

GENERAL PRESENTATION

NETWORK PERFORMANCE INTELLIGENCE

2019/10 – RIGA

Portfolio

1. H5 audits

About us, Vision and Mission

Customers and Partners

2. Network Performance Intelligence

2.1 Visibility needs - Users expectations

2.2 Volume, Performance, packets capture

2.3 H5 product ranges

2.4 Data Access

1

H5 audits

ABOUT US, VISION & MISSION, CUSTOMERS AND PARTNERS

About us

French Software Company since 2009

- 2011 : H5-700 10 Gig
- 2015 : Cyclic Capture-Rolling Buffer, new Range H5-App cc
- 2017 : Cloud applications based (O 365, One drive, etc...)
- 2018 : H5-800 40 gig

100+ Customers & 1000+ IT audits

- Thales Alenia Space, Airbus Defense and Space, Safran, CNES
- Decathlon, Generali, Sanofi, Club Méditerranée
- EDF, Cities and public companies, French Ministry of Defence, NATO

Vision & Mission

In order **to improve IT operations**, Enterprises, Service Providers and Governmental Organizations rely heavily on their global IP network infrastructure for their business applications and business services.

H5 provides to **Enterprises, Service Providers and Governmental Organizations** a global **Network Performance Intelligence** solution. A vital need for **quick, accessible and comprehensive IT business** visibility



Customers and Partners



2.1

NETWORK PERFORMANCE INTELLIGENCE

VISIBILITY EXPECTATIONS OF ORGANISATION PLAYERS

Visibility needs - Users expectations – IT Manager



- ✗ Track critical Business applications and Business Services
- ✗ Take the right Business decisions – business effective capacity planning
- ✗ Improve collaboration within IT teams



- ✓ Business Flow SLA Reporting
- ✓ Tailored and Synthetic Business Dashboards
- ✓ Common solution for all IT actors

Visibility needs - Users expectations – Network Eng.



- ✗ Understand the causes of malfunction and/or degradation
- ✗ Improve infrastructure
- ✗ Accelerate problem resolutions



- ✓ Identification of causes: is it the network or the apps?
 - ✓ Customizable reports by « drag and drop » (metrics, graphs,...)
 - ✓ Fast and Friendly GUI
- General Company Presentation

Visibility needs - Users expectations – Business



- ✗ Fast understanding of incidents root causes
- ✗ Enhance productivity
- ✗ Improve tickets resolution time



- ✓ Business flow ALERTING in real-time
- ✓ PROACTIVE rather than REACTIVE
- ✓ Dedicated dashboards

Visibility needs - Users expectations



Unique business flows reporting solution
One common solution for all actors

2.2

NETWORK PERFORMANCE INTELLIGENCE

VOLUME, PERFORMANCE, PACKETS CAPTURE

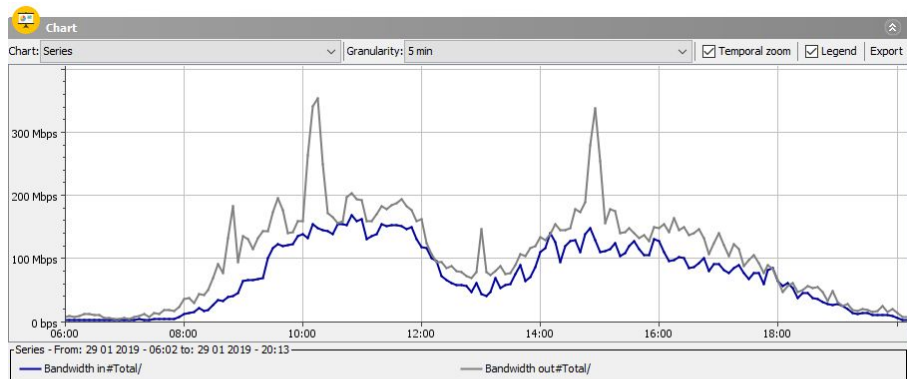
Volume

Captured and stored Data

- ✓ Bytes sent and received
- ✓ Throughput per second - in & out
- ✓ Apps Connections count

