Oracle® GoldenGate

Upgrading Oracle GoldenGate Veridata

12*c* (12.2.1.2.0)
E78473-02
December 2017

Oracle GoldenGate Upgrading Oracle GoldenGate Veridata, 12*c* (12.2.1.2.0)

E78473-02

Copyright © 2015, 2017, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

Preface

Audience v
Documentation Accessibility v
Related Information v
Conventions vi

1 Preparing for the Oracle GoldenGate Veridata Upgrade

Overview of the Oracle GoldenGate Veridata Upgrade Process 1-1
Oracle GoldenGate Veridata Server Upgrade Roadmap 1-2
Readiness Check for Veridata 1-2
- Readiness Check for 11g and 12.1.3 Compact Domain 1-2
- Readiness Check for 12.1.3 expanded domain and 12.2.1.0.0 1-5

Pre-Upgrade Tasks for Oracle GoldenGate Veridata Upgrade 1-9
Understanding the Upgrade Prerequisites 1-10

2 Upgrading Oracle GoldenGate Veridata

Choosing an Upgrade Path and Upgrading 2-1
- Upgrading Veridata 11g to Veridata 12.2.1.2.0 2-1
- Upgrading Veridata 12.1.3 Compact Domain to 12.2.1.2.0 2-2
- Upgrading Veridata 12.1.3 Expanded Domain to Veridata 12.2.1.2.0 2-2
- Upgrading Veridata 12.2.1 Domain to Veridata 12.2.1.2.0 2-3
- Migrating a MySQL Repository Configuration to Veridata 12.2.1.2.0 2-3

Upgrade Utilities 2-5
- Creating Repository Schemas using Repository Creation Utility 2-5
  - Creating Schema for an 11g to 12.2.1.2.0 Upgrade 2-6
  - Creating Schema for a 12.1.3 Compact Domain SQL Server to 12.2.1.2.0 Upgrade 2-6
- Creating the Veridata Domain using the Upgraded Schema 2-7
- Upgrading Veridata Schemas 2-8
  - Upgrading Veridata Schema from 11g to 12.2.1.2.0 2-8

Upgrading Oracle GoldenGate Veridata Schema from 12.1.3 Compact Domain to 12.2.1.2.0 2-11
Upgrading Veridata Schemas from 12.1.3 Expanded Domain to 12.2.1.2.0 2-14
Upgrading Veridata Schemas from 12.2.1 Domain to 12.2.1.2.0 2-16
Upgrading Your Oracle GoldenGate Veridata Configuration 2-20
Upgrading the Veridata Agent 2-22

3 Performing Post-Upgrade Tasks

Verifying the Schema Upgrade 3-1
Verifying the Veridata Configuration Upgrade 3-2
Managing Veridata Users 3-2
Verifying Veridata Report Files 3-3
Troubleshooting your Upgrade 3-3

Preface

This document describes how to upgrade an existing Oracle GoldenGate Veridata 11g or 12*c* (12.1.3) or 12*c* (12.2.1) environment to 12*c* (12.2.1.2.0).

- Audience
- Documentation Accessibility
- Related Information
- Conventions

Audience

This document is intended for system administrators who are responsible for installing, maintaining, and upgrading Oracle GoldenGate Veridata.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc`.

Accessible Access to Oracle Support

Oracle customers who have purchased support have access to electronic support through My Oracle Support. For information, visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info` or visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs` if you are hearing impaired.

Related Information

The Oracle GoldenGate Product Documentation Libraries are found at

Oracle GoldenGate

Oracle GoldenGate Application Adapters

Oracle GoldenGate for Big Data

Oracle GoldenGate Plug-in for EMCC

Oracle GoldenGate Monitor

Oracle GoldenGate for HP NonStop (Guardian)

Oracle GoldenGate Veridata

Oracle GoldenGate Studio

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 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

- 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

Overview of the Oracle GoldenGate Veridata Upgrade Process

The upgrade process described in this document applies to upgrades from Oracle GoldenGate Veridata Release 11g (11.2.1.0.0), 12c (12.1.3), and greater 12c (12.2.1) to Oracle GoldenGate Veridata Release 12c (12.2.1.2.0).

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 11g or 12c (12.1.3) or (12.2.1) Veridata Agent.
NEW_AGENT_ORACLE_HOME	*/VERIDATA_PRODUCT_HOME*/agent for your new 12c (12.2.1.2.0) Veridata Agent.

Table 1-1 (Cont.) Directories in an Oracle GoldenGate Veridata Installation

Directory Variable	Directory Path
AGENT_DEPLOY_LOCATION	This is the location where the Veridata Agent is deployed in the WebLogic Server domain. **Note:** that this location should be outside the *ORACLE_HOME*.

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* (12.2.1.2.0). See Installing and Configuring Oracle GoldenGate Veridata.
4. Install Oracle GoldenGate Veridata Agent 12*c* (12.2.1.2.0). See Installing and Configuring Oracle GoldenGate Monitor Agent.
5. Perform a readiness check then upgrade your existing environment to Oracle GoldenGate Veridata 12*c* (12.2.1.2.0). See Readiness Check for Veridata.
6. Perform the necessary post-upgrade tasks. See Performing Post-Upgrade Tasks .

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 sections:

- Readiness Check for 11g and 12.1.3 Compact Domain
- Readiness Check for 12.1.3 expanded domain and 12.2.1.0.0
- Readiness Check for 11g and 12.1.3 Compact Domain
- Readiness Check for 12.1.3 expanded domain and 12.2.1.0.0

Readiness Check for 11g and 12.1.3 Compact Domain

Schema Readiness is supported for 11g and 12.1.3 compact domain versions.

To run Readiness Check for 11g and 12.1.3 follow the instructions below:

