Oracle® GoldenGate

Upgrading Oracle GoldenGate Veridata

12*c* (12.2.1.4.0)
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Oracle GoldenGate Upgrading Oracle GoldenGate Veridata, 12*c* (12.2.1.4.0)

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Preface

This document describes how to upgrade an existing Oracle GoldenGate Veridata 12c (12.2.1.2.0) or Oracle GoldenGate Veridata 12c (12.2.1.2.0) plus Bundle Patch environment to 12.2.1.4.0.

Audience

Identify the target audience for your document and learn more about this document intended for.

This document is intended for system administrators who are responsible for installing, maintaining, and upgrading Oracle GoldenGate Veridata. It is assumed that readers have knowledge of the following:

- Oracle Fusion Middleware system administration and configuration.
- Configuration parameters and expected behavior of the system being upgraded.

Documentation Accessibility

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Related Information

The Oracle GoldenGate Product Documentation Libraries are found at

https://docs.oracle.com/en/middleware/goldengate/index.html

Additional Oracle GoldenGate information, including best practices, articles, and solutions, is found at:

Oracle GoldenGate A-Team Chronicles

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Preparing for the Oracle GoldenGate Veridata Upgrade

Before you upgrade Oracle GoldenGate Veridata, let's make sure you meet the requirements and understand the process.
This chapter includes the following sections:

- Overview of the Oracle GoldenGate Veridata Upgrade Process
- Oracle GoldenGate Veridata Server Upgrade Roadmap
- Readiness Check for Veridata
- Pre-Upgrade Tasks for Oracle GoldenGate Veridata Upgrade
- Understanding the Upgrade Prerequisites

1.1 Overview of the Oracle GoldenGate Veridata Upgrade Process

The upgrade process described in this document applies to upgrades from Oracle GoldenGate Veridata Release 12c (12.2.1.2.0) to 12.2.1.4.0.

The following table describes the directories and the variables that are used when referring to those directories in this book.

Table 1-1 Directories in an Oracle GoldenGate Veridata Installation

Directory Variable	Directory Path
ORACLE_HOME	*/install_location* This is the home directory for the Oracle Fusion Middleware products.
VERIDATA_PRODUCT_HOME	*/ORACLE_HOME*/veridata
OLD_AGENT_ORACLE_HOME	*/VERIDATA_PRODUCT_HOME*/agent for your existing 12.2.1.2.0 Oracle GoldenGate Veridata Agent.
NEW_AGENT_ORACLE_HOME	*/VERIDATA_PRODUCT_HOME*/agent for your new 12.2.1.4.0 Oracle GoldenGate Veridata Agent.
AGENT_DEPLOY_LOCATION	This is the location where the Oracle GoldenGate Veridata Agent is deployed in the Oracle WebLogic Server domain. **Note:** that this location should be outside the *ORACLE_HOME.*

1.2 Oracle GoldenGate Veridata Server Upgrade Roadmap

Follow the steps below to upgrade Oracle GoldenGate Veridata:

1. Before you upgrade, back up your existing environment then ensure that all pre-upgrade requirements are met. See "Pre-Upgrade Tasks for Oracle GoldenGate Veridata Upgrade".
2. Ensure that all upgrade prerequisites are met. See Understanding the Upgrade Prerequisites.
3. Install Oracle GoldenGate Veridata 12*c* (12.2.1.4.0). See Installing and Configuring Oracle GoldenGate Veridata.
4. Install Oracle GoldenGate Veridata Agent 12*c* (12.2.1.4.0). See Installing the Oracle GoldenGate Veridata Agent Files.
5. Perform a readiness check then upgrade your existing environment to Oracle GoldenGate Veridata 12*c* (12.2.1.4.0). See Readiness Check for Veridata.
6. Perform the necessary post-upgrade tasks. See Performing Post-Upgrade Tasks .

1.3 Readiness Check for Veridata

Oracle recommends that you run a readiness check before starting the upgrade process to identify potential issues with the upgrade. The readiness check may not be able to discover all potential issues with your upgrade. It is possible that an upgrade may still fail, even if readiness check reports success.

This chapter includes the following section:

