



Asian Environmental Protection Agency Improves Interoffice Communications using nGenius Solution

Unified visibility, continuous deep packet capture and historical reporting help resolve service delivery issues with Lotus Notes environment

Customer

An Asian environment protection agency dedicated to formulating and enforcing policies and plans pertaining to environmental protection, energy conservation and the promotion of sustainable development.

Applications in Use

Lotus Notes email and groupware, ERP, public website

Business Challenge

The agency is highly dependent on Lotus Notes for virtually all communications – email, scheduling, document sharing, etc. When Notes is slow, productivity and collaboration grind to a halt. IT needed to improve service delivery and implement tools to respond to issues more quickly.

Solution

nGenius Service Assurance Solution

- nGenius® InfiniStreams™
- Sniffer® MultiSegment Analysis
- Sniffer® Intelligence
- nGenius® Performance Manager

Business Results

- Automate and streamline the process of resolving service delivery issues affecting Lotus Notes performance through real-time monitoring, deep packet capture, and daily historical reporting.
- Unified monitoring and reporting of branch network throughput for easier, more effective capacity planning.
- Verify service provider SLAs on WAN performance.

For More information

For more information please visit www.netscout.com or contact NetScout sales at 800-309-4804 or +1 978-614-4000.

The Challenge:

This Asian environmental protection agency is dedicated to formulating and enforcing policies and plans pertaining to environmental protection, energy conservation and the promotion of sustainable development. The agency employs about 1,600 employees who are dispersed between 12 branch offices. Virtually all communication is done through Lotus Notes. In fact, they have over 25 Lotus Notes servers, spread between the 12 offices, all replicating each other to ensure constant availability. A private Metro Ethernet network connects the branch offices. Traffic is encrypted before entering the WAN to preserve privacy and confidentiality.

The agency not only uses Lotus Notes for email, but also as a groupware tool to schedule meetings, make internal announcements and for document and workflow management. When Notes is slow or unavailable, productivity and collaboration grind to a halt. After receiving a series of complaints about poor Notes performance, the IT team realized it needed better visibility into this critical application.

Prior to implementing the nGenius Solution, IT was forced to search through router/switch logs, ask the service provider to check their logs, compare logs, guess at the source of the problem and then verify that the proposed solution worked. The process was tedious, time consuming and error prone.

The Solution:

A Phased Approach to Implementing Service Delivery Management

The agency's use of the nGenius Service Assurance Solution began with a single nGenius Infinistream intelligent deep packet capture (iDPC) appliance which they located in their data center to provide them with centralized visibility into Lotus Notes performance. However, IT quickly saw the benefit that complete packet-level visibility provides when viewing and analyzing problems that happened in the recent past and added additional nGenius InfiniStream appliances at three major branch offices to gain a broader view of the network. In addition, they purchased Sniffer MultiSegment Analysis to analyze complex, multi-tier or multi-hop application flows to troubleshoot Internet access issues from or between branch offices.

Building on the value of the intelligent data sources in place, the agency added nGenius Performance Manager which leverages packet-flow data captured by the four nGenius InfiniStream appliances to provide a single, unified view of the service-delivery environment. This end-to-end visibility provides the critical flow-based performance metrics and alarming the agency required for reporting, capacity planning and flow-based problem resolution.

Business Results: Going Beyond Troubleshooting

The agency uses the current nGenius Solution to resolve a variety of network and application performance problems, as well as for capacity planning, reporting and SLA verification with the WAN provider.

Uncovering Routing Issues

On several occasions the IT team has counted on the nGenius Solution, and especially the retrospective analysis capabilities of the nGenius InfiniStream, to diagnose and troubleshoot routing issues that affected Notes performance:

- On one instance a branch office complained about very slow email access. Network operations checked nGenius Performance Manager and confirmed that there were a number of response time alarms for Notes on that branch office circuit. The alarms provided a convenient and accurate starting point for root cause analysis, while the nGenius Solution's contextual drill down capabilities streamlined the process of identifying the appropriate packets on the nGenius InfiniStream. Analysis of the packet stream showed that all the traffic from this office was wrongly routed through another branch before reaching the central location.
- On another occasion, Lotus Notes connectivity was cut off completely. Using the Expert decode and analysis capabilities of the nGenius InfiniStream, the network operations team was able to determine that a spanning tree issue caused a network loop to form, flooding the affected offices with redundant bridging requests and overwhelming the connection.
- In a third incident, the network operations team was quickly able to isolate the poor Notes responsiveness to a router that was flapping or sending out enormous amount of routing updates, causing the Notes sessions to time out.

Reporting, Capacity Planning and SLA Verification

In addition to accelerating the process of troubleshooting service delivery issues, the nGenius Solution enables the agency's network team to

- Generate daily reports on Lotus Notes performance
- View unified reports of branch network throughput for easier capacity planning and optimization
- Create customized Workspaces to monitor end-to-end performance for all branch offices, router performance, and Lotus Notes performance from one central console within the NOC
- Verify service provider SLAs on WAN performance and share Sniffer CAP trace files with them for joint troubleshooting.

The Bottom Line: Improved Communications

Prior to installing the nGenius Solution, the agency used a manual process of reviewing router/switch logs to determine the source of performance issues with Lotus Notes. Now their first inspection point is always nGenius Performance Manager, with drill down to nGenius InfiniStream packet-level details when necessary to diagnosis subtle or intermittent issues.

The nGenius Solution enables the agency's network team to automate and streamline the process of troubleshooting service delivery issues affecting Lotus Notes Performance and has significantly reduced the time it takes network operations to diagnose and resolve issues. In addition, it provides them with the added benefit of being able to preempt bandwidth or throughput problems through the use of the nGenius Solutions robust reporting and capacity planning.



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