

# Automated Maintenance

Lifecycle Management



# Foglight Maintenance Challenges

Keeping Foglight infrastructure running at top performance can take time and attention. The process is normally manual, and there are several things to keep track of, including:

Making sure agents are always running and collecting data

Keeping Alarms in check

Ability to view Foglight Health and load - Especially across servers

Avoiding Topology Problems

Knowing what is using what

Managing Credentials



# Solution Highlights

**Centralized  
Monitoring** of  
multiple Foglight  
Servers

Easy to deploy

Maintains

- Agents
- Alarms
- Topology

Many options

User friendly UI

**Remote  
Administration** of  
solution across  
servers



# Agents

Automated Maintenance eliminates challenges by supporting all the below tasks but offers a plethora of options for full control. With an ability to display, alert and act on an agent's various conditions.

## Inactive

- Try to activate, repeated failures will result in an alarm

## Data Collection not started

- Try to start data collection, repeated failures will result in an alarm

## Obsolete Agents

- Attempt to delete, repeated failures will result in an alarm

## Stale Agents

- Healthy Agents that where collecting data and suddenly stop will result in an alarm

## Zombie Agents

- Healthy Agents that never collected will result in an alarm or can be automatically deleted



# FGLAM Management

## FGLAM HA Monitoring

- Display the make up of the various HA clusters
- Alert if a cluster is misconfigured
  - Multiple Primaries
  - No Primary
  - Invalid state

## FGLAM Log Analysis

- Analyses logs for WARN, ERROR and FATAL messages to provide a count summary for each unique message for the last 24 hours, 2, 3, 5, 7, 14, 21 and 28 Days.



# Alarm Management

Ability to display, alert and act on alarms:

- Clear Alarms to keep current alarms optimal and fully functional
- Purge Alarms to reduce number of Alarms in the database for better performance

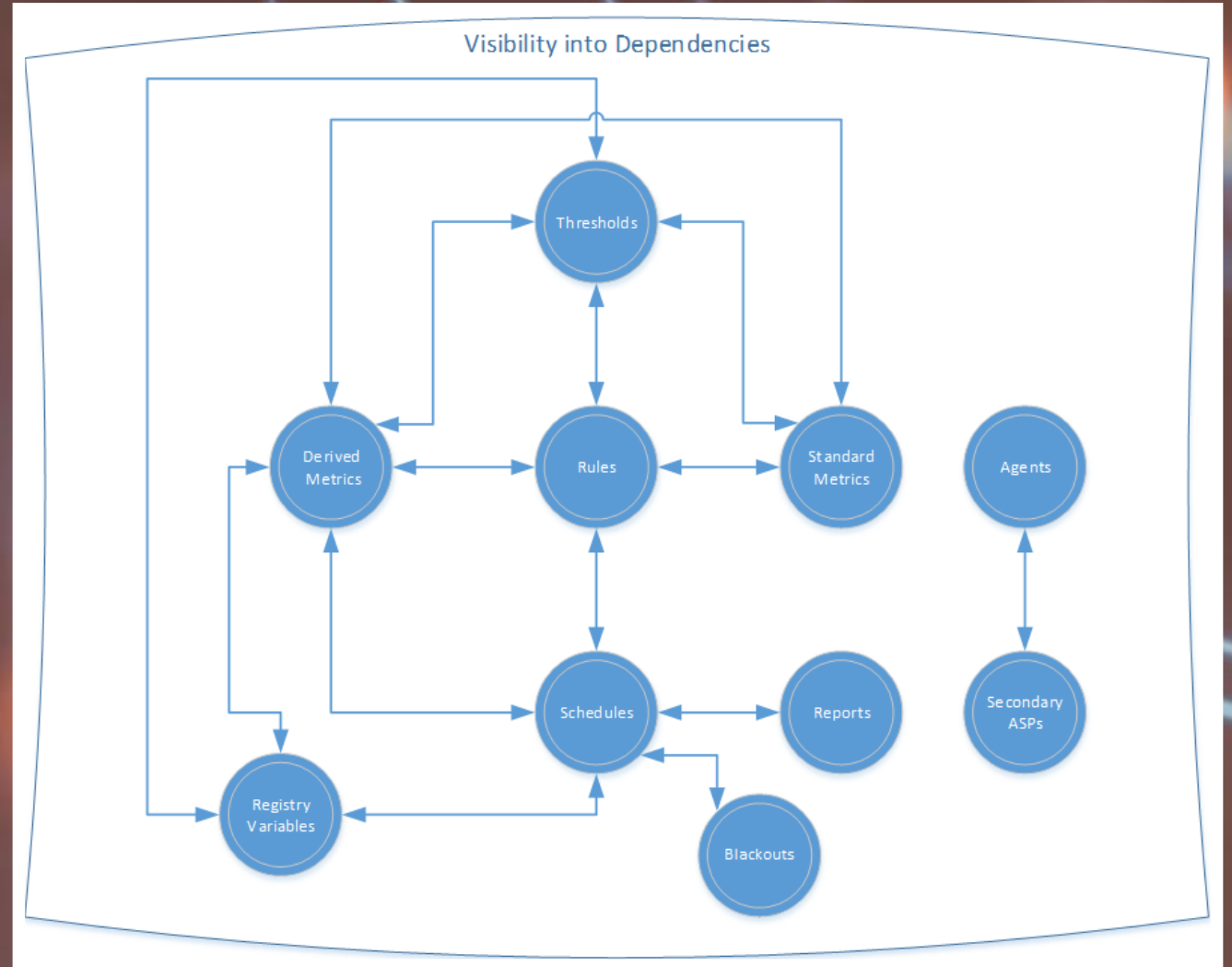
The engine allows you to clear/purge alarms using 2 methods:

- Sliding window
  - Processes older alarms and within the same date the lowest severities first
- Severity Order
  - Processes the alarms of a given severity first
  - Within the same severity the oldest to the newest. In the case that there is not enough to fix the issue the engine will use the next specified severity
- Failure to reduce the number of alarms will result in an alarm



# Admin Information

- Ability to display what a given item is using and which items are using it
- Many cleanup functions for unused Secondary ASPs, Schedules, and more



# Credentials Management

Display all available credentials

Informs whether or not a record has a hit on the system

Allows the deletion of records with no hits

One button clean up of unused credentials





# Foglight Self-Management

## Foglight Internal Check

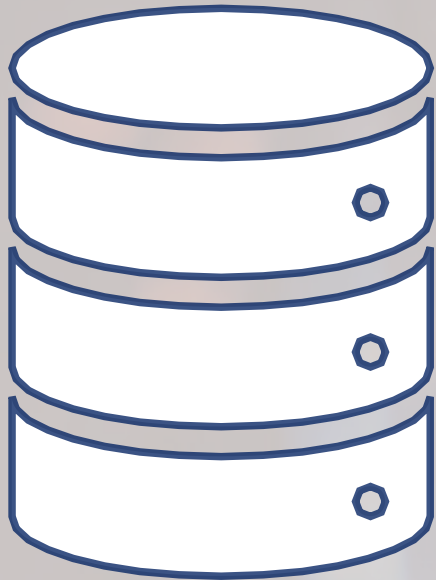
- Ability to report on the various internal information that Foglight provides to self monitor
- Catalyst Alarms
- Unit Count
- Load
- Connections and more

