



WAN Optimization Solutions

Bring Web 2.0 to the Classroom and Control P2P Traffic

Presenter: Con Nikolouzakis, Chief Product Officer

Overview

- Company founded in 2002
- Develop WAN Optimization solutions
- Over 2000 satisfied customers
- Several thousand units installed globally
- Products deployed in 40+ countries

Education Customers (ANZ)

- Academy of Mary Immaculate
- Catholic Archdiocese of Sydney
- Catholic Education Commission (CEO)
- Central Coast Grammar School
- Launceston College
- Melbourne Business School
- New Zealand Pediatric Services
- Northern Melbourne Institute of TAFE
- Open University
- Radford College
- Seventh Day Adventist Church
- St John of God Services
- Whitireia Community Polytech
- Wintec
- Yarra Valley eLearning





Common Challenges

- Poor application performance / user complaints
- Determining what types of traffic are on the network
- How much bandwidth is being consumed? By what/who?
- Managing Abuse / Providing Access
- Application roll-out and capacity
- Ensuring that administrative / educational traffic is highest priority and these users do not suffer from poor performance
- Budget/time/staff constraints
- HEOA Compliance



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Exinda's Unified Performance Management

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



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Application Visibility Reports

Application visibility

- Layer 2 through 7 Monitoring
- L7 Signatures – P2P, HTTP, VoIP, Citrix, Messaging, Streaming Video and Radio, more
- Behavioral Based Classification - Encrypted Apps – Bit Torrent, Skype
- Deep Drill Down Inspection – correlate hosts / application usage and breakdown
- Top Talkers, Conversations
- Real Time Monitoring
- Application Response Time Measurements



“Because the Exinda appliance provides such a clear and detailed view of network usage including the top inbound and outbound applications, as well as comprehensive reporting, it is the first solution we go to when we need to see exactly what is happening on the network”

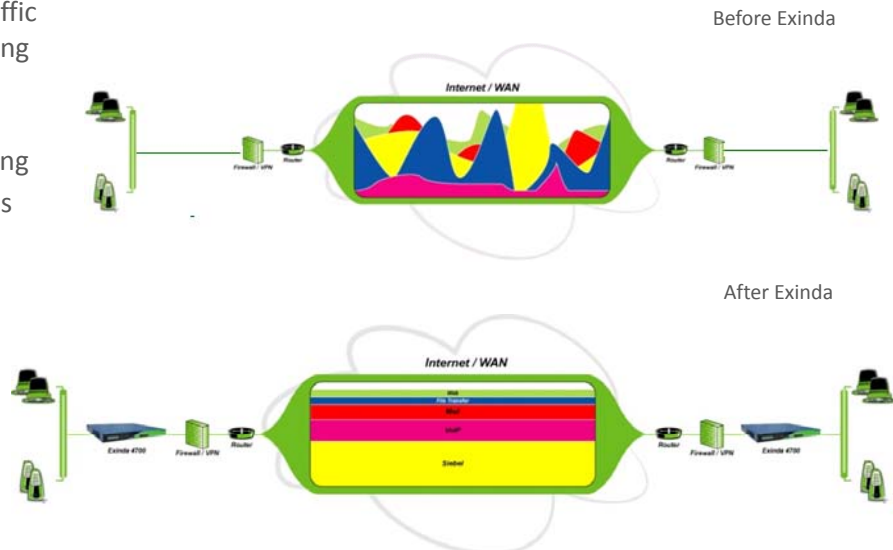
IT Manager, Higher Education



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WAN Optimization

- Precise Policy-based Traffic Management and Shaping (QoS) through L7
- Perform Diffserv Packet Classification and Marking
- Advanced L7 Capabilities Hostname, URL, HTTP file wildcard downloads (*.exe, *.iso, *.zip)
- Traffic Discard/Block
- Time of Day Policies
- Adaptive Response



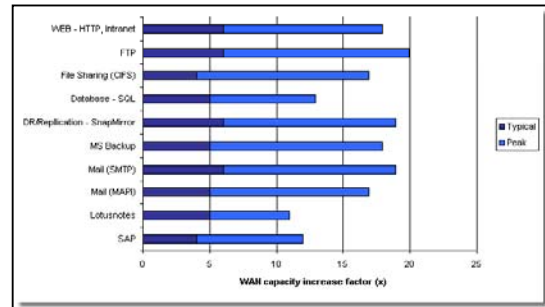
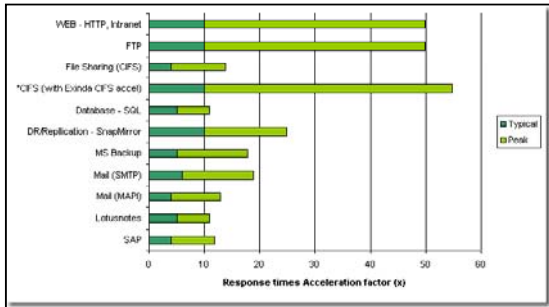
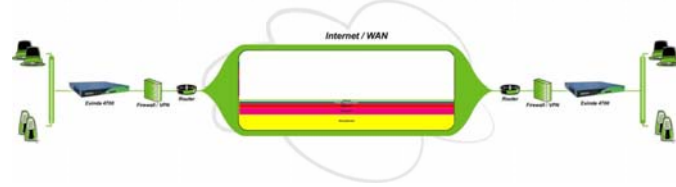
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Application Acceleration

