

# Monitoring & Reporting Systems Update

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Northern Grid for Learning

Dave Cole

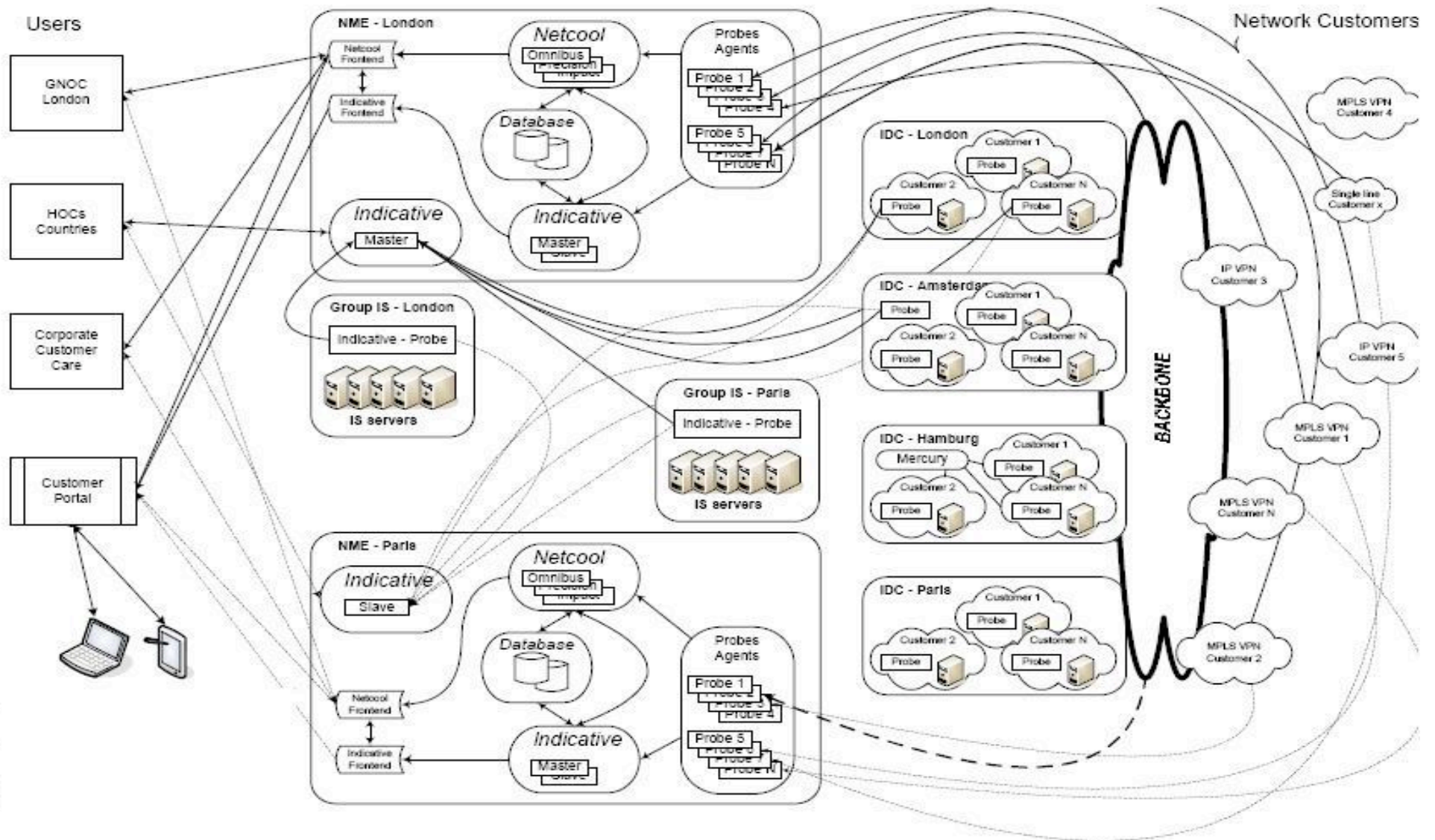
- Requirements
- Request for Proposal
- Proof of Concept
- Implementation
- Questions

- Increasing Complexity of Networks
- Visibility to Customers
- Contract Management
  - Usage Analysis
  - SLA measurement
  - Support Services

- Nimsoft trial on NG WAN
  - Stockton WAN monitored
  - Access to NG & Easynet
  - Experience fed into RFP requirements
- RFP open to all
  - Monitoring and Reporting
  - 2 taken forward for Proof of Concept
- PoC – Indicative & IBM Netcool
  - IBM best for Monitoring
  - Indicative best for Reporting

- Easynet IS & Procurement work ongoing
- Expected implementation late Feb into April 07
- NG installation high priority
- Easynet Service Manager to administer user portal
  - NG input and consultation

# Planned Network Implementation



Note: not all arrows are shown

# Indicative – Interface Utilisation



Indicative Web Operator Console (Op...