- Readiness Check for 12.2.1.2.0 Expanded Domain and 12.2.1.4.0

1.3.1 Readiness Check for 12.2.1.2.0 Expanded Domain and 12.2.1.4.0

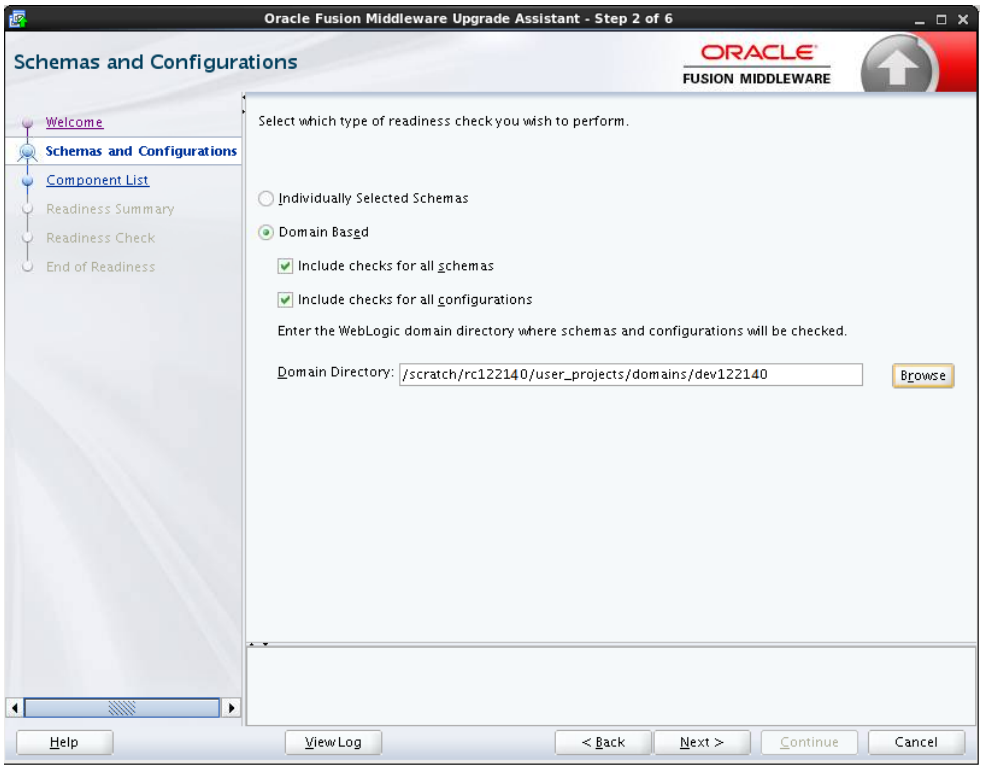
Schema and configuration Readiness is supported for 12.2.1.2.0 expanded domain.

To run Readiness Check for 12.2.1.2.0 expanded domain and 12.2.1.4.0:

1. Run UA present under 12.2.1.4.0 `Oracle_Home` in readiness mode:
   - On UNIX: `./ua -readiness -logLevel TRACE`
   - On Windows: `./ua.bat -readiness -logLevel TRACE`

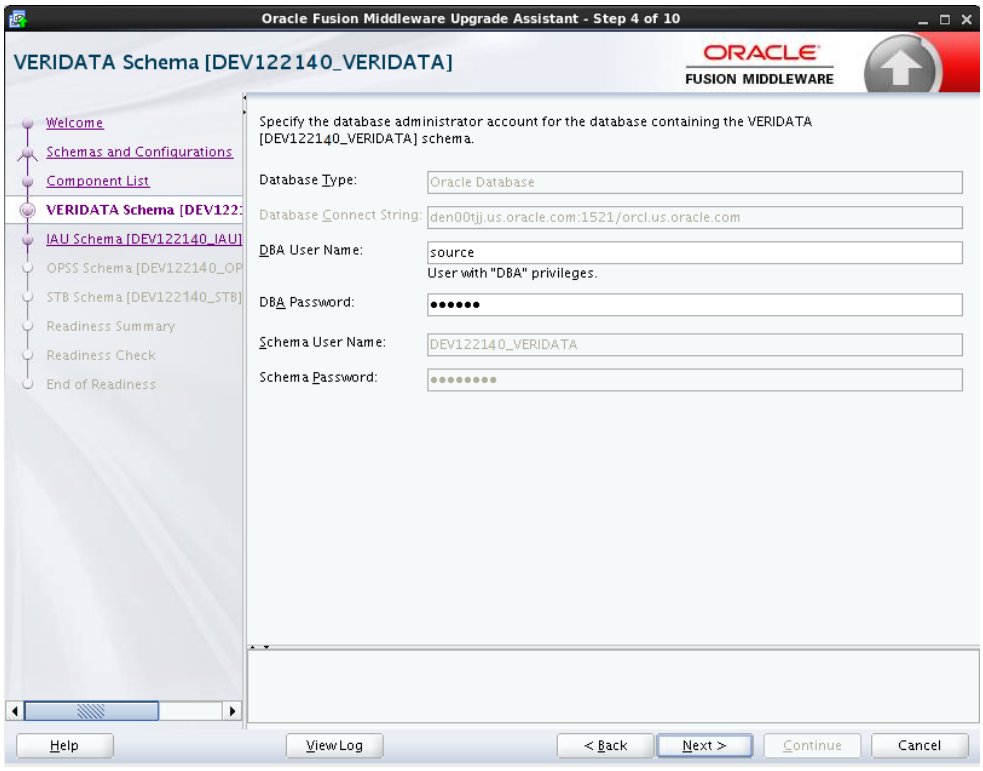
   > **Note:**
   >
   > A default logging level is NOTIFICATION. In general `-logLevel TRACE` is recommended for Oracle GoldeGate Veridata.
   > When setting the `-logLevel` to `TRACE`, more information is logged and that is used to troubleshoot a failed upgrade. The Oracle Fusion Middleware Upgrade Assistant's log files may become very large if `-logLevel TRACE` is used.

   The Welcome screen of the Upgrade Assistant is displayed. Click **Next**.
2. Select **Domain Based** option, select both the displayed checkboxes, provide the domain location. Click **Next**.

