An Introduction to Nagios for the End-user

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What is Nagios?

- System & Network monitoring application
- Example features
 - Monitor
 - Network Services (SMTP, POP3, HTTP, NNTP, PING, etc)
 - Host Resources (processor load, disk usage, etc.)
 - Define event handlers for proactive problem resolution
 - Run during service or host events
 - Notify contacts when service or host events occur or recover
 - View (via Web Interface)
 - Past/Present network status

Tailored Service/Host Monitoring

- Major directives (host & service checks)
 - contact_groups
 - Name of contact group to receive notifications
 - notification_interval (default, 16 hr)
 - How often to re-notify contact that service remains in NON-OK state
 - notification_period (default, 24x7)
 - Time-period during which notifications can be sent

Major directives cont'd...

- notification_options
 - Specifies which states to send notifications for
 - E.g., Warning, Recovery, etc...
 - Host notification_options
 - Down, Unreachable, Recover
 - Service notification_options
 - Warning, Unknown, Critical, Recover
- max_check_attempt
 - Number of times to **retry** the service check before sending notifications

Service Checks follow a logic

- 1) Identify a NON-OK state
- 2) Verify the NON-OK state (sanity checks)
- 3) Send Notifications
- Nagios enforces service check logic with directives
 - normal_check_interval
 - Service is in OK state or Hard NON-OK state
 - Time units to wait to retry check
 - retry_check_interval
 - Time units to wait to retry check when in NON-OK state
 - max_check_attempts (service in NON-OK state)
 - Maximum number of times to retry service check

State Types

What are they?

- Soft state
- Hard state

What is special about them?

- Softs states are optionally logged (Enabled)
- Nagios only sends notifications for
 - Hard NON-OK States
 - Hard Recoveries

State Types (cont'd)

Soft

- Service or host check results in non-OK state
- Has not yet been rechecked the number of times specified by <max_check_attempts>
- Recovery from soft state

Hard

- Service or host remains in non-OK state after <max_check_attempts>
- Service recovers from Hard State
- Non-OK state but Host is down or unreachable

Service/Host groups

- Nagios allows one or more services or hosts to be grouped together
- Benefits to the End-user
 - Web Interface provides Group Display
 - 24/7 Centralized status information for all group members

Notifications

- When does Nagios send notifications?
 - Hard State change has occurred
 - E.g., Hard Non-OK state or Hard Recovery
- Who gets notified?
 - Members of contact group specified for that service
- Filters
 - Program Wide (globally disable/enable)
 - Service & Host (Specified by notification_options)
 - Contact Filters (Specified by notification_options)

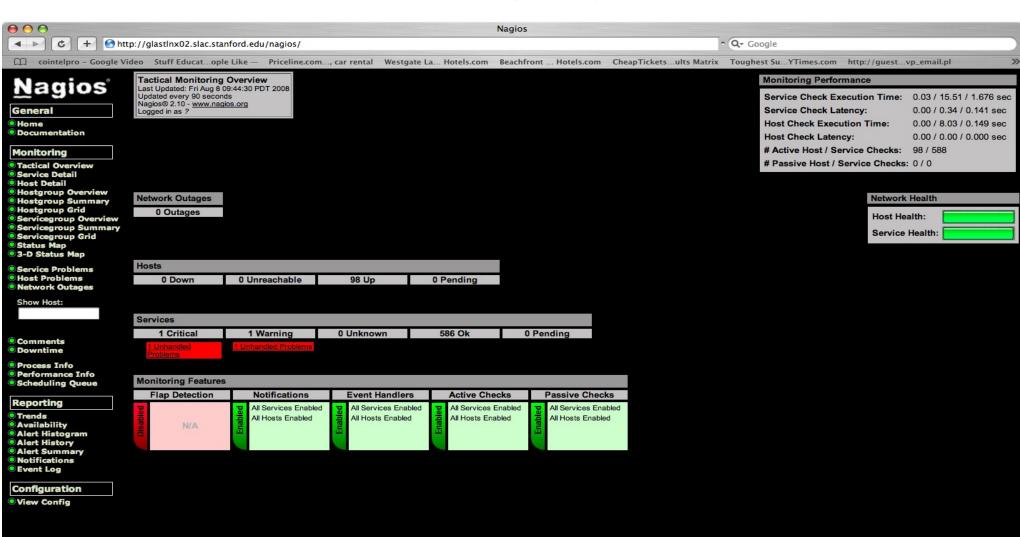
Nagios emailed me... What does it mean??

