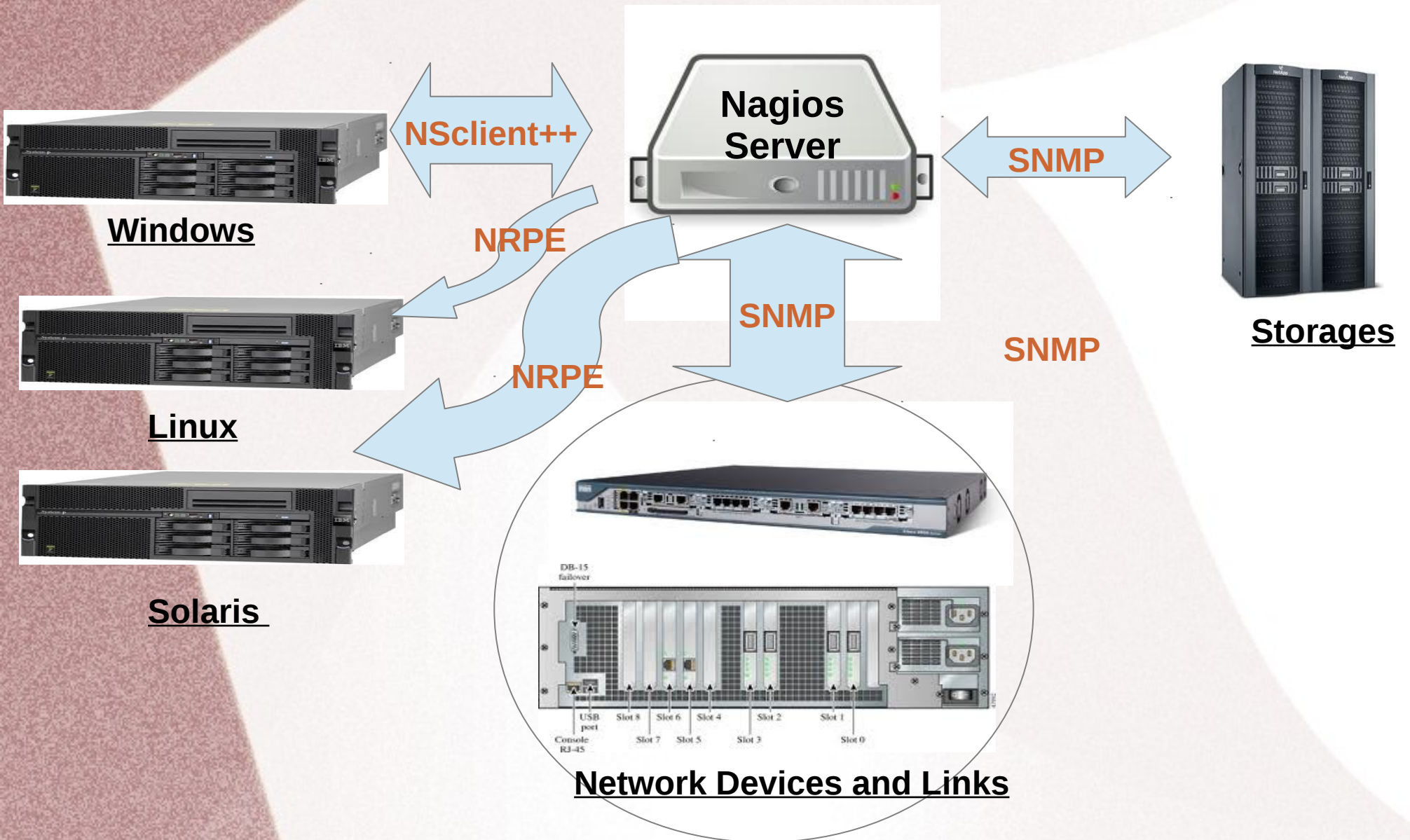


Nagios @ Sandhar

Monitoring for

- **Infrastructure**
- **Applications**
- **Network Infrastructure**
- **Operating Systems**
- **Databases**
- **Storage Devices**