1. Run UA in readiness mode

   On UNIX: `./ua -readiness -logLevel TRACE`

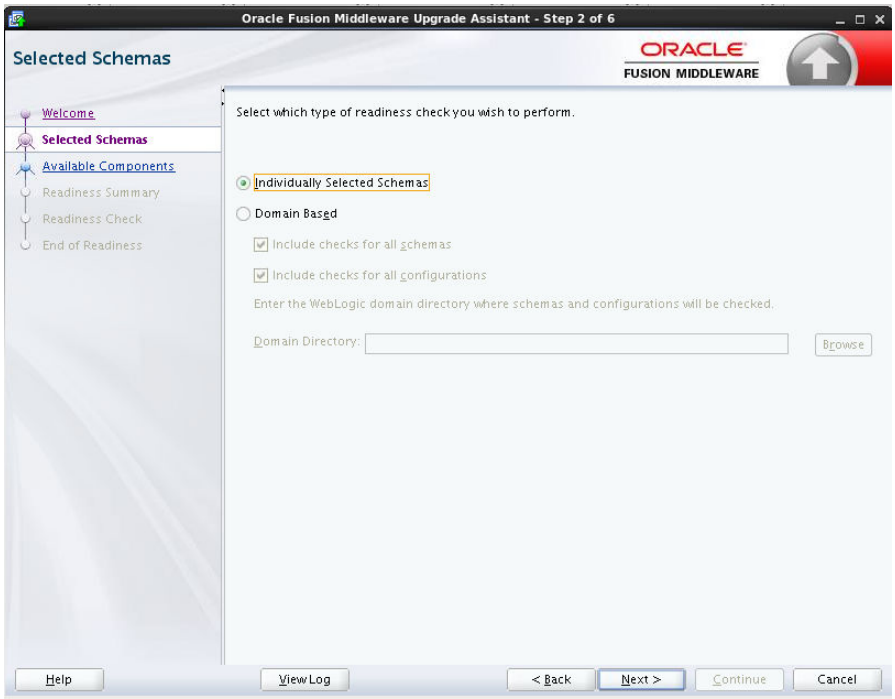
> **Note:**
>
> A default logging level is NOTIFICATION. In general -logLevel TRACE is recommended for Veridata.
> When setting the -logLevel to TRACE, more information is logged and that is used to troubleshoot a failed upgrade. The Oracle Fusion Middleware Upgrade Assistant's log files may become very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

On Windows: `./ua.bat -readiness -logLevel TRACE`

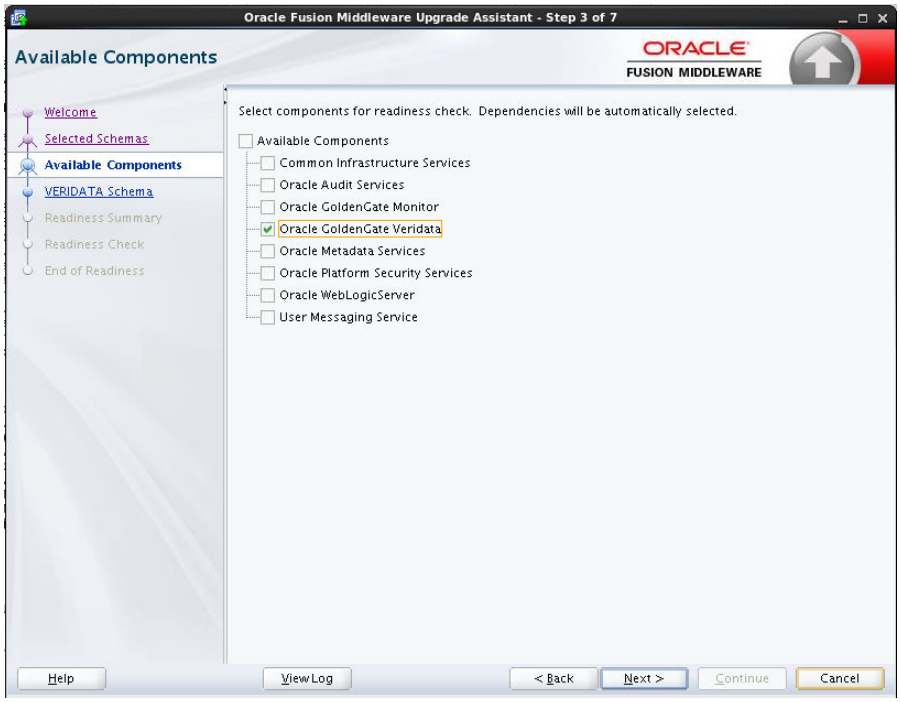
> **Note:**
>
> A default logging level is NOTIFICATION. In general -logLevel TRACE is recommended for Veridata.
> When setting the -logLevel to TRACE, more information is logged and that is used to troubleshoot a failed upgrade. The Oracle Fusion Middleware Upgrade Assistant's log files may become very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

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

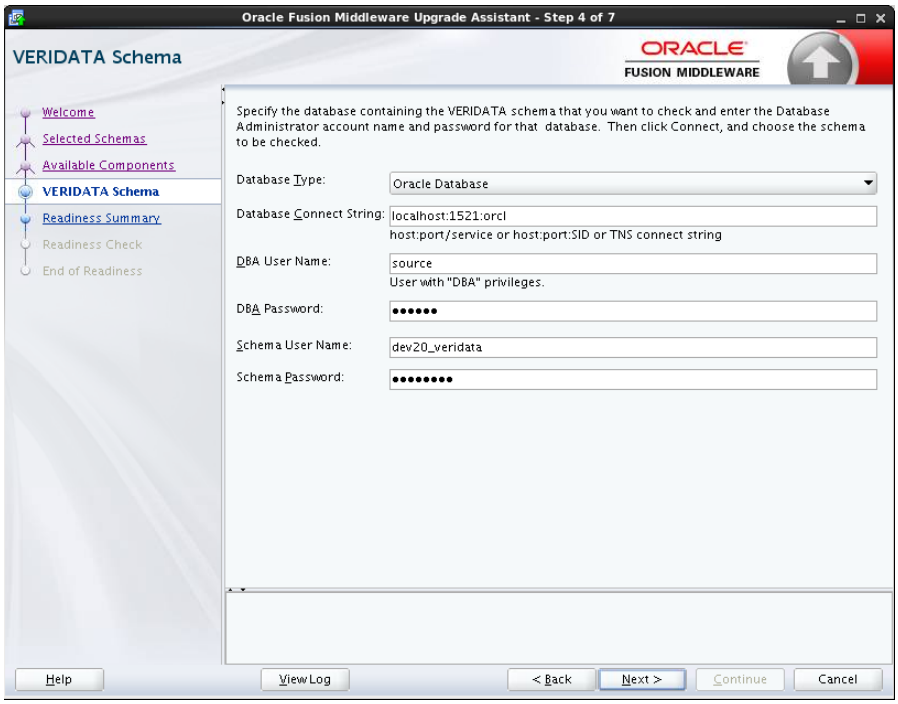
2. Select **Individually Selected Schemas** option. Click **Next**.



