Web 2.0 Enabled Classroom

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Agenda

- Market Evolution and Trends
- Where to Begin
- Introduction to Unified Performance Management
- Case Studies

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Exinda at a Glance

- Founded in 2002
- Melbourne based
- Leading provider of WAN optimization solutions
- Privately held with venture capital financing
- Over 3,000 customers
- Several thousand appliances deployed in 40+ countries
- Worldwide distribution

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Market Evolution & Trends

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Market Evolution & Trends

Top five bandwidth heavy websites were:

1. YouTube – 10% of all bandwidth used
2. Facebook – 4.5%
3. Windows Update – 3.3%
4. Yimg (Yahoo!'s image server) – 2.7%
5. Google – 2.5%

When 250 IT managers were asked about their biggest security concerns, the top answer was **"employees using applications on social networks"** while at work.

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Source: Network Box, 20th April, 2010

Market Evolution & Trends

"On average, 37% of network capacity has been occupied by traffic that is **not business-critical**."

- **Aberdeen Group,** "Application Performance Management: Getting IT on the C-Level Agenda", March 2009

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Market Evolution & Trends

Australia Is Social Networking Capital Of The World
TELEGRAPH.CO.UK - Mar 3 - According to Nielsen, Australia's web users are at the forefront of the social networking craze, posting, poking and Twittering **nearly seven hours a month**.

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Market Evolution & Trends

The Council of Australian University Directors of Information Technology (CAUDIT) have indicated that **traffic is typically doubling every nine months** (250 per cent a year).

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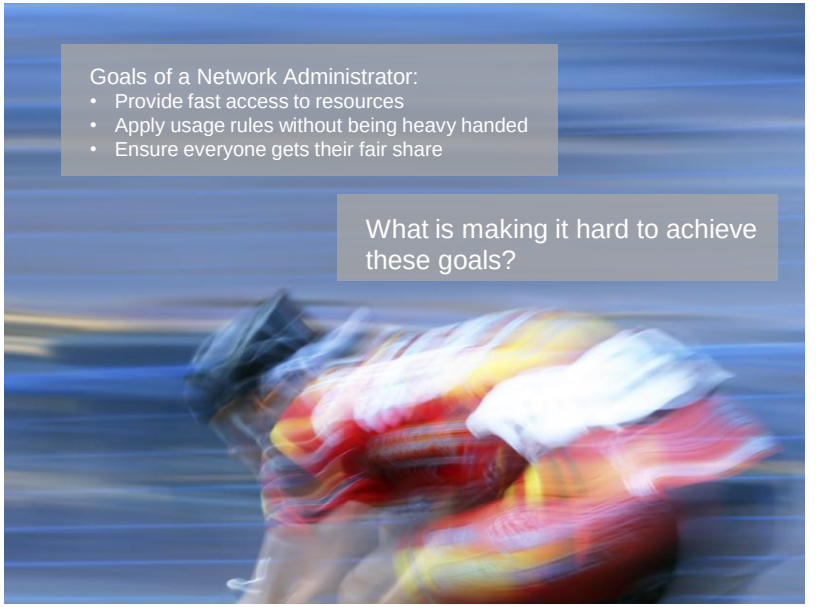
Market Evolution & Trends

30 Billion Videos Watched Online In April 2010
According to a recent comScore Video Metrix service, 178M U.S. Internet users watched online video during the month.