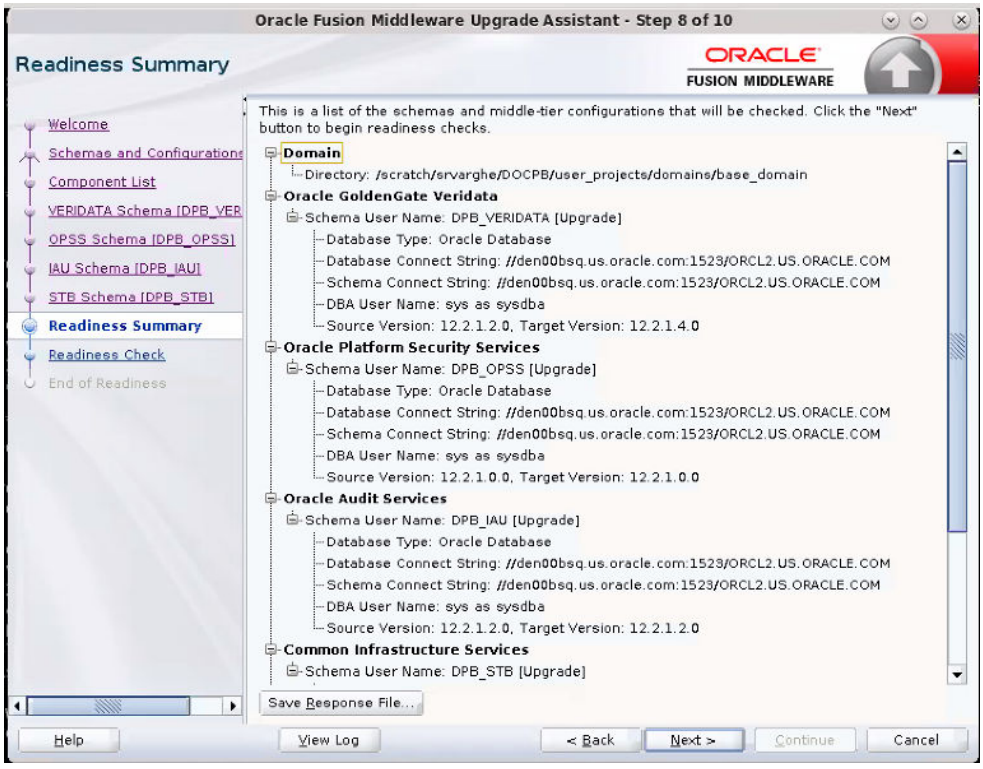


3. Verify the details shown on this screen. Click **Next**.

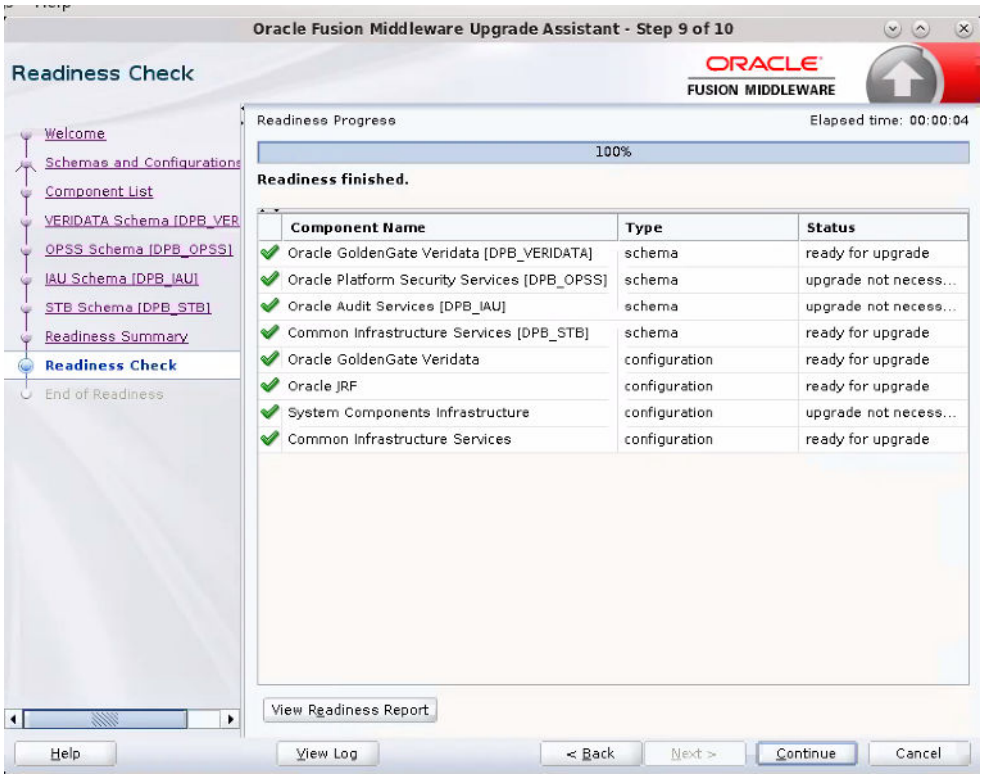
4. On the **VERIDATA Schema** page, enter the connection credentials for the database containing the schema you want to check. Click **Next**.



