

SOLUTION BRIEF

Intelliden Managed Network Services Solution

Comprehensive, Multi-vendor Network Automation for Carrier Class Service Providers

As corporate IT networks advance in both complexity and importance, business and IT leaders are turning to managed service providers (MSPs) for help. When an MSP assumes responsibility for some or all of a company's information and communications technology (ICT) infrastructure, operational efficiency and a high quality of service become the keys to success. The MSP must run multiple mission-critical services and networks better—and at a lower cost—than its customers could run them.

Using manual processes to manage hundreds of thousands of devices remotely is not a viable option when maintenance windows are limited to a couple of hours in the middle of the night. Intelligent automation is the only way to win and renew outsourced network management contracts. Intelliden offers MSPs a single solution for network discovery, configuration, compliance and provisioning.

Intelliden's Managed Network Services Solution is a multi-vendor network automation solution that enables service providers to provision and deliver managed services accurately, enforce network-wide policy compliance and meet stringent service-level agreements while avoiding costly mistakes. It is the most comprehensive, scalable, intelligent and interoperable carrier class solution available to MSPs today, supporting devices for multiple services including Managed LAN, Managed VPN, Managed Security, Managed Firewall and WAN Optimization.

Unique Capabilities

- **Comprehensive:** Intelliden supports multiple managed services and multi-vendor devices through a single automation solution.
- **Scalable:** Intelliden supports the largest and most complex networks with more than a million lines of device configurations, hundreds of thousands of network devices, tens of thousands of transactions per hour and thousands of users.
- **Intelligent:** Intelliden's knowledge of the real-time configuration state of the devices and network-wide policy enforcement ensure that every network change is accurate, reliable and secure.
- **Interoperable:** Intelliden provides open APIs for easy integration with third-party applications such as fault and performance management applications, help desk, self-care, CMDB and other OSS and IT applications.

The Challenge of Delivering Managed Services

A perfect storm of technology trends is driving the need for outsourced network management: businesses rely on the network more than ever, and networking technology is advancing every day. With an already limited pool of qualified network engineers and mounting pressure to focus on core competencies, companies have to rethink the decision to manage and maintain their ICT infrastructure in-house. Meanwhile, forward-looking communications service providers, telecom equipment manufacturers, system integrators and professional services firms have stepped in to fill the gap.

It's an attractive and growing opportunity, but one that places high demands on the service provider. Improved quality of service (QoS), greater network availability and uptime, enhanced security and reduced costs are the minimal threshold for competing in this marketplace. Forward-looking MSPs need to find ways to deliver highly available, customized IT and network services with guaranteed SLAs and to maximize contract renewal rates.

"BT requires standards-based solutions that enable us to cost-effectively ensure compliance with thousands of regulatory, security and operational policies. This is essential for meeting our obligations to those customers whose mission-critical networks we manage as well as for ensuring the integrity of our internal networks. Intelliden has demonstrated an excellent understanding of the challenges and complexities associated with managing these environments."

—Matt Bross, Chief Technology Officer, BT Group



No Time for Down Time

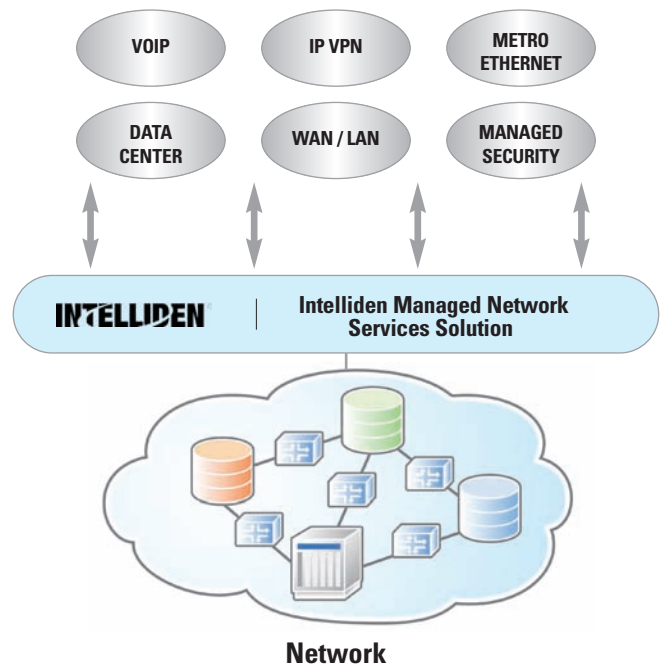
Intelliden's Managed Network Services Solution addresses each step in the lifecycle of a managed service contract—from winning the business to deploying and delivering services and renewing the agreement once again.

