

Foglight[®] for Oracle 6.0.0

Release Notes

Developed and tested for Foglight Management Server 6.0.0

June 2021

These release notes provide information about the Foglight[®] for Oracle 6.0.0 release.

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Welcome to Foglight for Oracle

Foglight[®] for Oracle allows database administrators (DBAs) to quickly and efficiently identify performance deviations, determine their root cause, perform comprehensive analyses, and resolve performance bottlenecks. This product provides web-enabled dashboards for centralized visibility, management and health checks for the Oracle instances deployed in your environment, as well as proactive alerting and alarm workflows for tracking your responses to critical performance anomalies.

Foglight for Oracle is an n-tier application, which leverages a web-based user interface to ensure having complete visibility into the Oracle infrastructure wherever an Internet connection is available.

This version of Foglight for Oracle is integrated with SQL Performance Investigator.

These Release Notes cover the resolved issues, known issues, workarounds and other important information about 6.0.0 release of Foglight for Oracle. Review all sections before starting installation.

New in this release

Version 6.0.0 contains the following new features and updates:

- Added support for Alarm Templates, which allow you to modify the threshold values for triggering alarms, and enable or disable certain alarms for a set of targets and apply these rules in bulk to targets in your environment.

See also:

- [Resolved issues and enhancements](#)

Resolved issues and enhancements

The following is a list of issues addressed and enhancements implemented in this release.

Table 1. Resolved issues

Issue ID	Resolved issue

Issues also resolved in version 5.9.7.10 and 5.9.7.20

Table 2. Issues resolved in version 5.9.7.10

Issue ID	Resolved issue
FOM-298	Fixed the performance issue caused by PI collections query to view the Oracle SQL Plan.
FOM-423	Fixed an issue where the query statement of collecting oracle segment statistics might cause the CPU workload on the monitored DB Server go up to 100%.
FOM-744	Fixed an issue when the customers have hundreds of agents, the table records grow very fast. And ' <i>registry_registry_value</i> ' and ' <i>registry_registry_variable</i> ' take more than 1TB.
FOM-893	Fixed an issue when users access <i>Manage SQL PI Repository</i> from Global View Databases dashboard, the FMS console might hang.
FOM-983	Fixed an issue where enabling PI and testing connection will fail if Oracle single instance agent uses a service name as the connection type while SID connection is not available for the monitored instance.
FOM-1019	Fixed an issue where the DB agent log might print password information as Pa\$\$word, even if the value has been encrypted.

Table 2. Issues resolved in version 5.9.7.10

Issue ID	Resolved issue
FOM-1052	Fixed an issue where on-demand data connections might fail unless more TCP ports are opened.
FOM-1169	Fixed an issue after RAC one node failover occurs, the Host Agent is mistakenly unregistered.
FOM-73	Fixed an issue where customer might not be able to get CRS resource data in script console and fire alarm <i>CRS - Resource Offline</i> .
FOM-84	Fixed an issue where negative <i>USABLE_File_MB</i> might cause the tablespace usage larger than 100%.
FOM-165	Fixed an issue where monitoring CRS 19c installed on Unix/Linux might fail when the alert.log cannot be found.
FOM-231	Fixed an issue where it might fail to create SQL PI database when the initialize size is smaller than that of the Model database.
FOM-245	Fixed an issue after migrating the PI from Infobright to SQL Server-based repository the PI engine might be paused.
FOM-305	Fixed an issue while scheduling a <i>Performance Dimension Table</i> Report generated from a SQL PI Dashboard might fail to keep column selection.
FOM-358	Fixed an issue after clicking 'Stop monitoring' DB_Oracle_RAC_Instance agents might still be running.
FOM-537	Fixed an issue after clicking inactive session wrong dialog might pop up.

Known issues

The following is a list of issues known to exist at the time of release.

Cartridge-related issues

Table 3. Cartridge-related issues

Issue ID	Known issue
FAIO-217	PI engine didn't use new credential changed in Connection Details dashboard. Workaround: Reactive the agent after changing the credential.
FOM-76	RAC agents do not collect data after changed credential from <i>sysdba</i> to <i>nosysdba</i> . Workaround: Refer to the KB: https://support.quest.com/foglight-for-databases/kb/317055/rac-agents-do-not-collect-data-after-changed-credential-from-using-sysdba-to-nosysdba .
FOM-81	Cannot monitor <i>Extdata</i> due to commands located in folder <i>/usr/sbin</i> . Workaround: Check "Use Sudo" when monitoring <i>Exadata</i> .