Help Desk

Operations

Health

Reports

Tables

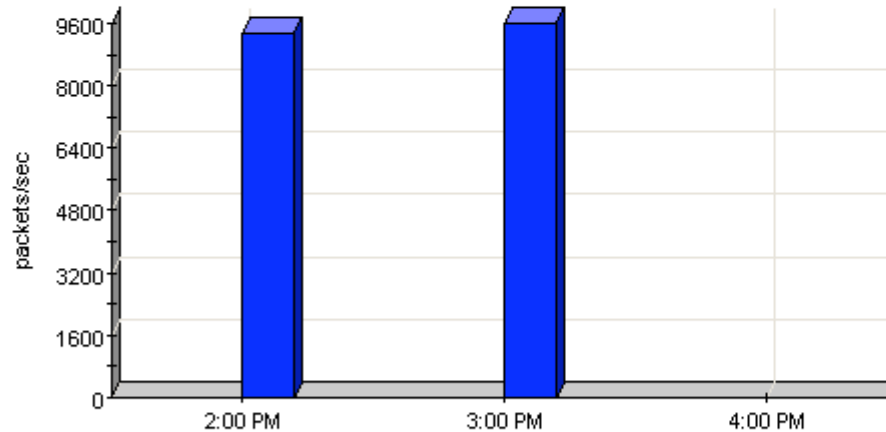
SLAs

Configure

- EasyNet Services
  - Hosting-Customers
    - ViaMichelin
    - Tchibo
    - Bouygues-Telecom
  - Network-Customers
  - Network-Infrastructure
    - Metrics
    - French Backbone
      - Metrics
        - Interface-Utilization
        - Interface-PacketRate**
        - Interface-InErrors
        - Interface-OutErrors
      - Capitole
      - Telehouse

■ Measurement ■ Baseline ■ Critical ■ Major ■ Minor ■ Warning

Interface-PacketRate on French Backbone Averaged Service Metrics



Min: 9,342.044922 Max: 9,576.348633 Avg: 9,459.196777 Last: 9,576.348633

Interface-Utilization on French Backbone Averaged Service Metrics

# Indicative – CPU utilisation



Indicative Web Operator Console (Op...



Help Desk    Operations    Health    Reports    Tables    SLAs    Configure

- Switch-william
  - SUMMIT-SW1
  - SUMMIT-SW2
  - TRADER-SW1
  - TRADER-SW2
- foncia
  - foncia-172-29-36-4
    - Processors
      - CPU0-Cpu-Test
        - Availability
        - TestCompleted
        - CpuUtilization\_1Min
        - CpuUtilization\_5min
    - Memory-Pools
    - Interfaces
    - SAATests

CpuUtilization\_1Min on foncia-172-29-36-4 CPU0-Cpu-Test

Time	Percent
3:15 PM	~1
3:25 PM	~1
3:35 PM	~1
3:45 PM	~1
3:55 PM	~1
4:05 PM	~1
4:15 PM	~1

Min: 0 Max: 1 Avg: 0.916667 Last: 1

# Indicative – Health Check



Indicative Web Operator Console (He...