Aggregated Data by business flows that are defined by IP addresses & TCP/UDP port

- ✓ Data aggregation and over-time persistence
- ✓ Data analysis and drilldown
- ✓ Reporting and Broadcast
- ✓ Triggering of alerting



Total | Metrics | Export

Type	Description	Bandwidth	Bandwidth in	Bandwidth out	Volume	Volume in	Volume out	RTT in	RTT out
Total	Total	170.63 Mbps	70.16 Mbps	100.47 Mbps	1,015.44 GiB	417.53 GiB	597.91 GiB	11.75 ms	22.74 ms
RTP	RTP	86.31 Mbps	42.89 Mbps	43.42 Mbps	513.64 GiB	255.24 GiB	258.4 GiB		
TCP	TCP	85.78 Mbps	27.31 Mbps	58.47 Mbps	510.48 GiB	162.5 GiB	347.99 GiB	11.75 ms	22.74 ms
giprc@9080	giprc@9080	54.69 Mbps	12.08 Mbps	42.62 Mbps	325.49 GiB	71.86 GiB	253.63 GiB	12.09 ms	26.53 ms
ideafarm-door@902	ideafarm								
http-alt@8080	http-alt								
microsoft-ds@445	microsoft								
http@80	http@80								
https@443	https@443								

IPs | Metrics | Export

Type	Description	Bandwidth	Bandwidth in	Bandwidth out	Volume	Volume in	Volume out	RTT in	RTT out	Failure rat...
109.0.103.20	20.103.0.109.rev.afn.net.	99.28 Mbps	49.58 Mbps	49.69 Mbps	42.3 GiB	21.13 GiB	21.17 GiB			
192.168.1.208	192.168.1.208	99.28 Mbps	49.58 Mbps	49.69 Mbps	42.3 GiB	21.17 GiB	21.17 GiB			
10.147.48.42	10.147.48.42	38.49 Mbps	9.02 Mbps	29.47 Mbps	16.4 GiB	3.84 GiB	12.56 GiB	11.35 ms	38.88 ms	1.03%
100.120.72.204	100.120.72.204	21.69 Mbps	10.84 Mbps	10.85 Mbps	9.24 GiB	4.62 GiB	4.62 GiB			
10.147.48.41	10.147.48.41	20.91 Mbps	6.69 Mbps	14.22 Mbps	8.91 GiB	2.85 GiB	6.06 GiB	14.94 ms	33.99 ms	0.87%
10.18.24.28	10.18.24.28	14.66 Mbps	9.87 Mbps	4.79 Mbps	6.25 GiB	4.21 GiB	2.04 GiB	27.92 ms	2.87 ms	0%
100.120.72.11	100.120.72.11	9.16 Mbps	4.59 Mbps	4.57 Mbps	3.9 GiB	1.96 GiB	1.95 GiB			
172.16.10.1	172.16.10.1	8.79 Mbps	4.4 Mbps	4.39 Mbps	3.75 GiB	1.88 GiB	1.87 GiB			
10.31.12.44	10.31.12.44	6.96 Mbps	170.59 kbps	6.79 Mbps	2.97 GiB	74.43 MB	2.89 GiB	4.81 ms	52.31 ms	1.12%
10.31.13.236	10.31.13.236	4.9 Mbps	182.58 kbps	4.72 Mbps	2.09 GiB	79.66 MB	2.01 GiB	1.36 ms	40.44 ms	0.21%
100.120.72.12	100.120.72.12	4.53 Mbps	2.27 Mbps	2.27 Mbps	1.93 GiB	990.02 MB	988.55 MB			
10.18.0.33	10.18.0.33	4.51 Mbps	680.14 kbps	3.83 Mbps	1.92 GiB	296.75 MB	1.63 GiB	45.76 ms	13.63 ms	0%
100.120.72.15	100.120.72.15	3.23 Mbps	1.62 Mbps	1.62 Mbps	1.38 GiB	703.56 MB	705.2 MB			
10.31.12.111	10.31.12.111	3.1 Mbps	2.17 Mbps	932.65 kbps	1.32 GiB	945.27 MB	406.92 MB	1.2 ms	36.19 ms	7.35%
100.127.1.4	100.127.1.4	2.48 Mbps	2.48 Mbps	4.97 kbps	1.06 GiB	1.06 GiB	2.17 MB			
100.127.2.4	100.127.2.4	2.38 Mbps	1.19 Mbps	1.19 Mbps	1.02 GiB	520.16 MB	519.51 MB			
10.18.24.49	10.18.24.49	2.38 Mbps	293.46 kbps	2.09 Mbps	1.01 GiB	128.04 MB	909.73 MB	54.25 ms	0.86 ms	
100.120.72.16	100.120.72.16	2.22 Mbps	1.11 Mbps	1.11 Mbps	967.7 MB	483.79 MB	483.91 MB			
10.147.142.12	10.147.142.12	2.13 Mbps	157.70 kbps	2.08 Mbps	929.92 MB	24.33 MB	905.59 MB	53.28 ms	5.36 ms	0%
10.17.0.76	10.17.0.76	1.94 Mbps	1.89 Mbps	56.9 kbps	847.59 MB	822.56 MB	24.92 MB	22.41 ms	20.09 ms	