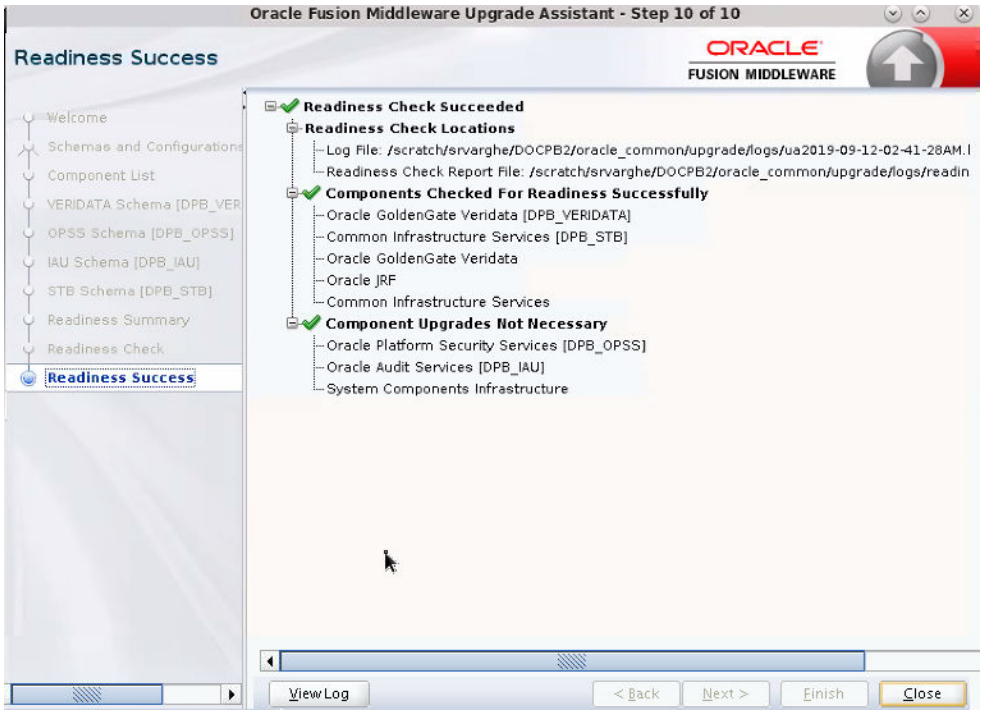
5. Check the screen and go through the Readiness Summary. Click **Next**.



6. The readiness check is performed and the results are displayed on the below screen. Click **Continue**.



7. The Readiness Success screen shows to Readiness Check Succeeded.



To troubleshoot issues that might occur during Readiness Check, review the logs.

1.4 Pre-Upgrade Tasks for Oracle GoldenGate Veridata Upgrade

Before you upgrade, you must do the following:

1. Ensure that no jobs are running in your existing Veridata instance.
2. Stop your existing Veridata Server.
3. Stop all of your existing Veridata Agents.
4. Back up the Veridata Agent configuration files.

   For more information about back up the Veridata Agent configuration files, see Upgrading the Oracle GoldenGate Veridata Agent
5. Back up the Veridata repository.

   For more information about back up the Veridata repository, see Creating a Complete Backup
6. Back up old report files. Do not delete the existing report location if you want to retain old reports.

1.5 Understanding the Upgrade Prerequisites

Following are the prerequisites for upgrading your existing Oracle GoldenGate Veridata Server to 12*c* (12.2.1.4.0):

- JDK 8 must be installed on the target machine. For more information about the JDK 8 installation, see the *Java Platform, Standard Edition Installation Guide* at

  `https://docs.oracle.com/javase/8/docs/technotes/guides/install/install_overview.html`
- Oracle WebLogic Server 12*c* (12.2.1.4.0) with JRF installed on the target machine. For more information, see Configuring Your WebLogic Domain.

  > **Note:**
  >
  > Install the Oracle GoldenGate12c (12.2.1.4.0) distributions into a new Oracle home. Do not reuse the existing Oracle home for this upgrade as 12c (12.2.1.4.0) is not a patch release.
- Before you begin your upgrade, use the Oracle Universal Installer to install the Oracle GoldenGate Veridata 12c (12.2.1.4.0) distribution on the target system.

  > **Note:**
  >
  > You must install the Oracle Fusion Middleware Infrastructure distribution first before installing Oracle GoldenGate Veridata 12c (12.2.1.4.0) as Infrastructure is required for the upgrade.
  > For more information, see Installing Oracle GoldenGate Veridata

- If required, upgrade the Veridata repository database. For more details about the supported databases, see the system requirements document at

  https://support.oracle.com/

For more information about the certification, see Verifying Certification and System Requirements

2
Upgrading Oracle GoldenGate Veridata

Follow step by step procedures to upgrade your system and also upgrade your utilities such as schemas and Oracle GoldenGate Veridata agent.
This chapter includes the following sections:

- Choosing an Upgrade Path and Upgrading
- Upgrade Utilities

2.1 Choosing an Upgrade Path and Upgrading

To upgrade your existing Oracle GoldenGate Veridata release to the Veridata 12*c* (12.2.1.4.0) release, choose the appropriate upgrade path for your environment and follow the steps in the section to proceed with your upgrade:

- Upgrading GoldenGate Veridata 12.2.1.2.0 Domain to 12.2.1.4.0

2.1.1 Upgrading GoldenGate Veridata 12.2.1.2.0 Domain to 12.2.1.4.0

To upgrade from a GoldenGate Veridata 12.2.1.2.0 domain to Veridata 12.2.1.4.0:

1. Run the Upgrade Assistant to upgrade your Veridata and OPSS schema to 12.2.1.4.0 with Upgrading Veridata Schemas which is the recommended way to upgrade as mentioned in All Schemas Used by Domain.
2. Run the Oracle WebLogic Server Reconfiguration Wizard to reconfigure your existing 12.2.1.2.0 domain to a 12.2.1.4.0 domain with this command.

   ```
   ORACLE_HOME/oracle_common/common/bin/reconfig.sh -log=logFileName.log -
   log_priority=FINE
   ```

3. Start your Veridata WebLogic Server and domain. See Starting the Servers in the *Installing and Configuring Oracle GoldenGate Veridata* Guide.
4. Run the `agent_config` utility to upgrade your Veridata Agent with Upgrading the Oracle GoldenGate Veridata Agent.
5. Go to Performing Post-Upgrade Tasks .