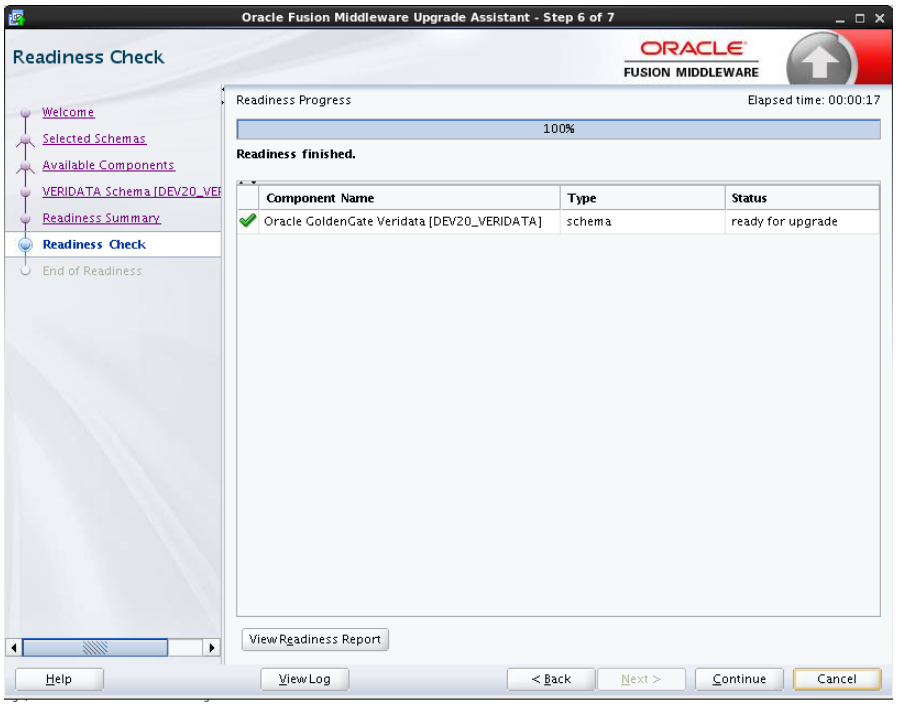
3. The Upgrade Assistant lists all schemas available for upgrade. Select *only* **Oracle GoldenGate Veridata**. Ensure that no other schemas are selected for upgrade. Click **Next**.



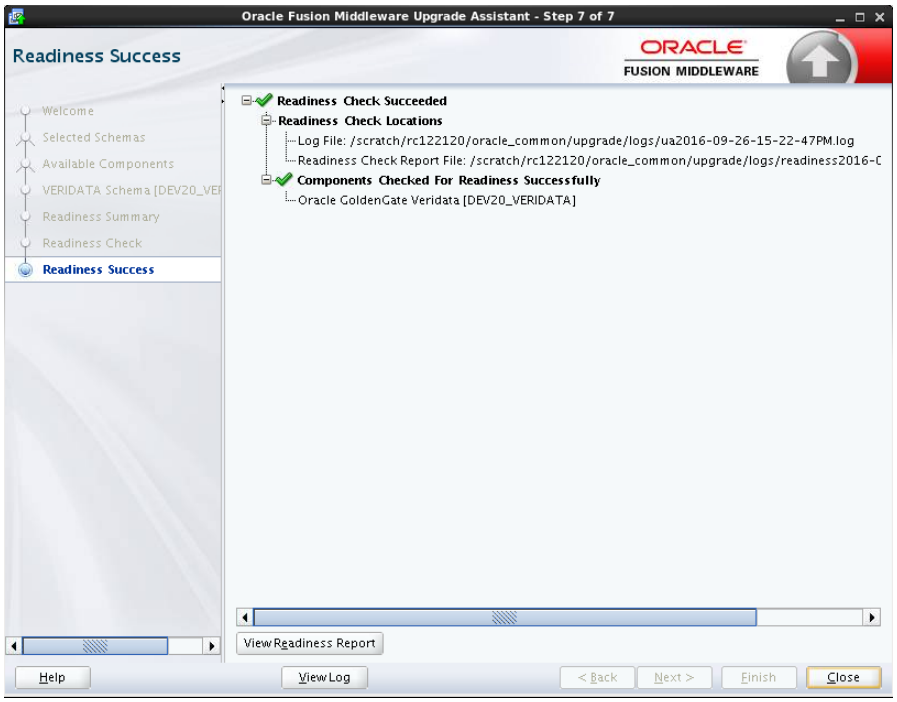
4. On the **VERIDATA Schema** page, enter the connection credentials for the database containing the schema you want to check. Click **Next**.



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



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



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

Readiness Check for 12.1.3 expanded domain and 12.2.1.0.0

Schema and configuration Readiness is supported for 12.1.3 expanded domain and 12.2.1.0.0 domain versions.

To run Readiness Check for 12.1.3 expanded domain and 12.2.1.0.0 follow the instructions below:

1. Run UA in readiness mode

   On UNIX: `./ua -readiness -logLevel TRACE`

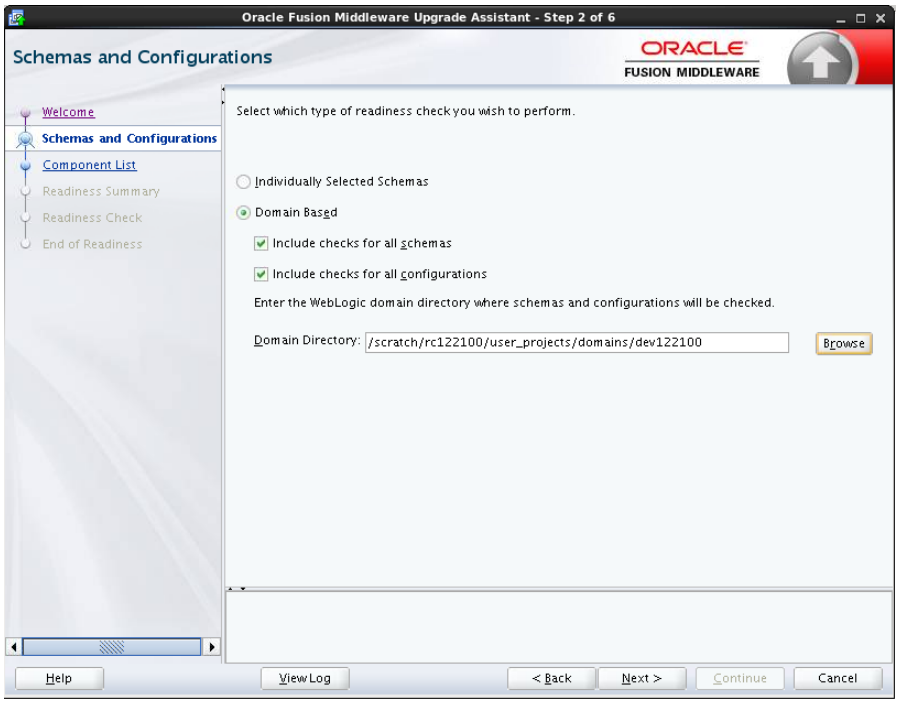
   > **Note:**
   >
   > A default logging level is NOTIFICATION. In general -logLevel TRACE is recommended for Veridata.
   > When setting the -logLevel to TRACE, more information is logged and that is used to troubleshoot a failed upgrade. The Oracle Fusion Middleware Upgrade Assistant's log files may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

   On Windows: `./ua.bat -readiness -logLevel TRACE`

   > **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.