## Foglight Log Analysis

- Analyses logs for WARN, ERROR and FATAL messages to provide a count summary for each unique message for the last 24 hours, 2, 3, 5, 7, 14, 21 and 28 Days



# Storage Time Slices



- Display time slices that should be Obsolete
- Ability to automatically Obsolete any invalid time slice

# Topology

## Topology Churn

Display and alert on topology objects causing churn either by frequent updates or the creation of too many versions

- Topology Churn is most often caused by either a misconfigured agent or multiple agents monitoring the same element

## Topology Dangling References

Display, alert and automatically remove references to objects that are no longer in the system

- Dangling references are references to non-existent objects

## Topology Limit

Display, manage and alert on topology limits

- Topology limit is reached when the amount of objects stored is greater than 50,000

## Topology Stale Objects

Display, manage, alert and automatically delete stale objects

- Stale defines an object not updated for an extended period of time



# Changing Settings

▼ Bookmarks  
There are no bookmarks

► Homes

► Dashboards

▼ Foglight Servers

Local FMS

|   | Host Name |
|---|-----------|
| ↑ | fms2      |
| ↓ | fms3      |
| ↓ | fms4      |
| ↓ | fms5      |
| ↓ | fms6      |

**Auto Maintenance Registry Settings - Local FMS**

Save | Undo | Filter

| Name   | Value                                    | Scoping |  |  |   |
|--|--|---------|--|--|---|
|  |  |         |  |  |   |
| <b>Agent</b>   |  |         |  |  |   |
| <b>Activate</b>  |  |         |  |  |   |
| PSO.AutoMaintenance.Agent.AutoActivate                               | false                                    |         |  |  | True to automatically attempt to activate non obsolete inactive agents, false otherwise.                            |
| PSO.AutoMaintenance.Agent.AutoActivate.ExcludeTypes                  | .NET Application,.NET IIS,WebLogic,We... |         |  |  | Comma separated list of agent types whose lifecycle can not be managed by the Agent Manager.                        |
| PSO.AutoMaintenance.Agent.AutoActivate.MaxRetries                    | 5  |         |  |  | Maximum number of times to try activating an agent.   |
| <b>Data Collection</b>   |  |         |  |  |   |
| PSO.AutoMaintenance.Agent.AutoStartCollection                        | false                                    |         |  |  | True to automatically attempt to start data collection for active agents, false otherwise.                          |
| PSO.AutoMaintenance.Agent.AutoStartCollection.MaxRetries             | 5  |         |  |  | Maximum number of times to try Starting data collection on an agent.  |
| <b>Obsolete</b>  |  |         |  |  |   |
| PSO.AutoMaintenance.Agent.Obsolete.AutoDelete                        | false                                    |         |  |  | True to automatically delete Obsolete agents, false otherwise. Obsolete agents are agents that have an Agent Topol  |
| PSO.AutoMaintenance.Agent.Obsolete.AutoDelete.DuplicateRemoteClients | true                                     |         |  |  | True to automatically delete duplicate Remote Clients, false otherwise. A remote client represents an agent manager |
| PSO.AutoMaintenance.Agent.Obsolete.AutoDelete.MaxRetries             | 5  |         |  |  | Maximum number of times to try deleting an obsolete agent.  |
| <b>Stale</b>   |  |         |  |  |   |
| PSO.AutoMaintenance.Agent.Stale.GracePeriod                          | 5  |         |  |  | Time in minutes an active agent collecting data can go on without sending any data to FMS before it is marked as st |
| <b>Zombie</b>  |  |         |  |  |   |
| PSO.AutoMaintenance.Agent.Zombie.AutoDelete                          | false                                    |         |  |  | True to automatically delete Zombie agents, false otherwise. Zombie agents are agents that appear in the agent Stat |
| PSO.AutoMaintenance.Agent.Zombie.AutoDelete.MaxRetries               | 5  |         |  |  | Maximum number of times to try deleting an zombie agent.  |
| PSO.AutoMaintenance.Agent.Zombie.AutoDelete.TimeToDelete             | 120                                      |         |  |  | Time in minutes that an agent can go on without having ever collected data before it is deleted.                    |
| PSO.AutoMaintenance.Agent.Zombie.ExcludeTypes                        | JavaIntegrator,JMXDiscoveryAgent,DB_...  |         |  |  | Comma separated list of agent types that never collect data making them prone to be considered Zombies.             |
| <b>Agent Manager Log Analysis</b>                                    |  |         |  |  |   |
| PSO.AutoMaintenance.FGLAM.LogAnalysis.IgnoreAgentLogs                | true                                     |         |  |  | Should the analyzer ignore Agent Specific Log files and only analyze the Agent Manager's files.                     |
| PSO.AutoMaintenance.FGLAM.LogAnalysis.Period                         | 7  |         |  |  | Period in days to analyze from the logs. Minimum is 7 days and maximum is 28 days.                                  |
| PSO.AutoMaintenance.FGLAM.LogAnalysis.ScanGZFiles                    | true                                     |         |  |  | Should the analyzer scan compressed log files (.gz)   |
| PSO.AutoMaintenance.FGLAM.LogAnalysis.TypesToAnalyze                 | WARN,ERROR,FATAL                         |         |  |  | Which entries to analyze in the Log Files. Possible Combinations: WARN,ERROR,FATAL or ERROR,FATAL or FATAL          |



# Rule Management

The screenshot displays the 'Auto Maintenance Rule Management' interface. On the left is a navigation sidebar with categories like 'Dashboards', 'Foglight Servers', and 'Local FMS'. The main area shows a table of rules with columns for 'Category / Title', 'Enabled', and 'Description'. A modal dialog titled 'Define Settings for Rule "PSO - Auto Maintenance Clear Alarms Failure"' is open, showing configuration options for alarm generation, severity, threshold, and email notifications.