Application Acceleration:

- Wide Area File Services (WAFS)
- TCP Acceleration
- CIFS Acceleration
- WAN Memory
- Compression

With Exinda's UPM & Acceleration



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Exinda Benefits

- Allocate bandwidth appropriately - visibility of traffic types and volumes
- Identify and control recreational peer-to-peer traffic- including BitTorrent
- Facilitate recreational traffic - without compromising high-priority applications
- Control bandwidth utilization - without placing heavy-handed restrictions on users
- Fairly share bandwidth - among students, faculty, administrative staff and researchers
- Cost reduction and avoidance – defer bandwidth upgrades
- Demonstrate compliance with Higher Education Opportunity Act



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Exinda Technical Benefits

- Easy to use and manage - advanced and simplified GUI
- Seamless installation - transparent to network devices and configuration
- Trouble-free set-up - no reconfiguration of routers, firewalls or the network for trouble-free set-up
- Low-touch reporting - auto-generated reports
- Granular control - Precise policy-based traffic management
- Quantified results
- Application Response Measurement
- WAN capacity gains/data reduction
- Simple, centralized management of all devices



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Higher Education - Case Study

St. Bedes College

Victorian Roman Catholic secondary school for boys, founded in 1938

Challenges:

- Provide access to the Internet while ensuring that students weren't accessing or exchanging inappropriate or copyrighted materials
- Need to facilitate collaborative environment for learning and community
- Keep bandwidth costs under control



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Higher Education - Case Study

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Victorian Roman Catholic secondary school for boys, founded in 1938

Solution:

- Installed Exinda appliance on college network
- Allocate more bandwidth to high-priority applications while throttling the bandwidth allocated to recreational traffic
- Conserved bandwidth and avoided unanticipated communication costs
- Guaranteed the performance of educational and administrative applications

"Exinda has helped us successfully bring the Web into the classroom. In addition to our costs coming down, the fine-grained control that Exinda provides also gives us the peace-of-mind that our students are not accessing inappropriate or illegal content."

David Cracknell, IT Manager, St Bedes College



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K-12 - Case Study

Andover Public Schools

11 K-12 public schools within district

Challenges

- Facilitate use of bandwidth heavy Web 2.0 collaborative learning tools in classroom
- Ensure performance for educational and administrative web-based applications leveraged through a SaaS model
- Need affordable solution and quick deployment that was scalable



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K-12 - Case Study

Andover Public Schools

11 K-12 public schools within district

Solution

- 1 Exinda x700 - 6720
- Enabled visibility of network traffic by application and subnet
- Prioritizes P2P traffic accessed by teachers to bring Youtube into the classroom
- Reporting provided insight into bandwidth requirements for critical administrative and educational applications



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Libraries - Case Study

Toledo Lucas-Country District Libraries

Main library with 18 branches – one the most technically advanced libraries in country

Challenge

- Provide free access to bandwidth-heavy collaborative websites without compromising performance of necessary applications
- Manage resources but ensure that the performance of administrative applications was not compromised
- Limited budget and resources



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Libraries - Case Study

Toledo Lucas-Country District Libraries

Main library with 18 branches – one the most technically advanced libraries in country

Solution

- 1 Exinda x700 6700 – up to 500 Mbps
- Enabled visibility of network traffic by application and subnet across Main Library and all branches
- Using the simple Exinda GUI, set policies to allocate a portion of bandwidth for P2P traffic ensuring that critical traffic maintains priority at the Main library and branches
- Improved application response times for administrative traffic while continuing to allow for recreational and P2P traffic



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Additional Information

Visit Exinda's Resource Center for:

- Case Studies
- Whitepapers
- Product Evaluations
- And other various literature around Exinda products

"The Exinda solution solved the problem very quickly. We're able to continue to offer the community access to Peer-to-Peer sites without compromising the quality of the applications running on the network".

Jeff Wale, IT Director, Toledo Lucas Country District Libraries

"Streaming video and audio were saturating the network pipes. We can't and won't 'police' student activity, but there were just so many high bandwidth applications that we had to take action to manage network resources."

Annie Blair, Assistant VP, Operations and Infrastructure, Bluefield College



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Questions?