Table 3. Cartridge-related issues

Issue ID	Known issue
FOM-769	<p>Cannot receive email of <i>DBO - Invalid Materialized Views</i> alarm when the agent is RAC one node instance.</p> <p>Workaround:</p> <ol style="list-style-type: none"> 1 Select the RAC one node instance(s) in Global view. 2 Go to the <i>Configure Alarms</i> dashboard. 3 Select <i>All Alarms</i> or a specific alarm. 4 Click <i>Set configuration on selected agents</i>. 5 Select the RAC agent(s). 6 Click Apply to apply the setting to selected RAC agent.
FOGDG-858	DB instance is still synchronized and displayed in FMS federation master even when it is stopped for some reason and not displayed in the FMS federation child.
ODB-2829	When running user-defined collections on dynamic tables, deleted items are still kept in the topology. As a result, the number of rows displayed on the user-defined collections table will exceed the configured value for maximum allowed rows.
ODB-2984	In the Global Administration > User-defined Collections screen, it is possible to create two collections that bear the same name with a different capitalization (for example: MyCollection and Mycollection); however, only one collection will appear in the topology, and be displayed on the User-defined Collections panel.
ODB-3029	Creation of user-defined collections for a RAC database should be executed by selecting the RAC agent itself and not the RAC and its nodes.
ODB-4002	Using the administration module to configure the sessions screen parameters for a single node in a RAC environment will result in all the RAC nodes being configured with the same parameter.
ODB-4417	User-defined collections that return a variant number of columns (such as <code>select * from ...</code>) will only retrieve the columns that existed during its creation. Any additional columns added at a later time will be ignored.
ODB-6784	Version 5.6.4 and above of the product uses only SSH to connect to Unix hosts. Customers upgrading from previous versions of the product that were using telnet will now be converted to use SSH.
ODB-6939	Customers that are monitoring instances using nslookup/IP and are upgrading to the new version of the product should create the infrastructure cartridge agents themselves manually.
ODB-7064	“Challenge response” credentials do not appear in the advanced lockbox pop up.
ODB-7171	<p>The following metrics display NA when monitoring a RAC one node:</p> <ul style="list-style-type: none"> • Paging • Page in • Page out
ODB-7208, ODB-7169	The current implementation does not support collecting listener data from remote Windows hosts using Windows local execution (the user that is currently running the agent manager).
ODB-7427	The Listener graphs under the Usability dashboard are not populated with data when monitoring RAC One Node.
ODB-7446	<p>The following alarms are displayed in the RAC level instead of the instance level:</p> <ul style="list-style-type: none"> • Usability Availability Single • Collection status
ODB-7452	Setting the connection details of a RAC One Node and failing the validation, will result in failure to save the changes.
ODB-7454	The invalid objects exclude list is not supported for RAC and RAC One Node.
ODB-7457	When converting RAC One Node to RAC the OS cluster failover alarm is triggered.

Table 3. Cartridge-related issues

Issue ID	Known issue
ODB-7463	Upgrading an instance that has a legacy OS cartridge installed on its host will result in creation of the database agent without the creation of the infrastructure agent. Workaround: Create the infrastructure agent manually.
ODB-8272, ODB-8128	Foglight for Oracle supports monitoring OS clusters residing on VMware machines only in the configuration of one OS cluster node per data center; monitoring is not possible if two or more cluster nodes are located on different data center, to provide disaster recovery.
ODB-8298	Upgrading an ASM agent that was created manually will result in a malfunctioning ASM agent that requires reconfiguration, unless the following fields in the agent settings are cloned: ASM Instances, Host Details, Environment Variables, Collection Details, and Exclude Diskgroups.
ODB-8697	The Exclude Tablespace feature allows inserting tablespaces only by using the Java regular expression syntax, rather than wildcards.
ODB-9129, ODB-9337	When selecting the RSA key connection type in the Exadata, ASM, and CRS installers, after loading the id_rsa file, the dialog box Add Cells is automatically refreshed, thereby resetting all other fields in the dialog box (Host name, User, Passphrase, Port, and sudo) leaving them empty.
ODB-9143	Exadata, ASM, and CRS agents are marked in the upgrade process as 'other agents', even though they are Oracle agents and should be marked as such.
ODB-9215	The Global Administration does not support the CRS, Exadata and ASM agents. As a result, any modification of the settings of the collection frequencies, retention policies, alarms and email notifications for these agents can be carried out only using the default Foglight tools.
ODB-9290	The CRS installation wizard does not support using the connection type Local user, when the monitored host runs on UNIX. Workaround: Use command line installation (CLI) through the Silent Installer tool, which supports this configuration.
ODB-9291	Using a virtual name when creating a CRS agent is not supported by either the CRS installation wizard or the Silent Installer tool (command line installation); both tools only support using a physical name or an IP address.
ODB-9738	In an environment that includes a Foglight Agent Manager concentrator, when upgrading the environment where the concentrator does not contain any regular agents, the concentrator is not upgraded. Therefore, after the upgrade process takes place the Foglight Agent Manager concentrator has to be deployed manually.
ODB-9739	When editing the properties of the Foglight Agent Manager concentrator (<i>Dashboards > Administration > Agents > Agent Status</i>), the name of the Foglight Agent Managers should be entered in the Downstream FglAMs section exactly as they appear in the topology, under <i>Home > Agents > All agents > <Agent name> > RMI data > FglAM host property</i> .
ODB-9950	Oracle monitoring installer does not support validation for the required sudo commands. Therefore, the sudo user should be prepared before using it. For details, see <i>Foglight for Oracle User Guide</i> .
ODB-10015	The following secondary parameters are not cloned when creating an agent using the Oracle Monitoring Installer: <ul style="list-style-type: none"> • Collection Details and Environment Variables parameters in Exadata agent • Exclude Diskgroups parameter in ASM agent Unless these parameters are cloned and modified by the user, the upgrade process will override them with the default values.
ODB-10060	When a UNIX-based Foglight Agent Manager, which is selected for monitoring a Windows-based Oracle or ASM cluster, is using virtual IP to connect to the Oracle or ASM instance, the OS connection validation fails. Workaround: Use the virtual IP /physical IP/physical host name.