Social Networks Overtake Search Engines In UK
Google should be considerably worried about its future battle with the likes of Facebook and Twitter…



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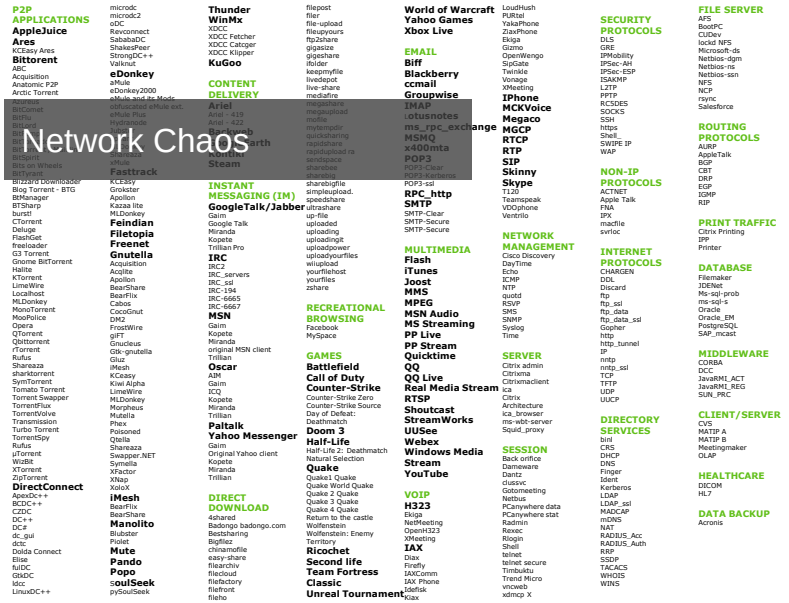

The Evolution of Peer-to-Peer (P2P) Technology

Fixed Ports	Port Hopping & Probing	Protocol Obfuscation*	Full Encryption
Most early P2P networks, incl. Napster, Fasttrack, eDonkey	Basically all current P2P protocols	BitTorrent, eDonkey	BitTorrent, Freenet

1999 2003 2007 2009

* **Obfuscated** protocols are protocols that are (usually intentionally) very hard to read and understand

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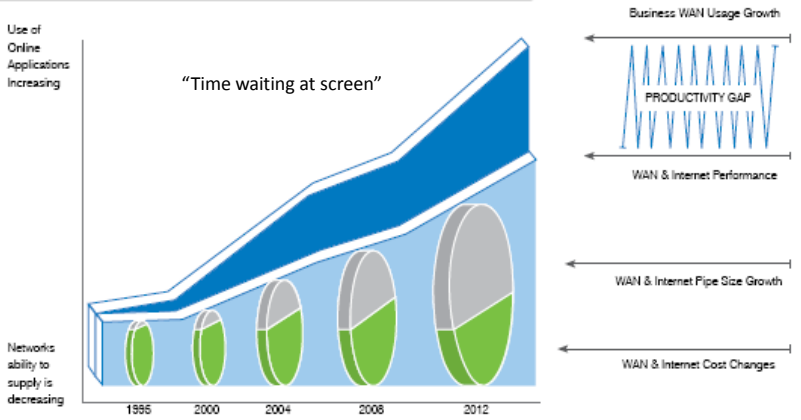
The Productivity Gap

Demand vs. The Network's Ability to Deliver



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Where do you begin?

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Assess the Organisation's Needs

- What applications are most critical to your organization?
  - VoIP
  - eLearning
  - CRM
  - Video Conferencing
  - File Transfers
- Are critical applications being impacted?
- Do applications have slow response times?
- Are users complaining about applications or the network?

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Determine the Organisation's Drivers

- What initiatives are you trying to achieve?
  - IT Cost Containment and Reduction
  - Control Losses in Productivity
  - Support New Initiatives – New Application Rollout, Added Staff, New offices
  - Prevent or Eliminate Poor Student and Faculty Experiences

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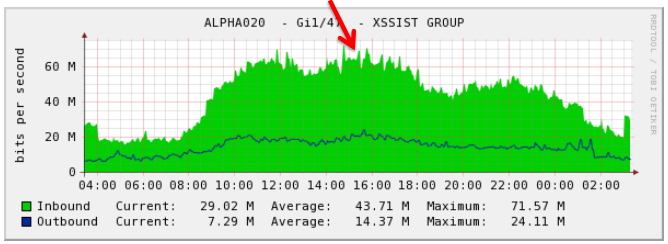
Categorize your Traffic