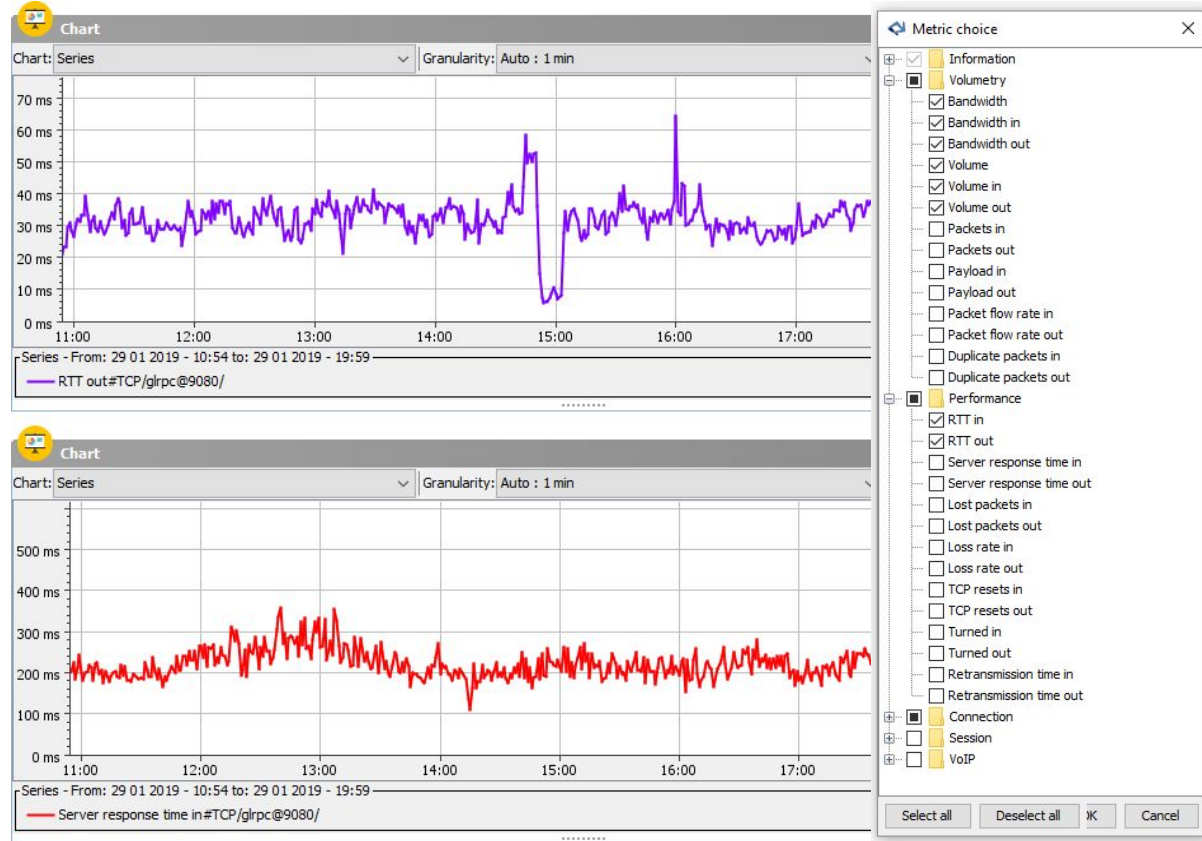
Performance

TCP

- ✓ Connection setup time
- ✓ Server Response Time
- ✓ TCP Round trip time (RTT)
- ✓ Retransmissions

RTP