> **Note:**
>
> After the Oracle GoldenGate Veridata gets upgraded successfully to 12.2.1.4.0, before launching the user interface (UI), ensure to clear the browser cache. Once cache is cleared, you can launch the Oracle GoldenGate Veridata UI.

2.2 Upgrade Utilities

This section contains explanations of how to use each of the upgrade utilities for the various upgrade paths that are identified in Choosing an Upgrade Path and Upgrading. You are directed to use these utilities with the steps in your chosen upgrade path:

- Upgrading Veridata Schemas
- Upgrading the Oracle GoldenGate Veridata Agent

For more information about the Upgrade Utilities, see About Using the Upgrade Assistant.

2.2.1 Upgrading Veridata Schemas

The Oracle Fusion Middleware Upgrade Assistant upgrades your Oracle GoldenGate Veridata schema to 12*c* (12.2.1.4.0). For more information about the features of Upgrade Assistant, see About Using the Upgrade Assistant.

This topic contains the following:

- Upgrading Oracle GoldenGate Veridata Schemas from 12.2.1.2.0 Domain to 12.2.1.4.0

2.2.1.1 Upgrading Oracle GoldenGate Veridata Schemas from 12.2.1.2.0 Domain to 12.2.1.4.0

The Oracle Fusion Middleware Upgrade Assistant upgrades your Oracle GoldenGate Veridata schema to 12*c* (12.2.1.4.0).

To upgrade the Veridata repository schema from 12.2.1.2.0 Domain to 12.2.1.4.0:

1. To start Upgrade Assistant, go to the *ORACLE_HOME*`/oracle_common/upgrade/bin` directory, and enter the following command:

   On UNIX: `./ua`

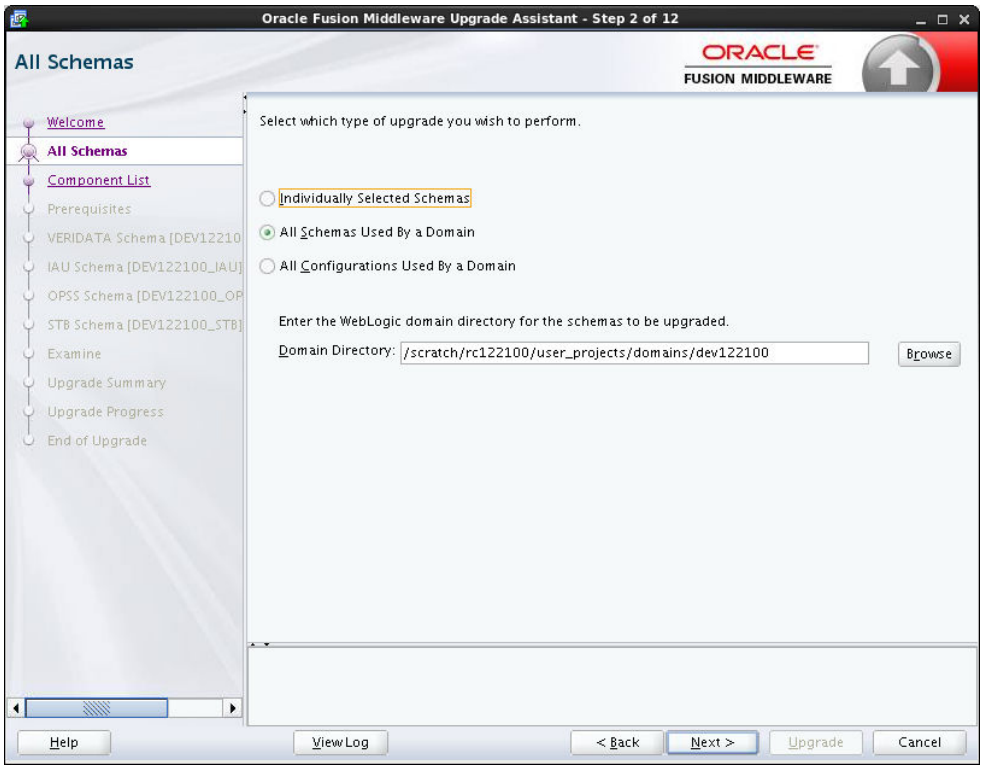
   > **Note:**
   >
   > A default logging level is NOTIFICATION. In general -logLevel TRACE is recommended for Veridata.
   > When setting the -logLevel to TRACE, more information is logged and that is used to troubleshoot a failed upgrade. The Oracle Fusion Middleware Upgrade Assistant's log files may become very large if -logLevel TRACE is used.

   On Windows: `ua.bat`

> **Note:**
>
> A default logging level is NOTIFICATION. In general -logLevel TRACE is recommended for Veridata.
> When setting the -logLevel to TRACE, more information is logged and that is used to troubleshoot a failed upgrade. The Oracle Fusion Middleware Upgrade Assistant's log files may become very large if -logLevel TRACE is used.

