revenue-generating or strategic projects. Find out how Oracle partner solutions can deliver agility, scalability, security and cost savings to your organization.

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# Cloud Offerings from AT&T Provide Reliability and Scalability

The term "cloud computing" has come to mean many things to many people in the technology industry. AT&T defines its cloud computing services as network-resident capabilities delivered over a highly reliable network with global reach to a broad range of devices of the customer's choice. What differentiates AT&T from the competition is its pairing of an on-demand, scalable cloud model with its global network, a breadth of products and services, and its trusted reputation.

The consumption-based model is a cost-effective way to leverage a service provider cloud. Businesses only take on expense for assets and services they use, instead of building out a costly infrastructure that may not be used in the future. This pay-as-you-go model allows companies to match revenues to expenses.

For example, companies can very rapidly increase computing capacity to accommodate higher demands on their website, run complex computational models, or develop and test new applications. This strategy allows companies to be innovative and agile without a heavy investment in new services.

AT&T offers two infrastructure-as-a-service solutions. AT&T

Synaptic Storage as a ServiceSM is a web services-based storage solution that scales up or down, and allows businesses to pay for only the storage they use. AT&T Synaptic Compute as a ServiceSM offers pay-as-you-go computing in the cloud for companies and developers, allowing quick access to virtual servers. Both solutions are supported by a single enterprise-class service level agreement, which is unique in the industry.

With its ability to deliver services over a global network, utilizing a wide range of mobility, applications and IT products and services, AT&T offers businesses a unique opportunity. They have access to a leading service provider's enterprise-level scale and geographic dispersion, without needing to have enterprise-grade or global resources themselves.

"Our trusted and reliable cloud services allow business customers to connect to the cloud virtually anytime, anywhere, on-demand," says Chris Costello, AVP, Hosting and Cloud Product Management. "Everyone from corporations to government agencies can benefit from dependable, secure cloud services to handle their mission-critical applications and infrastructure."



## Innovative Brocade Technology Powers Cloud-Optimized Networking

As organizations strive to compete in today's business climate, more and more of them are moving to the cloud to enable better deployment of resources. However, as they move toward virtualized cloud infrastructures, classic Ethernet networks present obstacles. Spanning tree protocol and excessive broadcast traffic limit performance and scalability. Application portability is constrained within a small number of servers. Adding more virtual machines per server can further stress the network, and managing and configuring single-path networks and a multitude of switches becomes a costly burden.

To address these challenges, Brocade has introduced one of the most important developments in data center networking in the last decade: the Brocade VDX product family, featuring breakthrough Brocade VCS technology that provides the industry's first Ethernet fabric. This groundbreaking solution empowers data center IT organizations to achieve greater agility when deploying and scaling resources, more performance and reliability to meet service levels, and less overall complexity—resulting in improved operational efficiency and lower costs.

#### THE NEXT STEP IN ETHERNET NETWORKING

Brocade VCS technology is designed to revolutionize the way data center networks are architected and how they function. Data center networks rely on Ethernet, which over the decades has evolved as new technologies emerge. Such networks carry traffic for a diverse set of applications, each with different traffic patterns and network requirements. Responding to these needs places stringent demands on the network. Enter Ethernet fabrics, the next evolutionary step in Ethernet networking.

To enable Ethernet fabrics, the Brocade VCS architecture flattens the network by collapsing the traditional access and aggregation layers. This removes the need for separate aggregation switches because the Ethernet fabric includes self-aggregating Inter-Switch Link (ISL) connections between switches, thereby eliminating manual configuration of LAG ports while providing non-disruptive, scalable bandwidth within the fabric. Ethernet fabrics support any network topology and avoid bottlenecks as traffic volume grows, since all ISLs are active. Compared to classic, hierarchical Ethernet architectures, Ethernet fabrics provide higher levels of performance, utilization, availability, and simplicity. They also dramatically reduce cost and management complexity.

From the IT side, the allure of the flat network is being able to deploy products that are purpose-built for automation and virtualization. The promise is a simplified, fabric-based architecture from

which organizations will enjoy dramatic performance improvements and resilience as well as streamlined operations, which lower overall costs. Best of all, Brocade VCS technology enables organizations to maintain the investment they currently have, and build out very large networks to handle workload and complexity.