| Category / Title                   | Enabled                             | Description  |
|------------------------------------|-------------------------------------|--|
| <b>Alerting</b>                    |                                     |  |
| <b>Agent</b>                       |                                     |  |
| Activate Failure                   | <input checked="" type="checkbox"/> | Generates alarms for agents whose activation failed after a specified number of times.   |
| Delete Obsolete Failure            | <input checked="" type="checkbox"/> | Generates alarms for obsolete agents that failed to be deleted after a specified number of times.  |
| Delete Zombie Failure              | <input checked="" type="checkbox"/> | Generates alarms for zombie agents that failed to be deleted after a specified number of times.  |
| Stale                              | <input checked="" type="checkbox"/> | Generates alarms for agents that at one point where sending data to Foglight but are no longer doing so.   |
| Start Data Collection Failure      | <input checked="" type="checkbox"/> | Generates alarms for agents that failed to start data collection after a specified number of times.  |
| Zombie                             | <input checked="" type="checkbox"/> | Generates alarms for agents that never sent data to Foglight.  |
| <b>Alarms</b>                      |                                     |  |
| Clear Failure                      | <input checked="" type="checkbox"/> | Generates an alarm if the auto clear engine fails to restore the active alarm count to the set Max Active Alarms within the set maximum retries.       |
| Purge Failure                      | <input checked="" type="checkbox"/> | Generates an alarm if the auto purge engine fails to restore the active alarm count to the set Max Alarms In DB within the set maximum retries.        |
| <b>FGLAM</b>                       |                                     |  |
| HA Error                           | <input checked="" type="checkbox"/> | Generates an alarm if the auto HA engine fails to restore the active alarm count to the set Max Active Alarms within the set maximum retries.          |
| <b>Topology</b>                    |                                     |  |
| Delete Stale Objects Failure       | <input checked="" type="checkbox"/> | Generates an alarm if the auto delete engine fails to restore the active alarm count to the set Max Active Alarms within the set maximum retries.      |
| Limit Reached                      | <input checked="" type="checkbox"/> | Generates an alarm if the auto limit engine fails to restore the active alarm count to the set Max Active Alarms within the set maximum retries.       |
| Recent Changes Churn Detected      | <input checked="" type="checkbox"/> | Generates an alarm if the auto churn engine fails to restore the active alarm count to the set Max Active Alarms within the set maximum retries.       |
| Remove Dangling References Failure | <input checked="" type="checkbox"/> | Generates an alarm if the auto dangling engine fails to restore the active alarm count to the set Max Active Alarms within the set maximum retries.    |
| Versions Churn Detected            | <input checked="" type="checkbox"/> | Generates an alarm if the auto versions engine fails to restore the active alarm count to the set Max Active Alarms within the set maximum retries.    |
| <b>Automation</b>                  |                                     |  |
| <b>Agent Tasks</b>                 |                                     |  |
| <b>Alarms</b>                      |                                     |  |
| Clear                              | <input checked="" type="checkbox"/> | Generates an alarm if the auto clear engine fails to restore the active alarm count to the set Max Active Alarms within the set maximum retries.       |
| Purge                              | <input checked="" type="checkbox"/> | Generates an alarm if the auto purge engine fails to restore the active alarm count to the set Max Active Alarms within the set maximum retries.       |
| Remove Time Slices                 | <input checked="" type="checkbox"/> | Generates an alarm if the auto time slices engine fails to restore the active alarm count to the set Max Active Alarms within the set maximum retries. |
| <b>Topology</b>                    |                                     |  |
| Delete Stale Objects               | <input checked="" type="checkbox"/> | Generates an alarm if the auto delete engine fails to restore the active alarm count to the set Max Active Alarms within the set maximum retries.      |
| Limit                              | <input checked="" type="checkbox"/> | Generates an alarm if the auto limit engine fails to restore the active alarm count to the set Max Active Alarms within the set maximum retries.       |

Define Settings for Rule "PSO - Auto Maintenance Clear Alarms Failure"

Generates an alarm if the auto clear engine fails to restore the active alarm count to the set Max Active Alarms within the set maximum retries.

Check the box to enable alarm generation, uncheck to disable.

Generate Alarm:

When an alarm is generated what severity should the alarm represent.

Alarm Severity:  Warning

Number of consecutive times Auto Clearing alarms can fail at reaching the defined Max Active Alarms. Should be <= PSO.AutoMaintenance Retries.

Threshold:

Check the box to enable email generation, uncheck to disable. Please note that an email is not generated if "Generate Alarm" is disabled.

Generate Email:

Comma separated list of email addresses.

Email Recipient:

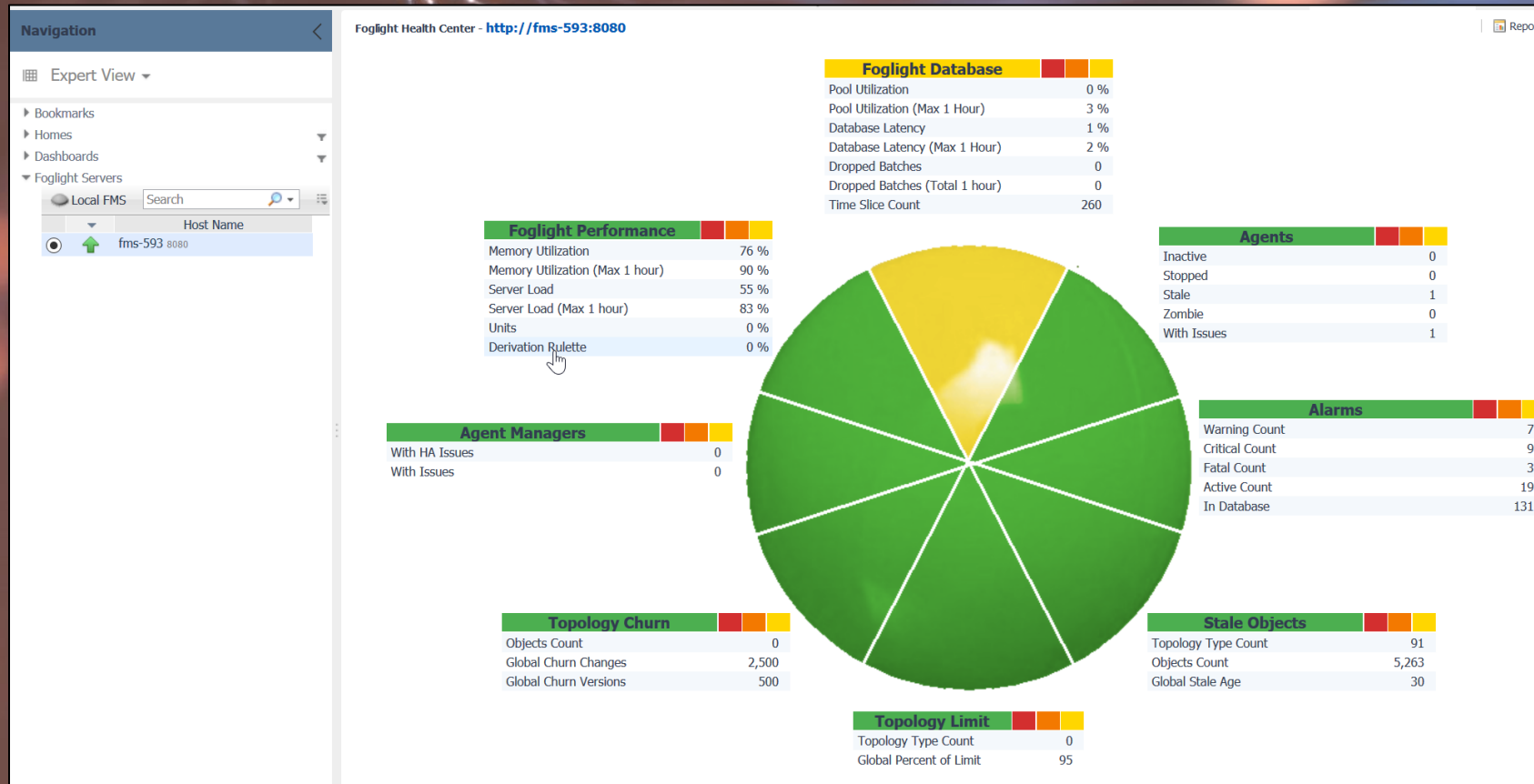
Apply Cancel

Remote Administration of the solution across servers



# Health Center

Remote Monitoring of Foglight servers



# Agent Information

Remote Monitoring of Agents.

