BigFix Inventory 11.0.0.0 Release Notes

This document provides information about the BigFix Inventory application update 11.0.0.0. The update is cumulative and includes changes that were provided in the previous updates.

Name of the component	Version	Updated in this Release
BigFix Inventory Site (NEW SITE!)	2	Yes
BigFix Inventory Server	11.0.0.0	Yes
BigFix Inventory Server: ILMT Core library	9.2.35.0	Yes*
BigFix Inventory Server: ILMT Catalog	9.2.35.3-20240303-1550	Yes*
BigFix Inventory Server Software Catalog	20240612	Yes*
BigFix Inventory Scanner Software Catalog - Major	2638889	Yes*
BigFix Inventory Scanner	9.2.29.0000 on HP-UX	No
	9.2.35.1001 on Windows	Yes
	9.2.35.0000 on other platforms	Yes
BigFix Inventory Disconnected Scanner	11.0.0.0	Yes
	9.2.35.0 on IBM I	Yes
BigFix Inventory Container Solution Packages	11.0.0.0	Yes
BigFix Inventory VM Manager Tool	11.0.0.0	No
SAP Metric Data Collector	11.0.0.0	No
BigFix Inventory Image Scanner Script	11.0.0.0	No
BigFix Inventory Scanner Service	11.0.0.0	No
BigFix Inventory Cloud Adapter	11.0.0.0	No
Software Data Harvesting Tool for BigFix Inventory	1.1	No
BigFix Inventory Keystore Migration Tool	1.0	No
BigFix Inventory Utility	1.1	Yes

* Included in the server installation package

Additional steps for BigFix Inventory Server upgrade to version 11.x.

Upgrading BigFix Inventory Server to version 11.0.0.0 has a few additional steps to be followed before and after the standard upgrade procedure. Those steps are one-time tasks that have to be done when moving from the 10.x version to 11.x.

Note: This is not applicable if the BigFix Inventory server was already installed using the new *BigFix Inventory* site (BigFix Inventory v10.0.15.0-*20240123-1827*). In such a case, only the standard upgrade procedure should be applied.

The first data import following the upgrade is estimated

to take an additional 1 to 2 hours on average.

Steps required before upgrading to 11.x line for the first time

1. It is recommended to update Server Software Catalog to Catalog 20240508 published 2024-05-22 if an older version is used.
    This is the last catalog available for the 10.x line.
    Applying it before the upgrade will prevent the accumulation of catalog changes from being processed in first data import after upgrade.
2. Refresh the BigFix license to get access to new sites. Follow the procedure in [Extending the license entitlements](#) .
3. Enable *BigFix Inventory* and *BigFix Inventory Discovery* sites.
4. Subscribe to 'All Computers' on both the sites.
5. Activate the same set of analysis in *BigFix Inventory* site as configured in *BigFix Inventory v10 (Deprecated)* site.

Once this is done, follow the standard upgrade procedure.

Steps required after the first upgrade to 11.x

1. Review Computer Properties against customizations using the source properties of analysis from the *BigFix Inventory v10 (Deprecated)* site and update them with reference to the analysis from the new *BigFix Inventory* site.
2. Deactivate the *BigFix Inventory v10 (Deprecated)* site and remove it.
3. If BigFix license counting function is used, repeat the procedure described in [Distributing the site mapping file (hcltechsw.com)](#).

The complete upgrade procedure is also available in the product documentation:
https://help.hcltechsw.com/Bigfix/HelpCenter/11.0/Inventory/Inventory/upgrading/t_upgrading_bfi.html

Allowed upgrade path

Starting with this release, server updates are available from a new BigFix Inventory site, and catalog updates are available from a new BigFix Inventory Discovery site.

It is recommended to upgrade the BigFix Inventory server and tools frequently to benefit from new features and security fixes. Please plan at least one upgrade per year.

BigFix Inventory Server allows direct upgrades from a limited number of past releases. For version 11.0.0, the minimal version for direct upgrade path is 10.0.10.0.