Table 3. Cartridge-related issues

Issue ID	Known issue
ODB-10154	In order to allow the agent to connect to the remote Windows Management Instrumentation (WMI) components on Windows Server 2008 R2 or Windows 7 systems, special registry settings are required. For details, see section Configuring Registry Settings for Windows Server 2008 R2 and Windows 7 in <i>Agent Manager Guide</i> .
ODB-10907	The following dashboards and views may be less responsive than others due to their complexity: <ul style="list-style-type: none"> Storage > Tablespaces and Datafiles > Tablespace details > Free Space Fragmentation Storage > Tablespaces and Datafiles > Datafile I/O Details > Fragmentation Activity > Locks > Locks Tree (Current) tab & Locks Historical Tree tab
ODB-10918	Support for Oracle 12c has the following restrictions: <ul style="list-style-type: none"> Oracle 12c Flex ASM is not supported. On the database agents' Administration > Oracle > Collection Settings screen, the <i>Tablespace Settings</i> tab is disabled. Tablespace Storage collection settings cannot be edited for Oracle 12c.
ODB-11467	In environments configured to use Agent Manager in High Availability mode the chosen Agent Manager hosting the SQL PI repository will host watchdog and maintenance agents that cannot participate in the Agent Manager high availability utility.
ODB-12520	The following homepages were removed from the custom dashboards: Interconnect/GCS, Cluster Overview, Sessions, Instance identification and usability and Workload.
ORAFOG-197	The <i>offloadEfficiency</i> metric has been changed to be internal and inaccessible as of Exadata software version 12.1.2.3.0, which causes the Exadata dashboard shows 'n/a' in ID, Name, and Status columns.
ORAFOG-267	The Databases Global View dashboard shows negative and over 100% values for OS CPU metrics.
ORAFOG-308	History data is missing if user upgrades the Foglight for Oracle cartridge 5.7.5.37 using the SPM installer.
ORAFOG-313	The <i>Activity > Storage</i> dashboard stopped responding after clicking any chart in the Tablespaces view in FMS 5.7.1. Workaround: Upgrade the Management Server to version 5.7.5 or later.
ORAFOG-315	Some error messages showed in the Management Server log, after disabling or enabling Alert log Groups.
ORAFOG-323	The error " <i>No views match input type of DBO_Drill_RealTime_InitializationParameters_Instance</i> " shows on the <i>Databases > Overview > Configuration</i> dashboard. Workaround: This error only occurs on the Foglight Management Server 5.7.0. Upgrade your Management Server to a higher version.
ORAFOG-324	The error " <i>For the value "Parameters", no view is set</i> " shows on the <i>Databases > ASM</i> dashboard. Workaround: This error only occurs on the Foglight Management Server 5.7.0. Upgrade your Management Server to a higher version.
ORAFOG-342	The <i>'ibprintca.pl -l'</i> command has been deprecated, which causes the infiniband switch operation fails.
ORAFOG-564	After switchover occurs in the Data Guard environment it takes one hour to see data in the Primary Redo Generation Rate/Standby Apply Rate/Transport Rate charts in the Performance dashboard when database is monitored with SYSDBA credentials.
ORAFOG-639	The Oracle agent fails to collect some OS related metrics after disabling and re-enabling the Foglight for Oracle cartridge. Workaround: On the <i>Agent Status</i> dashboard, deactivate and re-activate the agent, and then wait for five minutes.