**Navigation**

Expert View

- Bookmarks  
There are no bookmarks
- Homes
- Dashboards
- Foglight Servers
  - Local FMS
  - Host Name
  - fms-593 8080

**Auto Maintenance Agent Information - http://fms-593:8080**

Edit Registry Edit Rules

| Agent Name                 | Agent Manager | FMS Agent States |        |                 | Automation Agent State |                              |                              | Automation Engine Status |            | Statistics (Total Times) |                         |                  |
|----------------------------|---------------|------------------|--------|-----------------|------------------------|------------------------------|------------------------------|--------------------------|------------|--------------------------|-------------------------|------------------|
|                            |               | Blacked Out      | Active | Collecting Data | Problem State          | Problem Period (dd:hh:mm:ss) | Attempts (To Remedy Problem) | Auto Activate            | Auto Start | Became Inactive          | Stopped Data Collection | Flagged as stale |
| DBSS-Installer-fglams-ha-1 | fglams-ha-1   | 0                | 0      | 0               | Obsolete               |                              | Deletion: 0                  | 0                        | 0          | 0                        | 0                       | 0                |
| Windows@db-mssql           | fglams-ha-1   | 0                | 0      | 0               | Obsolete               |                              | Deletion: 0                  | 0                        | 0          | 0                        | 0                       | 0                |
| Windows@WIN2012SQL1        | fglams-ha-1   | 0                | 1      | 0               |                        |                              |                              | 0                        | 0          | 1                        | 0                       | 1                |
| SQL2012@WIN2012SQL1        | fglams-ha-1   | 0                | 1      | 0               |                        |                              |                              | 0                        | 0          | 1                        | 0                       | 1                |
| WebMonitor@fglams-ha-1     | fglams-ha-1   | 0                | 1      | 0               |                        |                              |                              | 0                        | 0          | 1                        | 0                       | 1                |
| Windows@db-oracle          | fglams-ha-1   | 0                | 0      | 0               | Obsolete               |                              | Deletion: 0                  | 0                        | 0          | 0                        | 0                       | 0                |

0 0 14 0 6 0 8 0 6 0 8 0 8 5 1 2 0

**Agent Inventory (Non Obsolete)**

| Agent Type              | Count    | Versions |
|-------------------------|----------|----------|
| DB_Office_Installer     | 1        | 5.9.3.20 |
| DB_SQL_Server           | 1        | 5.9.3.20 |
| DB_SQL_Server_Installer | 1        | 5.9.3.20 |
| NetMonitorAgent         | 1        | 5.9.4    |
| WebMonitorAgent         | 1        | 5.9.3    |
| WindowsAgent            | 1        | 5.9.4    |
|                         | <b>6</b> |          |

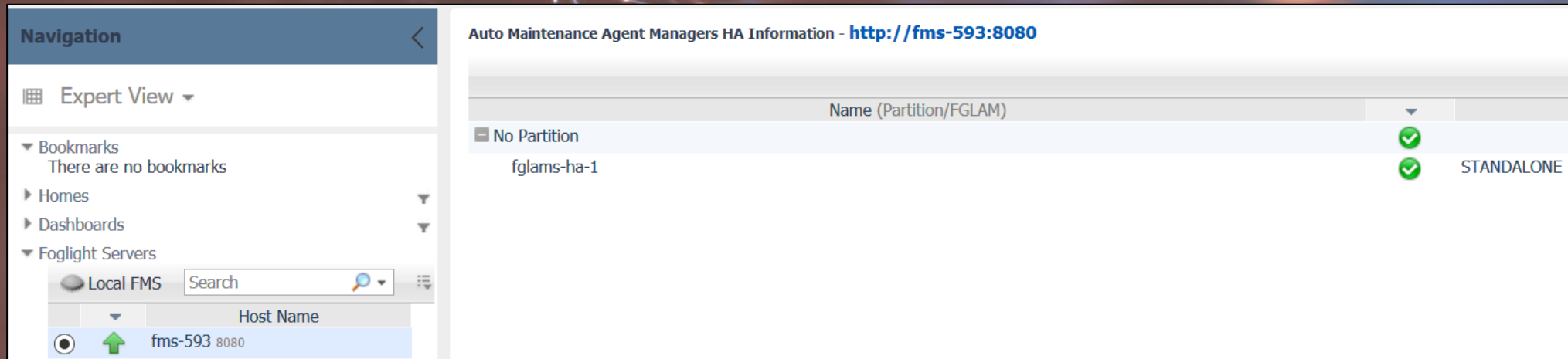
**Automation Engine Information**

| Auto Activate         |     | Auto Start Data Collection |     | Auto Delete Obsolete   |     | Auto Delete Zombie       |     |
|-----------------------|-----|----------------------------|-----|------------------------|-----|--------------------------|-----|
| Enabled:              | 0   | Enabled:                   | 0   | Enabled:               | 0   | Enabled:                 | 0   |
| Maximum Attempts:     | 5   | Maximum Attempts:          | 5   | Maximum Attempts:      | 5   | Time To Deletion (min.): | 120 |
| Start Time:           | n/a | Start Time:                | n/a | Start Time:            | n/a | Maximum Attempts:        | 5   |
| Last Completed Run:   | n/a | Last Completed Run:        | n/a | Last Completed Run:    | n/a | Start Time:              | n/a |
| Total Runs:           | 0   | Total Runs:                | 0   | Total Runs:            | 0   | Last Completed Run:      | n/a |
| Is Task Processing:   | 0   | Is Task Processing:        | 0   | Is Task Processing:    | 0   | Total Runs:              | 0   |
| Total Activate Calls: | 0   | Total Start Data Calls:    | 0   | Total Deleted Objects: | 0   | Is Task Processing:      | 0   |
|                       |     |                            |     |                        |     | Total Deleted Agents:    | 0   |



# Agent Managers HA Information

Remote Monitoring of Agent Managers.



The screenshot shows the Foglight interface for monitoring Agent Managers. The left sidebar contains a navigation menu with 'Expert View' selected. Under 'Foglight Servers', the 'Local FMS' is expanded, and the server 'fms-593 8080' is selected. The main content area displays 'Auto Maintenance Agent Managers HA Information' for the selected server. A table lists the HA configuration details.

| Name (Partition/FGLAM) |   |            |
|------------------------|---|------------|
| No Partition           | ✓ |            |
| fglams-ha-1            | ✓ | STANDALONE |





# Agent Managers Log Analysis

Remote Log Analysis of Agent Managers.