For more information about supported systems, refer to the [Detailed System Requirements.](#)

Oracle databases report based on Oracle Measurements

The Oracle Measurements feature now incorporates previously available Oracle Auditing package preparation and extends options for preparing detailed Oracle Databases inventory reports, covering database editions and licensable options for Linux, AIX, and Solaris systems.

Significant improvements brought by this feature include:

- It incorporates all necessary elements to construct the Oracle Database Inventory report. There is no need to obtain any external resources, e.g. from Oracle. With this change, Idea BFINV-I-238 is resolved, as functionality is available out of the box.
- The time necessary to build the Oracle Database inventory was reduced significantly (compared to the previous solution using external scripts).
- Oracle Extreme Performance Edition is now mapped to Enterprise Edition.
- The accuracy of recognising licensable options (Partitioning, Advanced Compression, and Multitenant) has been improved.
- Oracle Auditing package data is being gathered by Get Oracle Database Measurements fixlet. Data upload to the server needs to be configured in the fixlet separately to push the significant amount of data required to construct the package. By default, the fixlet collects the same data to be used to construct Oracle Database Inventory but does not push it to the server, saving server disk space and network bandwidth.

Changes related to the catalog update process

Catalog updates are available from a new BigFix Inventory Discovery site, and BigFix Inventory server version 11.x is required for all subsequent catalog releases.

This release brings the following additional important changes:

- Reduced catalog package size due to the complete removal of backward compatible files,
- Refinement of main catalog content for streamlined processing and removal of orphan records,
- Integration of new definitions to reduce noise and enhance out-of-the-box discovery capabilities.

To ensure a seamless transition without disrupting existing BigFix Inventory deployments, there is a change to the compatibility definitions of the catalog. Previous versions of the BigFix Inventory server will ignore new catalogs during import time.

Upgrading the BigFix Inventory server to version 11 is required to activate the catalog import option.

Included Software Catalog

BigFix Inventory server package includes Software Catalog version 20240612.

For catalog content details, refer to the catalog release notes:
https://support.bigfix.com/bfi/BigFix-Inventory-Catalog-20240612-ReleaseNotes.pdf.

Computer Group membership synchronization

This topic is related to KB0104650. Using BigFix Platform 10.0.4 or higher as data source might cause inconsistencies in Data Source Computer Group Memberships being Automatic BigFix Platform Groups.

This release contains changes in data synchronization between Inventory and Platform. Data fetched is no longer limited to the computer subscribed to the BigFix Inventory site. This change is to eliminate issues with Platform Data Source group membership information.

The process is based on extracting of changes and as part of the upgrade process, there is no enforcement to conduct complete resynchronization of group members.

If you observe issues with group membership, please enforce synchronization by:

1. Removing existing information about group memberships from the tables below

   ```
   delete from dbo.datasource_group_memberships
   ```

   ```
   delete from dbo.datasource_group_fixlet_results
   ```

2. Reset sequence number for Data Import step: `'DatasourceGroupFixletResult'`

   DB2:

   ```
   update dbo.datasource_sequences set
   last_sequence=BLOB(x'0000000000000000')
   where class_name='DatasourceGroupFixletResult'
   ```

   MS SQL:

   ```
   update dbo.datasource_sequences set last_sequence=0x0 where
   class_name='DatasourceGroupFixletResult'
   ```

3. Wait for the next Data Import to resynchronize Computer Group membership information. Data Import will be longer depending on the number of computers and computer groups defined on linked BigFix Platform Servers.

To confirm that resynchronization has been done, the below two queries have to report the date matching the date of Data Import from step 3.

```
select min(valid_from) from dbo.datasource_group_memberships
```

```
select min(valid_from) from dbo.datasource_group_fixlet_results
```

Once the synchronization is done, please monitor the computer group membership information. If you notice any further issues please contact HCL BigFix Support.

Modified content

The version number of the fixlet is 11.0.0.0.