"Today's infrastructure is not sufficient to handle new applications, and not flexible enough for a world where applications are mobile. It's clear that data center networks need to be upgraded to increase performance, reduce latency and eliminate downtime. They also need to be designed specifically to support highly virtualized and cloud-optimized data centers," says Doug Ingraham, vice president of Product Management, Data Center Products at Brocade. "Brocade solutions are delivering true cloud-optimized networking for the first time."

#### CREATING A SCALABLE, EFFICIENT, AGILE FOUNDATION

Leveraging Brocade VCS technology, Brocade VDX 6720 data center switches provide the foundation for Ethernet fabrics. These are the highest performing 10 Gigabit Ethernet (GbE) edge switches for enterprise data centers, delivering wire-speed connectivity and ultra-low latency. The built-in ports-on-demand capabilities let customers pay as they grow, cost-effectively building and expanding data centers over time. With the unique logical chassis capability, multiple Brocade VDX 6720 switches are managed as a single chassis—improving manageability without adding network complexity, and achieving limitless virtual machine mobility. The switches also provide a flexible, open and hypervisor-agnostic fabric to meet future demands.

Brocade VDX 6720 data center switches are specifically designed to improve network utilization, maximize application availability, increase scalability and dramatically simplify network architecture in virtualized data centers. Whether organizations want to enhance their classic hierarchical network architectures or deploy flatter scale-out fabrics for virtualized data centers, the Brocade VDX 6720 delivers the innovative technology to enhance and simplify networks.

"More and more customers are moving toward virtualized cloud infrastructures to significantly reduce IT cost and complexity, increase efficiency and improve agility," says Ingraham. "The new Brocade VCS technology and the innovative Brocade VDX product line present customers with a tremendous opportunity to simplify, scale and easily manage their virtualized data center network, offering a next step for customers implementing the IT-as-a-Service model."



### A New Era in Cloud Computing at HP

ife in the twenty-first century is connected, mobile, and fast-paced. Businesses and government entities must embrace technology in order to quickly and effectively provide services to citizens, customers, employees and partners. HP has a vision for this world: the Instant-On Enterprise.

The Instant-On Enterprise is powered by a technology environment in which applications have been modernized and architected for change, enabling IT to deliver new functionality easily and quickly. Applications run on a converged infrastructure that provides the foundation for elastic service delivery. This model delivers agility while reducing cost, allows organizations to secure and manage resources without creating risk, and enables the leveraging of information on a massive scale to transform data into insight.

#### **HP CLOUDSYSTEM**

HP CloudSystem is the most complete, integrated system to build and manage services across public, private and hybrid clouds and provides support for a broad ecosystem of applications, hypervisors and operating systems. It also automates the lifecycle management of infrastructure and applications to provide the speed, flexibility and economics of clouds without losing control. This comprehensive, integrated approach results in speeding business innovation, accelerating business processes and reducing time to revenue.

#### HP CloudSystem includes five main elements.

Converged Infrastructure: Converged Infrastructure including HP BladeSystem Matrix lets you stand up a complete infrastructure environment ready for your applications in minutes by automating the provisioning of servers with their storage and networking connections.

Cloud Automation Engine: HP Cloud Service Automation provides intelligent automation for building and managing cloud services. The software simplifies and speeds service delivery and management with one-touch provisioning and monitoring through a series of predefined and fully automated workflows. It provides a service catalog and portal that describes each service and defines the features, service levels, pricing and support available.

HP Cloud Maps: Cloud Maps are pre-configured infrastructure-to-application service definitions that simplify, optimize and accelerate the creation of your service catalog. Cloud Maps fast-track the automation of applications, saving days or weeks of time while ensuring accurate deployment, configuration and sizing of your cloud services. Cloud Maps are available today for a wide variety of applications, including Oracle RAC, WebLogic, PeopleSoft and E-Business Suite. HP Cloud Discovery Workshops can help your staff and stakeholders develop the most appropriate cloud strategy to your business challenges.

Cloud Extensibility: Extend the scope and functionality of HP Cloud-System through a broad set of other HP solutions, including:

- HP 3PAR Utility Storage technology that delivers virtually unlimited tiered storage capacity
- HP TippingPoint and ArcSight security: the industry's most comprehensive security detection and protection, spanning applications as well as cloud, virtual, and physical infrastructures
- HP Networking: high-performance, flexible networking from edge to core
- Mission-critical computing: with solutions such as HP BladeSystem Matrix with HP-UX
- HP Software: A comprehensive portfolio including:
  - HP Application Lifecycle Management (ALM)
  - HP Business Service Management
  - HP IT Financial Management

HP Cloud Consulting Services: Finally, HP offers a complete portfolio of cloud-specific roadmap, design and implementation services that help your organization employ HP CloudSystem in a hybrid delivery model. The portfolio includes the HP Cloud Discovery Workshop, which helps clients understand the implications of cloud from a business and IT perspective and determines an appropriate path for the customer to realize the benefits of cloud.