Real Time	Business Critical	Bulk Data	Undesirable
Traffic is expected to be delivered on time. Delay sensitive and performance is easily impacted.	The bulk of an organizations key applications. They require appropriate network resource to operate efficiently.	Can consume large amounts of network resources at the expense of sensitive traffic. Usually not time sensitive but does need guaranteed bandwidth and performance improvements.	Typically consumes large amounts of network resources at the expense of all other traffic. Usually not business related. A typical example would be peer 2 peer or recreational applications.
•*Voice Over IP* •*Video Conferencing* •*Distance Learning* •*Collaboration*	•*Thin Client* •*eLearning* •*CRM/ERP* •*Database* •*Interactive*	•*FTP* •*Email* •*Files* •*Software Updates* •*Backups*	•*BitTorrent* •*Streaming Media* •*Gaming* •*Internet Radio*
Need Precise Bandwidth Guarantees to operate without problems	**Needs Bandwidth Prioritisation to operate without problems**	**Need control and optimisation techniques to minimize their network footprint and also speed their performance.**	**Need highly accurate visibility and ability to limit or squeeze off network altogether.**

Why is traffic shaping important?

Bandwidth Costs $$$$



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EXINDA will help you solve your issues

Customer Network Issues & Pain Points

- Lack Visibility
- Slow Applications
- Performance Issues
- Bandwidth Congestion
- Need to Prioritize VoIP
- B/w Cost/Upgrades

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Exinda Unified Performance Management (UPM)

Unified Performance Management (UPM) integrates all the components needed to achieve peak application performance over the WAN.

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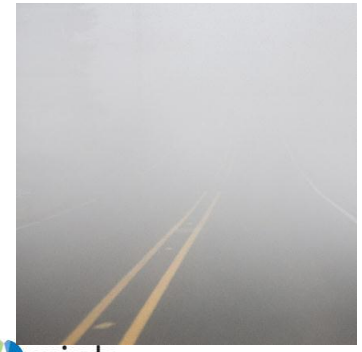
Visibility – What You Can't See *Can* Hurt You



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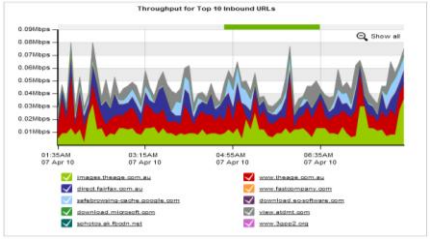
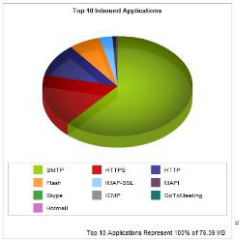
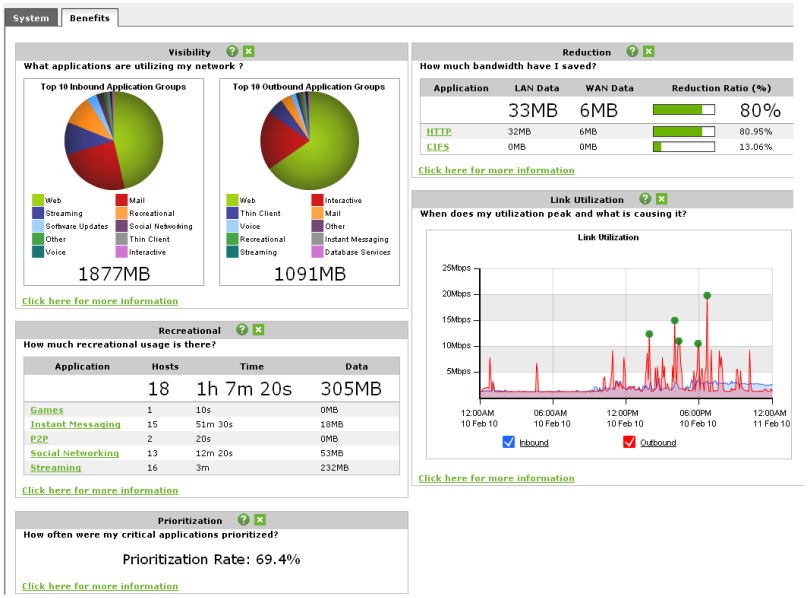
UPM Components: Visibility