Table 3. Cartridge-related issues

Issue ID	Known issue
ORAFOG-643	The <i>destination_name</i> property in the Data Guard dashboard is missing after disabling and re-enabling the Foglight for Oracle cartridge.
ORAFOG-660	Metrics of the monitored Host display n/a when an inactive host object binds to <i>OracleInstance.participatingHosts</i> .
ORAFOG-668	In <i>Monitor Oracle Instance</i> dialog box, Agent Manager Host cannot be retrieved when the default FglAM is null and FglAM list contains the Agent Manager which version is lower than system required version.
ORAFOG-676	The Oracle upsince duration is miscalculated when FMS/FglAM and Oracle DB locate in different timezone.
ORAFOG-714	Foglight for Oracle fails to validate the connection and grant privileges to data guard agents during the upgrade. Workaround: Skip the validation in upgrade page and go to the <i>Administration > Connection Details</i> dashboard. Change the user role from “Normal” to “SYSDBA”, verify the connection and grant the privileges, and then save your changes.
ORAFOG-721	Unable to create agents to monitor RAC via Installer Wizard when RAC nodes only support connection with service name. Workaround: Create an agent manually in the Agent Status dashboard, and then change its “monForceSid” in ASP to false.
ORAFOG-734	If there are two credentials with the same account name existing in the Foglight Management Server, picking one credential in “Set Credential” and “Test connection” might cause the other credential to be updated as well.
ORAFOG-753	If you select either of <i>DB_Oracle</i> , <i>DB_Oracle_UI</i> , <i>DB_Global_View_UI</i> , <i>SPIRepository*</i> cartridges then click Reset on the Cartridge Inventory dashboard, the upgrade wizard will prompt again. Workaround: Do the following: <ol style="list-style-type: none"> 1 Navigate to the <i>Administration > Rules & Notifications > Manage Registry Variables</i> dashboard. 2 Search for “<i>DBO_Is_Fglams_Required_Upgrade_registry</i>”. 3 Change its value to “-1”.
ORAFOG-815	It fails to set up an agent to connect Oracle Dataguard 10g. NOTE: Currently we only support Oracle Dataguard 11g and above.
ORAFOG-919	Change “Connect as” in “Database Agent Migration” dashboard is not supported.
n/a	Partial support of Logical Standby databases.
n/a	When Foglight or the Agent Manager are installed on a VM, it is highly recommended to reserve the following: <ul style="list-style-type: none"> • CPU - for a virtual machine the CPU reservation is highly recommended for better performance. The reservation is expressed in MHz. • RAM- for a virtual machine the memory reservation is highly recommended for better performance.
FOG-1758	When applying an alarm template to an agent, the Inconsistent Values indication may appear. This indication can be ignored.
FOG-1862	After upgrading your FMS and Foglight for Oracle cartridge to version 6.0.0, the global search results will not include Oracle DataGuard objects. Workaround: Refer to KB 332068 for a script that can be run to create the required topology object.

SQL PI Repository

Table 4. SQL PI Repository related known issues

Issue ID	Known issue															
FOM-800	When there are many DB agents with PI enabled in FMS environment and you want to upgrade the cartridge to the latest version, the SQL PI component update might fail. Workaround: Click Cancel on <i>Update SQL PI Failed</i> and click Update SQL PI Components to update again.															
ODB-13128	PI agents that use the PI repository on Linux® stop working when upgrading the Foglight for Oracle cartridge. It is recommended to recreate these agents on a Windows®-based PI repository.															
PIFOG-405	When a blocking condition is detected in Oracle monitoring, the SQL text is missing for the blocking session. This is seen in both <i>SQL PI > Blocking History</i> tab and <i>Activity > Locks</i> dashboard.															
PIFOG-431	After DB agent restart, there will be a 5 minutes data gap in the SQL PI baseline view.															
PIFOG-666	Incomprehensible error message is displayed when using local account without hostname prefix to setup PI Repository. Workaround: Use hostname\username to setup PI Repository instead of only using username.															
PIFOG-701	Enabling SQL PI is only supported when the SQL PI agent manager is installed on one of the following operating systems: <table border="1" data-bbox="405 1025 1391 1265"> <thead> <tr> <th>Operating System</th> <th>Version</th> <th>OS Architecture</th> </tr> </thead> <tbody> <tr> <td>CentOS™ Linux®</td> <td>6.x, 7.x</td> <td>x86-64</td> </tr> <tr> <td>Red Hat® Enterprise Linux</td> <td>6.x, 7.x</td> <td>x86-64</td> </tr> <tr> <td>SUSE Linux</td> <td>11,12,13,14</td> <td>x86-64</td> </tr> <tr> <td>Microsoft® Windows®</td> <td>Windows Server 2003, 2008, 2012, and 2016</td> <td>x86-64</td> </tr> </tbody> </table>	Operating System	Version	OS Architecture	CentOS™ Linux®	6.x, 7.x	x86-64	Red Hat® Enterprise Linux	6.x, 7.x	x86-64	SUSE Linux	11,12,13,14	x86-64	Microsoft® Windows®	Windows Server 2003, 2008, 2012, and 2016	x86-64
Operating System	Version	OS Architecture														
CentOS™ Linux®	6.x, 7.x	x86-64														
Red Hat® Enterprise Linux	6.x, 7.x	x86-64														
SUSE Linux	11,12,13,14	x86-64														
Microsoft® Windows®	Windows Server 2003, 2008, 2012, and 2016	x86-64														
PIFOG-723	“Context infos” display null in the Comparison Parameter dashboard.															
n/a	When SQL PI for Oracle is monitored side by side with SQL PI for SQL Server, you must upgrade both Foglight for SQL Server and Foglight for Oracle cartridges to the same version.															
n/a	In case SQL PI for Oracle is monitored side by side with SQL PI for SQL Server, you must upgrade both Foglight for SQL Server and Foglight for Oracle cartridges to the same version.															
n/a	Antivirus exclusions is required for the SQL Server-based SQL PI repository. For more information refer to the Microsoft’s official article https://support.microsoft.com/en-us/help/309422/choosing-antivirus-software-for-computers-that-run-sql-server .															
FOG-518	When monitoring several database installations on one physical server, the physical hostname may be used in Database dashboards instead of the databases virtual hostname. Workaround: Follow the procedure described in KB article 233194 .															

