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

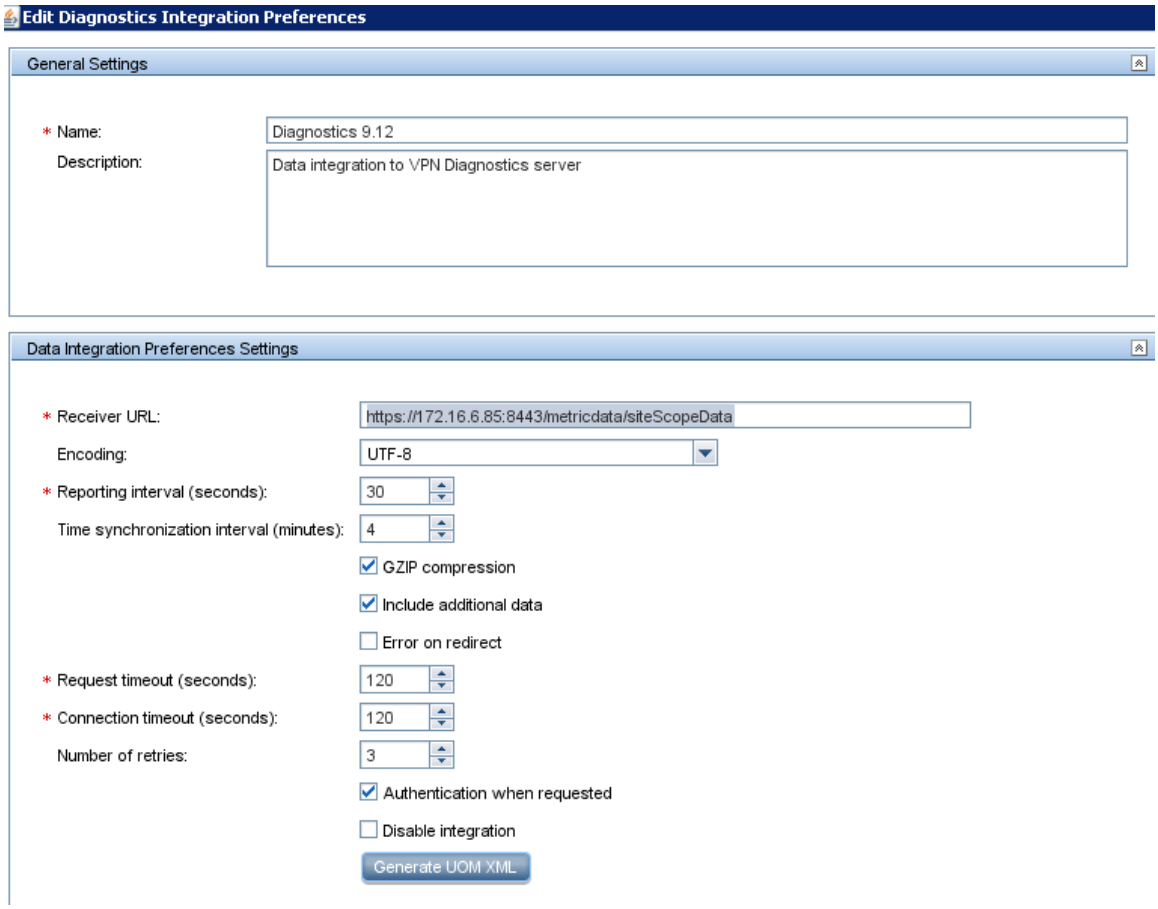
This new feature was introduced in SiteScope 10.x versions. Diagnostics 8.x, 9.x supports SiteScope 10.00 and higher.

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

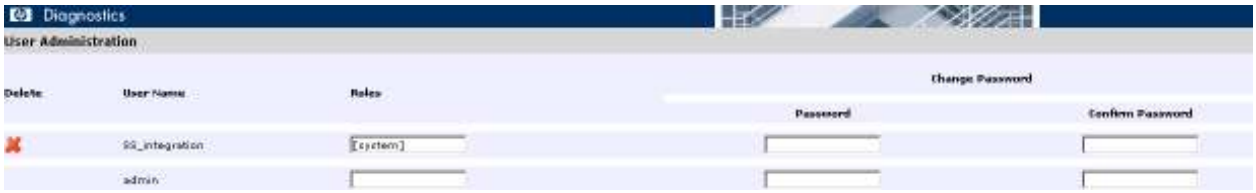
- Fill-in integration preferences section with standard receiver URL http://<server>:2006/metricdata/siteScopeData :



