



Diagnostics 9.x SiteScope 11.x Integration & Troubleshooting

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What's new?

Diagnostics overview

HP Diagnostics software monitors application transaction health in traditional, virtualized and cloud environments. Main server known as COMMANDER is fed by collectors such:

- Java Probe, .Net Probe, etc.
- SiteScope
- LoadRunner

Acts itself as a collector for greater Platforms:

- BAC/BSM (Business Availability Center/Business Service Management)
- PC (Performance Center)

SiteScope - Diagnostics/Generic data integration

This new feature was introduced in SiteScope 10.x versions. Diagnostics 8.x, 9.x supports SiteScope 10.00 and higher.

Main settings can be found in SiteScope GUI: Preferences >> Integration Preferences. This integration is metric based, sampled in XML and transmitted via http as BAC integration.



Integration steps

SiteScope side

- Fill-in integration preferences section with standard receiver URL
`http://<server>:2006/metricdata/siteScopeData :`

Edit: Diagnostics Integration Preferences

General Settings

* Name:

Description:

Data Integration Preferences Settings

* Receiver URL:

Encoding:

* Reporting interval (seconds):

Time synchronization interval (minutes):

GZIP compression

Include additional data

Error on redirect

* Request timeout (seconds):

* Connection timeout (seconds):

Number of retries:

Authentication when requested

Disable integration

For performance improvements check the GZIP compression as per default Diagnostics can unzip the XML transmitted in this format. Also uncheck the additional data option to not include monitors and groups descriptions.

Fill in the user for authentication in the Diagnostics server. Minim role privilege needed is [system]



Web Server Security Settings

Authentication user name:

Authentication password:

Diagnostics user management interface (Configure Diagnostics >> security):

Diagnostics

User Administration

Delete	User Name	Roles	Password	Confirm Password
	SS_integration	<input type="text" value="system"/>	<input type="password"/>	<input type="password"/>
	admin	<input type="text"/>	<input type="password"/>	<input type="password"/>

Create the tag to indicate SiteScope which monitors/groups to report

Reporting Tags

Use SiteScope tags to define the data that is reported in the integration. Select or add a tag to identify groups and monitors whose data is forwarded to the receiving application. (Ensure that this tag is also selected for the relevant groups or monitors.)

You can manage existing tags from Preferences > Search/Filter Tags.

Diagnostics
 true

- UOM file: SiteScope\conf\integration\data_integration_uom.xml

This file is the only difference with the Generic data/integration. It acts as a metric/counter unit mapping to format the XML samples in an understandable format for the Diagnostics COMMANDER receiver. For Generic Data integration SiteScope uses default counter units; the third party tool receiving in the other end has to be adapted to expect this format,

The UOM file gets re-generated on every SiteScope restart or when this operation is called from Integration Preferences. The file is updated to include new monitors added to SiteScope configuration (even when they are not selected to report to the integration) but keeping untouched the sections manually edited.

For simple monitors the default mapping will work, whilst for more complex monitors the counters with “unknown” units must be updated accordingly to the of units displayed in SiteScope Dashboard and according to the mapping settings in Diagnostics’ etc/server.properties file for example:



```
sis.unit.map.% = percent
sis.unit.map.KB = kilobytes
sis.unit.map.MB = megabytes
sis.unit.map.GB = gigabytes
sis.unit.map.PAGES/SEC = load
sis.unit.map.PROCESSES = count
```



```
<monitor type="Service">
  <counter units="unknown" name="status" />
  <counter units="unknown" name="running" />
  <counter units="unknown" name="installed" />
  <counter units="%" name="cpu" />
  <counter units="bytes" name="memory" />
  <counter units="processes" name="processes" />
  <counter units="unknown" name="mmcProcessStatus" />
  <counter units="unknown" name="ServerServiceStatus" />
  <counter units="unknown" name="csrssProcessStatus" />
  <counter units="unknown" name="/opc.*/ProcessStatus" />
  <counter units="unknown" name="/DNSClient/ServiceStatus" />
  <counter units="unknown" name="DHCPClientServiceStatus" />
</monitor>
<monitor type="URL List">
  <counter units="URLs" name="errors" />
  <counter units="URLs" name="left" />
  <counter units="milliseconds" name="duration" />
</monitor>
<monitor type="URL Content">
  <counter units="milliseconds" name="roundtrip time (milliseconds)" />
</monitor>
<monitor type="Oracle">
  <counter units="COUNT" name="counters in error" />
  <counter units="COUNT" name="V$SYSSTAT/db block gets" />
  <counter units="COUNT" name="V$SYSSTAT/physical reads" />
  <counter units="COUNT" name="V$SYSSTAT/physical read IO requests" />
  <counter units="BYTES" name="V$SYSSTAT/physical read bytes" />
  <counter units="COUNT" name="V$SYSSTAT/physical writes" />
  <counter units="COUNT" name="V$SYSSTAT/physical write IO requests" />
  <counter units="BYTES" name="V$SYSSTAT/physical write bytes" />
</monitor>
<monitor type="SNMP Trap">
  <counter units="matches" name="matches" />
  <counter units="lines" name="lines" />
  <counter units="matches/min" name="matches/min" />
  <counter units="lines/min" name="lines/min" />
  <counter units="unknown" name="value" />
  <counter units="unknown" name="value2" />
  <counter units="unknown" name="value3" />
  <counter units="unknown" name="value4" />
</monitor>
```



To understand the XML generated and sent by SiteScope refer to <SiteScope root directory>\sisdocs\pdfs\UsingSiteScope.pdf under section XML Tag Reference for Generic Data and Diagnostics Integrations.