Help Desk

Operations

Health

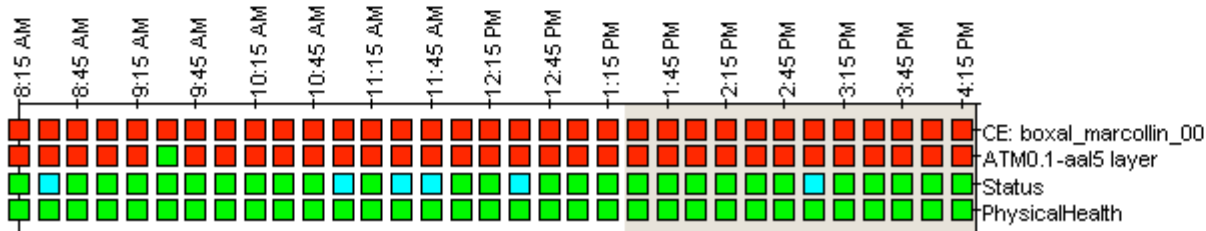
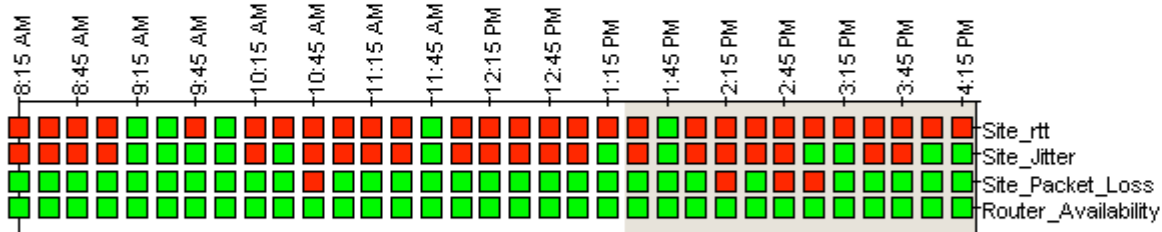
Reports

Tables

SLAs

Configure

Health Report Name:



# Indicative – Bandwidth Usage



Indicative Web Operator Console (Re...



Help Desk

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Health

Reports

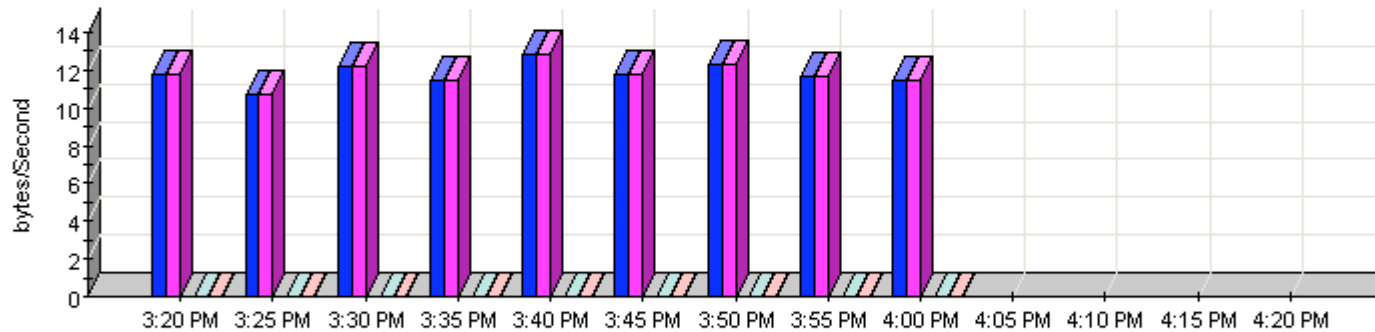
Tables

SLAs

Configure

Report Name:

[Get Report](#)



Min: 10.682164 Max: 12.78146 Avg: 11.768696 Last: 11.449759  
 Min: 0 Max: 0 Avg: 0 Last: 0  
 Min: 10.682164 Max: 12.78146 Avg: 11.768696 Last: 11.449759  
 Min: 0 Max: 0 Avg: 0 Last: 0

- Upload Bytes Rate - Standard
- CipPrecedenceHCSwitchedBytesOutRate
- CipPrecedenceHCSwitchedBytesOutRate
- CipPrecedenceHCSwitchedBytesInRate
- CipPrecedenceHCSwitchedBytesInRate
- CipPrecedenceHCSwitchedBytesInRate

# Indicative – Data Overview



Indicative Web Operator Console (Ta...



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Table Name: Easynet - Backbone links

Get Table

Host	Node	IfSpeed	InBitRate	InUtilization	OutBitRate	OutUtilization	TotalBitRate
194.116.218.8	GigabitEthernet9/3		70,889,252 bits/sec	0.000007 percent	14,109,891 bits/sec	1.410989 percent	14,109,962 bits/sec
194.116.218.8	GigabitEthernet9/11		53,131.835938 bits/sec	0.005313 percent	8,414,470 bits/sec	0.841447 percent	8,467,602 bits/sec
194.116.218.8	GigabitEthernet9/5		4,052,247.5 bits/sec	0.405225 percent	3,036,034.5 bits/sec	0.303603 percent	7,088,282 bits/sec
194.116.218.8	GigabitEthernet9/1		2,412,321.25 bits/sec	0.241232 percent	3,774,017.5 bits/sec	0.377402 percent	6,186,339 bits/sec
194.116.218.8	GigabitEthernet9/16		4,753,658 bits/sec	0.475366 percent	529,590 bits/sec	0.052959 percent	5,283,248 bits/sec
194.116.218.8	GigabitEthernet9/15		534,327 bits/sec	0.053433 percent	40,856.847656 bits/sec	0.004086 percent	575,183.875 bits/sec
194.116.218.8	GigabitEthernet9/6		48,038.371094 bits/sec	0.004804 percent	55,852.964844 bits/sec	0.005585 percent	103,891.335938 bits/sec