- ✓ Jitter
- ✓ Packet Loss
- ✓ MOS



Packet Capture

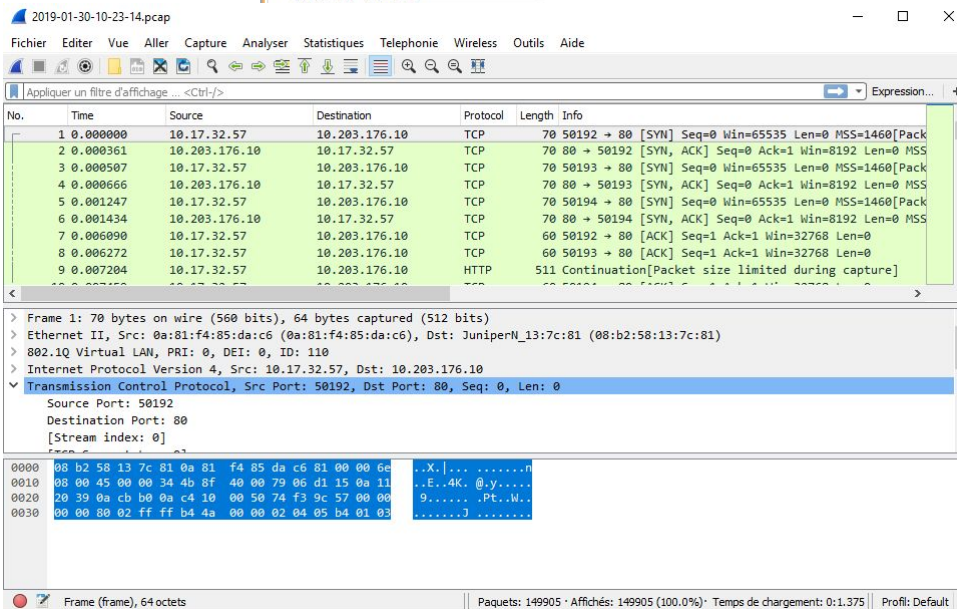
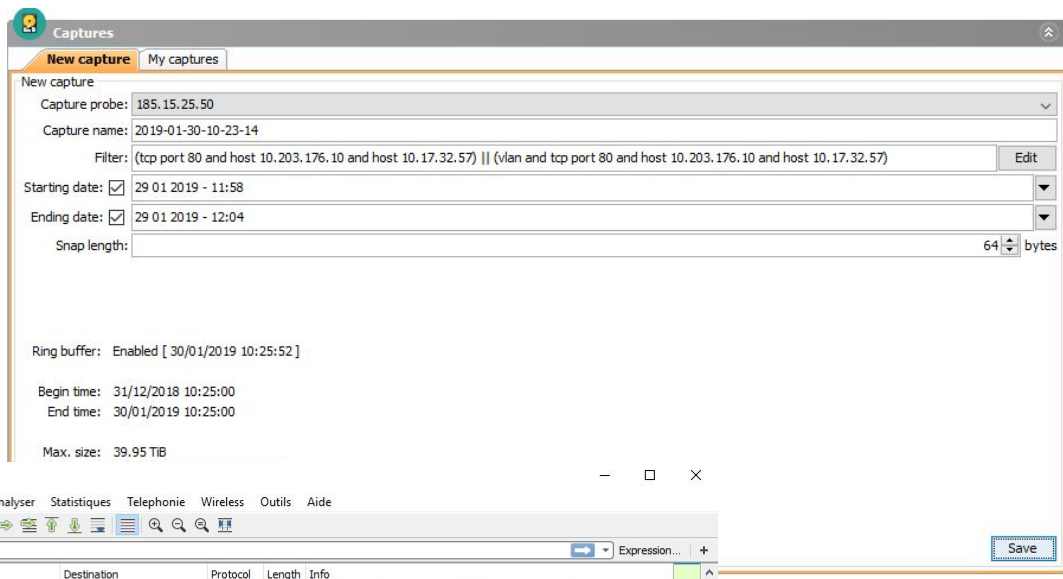
Advanced Filters layout « TCPDUMP »