The screenshot displays the Foglight Agent Managers Log Analysis interface. On the left is a navigation pane with sections for Bookmarks, Homes, Dashboards, and Foglight Servers. The Foglight Servers section is expanded to show 'Local FMS' with a search bar and a list of servers, including 'fms-593 8080'. The main content area is titled 'Auto Maintenance Agent Managers Log Analysis - http://fms-593:8080'. It features a search bar and a table of log entries for host 'fglams-ha-1'. The table has columns for Type, First Encountered Entry, Message, Last 24 Hours, X Hours Ago, and X Days Ago. The log entries are filtered to show warnings and errors.




| Type  | First Encountered Entry | Message  | Last 24 Hours | X Hours Ago |          | X Days Ago |        |         |          |          |
|-------|-------------------------|--|---------------|-------------|----------|------------|--------|---------|----------|----------|
|       |                         |  |               | 24 to 48    | 48 to 72 | 3 to 5     | 5 to 7 | 7 to 14 | 14 to 21 | 21 to 28 |
| WARN  | 22/07/19 7:35 AM        | Authentication failed: unable to log in to http://win2012sql1:5985 (ICMP Port Unreachable)                                     | 3             | .           | .        | .          | .      | .       | .        | .        |
| WARN  | 22/07/19 7:35 AM        | Authentication failed: unable to log in to http://WIN2012SQL1:5985 (ICMP Port Unreachable)                                     | 3             | .           | .        | .          | .      | .       | .        | .        |
| WARN  | 22/07/19 7:31 AM        | Authentication failed: unable to log in to http://db-mssql:5985 (KrbException: Cannot locate default realm)                    | 2             | .           | .        | .          | .      | .       | .        | .        |
| WARN  | 22/07/19 7:30 AM        | Authentication failed: unable to log in to http://db-oracle:5985 (KrbException: Cannot locate default realm)                   | 2             | .           | .        | .          | .      | .       | .        | .        |
| WARN  | 22/07/19 7:32 AM        | No secure launcher was configured so the native ICMP helper application will run without elevated privileges.                  | 2             | .           | .        | .          | .      | .       | .        | .        |
| WARN  | 22/07/19 7:32 AM        | Thread group ICMP-Process could not be destroyed as there are approximately 1 threads still active in it.                      | 1             | .           | .        | .          | .      | .       | .        | .        |
| WARN  | 22/07/19 1:47 PM        | Could not queue/transmit orderly shutdown notification to the upstream server.   | 1             | .           | .        | .          | .      | .       | .        | .        |
| ERROR | 22/07/19 1:47 PM        | Could not send upstream request to http://fms-593:8080/catalyst-glue-service/message/secure. Received response code 403....    | 1             | .           | .        | .          | .      | .       | .        | .        |
| WARN  | 22/07/19 1:47 PM        | Could not close data stream java.net.SocketException: Software caused connection abort: socket write error at java.net.Sock... | 1             | .           | .        | .          | .      | .       | .        | .        |






# Alarms Information

| Alarm Count Information |     |
|-------------------------|-----|
| Warning Count:          | 395 |
| Critical Count:         | 2   |
| Fatal Count:            | 0   |
| Total:                  | 397 |
|                         |     |
| Total Persisted:        | 822 |

| Auto Clear Engine  |   |
|---|---|
| Enabled:  |  |
| Maximum Active Alarms Allowed:  | 10,000  |
| Maximum Retries:  | 5   |
|   |   |
| Start Time:   | n/a   |
| Last Completed Run:   | n/a   |
| Total Runs:   | 0   |
| Is Task Processing:   |  |
|   |   |
| Warning Processed:  | 0   |
| Critical Processed:   | 0   |
| Fatal Processed:  | 0   |
| Other Processed:  | 0   |
| Total:  | 0   |
|   |   |
| Total Attempts:   | 0   |

| Auto Purge Engine  |   |
|---|---|
| Enabled:  |  |
| Maximum Persisted Alarms Allowed:   | 100,000   |
| Maximum Retries:  | 5   |
|   |   |
| Start Time:   | n/a   |
| Last Completed Run:   | n/a   |
| Total Runs:   | 0   |
| Is Task Processing:   |  |
|   |   |
| Warning Processed:  | 0   |
| Critical Processed:   | 0   |
| Fatal Processed:  | 0   |
| Other Processed:  | 0   |
| Total:  | 0   |
|   |   |
| Total Attempts:   | 0   |



# Admin Information

Items Using | Items Used By

Items to explore: Rules | Derived Metrics | Registry Variables | Thresholds | Blackouts | Reports | Agents

Remove All Whose Cartridge Is Not Enabled Remove All With Invalid Scope Search

| Name  | Scope  |  | Valid | Has Objects |
|---|--|--|-------|-------------|
|   | Topology Type                                |  |       |             |
| Additional Process Pool Utilization           | PowerVMAdditionalProcPool                    |  | 🔌     | 🔌           |
| Agent Health State                            | Agent  |  | 🔌     | 🔌           |
| Agent Manager Error Message Alarm             | FglamClientInstance                          |  | 🔌     | 🔌           |
| Available Paging Space                        | Host   |  | 🔌     | 🔌           |
| BindUpTimeToHostBootTime                      | ScSystemInfo                                 |  | 🔌     | 🔌           |
| Catalyst Agent Type License Checker           | AgentTypeLicense                             |  | 🔌     | 🔌           |
| Catalyst Available Database Connections Check | CatalystJBossManagedConnectionPool           |  | 🔌     | 🔌           |
| Catalyst Credential Check                     | CatalystServer                               |  | 🔌     | 🔌           |
| Catalyst Database Latency Check               | CatalystDatabaseStatus                       |  | 🔌     | 🔌           |
| Catalyst Database Maintenance Check           | CatalystDatabaseMaintenanceController        |  | 🔌     | 🔌           |
| Catalyst Database Query Execution Time Check  | CatalystSampleBatchQueryExecutionTimeMonitor |  | 🔌     | 🔌           |
| Catalyst Database Space Checking              | CatalystDatabase                             |  | 🔌     | 🔌           |
| Catalyst Data Service Discarding Data         | CatalystDataService                          |  | 🔌     | 🔌           |
| Catalyst Free Database Space Checking         | CatalystTablespace                           |  | 🔌     | 🔌           |