Nagios Architecture



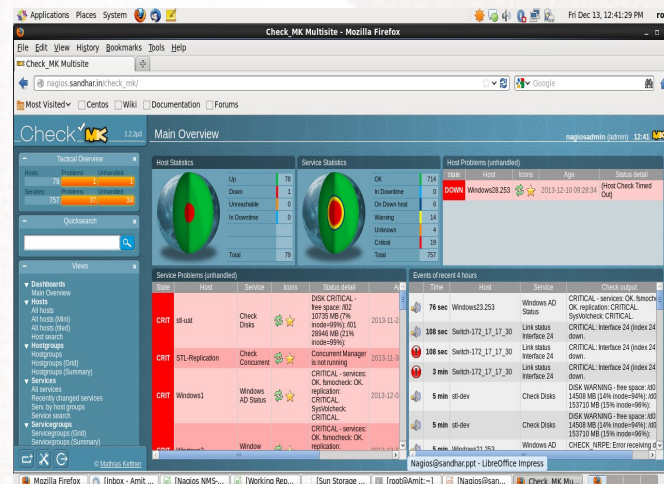
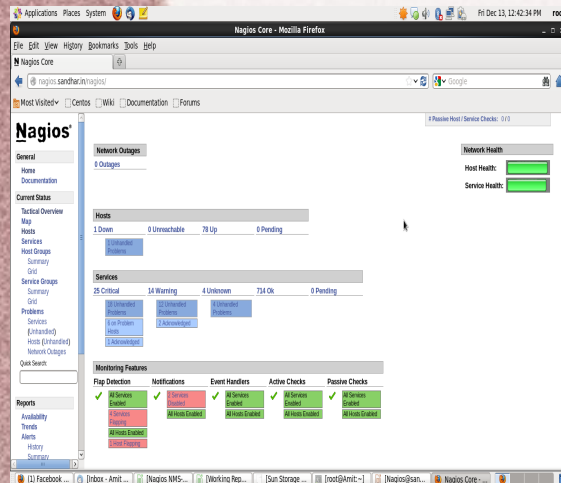
Nagios Current Status

- **Total Number of Hosts - 89**
- **Total Numbers of Services - 953**



Configured Interfaces

- Nagios Web UI <http://172.17.16.3/nagios>
- Check MK UI http://172.17.16.3/check_mk (Alternate Interface)
- Nagvis <http://172.17.16.3/nagvis> (Visualization For Nagios for Dashboards)



SANDHAR DASHBOARD											
Network Devices			Oracle Server			Windows Server			Other Devices		
		STATUS			STATUS			STATUS			STATUS
ROUTER	10.10.10.1	✓	STL-BI	172.17.16.47	✓	KASEYA	172.17.16.14	✓	Switch	172.17.17.21	✗
ROUTER	10.10.11.1	✓	STL-BI-PROD	172.17.16.60	✓	DC	172.17.16.1	✗	Switch	172.17.17.23	✗
ROUTER	10.10.12.1	✓	STL-BI-REPLICATION	172.17.16.37	✓	SANDHAR ERP	172.17.16.30	✗	Switch	172.17.17.26	✗
ROUTER	10.10.15.1	✓	STL-BI-TEST	172.17.16.38	✓	SANDHAR SAVIOR	172.17.16.29	✗	Switch	172.17.17.29	✓
ROUTER	10.10.16.1	✓	STL-BI-TEST2	172.17.16.19	✓	(VM) SANDHAR ERP	172.17.16.24	✓	Switch	172.17.17.30	✓
ROUTER	10.10.17.1	✓	STL-DEV	172.17.16.4	✓	ADC-WVSUS	172.17.16.2	✗	Switch	172.17.17.32	✗
ROUTER	10.10.13.1	✓	STL-DEV-TEST	172.17.16.17	✓	BACKUP SERVER (VERITAS)	172.17.16.13	✗	NAS-Switch	172.17.16.65	✓
ROUTER	172.16.22.1	✓	STL-DR	172.17.16.44	✗	ISA	172.17.16.25	✗	NAS-Switch	172.17.16.66	✓
ROUTER	172.16.26.1	✓	STL-PROD1	172.17.16.9	✓	MAIL SERVER	172.17.16.22	✗	Printer	172.16.27.75	✓
ROUTER	172.16.28.1	✓	STL-PROD2	172.17.16.11	✓	AV SERVER	172.17.16.32	✗	Xerox	172.17.17.34	✓
ROUTER	172.16.16.252	✓	STL-PROD-DB1	172.17.16.53	✗	STL-CORP-VDI	172.17.16.7	✗	Xerox	172.17.17.20	✗
ROUTER	172.16.16.253	✓	STL-PROD-DB2	172.17.16.56	✗	STL-CORP-VDI	172.17.16.141	✗			
ROUTER	172.16.17.254	✓	STL-REPLICATION	172.17.16.45	✓	STL-TRANET	172.17.16.31	✓			
FIREWALL	172.16.18.254	✓	STL-TEST	172.17.16.6	✓	ADC	172.16.22.253	✗			
FIREWALL	172.16.19.254	✓	STL-UAT	172.17.16.33	✓	ADC	172.16.17.253	✗			
FIREWALL	172.16.20.254	✓				ADC	172.16.21.253	✗			
FIREWALL	172.16.22.1	✓				ADC	172.16.24.253	✗			
FIREWALL	172.16.23.1	✓				ADC	172.16.25.253	✗			
FIREWALL	172.16.24.1	✓				ADC	172.16.26.253	✗			
FIREWALL	172.16.25.1	✓				ADC	172.16.27.253	✗			
FIREWALL	172.16.26.1	✓				ADC	172.16.28.253	✗			
FIREWALL	172.16.27.1	✓				ADC	172.16.29.253	✗			
FIREWALL	172.16.31.2	✓				ADC	172.16.30.253	✗			
FIREWALL	172.16.32.1	✓				ADC	172.16.31.253	✗			
FIREWALL	172.17.16.30	✓				ADC	172.16.32.253	✗			