The following fixlets were updated and should be run to install the latest versions of the specific components:

- Upgrade to the latest version of BigFix Inventory.
- Update the VM Manager Tool
- Update the SAP Metric Data Collector
- Install the VM Manager Tool.
- Install the SAP Metric Data Collector.
- Install the Additional VM Manager Tool.
- Download the Disconnected Scanner Package for IBM i.
- Download the Disconnected Scanner Package.
- Download the BigFix Inventory Container Solution Packages.
- Download BigFix Inventory
- Install or Upgrade Scanner in private mode on Windows.
- Install or Upgrade Scanner.
- Download PVU table *(if BigFix Inventory is not upgraded).*

The following fixlets were updated and require that actions created by their previous versions are stopped and then started by using the updated fixlets. Restarting actions is necessary to ensure that new features work properly:

- Force VM Manager Tool Scan Results Upload
- Force the reupload of Software Scan Results
- Initiate Software Scan on Shared Disks
- Initiate Software Scan
- Schedule VM Manager Tool Scan Results Upload
- Upload Software Scan Results

The following fixlets were updated or added:

- Get Oracle Concurrent Sessions Number
- Run Software Data Harvesting Tool
- Get Oracle Hardware Auditing Data
- Get Oracle Features
- Get Oracle Database Measurements (fixlet *Get Oracle Database Auditing Data* is renamed.)
- Upgrade to the interim version 11.0.0.0 of BigFix Inventory.

Enhancements and important changes

The following table lists enhancements and changes that are introduced in this update.

Abstract Story	Description	Available since
Fixlet site change and catalog updates from a separate site	BigFix Inventory and tools are available from a new *BigFix Inventory* site, and software catalog updates (included in *Server Software Catalog Update* fixlet) are published under a new *BigFix Inventory Discovery* site. The previous site, BigFix Inventory v10, is deprecated and it will not be updated. For more information about the upgrade path, check the product documentation.	BigFix Inventory Server 11.0.0.0 BigFix Inventory Catalog update 20240612

All BigFix Platform Agent managed computers are visible in BigFix Inventory. New *Is Subscribed* column in Computer Heath	Data Import adjustment to support Fixlet Site change. Starting from this release all BigFix Platform Agent managed computers are visible in BigFix Inventory. Previous prerequisites to verify subscription to the BigFix Inventory site caused risk of losing computer information during upgrade. To help identify subscribed computers, a new *Is Subscribed* column was added to a *Computer Health*.	11.0.0.0
Software Catalog compatibility change	Starting from this release, BigFix Inventory 11.0.0.0 or newer is required to update the software catalog to the newest version.	11.0.0.0
Reduced Server Software Catalog package size	Server Software Catalog package size included in the server package was reduced thanks to removal of the legacy data used by old BigFix Inventory servers.	11.0.0.0
Removed deprecated fixlets and analyses	Following fixlets and analyses were identified as deprecated and will not be available under new *BigFix Inventory* site: Fixlets: ● Map LMT/TAD4D 7.x Agents ● Update the Log4j library in VM Manager Tool to version 2.17.1 ● Manually Adjust the PVU per Core Value ● Apply hotfix for KB0094388 in BigFix Inventory ● Upgrade to the interim version 10.0.2.0 of BigFix Inventory ● Upgrade to the interim version 10.0.10.0 of BigFix Inventory Analyses: ● LMT/TAD4D 7.x Agent Mapping	11.0.0.0
[Container Solution] Enhanced REST API for Cluster State view	Added support for specifying the columns to be retrieved in the REST API for Cluster State view.	11.0.0.0
[Container Solution] Added *Containers* report	Predefined report called *Containers* is available in the *Reports* menu. This report is based on the *Cluster State* report type.	11.0.0.0