Foglight-related issues

Table 5. Foglight-related known issues

Issue ID	Known issue
CR-2153	Problem: A Validate Win connection failure occurs. If the Win32_PerfRawData_PerfOS_Processor class is invalid, any queries from it will fail. This is used in the OS connections validation.
CR-2987	Problem: When the FMS (Foglight Management Server) and FglAM (Foglight Agent Manager) are installed on different time zones, the timestamps in the topology are not accurate. The difference from the real timestamp is: <ul style="list-style-type: none"> • + time difference between FglAM and FMS or • - time difference between FglAM and FMS
ODB-9393	A Foglight Agent Manager (FglAM) residing on a Linux/UNIX machine cannot use Windows Remote Management (WinRM) to establish connection with Windows server. Connection using WinRM can only be carried out by an Agent Manager residing on a Windows machine.
ODB-9536	If a CRS, Exadata, or ASM agent is created, deleted, and then recreated with the same name, the nodes from the previous installation will be added to the newly created node. Workaround: Use the relevant tab in the Databases dashboard (ASM, CRS, or Exadata) to delete the nodes.
ORAFOG-230	The ' <i>Agent configuration failed</i> ' error prompts by chance when trying to monitor an Oracle instance. Workaround: <ol style="list-style-type: none"> 1 Go to the Agent Status dashboard, then delete the reference agents manually. 2 Redo the configuration to monitor the Oracle instance. 3 If the above workaround does not resolve this issue, restart the Foglight Management Server.
SSDB-881	Enabling and disabling an older version of Foglight for Oracle while a newer version is installed may adversely affect the performance of the newer cartridge. Workaround: Disable the newer cartridge and enable it again, thereby overriding the settings of the older cartridge.
GVFOG-207	An error log showed in FMS log for loading heatmap component in FMS version before 5.9.3.
n/a	Agent names must be unique. Foglight does not support the same agent name to be applied to more than one agent.
n/a	The Windows System Center Endpoint Protection (SCEP) tool and Anti-Virus Protection tools installed on Windows® may negatively impact CPU and system performance of machines running Foglight, Foglight Agent Manager, and the SQL PI repository. To reduce resource consumption, it is highly recommended that you exclude the following directory from being scanned by the protection tools: <pre><installation directory>:\Quest\FoglightAgentManager</pre>
n/a	Anti-virus software may negatively impact the CPU and system performance of machines running Foglight. To reduce resource consumption, it is highly recommended to exclude the relevant directory, processes, and executables from being scanned by the anti-virus software. For detailed information, refer to the "Configuring anti-virus exclusion settings" in Installing Foglight on Windows with an Embedded PostgreSQL Database .
n/a	When upgrading Foglight, if the FMS is upgraded to version 6.0.0 and the database cartridge is not, the dashboard will display "There is no data to display". Workaround: When upgrading Foglight to 6.0.0, first upgrade the FMS to 6.0.0, then directly upgrade the cartridges.

Third party known issues

The following is a list of third party issues known to exist at the time of this release.

Table 6. Third-party known issues

Issue ID	Known issue
FGL-20596	<p>Cannot import license into installer with license file name XXX.lic.</p> <p>Workaround:</p> <ol style="list-style-type: none">1 When importing license into installer, change license file name to XXX.license.2 Install xxx.lic after login FMS.3 Change license file name to XXX.license and put it into license folder before FMS start up.
FOGDG-650	<p>The Foglight Agent Manager (FglAM) failed to restart when upgrading DB Cartridge, which is due to "Could not obtain a deployment lock" error.</p> <p>Workaround: Perform the procedure described in the Knowledge Article 266110.</p>
FOG-667	<p>When trying to create an Oracle DB agent using FglAM deployed on an Ubuntu server, the connection will fail with the error "timezone region not found".</p> <p>Workaround: Restart FglAM with the command below</p> <pre>fglam.exe -Doracle.jdbc.timezoneAsRegion=false</pre>
FAM-7722	<p>In FIPS-compliant mode, it is required to use at least 2048 RSA and DSA key size to do OS monitoring via SSH connection in DB cartridge.</p> <p>When FglAM version is lower than 5.9.7.1, FglAM will not check RSA/DSA key size < 2048, and the connection is non-FIPS compliant.</p> <p>Workaround: Upgrade the FglAM version to 5.9.7.1 or later.</p>
n/a	<p>Oracle Bug 18195919: When monitoring Oracle 12C the <i>Activity > Datafiles I/O Activity</i> dashboard does not show tablespaces of type TEMP.</p>