OS Level Monitoring - Linux

- **CPU Utilization**
- **Memory Utilization**
- **Current Load**
- **Disk Utilization / Free**
- **Ping**

OS Monitoring – Windows

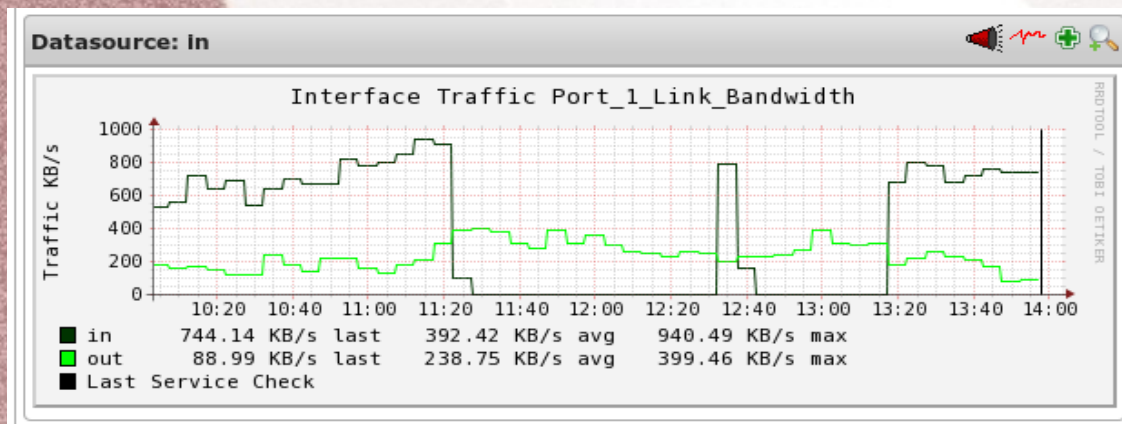
- CPU Load
- Memory Utilization
- Disk Space
- Uptime
- Event log

OS Level Monitoring – Solaris

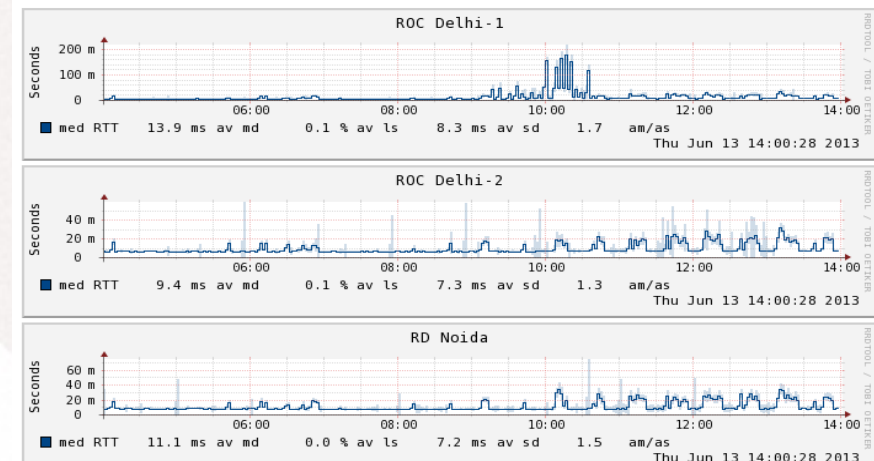
- **CPU Utilization**
- **Memory Utilization**
- **Disk Utilization**
- **Ping**
- **Load Average**