[NAGIOS] ** PROBLEM alert - glastInx23/Current Load is CRITICAL ** Nagios Monitoring to nagios *****Nagios 2.10 ***** Notification Type: PROBLEM Service: Current Load Host: glastInx23 Address: 134.79.200.43 State: CRITICAL Date/Time: Fri Aug 8 08:09:55 PDT 2008 Additional Info: CHECK_NRPE: Socket timeout after 10 seconds.

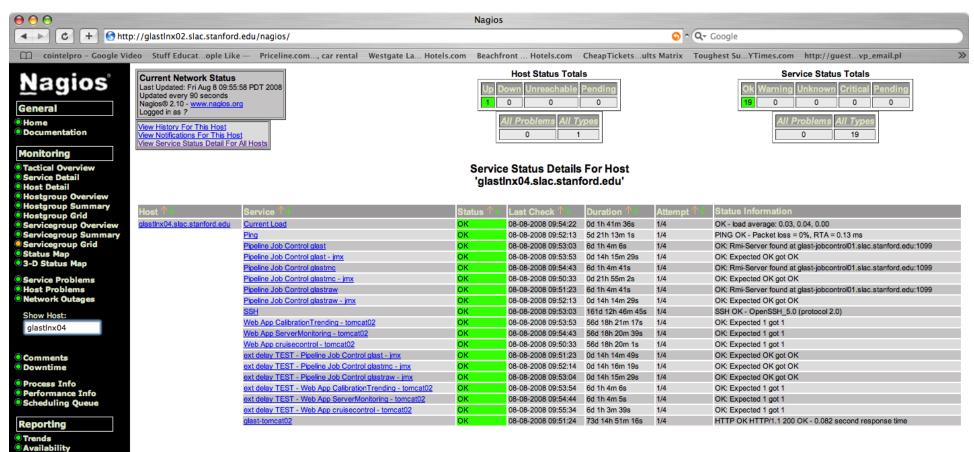
Nagios Web Interface

- Accessible only behind SLAC firewall
- Location
 - http://glastlnx02.slac.stanford.edu/nagios/
- Quick Tutorial
 - How to View
 - Detailed status information about a host
 - History activity history of a host/service
 - Information about particular service/host group

