



Fast WAN. Fast Apps. Fast Business.

Managing & *Controlling* Application Performance



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Agenda

- **You need intelligence to manage today's mix of applications**
- **Passive monitoring no longer makes sense**

IT Required To Deliver Many Applications

Convergence

Real Time Transactions

Collaboration

Server & Storage Consolidation

Recreational Applications

Malicious Traffic

Delivered over WAN

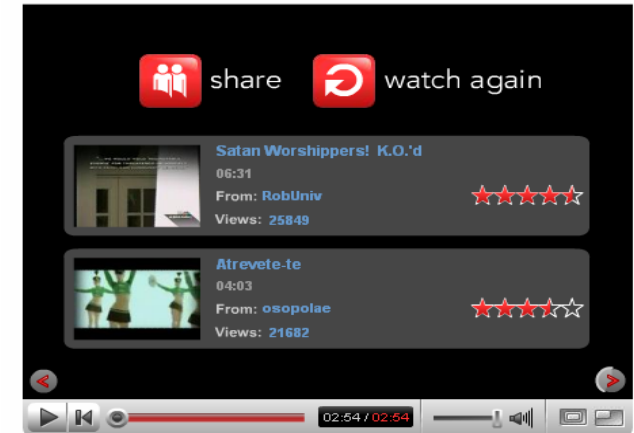


Over 200 Applications on the average Enterprise Network
1500+ on many large enterprises

What's the Application



YouTube Secrets Revealed



Oracle Financials



The Oracle E-Business Suite and streamlines all your financial data into a single accurate view of all your customers. And technology, gives you industry

Seamless Integration, Complete Flexibility

Oracle Financials is part of the Oracle E-Business Suite,

You Need Intelligence for Proper Visibility

- **Most Network Analysis is Based on Ports**

- www.iana.org/assignments/port-numbers

- **Layer 7 is table stakes**

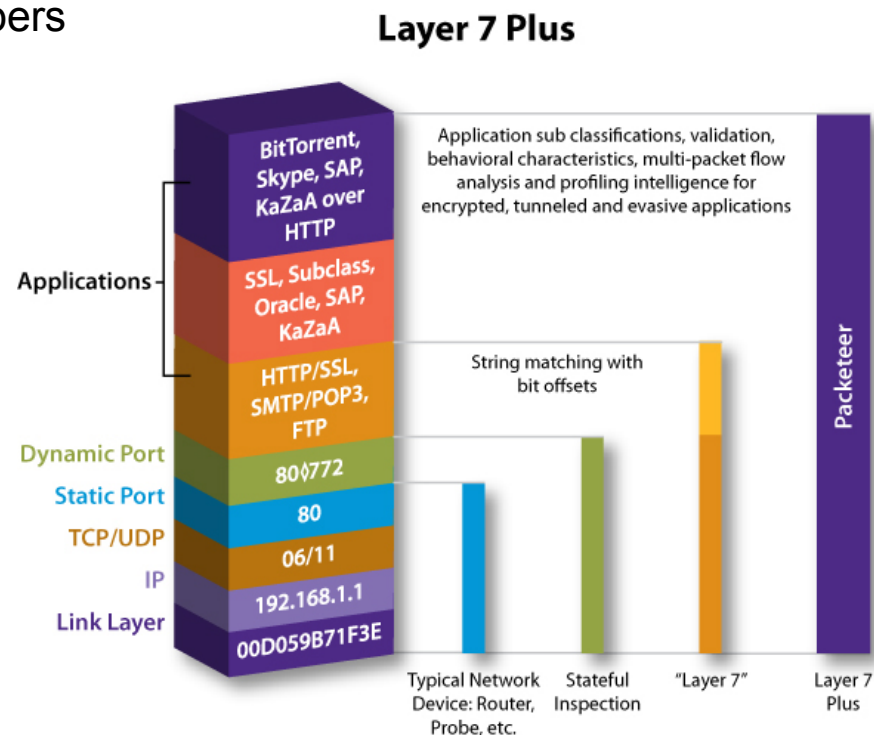
- +Validation, +Multi-packet
- +Behavioral analysis
- +++

- **Get to the level of business**

- Break down compound applications
- E.g. Processes in Exchange, Citrix, Oracle

- **New Wave Applications**

- SOA/Web Services
- IP Telephony
- Recreational Applications



So Many Applications ...So Many Problems

Common Problems

Jitter & loss driven by congestion (in COS and out)

Convergence

Crowded out by 'bursty' collaborative apps & congestion

Real Time Transactions

Chatty protocols (**CIFS**) & bulk traffic burdens WAN

Collaboration

Centralized delivery burdens WAN, slows performance **Server & Storage Consolidation**

