

Improving operational efficiency at TELUS

IBM Netcool software consolidates operational view across a vast telecommunications network



Overview

The need

Mark Thompson, operations manager at TELUS, who manages the ticketing and alarm systems and process integration for the company's multiple networks needed to migrate off an outdated platform that made the task complex and inefficient.

The solution

The IBM® Tivoli® Netcool® network management platform provides one view of activities occurring in the integrated fault, event and alarm management, ticketing and change management systems.

The benefit

Enhanced flexibility allows TELUS to react quickly to changing network conditions and support and develop new initiatives and processes in hours rather than weeks or months.

As Canada's fastest-growing national telecommunications company (CSP), TELUS provides virtually every service the telecommunications industry has to offer. The company's Operations Support System (OSS) group plays a central role in providing the management tools that are used to assure the delivery of services and value to internal and external customers. The OSS team also facilitates the Network Operations Center (NOC) in its effort to respond quickly and precisely to issues arising from new technologies and equipment.

For his part, Mark Thompson, operations manager at TELUS, needs to make sure the Operations Team can quickly identify and gain insight into the most critical problems in their environment in order to focus their resources on the problems that have the highest impact to their business and clients.

Today, the IBM Tivoli Netcool solution deployed for TELUS's wireless network provides support teams with deeper insights into alarms, reducing costs and helping increase reliability. "We can fix problems quickly, because we can see and evaluate the problems in ways we were not able to before," says Mark Thompson, operations manager for TELUS.



“That granular level of alarm control and the resulting collaboration is one of the most important benefits we derive from Netcool from a network surveillance perspective.”

— Mark Thompson, operations manager, TELUS

Monitoring a massive wireless network

TELUS operates a large and diverse network encompassing everything from traditional wireline telephony services to the latest media, enhanced data, and 4G wireless services. For years, IBM Tivoli Netcool software had been TELUS’s corporate standard for network operations management. However, fault monitoring for the company’s wireless networks, which generates an estimated one billion raw events per year, originated on an aging non-IBM platform that lacked many of the capabilities and the scalability needed for efficiently managing events, alarms and faults at a granular level.

“Our existing platform was implemented in an era when network surveillance was very fault-centric, without the degree of attention to service management and managed networks that is common today,” says Thompson. “It just essentially presented the alarm. We needed to have much more enrichment, for instance, the ability to attach attributes to alarms, so that when an alarm comes in it can be assigned to one particular support group.”

Beyond the drive to modernize network management functionality at an organizational level, Thompson believed he needed massive improvement in system flexibility and performance, along with standardization across TELUS’s fault monitoring environment to pave the way for the company’s rapid growth. “I needed the system to be able to adapt to changing conditions, where I could easily manage alarms to fit changes in the structure of our support organization,” Thompson says. “And it had to be powerful enough to process a network event storm, a deluge of events and alarms, quickly.”

“I don’t have to involve the OSS [Operations Support System] team. We handle most alarms at the NOC, allowing them to devote resources to more development-focused activities.”

— Mark Thompson, operations manager, TELUS

Driving robust network surveillance

“The existing Netcool software had served well as our fault management solution for five years, so the decision to migrate the entire wireless infrastructure to the Netcool platform was automatic,” recalls Thompson. “The question at that point was how do we do it?”

Rather than moving all infrastructure to TELUS’s existing Tivoli Netcool solution, the executive team at TELUS decided to create an entirely new and distinct Tivoli Netcool instance for the wireless network using IBM Tivoli Netcool/OMNIBus, IBM Tivoli Netcool/Impact, IBM Tivoli Netcool Performance Manager and IBM Tivoli Netcool Configuration Manager software.

“Network and fault management are key to meeting our service level agreements for availability, notifications and the specific ways in which we react to given alarms,” Thompson says. “So using the experience of our first implementation, we felt we could build an even more robust system this time around.”

The Tivoli Netcool network management platform provides a single consolidated view of activities occurring in the integrated fault, event, inventory, ticketing and change management systems associated with TELUS’s wireless network. “Our system is set up in quite a different way from most Netcool instances. We have an alarm control database that assigns attributes to alarms, so when an alarm comes in I can attach an attribute to it that tells Netcool to send it to a particular surveillance domain. That way, one select group sees that alarm but other teams may see collaborative views,” Thompson explains. “I can describe the alarm’s sphere of influence, anything from a Wi-Fi hotspot that has very localized impact to an edge router that has provincial impact or a Short Message Service box that could affect us nationally. I can apply alarm thresholds so that an alarm is not even presented for action unless its impact breaches predetermined threshold parameters from the alarm control tables. That’s something we were unable to do before.”

Solution Components

Software

- IBM® Tivoli® Netcool®/OMNibus
 - IBM Tivoli Netcool/Impact
 - IBM Tivoli Netcool Performance Manager
 - IBM Tivoli Netcool Configuration Manager
-

Helping increase efficiency and reliability

As a result of that new found ability to distinguish between events that require an immediate action and those that don't, the overall number of reported events is dropping. Thompson can tell the Tivoli Netcool system to delete, suppress or escalate a certain alarm when it's reported. "I don't have to involve the OSS team. We handle most alarm treatments at the NOC, allowing OSS to devote their resources to more development-focused activities." In fact, the NOC now manages 98 percent of all alarm treatments without any OSS involvement or requirement for development/test cycles.

The centralized NOC-level control also enhances the TELUS support group's agility to ever-changing conditions, such as team reorganizations or new client agreements. "As an example, if we needed to assign a certain category of alarms to a different fault management team, I used to have no real way of distinguishing those alarms and putting them into a viewer for someone else to monitor. I had no elegant way of doing it outside of engaging the OSS team and asking them to apply different attributes down at the probe level, a process that took several weeks for testing and deployment," Thompson says.

If the same request comes in today from the Tivoli Netcool solution, Thompson simply goes into the alarm table, selects the alarms in question and defines them as being owned by a new group. In a matter of hours, TELUS is assured that the next time those alarms emerge, the relevant group gives them the appropriate level of scrutiny. "That granular level of alarm control and the resulting collaboration is one of the most important benefits we derive from Netcool from a network surveillance perspective," Thompson says.

For more information

To learn more about IBM Tivoli Netcool/Impact, Netcool/OMNIBus, Netcool performance Manager or Netcool Configuration Management software, please contact your IBM marketing representative or IBM Business Partner, or visit the following websites:

ibm.com/software/products/tivonetc

ibm.com/software/products/ibmtivolinetcoolomnibus

ibm.com/software/products/netcoolperformancemanager

ibm.com/software/products/tivonetconfmana



© Copyright IBM Corporation 2015

IBM Corporation
Software Group
Route 100
Somers, NY 10589

Produced in the United States of America
June 2015

IBM, the IBM logo, ibm.com and Netcool are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at "Copyright and trademark information" at www.ibm.com/legal/copytrade.shtml.

This document is current as of the initial date of publication and may be changed by IBM at any time.

The client examples cited are presented for illustrative purposes only. Actual performance results may vary depending on specific configurations and operating conditions.

THE INFORMATION IN THIS DOCUMENT IS PROVIDED
"AS IS" WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED,
INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY,
FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR
CONDITION OF NON-INFRINGEMENT. IBM products are warranted
according to the terms and conditions of the agreements under which they are provided.



Please Recycle
