# IT Analytics Installation and Upgrade Guide for Windows

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VERITAS
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# IT Analytics Installation and Upgrade Guide for Windows

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## Cohesity Support

### Reach Cohesity Support

There are several ways to create a Cohesity support case.

- Go to Cohesity Support, to search in our knowledge base; or contact us by phone - United States and Canada: 1-855-9CO-HESI (926-4374), option 2.
- Log in to the Cohesity Support Portal to create a new case.
- Click the (**?**) icon on the Cohesity UI and select Support Portal.

### Support/Service Assistance

First, contact the Service Provider that you have contracted for service and support. If you work directly with Cohesity and have a product warranty/entitlement, repair pricing, or technical support-related question, see your options below:

- To find solutions to your product issues or for suggestions or best practices, visit the Cohesity Knowledge Base.
- Log in to the Cohesity Support Portal to create a new case.
- To monitor your open cases, log in to the portal and click the **Cases** tab on the home page. This page should have all the case statuses and updates. You can also view individual case status.

## Cohesity Software Running on Partner Hardware

For Cohesity software running on qualified third-party hardware, the following support workflow applies:

1. The customer may contact Cohesity Support first if the issue cannot be determined as a hardware issue.

   **Note:** Cohesity cannot process hardware replacement requests for partner hardware.

2. Cohesity Support triages the issue. If it is a software issue, Cohesity Support continues to work on it.
3. If it is a hardware/firmware issue or is suspected to be a hardware/firmware issue, Cohesity provides information about the issue to the customer and requests that the customer open a support ticket with the appropriate partner.
4. If needed, Cohesity Support can join a three-way call with the partner and the customer.
5. The customer informs Cohesity Support on the progress of the partner's case.

# Contents

Chapter 1

# Installation overview

This chapter includes the following topics:



## IT Analytics components

IT Analytics Portal installation involves deployments of the product components and the install mechanism allows you to choose the deployment option depending on your environment.

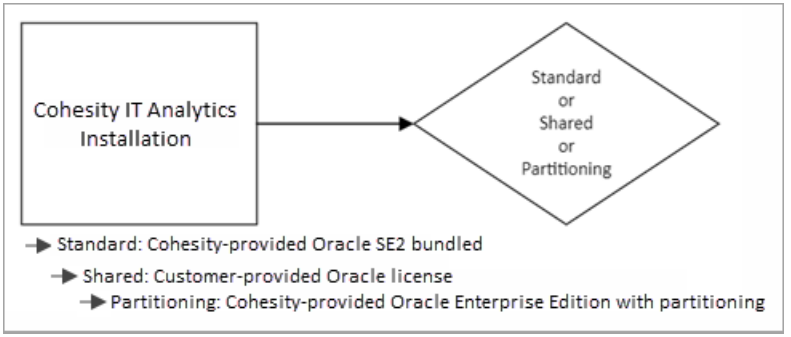
The following components are installed during the Portal installation:

- Portal Server: The server on which the IT Analytics Portal Server software resides.
- Portal Server Software: The binaries, SQL scripts, configuration files, and open-source and third-party software products needed to retrieve and render reporting data from the Reporting Database.
- Reporting Database: The Oracle database that stores all the report data. The Reporting Database is usually installed on the Portal server.

After the Portal installation, you are also required to install the Data Collector software on a separate server to retrieve and report data for analytics.

# Standard or Shared Services licensing edition

Knowing the inclusions in your license edition helps you understand whether you are entitled to receiving Oracle Standard edition software bundled with IT Analytics or whether you need to provide your own Oracle license.




## Standard Edition

Standard edition licensing includes a single instance of Oracle Standard Edition embedded within the IT Analytics software. With Standard edition, Oracle must be installed on the IT Analytics Portal server. Standard Edition is the most common licensing option.

## Shared Services Edition

A Shared Services license edition means you must provide your own Oracle license. You can subscribe to this edition if you already have an Oracle license which you can use to store the IT Analytics data.

## Partitioning Edition

Partitioning edition enables the underlying database to split large tables into partitions to improve the database performance and scalability. IT Analytics leverages the Oracle enterprise edition database with the Oracle Partitioning option.

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**Note:** With Standard or Shared Services, you can also purchase a Disaster Recovery (DR) License, which is required if you deploy two or more copies on a second or subsequent Portal server for the purpose of disaster recovery, availability, or fail-over from production.

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# Install options

Determine whether to do a Standard or Split Architecture Install. Standard install includes using the embedded Oracle license bundled with the IT Analytics software and installing Oracle on the IT Analytics Portal server. This is the most common installation method.

If you have Shared Services Edition and are providing your own Oracle, you can choose to install an Oracle Server either on the IT Analytics Portal Server or install Oracle on a remote server. Installing Oracle on a remote server is referred to as a Split Architecture install.

# Multi-language support and locale considerations (Windows)

Apart form English, you can perform the portal installation in Simplified Chinese, French, Korean, and Japanese. Once you have set the language preference, the installation progress and responses appear in your preferred language. Note that this language preference setting is only confined to the installation process and has no impact on the text of the portal UI.

To install the portal in your preferred language, Windows OS must be a native OS in either Simplified Chinese, French, Korean, or Japanese. Avoid having Windows OS in English installed with language pack and changing the locale later. The portal installer detects the locale from the Windows Language Settings and launches the installer in the respective locale.

If the Windows Language Setting is set to a language other than Simplified Chinese, French, Korean, or Japanese, the installer is launched in English. Having completed the language settings, you can proceed with the installation of the IT Analytics Portal.

# Third-party and Open Source Products Used

When you install the portal and reporting database, you install a compilation of software, which includes open source and third-party software.

For a list of open source components and licenses, see the license.txt file on the portal server.

**Table 1-1** Open Source Products Used

| Software Product | Linux | Windows |
|---|---|---|
| Apache HTTP Web Server | 2.4.66 | 2.4.66 |
| Apache Tomcat Java Servlet Engine | 10.1.53 | 10.1.53 |
| Java | Amazon Corretto 17.0.19.10.1 | Amazon Corretto 17.0.19.10.1 |
| Kafka | 4.1.2.1 | 4.1.2.1 |
| Oracle 19c | 19c: 19.3.0.0.0 | 19c: 19.3.0.0.0 |

**Note:** If your environment has IT Analytics portal server and Data Collector installed on separate Linux servers and use Cohesity-provided Oracle, ensure the Oracle client RPM is installed or upgraded to 21.21.0.0.0-1.el8.x86_64.

If other versions of the above components are already running on the designated IT Analytics system, or other components are utilizing resources (such as specific ports) typically used by IT Analytics, the product usually can be reconfigured to work around these conflicts; however, this cannot be guaranteed.

*Refer to Support for updated binaries as they become available.

Chapter 2

# Install IT Analytics on a Windows server

This chapter includes the following topics:



## Step-1: Get the IT Analytics license key file

A valid license file is required to run the Portal application. If you already have a license file, proceed to the Installation section.

**To generate a license key:**

1. Open the Veritas support portal. (https://support.cohesity.com/s//*en_US*/)
2. Click **Licensing** and login to the Veritas Entitlement Management System using your Administrator credentials.

3. Open the **Entitlements** tab and use the filters at the top to filter and locate the entitlements granted to your account.
4. Click the key icon located against the entitlement ID for which you wish to generate a license key. The **Generate License Key** page is displayed. Verify your account details for which you plan to generate the license key.
5. Select the product version for which you want to generate the key. By default, the latest product version is selected.
6. Specify the license quantity that you wish to deploy using the key. By default, the entire available quantity is displayed in the field. You can utilize a partial subset of your entitled licenses with this key and generate a separate key for the remainder.

   ---

   **Note:** If you create a key for less than the entitled quantity and if you wish to increase the quantity of the systems later using the entitlement associated with the key, you must create a new key for the additional systems. On the contrary, to reduce the number of systems associated with a key, you need to assign a new key to the reduced systems and edit the older key.

   ---

7. Provide the host lock string of the system where IT Analytics will be installed using this key. To get the correct host lock string, run one of these commands on the portal server:

   ```
   C:\opt\aptare\utils\VxLicGetHostLock.ps1
   ```

   If you have not installed the IT Analytics Portal, you can download the `VxLicGetHostLock.ps1` from the Cohesity download center and run the appropriate script depending on the OS of the Portal server.

**8** After running the `VxLicGetHostLock.ps1` file, you get the following output:

```
Veritas Get Host Lock utility v1.0.0.0
Copyright (c) 2022 Veritas Technologies LLC. All rights reserved.

FQDN: xyz.abc.com
Host Lock String: [sha512]4aba838e350d3c9471aa5334db5de8ad4a0ff
45e34a6cfaea064f4ca77812acd4c8abc7be6b2d756574b7d6e06ceb9581357
b824f4f70f84b39d938e85ee62b5
```

While generating the license key on VEMS, use the same host lock string including `[sha512]`.

For example:

```
[sha512]4aba838e350d3c9471aa5334db5de8ad4a0ff
45e34a6cfaea064f4ca77812acd4c8abc7be6b2d756574b7d6e06ceb9581357
b824f4f70f84b39d938e85ee62b5
```

**9** Add comments about to the license key if required for the future reference.

**10** Click **Generate**. The Generated Key page is displayed with the new key in the **License Key** column. You can click the key link and save it locally.

# Step-2: Portal and database deployment strategies

IT Analytics Portal and Oracle database components are typically installed on the same server. Before you install the components on the same server, you must check the required rpms and server space, and install the Oracle database application on the same machine. If the Portal and database components are installed on different systems, you must perform both the tasks on the respective systems.

## Installing Portal and Oracle database binaries

Local Administrator privileges are required to install all Portal Server components. For the typical Portal installation, the installation process consists of these main tasks:

1. Verify that you have the latest binaries for the version you are installing.
2. Install Oracle application binaries.
3. Install the IT Analytics Portal software components and the database schema.