Aggressive applications create congestion

Recreational Applications

Storms that bring down network – **availability problems**

Malicious Traffic

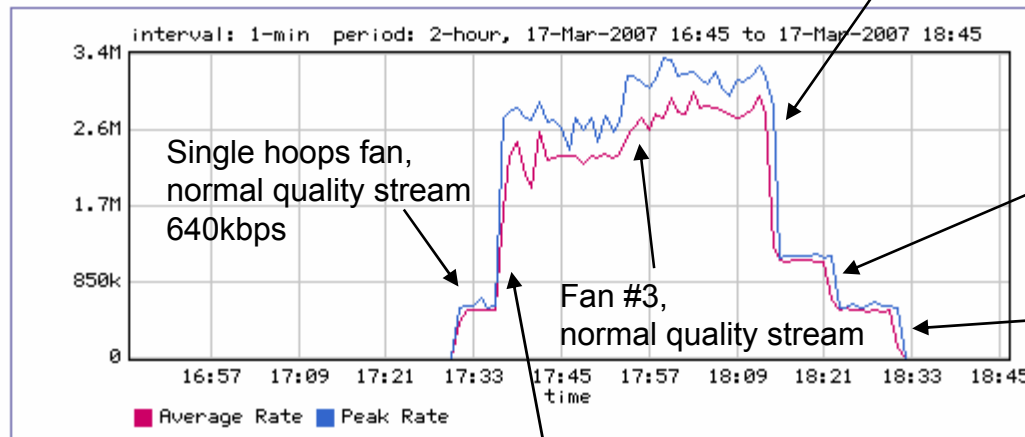
Tools & Fixes

Problem	Technology
QOS	Basic technology helpful for prioritizing IP port based applications
Application QOS	Good for getting to the application level provisioning Requires intelligence to differentiate applications Requires per session/connection view
Compression	Reduce data sent/increase capacity Varying technologies, useful for more 'real time' apps Advanced technologies are more like caching, only in RAM
Caching	Effective for very big data sets, repeatedly accessed Hard drive based (big data sets) Requires seeing data twice (get the cache hit)
Protocol Acceleration (TCP, CIFS, etc)	Helps overcome latency issues and protocols •CIFS: problems over 20-30 ms of link latency •TCP: Big jobs, low latency (20 Mbps links and above); small jobs, high latency (2 Mbps links, 300 ms+)

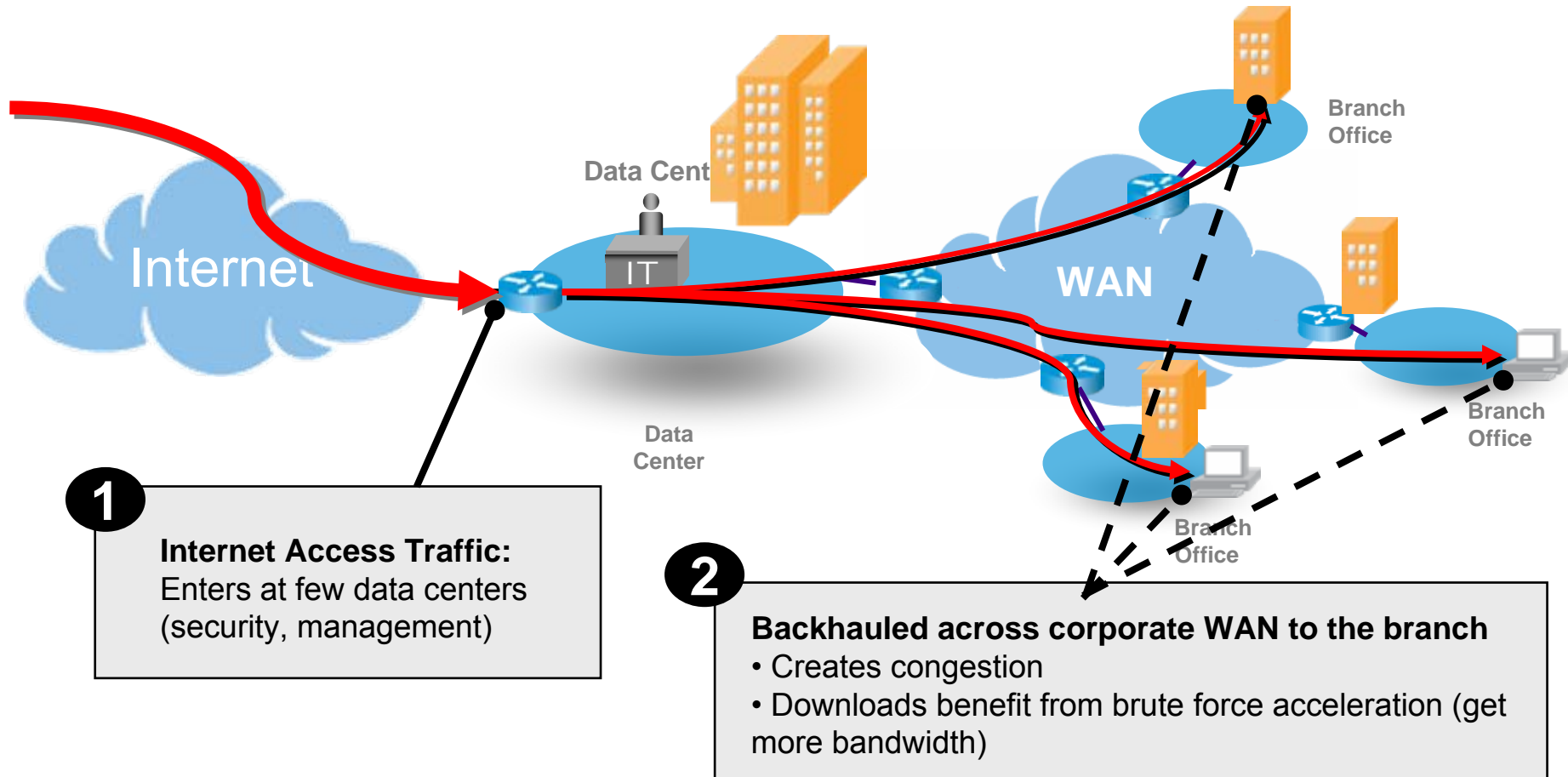
CBS Sportsline Video on Demand via NCAAsports.com