#### **HP CLOUD SOLUTIONS FOR ORACLE**

Oracle's business-critical applications require a flexible and cost-effective infrastructure that provides high availability and excellent performance. Leveraging HP's expertise in delivering cloud solutions for Oracle can increase utilization of available resources and provide agility to your business by automating service delivery. All the while, you will reduce your total costs by making better use of your hardware components and optimizing your software licenses.

HP cloud solutions have been optimized for Oracle applications, empowering you to significantly accelerate the time-to-value of your IT environment at a lower total cost. These architectures have been specifically engineered by HP to support complex, multi-tiered environments.

#### **UNIFIED, SECURE, FLEXIBLE**

Everyone has their own vision of how cloud computing will solve business problems. HP's vision involves an integrated, flexible system for enterprise and service providers to build, manage and consume services across private, public and hybrid cloud environments.

"Cloud computing is going mainstream and HP is leading the way," says Ann Livermore, executive vice president, HP Enterprise Business. "HP has the enterprise experience, breadth of portfolio and global service delivery organization to lead our clients through this transformation."



### EXTOL Optimizes Cloud Computing with Business Integration Tools

Implementing and maintaining company-specific integrations are the costliest and most time-consuming aspects of business-to-business (B2B) integrations. Data transformation mapping in particular can be a laborious, resource-intensive task. With the introduction of cloud computing, integrations between resources that are in the cloud and on-premise can become even more complex.

The strategy at EXTOL, a provider of software and services for B2B integration, targets the biggest source of integration time and cost, and uniquely exploits cloud connections and technology to leverage integration best practices across businesses and industries. EXTOL provides ways to integrate internal and cloud-based systems with customers, suppliers, service providers, remote locations, and other cloud-based systems, using EDI, XML, flat file, spreadsheet, database and web service interfaces.

EXTOL has provided integration products and services to a number of Oracle E-Business Suite and JD Edwards EnterpriseOne customers. In developing solutions, EXTOL has focused on slashing the time and cost of integration implementation and maintenance. EXTOL's cloud computing strategy is an important element of that cost-reduction focus. It encompasses four elements:

- · service-oriented integration
- B2B Software as a Service (B2B SaaS)
- B2B Integration as a Service (B2B laaS)
- cloud services to accelerate B2B integration projects

#### SERVICE-ORIENTED INTEGRATION

The foundation of EXTOL's cloud strategy is the ability to integrate with external partners and applications using web services. As part of the EXTOL Integration Studio product, tools are provided for generating web service consumers and providers, and using those generated services in B2B integration processes—including to-the-cloud integration with SaaS applications and web-resident services, and in-the-cloud (or cloud-to-cloud) integration across services.

#### **B2B SAAS AND B2B IAAS**

EXTOL B2B SaaS deploys a B2B integration infrastructure in the cloud, and EXTOL B2B laaS outsources infrastructure and the resources for integration implementation, maintenance, and operations. B2B SaaS is simply the use of cloud-based infrastructure for B2B integration, as an alternative to deploying integration middleware behind a company's firewall. EXTOL can provision its B2B integration environment in the cloud, using a secure VPN or other connection to applications and data inside the customer's firewall. EXTOL also provide tools that enable organizations to create, manage, and maintain their cloud-based B2B integrations. B2B laaS adds implementation, operation, and maintenance services to the B2B SaaS foundation. With this model, EXTOL provides both cloud-

based infrastructure and the services needed to implement and manage B2B integration.

EXTOL's solution applies automation to implementation and maintenance activities to reduce integration time and cost by 60 percent or more. By reducing the time required to implement, deploy, and maintain business integration processes, EXTOL can offer a more cost-effective cloud-based solution.

#### **CLOUD SERVICES TO ACCELERATE B2B INTEGRATION**

EXTOL has a three-part strategy for radically reducing the time and cost of integration implementation and maintenance:

- automating integration implementation activities by generating integration project components
- automating maintenance due to changes in B2B documents and messages
- providing a cloud-based repository that enables transparent sharing of integration best practices between businesses

EXTOL has delivered on the first two parts of this strategy in its most recent release of EXTOL Business Integrator, a business integration broker that can be deployed on-premise or in the cloud. This application features EXTOL Smart Mapping, which cuts the time and expense of creating and testing data transformation maps by combining multiple automated mapping methods with fuzzy optimization to generate transformation rules. It also features the EXTOL Migration Assistant, a tool that evaluates differences between updated documents and assists in creating rules for generating updated data transformation maps.