- Real-time monitoring reduces trouble-shooting time
- Detailed reports and drill-down enables visibility into all aspects of the network
- Identifies traffic including evasive applications using Layer 7 signature and heuristics
- Historical reports drive capacity planning
- Microsoft Active Directory integration enables reporting at the user name level for tracking and cost allocation







Control – Take Charge

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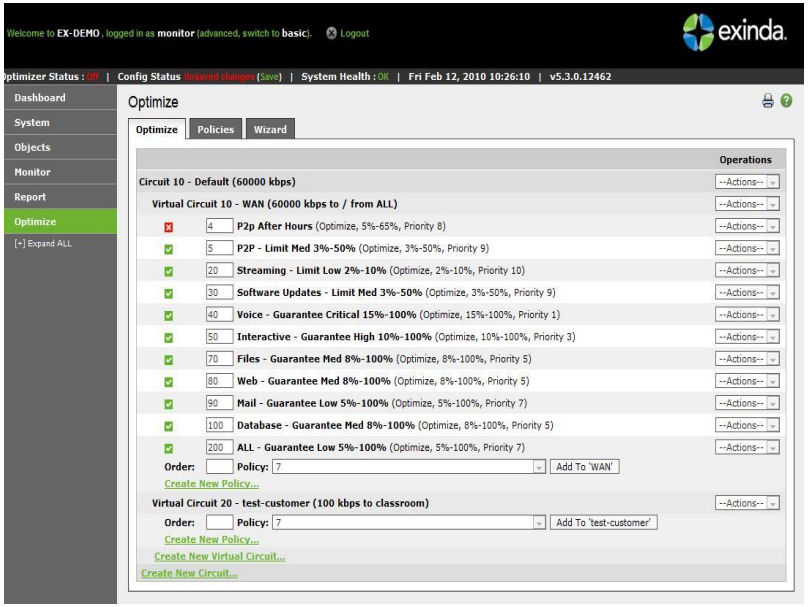
UPM Components: Control

- Precise policy-based traffic management and shaping ensures that low-priority traffic doesn't interfere with WAN performance
- Fair sharing ensures no one user or application can 'hog' the bandwidth
- Time of Day Policies
- Adaptive Response crates an adaptive network to changing condition in accordance to the policies that have been set



UPM Components: Control

Name	Application	Edit	Delete
P2P		Edit	Delete
	BitTorrent		Delete
	Edonkey		Delete
	Feidian		Delete
	Filetopia		Delete
	Gadu-Gadu		Delete
	Gnutella		Delete
	Kazaa-Fastrack		Delete
	Kontiki		Delete
	Open FT		Delete
	POPO		Delete
	PPLive		Delete
	PPStream		Delete
	QQ		Delete
	QQLive		Delete
	Soulseek		Delete
	StealthNet		Delete
	UUSEE		Delete
	Webthunder		Delete
	ZATTOO		Delete

Name	Application	Edit	Delete
Anonymous Proxy		Edit	Delete
	Anonymous Proxy		Delete
	StealthNet		Delete
	VoIP Tunnel		Delete
	VTUN		Delete
	YourFreedom		Delete
Custom Web App		Edit	Delete
	Custom Web App		Delete
Database Services		Edit	Delete
	MS-SQL		Delete
	MySQL		Delete
	Oracle		Delete
	PostgreSQL		Delete
	TDS		Delete
educational games		Edit	Delete
	ogame		Delete
Recreational		Edit	Delete
	Anonymous Proxy		Delete
	DirectDownload		Delete
	Flash		Delete
	Hotmail		Delete
	LinkedIn		Delete
	MySpace		Delete
	RealMedia		Delete
	VoIP Tunnel		Delete
	WindowsMedia		Delete
	YourFreedom		Delete
	YouTube		Delete