Network Monitoring

- Device Memory / CPU / Uptime
- FAN / Temp / Power Supply status
- Port Status and Bandwidth
- Interface Errors
- Network Latency



location routers



Database Monitoring – Oracle 11 R2

- **Oracle Free Tablespace**
- **Oracle Connection Time**
- **Oracle Database status**
- **Oracle Invalid Objects**
- **Oracle Mode session**
- **Oracle Process Usages**
- **Oracle TNS ping**
- **Oracle Alert log**

Storage Monitoring

- **Volume Status**
- **Link Status and Bandwidth**
- **SAN Switch monitoring**

Application Monitoring - Others

- **EBS Concurrent Manager Monitoring**
- **EBS Form Session Monitoring**
- **EBS HTTPS service Monitoring**
- **EBS APPLication Listner Monitoring**

Nagios Visualization

Nagios Core - Mozilla Firefox

Check_MK Multisite | Sandhar_Server (CRITICAL) | Nagios Core

nagios.sandhar.in/nagios/

Most Visited | Centos | Wiki | Documentation | Forums

Nagios

General

Home | Documentation

Current Status

Tactical Overview

Map

Hosts

Services

Host Groups

Summary

Grid

Service Groups

Summary

Problems

Services (Unhandled)

Hosts (Unhandled)

Network Outages

Quick Search:

Reports

Availability

Trends

Alerts

History

Summary

Network Outages

0 Outages

Network Health

Host Health: OK

Service Health: OK

Active Host / Service Checks: 87 / 823

Passive Host / Service Checks: 0 / 0

Hosts

2 Down | 0 Unreachable | 85 Up | 0 Pending

1 Unhandled Problems

1 Acknowledged

Services

22 Critical | 12 Warning | 7 Unknown | 782 OK | 0 Pending

19 Unhandled Problems

3 Acknowledged

10 Unhandled Problems

2 Acknowledged

5 Unhandled Problems

2 on Problem Hosts

Monitoring Features

Flag Detection

Notifications

Event Handlers

Active Checks

Passive Checks

All Services Enabled

1 Service Flapping

All Hosts Enabled

All Services Enabled

All Hosts Enabled

All Services Enabled

All Hosts Enabled

No Hosts Flapping

Check_MK Multisite - Mozilla Firefox

Check_MK Multisite | Sandhar_Server (CRITICAL) | Nagios Core

nagios.sandhar.in/check_mk/

Most Visited | Centos | Wiki | Documentation | Forums

Check_MK

1.2.2p3

Tactical Overview

Hosts: 87 | Problems: 2 | Unhandled: 1

Services: 823 | Problems: 39 | Unhandled: 34

Quicksearch

Bookmarks

Views

Dashboards

Hosts

All hosts

All hosts (Mini)

All hosts (Iled)

Host search

Hostgroups

Hostgroups

Hostgroups (Grid)

Hostgroups (Summary)