# Step-3: Pre-installation configuration

1. Choose a Portal Server. Install the IT Analytics Portal software on its own, dedicated server. For performance reasons, the IT Analytics Portal software must not be installed on the same server as the Data Collectors. Root privileges are required for the Portal software installation tasks.

   You will need to log in as a **Local Administrator** to perform the installation. Oracle requires that you are logged in as a **Local Administrator**. Logging in as a Domain Administrator is not sufficient for this installation. Refer to the Oracle web site for the requirement to install on Windows as a user who is a member of the server's local Administrator's group.

2. For new Portal installations, the minimum server memory requirement is 32 GB. Oracle database requires a minimum of 24 GB of memory. Portal installations will fail if sufficient memory resources are not available on the Portal server.

3. The Portal Installation software checks the following resources:

   - Total physical memory (physical + virtual) must be greater than 24 GB, otherwise Oracle will fail to start. Add more physical memory to the Portal server.
   - Windows Virtual Memory must be 24 GB or greater, otherwise Oracle will fail to start. Increase the size of the virtual memory if required (**Windows** > **System** > **Advanced System Settings** > **Advanced** tab > **Settings** > **Advanced** tab > click **Change**).

4. Verify the OS of the Portal Server. Check that the OS is one of the certified operating systems listed in the *Certified Configurations Guide*.

5. Verify the Third-Party Software list.

   See "Third-party and Open Source Products Used" on page 8.

6. Verify Microsoft Visual C++ Runtime libraries are installed.

   IT Analytics installs Apache HTTP Server which has a dependency on run-time components of Visual C++ libraries. These run-time components are included in the Microsoft Visual C++ 2015 Redistributable Update 3 RC. This Microsoft distribution is available for download from www.microsoft.com. If this redistributable update is not installed prior to running the IT Analytics installer, Apache HTTP Server will not be able to run.

   ---

   **Note:** If you installed Microsoft Visual C++ 2015 after IT Analytics 10.3.xx was installed, and services are failing, you must manually install the Apache service using the following command:

   ---

```
C:\opt\apache\bin\httpd -k install -n "APTARE Apache"
```

7. Verify that sufficient disk space exists on the designated Portal Server. For the database file systems, the amount specified is the minimum to create the database. The database grows in size over the period of time. The growth of database dependents on various factors such as subsystems from which data is collected, type of systems collecting data from, retention periods for data(which is configurable), and so on.

| Directory | Minimum Disk Space | Recommended Disk Space | Max. Disk Space for DB Growth | Notes |
|---|---|---|---|---|
| C:\opt | 20 GiB | 30 GiB | 30 GiB | |
| C:\tmp | 10 GiB | 10 GiB | 10 GiB | |
| C:\oradata | 305 GiB | 565 GiB | 3445 GiB | The Installer prompts for the target drive for the `oradata` directory, so alternate drives are supported. |
| Total | 335 GiB | 605 GiB | 3485 GiB | |

   - Add **itanalyticsportal.yourdomain** and **itanalyticsagent.yourdomain.com**entries to your enterprise DNS Server. Both entries must resolve to the IP address of the Portal server. Also note that the last component of the domain must be one of the recognized root domains; for example, **.com**--not **.3com**.

8. Verify that there are no other web servers--for example, IIS--running on the system.
9. The installer will set up the following system-wide environment variables and update the PATH environment variable:

| Variable Name | Variable Value |
|---|---|
| ORACLE_HOME | `C:\opt\oracle` |
| ORACLE_SID | **scdb** |

   The PATH environment variable will have the following path appended to the end of the current PATH:

```
C:\opt\oracle\bin
```

# Step-4: Installing Oracle application binaries

This section covers the installation of Oracle installer for both shared service edition and non-shared service edition on a Windows server.

Refer to the instructions provided with your purchase agreement confirmation email and consult the Cohesity Support, if you require additional assistance.

## Prerequisites for Oracle application binaries on Windows

- If you are running IT Analytics on a version lower than Oracle 19c, you must first uninstall the older version before proceeding with this installation.
- The Oracle 19c binaries will be installed on a Windows server that will serve as the IT Analytics Portal server. Make sure there are no other Oracle database instances installed on it.
- Ensure you install the latest Oracle patch during the installation. Get the latest patch from the download site if you are performing installation for a non-shared service edition. For shared service edition, see Oracle documentation to obtain the latest patch.
- Oracle requires that you are logged in using an account that has administrative privileges.
- An Oracle service user name is required for installation. The Oracle service user account can be an Active Directory account.
- The Oracle service user must be a standard user and must not be a part of Administrator group
- Windows User Account can be a Windows Local User, Windows Domain User or Managed Services Account (MSA). If you want to create a new user during installation, then it can only be a Windows Local User. It cannot be a Windows Domain User or an MSA.

  **Note:** If you use a Domain account, that user must login at least once to the Windows machine.

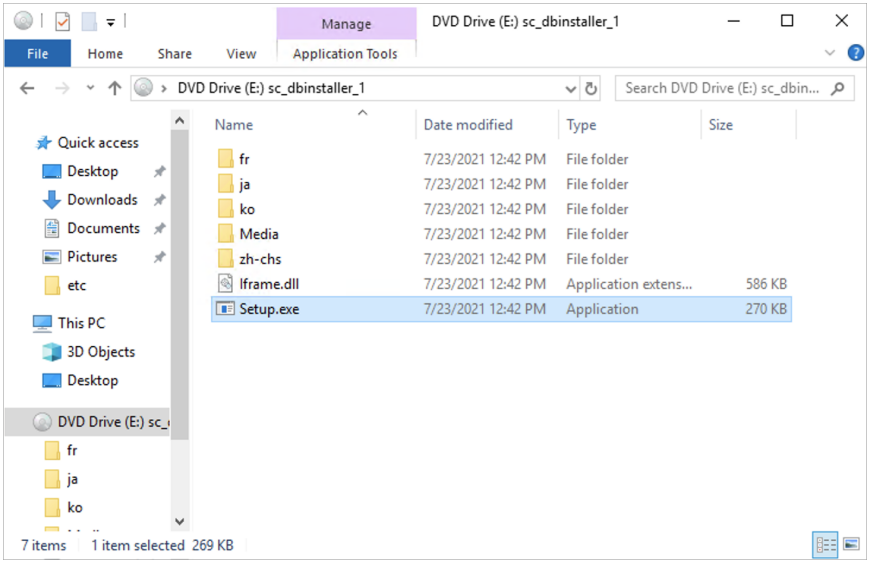
- Oracle home user account passwords cannot exceed 29 characters.
- You cannot change the Oracle Home User once the installation is complete. To change the Oracle Home User, you must reinstall the Oracle Database software.

## Install the Oracle binaries for non-shared service edition

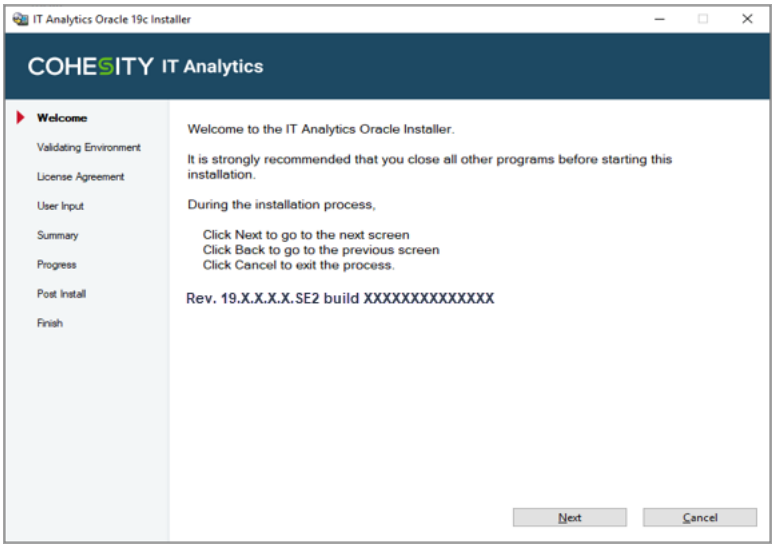
Close all other programs before you follow these steps to install the Oracle binaries.

**To install Oracle 19c binaries**

1. Log in to the Portal server as an **Administrator**. Oracle requires that you are logged in using an account that has administrative privileges.
2. Download the `itanalytics_dbinstaller_<version>_win.iso` file to your Windows Portal server.
3. Double-click the ISO file and run **Setup.exe** on the server.



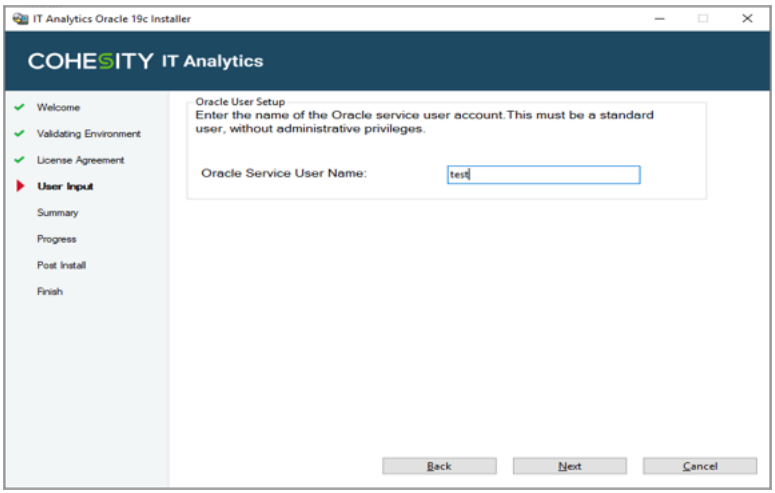
4 Review the install instructions on the **Welcome** screen of the installation wizard and click **Next** to begin the installation.