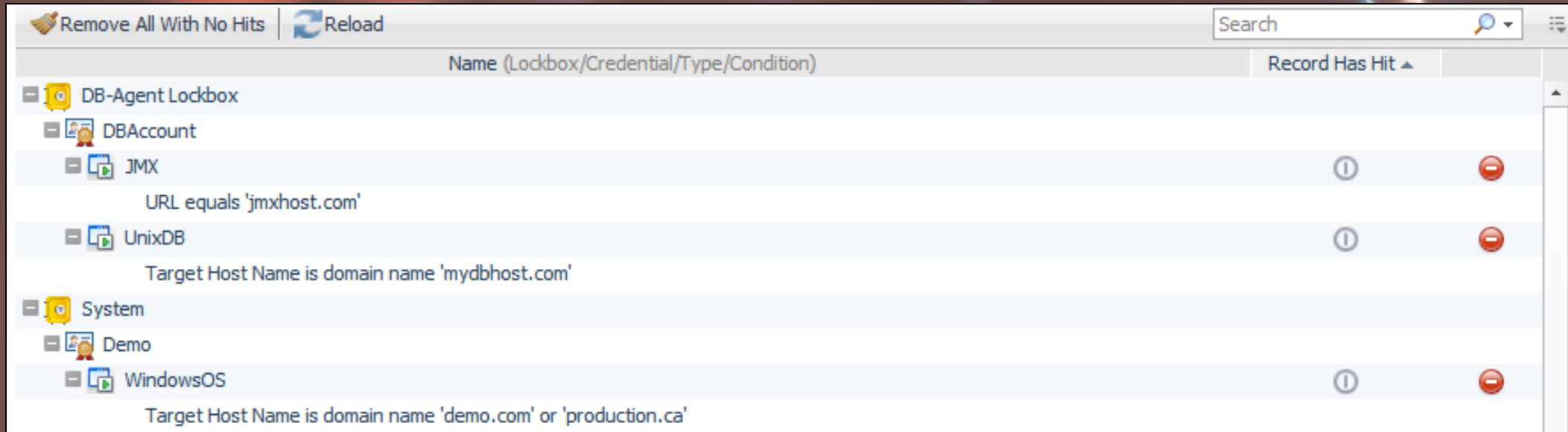
Rule Using:

Metrics | Registry Variables | Thresholds | Schedules Search

| Name        | Valid | Used By |                              |   |   |                  |   |
|-------------|-------|---------|------------------------------|---|---|------------------|---|
|             |       | Fire    | Conditions, Alarms & Actions |   |   | Global Variables |   |
| utilization | 🔌     | ⚠️      | 🔌                            | 🔌 | 🔌 | ☑️               | ✅ |



# Credential Information

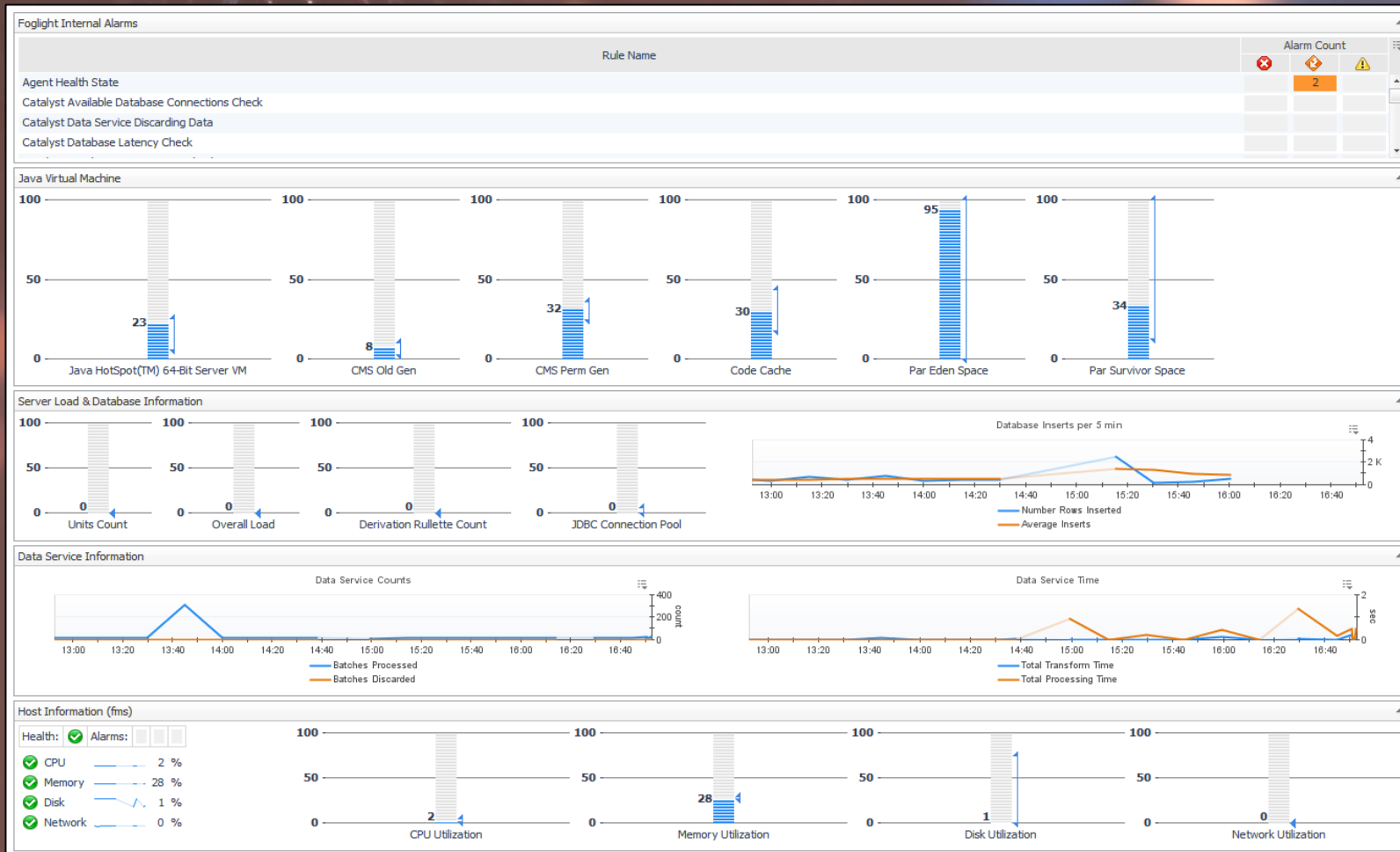


The screenshot shows a web-based interface for managing credential information. At the top, there are buttons for 'Remove All With No Hits' and 'Reload', along with a search bar. Below this is a table with columns for 'Name (Lockbox/Credential/Type/Condition)' and 'Record Has Hit'. The table is organized into a tree structure with expandable lockboxes.

| Name (Lockbox/Credential/Type/Condition)                      | Record Has Hit |
|---|----------------|
| DB-Agent Lockbox  |                |
| DBAccount   |                |
| JMX   | ⓘ -            |
| URL equals 'jmxhost.com'                                      |                |
| UnixDB  | ⓘ -            |
| Target Host Name is domain name 'mydbhost.com'                |                |
| System  |                |
| Demo  |                |
| WindowsOS   | ⓘ -            |
| Target Host Name is domain name 'demo.com' or 'production.ca' |                |