Each time it wins a new contract, the MSP must invest time and resources to quickly assess the state of the network it has inherited, cleanse and configure the network to deliver the necessary services and establish policies to ensure it meets the terms of its service level agreement (SLA). The initial deployments for large, multi-site networks can be long and

expensive, with records for existing network assets often incomplete and out of date. Accordingly, the faster they create and deploy new services, the faster MSPs break even on these upfront investments. The goal is to deliver new services in weeks, not months or years.

Once a contract is underway, the MSP must meet SLA and financial requirements in order to achieve a high renewal rate. At the same time, it must accept shared responsibility for network security and regulatory compliance. The ability to demonstrate support for industry best practices such as the Information Technology Infrastructure Library (ITIL) can be a key differentiator.

Error-prone configurations, inconsistent activations, poorly coordinated operational changes, and device and configuration conflicts have no place in the outsourced business model. Intelligent automation is the only answer. MSPs must be able to view the state of the network in real-time, identify problems quickly and remotely and automate changes that are required to keep the network humming.



Cost Control and Quality of Service: The Benefits of Intelligent Automation

Whether you are implementing a device configuration change, enforcing a security policy or provisioning value-added services, Intelliden's advanced network automation solutions ensure you get it **right the first time—and every time—**

without breaking SLAs or running up additional costs. With Intelliden's Managed Network Services solution, you can ensure accurate results and consistent performance.

Intelliden enables MSPs to:

- **Increase operational efficiencies and manage costs:** By reducing the expense associated with developing and maintaining in-house network management solutions as well as the cost of training staff to manage a complex multi-vendor network environment. Intelliden also helps MSPs automate network change management processes and enhance manageability to increase operational efficiencies.
- **Assure SLA terms and compliance:** By providing continual validation and enforcement of stringent terms for reliability, availability and performance across even the most complex networks, as well as security compliance with regulatory and industry mandates such as Sarbanes-Oxley, PCI DSS and HIPAA.
- **Accelerate service deployment:** By rapidly discovering and configuring hundreds of thousands of existing customer devices, supporting zero-touch device provisioning and enabling faster deployment of advanced services that provide added value to the customer.
- **Meet stringent security requirements:** By enabling role-based access control, ACL management, permission-based network lockdown in the event of an intrusion and rapid network updates in the event of a denial of service (DoS) attack.
- **Resolve problems rapidly:** By responding immediately to network alarms or performance issues associated with device provisioning errors, rerouting networks quickly in the event of a network fault and reducing the time required for repairs and trouble resolution.
- **Satisfy multiple service needs:** By offering support for multiple services such as Managed LAN, Managed VPN, Managed Security, Managed Firewall and WAN Optimization through a single network automation solution.
- **Interoperate with customer network and systems:** By providing support for a broad range of device vendors (including Cisco, Alcatel, Juniper, Ericsson and Nortel), and through open APIs for integration with existing business support systems and operational support systems (B/OSS) and IT applications, such as service fulfillment, inventory, CMDB, fault and performance management, help desk and self care.