5 The wizard validates the environment for Windows version, Disk Space, Memory, and Oracle pre-checks. Click **Next** after the validation is successful.

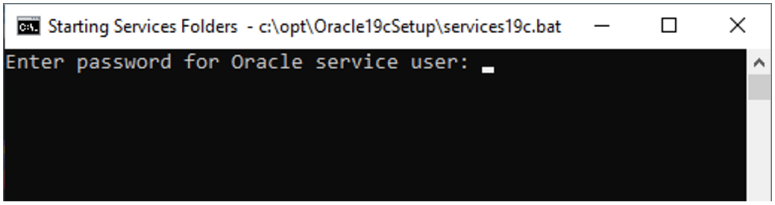
6 Read and accept the end-user license agreement (EULA) and click **Next**.

7 Enter the name of a valid user account for the **Oracle Service User Name** and click **Next**.



8 The **Progress** screen displays the installation and validation status.

9 Enter the service user password on the command prompt window.




**Note:** If you enter the incorrect password too many times, the account can get locked. See the section called “Account lockout” on page 19.

10 On the **Post Install** screen, review the list of Oracle application binaries installed in the `C:\opt` folder and click **Next**.

11 On the **Finish** screen, a confirmatory message about the successful installation of IT Analytics Oracle is displayed. Click **Finish** to exit the installation wizard.

At this point, the Oracle Application binaries have been installed on your server and Oracle services have been created.

This completes the installation of the IT Analytics Oracle Application component. The next step is to install the IT Analytics Portal Software components.

## Install Oracle binaries for shared service edition

To install Oracle binaries for shared service edition, you must have a Standard or Enterprise Edition Oracle license. For the Enterprise Edition license, you must set the environment variable **ORACLE_LICENSE_OPTION** to **EE**. Also ensure that the Oracle database for 19c zip file `WINDOWS.X64_1930000_db_home.zip` that you have downloaded from Oracle Download center is copied to the Windows host.

**To install Oracle binaries for shared service edition:**

1 Login to the Windows host as and administrator. Oracle requires you to login with administrator privileges.

2 Download the `itanalytics_dbinstaller_shared-service_win.iso` to the Windows host.

3 Double-click the ISO file and run `Setup.exe`. The installation wizard is launched.

4 Review the instructions on the welcome screen and click **Next**.

The wizard validates the environment for Windows version, disk space, memory, and performs pre-check for Oracle.

5. Accept the End User License Agreement (EULA) and click **Next**.
6. For Oracle User Setup and installer location, enter the valid **Oracle Service User Name** and click **Browse** to assign the absolute path to Oracle universal Installer archives.
7. Enter the Oracle service user password on the command prompt.

   **Caution:** If you exceed the maximum attempts for incorrect password on this prompt, your account can get locked.

8. Review the post install screen and click **Finish** once you see the confirmation message on the install wizard.

At this point, the Oracle Application binaries for shared service edition are installed on your server and Oracle services are created. This completes the installation of the IT Analytics Oracle Application component. The next step is to install the IT Analytics Portal software components.

# Troubleshoot the Oracle installation

Because the Oracle installation relies on Oracle requirements and processes, you may encounter issues that require your intervention.

## General troubleshooting

The Oracle installation process logs errors that can aid in troubleshooting. Locate the log file that coincides with the date and time of the error:

```
C:\Program
Files\Oracle\Inventory\logs\installActions<YYYY-MM-DD_HH-MM>
```

## Account lockout

Too many incorrect password entry attempts will lock out the Oracle Service User account. To unlock the account, take the following steps.

1. Enter `lusrmgr.msc` in the Windows PowerShell command prompt window to launch the Local Users and Groups Manager.
2. Open the **Users** folder and double-click the user that needs to be unlocked.
3. In the User Properties window, uncheck the Account is locked out item to re-enable the user account.

**Note:** An alternative method for unlocking an account can be accessed via the Windows Server Manager: **Server Manager > Tools > Computer Management > Local Users and Groups > Users**

## Invalid Oracle Service User Account

When an invalid Oracle Service User Name is entered, the Oracle Universal Installer displays the following messages:

```
The password field is empty.
CAUSE: The password should not be empty.
ACTION: Provide a non-empty password.
Please press Enter to exit...
```

These messages do not necessarily reflect the true issue. At this point, the password is not relevant. The process actually needs the Oracle Service User Name.

To recover from this error, take the following steps.

1. In the command prompt window, press **Enter**.
2. Return to the **Failed to Install Oracle** window and click **Previous**.
3. Enter a valid account name for the **Oracle Service User Name** and resume the installation.

## Oracle universal installer fails

The most common reason for the Oracle Universal Installer to fail is due to an invalid Oracle Service User account.

See the section called “Invalid Oracle Service User Account” on page 20.

Other failures must be investigated by reviewing log messages, using the following steps.

1. In the **Failed to Install Oracle** installer window, click **Exit**.
2. Locate the error in the log file:

```
C:\Program
Files\Oracle\Inventory\logs\installActions<YYYY-MM_HH-MM>
```

**Note:** If you abort the Oracle Universal Installer process by closing the command window, close the installer window and re-run the installer from the beginning.

### Oracle already exists on the portal server

If you are installing Oracle on a server that at some point had IT Analytics Oracle software installed, the installer will display an error dialog window.

Encountering previously installed software may occur under the following circumstances:

- You chose a server that has a version of the IT Analytics Portal already installed. Determine the version of Oracle that is already installed and reference the IT Analytics documentation for the steps to uninstall the database/Portal.
- You ran the Oracle installer more than once. In this case, it is likely that you do not want to proceed unless you have determined that it was not a successful installation. If you need to re-run this installer, refer to the following.

### Unsupported Windows operating system

If you try to install Oracle on a version earlier than Windows Server 2016, you will get a warning message: **WARNING: The current OS is not supported.**

**Exit** the installation and choose a server with a supported Windows OS.

# Step-5: Installing Portal application binaries

In this procedure, you will install Portal Server software on your Windows Server.

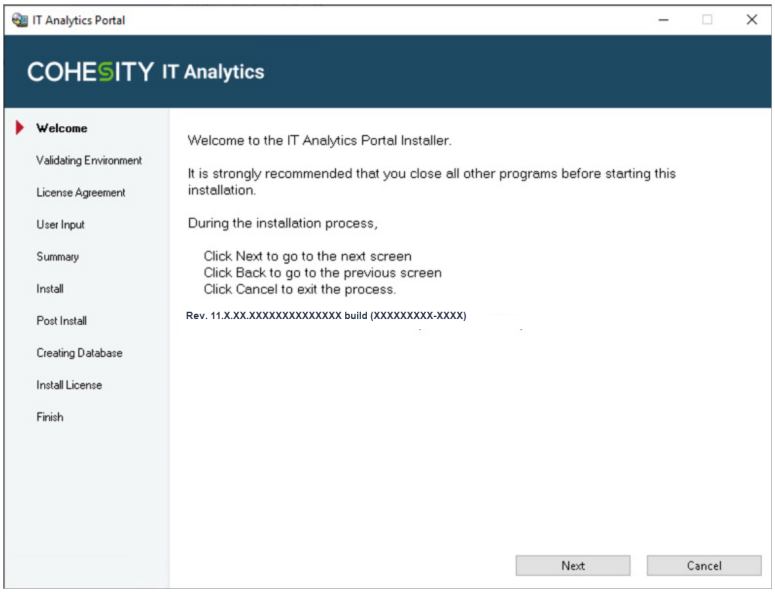
System: Web/Application Server

**To install your Portal Server software**

1. Log in to the Portal Server as a **Local Administrator**.

   **Note:** Oracle requires that you are logged in as a **Local Administrator**. Logging in as a Domain Administrator is not sufficient for this installation.

2. Go to the downloads section under Support at www.veritas.com and click the relevant download link.
   - Once downloaded, the Portal Installation Wizard launches automatically. If it does not, use Windows Explorer to navigate to the executable and double-click the file: **Setup.exe**
   - The Portal Installation Wizard requires about a minute to start up. During this time, the following window is displayed:.
     Once the Portal Installation Wizard extracts the necessary startup files, the Portal Installation Wizard displays the launch screen.




3 Click **Next** to start the installation process.

The Portal Installation Wizard validates the system environment. Once the installer has validated successfully, click **Next**.

4 End User License Agreement (EULA) is displayed. If you agree to the terms of EULA, select **I accept the terms of the License Agreement** and click **Next**.

5 Provide the following details on the next form and click **Next**.

- Enter the hostname or IP address of the server on which the Oracle Application binaries are installed. The installer prompts for the IP Address of your Oracle database server. If Oracle is running on the Portal server, you can enter **localhost**.
- Enter the domain name for your environment (Example: *yourcompany.com*). The value entered here determines the URL you will use in your browser to access the portal. (For example: *itanalyticsportal.yourcompany.com*)
- Select the drive letter on which you intend to create the Oracle database. The Portal Installation Wizard customizes the Database SQL Script based on the drive letter. Note the disk space requirement for this drive.

6 Review the installation summary.

The screen summarizes the product components that will be installed and describes the available and required disk space for the components before initiating the installation.