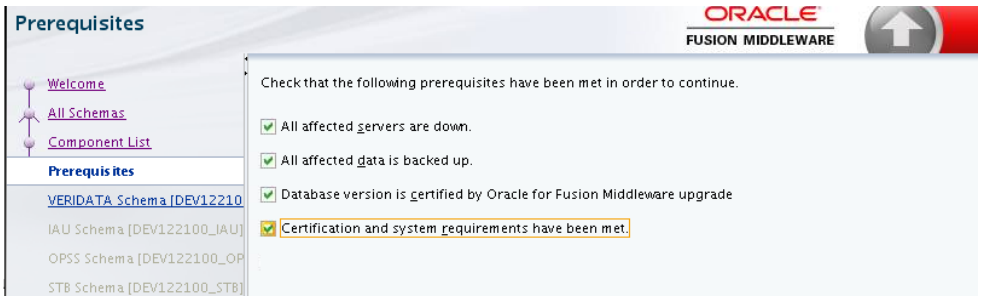
The Welcome screen of the Upgrade Assistant appears. Click **Next**.

2. Select **All Schemas Used By a Domain** as the upgrade type. Click **Next**.

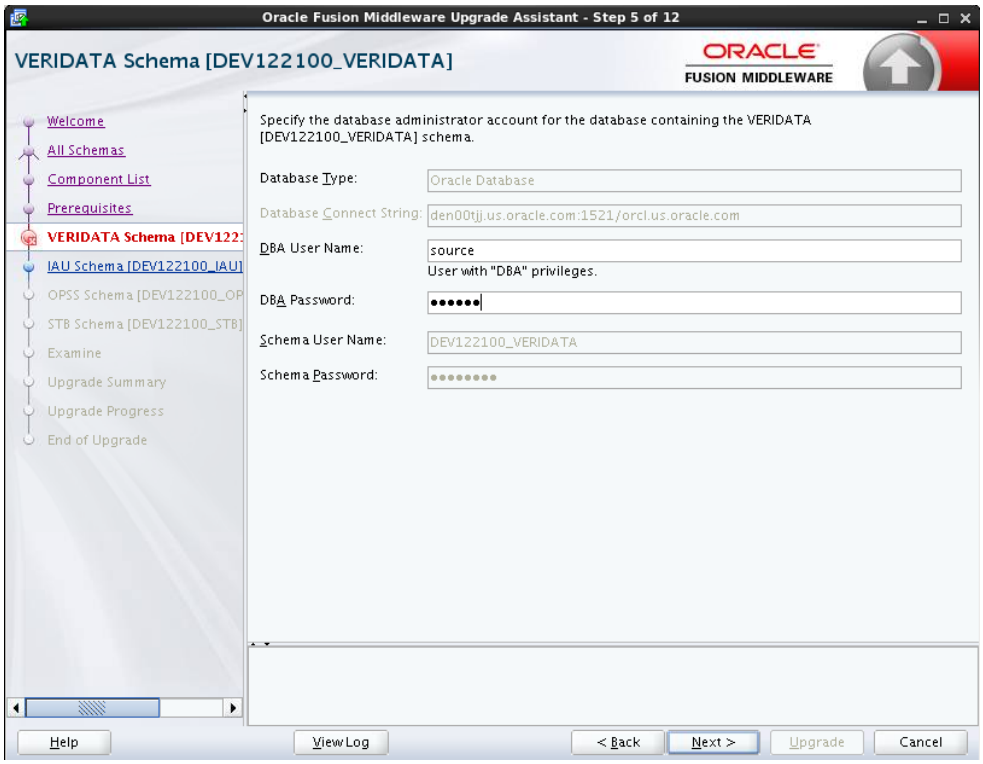


After selecting Next, the screen displays the auto-selected schemas as shown in the following figure:

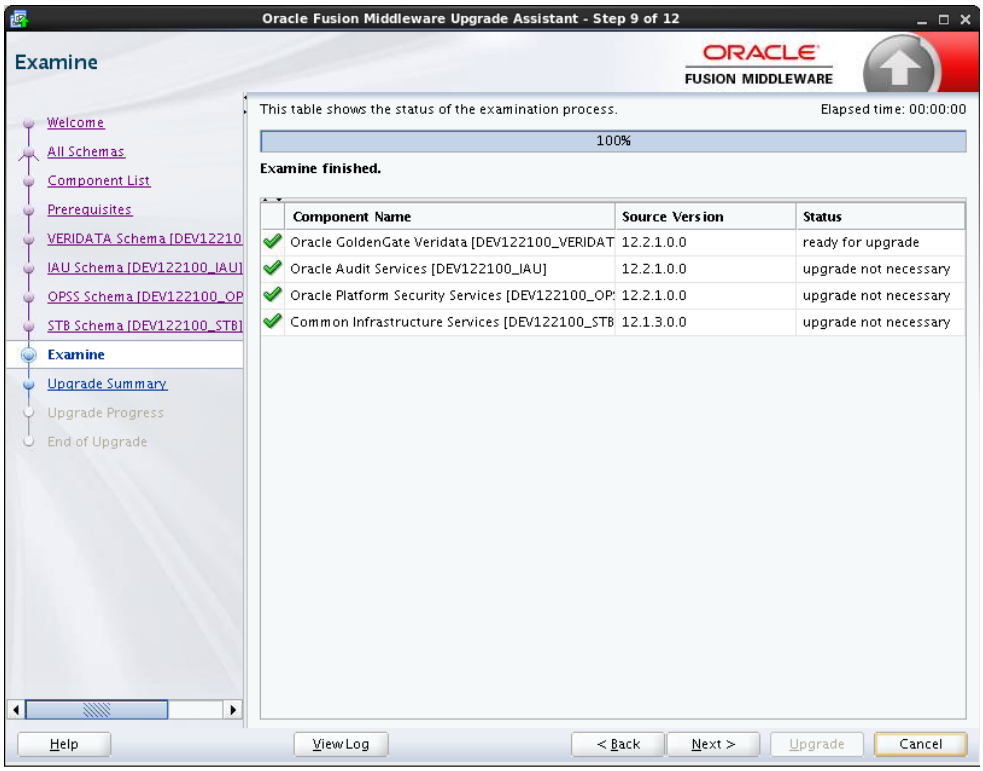
3. You must select all the checkboxes to continue. The Upgrade Assistant will not verify that the prerequisites have been met.