The third part of EXTOL's strategy is to deliver an Integration Pattern Repository, which will enable companies in any industry and of any size to share mapping best practices. The EXTOL user will interact with the Repository by contributing, searching for, and downloading mapping history profiles directly from the Smart Mapping environment. The Repository, which will be available in 2011, will provide an optimizing search engine that automates the identification of best-fit history profiles for each mapping situation, eliminating time wasted on manual repository browsing, research, and trial and error based on history profile contributions from customers, business partners, and the EXTOL Professional Services organization.

"EXTOL Business Integrator includes everything you need to create, test, deploy, manage, and maintain integration processes," says Jim O'Leary, Vice President of Product Management at EXTOL. "With two decades of experience as a developer of industry-leading B2B integration technology, EXTOL understands the unique challenges of customer-driven business integration. Our commitment to customer success and our reputation for outstanding customer service is unrivalled."



# SL Corporation® Enabling a Low Risk, Iterative Approach to Migrating Critical Applications to the Cloud

Most applications that provide significant value to large enterprises are highly complex. They consist of many independent service components passing data back and forth using messaging systems, web service technologies or even simple file transfers.

Migrating these critical applications to the cloud only increases this complexity. Many legacy components cannot be moved to the cloud. The result is a hybrid non-cloud/cloud application architecture that yields even more integration points where the transfer of data between legacy components and cloud-based modules can fail.

Some companies, however, are finding short-term success migrating individual application subsystems to private clouds. For these organizations, success depends on how effectively they can monitor these cloud-based subsystems. Such monitoring must be able handle the complexities of both the applications and the additional integration points in order to minimize the risk of failure.

SL Corporation® is a leading Application Performance Management (APM) platform provider with core expertise in middleware monitoring (including Oracle® and TIBCO®), analytics and historical baselining, and custom-configured APM solutions. Global 1000

companies use SL's RTView® to manage critical applications and subsystems, and are beginning the migration to private clouds. The RTView Oracle Coherence Monitor can be used to ensure performance and availability of entire data grids running in cloud environments. RTView can also be used to monitor and manage private cloud-based Oracle WebLogic® implementations, as well as multi-vendor hybrid deployments.

RTView has been chosen by these organizations to help with their cloud migrations for two main reasons: 1) RTView's lightweight footprint and web service profile makes it ideal for monitoring applications deployed in the cloud; and 2) RTView's flexibility and configurability on all levels (i.e., data access, aggregation and trending, custom views) enable customers to handle the extreme complexity of cloud environments.

Little by little, the world's largest organizations are gaining confidence in their private cloud deployments, leveraging solutions such as RTView to help monitor and manage the inherent complexity, with a goal of eventually migrating entire critical applications to the cloud with minimal risk.



For more information, visit www.sl.com/cloud

# enrich: Experts in Oracle Solutions and Cloud Spend Management

Effective business management requires on-demand access to superior spend intelligence. Better understanding your company's spend patterns, increasing management over spend, identifying new opportunities for savings, assessing risk, and ensuring corporate compliance are essential.

#### enrich SM FOR ORACLE CLOUD SPEND MANAGEMENT

enrich SM specializes in extending and optimizing Oracle spend management solutions. We provide the perfect blend of Oracle spend management technology, value-added services and business consulting with deep analytics. This comprehensive approach drives faster savings, reduced risk, and substantially increased levels of cash conservation. Our cloud-based Bundles subscription model provides everything you need—and includes pre-configuration, technology, hosting, application services, support and business process consulting—all managed by us for a fixed price with periodic payments. This provides the lowest total cost of ownership generating maximum return on investment in optimal time applying the correct blend of Oracle spend technology, integration, value-added services and business process consulting.

#### enrich IT FOR APPLICATION SERVICES

In a complex world economy, strategy and flexibility are critical in staying ahead. enrich IT, through its focused approach and expertise in Oracle, turns technology into specific business solutions for our clients. Our goal is to enable and accelerate your business transformation by providing on-demand platform solutions and high quality consulting services, on time, on budget and on-target. We manage the full software deployment lifecycle in Oracle E-Business Suite. Oracle E-Business Suite is the most adaptable global business platform providing scalable, industry-specific, best-in-class and affordability. Oracle's business intelligence is considered the most complete business intelligence product portfolio. Oracle's technology is superior, affordable, proven and a great choice for companies desiring to make the most of the technology. enrich IT works with your team in aligning your overall business direction with the right IT strategy and helps you in accelerating the business transformation. We provide you with business case definition and tangible return on interest for technology investments.