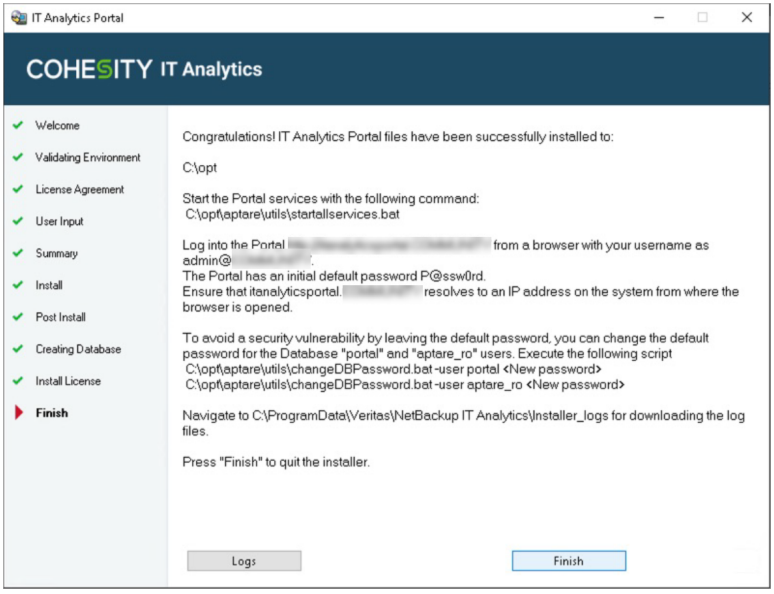
7 Click **Next** to begin the installation. The default location is `C:\opt`.

8 Review the **Post Install** details and click **Next**.

9 The installer creates the database. Click **Next** once the database creation is complete.

10 An evaluation license is installed. Click **Next** once the status displays **License has been installed successfully**.

11 On success installation of the IT Analytics Portal, click **Finish** to exit the installation wizard.




# Step-6: Log into the Portal

Log into the IT Analytics Portal (*http://itanalyticsportal.yourcompany.com*) with your username as <admin@yourcompany.com>. The Portal has an initial default password **P@ssw0rd**. You must change this password after your first login.

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**Note:** The default password contains a zero, not an uppercase O.

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**Also verify whether the IT Analytics Portal services have started as follows:**

1. Login to the portal system as an administrator.
2. Click **Start** > **Settings** > **Control Panel** and open **Administrative Tools**.
3. Click **Services**.
4. Verify whether the following services are running:
   - Oracleservicescdb
   - OraclescdbTNSListener
   - APTARE Portal Tomcat
   - APTARE Agent Tomcat
   - APTARE Apache

# Step-7: Install the license key file

Receive and save the license file on your portal server and then complete all of the following steps.

1. Ensure that the Oracle Processes are Running.

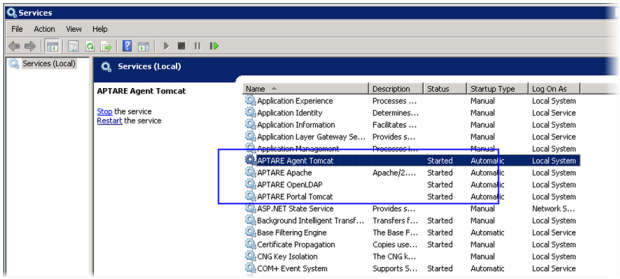
   ```
   C:\opt\aptare\utils\startoracle.bat
   ```

2. Open a DOS command prompt window using **Start** > **Run** > **cmd**
3. Run the license installer utility: `C:\opt\aptare\utils\installLicense.bat`
4. Enter the complete path to the license key file you saved on your server when prompted for the name of the license file. A sample dialog is shown below:

   ```
   Enter the name of the license file you wish to install [*.slf] :

   C:\Users\Administrator\Documents\Slic\
   A3351334429_QTY200_APTARE_ITA_10_6_COMPLETE_STANDARD_DR_LIC_NNL_4756411672.slf
   Verifying license...
   License installed
   ```

   Verify that the services are running by viewing the Services panel:




5. Verify the License Installation.

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**Note:** After you apply a new license or when you remove an existing license, the Portal takes about 30 seconds to display the changes.

---

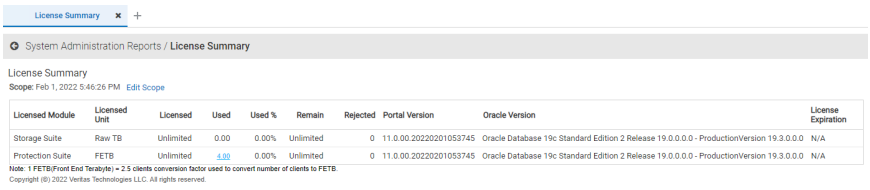
# Verify the current license configuration

As a Super User, there are a number of ways that you can validate your current license configuration:

- Run the License Summary report in the Portal.
  See “Run the License Summary report ” on page 25.
- Click Help About in the Portal.
  See “About IT Analytics version and license” on page 26.
- View the License Details.
  See “View License Details ” on page 26.

## Run the License Summary report

1. Log into the Portal as a Super User.
2. Search for License Summary.
3. Generate the **License Summary** report.



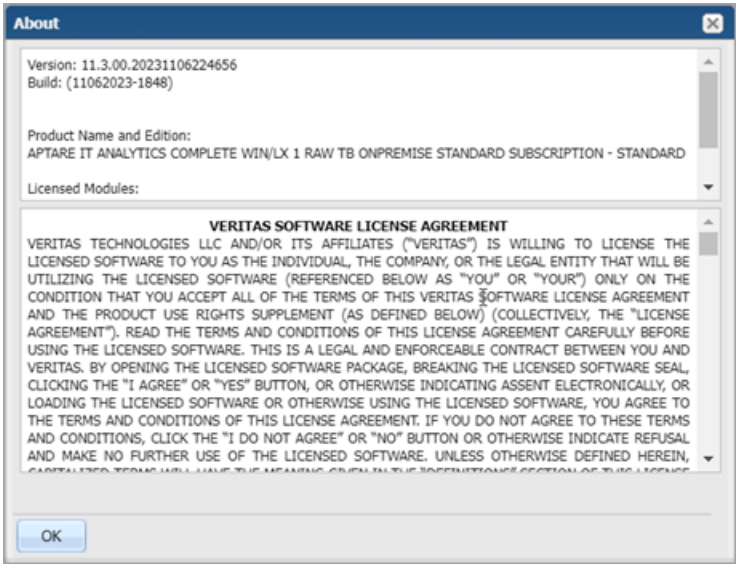

Using this report, you can drill down to additional details about counted objects.

# About IT Analytics version and license

Log in to the Portal as a Super User and in the Portal toolbar, select:

**Help** > **About**

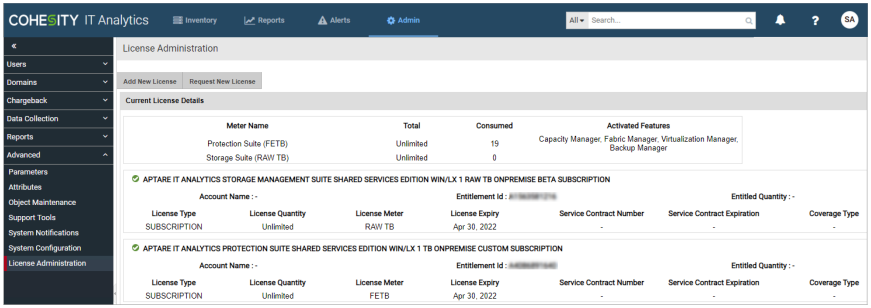
The license details are displayed.




**Note:** Users without Super User privileges cannot view the license configuration details. Only the end user license agreement is displayed.

# View License Details

View license details--that is, the specific capabilities that are associated with the license that was purchased for your environment by navigating to **Admin>Advanced>License Administration**. Your current license details are displayed.




# Next steps

After completing the Portal installation:

1. The best practice is to perform a cold backup of the Oracle database before you make the Portal operational use. This will save a copy for restore in the event of an accidental data loss. See “Performing a cold backup of the database ” on page 27.
2. Add a Data Collector on the Portal and install the Data Collector software on the Data Collector server. Refer to the Data Collector installation guide relevant to the workload from which you wish to derive data.

Data Collector installation guides:

- IT Analytics Data Collector Installation and Configuration Guide for Cohesity NetBackup
- IT Analytics Data Collector Installation and Configuration Guide

## Performing a cold backup of the database

Prior to deploying the Portal for operational use, perform a cold backup of the Oracle database. This offline, cold backup simply means that you’ll physically copy or backup the files to another location. This cold backup will simplify the restore process, in the event of unanticipated data loss. With a cold backup, you simply have to restore the files and then import the most recent database export. In addition to this initial cold backup, you may consider performing a cold backup periodically--for example, after a significant software upgrade--to re-capture the database schema.

## Recommended database backup process

1. Cold Backup

2. Daily Exports of the database
3. In the event of data loss, restore the database and then import the most recent database export.

Chapter 3

# Upgrade IT Analytics Portal on Windows

This chapter includes the following topics:



## Overview

If you are upgrading IT Analytics Portal to 11.8 and later, you must have Oracle 19c installed. Having installed Oracle 19c, you only require to upgrade the IT Analytics Portal. See “ Upgrade IT Analytics Portal” on page 31.

While upgrading to version 11.8 or later for the first time:

- The upgrade also succeeds using evaluation license.

- The upgrade utility can accept more than one licenses during the upgrade.
- The upgrade utility compares the used capacity with the entitled capacity of the new license. If the entitled capacity is less than the used capacity, it displays a warning, but continues with the upgrade. However, you must comply with the Cohesity licensing guidelines to access all the features of the IT Analytics Portal.

For complete details about system requirements and upgrading, refer to the *Certified Configurations Guide*. Separate upgrade instructions are provided for Windows and Linux with the assumption that the Portal and database components are installed on the same server.

# Upgrade path

The Portal must be running a minimum of version 11.6 to upgrade to IT Analytics 11.8. For complete details about system requirements and upgrading, refer to the *IT Analytics Certified Configurations Guide*. In addition, Oracle 19c is required for IT Analytics 11.8.