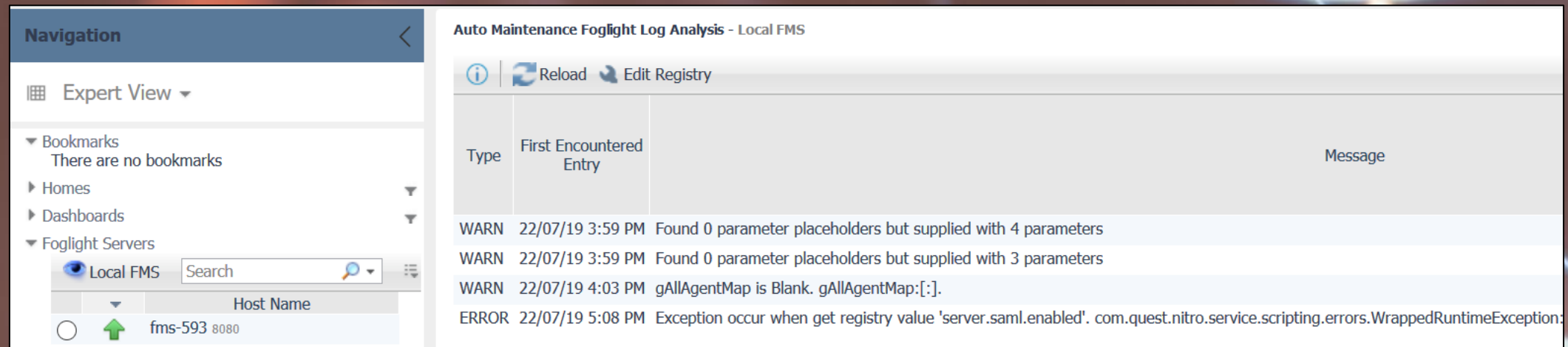


# Internal Information



# Foglight Log Analysis

## Remote Log Analysis of Foglight Servers



The screenshot displays the Foglight Log Analysis interface for a Local FMS. The left sidebar shows the navigation menu with 'Foglight Servers' expanded to 'Local FMS'. The main content area shows a table of log entries with columns for Type, First Encountered Entry, and Message. The table contains four entries: three warnings and one error.

| Type  | First Encountered Entry | Message  |
|-------|-------------------------|--|
| WARN  | 22/07/19 3:59 PM        | Found 0 parameter placeholders but supplied with 4 parameters  |
| WARN  | 22/07/19 3:59 PM        | Found 0 parameter placeholders but supplied with 3 parameters  |
| WARN  | 22/07/19 4:03 PM        | gAllAgentMap is Blank. gAllAgentMap[::].   |
| ERROR | 22/07/19 5:08 PM        | Exception occur when get registry value 'server.saml.enabled'. com.quest.nitro.service.scripting.errors.WrappedRuntimeException: |



# Named Scripts

Auto Maintenance Foglight Named Scripts Reports

Search

| Script name  | Cartridge Name               | Description         |
|--|------------------------------|---------------------|
| adjustFileLogMonitorFileGroupRegExMatchPattern       | Infrastructure               | Potentially modify  |
| adjustHostName                                       |                              | Potentially modify  |
| adjustICAgentName                                    | Infrastructure               | Potentially modify  |
| alarmCount   |                              | Get the number of   |
| applicationRootAnnotationTypeCacheRegistrationHelper | Application-Root-Base        | Application Root    |
| avg  |                              | Implementation of   |
| changeBooleanValue                                   |                              | Returns a boolean   |
| changeCount  |                              | Get the number of   |
| changeSummary  |                              | Returns the list of |
| checkCredentialExpire                                |                              | Check whether cr    |
| checkObservationAlarms                               |                              | Script that deter   |
| checkUserPermission                                  |                              | Returns a flag inc  |
| clearOldAlarms                                       | Integration                  | Clear integration   |
| commitChanges  | Core-Administration          | Commit changes      |
| convertObservation                                   |                              |                     |
| count  |                              | Implementation of   |
| countInTimeRange                                     | WebMonitor-UI                | Count the Metric    |
| createCarExporter                                    | Cart-Builder-Export          | Creates a Cartridge |
| createFileItem                                       | Cart-Builder-Export          | Creates a FileItem  |
| createNewEditableObject                              | Core-Administration          | Create a new Adr    |
| createObservationAlarms                              |                              | Script that create  |
| createServicePerspective                             | Core-ServiceModel-Extensions | Creates a new inc   |
| createSupportBundle                                  |                              |                     |

Arguments for alarmCount

Search

| Order | Argument | Type | Description            |
|-------|----------|------|------------------------|
| 1     |          |      | topology object        |
| 2     |          |      | the requested severity |

```
// If an alarm severity is specified, only count alarms with that severity
if (args.size() > 2) {
    int severity = args[2];
}

// TODO: get number of alarms
return server.get("AlarmService").getAlarmCount(args[1].getUniqueId(), severity);
} else {

// Return the total number of alarms on the object
return server.get("AlarmService").getAlarmCount(args[1].getUniqueId(), 2) +
server.get("AlarmService").getAlarmCount(args[1].getUniqueId(), 3) +
server.get("AlarmService").getAlarmCount(args[1].getUniqueId(), 4);
}
```



# Time Slices

Auto Maintenance Time Slices Information Reports

Info

Time Slice Count Information

|                       |     |
|-----------------------|-----|
| String Storage Count: | 70  |
| Binary Storage Count: | 70  |
| Metric Storage Count: | 140 |
| Total:                | 280 |

Auto Remove Engine

|                                |                       |
|--------------------------------|-----------------------|
| Enabled:                       | <input type="radio"/> |
| String Storage Retention Days: | 62                    |
| Binary Storage Retention Days: | 62                    |
| Metric Storage Retention Days: | 62                    |
| Start Time:                    | n/a                   |
| Last Completed Run:            | n/a                   |
| Total Runs:                    | 0                     |
| Is Task Processing:            | <input type="radio"/> |
| String Storage Processed:      | 0                     |
| Binary Storage Processed:      | 0                     |
| Metric Storage Processed:      | 0                     |
| Total:                         | 0                     |





# Topology Churn

Search

| Name                 | Recent Changes | Versions |
|----------------------|----------------|----------|
| auto-deploy-1 (Host) | 101            | 668      |

Details for churn on Object: auto-deploy-1 (Host)

Most volatile object: auto-deploy-1 (Host)  
Object uniqueId: bd5c34ff-0172-4efd-9292-dd727ee50cf9  
Current version: 692  
Number of object updates in period: 669  
Number of versions in period: 668  
Number of recent changes: 101  
Num changes by property:  
name: 101