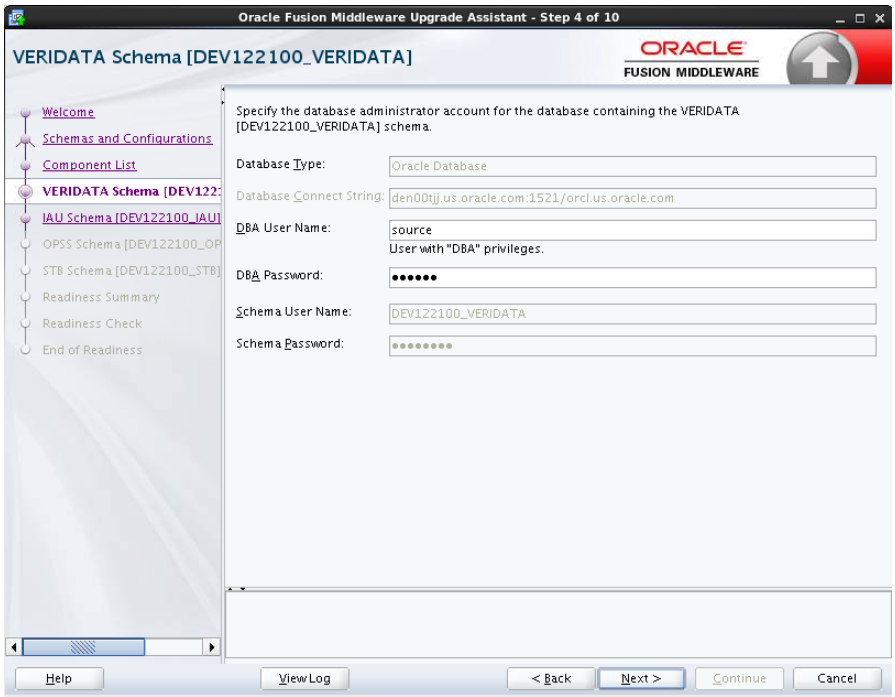
   The Welcome screen of the Upgrade Assistant appears. Click **Next**.

2. Select **Domain Based** option, select both the displayed checkboxes, provide the domain location. Click **Next**.

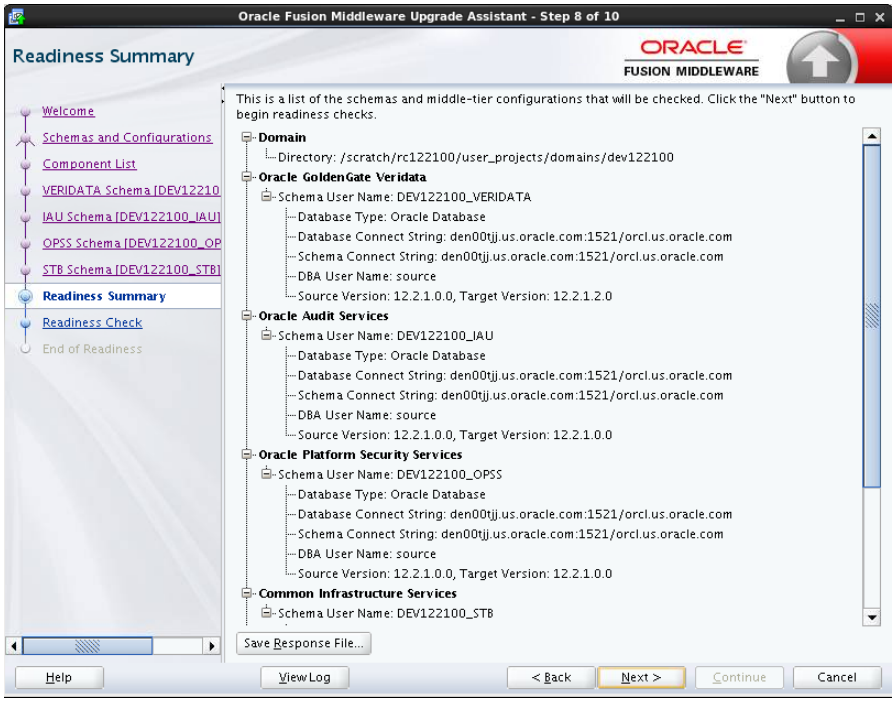


3. Verify the details shown on this screen. Click **Next**.

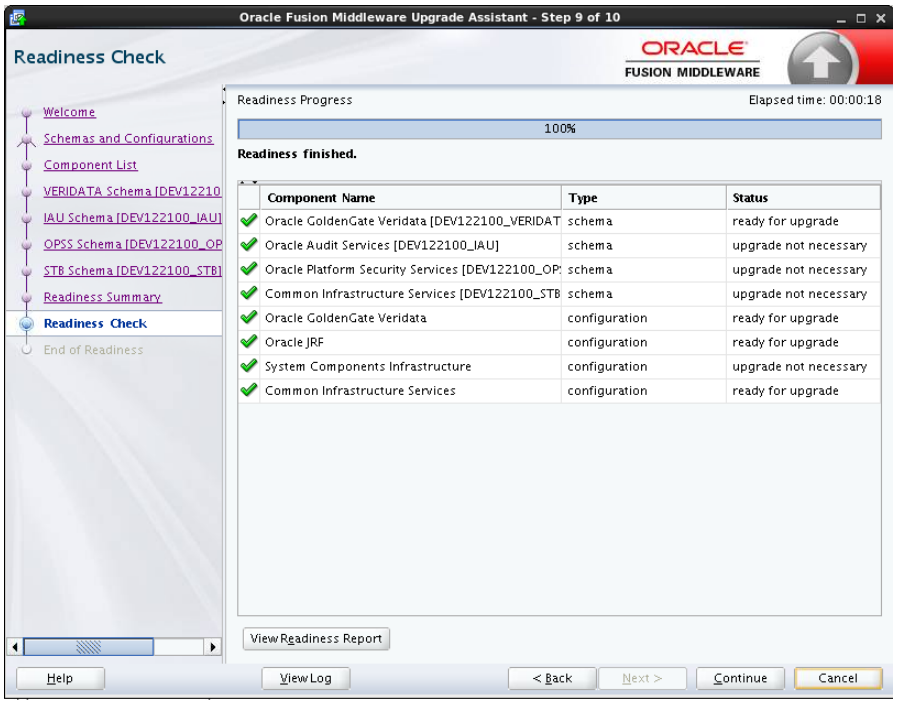
4. On the **VERIDATA Schema** page, enter the connection credentials for the database containing the schema you want to check. Click **Next**.



