



Convergent Network Services for Telecommunications

Use evolving network technologies to seize competitive advantages.

To keep pace with competitors and create innovative products to meet user demands, telecommunications providers are rapidly moving towards IP-based networks capable of delivering converged voice, video, and data services. This migration facilitates the delivery of flexible communication and collaboration services in a modular, Internet-like framework and is accelerating the emergence and adoption of new network technologies. To upgrade services and stay ahead of the competitive curve, many telecom providers are turning to Dell Services for expertise in upgrading telecom applications.

Benefit from solutions that meet your unique goals

Through extensive experience and a sharp focus on the telecommunications industry, Dell Services has earned the expertise to help original equipment manufacturers, independent software vendors, and network service providers take full advantage of convergence.

Our reputation is built on successfully delivering cost-efficient and timely solutions that meet global delivery requirements. We provide design and development application services for a wide range of wireline, wireless, and call-processing applications, as well as network management services. Our services provide complete FCAPS functionality on soft switches and various network elements. We can also craft enhancements for products and applications so that new services can be delivered alongside existing ones, thereby helping to maximize existing resources and controlling capital expenditures.

Along with these development and enhancement solutions for hardware and software vendors, we provide implementation and integration solutions for network service providers. Our solutions cover the entire range of operations processes that comprise the FAB process groupings:

- Fulfillment solutions that provide a clearer view of products and order status to accelerate service order cycles and improve customer service
- Assurance solutions that help predict and avoid faults, reduce service outages, and restore service more quickly in the event of an outage
- Billing solutions that are designed to create synergies between business needs and technology to reduce costs, boost efficiencies, and improve customer service

Proven domain expertise and experience

In collaboration with our customers' needs, we blend the right mix of site-based, on-shore, and offshore resources to generate maximum value and resource availability. With a deep and dedicated team of business and technology professionals in North America, Europe, and the Asia-Pacific region, we offer deep technical expertise in telecommunications and related fields, strong business ethics, and a stable management team philosophy that ensures Dell Services will be there in the future to continue to meet your needs.

At A Glance

The Dell applications solutions for convergent network operators and equipment providers enable the development of new products and services quickly and cost-efficiently. Our team of domain experts possess the knowledge and real-world skills to deploy solutions that are fully interoperable with other technologies.

Dell's Convergent Network Services include:

- Signaling protocols
- Switching applications
- Applications and interface development
- Quality assurance and field trials
- · Integrated network applications
- Element management systems

Dell Services designs, implements, and manages a wide variety of converged network solutions.

As a trusted technology partner with customers worldwide, our expertise as a leading technology and systems integrator helps ensure that you get measurable results — and maximum value — from either new deployments or your legacy network. Through our proven global delivery model, we have broad and specific industry knowledge in telecom to help you leverage evolving network technologies and seize competitive advantages.

Our Convergent Network Services include:

- Signaling Protocols
 - » Wireless protocols MAP, IS41, RANAP, ALCAP, WIN, CAP, and more
 - » SS7 and VoIP Protocols MEGACO, MGCP, SIP, SIGTRAN, and SS7oATM (MTP3B and Q.SAAL)
- Switching Applications
 - » Wireless & call control applications subscriber profile manager, call manager, mobility manager, and supplementary services (mobile access hunting, call waiting, call forwarding, call blocking, E911 services, and more)
- Interface and Application Development
 - » Development of applications and interfaces for 2.5 / 3 G standards such as GSM, CDMA, GSM-1X and UMTS, across different networks such as SS7 / IP / ATM
 - » Softswitch Development
- Quality Assurance and Field Trials
 - » Regression, system, and load testing
 - » Field deployment and trials
 - » Test automation framework development
 - » Test automation and audits for Wi-Fi hotspots
- IN Capabilities
 - » INAP (IN applications part), CAP (CAMEL application part), wireless number portability, WIN support
- Element Management Systems
 - » Support for full FCAPS functionality across different networks and network elements
 - » CLI interface to legacy systems and external NMS & OSS
 - » Field-testing of devices including features such as
 - > Over-the-air provisioning
 - > Regular build upgrades
 - > Performance testing and benchmarking

Benefits Of Our Convergent Network Services:

- Rapid development and deployment of products and applications helps customers gain advantages through shorter time-to-market with new services
- Expanded portfolio of products and services positions businesses to win new customers while controlling operational costs
- Rigorous testing and field trials of solutions help ensure quality, while verification helps assure reliable operation in the field, which enhances customer satisfaction and aids in customer retention
- Interoperable solutions leverage underlying investments to streamline operations and provide new and seamless communications services to customers
- Interoperable solutions help secure new customers with an existing portfolio of products and services, while protecting existing investments and lowering capital costs
- Product and application enhancements and customization enable specialized offerings to customers
- New and enhanced services can help meet global technology and/or regulatory compliance standards
- On-site/offshore service delivery model improves productivity, accelerates service, and helps control costs

For more information about any of our service offerings, please contact your Dell representative or visit dell.com/services.