Planification:

- ✓ On past periods
- ✓ Instantaneously
- ✓ On setup
- ✓ On alert

Packets management:

- ✓ Storage
- ✓ Reviewing
- ✓ Export



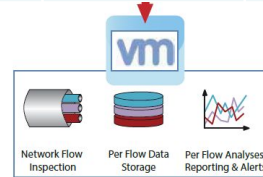
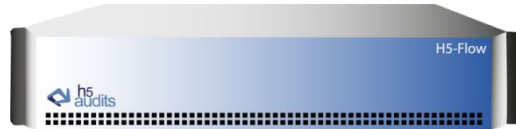
2.3

NETWORK PERFORMANCE INTELLIGENCE

H5 PRODUCTS RANGE

H5 Range

Product Range	Business Flow support	Volume Monitoring	Performance Monitoring	Packets Capture	Infrastructure Visibility	Performance
H5-Flow	✓	✓			✓	From 50 interfaces 50K-500K flow
H5-Appliance	✓	✓	✓	✓		10 Mb/s to 40 Gb/s



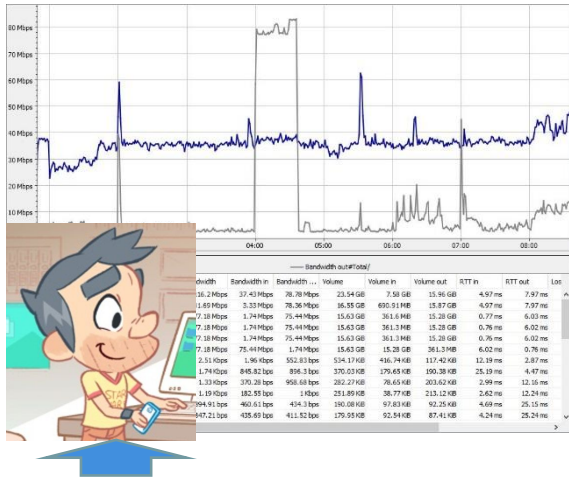
2.4

Network Performance Intelligence