# Indicative – SLA Report Card



Indicative Web Operator Console (SL...



Help Desk

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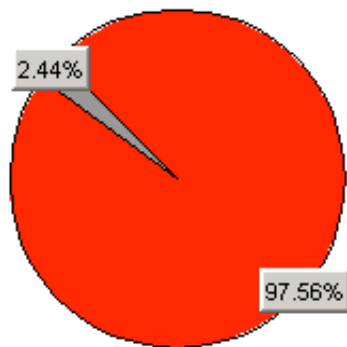
SLA: Easynet\_SLA\_Sample\_Kohler\_Cheltenham\_HQ

Type: Comprehensive.view

Get SLA Report

## Overall Compliance Summary

Compliant Noncompliant Undetermined



SLA Report Card

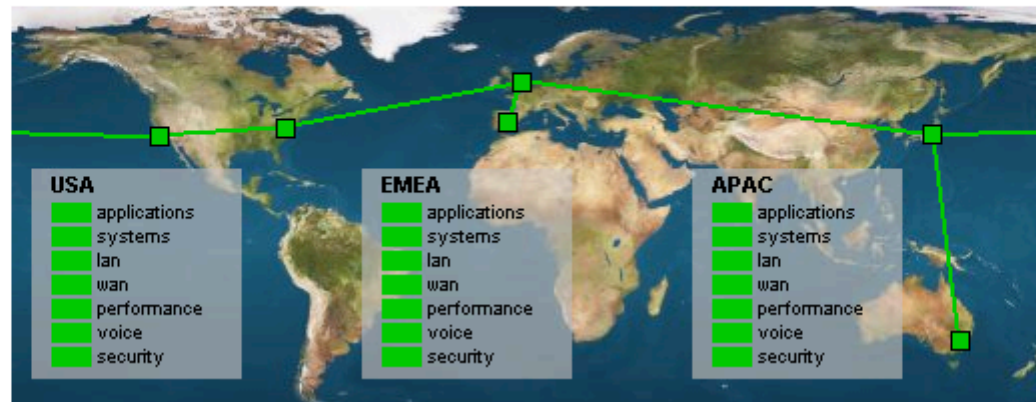
# Netcool – Event Viewer



[Samples](#)
[Event Lists](#)
[Maps](#)
[Charts](#)
[Support](#)

- Desktop User
- Executive Summary
- Operational View
- 

## Global Status:



## Application Status:

	fault	perf	sla
EEmail	0	0	0
Web	0	0	0
Dns	0	0	0
Proxy	0	0	0
Dbase	0	0	0

## Unacknowledged Events:

Node	Summary	Last Occurrence	Count	Owner	provisoSubEle
10.255.41.50-1	Inbound Errors (PDUs) cross over 20.0d (21.0d) for 10.255.41.50-1_IF: 5 "10 Mbps" "Fa0 [celan] **** Customer LAN ****"[Critical Burst Violation for more than 5m:0s - lasted 15m:0s]	12/19/06 3:53 PM	8	Nobody	200000008
195.172.210.175-1	Inbound Errors (PDUs) cross over 20.0d (0.0d) for 195.172.210.175-1_IF: 41 "2.050 Mbps" "Se1/7:0 [mplus,met=Scalable Networks Plc,lid=52355] "[Critical Burst Violation for more than 5m:0s - lasted 14m:54s]	12/22/06 12:08 AM	2	Nobody	200001087

# Netcool – Event Table



NETCOOL Suite™ logged in as: Netcool Administrator | Webtop Desktop ▼ [Logout](#)