Table 6. Third-party known issues

Issue ID	Known issue
n/a	<p>WMI-related issue</p> <p>Problem: WMI support is affected by the firewall.</p> <p>Workaround: For Windows versions prior to Windows 2008/Vista, use the following steps:</p> <ol style="list-style-type: none"> 1 Open TCP port: 135. WMI by default uses the port range 1024 to 5000. 2 Open up a range of ports above port 5000. Port numbers below 5000 may already be in use by other applications and could cause conflicts with your DCOM applications. It is recommended to have at least 100 ports opened, as several system services rely on these RPC ports to communicate with each other. 3 Add the registry key, including additional ports. <ul style="list-style-type: none"> ▪ Use the <code>RPCCFG.exe</code> (Windows Resource Kits) by running: <code>rpccfg.exe -pe 5009-5009 -d 0</code> ▪ Manually add the registry keys under: <pre style="margin-left: 20px;">HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Rpc\Internet</pre> <p>For Windows Vista and Windows Server 2008: According to Microsoft (http://support.microsoft.com/kb/929851), the default dynamic port range for TCP/IP has changed in these versions. The new default start port is 49152 and end port is 65535. Subsequently, monitoring instances that run under these operation systems can be carried out by using either of the following options:</p> <ul style="list-style-type: none"> • Configure the firewalls to allow traffic between servers in the dynamic port range of 49152 through 65535 (less secure). • Limit the port range that is used in each monitored server.
n/a	<p>Monitoring an Oracle instance that resides on a Windows 2008R2 or higher requires a workaround as follows:</p> <ul style="list-style-type: none"> - Browse to https://support.quest.com/ and log in - Perform solution SOL65870
n/a	<p>Some base values are not updated when using the <code>Win32_PerfRawData_PerfDisk_LogicalDisk</code> WMI class to calculate performance data in Windows Vista or in Windows Server 2008, because this class does not contain the <code>PercentDiskTime_Base</code> metric.</p> <p>Workaround: A hotfix is available on Microsoft site, https://support.microsoft.com/kb/961435/en-us.</p>
n/a	<p>Oracle Bug 19509076: V\$SEGSTAT table performance issues with Oracle version 12.1.0.x.x.</p>
n/a	<p>MES patch should be applied to support TLS 1.1 and TLS 1.2 protocols in Oracle Database 11.2.0.4.</p> <p>Workaround: Apply the MES patch# for 11.2.0.4 Database. The patch can be found in MOS Note 2274242.1. Source: https://www.oracle.com/webfolder/community/oracle_database/3923204.html.</p>

Upgrade and Compatibility

A direct upgrade to Foglight for Oracle 6.0.0 is only available from version 5.7.5.x or later. Customers that are running 5.7.x of the product must first upgrade to version 5.7.5.x and then upgrade to version 6.0.0. A direct upgrade to Foglight for Oracle 5.7.x is only available from version 5.5.8 or later. Customers that are running earlier versions of the product must first upgrade to version 5.5.8 and then upgrade to version 5.7.x.

For example, if your Foglight for Oracle is version 5.5.8 and you are going to upgrade to version 6.0.0, the upgrade path will be 5.5.8 > 5.7.x > 5.7.5.x (or later) > 6.0.0.

Foglight for Oracle 6.0.0 requires:

- Management Server version 6.0.0
- Agent Manager version 6.0.0

To upgrade Foglight for Oracle to version 6.0.0:

Use the installer file to upgrade both the Foglight Management Server and the Foglight for Oracle cartridge to version 6.0.0.

OR

- 1 Upgrade the Management Server to version 6.0.0 or higher.
- 2 Install version 6.0.0 of the cartridge as you would install a new Foglight for Oracle cartridge. Do not delete the older version of the .car file. Install version 6.0.0 over the older version.

i | NOTE:

- It is recommended that you ensure the privilege levels of the users that are used to monitor the Oracle® instances after each upgrade. This can easily be done in the following location: *Databases > Administration > Connection Details > Test Connection*. For cartridge installation instructions, see the *Foglight for Databases Deployment Guide*.
- Foglight for Oracle does not support the upgrade method of placing the new version in the folder `<foglight_home>/upgrade/cartridge/`.
- Starting from version 5.9.5.20, Infobright is no longer supported. It is necessary to move existing agents to the SQL Server-based PI repository. We have provided a data migration utility for customers who want to keep their historical performance data. For more information, refer to [How to migrate database agents to a SQL Server-based PI repository](#).