# Before upgrading

- Ensure that you have a valid system backup. For additional information refer to the *System Administrator Guide*. Prior to executing the upgrade utility, the recommendations are:
  - A cold backup of the Portal / Database server(s) file systems.
  - A backup of the file systems containing the Oracle database (typically **<drive>:\oradata\scdb** on Windows) is only valid if it was taken while Oracle was completely shut down.
  - An export of the database.
- If you have installed any patches on your present IT Analytics version, check the Release Notes to verify that they are included in this release. If you are uncertain, check with the Cohesity Support. In most cases, previously installed patches are included in this release.
- Close all instances of baretail.exe, as IT Analytics copies a new version during the upgrade process.
- The Portal and Database components should be installed on the same server.
- In the Portal, verify that the Data Collectors are set for automatic updates. This setting triggers the automatic download of updated application logic to the Data Collectors in your enterprise. This download is required to ensure the Data Collectors are running with the latest compatible version. Refer to the

vendor-specific Data Collector Installation Guide for additional information about Data Collectors.

- Identify the Java Version on the Data Collector Server and ensure that a 64-bit server is used for the Data Collector Server.
- Portal upgrades automatically enable privileges for newly added reports and certain features/functions, for all Administrators. This does not impact previously configured privileges. The Super User can manually revoke any Administrator privileges that have been automatically enabled.
- Before upgrading for the first time, generate a new Cohesity license with `.slf` extension having equal or more entitlement than the currently installed license. This license file will be required during the upgrade.
- If upgrading to version 11.8 in a Shared Service environment, an additional database privilege should be provided using the following command.

  ```
  sqlplus / as sysdba
  ```

  ```
  alter session set container = scdb;
  ```
  or IT Analytics database Service name if not 'scdb'

  ```
  GRANT EXECUTE ON DBMS_CRYPTO TO PORTAL;
  ```

  **Note:** Not providing the privilege on a limited access environment can cause upgrade failure.

- While upgrading from v11.3 to a higher version, if the password of the Java Development Kit (JDK) truststore located at `/usr/java/lib/security/cacerts` was changed in the interim, you must update the new password in the `portal.jdk.trustStore.password` parameter.

  Go to **Admin** > **System Configuration** > **Custom** on the Portal and edit the `portal.jdk.trustStore.password` parameter to update its value.
- Ensure a minimum of 5 GB of space is available.

# Upgrade IT Analytics Portal

Download the IT Analytics Portal upgrade utility installer for Windows and copy it to the portal server before you proceed with the next steps.

## Upgrading a shared services environment

In a shared services environment, where the connect as sysdba privilege is not present, you must provide a CREATE SYNONYM privilege to the APTARE_RO user before upgrading. APTARE_RO is a read-only user for the Portal.

**Note:** Unless this privilege has been deliberately revoked, this step is mandatory for an upgrade. If this privilege is not granted, errors in the upgrade script will occur and functionality within the SQL Template Designer will be impacted.

1. Log in with root access.
2. Stop the portal and data receiver Tomcat services.
3. At the command line, execute the following commands:

```
sqlplus / as sysdba

SQL >GRANT CREATE SYNONYM TO APTARE_RO;
```

In a shared services environment, where the connect as sysdba privilege is not present, you must provide a CREATE JOB and DBMS_SCHEDULER privilege to the PORTAL user before upgrading.

**Note:** Unless this privilege has been deliberately revoked, this step is mandatory for an upgrade. If this privilege is not granted, errors in the upgrade script will occur and functionality for Oracle jobs will be impacted.

1. Log in with root access.
2. Stop the portal and data receiver Tomcat services.
3. At the command line, execute the following commands:

```
sqlplus / as sysdba

SQL > GRANT CREATE JOB TO PORTAL;

SQL > GRANT EXECUTE ON DBMS_SCHEDULER TO PORTAL;
```

## Revoking Privileges (Optional)

As a standard practice, during an IT Analyticsupgrade, Oracle-related code is leveraged and system-level objects (dba_, V$, etc.) and users (sys, system) are accessed. This scenario is not optimal in a shared service environment where organizations prefer to maintain their own Oracle credentials. Starting with release 10.4, portal upgrades can be run with limited privileges for the PORTAL user. Specific SQL statements can be executed to revoke the additional privileges assigned prior to the 10.4 release.

**Note:** When privileges are revoked, the IT Analytics upgrade process is prevented from calculating the space in the datafiles and canceling Oracle jobs which may interfere with upgrade. By revoking these privileges, the local administrator assumes this responsibility.

Complete these steps to revoke privileges from a PORTAL user.

1. Log in with admin access.
2. Stop the portal and data receiver Tomcat services.

   At the command line, execute the following commands:

```
sqplplus / as sysdba
SQL >REVOKE SELECT ANY DICTIONARY FROM PORTAL;
SQL>REVOKE SELECT_CATALOG_ROLE FROM PORTAL;
SQL>REVOKE SELECT ON dba_free_space FROM PORTAL;
SQL>REVOKE SELECT ON dba_data_files FROM PORTAL;
SQL>REVOKE SELECT ON dba_temp_files FROM PORTAL;
```

## Run the upgrade utility installer (Windows)

Before you run the upgrade utility installer:

- Download the Upgrade Utility Installer ISO and copy it to the portal server.
- Perform the upgrade as an Administrator user who is a member of the ORA_DBA group.
- When upgrading to version 11.x.xx, the date format defaults to the Portal operating system locale, and ignores any previous configuration.

The following instructions assume you have the required upgrade installer file for your platform.

1. Double-click the ISO file to mount and run `Setup.exe`.
2. Follow the installer prompts to extract the upgrade files and utilities.

**Caution:** IT Analytics no longer supports data collection from Compute Resources policy and NetBackup Resources Monitor probe of the NetBackup policy. Existing policies and scheduled probes will be removed with this upgrade. Previously collected data will be retained in the database. You can ignore this caution if you have not configured the Compute Resource policy or the Resource Monitor probe in your older version.

3. If you have chosen to Run Later in the earlier steps, complete the upgrade process by running the upgrade utility located at:

   ```
   C:\opt\aptare\upgrade\upgrade.bat
   ```

---

**Note:** If you have the portal running with shared services and Oracle parameters such as service name and port are different than the default configuration, the upgrade utility installer will detect the parameters from the portal configuration file.

---

## Troubleshooting Tips

On rare occasions after upgrading to version 11.8, IT Analytics may display an access denied error while starting the portal Tomcat or agent Tomcat service.

**To resolve this access error:**

**1** From the command prompt, run the script to delete the Portal and Tomcat services

```
C:\opt\aptare\utils\removeportalservices.bat
```

If the service delete fails, reboot the system and again try to delete the services.

**2** Install the Portal services.

```
C:\opt\aptare\utils\setupPortalTomcatService.bat
C:\opt\aptare\utils\setupAgentTomcatService.bat
```

**3** Start the Portal Tomcat and Agent Tomcat services from the Service Panel.

# Running the upgrade utility

The following instructions assume that the Portal and Database components reside on the same server. You must be currently running version 11.1.00 or later to upgrade to IT Analytics

1. Ensure that all IT Analytics application services are up and running. Next, as an Administrator user on Windows, run the following command and respond to the prompts accordingly:

   ```
   C:\opt\aptare\upgrade\upgrade.bat
   ```

   - While upgrading to 10.6 or later for the first time, the upgrade utility prompts for a new license file with `.slf` extension. You must have equal or more entitlement than the currently consumed license capacity.

For information on license generation and installation, see *IT Analytics Licensing Guide*.

- If there are errors during the upgrade, the following banner is displayed:

```
#############################################################
# WARNING     WARNING     WARNING     WARNING     WARNING #
# Possible problems were encountered during the upgrade. #
# Please check the log file
C:\opt\aptare\upgrade\logs\upgrade.log#
# for errors and contact Customer Support if necessary.#
#############################################################
```

2. If the upgrade process encountered any errors, save a copy of the log file for any correspondence with the Cohesity Support. You can find the upgrade log file in the following location:

```
C:\opt\aptare\upgrade\logs\upgrade.log
```

If you have installed any patches on your present IT Analytics version, check the latest Release Notes to verify that they are included in this release. If you are uncertain, please check with Cohesity Support. In most cases, previously installed patches are included in the current release.

---

**Note:** If your upgrade fails because of an Apache version conflict, contact the Cohesity Support for instructions and a link to download a new version.

---

# Data Collector upgrades

For performance reasons, do not install Data Collectors on the same server as the IT Analytics Portal. However, if you must have both on the same server, verify that the Portal and Data Collector software do not reside in the same directory.

## Mandatory Prerequisites

- On Windows Data Collectors, close all DOS Command Console windows in any of the <APTARE_HOME> directories before upgrading.
- Do not use downloadlib.[sh|bat] to upgrade the binaries on the Data Collector. Initiate the Data Collector upgrade from the IT Analytics Portal.

# Troubleshooting - manual Data Collector upgrades

If the Data Collector fails after completing the previous requirements and prerequisites, perform the following:

On the Collector Server:

1. End all running IT Analytics-related Java processes.
2. Start the APTARE Agent Service
   - If it starts and continues to run, proceed to the following section.
     See "Collector updates from the IT Analytics Portal" on page 41.
3. If the APTARE Agent Service does not continue to run, verify no IT Analytics-related Java processes are running. If required, end all running IT Analytics-related Java processes.
   - Restart the Collector Server, if the Java processes cannot be killed manually. Prior to restarting the server, disable the automatic start of the APTARE Agent Service.
4. Rename <APTARE_HOME>/java to java.old.
5. Copy <APTARE_HOME>/upgrade/staging/snapshot/java to <APTARE_HOME>/
6. Enable the automatic start of APTARE Agent service, if you previously disabled the service.
7. Start the APTARE Agent Service, and proceed to the Portal.

   See "Collector updates from the IT Analytics Portal" on page 41.