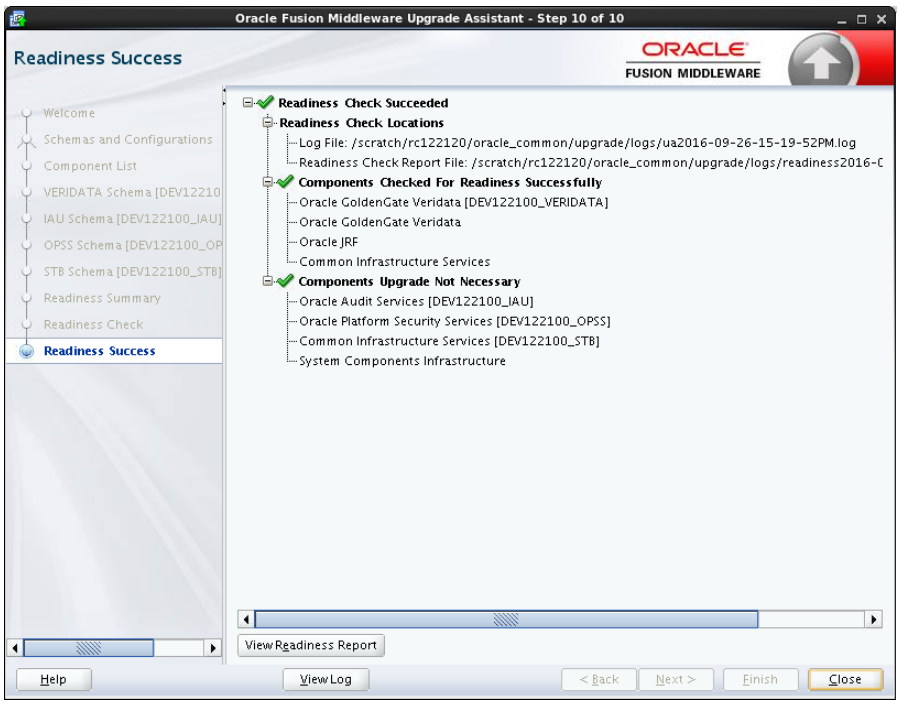
5. Check the screen and go through the Readiness Summary. Click **Next**.



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.

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 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.

Understanding the Upgrade Prerequisites

Following are the prerequisites for upgrading your existing Oracle GoldenGate Veridata Server to 12*c* (12.2.1.2.0):

- 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* (12.2.1.2.0) with JRF installed on the target machine. For more information, see Configuring Your WebLogic Domain.

  > **Note:**
  >
  > If you are upgrading from a previous 12c release (12.1.3.0 or 12.2.1.0), then you must install the 12c (12.2.1.2.0) distributions into a new Oracle home. Do not reuse the existing Oracle home for this upgrade as 12c (12.2.1.2.0) is not a patch release.
- Before you begin your upgrade, use the Oracle Universal Installer to install the Oracle GoldenGate Veridata 12c (12.2.1.2.0) distribution on the target system.

  > **Note:**
  >
  > You must install the Oracle Fusion Middleware Infrastructure distribution first before installing Oracle GoldenGate Veridata 12c (12.2.1.2.0) 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 Veridata agent.
This chapter includes the following sections:

- Choosing an Upgrade Path and Upgrading
- Upgrade Utilities

- Choosing an Upgrade Path and Upgrading
- Upgrade Utilities

Choosing an Upgrade Path and Upgrading

To upgrade your existing Oracle GoldenGate Veridata release to the Veridata 12*c* (12.2.1.2.0) release, choose the appropriate upgrade path for your environment and use the steps in that section to proceed with your upgrade:

- Upgrading Veridata 11g to Veridata 12.2.1.2.0
- Upgrading Veridata 12.1.3 Compact Domain to 12.2.1.2.0
- Upgrading Veridata 12.1.3 Expanded Domain to Veridata 12.2.1.2.0
- Upgrading Veridata 12.2.1 Domain to Veridata 12.2.1.2.0
- Migrating a MySQL Repository Configuration to Veridata 12.2.1.2.0

- Upgrading Veridata 11g to Veridata 12.2.1.2.0
- Upgrading Veridata 12.1.3 Compact Domain to 12.2.1.2.0
- Upgrading Veridata 12.1.3 Expanded Domain to Veridata 12.2.1.2.0
- Upgrading Veridata 12.2.1 Domain to Veridata 12.2.1.2.0
- Migrating a MySQL Repository Configuration to Veridata 12.2.1.2.0

Upgrading Veridata 11g to Veridata 12.2.1.2.0

The Oracle GoldenGate Veridata 11g release was based on the use of the Apache Tomcat Application Server. Oracle GoldenGate Veridata 12.2.1.2.0 uses Oracle WebLogic Server and is dependent on other Oracle Fusion Middleware products.

> **Note:**
>
> All of your User Preferences will be lost as a result of the upgrade because of the product changes in the Oracle GoldenGate Veridata 12*c* release.

To upgrade from 11.2.1.0.0 and greater to 12.2.1.2.0, use these steps:

1. Run the Upgrade Assistant to upgrade your Veridata schema to 12.2.1.2.0 with Upgrading Veridata Schemas.
2. Run RCU to create OPSS schemas and Service Table (STB) with Creating Repository Schemas using Repository Creation Utility.
3. Run the Oracle WebLogic Server Configuration Wizard to create a new Veridata domain using the previously upgraded Veridata database and newly created OPSS and STB schemas with Creating the Veridata Domain using the Upgraded Schema.
4. Run Upgrade Assistant to perform the Veridata configuration upgrade to 12.2.1.2.0, which includes wallet and `veridata.cfg` migration with Upgrading Your Oracle GoldenGate Veridata Configuration
5. Start your Veridata WebLogic Server and domain. See Starting the Servers in *Installing and Configuring Oracle GoldenGate Veridata*.
6. Run the `agent_config` utility to upgrade your Veridata Agent with Upgrading the Veridata Agent.
7. Go to Performing Post-Upgrade Tasks and perform the post-installation tasks.

Upgrading Veridata 12.1.3 Compact Domain to 12.2.1.2.0

The Oracle GoldenGate Veridata 12.1.3 domain with a SQL Server database as repository was a compact domain, which does not use an OPSS schema. The compact domain support was removed in the Oracle GoldenGate Veridata 12.2.1.2.0 release and only Expanded domain is supported.