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Case Studies

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St Bede's College, Melbourne

Case Study

"Our internet bandwidth usage used to be like an out-of-control school cafeteria. With no order or rules, the biggest, loudest and hungriest students or applications would shout their orders out of turn and devour all the available food or resources. The smallest or more timid students would go hungry. Exinda acts like the canteen supervisor, setting rules, creating queues, silencing the bullies and makes sure there is a fair and efficient distribution of resources for all."

–David Cracknell, IT Director, St. Bede's College

Network

1350 Students

Challenges

Control recreational and P2P traffic

Adaptively respond to bandwidth hogs

Solution

Exinda 4700

Bandwidth management

Recreational and P2P traffic control

Results

Implemented effective bandwidth shaping policies

Improved user experience and application responsiveness

Ensured sufficient network capacity for educational and administrative applications

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North Melbourne Institute of TAFE (NMIT)

Case Study

"With Exinda we have a solution that will scale beyond the 1GB pipe we currently have with only a license upgrade."

– David Hardy - NMIT

Network

Over 74,000 course enrolments in 2009 and 3000 nodes

Challenges

Difficulties in prioritizing traffic based on importance and users.

Control recreational and P2P traffic

Solution

Exinda 8760

Multi-GB bandwidth management

Recreational and P2P traffic control

Results

Implemented effective bandwidth shaping policies

Improved user experience and application responsiveness

Ensured sufficient network capacity for future growth

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Manhattan School of Music

Case Study

"We had traffic overload and general latency for surfing, audio, and video that was bordering on being completely unusable. The Exinda WAN optimization appliance has allowed us to manage network usage, eliminate P2P traffic and easily set optimization policies to get the most out of our available bandwidth."

– Jonathan Keeley, Manhattan School of Music

Network

800 Students, 275 Faculty Members

Challenges

Control recreational and P2P traffic

Adaptively respond to bandwidth hogs

Defer upgrading bandwidth for 3-7 years

Solution

Exinda 6700

Bandwidth management

Recreational and P2P traffic control

Results

Implemented effective bandwidth shaping policies

Improved user experience and application responsiveness

Ensured sufficient network capacity for future growth

Gained the ability to run dual networks with different optimization policies

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Designed specifically to meet the needs of the Education sector, Jet Education is Australia's most popular Quota Management and Billing system throughout Universities.

In the coming months Obsidian customers will be able to provide quota management utilising Exinda solutions.

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Questions?

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The Commercial

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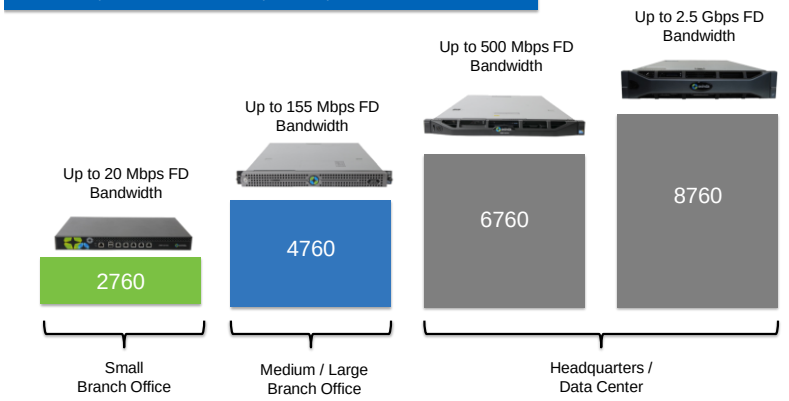
The Exinda x60 Product Family