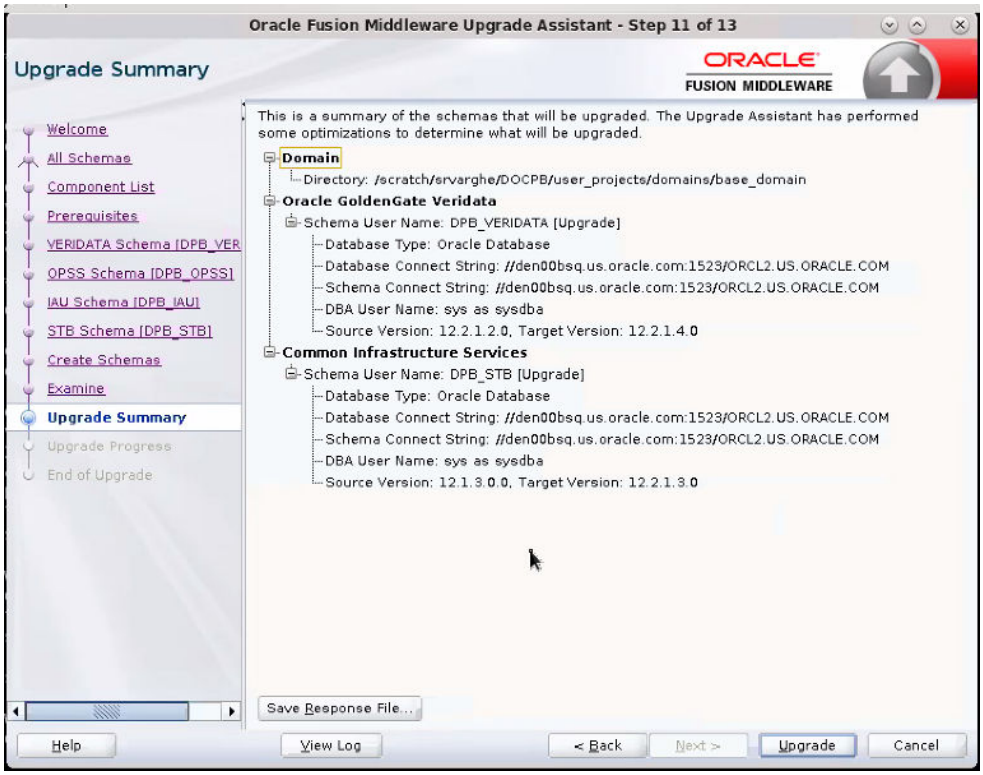
4. On the **VERIDATA Schema** page, enter the connection credentials for the database containing the schema you want to upgrade.



5. On the Examine screen, the Upgrade Assistant performs a series of validations before upgrading the selected components. Ensure that all validations have succeeded. Click **Next**.



6. Click Upgrade on the Upgrade Summary screen to begin the upgrade. The Upgrade Progress screens shows information about the progress of the upgrade, and the Upgrade Success screen summarizes the upgrade.



To verify the schema upgrade, follow the procedure as described in Verifying the Schema Upgrade.

To troubleshoot issues that might occur during schema upgrade, review the logs as described in Troubleshooting your Upgrade.

2.2.2 Upgrading the Oracle GoldenGate Veridata Agent

1. Upgrade your existing Oracle GoldenGate Veridata Agent to 12c (12.2.1.4.0) agent by running the following command:

   Deploy the Veridata Agent to the same location used in 12c (12.2.1.2.0) setup.

   ORACLE_HOME`/veridata/agent/agent_config.sh` *OLD_AGENT_ORACLE_HOME*. This command replaces the following files with the new 12.2.1.4.0 files:

   On Unix:

   ```
   agent.properties.sample
   config/agent-jps-config.xml
   config/certs/serverIdentity.jks
   config/certs/serverTrust.jks
   config/odl.xml;
   agent.sh
   configure_agent_ssl.sh
   ```

   On Windows:

```
agent.bat
agent.properties.sample
config/agent-jps-config.xml
config/certs/serverIdentity.jks
config/certs/serverTrust.jks
config/odl.xml
configure_agent_ssl.bat
service/Install_Veridata_Agent.bat
service/README.txtservice/Start_Veridata_Agent.bat
service/Stop_Veridata_Agent.bat
service/Uninstall_Veridata_Agent.bat
service/agent_service.properties
```

2. (Optional) If you have changed any of the files listed in step 1 in the previous release, then use your backup files to replace these changed files. If your Veridata Agent is installed as a service in Windows machine, then update the `service/agent_service.properties` property with the same service name that you used in the previous release.
3. (Optional) To configure SSL communication between the Veridata Agent and the Server, set the SSL properties for the agent and follow the procedure as described in "Configuring Oracle GoldenGate Veridata Security" chapter in the *Administering Oracle GoldenGate Veridata* Guide.
4. Start your Oracle GoldenGate Veridata Agent.