# Troubleshoot - Downgrade of Data Collector is not supported

Downgrade of Data Collector is not supported. When the Data Collector downgrade fails, ensure one of the below step is performed:

- Uninstall and reinstall the Data Collector to version that is compatible with the IT Analytics version on the Data Collector server.
  For example: If the Portal version is 11.4.01 and the Collector version is 11.5, uninstall the 11.5 Collector version and install either 11.4.01 or lower version for the collector for upgrade to be successful.
- Upgrade the Portal server to the current Data Collector version or higher version.
  For example: If the Portal version is 11.4.01 and the Collector version is 11.5, upgrade the Portal to either 11.5 version or higher, on the Portal server.

# Troubleshoot Data Collector upgrade manager upgrade failure and collector bundle download failure on Windows

IT Analytics Data Collector software includes two components - Upgrade Manager and Data Collector.

When IT Analytics Portal is upgraded successfully to a newer version, the subsequent Data Collector upgrade may fail with errors like "Collector bundle download failed for 11.8 Premature EOF" or "Upgrade Manager upgrade failed. Exception is : Premature EOF". These errors indicate that upgrade bundle could not be downloaded successfully on to the Data Collector server due to slow network/low bandwidth.

## Prerequisites to troubleshoot

You must have access to:

- Data Collector server and Portal server.
- Permissions to copy files from and to Data Collector server and Portal server.

## Notation used in the steps below

**Table 3-1** Notations used in the code snippets

| Notation | Description |
|---|---|
| <PORTAL_APTARE_HOME> | Path of Portal installation.<br>Default value for Windows Portal: `<drive>:/opt/aptare` |
| <DC_APTARE_HOME> | Path of Data Collector installation.<br>Default value for Windows Portal: `<drive>:/Program Files/Veritas/AnalyticsCollector` |
| <version> | Version of the IT Analytics Portal. |

You can troubleshoot upgrade manager upgrade failure and collector bundle download failure individually or together as discussed below.

## Troubleshoot upgrade failure of the upgrade manager component

**To resolve the issue with the upgrade manager component:**

1. Log on to the Portal server.
2. Go to `<PORTAL_APTARE_HOME>/updates` location and copy `<PORTAL_APTARE_HOME>\updates\aptare_dc_upgrader-windows.zip` to a temporary location on any other server or Data Collector server directly.
3. Log on to Data Collector server and copy `aptare_dc_upgrader-windows.zip` from temporary location to `<DC_APTARE_HOME>\upgrade\bundles`.
4. Remove all `*.properties` files from the `<DC_APTARE_HOME>\upgrade` directory
5. Remove `restore.txt` file from `<DC_APTARE_HOME>\upgrade` directory
6. Upgrade either from the Portal (recommended) or from the Data Collector server as described in the procedures below.

**To upgrade from IT Analytics Portal:**

1. Login to the Portal.
2. Go to **Admin** > **Data Collection** > **Collector Administration** and verify whether the Data Collector appears online.
3. Go to **Admin** > **Data Collection** > **Collector Updates** and select the Data Collector for which the Upgrade Manager component needs to be upgraded.
4. Click **Update Upgrade Manager**.

   The upgrade takes up to 15 minutes to complete.

**To upgrade from the Data Collector server:**

1. Log on to the Data Collector server.
2. Open command prompt as an administrator and run:

   ```
   <DC_APTARE_HOME>\mbs\bin\downloadlib.bat
   ```

   The upgrade takes up to 15 minutes to complete.

## Troubleshoot upgrade failure of the Data Collector component

**To resolve the failure of Data Collector component upgrade:**

1. Log on to the Portal server and go to `<PORTAL_APTARE_HOME>\dc_upgraders\windows`.
2. Copy `aptare.jar` to a temporary location on any other server or Data Collector server directly.

3. Log on to the Data Collector server.
4. Copy `aptare.jar` from the temporary location to `<DC_APTARE_HOME>\upgrade\bundles`.
5. Rename `aptare.jar` to `dc_upgrader.<version>.zip`.

   For example, if <version> is 11.3.1.02, then file name will be `dc_upgrader.11.3.1.02.zip`
6. Remove all `*.properties` files from the `<DC_APTARE_HOME>\upgrade` directory
7. Remove `restore.txt` file from `<DC_APTARE_HOME>\upgrade` directory
8. Upgrade the Data Collector component either from the Portal (recommended) or from the Data Collector server as described in the procedures below.

**To upgrade from IT Analytics Portal:**

1. Login to the Portal.
2. Go to **Admin** > **Data Collection** > **Collector Administration** and verify whether the Data Collector appears online.
3. Go to **Admin** > **Data Collection** > **Collector Updates** and select the Data Collector for which the component needs to be upgraded.
4. Select **Upgrade aptare.jar**.

   The upgrade takes up to 15 minutes to complete.

**To upgrade from the Data Collector server:**

1. Log on to the Data Collector server.
2. Open command prompt as an administrator and run:

   ```
   <DC_APTARE_HOME>\mbs\bin\downloadlib.bat
   ```

   The upgrade takes up to 15 minutes to complete.

## Upgrade the Upgrade Manager and Data Collector components together

**To upgrade both Upgrade Manager and Data Collector components together:**

1. Log on to the Portal server.
2. Go to `<PORTAL_APTARE_HOME>\updates` location and copy `<PORTAL_APTARE_HOME>\updates\aptare_dc_upgrader-windows.zip` to a temporary location on any other server or Data Collector server directly.
3. Copy `<PORTAL_APTARE_HOME>\dc_upgraders\windows\aptare.jar` to a temporary location on any other server or Data Collector server directly.

4. Log on to Data Collector server and copy `aptare_dc_upgrader-windows.zip` and `aptare.jar` from the temporary location to `<DC_APTARE_HOME>\upgrade\bundles`.
5. Rename `aptare.jar` to `dc_upgrader.<version>.zip`.

   For example, if <version> is 11.3.1.02, then file name will be `dc_upgrader.11.3.1.02.zip`
6. Remove all `*.properties` files from the `<DC_APTARE_HOME>\upgrade` directory
7. Remove `restore.txt` file from `<DC_APTARE_HOME>\upgrade` directory
8. Upgrade the Data Collector component either from the Portal (recommended) or from the Data Collector server as described in the procedures below.

**To upgrade from IT Analytics Portal:**

1. Login to the Portal.
2. Go to **Admin** > **Data Collection** > **Collector Administration** and verify whether the Data Collector appears online.
3. Go to **Admin** > **Data Collection** > **Collector Updates** and select the Data Collector for which the component needs to be upgraded.
4. Select **Upgrade Both**.

   The upgrade takes up to 15 minutes to complete.

**To upgrade from the Data Collector server:**

1. Log on to the Data Collector server.
2. Open command prompt as an administrator and run:

   ```
   <DC_APTARE_HOME>\mbs\bin\downloadlib.bat
   ```

   The upgrade takes up to 15 minutes to complete.

## Upgrade logs and upgrade related database views

Logs:

- Upgrade Manager upgrade logs:

  ```
  <DC_APTARE_HOME>\mbs\logs\watchdog.log
  ```

- Data Collector upgrade logs:
  "Download of DC upgrade bundle and verification related"

  ```
  <DC_APTARE_HOME>\mbs\logs\watchdog.log
  <DC_APTARE_HOME>\upgrade\logs
  ```

Database views

- apt_v_system_upgrade: High level upgrade status
  - "Component_Name" column indicates the Data Collector server
  - "Message From" column indicates if it is a "Data Collector" component or "Upgrade Manager" component upgrade
    - If "Message From" is "Super_Upgrader" - The status is related to "Upgrade Manager" component upgrade
    - If "Message From" is "Upgrade_Manager" - The status is related to "Data Collector" component upgrade
- apt_v_system_upgrade_detail: Detailed upgrade messages for a particular upgrade session.

# Collector updates from the IT Analytics Portal

1. Log in to the IT Analytics portal, and navigate to **Admin>Data Collection>Collector Updates**.
2. Select the Data Collector that failed to upgrade.
3. Verify if either aptare.jar or Upgrade Manager failed to upgrade.
4. Click **Upgrade Both**, **Upgrade aptare.jar**, or **Update Upgrade Manager**, depending on what failed to upgrade. Allow up to an hour for completion, depending on the size of your system.
5. Contact Cohesity Support for additional issues.

# Upgrade methods to incorporate enterprise objects

During a Portal upgrade to version 10.x.xx, all Dynamic Template Designer Methods is modified to associate a method with an enterprise object (such as an array or host), rather than the method being associated with a IT Analytics product (such as Capacity Manager).

The upgrader automatically makes the necessary changes, which may result in the following considerations:

- If the upgrader encounters a method that could apply to multiple enterprise objects (for example, a backup method that is relevant for both a Data Domain and a Job enterprise object), the upgrader makes a copy of the method with an Upgrade label append to the method name. This new version of the method

has a populated enterprise object field so that your reports won't fail. Note that the WITH clause alias in this new version will still reference the old name, but this will not cause reports to fail. You can modify this to make the method accurate, however, this modification is not required.

- Once upgraded, some methods may have a null value for the enterprise object. For example, a method that was created for Virtualization Manager does not have a corresponding supported enterprise object (Data Domain, Host, Job, or Storage Array). If such a method is found by the upgrader and the method is in use by a Dynamic Template, the upgrader implicitly assumes the enterprise object for the template is relevant and populates the enterprise object field accordingly. However, if the method currently is not in use, the enterprise object field remains null.
- Upgraded methods that result in null enterprise object values can be identified by viewing the list of methods: Tools > Templates > Method Designer.
- To use a method in a Dynamic Template, the enterprise object field must be populated. Therefore, when you modify and save a method (Save/Save as), you will be prompted to select an enterprise object.

