Gaining End-to-end Visibility of Service Delivery:
Making critical decisions and avoiding shortfalls

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Agenda slide

- Who is NetScout
- Key questions to ask when it comes to service delivery visibility
- Moving from the Data Center, Through the Core to the Branch
- Implementation Strategy and Results
- Bringing it together – Unified Service Delivery Management
- Summary and Conclusion
A little about NetScout Systems, Inc.

...And about myself

- 25 years of consistent technology innovation and execution in application, network, and service performance management
- Most comprehensive and widely-deployed service delivery management portfolio leveraging nGenius® and Sniffer® technologies
- 20,000+ customers worldwide – 93% of Fortune companies 100 use NetScout solutions
- Global service and support strength and coverage with five R&D centers worldwide
- Ranked #1 in WW market share for 2006*, 2007*, 2008 in Network Performance Management by IDC

* Combining NetScout and Network General market data
Key Questions

Critical When Trying to Gain Visibility

◆ What are you trying to accomplish?
  • Are you transitioning to a more proactive approach to problem resolution?
  • Are you moving to a services focused methodology?
  • Are you supporting a particular project or initiative?

◆ What are the key concerns?
  • What hurdles must you overcome?
  • What is the decision mix – Budget vs. Function vs. Future?
  • Can you afford to wait for a problem to reoccur before you resolve it?
  • How can you enable cross-team collaboration?

◆ What are the critical services / areas / functions that enable the business
  • What are the essential links?
  • What are the customer facing services?
  • Where does the CxO sit?
Levels of Service Delivery Monitoring

The right visibility for today’s complex environments
The Answer IS In The Packets…
Not sampled, Not simulated, Not Impacted by data reduction

- True service-level visibility → not simulated or sampled, in context with network traffic
  - See the users’ experience → service flow-based visibility
- Identifies impact of each element of delivery chain → abstracts underlying complexity

The Most Dependable Source of Network Data

HTTPS
Oracle
Voice
CRM

Provides the Highest Level of Granularity
Bringing it Together
Unified Service Delivery Management

Visibility into network and application performance with correlation to services representing the business and user experience.

Quick identification of changes enabling immediate action to correct problem.

Broad Range of Instrumentation Enables Comprehensive Visibility

- Embedded Netflow & nGenius Collector
- nGenius Virtual Agent
- nGenius Probes
- nGenius InfiniStream Appliances

Series:
- 6900 Series
- 2900 Series
Case Study: Data Center Visibility

For a global home, personal care & foods products company

Challenge

• Server response times were impacting users
• High volume of unknown traffic

Solution

• Unified Service Delivery Management solution

Results

• Identified gigabits of IP Other traffic volume
• Seamless workflow revealed unique IP addresses, actual packets, leading to discovery of high volumes of server backups during business hours
• Reconfigured servers for a more optimal time of day immediately resulted in improved user experience
Visibility in the Data Center

Monitoring the physical and virtual environments

Focus on:

- The server farms and servers that carry critical business driving applications
- Key aggregation points – get more visibility for your buck
- If you have virtual environments you need virtualized solutions
Case Study: Core, Distribution and Edge
Rapid integration after an acquisition

Challenge

- Hard to identify application performance challenges resulted due to different systems
- Applications periodically timed out and users experienced “network slowdowns” and “responsiveness” issues
- Problems were intermittent and hard to replicate

Solution

- Continuous capture functionality at the core, distribution and edge

Results

- Packet Flow-based analysis identified network switch was “overwhelmed” with broadcast traffic
- Slow response for remote access was resolved as “Bounce Diagram” showed wrong file transfer method was being used
- Application responsiveness impacted due to TCP window sizing issue
- Unified solution enabled effective collaboration between application, network and integration teams speeding resolution
Visibility in the Core, Distribution and Edge
The high traffic areas of the network

Focus on:

- Having the highest level of visibility in this area – most traffic passes through here
- Key aggregation points – get more visibility for your buck
- If you have MPLS you need to monitor on the LAN side at the edge
Case Study: VoIP

Healthcare Organization Assures Service Delivery

Challenge

- Experiencing disruption in new VoIP service
- Entire floors & wings deregistering

Solution

- Packet-level details and intelligence at the access layer

Results

- Identified and provided conclusive evidence of mis-configuration in QoS class for VoIP
- IT reconfigured QoS class in all routers, rapidly restoring VoIP service to all
- A trouble that persisted for more than 6 weeks was resolved in under a day
Visibility in the Access Layer
Making sure users can access the service they need

Focus on:

- Right-sized visibility – You don’t need thousands of packets, but you do need rich meta-data
- Leverage span ports whenever possible
- If users are mobile you need tools that help you support this mobility
Case Study: Branch Office
Extending visibility closer to the user

Challenge
• Needed visibility into manufacturing control & SCADA network plus office networks at 10 remote manufacturing plants
• The network expertise resided at headquarters, but the cost of deploying personnel every time a problem occurred at the branch was increasing OPEX

Solution
• Distributed devices delivered manufacturing network data to the Network Operations team located at the headquarters

Results
• Gained the ability to troubleshoot LAN at branch office without dispatching technician
• Able to monitor site-to-HQ traffic as well as site-to-site traffic
Extending Visibility out to The Branch

The high traffic areas of the network

Focus on:

- Adding visibility based on cost vs. functional needs
- Branch offices that generate revenue need some level of visibility
Enabling The Unified View of “Services”

Unified Service Delivery Management
Aggregates Service Delivery components into a comprehensive, unified service-oriented view

“Service” Examples: E-Commerce | VoIP | ERP | Messaging | Video | Telepresence
Putting It All Together
From the Data Center, Thru the Core to the Branch
Case Study: Branch Office

End-to-end visibility

Challenge

- Experiencing degradation in their imaging application software (PACS) that was slowing patient diagnosis
- Degradations were across the entire network and had no obvious patterns
- Also – Website slow downs used by patients for wellness programs, self-diagnosis and support groups

Solution

- Service-oriented end-to-end visibility

Results

- Identified and provided a conclusive evidence of when and where in the hospital network slow downs were occurring for the imaging problem so IT could rapidly restore high quality response times for doctors & clinicians
- Discovered & corrected 4xx and 5xx client & server errors in web pages affecting patient experience
# Summary: Managing the Modern IP Network

## Unified Service Delivery Management

Optimize Delivery and Assure Availability of Applications and Services over the Modern IP Network

### Optimize
- Maximize the value of the existing Infrastructure
- Predict service delivery impacting issues
- Assure user experience
- Effectively Plan for future initiatives

### Protect
- Prevent and minimize service disruptions
- Accelerate problem resolution
- Validate resource usage policies

### Simplify
- Consolidate tool clutter
- Improve cross-group collaboration
- Enable operational consistency
- Leverage a common, unified set of data metrics

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Reduce Total Cost of IT Operations
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