Fixlet *Get Oracle Database Auditing Data* is renamed as *Get Oracle Database Measurements*	Using 'Measurements' to indicate fixlet extended purpose of also collecting Oracle Database Inventory data.	11.0.0.0
New way of constructing Oracle Database Inventory	Oracle Databases report can be constructed with data gathered using Get Oracle Database Measurements fixlet. This replaces the functionality of Get Oracle Features fixlet for Linux, AIX, Solaris nodes. Obtaining a script from Oracle is no longer needed.	11.0.0.0
Fixlet default behavior change	*Get Oracle Database Measurements* by default processes data for Oracle Databases and Software Classification reports. It has a checkbox that the user has to mark when using the fixlet to collect for constructing Oracle Auditing Package. The default behavior is intended to be used in scheduled frequent runs while the optional one shall be used sparingly, to conserve resources. The default behavior is still to be extended to support collecting information from Windows-based installations as the current version supports Linux, AIX and Solaris.	11.0.0.0
Added cleanup in *Get Oracle Features* that removes data generated by *Get Oracle Database Auditing Data*	Running these two fixlets interchangeably could have led to data misinterpretation, so now both are secured and remove data generated by the other.	11.0.0.0
Change of default values used in Oracle Auditing Package	To indicate more clearly what places require user action in the auditing report, the fields are left empty, instead of using default 'N'.	11.0.0.0
Tool for masking sensitive information in Oracle Auditing Package	The Auditing Package content can be anonymized using bfiutility tool. The tool now includes the maskOracleAuditingData function that replaces e.g. usernames, hostnames using deterministic and non-reversible algorithm. For more information refer to https://help.hcltechsw.com/bigfix/11.0/inventory/Inventory/softinv/collecting_the_data.html	11.0.0.0
Discovery of Java UnlockCommercialFeatures flag in Oracle Auditing Package	Added support for discovering Java on Unixes was started with the -XX:+UnlockCommercialFeatures flag and the information is included in the Oracle Auditing	11.0.0.0

	package - in 3PTV_JAVAReport_ CSV file the associated row in Unlock Commercial Feature column is set to "Y".	
Renamed *Security Data: Blacklist Software* to *Software Blocklist*	*Security Data: Blacklist Software* report was renamed to *Software Blocklist*. The filter was changed to include previously created `blacklist` tags and the newly introduced `blocklist`.	11.0.0.0
Improved logging for software catalog import	Import logs for software catalog import were improved to contain details of the entity which caused an error.	11.0.0.0
Configuration steps for Microsoft Entra ID	Documentation has been updated with configuration steps for Single Sign On with Microsoft Entra ID. **Important:** Only the Identity Provider Initiated (IdP-initiated) scenario is supported. Microsoft Entra ID doesn't support SAML HTTP Post redirect binding, which is necessary for IBM WebSphere Liberty used by BFI. Refer to https://help.hcltechsw.com/bigfix/11.0/inventory/Inventory/security/t_configuring_single_sign-on_settings.html and https://help.hcltechsw.com/bigfix/11.0/inventory/Inventory/security/t_configuring_claim_rule.html	11.0.0.0
Update of IBM components	Following IBM components have been updated: - ILMT Core and catalog import libraries to 9.2.35.0 (released March 2024 by IBM) - IBM Catalog to 9.2.35.3 - HCL and IBM CIT scanners are updated to 9.2.35.1001 for Windows and 9.2.35.0000 for other platforms (for HP-UX version stays unchanged: 9.2.29.0000) - PVU table is updated (version 2024-03-06)	11.0.0.0

IBM Virtualization Capacity reporting equivalent	BigFix Inventory 11.0.0.0 is equivalent to IBM License Metric Tool (ILMT) 9.2.35.0 for IBM Virtualization Capacity reporting. The update covers IBM sub-capacity calculation, IBM Catalog, PVU and Scanner parity. For the status of IBM validated releases, see the following [BFI FAQ Document]().	11.0.0.0

Defect fixes

For the list of known defects please refer to [HCL Knowledge Base.]()

The following table lists BigFix Inventory **Server** APARs and other defects that are fixed in this update.