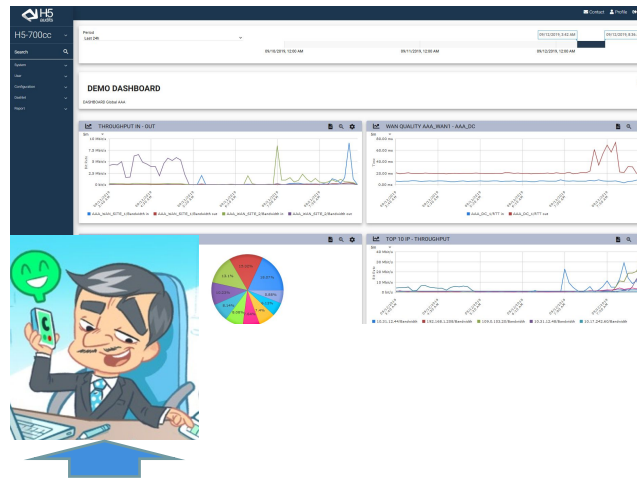
DATA ACCESS

H5 Network Performance Intelligence Data Access

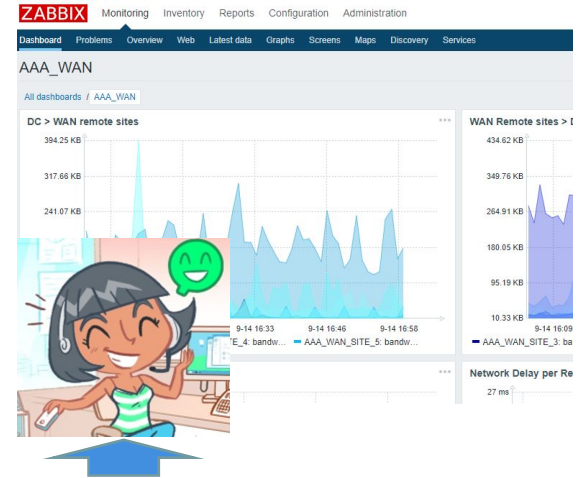
H5 Dock Analytics Client



H5 Reporting HTML5 Portal



Zabbix Integration



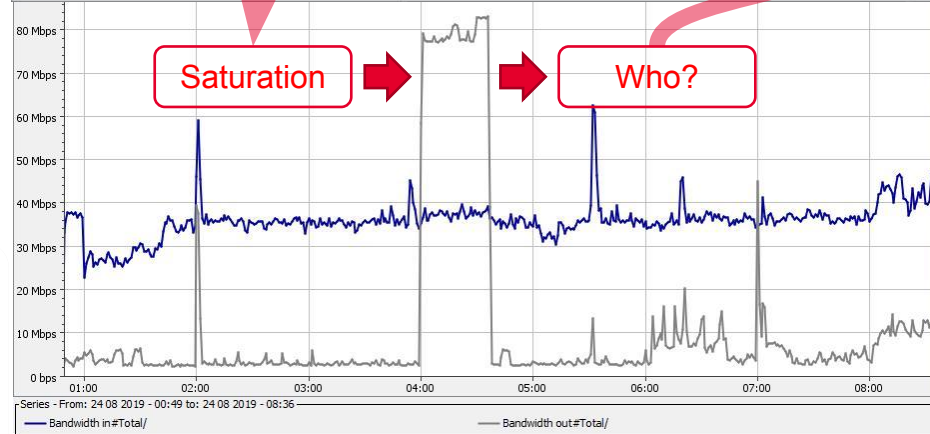
H5 Network Performance Intelligence Data Access

H5 Dock Analytics Client

- Display 70 metrics in Real Time :
- Bytes, Mbps, Packet loss, Response Time, Network Delay, Jitter, Bursts, etc.
- Switch from table to chart in seconds... and vice versa...
- Zoom to minute granularity
- Drilldown to flow level