3
Performing Post-Upgrade Tasks

Perform these tasks to verify your upgrade was successful. This chapter includes the following sections:

- Verifying the Schema Upgrade
- Verifying the Oracle GoldenGate Veridata Configuration Upgrade
- Managing Oracle GoldenGate Veridata Users
- Verifying Veridata Report Files
- Clearing your Browser Cookies
- Troubleshooting your Upgrade

3.1 Verifying the Schema Upgrade

To verify that the schema has been upgraded, run the following SQL query on the `schema_version_registry` table from the database host by an `admin` or `root` user:

Oracle:

```
SELECT COMP_ID,COMP_NAME,MRC_NAME,OWNER,VERSION,STATUS,UPGRADED FROM
schema_version_registry where MRC_NAME='Prefix Specified in RCU';
```

For example:

```
SQL> SELECT COMP_ID,COMP_NAME,MRC_NAME,OWNER,VERSION,STATUS,UPGRADED FROM
schema_version_registry where MRC_NAME='DEV100';
```

SQL Server:

```
SELECT COMP_ID,COMP_NAME,MRC_NAME,OWNER,VERSION,STATUS,UPGRADED FROM
DB_NAME.dbo.schema_version_registry where MRC_NAME='Prefix Specified in RCU';
```

DB_NAME is the name of the database you specified while running the RCU.

For example:

```
SELECT COMP_ID, comp_name, mrc_name, owner, version, status, upgraded FROM
veridata12.dbo.schema_version_registry where mrc_name='DEV';
```

Example 3-1 Sample Output of the Query on All Databases

COMP_ID	COMP_NAME	MRC_NAME	OWNER	VERSION	STATUS	UPGRADED
IAU	Audit Service	DEV100	DEV100_IAU	12.2.1.2.0	VALID	N

COMP_ID	COMP_NAME	MRC_NAME	OWNER	VERSION	STATUS	UPGRADED
IAU_APPEND	Audit Service Append	DEV100	DEV100_IAU_APPEND	12.2.1.2.0	VALID	N
IAU_VIEWER	Audit Service Viewer	DEV100	DEV100_IAU_VIEWER	12.2.1.2.0	VALID	N
OPSS	Oracle Platform Security Services	DEV100	DEV100_OPSS	12.2.1.0.0	VALID	N
STB	Service Table	DEV100	DEV100_STB	12.2.1.3.0	VALID	Y
VERIDATA	**Veridata Repository**	**DEV100**	**VERIDATAONE**	**12.2.1.4.0**	**VALID**	Y

3.2 Verifying the Oracle GoldenGate Veridata Configuration Upgrade

After upgrading to Oracle GoldenGate Veridata 12*c* (12.2.1.4.0), you can verify the following and confirm whether the upgrade was successful:

- **Verify the configuration properties**: After upgrade, the configuration properties are copied to the `veridata.cfg` file located in the `VERIDATA_DOMAIN_HOME/config/veridata` directory. If any of the default values were changed in the 12.2.1.2.0 installation before upgrade, verify the values are copied to the `veridata.cfg` file after upgrade.

  > **Note:**
  >
  > The `veridata.cfg` file contains only the properties which are valid in 12c. Deprecated properties are not copied after upgrade.

- **Verify the connections**: After upgrade, Veridata users can login to the Veridata application and verify the existing connections. If the password fields are not empty and if the Test Connection succeeds, then the upgrade is successful.

3.3 Managing Oracle GoldenGate Veridata Users

After upgrading to Oracle GoldenGate Veridata 12*c* (12.2.1.4.0), users are managed as follows:

- Oracle GoldenGate Veridata 12.2.1.2.0 users for Oracle and SQL Server can be used in Veridata 12.2.1.4.0.

For more information about creating and managing users using the Oracle WebLogic Administration Console, see "Securing Access to Oracle GoldenGate Veridata by Defining User Roles" in *Adminstering Oracle GoldenGate Veridata Guide*.

3.4 Verifying Veridata Report Files

The Veridata report file location is defined by the `server.veridata_data` property in the `veridata.cfg` file. In 12*c* (12.2.1.4.0), the default location is *`VERIDATA_DOMAIN_HOME`*`/veridata/reports`. For more information about the `server.veridata_data` property see "Server Parameters" section in *Adminstering Oracle GoldenGate Veridata Guide*.

If you have specified another location for the report files in the Oracle GoldenGate Veridata 12.2.1.2.0 installation then the same location will be used in the Oracle GoldenGate Veridata 12*c* (12.2.1.4.0) after upgrade. To access the old report files after upgrade, you should retain the directory structure of the report files.

3.5 Clearing your Browser Cookies

After the Oracle GoldenGate Veridata upgrade to 12.2.1.4.0 is successfully completed, ensure to clear browser cookies before you launch the Oracle GoldenGate Veridata user interface.

3.6 Troubleshooting your Upgrade

If the upgrade process fails, you must close the Upgrade Assistant, correct the issue, and then restart the Upgrade Assistant.

Reviewing Log Files

By default, upgrade log files are created and saved in the *`ORACLE_HOME`*`/oracle_common/upgrade/logs/` directory. You can review these log files to diagnose problems that might have occurred during the upgrade process.

The log file location is displayed on the console where you run the Upgrade Assistant.

For Veridata schema upgrade, only one log file is created, but when you upgrade Veridata configuration, two log files are created. One is the default log file and the other is an output log file. The output log file is created at the same location but with an `.out` extension. The file name remains the same

For more troubleshooting information, see "Troubleshooting Your Upgrade" in the *Oracle FusionMiddleware Upgrading with the Upgrade Assistant Guide*.