Services

Servicegroups

Business Intelligence

Problems

Addons

state	Host	Icons	OK	Wa	Un	Cr	Pd	state	Host	Icons	OK	Wa	Un	Cr	Pd	state	Host	Icons	OK	Wa	Un	Cr	Pd
UP	Apache_Server		1	0	0	0	0	DOWN	CONNECT_UPS		0	0	2	0	0	UP	env_monitor		1	0	0	0	0
UP	Firewall-juniper_172_16_18_254		10	0	0	0	0	UP	Firewall-juniper_172_16_19_254		12	0	0	0	0	UP	Firewall-juniper_172_16_20_254		10	0	0	0	0
UP	Firewall-juniper_172_16_22_1		9	0	0	0	0	UP	Firewall-juniper_172_16_23_1		10	0	0	0	0	UP	Firewall-juniper_172_16_24_1		10	0	0	0	0
UP	Firewall-juniper_172_16_25_1		10	0	0	0	0	UP	Firewall-juniper_172_16_27_1		11	0	0	1	0	UP	Firewall-juniper_172_16_31_2		12	0	0	0	0
UP	Firewall-juniper_172_16_32_1		10	0	0	0	0	UP	Firewall-SSG350_172_17_16_10		16	0	0	0	0	DOWN	load_balancer		1	0	0	0	0
UP	load_balancerA		1	0	0	0	0	UP	localhost		7	1	0	0	0	UP	NAS-Switch_65		10	0	0	0	0
UP	NAS-Switch_66		9	0	0	0	0	UP	Nas_Storage		5	0	0	0	0	UP	Printer-Canon-172-16-27-75		4	0	0	0	0
UP	Router-1841_10_10_10_1		12	0	0	0	0	UP	Router-1841_10_10_11_1		13	0	0	0	0	UP	Router-1841_10_10_12_1		12	0	0	0	0
UP	Router-1841_10_10_15_1		12	0	0	0	0	UP	Router-1841_10_10_16_1		12	0	0	0	0	UP	Router-1841_10_10_17_1		10	0	0	0	0
UP	Router-1841_172_16_17_254		12	0	0	0	0	UP	Router-1841_172_16_21_1		12	0	0	0	0	UP	Router-1841_172_16_26_1		9	0	0	0	0
UP	Router-1841_172_16_28_1		12	0	0	0	0	UP	Router-2821		12	0	0	0	0	UP	Router-2821_253		12	0	0	0	0
UP	Router-AR18-31E-10_10_13_1		13	0	0	0	0	UP	Squid		1	0	0	0	0	UP	STL-BI		11	0	0	0	0
UP	STL-BI-PROD		12	1	0	0	0	UP	stl-BI-Replication		5	0	0	0	0	UP	STL-BI-TEST		14	0	0	0	0
UP	stl-Bitest		11	0	0	0	0	UP	stl-dev		16	0	0	0	0	UP	stl-dev-test		5	0	0	0	0
UP	stl-dr		5	1	0	0	0	UP	stl-prod1		9	0	0	0	0	UP	stl-prod2		8	0	0	0	0
UP	stl-proddb1		17	0	0	1	0	UP	stl-proddb2		18	0	0	0	0	UP	STL-Replication		13	0	0	0	0
UP	stl-test		17	0	0	0	0	UP	stl-uat		4	1	0	1	0	UP	Switch-172_17_17_21		30	0	0	0	0
UP	Switch-172_17_17_23		24	0	0	1	0	UP	Switch-172_17_17_26		31	0	0	0	0	UP	Switch-172_17_17_29		15	0	0	0	0

SANDHAR DASHBOARD											
Network Devices			Oracle Server			Windows Server			Other Devices		
		STATUS			STATUS			STATUS			STATUS
ROUTER	10.10.10.1		STL-BI	172.17.16.47		KASEYA	172.17.16.14		Switch	172.17.17.21	
ROUTER	10.10.11.1		STL-BI-PROD	172.17.16.60		DC	172.17.16.1		Switch	172.17.17.23	
ROUTER	10.10.12.1		STL-BI-REPLICATION	172.17.16.37		SANDHAR ERP	172.17.16.30		Switch	172.17.17.26	
ROUTER	10.10.15.1		STL-BI-TEST	172.17.16.38		SANDHAR SAVIOR	172.17.16.29		Switch	172.17.17.29	
ROUTER	10.10.16.1		STL-BI-TEST2	172.17.16.19		(VM) SANDHAR ERP	172.17.16.24		Switch	172.17.17.30	
ROUTER	10.10.17.1		STL-DEV	172.17.16.4		ADC+WSUS	172.17.16.2		Switch	172.17.17.32	
ROUTER	10.10.13.1		STL-DEV-TEST	172.17.16.17		BACKUP SERVER (VERITAS)	172.17.16.13		NAS-Switch	172.17.16.65	
ROUTER	172.16.21.1		STL-DR	172.17.16.44		ISA	172.17.16.25		NAS-Switch	172.17.16.66	
ROUTER	172.16.26.1		STL-PROD1	172.17.16.9		MAIL SERVER	172.17.16.22		Printer	172.16.27.75	
ROUTER	172.16.28.1		STL-PROD2	172.17.16.11		AV SERVER	172.17.16.32		Xerox	172.17.17.14	
ROUTER	172.16.16.252		STL-PROD-DB1	172.17.16.53		STL-CORP-VDI	172.17.16.7		Xerox	172.17.17.20	
ROUTER	172.16.16.253		STL-PROD-DB2	172.17.16.56		STL-CORP-VDI	172.17.16.141				
ROUTER	172.16.17.254		STL-REPLICATION	172.17.16.45		STLINTRANET	172.17.16.31				
FIREWALL	172.16.18.254		STL-TEST	172.17.16.6		ADC	172.16.22.253				
FIREWALL	172.16.19.254		STL-UAT	172.17.16.33		ADC	172.16.17.253				
FIREWALL	172.16.20.254					ADC	172.16.21.253				
FIREWALL	172.16.22.1					ADC	172.16.24.253				
FIREWALL	172.16.23.1					ADC	172.16.20.253				
FIREWALL	172.16.24.1					ADC	172.16.27.253				
FIREWALL	172.16.25.1					ADC	172.16.23.253				
FIREWALL	172.16.27.1					ADC	172.16.25.253				
FIREWALL	172.16.31.2					ADC	172.16.28.253				
FIREWALL	172.16.32.1					ADC	172.16.26.253				
FIREWALL	172.17.16.10					ADC	172.16.31.253				