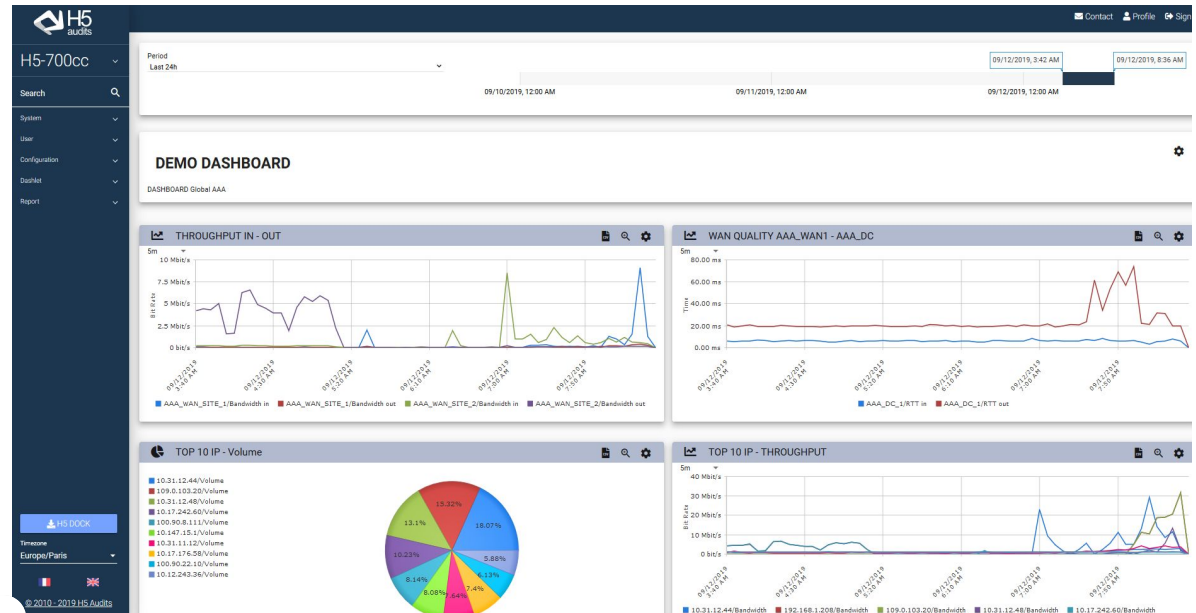
Type	Description	Bandwidth	Bandwidth in	Bandwidth ...	Volume	Volume in	Volume out	RTT in	RTT out	Los
Total	Total	116.2 Mbps	37.43 Mbps	78.78 Mbps	23.54 GiB	7.58 GiB	15.96 GiB	4.97 ms	7.97 ms	
TCP	TCP	81.69 Mbps	3.33 Mbps	78.36 Mbps	16.55 GiB	690.91 MiB	15.87 GiB	4.97 ms	7.97 ms	
ssh@22	ssh@22	77.18 Mbps	1.74 Mbps	75.44 Mbps	15.63 GiB	361.6 MiB	15.28 GiB	0.77 ms	6.03 ms	
10.31.41.11	10.31.41.11	77.18 Mbps	1.74 Mbps	75.44 Mbps	15.63 GiB	361.3 MiB	15.28 GiB	0.76 ms	6.02 ms	
10.201.5.49	10.201.5.49	77.18 Mbps	1.74 Mbps	75.44 Mbps	15.63 GiB	361.3 MiB	15.28 GiB	0.76 ms	6.02 ms	
10.201.5.49	10.201.5.49	77.18 Mbps	75.44 Mbps	1.74 Mbps	15.63 GiB	15.28 GiB	361.3 MiB	6.02 ms	0.76 ms	
10.160.1.20	10.160.1.20	2.51 Kbps	1.96 Kbps	552.83 bps	534.17 KiB	416.74 KiB	117.42 KiB	12.19 ms	2.87 ms	
109.0.101.5	5.101.0.109.rev.sfr.net.	1.74 Kbps	845.82 bps	896.3 bps	370.03 KiB	179.65 KiB	190.38 KiB	25.19 ms	4.47 ms	
10.2.7.205	10.2.7.205	1.33 Kbps	370.28 bps	958.68 bps	282.27 KiB	78.65 KiB	203.62 KiB	2.99 ms	12.16 ms	
10.2.7.204	10.2.7.204	1.19 Kbps	182.55 bps	1 Kbps	251.89 KiB	38.77 KiB	213.12 KiB	2.62 ms	12.24 ms	
192.168.75.206	192.168.75.206	894.91 bps	460.61 bps	434.3 bps	190.08 KiB	97.83 KiB	92.25 KiB	4.69 ms	25.15 ms	
192.168.75.207	192.168.75.207	847.21 bps	435.69 bps	411.52 bps	179.95 KiB	92.54 KiB	87.41 KiB	4.24 ms	25.24 ms	



