



Jeffrey Zwall (CCIE# 17017)
Caribbean & Bermuda Territory Manager
Extreme Networks
jzwall@extremenetworks.com



Welcome to the New Digital Economy

User experience is shaped by technology trends

Digital economy is defined by mobile, social, cloud, big data and apps

The network is a strategic business asset



Apps



70B mobile app downloads per year by 2014

84% mobile traffic is related to apps

0% of businesses know what apps are running everywhere

Right app, right person, right time



Requirements Today

64% improve user experience



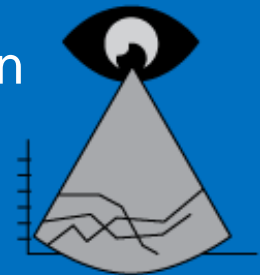
70% prioritize business apps



71% improve troubleshooting



52% make unknown become known



Based on Extreme Networks Survey of IT Professionals – November 2013



Millions of Dollars Allocated in Infrastructure

How do you measure success?

How does your business effectively

- Analyze application investments and Return on Investment?
- Analyze network and application usage and their trends?
- Turn network knowledge into revenue or competitive advantages?
- Plan capacity and budgets?
- Reduce unnecessary application churn?
- Monitor application use to determine best practice?



Official Data Analytics Provider NFL & Super Bowl

“Each and every time our fans head to a game we want to deliver the most immersive and connected experience for them. Purview from Extreme Networks will play an integral role in enhancing the fan experience through its advanced analytics capabilities,” said Michelle McKenna-Doyle, CIO of the National Football League. In delivering insight on user application preference and usage, we’re able to best use the Wi-Fi technology that’s so crucial in enabling an exceptional game day experience.”

The New England Patriots

3D challenge: dynamic, dense, diverse ... experience matters

RIGHT HERE
RIGHT NOW

Why? “Because of our unique need to provide access for 70,000 users, we needed a very stable, scalable network that could be easily and centrally managed by our existing IT staff” said *Fred Kirsch, Patriots VP of interactive media.*

“The **Extreme Networks** solution gives us an end-to-end network solution including all the hardware, software, and wiring needed to provide ubiquitous and *reliable Wi-Fi access.*”



Customer & Solution Profile

Who: 68,000 fans

What: WiFi connectivity to deliver real-time video, game stats and access to social networks

When: All Patriots home games including UMass Football, New England Revolution Soccer and concert events

Where: Gillette Stadium, 68,000 fan capacity, over 4,000 wifi clients per acre

How: Indoor/outdoor APs, omni/directional antennas, full Enterasys backhaul LAN, unified management



Apps Everywhere

The solution

Full Network Visibility



Extreme Networks WiFi Visibility



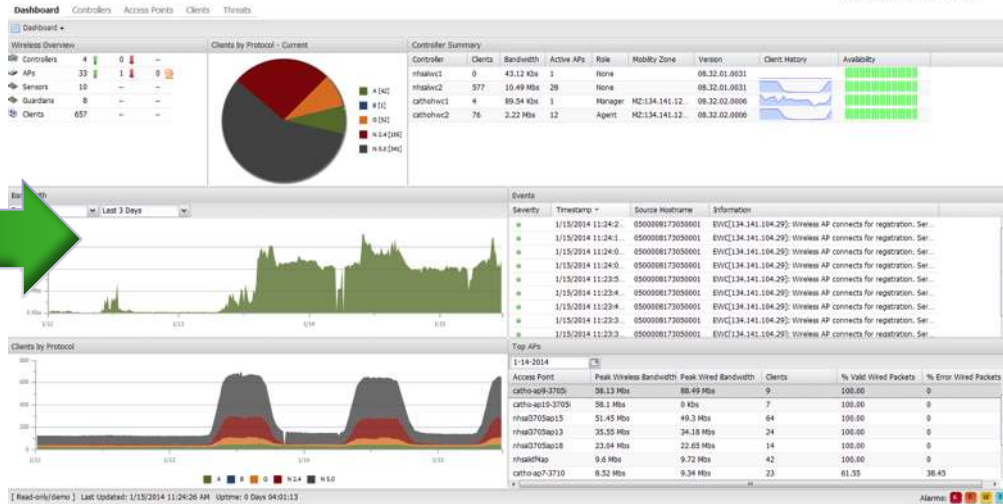
Application Profile

of Clients per App

Bandwidth per App

App Response Time

Network Response Time



Carrier Analysis

Tuesday Afternoon 5-13-14 Profile Summary

Search Reports Maps Devices Alarms and Events Identity and Access Applications Wireless Administration Help