Chapter 4

# Oracle patches for the database server

This chapter includes the following topics:



## Install Oracle 19c Windows October 2024 patch

This section includes the following patches:

- **36878821 - Windows Database Oct2024 Bundle Patch 19.25.0.0.241015**.
- **36878697 - Oracle JavaVM Component Release Update 19.25.0.0.241015**.
- **36866578 - UPDATE 19.0.0.0.0 DATABASE CLIENT JDK IN ORACLE HOME TO JDK8u431**.

---

**Note:** Verify that the Oracle OPatch utility version is latest.

---

We include 4 files and the following are the steps to install and verify the patches which needs to be executed in the order they are specified.

1. Download the patch files and follow the pre-install setup.
2. Upgrade OPatch.
3. Install the patches.
4. Verify the database and OJVM patch.
5. Verify the JDK version updates.

**Pre-install setup**

1. Make a note of the latest Oracle OJVM patch installed from the **System Health Check** report in the section Oracle Patch History.

   **Note:** If you have applied any of the OJVM patches before, then you will have to roll back the previous OJVM patch. Example the last applied OJVM patch was *OJVM RELEASE UPDATE: 19.22.0.0.240116 (35926646)*, then it needs to be rolled back and the instruction to rollback is provided later under section **Installing the Oracle patches step -7**. If no prior OJVM patch found or if it is not *35648110* patch, *then no rollback is needed*.

2. Log in to the virtual machine or Server where IT Analytics is installed.
3. Download the following files from the product download area of the website and save to `C:\temp` folder.
   - p6880880_190000_MSWIN-x86-64.zip
   - p36878821_190000_MSWIN-x86-64.zip (Database Bundle Patch)
   - p36878697_190000_MSWIN-x86-64.zip (OJVM Patch)
   - p36866578_190000_MSWIN-x86-64.zip (JDK Bundle Patch)
4. Access the command prompt as an **Administrator**.
5. Verify `%ORACLE_HOME%\perl\bin` is displayed in your **PATH** setting.

   **Note:** If not displayed in your **PATH** setting, enter the following:

   ```
   set PATH=%ORACLE_HOME%\perl\bin;%PATH%
   ```

6. Set the Perl library path to empty.

   ```
   set perl5lib=
   ```

**OPatch installation**

1. Change directory to the Oracle home directory.
2. Execute command `cd C:\opt\oracle`.
3. Rename the existing OPatch directory using the following command.

   ```
   rename Opatch Opatch_old
   ```

4 Unzip the file **p6880880_190000_MSWIN-x86-64.zip** in `C:\opt\oracle`.

5 Execute the following command to verify the opatch version.

```
C:\opt\oracle\OPatch>opatch version.

OPatch Version: 12.2.0.1.43
```

---

**Note:** OPatch succeeded message is displayed.

---

**Installing the patches**

1 Shut down IT Analytics services by executing the following .bat file.

```
C:\opt\aptare\utils\stopallservices.bat
```

---

**Note:** Verify that all the IT Analytics services are stopped by checking in services. If services are still running, the patch installation will not be successful and will cause issues.

---

2 Explicitly stop the **Distributed Transaction Coordinator** service (which is not an Oracle service) if it is running using the following command.

```
net stop msdtc.
```

3 Unzip `p36878821_190000_MSWIN-x86-64.zip` at `C:\opt\oracle`.

4 Unzip `p36878697_190000_MSWIN-x86-64.zip` at `C:\opt\oracle`.

5 Unzip `p36866578_190000_MSWIN-x86-64.zip` at `C:\opt\oracle`.

6 Set PATH using the following command.

```
set PATH=%ORACLE_HOME%\opatch;%PATH%
```

7 If the last OJVM patch, for example, was *19.24.0.0.240716 (36414915)*, then rollback by executing the

`opatch rollback -id 36414915` command and follow the steps to rollback.

8 Navigate to the database bundle patch folder using the following command:

```
cd C:\opt\oracle\36878821
```

9 Check for any OPatch conflicts using the following command for the Database Bundle patch.

```
opatch prereq CheckConflictAgainstOHWithDetail -ph ./
```

10 If no conflict is detected, execute the following command from the folder `C:\opt\oracle\36878821..`

```
C:\opt\oracle\36878821\opatch apply
```

11 Follow the prompts to apply the database bundle patch.

---

**Note:** After unzipping the patch on the server, the readme file is located at: `C:\opt\oracle\36878821`

---

12 Navigate to the OJVM patch folder using the following command:

```
cd C:\opt\oracle\36878697
```

13 Verify any OPatch conflicts for the OJVM patch using the following command:

```
opatch prereq CheckConflictAgainstOHWithDetail -ph ./
```

14 If no conflict is detected, from the folder `C:\opt\oracle\36878697`, execute the following command:

```
C:\opt\oracle\36878697\opatch apply
```

15 Follow the prompts to apply the OJVM patch.

---

**Note:** After unzipping the patch on the server, the readme file is located at: `C:\opt\oracle\36878697`

---

16 Navigate to the JDK patch folder using the following command

```
cd C:\opt\oracle\36866578.
```

17 Verify the OPatch conflicts using the following command for the JDK bundle patch.

```
opatch prereq CheckConflictAgainstOHWithDetail -ph ./
```

18 If no conflicts are detected, execute the following command from the folder `C:\opt\oracle\36866578..`

```
C:\opt\oracle\36866578\opatch apply
```

19 Follow the prompts to apply the JDK Bundle patch.

---

**Note:** After unzipping the patch on the server, the readme file is located at: `C:\opt\oracle\36866578.`

---

20 Verify OPatch succeeded using the following commands which will show the OPatch application results of database, OJVM and JDK patches:

```
C:\opt\oracle\OPatch\opatch lsinventory -detail
```

21 Start IT Analytics Oracle service by executing the following:

```
C:\opt\aptare\utils\startoracle.bat
```

22 Re-start the **Distributed Transaction Coordinator** service, which is not an Oracle service, using the following command.

```
net start msdtc
```

23 **Note:** This step requires the database to be running including the pluggable database.

Connect to SQL Plus using the following command:

```
sqlplus / as sysdba

alter pluggable database all open;

quit
```

24 Execute the following command to complete the post-install SQL deployment for the patch being installed. This data patch command applies the patch to the pluggable database.

```
C:\opt\Oracle\Opatch\datapatch -verbose
```

25 Check the following log files in `C:\opt\oracle\cfgtoollogs\opatch` for errors. The log file name includes the current timestamp.

For example: `opatch202411-04_19-07-05PM_1.log`.

26 Start all the IT Analytics services, including Oracle, by executing the following.

```
C:\opt\aptare\utils\startallservices.bat
```