- i | IMPORTANT:** If you are upgrading to the current version of Foglight for Oracle in a Federation architecture, the upgrade should be applied first to the Federated Children and then to the Federation Master. If the Federation Master is upgraded first, it will display incorrect information regarding the number of instances being monitored in the Status Summary section.

The following Foglight product versions and platforms are compatible with this release.

Product Name	Product Version	Platform
Foglight Management Server	6.0.0	All platforms supported by this version of the Foglight Management Server
Foglight Agent Manager	6.0.0	All platforms supported by this version of the Foglight Agent Manager

Note: The monitoring agents available in this version of Foglight for Oracle do not support PI monitoring with the Agent Manager HA failover mode. For more information about this mode, see the *Agent Manager Guide*.

System requirements

Before installing or upgrading Foglight for Oracle 6.0.0, ensure that your system meets the following minimum hardware and software requirements.

Hardware and software requirements

Before installing Foglight for Oracle, ensure that your system meets the hardware and software requirements detailed in *Foglight System Requirements and Platform Support Guide*.

Customers running large deployments (that is, with more than 20 agents) should consult the *Foglight for Databases Deployment Guide*.

UNIX server and programs

The following UNIX programs must be accessible to the user logged on to the UNIX and Linux computers:

- On all platforms: *df, du, awk, iostat, vmstat, uptime, netstat, sed, ps, uname, ls -l*

In addition, the following platform-specific programs must be available:

- On the Linux platform: */proc/vmstat, /proc/net/dev, free, /proc/cpuinfo, getconf*
- On the Solaris platform: */usr/sbin/prtconf, mpstat, pagesize, psrinfo*
- On the AIX platform: *lsattr, lsdev, pagesize, bindprocessor, lsdev, oslevel*
- On the HP-UX specific platform: *bdf* (instead of *df*), *sar, /var/adm/syslog/syslog.log, /usr/sbin/ioscan, getconf, /swapinfo, InfoLog* (needs to be enabled)

Programs that should be configured to be run using sudo

The sudo utility allows system administrators to grant specific users (or groups of users) the ability to run certain commands that require administrative privileges as root, without having to log in as administrator.

The programs that can be run using sudo in the various Linux and UNIX operating systems are as follows:

- On all platforms, when monitoring the Clusterware using the CRS agent:
 - For running the Clusterware monitoring wizard: *test, uname, ps, awk, {CRS_HOME}/bin/olsnodes*
 - For monitoring the Clusterware: *{CRS_HOME}/bin/crs_stat* (for versions 10gR1, 10gR2, 11gR1), */\${CRS_HOME}/bin/crsctl* (for versions 11gR2 and above), *tail*
- On all platforms: *df, du, awk, iostat, vmstat, uptime, netstat, sed, ps, uname, grep, ls -l*

In addition, the following platform-specific programs must be available:

- On the Linux platform: */proc/vmstat, /proc/net/dev, free, /proc/cpuinfo, getconf*
- On the Solaris platform: */usr/sbin/prtconf, mpstat, pagesize, psrinfo*
- On the AIX platform: *lsattr, lsdev, pagesize, lsdev, bindprocessor, oslevel*
- On the HP-UX specific platform: *bdf* (instead of *df*), *sar, /var/adm/syslog/syslog.log, /usr/sbin/ioscan, getconf, /swapinfo, InfoLog* (needs to be enabled)

UNIX user permissions and installation settings

- On AIX, the user must be a member of the administrator group to be able to run the `sar` command.
- On Linux, the `sysstat` package must be installed to enable the user to get detailed disk I/O information.
- On Linux the `/proc` filesystem must be present.
- For connection using SSH, the `sshd` daemon must be installed and running.
- For connection using telnet, a `telnet` daemon must be installed and running.
- The UNIX user should have no special processing on log-on. In particular there must be no input required from the user, and nor should any special login banners be displayed.

Required privileges

For information on the required privileges, refer to the *Foglight for Databases Deployment Guide*.

Direct NFS client

This version of Foglight for Oracle supports usage of direct NFS client.

Monitoring an Instance that is Part of a Data Guard Environment

To monitor a data guard environment with a physical standby (Redo Apply):

- 1 Make sure that the Standby Database is in receiving mode.
- 2 Use SQLPLUS to connect to the Primary Database as SYS user.
- 3 Create the standby Foglight schema owner.
- 4 From the Primary Database, run the grant privileges script on the standby user created in [Step 3](#) to stay in that mode after the check.
- 5 Open a web browser and run the Oracle Monitoring Installer wizard.
- 6 Select **Add a New Instance**.
- 7 Specify the Standby Database credentials and connection details (the user that was created in [Step 3](#)).
- 8 Click Verify Connectivity.
- 9 If the Standby Database is mounted, click on validate standby button.
- 10 After the verify process is complete, the next step is to monitor the physical Standby Database.