Logout | Support | About

Monday 5-13-14 Purview Summary Tuesday Afternoon 5-13-14 Profile Summary Tuesday Afternoon 5-13-14 Top Applications Tuesday Afternoon 5-13-14 Application Group Usage Tuesday Afternoon 5-13-14 Network Statistics Tuesday Afternoon 5-13-14

Console
Custom
Data Center Manager
Device
Identity and Access - Dashboard
Identity and Access - Health
Identity and Access - System
Interface
Miscellaneous
OpenSpace
Policy
Purview
Server
Tuesday Afternoon 5-13-14
Tuesday Afternoon Purview Application Summary 5-13-14
Tuesday Afternoon Purview Report 5-13-14
Tuesday Afternoon Purview Summary 5-13-14
Wireless
test
PDF Reports

Device Types By Carriers

AT&T

Sprint

T-Mobile

Verizon

WiFi Carrier Offload

Time	Carrier	# of Detected Clients	% of Detected Clients	All Clients	Total Bandwidth	Downloaded Bandwidth	Uploaded Bandwidth	Experience
12:00 PM	AT&T	1	50.00 %	13117	462.7K	317.6K	145.2K	Good
12:00 PM	Verizon	1	50.00 %	13117	327.6K	195.2K	132.4K	Good
4:00 PM	Verizon	1	100.00 %	12870	1.3M	846.5K	491.0K	Good
5:00 PM	AT&T	1	33.33 %	8954	14.2K	6.8K	7.3K	Good
5:00 PM	Verizon	1	16.67 %	8954	862.5K	586.9K	276.0K	Good

Carrier Types

WiFi Device Type Usage

Time	Device Type	# of Detected Clients	% of Detected Clients	All Clients	Total Bandwidth	Downloaded Bandwidth	Uploaded Bandwidth	Experience
12:00 PM	Android	291	11.93 %	13117	108M	70.3M	37.8M	Good
12:00 PM	iOS	379	15.09 %	13117	190.2M	123.4M	66.8M	Good
12:00 PM	Windows	1842	73.33 %	13117	843.8M	536.0M	307.8M	Good
1:00 PM	Android	267	11.75 %	13328	73.4M	43M	26.3M	Good
1:00 PM	iOS	294	12.93 %	13328	103.0M	71.2M	31.8M	Good
1:00 PM	Mac	1	0.04 %	13328	102b	102b	0	Great
1:00 PM	Windows	1711	75.27 %	13328	564.3M	345.5M	218.8M	Good
2:00 PM	Android	230	9.11 %	13648	6.7M	42.3M	24.7M	Good
2:00 PM	iOS	304	12.04 %	13648	120.3M	76.2M	44.1M	Good
2:00 PM	Mac	1	0.04 %	13648	102b	102b	0	Great
2:00 PM	Windows	1989	78.80 %	13648	743.4M	471.8M	271.6M	Good
3:00 PM	Android	201	8.21 %	13379	66.7M	42.3M	24.4M	Good
3:00 PM	iOS	268	10.95 %	13379	103.4M	65.8M	37.6M	Good
3:00 PM	Windows	1978	80.83 %	13379	662.7M	412.2M	250.6M	Good