Samples **Event Lists** ▼ Maps Charts Support

- ▶ Active Event List
- Lightweight Event List
- Table View

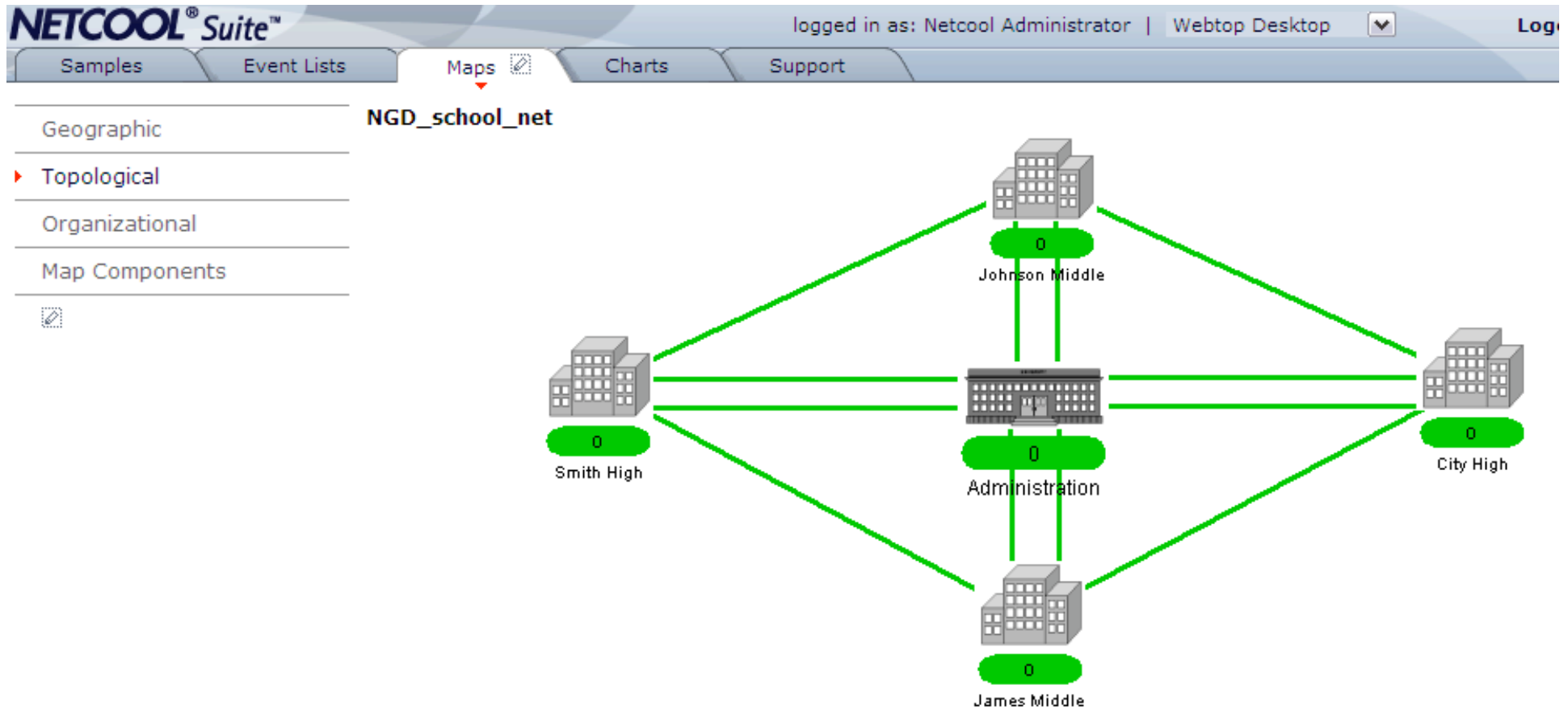
http://195.128.191.107:8080/webtop/AllEvents/

**File Edit View Alerts Tools Help**

?

