

VISIBILITY & CONTROL

- LAYER 7 VISIBILITY
- FULLY APPLICATION AWARE
- FULLY TRANSPARENT

NEXT GENERATION QoS DELIVERS

Automatic Bi-Directional Traffic Discovery

Automatically discover and classify over 400 applications based on Layer-3 (IP), Layer-4 (TCP, UDP) and Layer-7 (Application Fluent).

End-to-End Application Performance Monitoring

Provide complete network visibility and speedy response to application performance changes on a global scale with end-to-end monitoring and dozens of reports.

Transparent to Existing QoS Infrastructure

Transparent deployment honoring and preserving priorities set on traffic flowing through them.

Priority Treatment for Critical Applications

Enable important and urgent application traffic with priority using advanced traffic shaping for both inbound and outbound traffic.

Application Sensitive Aggregation and Fragmentation

Ensure real-time traffic hits the network without queuing and deliver higher WAN capacity, better performance, and a conditioned WAN.

Guaranteed Bandwidth for Specific Applications

Allocate sensitive traffic a minimum amount of bandwidth to ensure optimal results even when WAN links are fully congested.

Restrict Rogue and Greedy Applications

Restrict greedy applications to a maximum bandwidth to guarantee that other important applications are not effected.

Today's business critical, time-sensitive applications must compete for the limited bandwidth available on wide area networks (WANs). Combine WAN environment challenges with varied application requirements and bursty or rogue traffic and business critical applications begin to falter and fail. Quality of Service (QoS) solutions are a requirement to regain control, visibility, and predictability of the network. While other Optimization solutions see QoS as an afterthought or tack-on feature, Expand has developed it's own industrial strength QoS and continued to hone it as the industry's best for over a decade.

The Expand QoS Solution

Dealing with congestion, bandwidth constraints, and latency are essential to WAN Optimization, but organizations also need to be able to actively control the allocation of network resources. Intelligent Layer 7 QoS delivers the ability to provision more bandwidth and priority to business-critical applications, controlling less critical applications and completely blocking inappropriate use of limited WAN resources. Expand's powerful QoS engine allows instant bi-directional filtering, shaping and marking to ensure that important and urgent application traffic gets priority treatment on a conditioned wide area network.

Full Application Awareness

Expand's QoS is fully application-aware, auto-recognizing application traffic that no other solution is able to identify. It provides visibility into and beyond application type; breaking through consolidated WAN traffic and enables control of even the most challenging recreational applications. Expand's industry leading QoS engine enables extremely granular provisioning over and above existing ISP provided services; putting access to valuable network resources back in your full control.

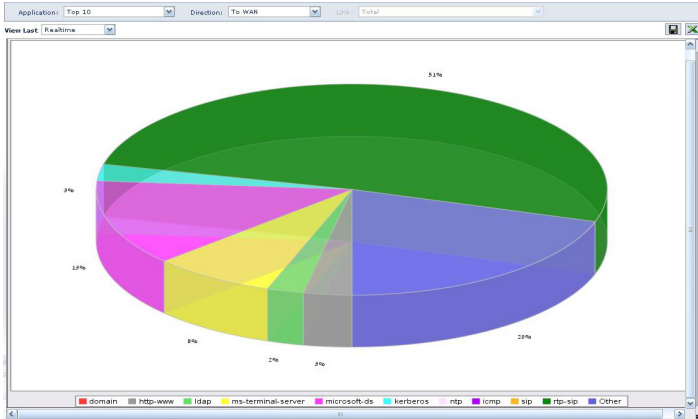
Features Include:

- Over 400 applications immediately identified and controlled.
- NetFlow reporting and integration.
- Industry's only aggregation and fragmentation system for conditioning WANs
- Control greedy applications and recreational network use
- Fully transparent
- Powerful reporting
- Layer 7 visibility for:
 - Server Based Computing: Citrix, HTTP/WebApps
 - Peer to Peer: (bitTorrent, Gnutella, eDonkey, Kazaa, Napster, WinMX, SoulSeek, DirectConnect),
 - Instant Messaging: AOL, ICQ, Jabber, MSN Messenger, Skype, Qq, Yahoo
 - Audio/Vidio: sip*, h323*, rtp*, rtp-sip*, rtp-h323*, rtsp, h225, mms, q931, sccp, rtcp-sip, rtcp-h323
 - Email: MS Mapi (Exchange), Lotus Notes
 - Printing: Cups

The Importance of Integrated QoS

Expand's Quality of Service engine enables customers to gain application level control over network utilization. Like all of Expand's features it is fully integrated, allowing interaction between QoS and WAN Optimization technology. Unlike separate solutions, Expand's layer-7 quality of service feeds back to it's WAN optimization features creating a flexible and adaptive network. It permits granular provisioning of network resources by application, conditioning the network to serve your business best. It transparently empowers enterprises to provision above and beyond WAN based services and ensures your limited WAN resources map directly to your businesses priority.

EXPAND'S INTEGRATED QUALITY OF SERVICE (QOS)



Application Aware - automatically identify and control applications. Including Server based computing, VDI, and Peer to Peer applications

Integrated QoS - fully integrated visibility and control in one easy to use interface

EXPAND NETWORKS — COMPREHENSIVE SOLUTIONS FOR WAN OPTIMIZATION

QUALITY OF SERVICE (QOS): Control of network bandwidth, filtering, shaping and marking

- Automatic Layer-7 application discovery
- Both inbound and outbound traffic
- Packet fragmentation (assures VoIP/video latency budget)
- End-to-end application performance monitoring
- Transparent to existing QoS infrastructure
- Priority treatment for critical applications
- Guarantee bandwidth for business sensitive applications
- Restrict rogue and greedy applications
- Seamless integration with compression and byte level caching
- Integration with MPLS network

VISIBILITY & MANAGEMENT: Comprehensive monitoring and graphical reporting

- Centralized management through ExpandView
- Total network visibility
- Automatic traffic discovery
- Simple configuration
- Traffic monitoring
- Historical and real-time reports for applications and links (throughput, performance, acceleration)
- Easy-to-use WebUI and central deployment stations
- Quick and easy configuration via front panel keypad
- Secure management with HTTPS, SSH, SNMP
- Integrates with existing user authentication and administration systems (RADIUS, TACACS+, and Windows Directory)
- Full NetFlow compliance: replaces the need for costly probes, enables collecting traffic statistics on routing devices and reports them to the collector.
- Out-of-band management
- HSRP/VRRP failover
- External flash card for device swap-out
- Switch-to-wire and software watchdogs

ACCELERATION: Powerful acceleration solutions for both protocols and applications

- TCP acceleration (based on SCPS Standard)
- Application acceleration (Citrix/ICA, HTTP, RDP, Telnet/TN3270, FTP, DNS, webified applications)

WAFS: Full-scale acceleration for WAFS and CIFS-based applications

- CIFS optimization
- Faster file transfers
- SMB-signing (full Microsoft compliance)
- Virtual-Server (DNS, DHCP, and print services) Addresses 'WAN-outs' in case of network outage

COMPRESSION & CACHING: Compression algorithms that are dynamic and self learning; caching in memory / hard drive

- Byte-level caching
- Packet header reduction
- Dynamic bandwidth adjustment
- Adaptive packet compression
- Network transparent RTM (Router Transparency Mode)
- Dynamic routing

SECURITY: Robust security and data protection for enterprises

- IPSec (AES-128, AES-192, AES-256 or 3DES algorithms)
- Authentication, authorization, and accounting (AAA)