ID	Symptoms	Behavior after you install the update	Available since
BI-22632	Error in tema.log when adding datasource and BigFix API automatic tasks are disabled	The are no errors in tema.log when a new datasource is added	11.0.0.0
BI-22835	`computer_systems` API may return incorrect results for time zones other than UTC.	`computer_systems` API returns correct results	11.0.0.0
BI-17820	Initiate Software Scan action triggered by Scan Configurations does not contain information about relevant computers for Server Based computer groups. Scan is not triggered by the action for computers from this group.	Initiate Software Scan is triggered with information about relevant computers. Scan is properly triggered by the action for computers from this group.	11.0.0.0
BI-16376	Recalculation progress message on All Contracts panel is not refreshed properly after data import.	Recalculation progress message on All Contracts panel is properly refreshed after data import.	11.0.0.0
BI-22888	Missing shared scan discovery after enabling optimized mode for Automatic scanning of remote shared disks.	Enabling optimized mode for Automatic scanning of remote shared disks produces correct shared scan discovery.	11.0.0.0

KB0111873	Software Summary fails when enable_signature_less_usage is false	Software Summary report works with both settings of enable_signature_less_usage flag	11.0.0.0
BI-19478	Duplicated product after publisher removal in the software catalog, for example duplicated Gzip product.	Duplication will be fixed after the next catalog import.	11.0.0.0
BI-17389	Incorrect detailed version in software classification panel when more than one package of the software was detected.	The version of the software is presented correctly.	11.0.0.0
BI-23028	Change of the sub-product within the same Cloud Pak removes Cloud Pak assignment when using API	Cloud Pak assignment is not removed	11.0.0.0
BI-23165	Scan longer than 24h cause cache rebuild	To prevent risk of cache rebuild Max Cache Age has been increased from 24 hours (1440 minutes) to 5 days (7200 minutes).	11.0.0.0
BI-22351	Data import step "InventoryBuilder: Updating ADM.BRANCH table" takes a lot of time on DB2	The import step is optimized to significantly reduce the time	11.0.0.0
BI-23605	An error may occur during BigFix Inventory installation or upgrade on Windows. Error is visible in installer logs only and has no impact on installation process.	BigFix Inventory installation and upgrade work properly and no errors are logged.	11.0.0.0
KB0104650	Using BigFix Platform 10.0.4 or higher as data source might cause inconsistencies in Data Source Computer Group Memberships being Automatic BigFix Platform Groups.	This version contains simplification of Data Import queries run against BigFix Platform databases that are expected to eliminate suspected root cause of the issues leading to inconsistencies. Issue occurred only in highly dynamic environments.	11.0.0.0
BI-23795	Catalog Hierarchies and Catalog Dimension tables were not cleaned up after Software removal in catalog	The cleanup code has been revisited and improved to handle Catalog entries removal.	11.0.0.0.

BI-21985	WebSphere responds with 500 instead of 400 for bad URLs	Included newer version on IBM WebSphere with the fix	11.0.0.0
KB0113563	Missing exit code for RPM command access denied	Software scan reports issues with package scan and shows new exit codes. Package scan results are not exported, since the scan has failed.	11.0.0.0
KB0114343	SAML-Based Sign-on though Azure for BigFix Inventory	This has been delivered as a procedure for configuration.	11.0.0.0
KB0112337	Database Schema update fails after upgrading to 10.0.16	The issue is resolved.	11.0.0.0

The following table lists BigFix Inventory **Scanner** APARs and other defects that are fixed in this update.