To upgrade from a compact domain 12.1.3 to Veridata 12.2.1.2.0, use these steps:

1. Run the Upgrade Assistant to upgrade your Veridata schema and STB to 12.2.1.2.0 with Upgrading Veridata Schemas.
2. Run RCU to create OPSS schemas using the same prefix that you used in 12.1.3 with Creating Repository Schemas using Repository Creation Utility.
3. Run the Oracle WebLogic Server Configuration Wizard to create a new Veridata domain using the previously upgraded Veridata and STB databases and newly created OPSS with Creating the Veridata Domain using the Upgraded Schema.
4. Run Upgrade Assistant to perform the Veridata configuration upgrade to 12.2.1.2.0 including wallet migration and `veridata.cfg` migration with Upgrading Your Oracle GoldenGate Veridata Configuration
5. Start your Veridata WebLogic Server and domain. See Starting the Servers in *Installing and Configuring Oracle GoldenGate Veridata*.
6. Run the `agent_config` utility to upgrade your Veridata Agent with Upgrading the Veridata Agent.
7. Go to Performing Post-Upgrade Tasks perform the post-installation tasks.

Upgrading Veridata 12.1.3 Expanded Domain to Veridata 12.2.1.2.0

To upgrade from a 12.1.3 expanded domain to Veridata 12.2.1.2.0, use these steps:

1. Run the Upgrade Assistant to upgrade your Veridata, OPSS schema and AUDIT schemas to 12.2.1.2.0 with Upgrading Veridata Schemas or using the Domain

Assisted Schema Upgrade (DASU), 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 12.1.3 expanded domain to a 12.2.1.2.0 domain with this command.

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

3. Run the Upgrade Assistant to upgrade your Veridata configuration to 12.2.1.2.0 with Upgrading Your Oracle GoldenGate Veridata Configuration.
4. Start your Veridata WebLogic Server and domain. See Starting the Servers in *Installing and Configuring Oracle GoldenGate Veridata*.
5. Run the `agent_config` utility to upgrade your Veridata Agent with Upgrading the Veridata Agent.
6. Go to Performing Post-Upgrade Tasks .

Upgrading Veridata 12.2.1 Domain to Veridata 12.2.1.2.0

To upgrade from a 12.2.1 domain to Veridata 12.2.1.2.0, use these steps:

1. Run the Upgrade Assistant to upgrade your Veridata, OPSS schema and AUDIT schemas to 12.2.1.2.0 with Upgrading Veridata Schemas or using the Domain Assisted Schema Upgrade (DASU), 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 domain to a 12.2.1.2.0 domain with this command.

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

3. Run the Upgrade Assistant to upgrade your Veridata configuration to 12.2.1.2.0 with Upgrading Your Oracle GoldenGate Veridata Configuration.
4. Start your Veridata WebLogic Server and domain. See Starting the Servers in *Installing and Configuring Oracle GoldenGate Veridata*.
5. Run the `agent_config` utility to upgrade your Veridata Agent with Upgrading the Veridata Agent.
6. Go to Performing Post-Upgrade Tasks .

Migrating a MySQL Repository Configuration to Veridata 12.2.1.2.0

Support for MySQL was removed in Oracle GoldenGate Veridata 12.2.1.2.0 so you must migrate to any of the supported databases for this release using the following steps:

To migrate existing configuration like connections, groups, jobs and profiles, use the Veridata export and import utilities. For more information, see *Administering Oracle GoldenGate Veridata*.

1. Go to the `DOMAIN_HOME/veridata/bin` directory.
2. Use the export utility to export all the configured objects from MySQL repository to a XML file. This utility exports Connections (including passwords), Groups, Jobs, and Profiles. It does not export the User Preferences or Job Run history. If your

new Veridata Agents use different host or port, update this connection information in the exported XML file.

The syntax for running the export script is:

```
veridata_export[.sh | .bat] -export filePath -wluser commandlineUusername   [-
wlport portNo] [–jobs jobName | - groups groupName | -connections connName | -
profiles profileName | -all | -exportPassword] [[-repoUrl jdbc_url] [-u
username>][-schema schema_name][-vdtPath VERIDATA_PRODUCT_HOME]]
```

For example:

```
./veridata_export.sh -wluser vdtUser -wlport 8830 -export /scratch/mysqlRepo.xml
-all -exportPassword -repoUrl jdbc:mysql://localhost:3306/DEV_VERIDATA -username
DEV_VERIDATA -schema DEV_VERIDATA -vdtPath /scratch/fmwHome/user_projects/
domains/mysqlDomain/
```

where: *-repoUrl*, *-username*, *-schema*, *-vdtPath* corresponds to your MySQL configuration.

The *wluser* must have Veridata Command Line privilege and Veridata Admin/ Veridata Power User privilege.

> **Note:**
>
> (Optional) The export operation exports all of the data in the repository to XML file without validation. If your environment has some compare pairs for which the Validation Status is not successful, then the import operation will fail with the XML file generated by the export operation. To prevent failure of the import operation, you have the option to disable the compare pair validation. You can do this by updating the generated XML with these steps:
>
> a. Open the generated XML file.
>
> b. Search for the `configuration` tag. This tag has the `validation` attribute, which is set to `required`, by default.
>
> c. Set the `validation` attribute to one of the following values:
>
> `omit-failures` — Indicates that all successfully validated compare pairs will be added to the repository and other specified compare pairs will be ignored.
>
> `none` — Indicates that no compare pair validation is done before adding the compare pairs to the repository. You and then use the Veridata GUI to review and fix the validation problems. For example:
>
> Old tag: `<configuration operation="update" validation="required">`
>
> Updated tag: `<configuration operation="update" validation="omit-failures">`

3. Use the import utility to import all the configured objects you just exported.

   The syntax for running the import utility is:

```
veridata_import[.sh | .bat] [-wlport portNo] -wluser commandlineUusername [-
create | -update | -delete | -replace] configuration.xml
```

   For example:

```
veridatadomain/veridata/bin/veridata_import.sh -wluser vdtUser -wlport 8830 -
update /scratch/mysqlRepo.xml
```

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:

- Creating Repository Schemas using Repository Creation Utility
- Creating the Veridata Domain using the Upgraded Schema
- Upgrading Veridata Schemas
- Upgrading Your Oracle GoldenGate Veridata Configuration
- Upgrading the Veridata Agent

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

- Creating Repository Schemas using Repository Creation Utility
- Creating the Veridata Domain using the Upgraded Schema
- Upgrading Veridata Schemas
- Upgrading Your Oracle GoldenGate Veridata Configuration
- Upgrading the Veridata Agent

Creating Repository Schemas using Repository Creation Utility

Oracle GoldenGate Veridata Server requires a database to serve as a repository for objects that store the information and environment preferences that users create when using Oracle GoldenGate Veridata Web User Interface. You can use the following databases as a repository:

- Oracle
- Microsoft SQL Server

After installing Oracle GoldenGate Veridata 12*c* (12.2.1.2.0) and configuring your database, create the necessary schema for your repository database by using RCU. Navigate to the `ORACLE_HOME/oracle_common/bin` directory and start RCU.