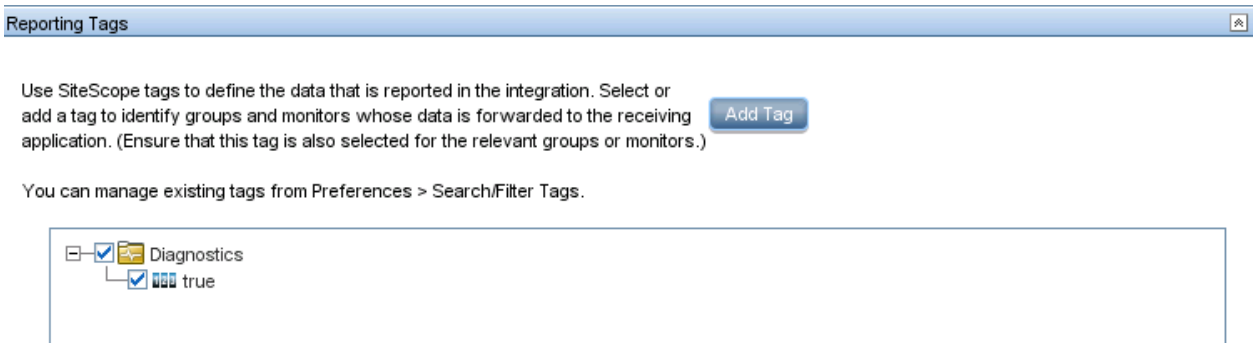
For performance improvements check the GZIP compression as per default Diagnostics can unzip the XML transmitted in this format. Also uncheck the additional data option to not include monitors and groups descriptions.