H5 Network Performance Intelligence Data Access

H5 Reporting HTML5 Portal

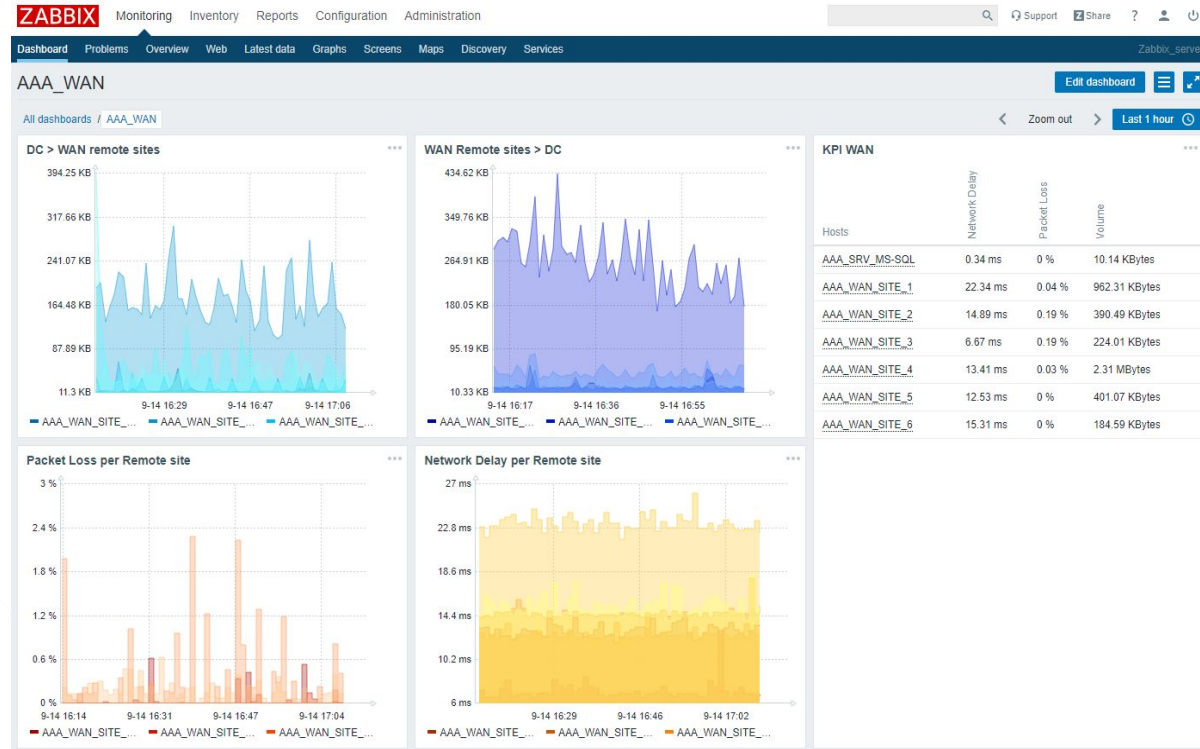
- Distribute reports across the organisation
- High who-gets-what granularity
- Service Assurance, Health Reports, Capacity Planning, etc.



H5 Network Performance Intelligence Data Access

Zabbix Integration

- Based on H5 SOAP Client
- Download Network Traffic data from H5 appliance
- Network Supervision Systems
- Create Network Traffic Dashboards and Alerts for :
 - Network objects : SaaS servers, Remote sites, etc.
 - New Metrics/Items : Flow Packet Loss, Network Delay, Response Time, etc.





To know more about our solutions

Meet us on our Booth

Join our Workshop Tomorrow
8:45 AM