**Validating the database and OJVM Patches**

1 Connect to SQL Plus using the following command.

```
sqlplus / as sysdba
```

2 Query to check registry for patch history.

```
SQL>select * from sys.registry$history;
```

3 Query to check registry for installed patch.

```
SQL>select * from sys.registry$sqlpatch ;
```

**4** Report output with patch details:

```
SQL> set serveroutput on

SQL> exec dbms_qopatch.get_sqlpatch_status;


Patch Id : 34411846
Action : APPLY
Action Time : 16-NOV-2022 14:08:03
Description : OJVM RELEASE UPDATE: 19.17.0.0.221018 (34411846)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\34411846\24997534/34411846_
apply_SCDBCNTR_CDBROOT_2022Nov16_14_02_11.log
Status : SUCCESS

Patch Id : 34468114
Action : APPLY
Action Time : 16-NOV-2022 14:08:03
Description : Windows Database Bundle Patch : 19.17.0.0.221018 (34468114)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\34468114\24926261/34468114_
apply_SCDBCNTR_CDBROOT_2022Nov16_14_02_11.log
Status : SUCCESS

Patch Id : 34411846
Action : ROLLBACK
Action Time : 28-MAR-2023 18:15:08
Description : OJVM RELEASE UPDATE: 19.17.0.0.221018 (34411846)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\34411846\24997534/34411846_
rollback_SCDBCNTR_CDBROOT_2023Mar28_18_13_58.log
Status : SUCCESS

Patch Id : 34786990
Action : APPLY
Action Time : 28-MAR-2023 18:15:09
Description : OJVM RELEASE UPDATE: 19.18.0.0.230117 (34786990)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\34786990\25141362/34786990_
apply_SCDBCNTR_CDBROOT_2023Mar28_18_13_58.log
Status : SUCCESS

Patch Id : 34750795
```

```
Action : APPLY
Action Time : 28-MAR-2023 18:15:09
Description : Windows Database Bundle Patch : 19.18.0.0.230117 (34750795)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\34750795\25040762/34750795_
apply_SCDBCNTR_CDBROOT_2023Mar28_18_13_58.log
Status : SUCCESS

Patch Id : 34786990
Action : ROLLBACK
Action Time : 18-OCT-2023 20:58:50
Description : OJVM RELEASE UPDATE: 19.18.0.0.230117 (34786990)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\34786990\25141362/34786990_
rollback_SCDBCNTR_CDBROOT_2023Oct18_20_57_20.log
Status : SUCCESS

Patch Id : 35354406
Action : APPLY
Action Time : 18-OCT-2023 20:58:52
Description : OJVM RELEASE UPDATE: 19.20.0.0.230718 (35354406)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\35354406\25338973/35354406_
apply_SCDBCNTR_CDBROOT_2023Oct18_20_57_20.log
Status : SUCCESS

Patch Id : 35348034
Action : APPLY
Action Time : 18-OCT-2023 20:58:52
Description : Windows Database Bundle Patch : 19.20.0.0.230718 (35348034)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\35348034\25299325/35348034_
apply_SCDBCNTR_CDBROOT_2023Oct18_20_57_20.log
Status : SUCCESS

Patch Id : 35354406
Action : ROLLBACK
Action Time : 06-DEC-2023 17:55:22
Description : OJVM RELEASE UPDATE: 19.20.0.0.230718 (35354406)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\35354406\25338973/35354406_
rollback_SCDBCNTR_CDBROOT_2023Dec06_17_54_23.log
Status : SUCCESS
```

```
Patch Id : 35681552
Action : APPLY
Action Time : 06-DEC-2023 17:55:23
Description : Windows Database Bundle Patch : 19.21.0.0.231017 (35681552)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\35681552\25362844/35681552_
apply_SCDBCNTR_CDBROOT_2023Dec06_17_54_23.log
Status : SUCCESS

Patch Id : 35648110
Action : APPLY
Action Time : 06-DEC-2023 18:52:28
Description : OJVM RELEASE UPDATE: 19.21.0.0.231017 (35648110)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\35648110\25431514/35648110_
apply_SCDBCNTR_CDBROOT_2023Dec06_18_52_25.log
Status : SUCCESS

Patch Id : 35648110
Action : ROLLBACK
Action Time : 17-FEB-2024 00:47:47
Description : OJVM RELEASE UPDATE: 19.21.0.0.231017 (35648110)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\35648110\25431514/35648110_
rollback_SCDBCNTR_CDBROOT_2024Feb17_00_46_45.log
Status : SUCCESS

Patch Id : 35926646
Action : APPLY
Action Time : 17-FEB-2024 00:47:48
Description : OJVM RELEASE UPDATE: 19.22.0.0.240116 (35926646)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\35926646\25549578/35926646_
apply_SCDBCNTR_CDBROOT_2024Feb17_00_46_45.log
Status : SUCCESS

Patch Id : 35962832
Action : APPLY
Action Time : 17-FEB-2024 00:47:48
Description : Windows Database Bundle Patch : 19.22.0.0.240116 (35962832)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\35962832\25463642/35962832_
```

```
apply_SCDBCNTR_CDBROOT_2024Feb17_00_46_45.log
Status : SUCCESS

Patch Id : 35926646
Action : ROLLBACK
Action Time : 21-MAY-2024 20:36:23
Description : OJVM RELEASE UPDATE: 19.22.0.0.240116 (35926646)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\35926646\25549578/35926646_
rollback_SCDBCNTR_CDBROOT_2024May21_20_36_23.log
Status : SUCCESS

Patch Id : 36199232
Action : APPLY
Action Time : 21-MAY-2024 20:36:23
Description : OJVM RELEASE UPDATE: 19.23.0.0.240416 (36199232)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\36199232\25655176/36199232_
apply_SCDBCNTR_CDBROOT_2024May21_20_36_23.log
Status : SUCCESS

Patch Id : 36219938
Action : APPLY
Action Time : 21-MAY-2024 20:36:49
Description : Windows Database Bundle Patch : 19.23.0.0.240416 (36219938)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\36219938\25594398/36219938_
apply_SCDBCNTR_CDBROOT_2024May21_20_36_23.log
Status : SUCCESS

Patch Id : 36199232
Action : ROLLBACK
Action Time : 05-AUG-2024 19:23:23
Description : OJVM RELEASE UPDATE: 19.23.0.0.240416 (36199232)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\36199232\25655176/36199232_
rollback_SCDBCNTR_CDBROOT_2024Aug05_19_23_23.log
Status : SUCCESS

Patch Id : 36414915
Action : APPLY
Action Time : 05-AUG-2024 19:23:23
Description : OJVM RELEASE UPDATE: 19.24.0.0.240716 (36414915)
```

```
Logfile :
C:\opt\cfgtoollogs\sqlpatch\36414915\25762332/36414915_
apply_SCDBCNTR_CDBROOT_2024Aug05_19_23_23.log
Status : SUCCESS

Patch Id : 36521936
Action : APPLY
Action Time : 05-AUG-2024 19:24:08
Description : Windows Database Bundle Patch : 19.24.0.0.240716 (36521936)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\36521936\25687085/36521936_
apply_SCDBCNTR_CDBROOT_2024Aug05_19_23_23.log
Status : SUCCESS

Patch Id : 36414915
Action : ROLLBACK
Action Time : 04-NOV-2024 19:23:03
Description : OJVM RELEASE UPDATE: 19.24.0.0.240716 (36414915)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\36414915\25762332/36414915_
rollback_SCDBCNTR_CDBROOT_2024Nov04_19_23_03.log
Status : SUCCESS

Patch Id : 36878697
Action : APPLY
Action Time : 04-NOV-2024 19:23:03
Description : OJVM RELEASE UPDATE: 19.25.0.0.241015 (36878697)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\36878697\25899910/36878697_
apply_SCDBCNTR_CDBROOT_2024Nov04_19_23_03.log
Status : SUCCESS

Patch Id : 36878821
Action : APPLY
Action Time : 04-NOV-2024 19:23:20
Description : Windows Database Bundle Patch : 19.25.0.0.241015 (36878821)
Logfile :
C:\opt\cfgtoollogs\sqlpatch\36878821\25823470/36878821_
apply_SCDBCNTR_CDBROOT_2024Nov04_19_23_03.log
Status : SUCCESS


PL/SQL procedure successfully completed.
```

**Note:** If any previous patches are applied, those patch id will be displayed here.

**5** Exit from SQL prompt:

```
SQL>exit
```

### Validating the JDK version updates

**1**
```
C:\opt\oracle\jdk\bin\java -version

java version "1.8.0_431"

Java(TM) SE Runtime Environment (build 1.8.0_431-b10)

Java HotSpot(TM) 64-Bit Server

VM (build 25.431-b10, mixed mode)
```

**2**
```
C:\opt\oracle\Opatch\jre\bin\java -version

java version "1.8.0_431"

Java(TM) SE Runtime Environment (build 1.8.0_431-b10)

Java HotSpot(TM) 64-Bit Server

VM (build 25.431-b10, mixed mode)
```

Chapter 5

# Upgrade and migrate to a new server

This chapter includes the following topics:



## Upgrade and migrate to a new Windows server

The Portal must be running a minimum of IT Analytics version 11.1 to upgrade to IT Analytics 11.8.

If you migrate a portal from one machine to another, apart from copying over the database, you also need to copy the `c:\opt\aptare\datarcvrconf\aptare.ks` and `c:\opt\aptare\datarcvrconf\aptare_external_password.properties` files, and ensure the file permissions allow writing by the 'tomcat' user. If these files are not copied to the new machine, you will not be able to edit existing collector policies and data collection will stop working.

IT Analytics installer supports Portal and database installation on custom path. If your Portal or database is installed in a non-default location, replace `\opt` with the respective absolute installation path in the commands and procedures provided in this section.

### Install the latest release of IT Analytics on the new server

1. Download the latest release and installation instructions from the www.veritas.com.
2. Perform a fresh install of the database and portal on the new server.

3. The IT Analytics Portal will be installed with evaluation license valid for 60 days. Ensure you request a new license with appropriate entitlement. Refer the *IT Analytics Licensing Guide* for more information.

4. Install the new license, once you receive it.

## Perform an export of the database on the existing server

The database user **Aptare** must have access to the export files stored in the directory:

c:\opt\oracle\database\tools

Verify that Oracle user has read and execute privileges on these files before starting the database export.

1. Log into the Windows database server.
2. Ensure Oracle TNS Listener and Oracle services are running.
3. At the command prompt execute the script:

   `c:\opt\oracle\database\tools\expdp_database_template.bat`

4. After successful completion, the export file aptare_scdb.exp is saved on the Windows database server in the directory:

   C:\opt\oracle\logs

5. Copy the `c:\opt\datarcvrconf\aptare.ks` file to a temporary location.
6. From the temporary location, copy the `aptare.ks` file to `c:\opt\datarcvrconf\` directory for the target system.

## Stop Portal and agent services on the new server

On Windows (as an admin):

```
Execute \opt\aptare\utils\stopportal.bat
Execute \opt\aptare\utils\stopagent.bat
```

## Drop and re-create the existing portal user on the new server

On Windows (as member of ORA_DBA group):

- sqlplus / as sysdba
- drop user portal cascade;
  @/opt/aptare/database/ora_scripts/create_portal_user.plb;

## Import the database onto the new server

Follow the instructions for your platform in the Importing the Oracle Database section in the *IT Analytics System Administrator Guide*.

## Start Portal and agent services on the new server

On Windows (as an admin):

```
Execute \opt\aptare\utils\startportal.bat
Execute \opt\aptare\utils\startagent.bat
```

## Download, install, and execute to upgrade the database schema

If you are importing an old version database to 11.8 for your new IT Analytics 11.8 portal, you can follow below instructions

1. Download the upgrade installer and documentation from the www.veritas.com.
2. Run the upgrade installer.

   See "Run the upgrade utility installer (Windows)" on page 33.

   This installs the upgrade executable, but does not execute it.
3. In the last step of upgrader, select **Run Later** option to continue.
4. Open a command prompt and go to `C:\opt\aptare\upgrade`.
5. Run `db-upgrade.bat` and follow the instructions to upgrade the database.
6. After completion of db-upgrade.bat, you can login to portal with your admin credentials and try installing the new license.
7. Login again and access IT Analytics portal.
8. Verify that all IT Analytics application services are up and running.
9. As user **root**, run the following relevant command and respond to the prompts accordingly:
   - On Windows:

     ```
     C:\opt\aptare\upgrade\upgrade.bat
     ```

     You will receive warnings that your current version is already up to date, proceed.
     Once the script has completed, review the log file indicated to check for any errors

## Testing

If desired, you can use the local host file method of IP address resolution to test the functionality of the new portal prior to any DNS cut-over from the existing server.

## Update Data Collector binaries (if necessary)

Do not install on the same machine as the new portal/database server.

1. Download the Data Collector installer and documentation from www.veritas.com.
2. Follow the instructions in the documentation for your Data Collector to uninstall.
3. Re-install the Data Collector to the latest version, giving the correct URL for the new server.