

NetScout Supports Business-Critical UMTS/HSPA+ Migration for Canadian Mobile Operator

The nGenius solution helps a leading mobile operator in Canada streamline its transition to HSPA+ and drive expansion of 3G data services

Overview

Region

Americas

Business Challenge

- Quicker identification and resolution of network problems that lead to service disruption
- Maintaining high levels of customer satisfaction in a competitive mobile market
- Smoothly migrate nationwide CDMA network to 3G and UMTS/HSPA, while rolling out new services and mobile handsets

NetScout Solution

- The nGenius® solution provides a unified platform to support CDMA2000 networks and UMTS/HSPA networks
- Distributed InfiniStream® appliances for high capacity performance monitoring of the mobile data network

Business Value

- Protect and grow mobile customer base while managing network infrastructure transition
- Greater service and network intelligence to support the mobile network operator's operational workflows
- Versatile InfiniStream appliances that can scale to meet continued growth in mobile data traffic



Customer Profile

NetScout helps service provider customers around the globe manage user experience in their modern IP networks. One particular customer is a leading mobile network operator (MNO), based in Canada, who serves approximately 7 million mobile subscribers. This MNO has operated a CDMA2000 network for many years, but recently launched a UMTS/HSPA+ network as part of their strategy to address the increasing demand for broadband mobile applications. In addition, they wanted to make available the wide variety of GSM Smart Phone handsets (including the iPhone) as well as new services and improved call clarity. The operator plans to run the two networks in parallel while it migrates completely to the UMTS/HSPA+ network over the next few years.

Business Challenge

NetScout began its relationship in 2006, when it was tasked to provide packet capture and analysis capabilities for the operator's CDMA network. They needed a solution to help them more rapidly identify, isolate and resolve network problems that were disrupting services they delivered to their customers. NetScout was selected over competitive offerings because it was the only vendor with a high performance platform that could handle the massive levels of network traffic that exists in typical service provider environments.

The mobile operator quickly recognized the value of its initial investment in NetScout and expanded its deployment of the nGenius® solution network wide. The customer had developed considerable reliance on the InfiniStream® appliances because of their superior troubleshooting capabilities, and their subsequent ability to reduce the frequency and severity of network downtime.

There are InfiniStream appliances deployed across the network to aid in assuring the mobile operator's CDMA network. The next challenge for the MNO was to migrate to a high speed UMTS/HSPA+ network while minimizing disruption to existing customers, and at the same time introducing new services and handsets.

NetScout Solution

Based on the ability to successfully deliver value to the operator in terms of faster problem resolution and optimization of network resources, NetScout was a natural choice to provide performance monitoring and service assurance in the customer's new high speed network. The mobile operator's UMTS/HSPA+ network utilizes a distributed, unified deployment of InfiniStream appliances to provide greater visibility and more proactive identification of problems affecting user experience. This solution scales as the mobile operator expands their high-speed mobile broadband coverage throughout Canada.

"We built our network management infrastructure using the nGenius solution to improve visibility and troubleshooting in 2006. With the introduction of the HSPA network, the solution has scaled to cover critical points on the new network and build further intelligence into our network management practices. Following an in-depth evaluation, we are implementing nGenius Subscriber Intelligence to further enhance our ability to deliver the high levels of service our clients have come to expect."

– Engineering Director at Canadian Mobile Operator

The InfiniStream appliances at the mobile operator's facilities are used to monitor the operator's Gi links between the mobile core network and the public Internet and data center servers. They are also deployed on the Gn links within the mobile data core. The InfiniStream appliances are strategically located within the core of the network so that virtually every traversing packet can be monitored and evaluated. NetScout also monitors the firewalls and load balancers in the mobile operator's network; devices which are absolutely critical to maintaining high levels of network security and availability.

The InfiniStream appliances deliver several invaluable capabilities that include:

- High-speed continuous packet capture and storage for back-in-time forensic analysis
- Efficient indexing and flexible packet mining for rapid data retrieval and targeted analysis of problems
- In-depth application and service analysis for quick identification of performance issues

The move to UMTS and HSPA is critical for the mobile operator, and is key to enabling new revenue-generating mobile services and applications, and maintaining a high degree of market competitiveness.

Business Value

The nGenius solution from NetScout is a key enabler for the mobile network operator's migration to new, service-rich UMTS/HSPA 3G mobile broadband networks. It helps mobile operators confidently reach out to a new market of data-intensive smartphone users in a highly competitive landscape.

With the nGenius solution providing performance monitoring and packet-level diagnostics to rapidly identify and resolve service issues, the mobile operator is now able to protect and grow its mobile customer base while managing a critical transition from their current CDMA network to a UMTS/HSPA+ mobile broadband network infrastructure.

Attributes	Benefits
Cost Savings	Single, unified performance monitoring platform to support CDMA2000 and UMTS/HSPA wireless networks
Proven	Field proven as a key enabling technology for application monitoring and service assurance in next-generation data-intense service provider networks
Scalability	InfiniStream appliances provide performance at scale to address the increasing subscriber loads seen in today's mobile data networks
High Availability	7x24-365 performance monitoring and service assurance solution
Breadth of Coverage	Interfaces for GPRS/UMTS networks (Gn, Gi, Gb/IP, Gp, AAA, RADIUS etc.) and CDMA2000 networks (e.g.: A10/A11, Pi, Xd, etc.)
Flexibility	Operational consistency, interoperability with existing OSS solutions, flexible work flows to take operators from early warning to root cause

Table 1: Solution Highlights.

Subscribers	7 million wireless subscribers
Services	The mobile operator's network provides comprehensive coverage across Canada for digital voice and messaging services and high speed Internet, data and multimedia services
Mobile Networks	CDMA 2000/1XEVD0, UMTS/HSPA+
Breadth of Coverage	Interfaces for GPRS/UMTS networks (Gn, Gi, Gb/IP, Gp, AAA, RADIUS etc.) and CDMA2000 networks (e.g.: A10/A11, Pi, Xd, etc.)

Table 2: Network Snapshot.



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NetScout offers sales, support, and services in over 32 countries.

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