ID	Symptoms	Behavior after you install the update	Available since
202320	CIT is not able to read a capacity of physical shared processor pool on PowerVM virtualization on Power Linux ("Shared Physical CPUS in system" value in "lparstat -i" output or value of "physical_procs_allocated_to_virtualization" field in /proc/ppc64/lparcfg file) if running under crontab with unset environment (e.g. paths). The missing capacity of the physical shared pool may lead to incorrect subcapacity limit calculation for this layer.	Physical shared processor pool is correctly retrieved on pLinux (changes done as part of '202277: Multiple shared processor pools (MSPP) support for SLES 15' story).	11.0.0.0
202159	When doing Storage group scan only first four SCSI disks are being discovered (/dev/sda -> /dev/sdd)	All SCSI disks are being discovered when doing Storage group scans.	11.0.0.0

202252	Capacity data (ComponentID section) from LPARs on z/VM is missing required fields for the capacity calculations.	Data from LPARs on z/VM is correctly retrieved by the use of the qclib library.	11.0.0.0
202129	SAST vulnerability scanner complain about some potential Security issues found in that component.	Baseline Security Analyzer folder has been removed as it's not used any longer and not required.	11.0.0.0
202091	'provider_cache3' ignores the 'AssumeAutoFS' attribute and recognizes all disks mounted by autofs as local disks.	Filesystems which are mounted by autofs are recognized as remote drives, thus, not automatically mounted.	11.0.0.0
202309	A debug information generated by qclib reports incorrect qclib version 2.2.1 while the actual embedded version is 2.4.0.	Correct 2.4.0 qclib version reported in debug mode.	11.0.0.0
BI-23089	On Microsoft Windows File Scanner treats as files any kind of Reparse Points and CIT signatures are evaluated on them.	**[Only 9.2.35.1001]** Microsoft Windows Reparse Points are not treated as files and are not included in the evaluation list.	11.0.0.0
BI-23607	wscanfs 100% CPU usage on iso tag scan	**[Only 9.2.35.1001]** Disables aging for wscanfs to avoid rebuilding cache on long runs. Default aging changed to 5 days from 1 hour to prevent cache rebuilding too often. Improved control over CPU threshold. Eliminated attempts to get Windows Header Information on tags. Improved logging.	11.0.0.0
BI-23610	Provider Cache is disabled	**[Only 9.2.35.1001]** Provider Cache is disabled and cannot be selected by configuration. When specified, Provider Cache 2 is used.	11.0.0.0

The following table lists BigFix Inventory **Fixlets** APARs and other defects that are fixed in this update.

ID	Symptoms	Behavior after you install the update	Available since
KB0112631	CIT scanner hanging on SUSE Linux when /opt is full	Improved Initiate Software Scan fixlet to detect low disk space on Linux. When there is less than 100MB available the scan is not executed and error code 32 is set for all of the scans: Catalog, File, ISO and SLMTag.	11.0.0.0

The following table lists **user documentation** APARs and other defects that are fixed in this update.

ID	Symptoms	Behavior after you install the update	Available since
KB0111895	Classifying software (v2) metric_id type	Corrected the metric_id type. Doc link: Classifying software (v2)	10.0.11.0

Security enhancements
- WebSphere Liberty updated to version 24.0.0.5
- IBM Java Runtime Environment for BFI Server and all tools updated to version 8.0.8.25
- IBM Java Runtime Environment for BigFix Inventory Cloud Adapter and BigFix Inventory Scanner Service updated to version IBM Semeru Runtime Open Edition 17.0.11.0
- Spring Boot updated to version 3.3.0
- Spring Framework updated to version 6.1.8
- xml-rpc updated to version 5.0.0
- Bouncy Castle libraries to version 1.78
- rails gem to version 6.1.7.8
- rexml gem to version 3.3.0

VM Manager Tool version and changes
The VM Manager Tool version that is used with this update is 11.0.0.0.

Scanner version and changes

The scanner version that is used with this update is 9.2.35.1001 for Windows and 9.2.35.0000 for other platforms. The disconnected scanner versions that are used with this update are 11.0.0.0 and 9.2.35.0 for IBM I.

Changes to supported systems

Added support for the following platforms and systems as managed devices:
- SUSE Linux Enterprise Server (SLES) 15 on POWER System - Little Endian

Documentation

For more information about how to install, maintain, and use this application, refer to the BigFix Inventory user documentation:

https://help.hcltechsw.com/bigfix/11.0/inventory/welcome/BigFix_Inventory_welcome.html