Node	NodeAlias	Summary
172.29.32.102-1	195.128.191.108	Inbound Utilization (percent) cross over 70.0d (83.8320982
195.172.208.234-1	195.128.191.108	Inbound Errors (PDUs) cross over 20.0d (30.0d) for 195.17
172.29.32.102-1	195.128.191.108	Inbound Utilization (percent) cross over 70.0d (83.8320982
uktsvc_poc2.microm...	195.128.191.108	Outbound Errors (PDUs) cross over 20.0d (38.0d) for uktsv
C38162	172.29.32.17	Host: C38162 (Address: 172.29.32.17) State: CRITICAL pi
mel2		Attempt to login as kohler from host mel2 failed
mel2		Attempt to login as root from host mel2 failed
mel2		Attempt to login as Easynet from host mel2 failed
mel2		Attempt to login as Administrator from host mel2 failed
mel2		Attempt to login as Kholer from host mel2 failed
mel2		Attempt to login as noc from host mel2 failed
mel2		Attempt to login as Kohler from host mel2 failed
mel2		Attempt to login as pvuser from host mel2 failed
10.255.41.50-1	195.128.191.108	Inbound Errors (PDUs) cross over 10.0d (11.0d) for 10.255
172.29.49.68-1	195.128.191.108	Jitter Test RTT (ms) cross over 300.0d (62.9d) for 172.29.4
193.238.144.13-1	195.128.191.108	Inbound Errors (PDUs) cross over 10.0d (0.0d) for 193.238
uktsvc_poc2.microm...	195.128.191.108	Outbound Errors (PDUs) cross over 10.0d (25.0d) for uktsv
172.29.49.68-1	195.128.191.108	Jitter Test RTT (ms) cross over 300.0d (63.0d) for 172.29.4
10.255.17.3-1	195.128.191.108	Inbound Errors (PDUs) cross over 10.0d (22.0d) for 10.255

# Netcool – Network Diagrams



# Netcool – Event Charts



Micromuse Netcool

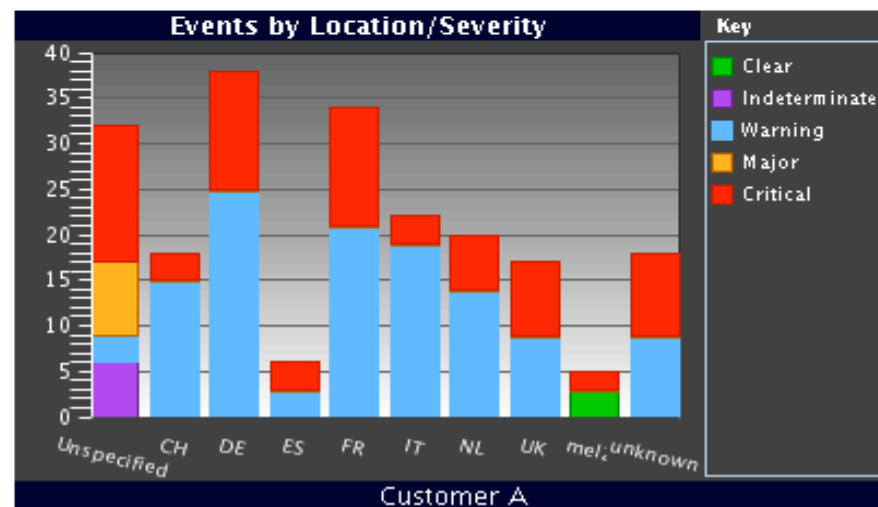
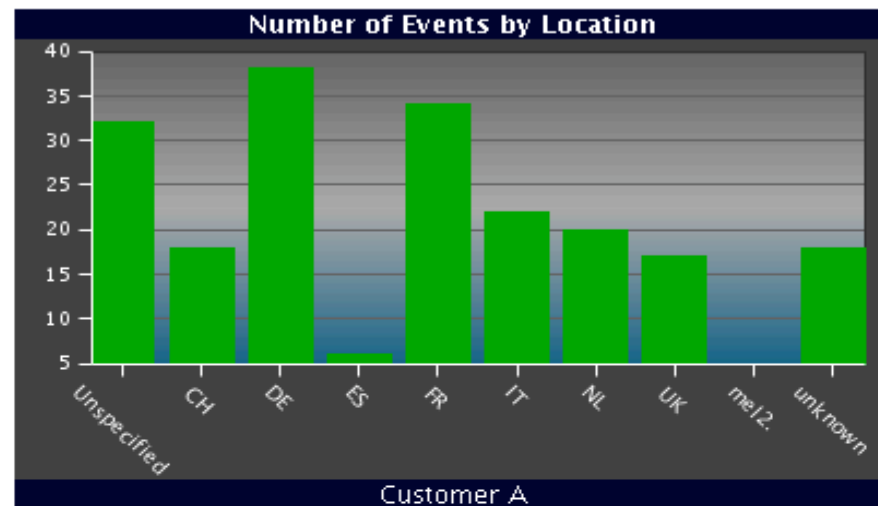
Samples Event Lists Maps **Charts** Support

▶ Bar Charts

Pie Charts

Line Graphs

3D Charts



Thank you for your time

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