Diagnostics side

Most of the cases there is no need to modify default values in the following configuration files:

- etc/server.properties: Site Scope Unit Mappings, Site Scope Group to Probegroup mapping
- etc/metrics.config: XML Input Data

SiteScope monitors should be visible from "Diagnostics External Monitors view group (Entire Enterprise):

The screenshot shows the SiteScope Diagnostics console. The main area displays a table of external monitors. The table has columns for 'Color', 'Chart?', 'Monitor', 'Type', and 'Collector'. The 'Collector' column shows 'SiteScope-SSK3' for all entries. The 'Monitor' column lists various targets like 'Port 135 on 172.16.7.82', 'JMX Heap space on SS server', 'Oracle Database: jdbc:oracle:thin:@//...', 'URL Content: http://google.com', and 'Unix Resources: 172.16.7.132 - ProdH...'. The 'Chart?' column has checkboxes, some of which are checked. The 'Color' column shows different colored circles corresponding to each monitor.

Color	Chart?	Monitor	Type	Collector	Info
Blue	<input checked="" type="checkbox"/>	Port 135 on 172.16.7.82	Port	SiteScope-SSK3	
Green	<input checked="" type="checkbox"/>	JMX Heap space on SS server	JMX Monitor	SiteScope-SSK3	
Red	<input checked="" type="checkbox"/>	Oracle Database: jdbc:oracle:thin:@//...	Oracle	SiteScope-SSK3	
Yellow	<input checked="" type="checkbox"/>	URL Content: http://google.com	URL Content	SiteScope-SSK3	
Dark Blue	<input checked="" type="checkbox"/>	Unix Resources: 172.16.7.132 - ProdH...	Unix Resources	SiteScope-SSK3	

If info is not refreshed in 5 minutes SiteScope monitors will disappear from view. However the view settings are customizable so monitor frequencies.



Configuring the integration to use SSL communications

After setting Diagnostics COMMANDER server to expect secure connections one need to access the interface on port 8443:

SI	Color	Chart?	Monitor	Type	Collector	Info
<input type="checkbox"/>		<input checked="" type="checkbox"/>	URL: http://www.google.co.cr/firefox	URL Monitor	SiteScope-SSK3	
<input type="checkbox"/>		<input checked="" type="checkbox"/>	SNMP Trap: (H6)*/	SNMP Trap	SiteScope-SSK3	
<input type="checkbox"/>		<input checked="" type="checkbox"/>	JMX Heap space on SS server	JMX Monitor	SiteScope-SSK3	
<input type="checkbox"/>		<input checked="" type="checkbox"/>	Oracle Database: jdbc:oracle:thin:@172.16.7.2...	Oracle	SiteScope-SSK3	
<input type="checkbox"/>		<input checked="" type="checkbox"/>	URL Content: http://google.com	URL Content	SiteScope-SSK3	

Details

SNMP Trap: (H6)*/

Collector: SiteScope-SSK3

Default Name: SNMP Trap: (H6)*/

Monitored Target:

Type: SNMP Trap

Custom Attributes

Alias:

Category Name: SiteScope

SiteScope

lines (Avg): 0

linesIn (Avg): 0

matches (Avg): 0

matchesIn (Avg): 0

To get the integration to work securely as shown above follow next steps:

1. Import Diagnostics COMMANDER server's certificate into SiteScope using Preferences >> Certificate management:



Certificate Management

Import Certificates

Source Selection

Host 172.16.6.85 Port 8443 Load

File Select

Loaded Certificates

Alias	Issuer	Valid Until	Version
172.16.6.85	Hewlett-Packard	08/05/2022 12:02	3

Import Cancel Help

equifaxsecurebusinessca2 Equifax Secure 23/06/2019 06:14

2. Change the receiver URL accordingly on SiteScope integration preferences:

Edit Diagnostics Integration Preferences

General Settings

Name: Diagnostics 9.12

Description: Data integration to VPN Diagnostics server

Data Integration Preferences Settings

Receiver URL: <https://172.16.6.85:8443/metricdata/siteScopeData>

Encoding: UTF-8



Integration troubleshooting

A few basic troubleshooting steps:

- Test connection to Diagnostics receiver

http://<server>:2006/metricdata/siteScopeData

- As limitation the setup must be one SiteScope per Diagnostics COMMANDER server.
- Check UOM file mappings. Counters with “unknown” metrics unit won’t appear in Diagnostics views.
- Check filter/search tag on desired monitors and groups
- Activate DEBUG in <SiteScope root directory>\conf\core\Tools\log4j\PlainJava\log4j.properties file:

log4j.category.dataIntegration=\${loglevel}, data.integration.appender

log4j.additivity.dataIntegration=false

- Sniff in other end’s network using a third party tool such [WireShark](#)
- Or enable Diagnostics Sample dump:

etc/logging.properties file >> xml_data_parsing and xml_data