Device Types

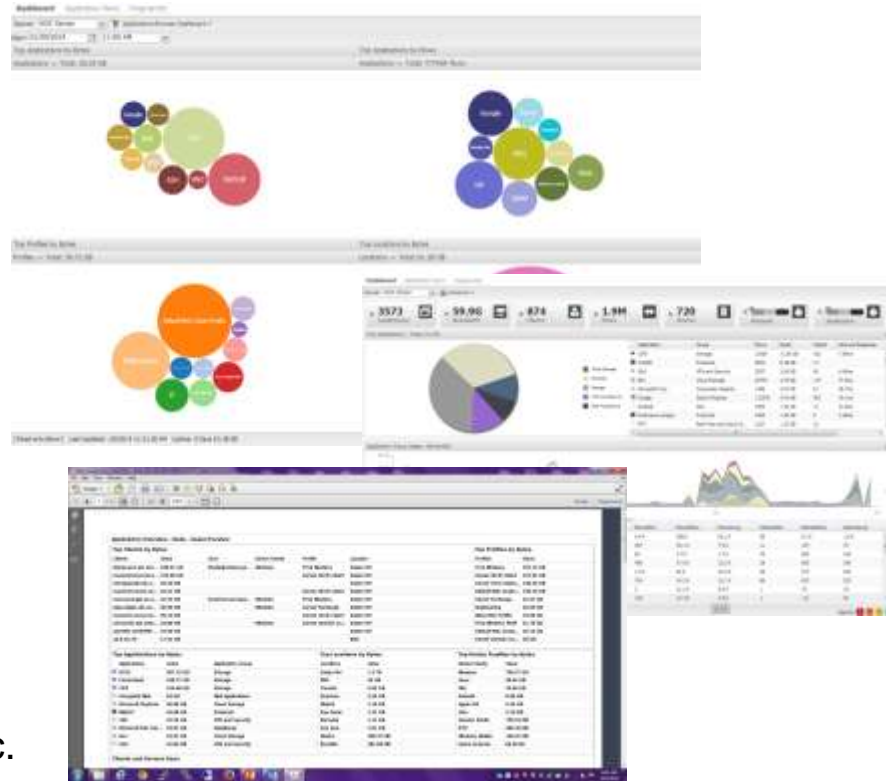
[NetSight Administrator/Root] Last Updated: 5/19/2014 5:37:43 PM Uptime: 6 Days 03:33:30

Alarms: [Status Icons]

5:37 PM
5/19/2014

Analytics Delivers

- Simply Networking
 - Executives, Managers, HR, All
- Automated Reporting
 - Bring visibility to IT
 - Change behaviors
- Open & customizable application fingerprints
 - Over 13,000 fingerprints for over 7,000 applications out of the box
 - Ability to fingerprint custom applications
- Detailed application usage and performance information
 - Per application, user, device type, location, etc.



