Packet Trace Warehouse AppMapper Xpert
AppTransaction Xpert

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Agenda

Packet Capture Agents

Packet Trace Warehouse

Application Mapping

Tranactional Analysis
Packets Traces are a Key Troubleshooting Tool

- Packet traces are the best and sometimes the only way to troubleshoot a problem
  - Direct form of evidence
  - Valuable for deep troubleshooting and forensic analysis

- Traditionally, packets traces have been challenging to acquire
  - Requires investment in hardware
  - Appliances must be placed strategically

- Agents facilitate convenient packet capture and retrieval
  - Tactically deployed on end-user stations or at remote locations
  - Distributed enterprise-wide with low overhead
Packet Capture Agents

- Makes packet captures easy to acquire
- Capture packets from multiple vantage points simultaneously
- Continuous capture
  - Always-on capture continuously saves packets into a rolling buffer
  - Ideal for troubleshooting intermittent problems
- On-Demand capture
  - Real-time capture for targeted troubleshooting
- Agent security
  - Anonymous (Level 1) encryption
    - Encrypted connection, but no authentication
  - Certificate (Level 2) encryption
    - Encryption and authentication
    - Requires SSL certificates that were validated by a trusted CA

Supported OS

- AIX
- FreeBSD
- HP-UX
- Linux
- Mac OS
- Solaris
- Windows

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Packet Trace Warehouse

- Delivers secure, centralized control of enterprise-wide agents
- Enables easy deployment of agents across the enterprise
- Reduces TCO to manage large scale agent deployments
- Manages ubiquitous packet capture via freely deployed agents
Packet Trace Warehouse

- Web-based capture operations
  - Start and stop packet captures
  - Preview capture buffers remotely
  - Download captures
  - Configure and save capture templates

- Agent discovery
  - Automatically discover all installed agents by searching a specified range of ports and IPs
  - Maintain centralized inventory of installed AppResponse Xpert™ agents

- User management
  - Set user roles and privileges
  - Maintain audit log of all agent activity

- Security
  - Secure access to agents (via LDAP/AD, TACACS+, Radius, etc.)
Application Mapping

- Automatically create application maps leveraging enterprise-wide agent deployment
  - Discover application infrastructure components and dependencies using agents
  - Build accurate, up-to-date application maps based on run-time data
  - Supports applications in the data center, public cloud, or hybrid environments

Configure packet capture agents to automatically generate relationship information

Application map built exclusively from capture agents in the Amazon Cloud
AppTransaction Xpert “AppDoctor”

- Automatically diagnose performance bottlenecks
- Summarize components of response time delay
- Integrate with OPNET AppInternals Xpert™ for in-depth analysis of server-based delays
- Rapidly troubleshoot root causes of performance issues
AppTransaction Xpert “Trans. Visualizer”

- Isolate application message flows
- Visualize application performance, including
  - Application message turns
  - System performance statistics
- Drill down into application messages
- Understand dependencies impacting performance

Understand application messages and dependencies

Visualize traffic flows between tiers

Customize visualizations e.g. by adding labels.
AppTransaction Xpert “QuickPredict”

- Predict response times in numerous what-if scenarios
  - Plot response time over a range of network conditions
  - Immediately assess the effects of adjustments to network and application parameters
    - Bandwidth
    - Latency
    - Packet loss
    - TCP window size
    - Number of application turns
    - Message size
    - Etc.
- Validate solutions to performance problems before deployment
- Study impact of many simultaneous transactions (multiple clients, servers & apps)
- Ensure efficient, effective infrastructure investments
AppTransaction Xpert Reporting

- Automatically generate professional-quality reports
- Choose from a variety of report types
  - MS Word Report
  - Web Report
  - Multiple Transaction Report
  - Comparison Report
  - Difference Report
  - Statistics Report
- Easily customize report content