Gain bottom-line benefits and sustain your competitive advantage with enrich SM Cloud Spend Management and application services solutions—powered by Oracle.





### A Revolutionary Approach to Cloud Building

With the emergence of large-scale public clouds, the notion of a ready-for-the-taking, pay-as-you-go resource model has caught the attention of many IT users, corporate and otherwise. But large enterprises in particular are likely to be concerned about the privacy, security and management implications of putting sensitive corporate data onto a shared, public infrastructure.

Dell believes a more logical starting point is to build private clouds, either on- or off-premises, that would provide many of the benefits but address much of the risk associated with public clouds. Over the next three to five years, industry watchers expect private clouds to become widely used, if not predominant, within the enterprise portfolio of compute models.

#### THE EVOLUTIONARY VS. REVOLUTIONARY PATH

For many enterprises, building a private cloud is simply the next step on an evolutionary path that began with data center consolidation. When a company has established a strong virtualization underpinning and is working with traditional enterprise applications, an evolutionary approach to the private cloud makes perfect sense, says Barton George, Dell's cloud computing evangelist.

With an evolutionary approach, a company gradually builds its private cloud by layering capabilities such as automated provisioning, usage-based billing, resource pooling and a self-service portal on top of virtualized infrastructure as it adapts processes and policies to the new model. With every step along the way, the enterprise becomes more agile and achieves greater efficiencies. "We believe that this will be the approach that will be taken in the majority of cases today," George says. To address this approach, Dell offers its Virtual Integrated System, which allows organizations to evolve their existing IT environments into true private clouds.

In some instances, however, taking what Dell refers to as a "revolutionary" approach to private clouds will be more efficient and much more appropriate. The revolutionary approach makes use of "new world" applications that are written for and deployed in the cloud. These cloud-native applications are designed from the ground up for greater scalability and use across a multitude of servers.

#### **CONSIDERING THE REVOLUTIONARY APPROACH**

George suggests that enterprise IT leaders should think about taking a revolutionary approach to cloud computing when faced with the following:

· Greenfield opportunities involving no legacy infrastructure

- The need to support scalable, cloud-native Web 2.0 applications
- A requirement to build out at such a scale that resiliency and availability are architected into the software

"The idea of scale is really important in the revolutionary concept," says Kevin Van Mondfrans, Senior Manager, Dell Cloud Solutions. "You're taking an application and scaling it out across multiple cloud compute nodes, and utilizing virtual load-balancing following best practices."

The revolutionary approach requires a new way of thinking about the cloud, but one that Van Mondfrans says enterprise IT executives should undertake sooner rather than later. "This is where the application paradigm is going," he says.

#### THE PUBLIC SPARK TO THE PRIVATE CLOUD REVOLUTION

To guide enterprises on a revolutionary path to the private cloud, Dell draws from its experience helping a select group of the world's largest Internet and hyperscale organizations build cloud infrastructures. Dell has worked directly with customers that operate at the leading edge of efficiency and view their data centers as their factories, entities such as Facebook, Lawrence Livermore National Laboratory and Microsoft Windows Azure. For these organizations, Dell has created custom systems built to operate in a hyper-scaled-out environment.

To bring this experience to a larger group of customers, Dell has developed a specialized line of systems based on their learnings working with what George calls "the biggest of the big." This line, known as the PowerEdge™ C server series, is specifically suited to revolutionary cloud environments, and is characterized by extreme density and power efficiency for use in a large, scaled-out environment. Since customers in this group are often looking for complete solutions rather than simply hardware, Dell has partnered with cloud software providers to deliver total solutions on top of the PowerEdge C series—solutions such as the Dell Cloud Solution for Web Applications and the Dell Canonical Cloud solution.

"The revolutionary approach to the cloud is built on the concept that you're going to have a large, scaled-out environment," Van Mondfrans says. It's not a matter of "if," but "when," adds George, noting that over time, scaled-out applications will become increasingly prevalent in the enterprise. Embracing a revolutionary path to the private cloud, as appropriate, today will help enterprises prepare for that future.