Alert and Escalations

- HTML Mail Alert with Hostgroup and Alert levels
- Critical, Warning, Unknown, Acknowledged Alert
- Alert Reporting
- Alert History and Statistics
- Alert Trends
- Notification Management

Nagios® Nagios Monitoring System Notification	
Notification Type:	PROBLEM
Service Name:	Check Disks
Service Group:	
Service State:	WARNING
Service Data:	DISK WARNING - free space: /d02 14602 MB (14% inode=94%): /d01 153714 MB (15% inode=96%):
Host Name:	stl-dev
Hostalias:	stl-dev
IP Address:	172.17.16.4
Hostgroup:	sandhar-oracle-server
Event Time:	Thu Dec 12 16:15:50 IST 2013



Nagios Technical Details

Server Compoments

- **Nagios 3.4.4 On RHEL 6.3**
- **Nagios-plugins-1.4.16**
- **ndoutils-1.4b9**
- **Nagvis-1.7.7**
- **Pnp4nagios-0.6.20**
- **Smokeping (Latency)**
- **SNMP tools**
- **check_mk-1.2.2p1**
- **Rrdtool**
- **WMI tools**
- **Oracle database client**

Additional Plugins (Server side)

- **nagios_send_service_mail.pl / nagios_send_host_mail.pl**
(for HTML mail notification)
- **check_oracle_health_shell** (Customised shell script of perl script with all environment variables)
- **check_cisco** (for Cisco devices)
- **check_ifoperstatus** (for SNMP device port checking)
- **Check_SAN_SWITCH** (for san switch monitoring)
- **check_mrtgtraf** (MRTG Graphs for NW)
- **check_smokeping** (Latency plugin)
- **check_wmi_plus** (Windows WMI)
- **check_local_load , check_local_procs ,check_local_users ,check_local_swap**

Additional plugins (Client Side) – Oracle DB

- **Oracle Databases**
 - **check_oracle_health**
 - **Tablespace**
 - **Process Usages**
 - **Invalid Objects**
 - **Oracle Mode session**
 - **Oracle TNSPING**
 - **check_logfile (for log monitoring with ORA parameter)**
 - **Check_ASM_ARC(Customised Archive ASM disk monitoring)**
 - **Check_ASM_DATA(Customised Data ASM disk monitoring)**
 - **Check_ASM_VOTING(Customised Voting ASM disk monitoring)**

Contact Groups

Solaris

Ashish, Kaushal, Joginder

Windows

Mr. Dk Sharma, Vikas, Kausal, Amit, Manoj, Ankit

Oracle(Database/application)

Ashish, Joginder, rahul, bhawna, chanchal

Network

Dk. Sharma, Vikas, Amit, Manoj, Ankit

Infra :Vikas, Dk sharma

Escalation

1: Mr. Sanjay

2: Mr. KK malhotra

Disaster of any kind ALL

Schedule Downtime.

Thanks

Amit Srivastava

Linux Engineer L2

011 – 47521743/44/45

sevice@tetrain.com