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

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



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



- 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>
```

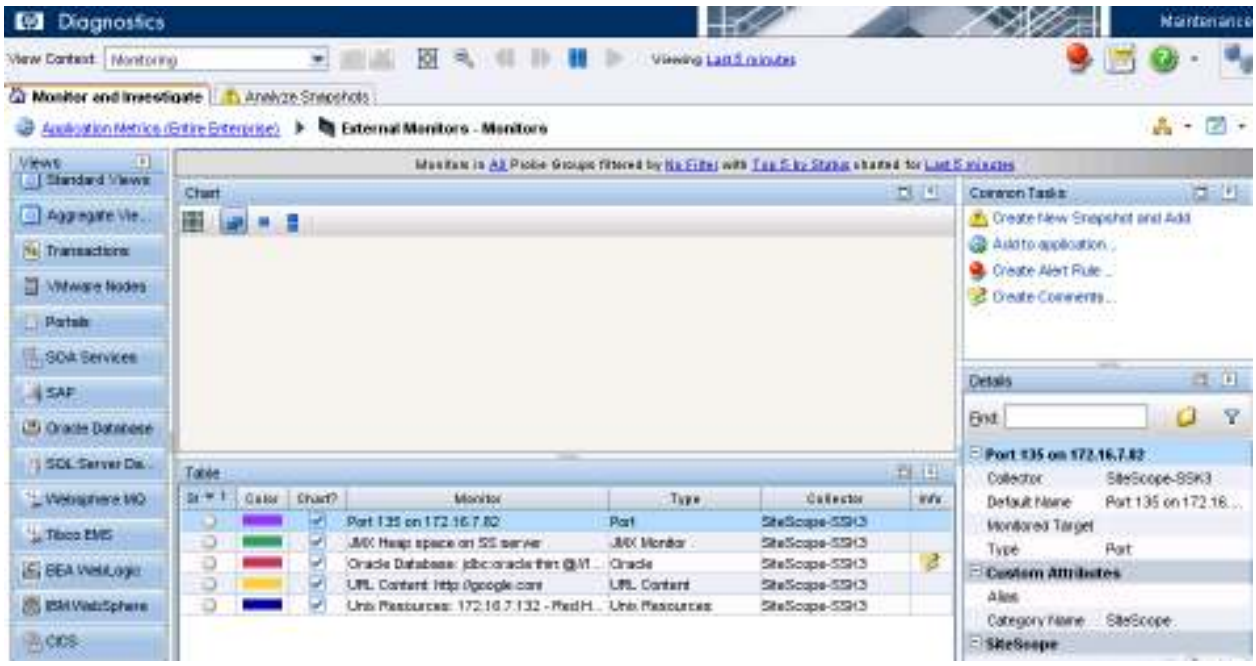
To understand the XML generated and sent by SiteScope refer to <SiteScope root directory>\sisdocs\pdfs\UsingSiteScope.pdf under section XML Tag Reference for Generic Data and Diagnostics Integrations.

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

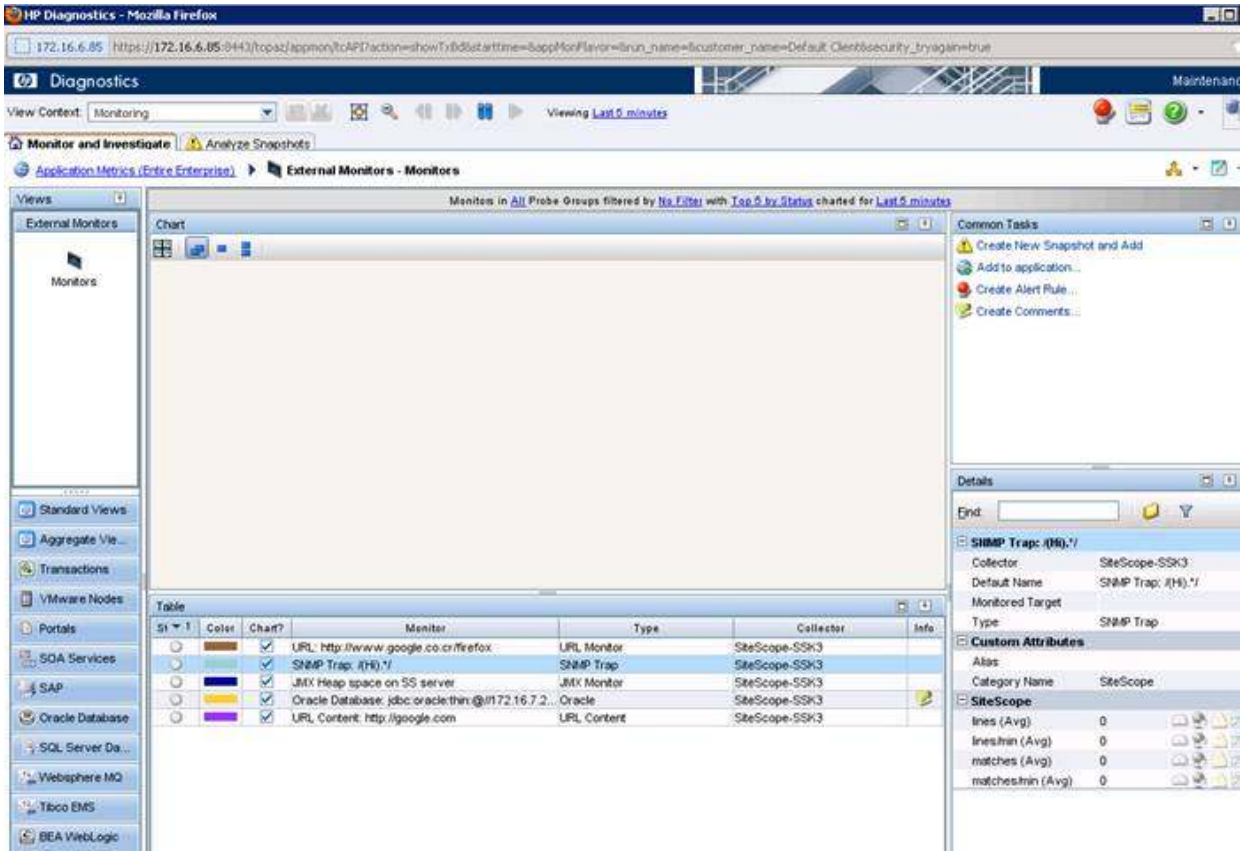