To monitor a data guard environment with logical standby (SQL Apply):

- 1 Use SQLPLUS to connect to the logical standby as SYS user.
- 2 Create the standby Foglight schema owner.
- 3 Open a web browser and run the Oracle Monitoring Installer wizard.
- 4 Continue the discovery process as usual, using the logical standby user credentials and connection details.

- 5 Click Verify Connectivity.
- 6 Once the connectivity verification is completed, the next step is to monitor the logical standby database.

Supported platforms

Foglight for Oracle supports monitoring the following platforms:

- Supported Oracle® Database Versions:
 - 10g
 - 11g
 - 12c
 - 18c
 - 19c
- Supported Oracle Editions (all):
 - Enterprise Edition
 - Standard Edition
 - Standard Edition One
 - Standard Edition 2
 - Express Edition
 - Personal Edition
- Supported Operating Systems:
 - All Operating systems supported by Oracle.

i NOTE:

- Foglight for Oracle supports monitoring the Amazon Relational Database Service (Amazon RDS™).
- SQL PI extension supports Oracle versions 11gR1 and later.

Linux on System Z (z/Linux) support

Foglight for Oracle fully supports monitoring of instances that are installed on a z/Linux operating system. The supported monitored instances versions are the same as specified in the list.

Troubleshooting

This section provides a list of references which address the most commonly faced issues relating to remote connectivity, allowing for easy troubleshooting using the vendor's information knowledge base:

- To verify TCP/IP connectivity for SQL statement collections, Management Studio (SSMS) cannot be used as other protocols may be leveraged. Instead, verify connectivity using a UDL as detailed here: <https://support.microsoft.com/kb/308075/>.
- To verify the WMI connectivity using a Microsoft Windows built-in utility, see <https://technet.microsoft.com/en-us/library/cc180684.aspx>.
- To troubleshoot WMI access permissions, see <http://blogs.technet.com/b/askperf/archive/2007/08/14/wmi-troubleshooting-permissions.aspx>.

- For information about WMI connectivity from Windows Server 2003/Vista and later versions, see [http://msdn.microsoft.com/en-us/library/aa822854\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/aa822854(VS.85).aspx).
- For WMI troubleshooting tips and techniques, see [http://msdn.microsoft.com/en-us/library/aa394603\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/aa394603(VS.85).aspx).

Product licensing

Foglight includes a licensing capability that restricts access to those features that are defined in the license. Any Management Server installation requires a license that grants access to server-specific parts of the browser interface and the features associated with them. Foglight cartridges are also license-protected. While some cartridges are covered by the base Foglight license (such as Foglight Agent Manager cartridges and the Foglight for Infrastructure), others may require an additional license.

Foglight for Oracle is covered by the base Foglight license that allows cartridges to be installed. The SQL Performance Investigator extension requires a dedicated license.

To activate a trial or a purchased commercial license:

- 1 On the navigation panel, under Dashboards, click *Administration > Setup > Manage Licenses*.
- 2 Click **Install**.
- 3 In the **Install License** dialog box, click **Browse**.
- 4 In the file browser that appears, specify the location of the license file.
- 5 In the **Install License** dialog box, click **Install License**.

Getting started with Foglight for Oracle

Contents of the release package

The Foglight for Oracle 6.0.0 release package contains the following:

- Foglight for Oracle cartridge:
 - *DB_Oracle-6_0_0.car*
- Product documentation, including:
 - *Foglight for Oracle User and Reference Guide* (PDF and online help)
 - *Foglight for Databases Deployment Guide* (PDF)
Note: This guide replaces the following documents, provided in previous versions of this product: *Foglight for Oracle Getting Started Guide*, *Foglight for Oracle Permissions Guide*, and *Foglight for Oracle Hardware Sizing Guide*.
 - *Foglight for Oracle Release Notes* (this document)

Installation instructions

For installation pre-requisites, permissions, information necessary to determine your environment's hardware requirements, and for installation instructions, see the *Foglight for Databases Deployment Guide*.

Additional resources

Additional information is available from the following:

- Online product documentation (<https://support.quest.com/technical-documents#F>)
- Foglight Community (<https://www.quest.com/community/products/foglight/>)

Globalization

This section contains information about installing and operating this product in non-English configurations, such as those needed by customers outside of North America. This section does not replace the materials about supported platforms and configurations found elsewhere in the product documentation.

This release is Unicode-enabled and supports any character set. In this release, all product components should be configured to use the same or compatible character encodings and should be installed to use the same locale and regional options. This release is targeted to support operations in the following regions: North America, Western Europe and Latin America, Central and Eastern Europe, Far-East Asia, Japan.

This release has the following known capabilities or limitations: The server will be enabled for Global Operation, but not localized to any particular locale.

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Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at <https://support.quest.com>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request.
- View Knowledge Base articles.
- Sign up for product notifications.
- Download software and technical documentation.

- View how-to-videos.
- Engage in community discussions.
- Chat with support engineers online.
- View services to assist you with your product.

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Legend

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