Details of recent changes:

| Timestamp               | Property | Change Type  | Old Value                     | New Value           |
|-------------------------|----------|--------------|-------------------------------|---------------------|
| 2016-05-11 05:42:31.494 | name     | Value Change | fms   auto-deploy-1           | fms   auto-deploy-1 |
| 2016-05-11 05:42:19.294 | name     | Value Change | auto-deploy-2   fms           | fms   auto-deploy-1 |
| 2016-05-11 05:41:59.278 | name     | Value Change | fms   auto-deploy-2           | fms   auto-deploy-2 |
| 2016-05-11 05:41:59.06  | name     | Value Change | auto-deploy-1   fms           | fms   auto-deploy-1 |
| 2016-05-11 05:37:34.714 | name     | Value Change | fms   auto-deploy-1           | fms   auto-deploy-1 |
| 2016-05-11 05:37:22.546 | name     | Value Change | auto-deploy-2   fms           | fms   auto-deploy-1 |
| 2016-05-11 05:37:22.515 | name     | Value Change | fms   auto-deploy-2           | fms   auto-deploy-2 |
| 2016-05-11 05:36:57.495 | name     | Value Change | auto-deploy-2   fms           | fms   auto-deploy-2 |
| 2016-05-11 05:36:57.261 | name     | Value Change | auto-deploy-1   auto-deploy-2 | fms   auto-deploy-2 |
| 2016-05-11 05:32:32.903 | name     | Value Change | fms   auto-deploy-1           | fms   auto-deploy-1 |
| 2016-05-11 05:32:20.674 | name     | Value Change | auto-deploy-2   fms           | fms   auto-deploy-1 |
| 2016-05-11 05:32:20.658 | name     | Value Change | fms   auto-deploy-2           | fms   auto-deploy-2 |
| 2016-05-11 05:32:20.611 | name     | Value Change | auto-deploy-2   fms           | fms   auto-deploy-2 |
| 2016-05-11 05:32:00.661 | name     | Value Change | fms   auto-deploy-2           | fms   auto-deploy-2 |
| 2016-05-11 05:32:00.442 | name     | Value Change | auto-deploy-1   fms           | fms   auto-deploy-1 |
| 2016-05-11 05:27:31.152 | name     | Value Change | fms   auto-deploy-1           | fms   auto-deploy-1 |
| 2016-05-11 05:27:23.773 | name     | Value Change | auto-deploy-2   fms           | fms   auto-deploy-2 |
| 2016-05-11 05:27:23.757 | name     | Value Change | fms   auto-deploy-2           | fms   auto-deploy-2 |
| 2016-05-11 05:26:58.704 | name     | Value Change | auto-deploy-2   fms           | fms   auto-deploy-2 |
| 2016-05-11 05:26:58.486 | name     | Value Change | auto-deploy-1   auto-deploy-2 | fms   auto-deploy-2 |
| 2016-05-11 05:22:34.268 | name     | Value Change | fms   auto-deploy-1           | fms   auto-deploy-1 |
| 2016-05-11 05:22:22.006 | name     | Value Change | auto-deploy-2   fms           | fms   auto-deploy-2 |
| 2016-05-11 05:22:21.943 | name     | Value Change | fms   auto-deploy-2           | fms   auto-deploy-2 |



# Dangling References

| Search |                  |                      |                          |                    |
|--------|------------------|----------------------|--------------------------|--------------------|
|        | Name             | Property Name        | Total Invalid References | Automation Retries |
| ✓      | Demo Application | definition           | 1                        | 1                  |
| ✓      | Demo Application | serviceLevelPolicies | 1                        | 1                  |

| Auto Remove Engine Information |                 |
|--------------------------------|-----------------|
| Start Time:                    | 5/25/16 4:31 PM |
| Last Completed Run:            | 5/25/16 4:31 PM |
| Total Runs:                    | 1               |
| Is Task Processing:            | ⓘ               |
| Total Impacted Objects:        | 1               |
| Total Removed References:      | 2               |



# Topology Limit

|               |                                 |                   |               | Automation Settings |             |             |           |
|---------------|---------------------------------|-------------------|---------------|---------------------|-------------|-------------|-----------|
| Topology Type |                                 | Total Instances ▾ | Current Limit | Enabled             | Max Allowed | Increment % | Trigger % |
| ✓             | CatalystTable                   | 472               | 50,000        | ⏻                   | 1           | 10          | 0         |
| ✓             | CatalystScript                  | 184               | 50,000        | ⏻                   | 1           | 10          | 0         |
| ✓             | CanonicalDataTransform          | 110               | 50,000        | ⏻                   | 1           | 10          | 0         |
| ✓             | FglamMessageType                | 93                | 50,000        | ⏻                   | 1           | 10          | 0         |
| ✓             | FSMObjectSubGroup               | 63                | 50,000        | ⏻                   | 1           | 10          | 0         |
| ✓             | FSMDynamicManagedComponent      | 48                | 50,000        | ⏻                   | 1           | 10          | 0         |
| ✓             | HostProcess                     | 27                | 50,000        | ⏻                   | 1           | 10          | 0         |
| ✓             | FSMSystemService                | 22                | 50,000        | ⏻                   | 1           | 10          | 0         |
| ✓             | Sybase_MDA_DatabaseSegmentSpace | 16                | 50,000        | ⏻                   | 1           | 10          | 0         |

| Auto Manage Engine Information |     |
|--------------------------------|-----|
| Enabled:                       | ⏻   |
| % of Limit:                    | 0   |
| Increment %:                   | 10  |
| Maximum Allowed:               | 1   |
| Start Time:                    | n/a |
| Last Completed Run:            | n/a |
| Total Runs:                    | 0   |
| Is Task Processing:            | ⏻   |
| Total Changes:                 | 0   |



# Stale Objects

| Search |                                  |                     |                     |                     |            |            |
|--------|----------------------------------|---------------------|---------------------|---------------------|------------|------------|
|        | Topology Type                    | Total Stale Objects | Automation Attempts | Automation Settings |            |            |
|        |                                  |                     |                     | Enabled             | Age (Days) | % of Limit |
| ✓      | HostProcess                      | 27                  | 0                   | ⏻                   | 0          | 90         |
| ✓      | HostNetwork                      | 1                   | 0                   | ⏻                   | 0          | 90         |
| ✓      | Sybase_MDA_ParallelQuery         | 1                   | 0                   | ⏻                   | 0          | 90         |
| ✓      | Sybase_MDA_DatabaseSpace         | 8                   | 0                   | ⏻                   | 0          | 90         |
| ✓      | PhysicalDisk                     | 1                   | 0                   | ⏻                   | 0          | 90         |
| ✓      | HostCPUs                         | 1                   | 0                   | ⏻                   | 0          | 90         |
| ✓      | Sybase_MDA_DatabaseTransLogSpace | 8                   | 0                   | ⏻                   | 0          | 90         |
| ✓      | Sybase_MDA_ProcessWaitEvents     | 1                   | 0                   | ⏻                   | 0          | 90         |
| ✓      | Sybase_MDA_Locks                 | 1                   | 0                   | ⏻                   | 0          | 90         |
| ✓      | Sybase_MDA_...                   | -                   | -                   | ⏻                   | -          | -          |

| Auto Delete Engine Information |             |
|--------------------------------|-------------|
| Enabled:                       | ⏻           |
| Minimum Age (Days):            | 0           |
| % of Limit:                    | Not Enabled |
| Maximum Attempts:              | 5           |
| Start Time:                    | n/a         |
| Last Completed Run:            | n/a         |
| Total Runs:                    | 0           |
| Is Task Processing:            | ⓘ           |
| Total Deleted Objects:         | 0           |



# Auto Maintenance — System Requirements



Minimum required  
FMS version

5.9.3



Supported  
Database  
Minimum  
Version

MS SQL

2008  
v 10.0.1600 or later

Oracle

9i R2

MySQL

5.1.45

PostgreSQL

9.4.0





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