Complete & Scalable UPM up to 5 Gbps



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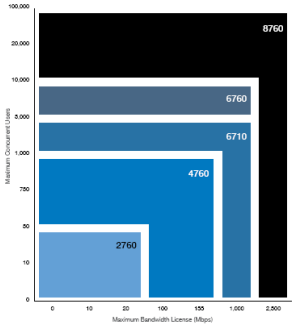
The Exinda Product Family

How to choose the right product for your network

Visibility & Control

x700 Software

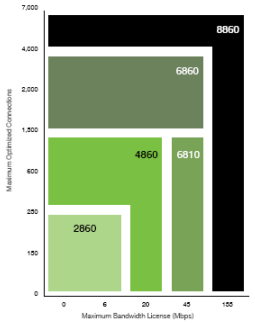
Designed to provide organizations with complete visibility and control of bandwidth, users, applications and traffic.



Visibility, Control & Optimization

x800 Software

Designed to provide organizations with complete visibility, control and optimization to improve overall network and application performance and to maximize user experience.



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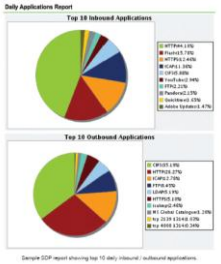
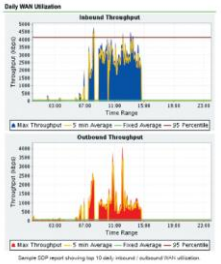
The Service Delivery Point (SDP)

Exinda's central management solution

An Global view of your Organization's WAN.

Seeing the Forest AND the Trees.





Gain greater network visibility, control, and optimization while reducing costs and management time

Designed for enterprise network environments looking to centrally manage multi-box Exinda deployments

The Service Delivery Point is available as Cloud Services/SaaS model or as a server to be housed at the location of your choosing.

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Virtualization & Cloud Computing

Flexible, Scalable & Efficient

Virtualization Provides Scalability and Flexibility

Exinda Virtual Appliance

Exinda runs as a Virtual Appliance on VMWare and other Virtualization Platforms*

Virtual Partition on Exinda Appliances

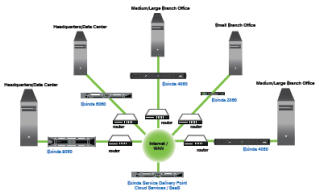
Extend the UPM Solution on a single Exinda Appliance

Enables single-appliance, branch office solutions for optimal WAN application performance.

Available 2nd half of 2010

Exinda Service Delivery Point - SaaS

Exinda SDP offers Cloud-based centralized Management



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* Currently available only through Partner Platforms

Exinda is the Answer

To all of your traffic shaping & WAN optimization needs

Business Benefits

- Rapid Return on Investment
- Productivity improvement
- Costs Reduction and Avoidance
- More efficient by factors of 10x, 50x, more
- Highly flexible, resilient, and scalable
- Scalable Central Management
- Future proofed, investment protection

Technical Benefits

- Easy to install and use appliances
- Transparent to network devices and configuration
- Requires no reconfiguration of routers, firewalls or the network
- Easy to read auto-generated reports
- Precise policy-based traffic management
- Quantifies results with Application Response Measurement
- Quantifies WAN capacity gains/data reduction
- Simple, centralized management of all devices

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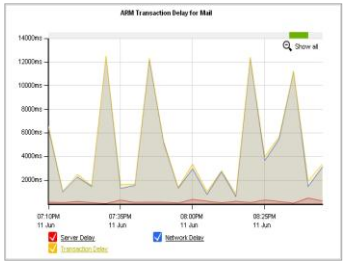
Your Problem - Application Response – Our Solution

Application Response Time Management:

- Detect how long end users are waiting for their applications to respond
- Pinpoint if a problem is network or server related
- Fine-tune QoS policies to control response times



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