SiteScope monitors should be visible from "Diagnostics External Monitors view group (Entire Enterprise):



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

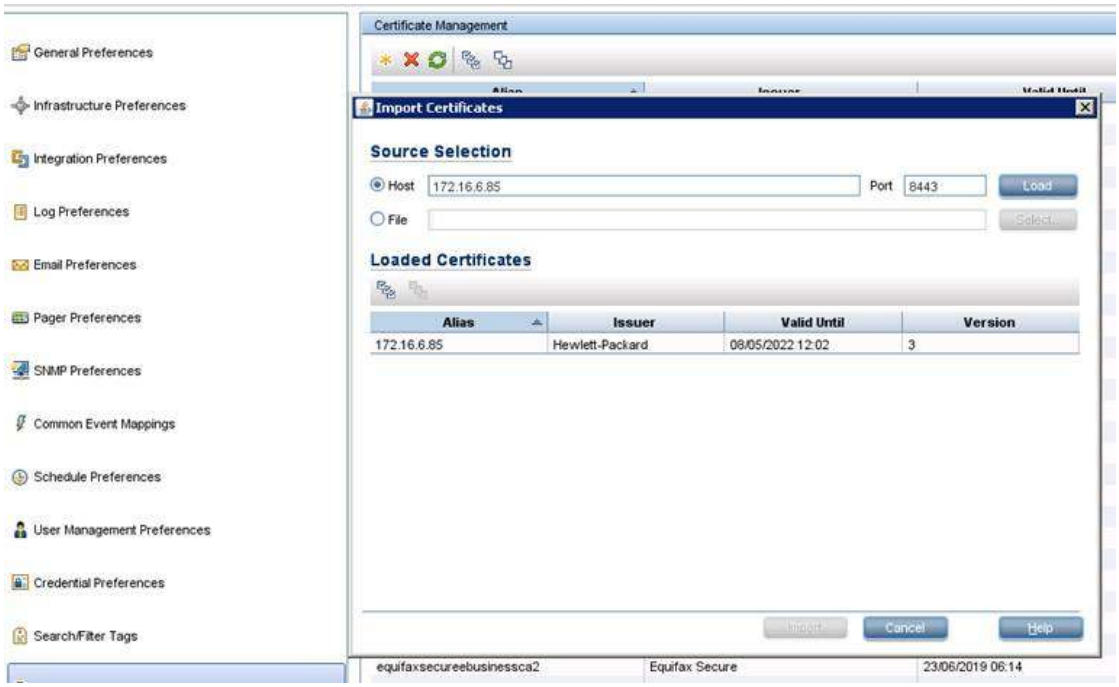
Configuring the integration to use SSL communications

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

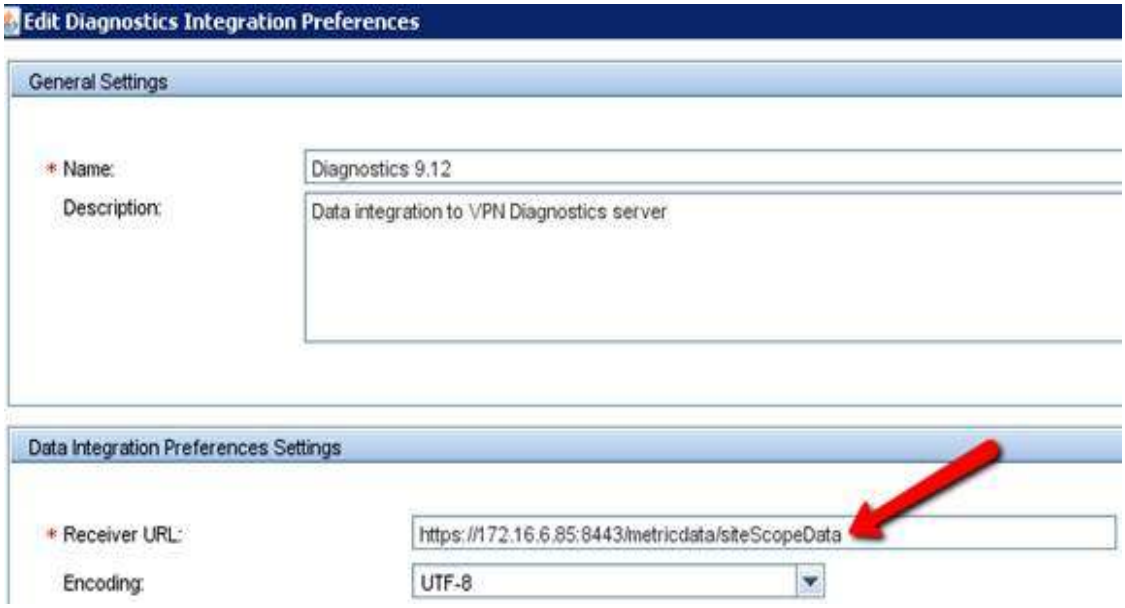


To get the integration to work securely as shown above follow next steps:

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



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



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***