Tactical Overview



Detailed Status Information about Host

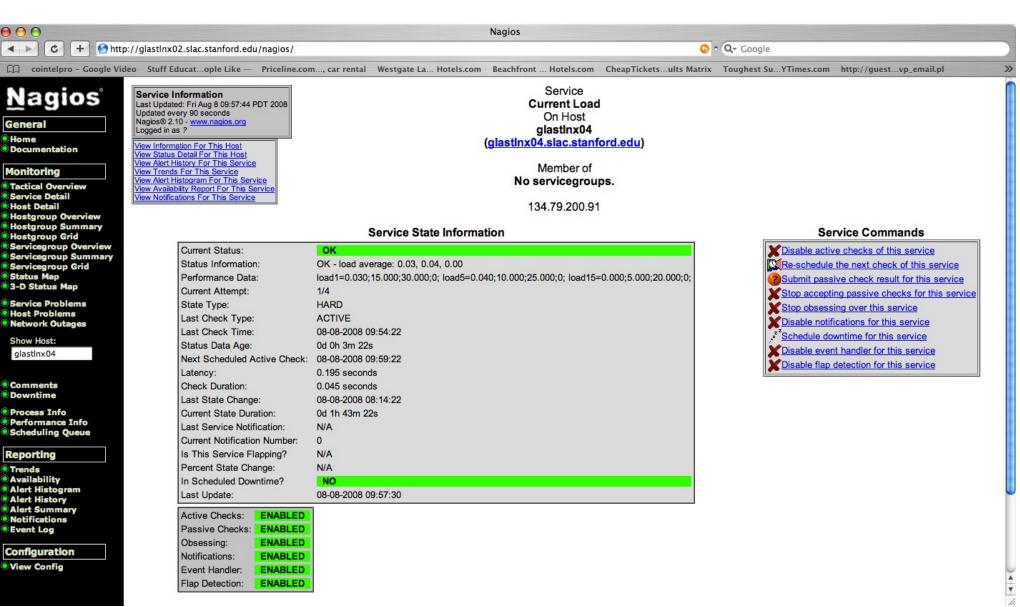


Alert Histogram
Alert History
Alert Summary
Notifications
Event Log

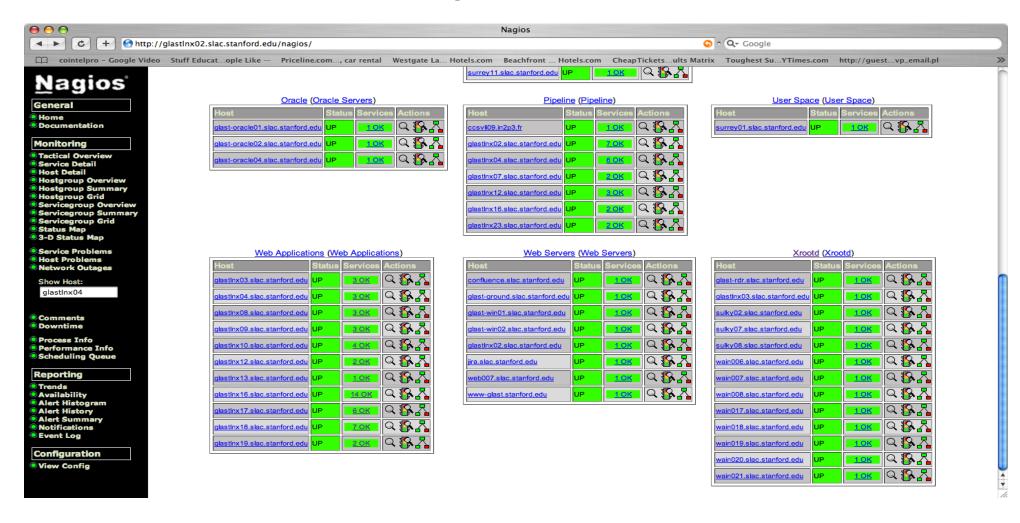
Configuration
View Config

19 Matching Service Entries Displayed

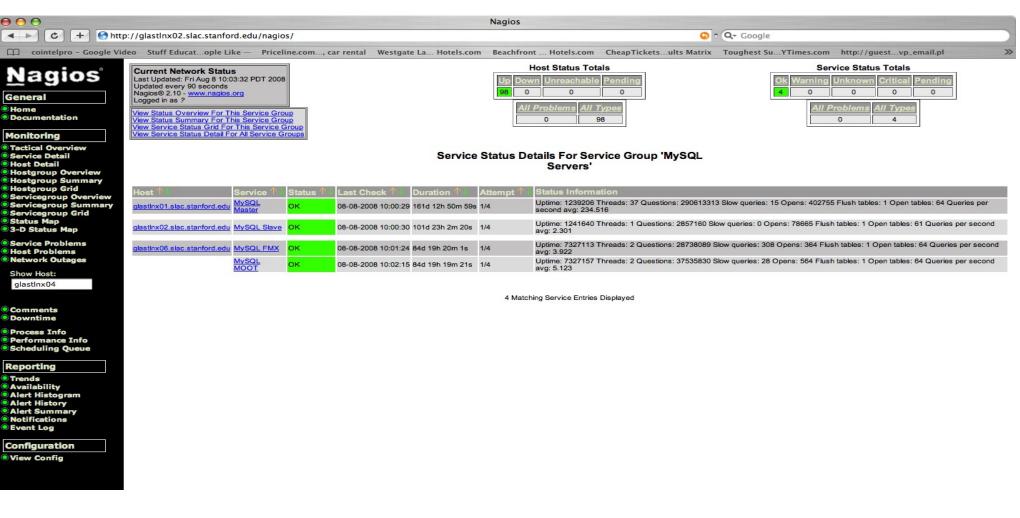
Detailed Status Information about Service



Service group overview



Service status information about all group members



How to Make Service/Host Monitoring Requests?

- Create task in JIRA
- Assign to ecephas

Conclusion

- Provided an End-user overview of Nagios
- Explained
 - Service check logic for Nagios
 - Difference between Soft and Hard states
 - How Notifications work
 - What Gets Logged By Nagios
 - What output from email notifications mean
 - Basic overview of Web Interface

Additional Info

- Need more information about Nagios
 - http://nagios.sourceforge.net/docs/2_0/toc.html
- Who maintains Nagios
 - Emmanuel Cephas, Jr.
 - ecephas@slac.stanford.edu
 - AIM
 - Miyagi48

Questions?