Bandwidth Utilization with Peaks Report
for Class /Inbound/Real/CBSSportsLine.com

Class Utilization with Peaks



Internet Access Traffic Creates Congestion Across Corporate WAN



Remember the “Control” part? There’s a Problem...What’s your next move

- **Do Nothing**
 - Impact: applications slow down/stop, business slows down
- **Cry to Mommy**
 - Mom is glad you called
 - Impact: applications slow down/stop, business slows down
- **Twiddle the ACLs on your Routers**
 - Application hops ports
 - Impact: applications slow down/stop, business slows down
 - Mom’s not happy

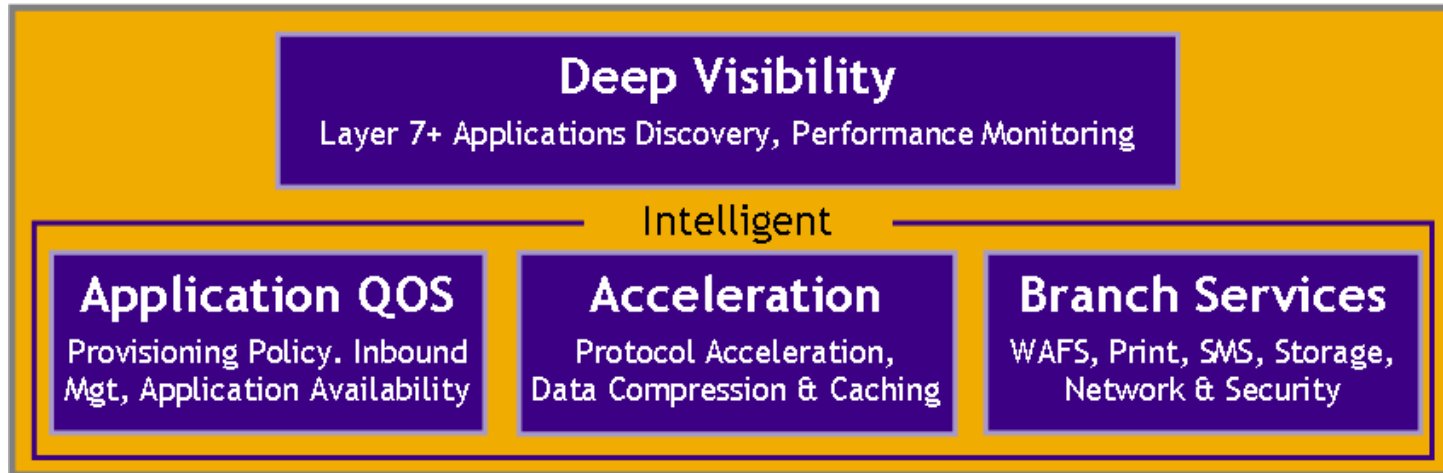
**Monitoring is a great first step...
...but it can’t fix anything**

Point tools without the intelligence to manage today's issues

Branch Office Equipment		Link		Problem
		2Mbps	10 Mbps	
Network Probe		\$ 2,000	\$ 8,000	Lacks application intelligence Can't fix any problems (see below)
Acceleration Device		\$ 12,500	\$ 21,000	Lacks intelligence to accelerate just business traffic Can't fix ERP problems (congestion), Can't help Voice or Videoability to provide Print, Domain, SMS services
Intrusion Detection/Prevention		\$ 5,000	\$ 8,000	
File, Domain Controller and SMS Server		\$ 3,000	\$ 5,000	Needs to be managed
Print, DNS, DHCP, Domain		\$ 3,000	\$ 5,000	Needs to be managed
		\$ 25,500	\$ 47,000	

Your World With Packeteer

One Unified System



- **Visibility**
 - + **Intelligence:** Deal with today's & tomorrow's applications
 - + **Fix Problems:** QOS, Acceleration, Branch Services
- **Starts at \$1500:** Visibility + application intelligence
- **New iShaper:** Everything up above, up to 10 Mbps, starts at \$?k

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Fast WAN. Fast Apps. Fast Business.

Thanks!

Great Performance
Every application
Every location



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