One Solution, Many Components

Intelliden's Managed Network Services solution tailors the company's portfolio of intelligent automation products for the growing MSP opportunity. Its component applications include:

- **Intelliden Discovery and Reconciliation:** Provides the ability to discover and remediate critical network resource data (chassis, memory, cards, port, serial number, OS, etc.). It improves inventory accuracy through real-time, continuous detection of network changes and rapid remediation of those changes with third-party systems such as inventory, fault management and CMDB.
- **Intelliden Network Configuration and Change Management:** Automates time-consuming device configuration and change management tasks through data-driven programmable templates. It supports out-of-band detection and management of network changes, and enables non-disruptive rollback in the event of configuration errors. It provides multiple levels of approvals as well as the ability to schedule changes for future execution—both essential requirements in a stringent managed services environment. It maintains a complete audit trail of all network changes for instrumentation and reporting. Open APIs ensure easy integration to third-party service assurance and fault management applications.
- **Intelliden Policy Based Compliance Management:** Automates the complete network compliance lifecycle to allow MSPs to define regulatory, security and operational policies, validate devices against policies, resolve violations and report results to customers in a continuous and closed-loop pattern. Each customer's policies are stored in a central repository that supports unlimited policy and device combinations. A sophisticated policy engine provides continual validation and enforcement, allowing service providers to prevent costly policy and SLA violations and deliver new managed services with confidence.
- **Intelliden OS Manager:** Performs an automated upgrade process to one or more devices based on available device resources and versions. With this application, MSPs can customize the OS upgrade process according to each customer's business needs, best practices and internal policies. OS Manager tracks all OS changes for easy auditing and supports multiple upgrade protocols.
- **Intelliden Dynamic Resource Provisioning:** Manages the complete network provisioning process including

initial network element and path configuration, resource availability checks, ongoing dynamic allocation of resources and exception handling. Designed to work in concert with service fulfillment applications, this component supports multi-vendor network activation and allows MSPs to validate changes to a customer's network before executing them.

“The success of its solutions in this domain indicates the degree to which Intelliden recognizes the unique challenges of demanding network environments, and has been proven in some of the world's most complex networks.”

—*Scott Crawford, Senior Analyst,
Enterprise Management Associates*



Platform and Architecture

All Intelliden applications are built upon its patented and award-winning R-Series® platform. The R-Series platform provides intelligent automation, standardization and scalable device management. It serves as an abstraction layer to the underlying network by translating device information—irrespective of the vendor, type, model and operating system (VTMOS)—into XML-based device models. It also acts as a control plane through which all network devices can be configured, provisioned and changed in a policy-compliant

Intelliden (www.intelliden.com) is a leading provider of Intelligent Networking Solutions that enable organizations to control, manage and scale their networks. With Intelliden solutions, network-driven organizations can deliver next generation services, ensure compliance and completely automate network change and configuration management. Intelliden's innovative and patented solution is the first example of truly “intelligent automation” of networking devices. It is the only solution that gives companies the real-time state of the network—the key to ensuring accuracy across increasingly dynamic networks. Intelliden has been proven in global telecom companies, financial services organizations, federal government agencies and other network-driven businesses.

manner. Through a combination of these powerful capabilities, Intelliden solutions enable MSPs to deploy services faster and at a lower cost.

The Intelliden R-Series platform and applications have been designed for and proven in large-scale, carrier-class network environments. A distributed architecture enables the R-Series platform to scale without limits while its sophisticated data management capabilities enable support for the largest device configurations. Through its modular architecture, Intelliden applications can be deployed in a distributed manner for global customers with stringent redundancy and resiliency requirements.

Intelliden has been proven in global telecom companies, financial services organizations, federal government agencies and other businesses deeply dependent on their networks. Many of the world's leading service providers, including British Telecom, Bell Canada and TELUS, rely on Intelliden today for intelligent automation solutions.

Service and Support

The Intelliden Professional Services Organization offers a wide range of service offerings to ensure customer success. These are delivered through a unique combination of people, processes, tools, and partners, resulting in high levels of customer satisfaction.

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