Top Applications by Flows and Bandwidth

Dashboard Application Flows Fingerprints

Appliance: NDC Sensor Applications Browser Dashboard

Start: 01/13/2014 11:00 AM

Top Applications by Bytes

Applications -> Total: 67.42 GB



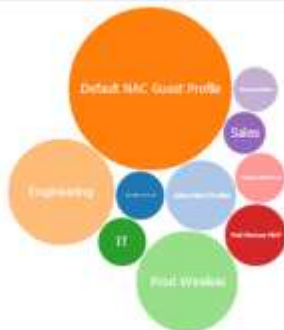
Top Applications by Flows

Applications -> Total: 1618105 flows



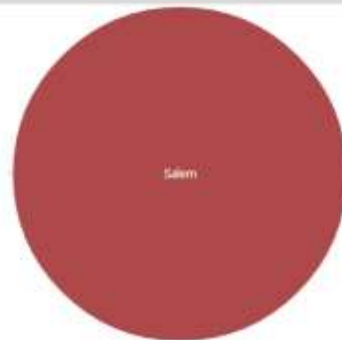
Top Profiles by Bytes

Profiles -> Total: 109.21 GB

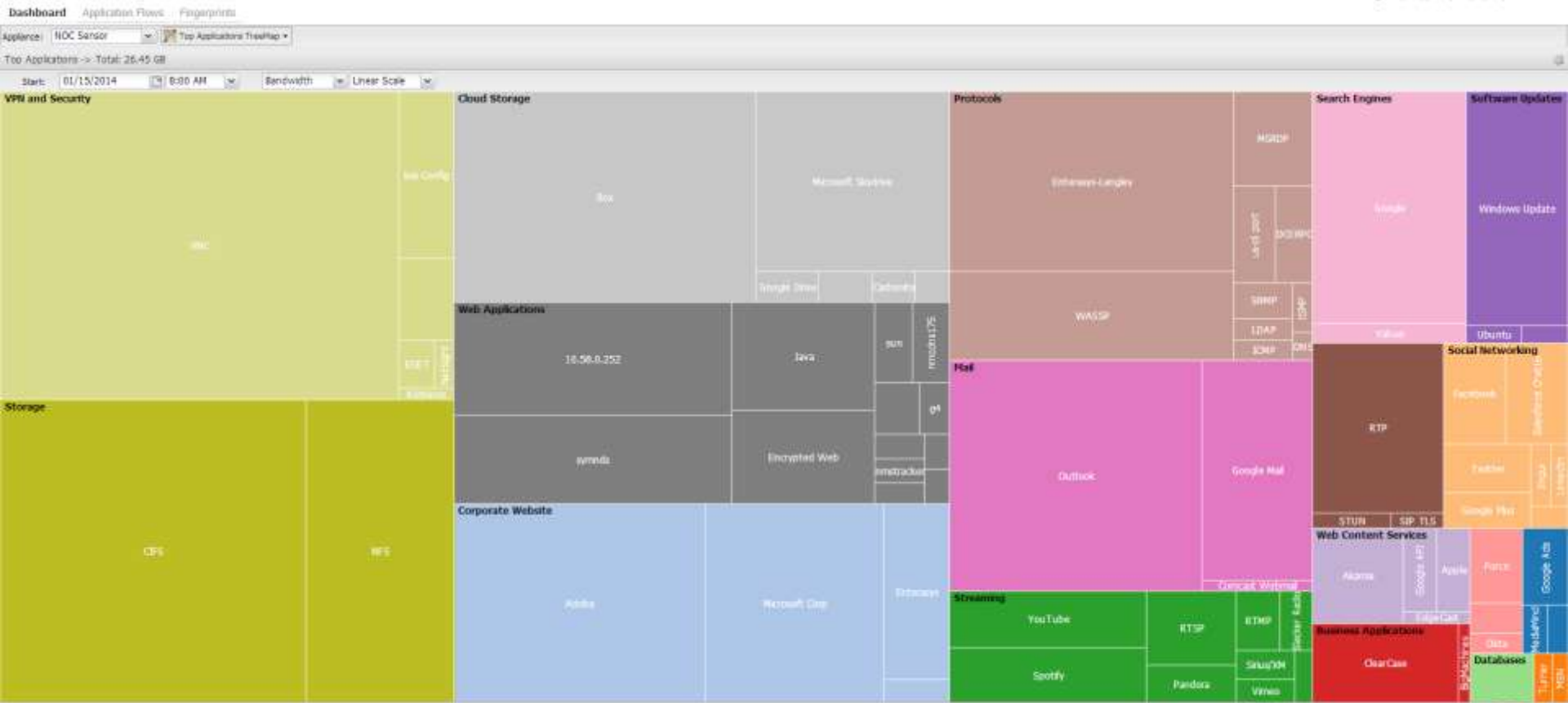


Top Locations by Bytes

Locations -> Total: 119.36 GB



NFE – Networking for Everyone



Start Troubleshooting in the Right Place

Dashboard Application Flows Fingerprints

Appliances: NOC Sensor Applications Browser

Applications	Value	Application Group
GoToMeeting	High	Web Collaboration
Box	High	Cloud Storage
Network World	High	Web Collaboration
Salesforce Chatter	High	News and Information
Encrypted Web	High	Web Applications
Google Ads	High	Advertising
JetBlue	High	Web Applications
Google Drive	High	Cloud Storage
The Washington Post	High	News and Information
Yahoo	High	Search Engines
Google Accounts	High	Web Content Services
jobvite	High	Web Applications
Google	High	Search Engines
Google Mail	High	Mail
Google Safe Browsing	High	VPN and Security
Google Plus	High	Social Networking
Amazon Web Services	High	Cloud Computing
Enterprisys	High	Corporate Website
Karberre	High	VPN and Security
Docu	High	Social Networking
Web	High	Web Applications
DCERPC	High	Protocols
DNS	High	Protocols
D-HCP	High	Protocols
LDAP	High	Protocols
SP-TLS	High	Protocols
CPS	High	Real Time and Cloud Communications

Options

Grid • Top Hi

Target: Applications

Statistic: Application Response Time

Start Time: Custom

End Time: 01/13/2014 7:00 AM - 01/13/2014 6:00 PM

Search Criteria:

Location: All

Profile: All

Application Group: All

Device Family: All

Username:

Application:

Client: maraman

Limit: 50

Status: DNS1 has evaluated successfully in 210 milliseconds

Application Visibility & Control at Layer 7

- Contextual information beyond the application
 - user, role, location, time, device & more
- Application and network performance tracking
- Open & customizable fingerprints
 - Over 13,000 fingerprints for over 7,000 applications
- Pervasive across the entire network infrastructure
- Tbit/s speeds with no switch performance impact with scalability to millions of flows



Your Most Strategic Business Asset is The Network

Strategic CIOs leverage the network to fuel business growth

Scalable adaptive and resilient architecture

Balance of performance, intelligence and simplicity



Come to the Traeger Brothers Booth

Check out the “NEW” Extreme Networks



WWW.EXTREMENETWORKS.COM