RCU creates the `schema_version_registry` table in the database and it is used by Veridata and Upgrade Assistant. Following sections explain how to create schema for various databases:

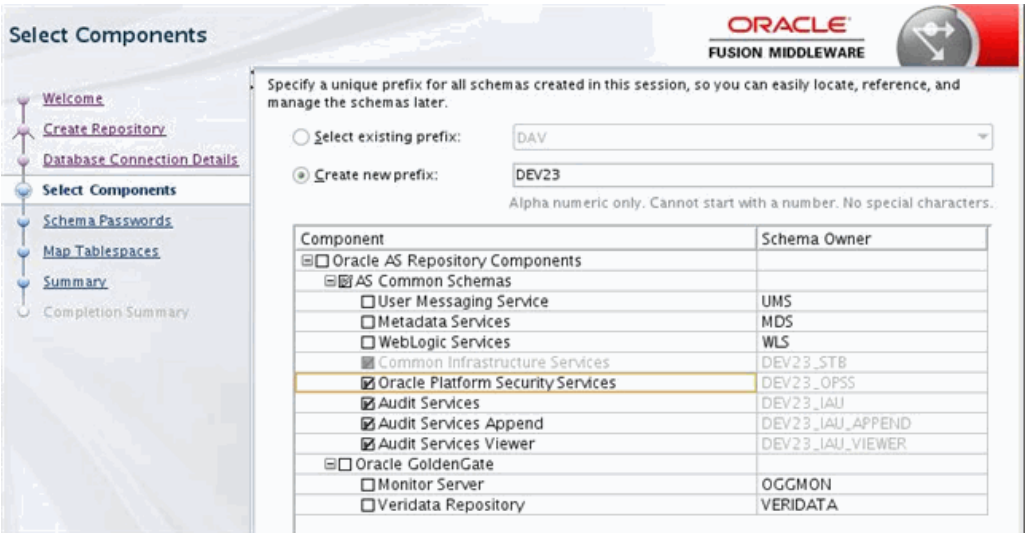
> **Note:**
>
> In the RCU pages, when you create the Service Table (STB), specify a unique prefix for the schema for all databases. You need to provide this prefix while running the Upgrade Assistant for upgrading Veridata schema.
>
> To drop the Veridata repository, you should use the same prefix.

- Creating Schema for an 11g to 12.2.1.2.0 Upgrade
- Creating Schema for a 12.1.3 Compact Domain SQL Server to 12.2.1.2.0 Upgrade
- Creating Schema for an 11g to 12.2.1.2.0 Upgrade
- Creating Schema for a 12.1.3 Compact Domain SQL Server to 12.2.1.2.0 Upgrade

Creating Schema for an 11g to 12.2.1.2.0 Upgrade

For all supported databases, create the Oracle Platform Security Services (OPSS) schema using RCU. Select **Create new prefix** then provide unique prefix. In the Select Components page, select **Oracle Platform Security Services**; the **Common Infrastructure Services** (STB) is selected by default as in the following:

Figure 2-1 OPSS schema selection for an 11g to 12.2.1.2.0 Upgrade

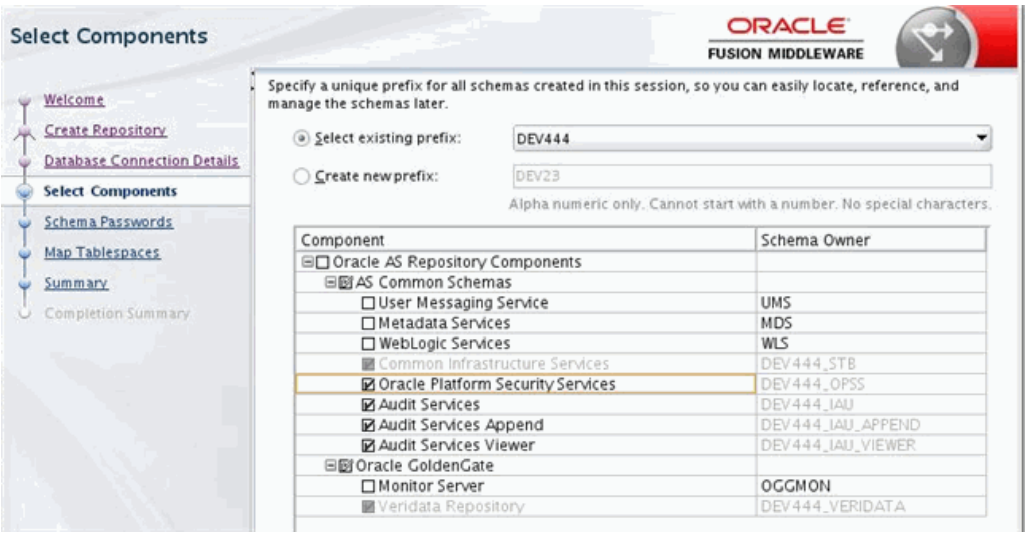


See Creating Schemas with the Repository Creation Utility for more information.

Creating Schema for a 12.1.3 Compact Domain SQL Server to 12.2.1.2.0 Upgrade

For upgrading to version 12.2.1.2.0, SQL Server you should run RCU to create the Oracle Platform Security Services (OPSS) schema using the same prefix which was used for 12.1.3. Select only OPSS in the Select Components page:

Figure 2-2 OPSS Schema selection for Non-Oracle database



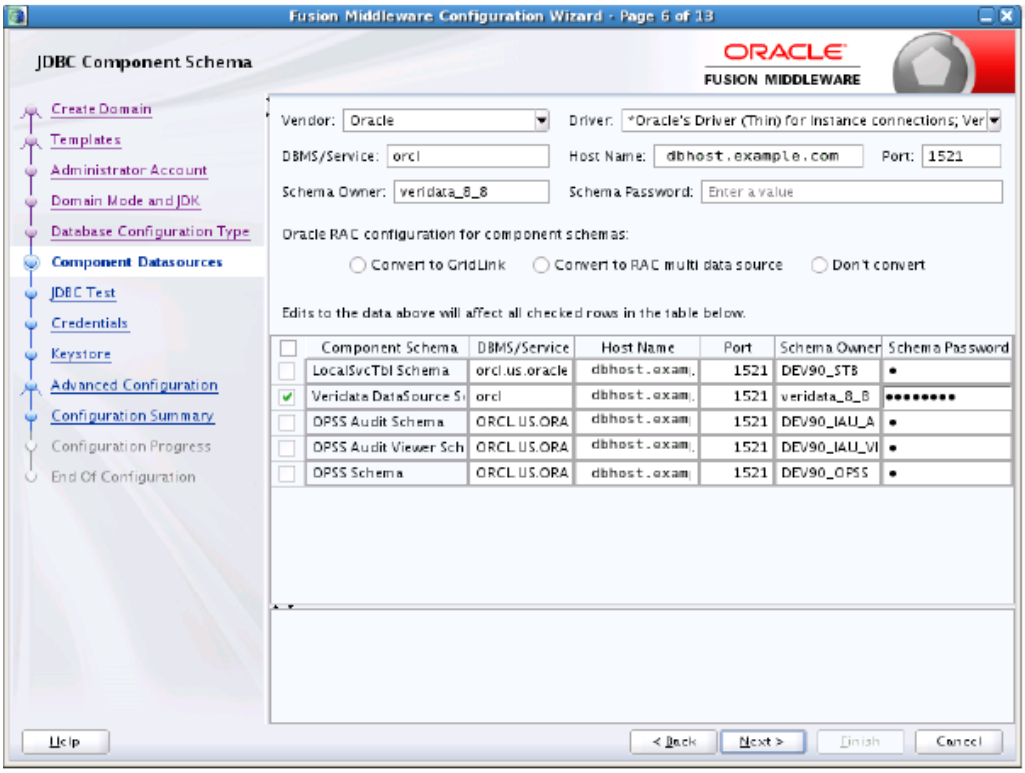
See Creating Schemas with the Repository Creation Utility for more information.

Creating the Veridata Domain using the Upgraded Schema

To create a WebLogic Server domain for Veridata, follow the procedure described in "Configure a Domain for Oracle GoldenGate Veridata" in *Installing and Configuring Oracle GoldenGate Veridata*.

> **Note:**
>
> Provide the upgraded Veridata schema details on the JDBC Component Schema page of the Configuration Wizard as shown in Figure 2-3.

Figure 2-3 Schema Selection in the Configuration Wizard



Upgrading Veridata Schemas

The Oracle Fusion Middleware Upgrade Assistant upgrades your Oracle GoldenGate Veridata schema to 12*c* (12.2.1.2.0). For more information about the features of Upgrade Assistant, see About Using the Upgrade Assistant.

This topic contains the following:

- Upgrading Veridata Schema from 11g to 12.2.1.2.0
- Upgrading Oracle GoldenGate Veridata Schema from 12.1.3 Compact Domain to 12.2.1.2.0
- Upgrading Veridata Schemas from 12.1.3 Expanded Domain to 12.2.1.2.0
- Upgrading Veridata Schemas from 12.2.1 Domain to 12.2.1.2.0
- Upgrading Veridata Schema from 11g to 12.2.1.2.0
- Upgrading Oracle GoldenGate Veridata Schema from 12.1.3 Compact Domain to 12.2.1.2.0
- Upgrading Veridata Schemas from 12.1.3 Expanded Domain to 12.2.1.2.0
- Upgrading Veridata Schemas from 12.2.1 Domain to 12.2.1.2.0

Upgrading Veridata Schema from 11g to 12.2.1.2.0

The Oracle Fusion Middleware Upgrade Assistant upgrades your Oracle GoldenGate Veridata schema to 12*c* (12.2.1.2.0).

To upgrade the Veridata repository schema from 11g to 12.2.1.2.0 follow the instructions below:

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

   On UNIX: `./ua`

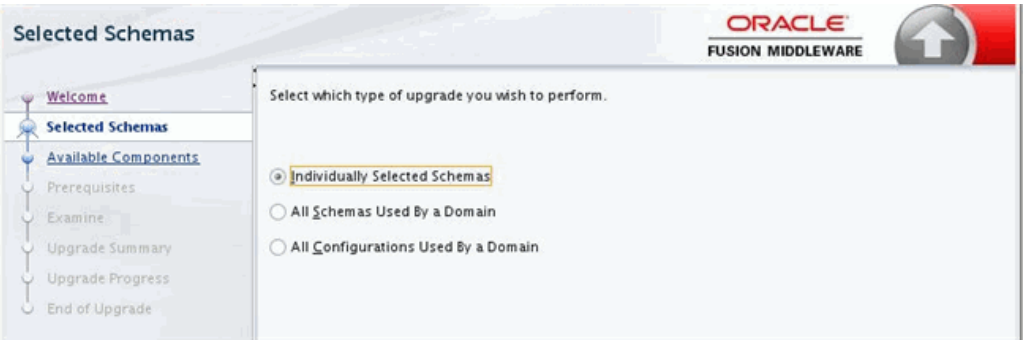
   > **Note:**
   >
   > A default logging level is NOTIFICATION. In general -logLevel TRACE is recommended for Veridata.
   > When setting the -logLevel to TRACE, more information is logged and that is used to troubleshoot a failed upgrade. The Oracle Fusion Middleware Upgrade Assistant's log files may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

   On Windows: `ua.bat`

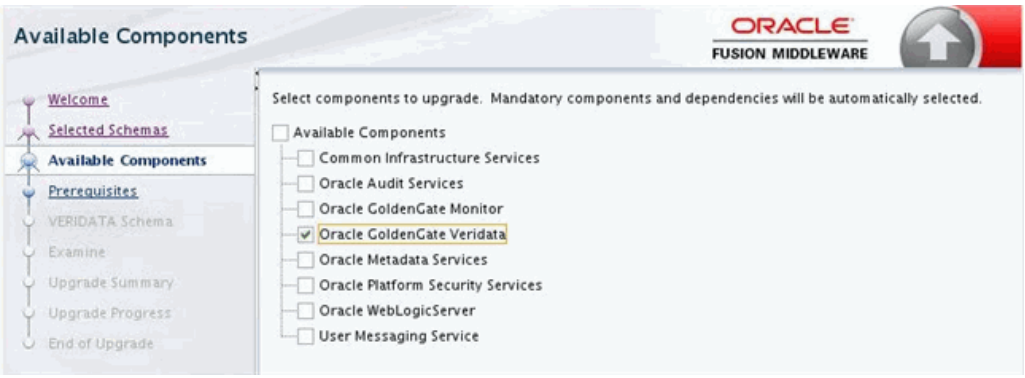
   > **Note:**
   >
   > A default logging level is NOTIFICATION. In general -logLevel TRACE is recommended for Veridata.
   > When setting the -logLevel to TRACE, more information is logged and that is used to troubleshoot a failed upgrade. The Oracle Fusion Middleware Upgrade Assistant's log files may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

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

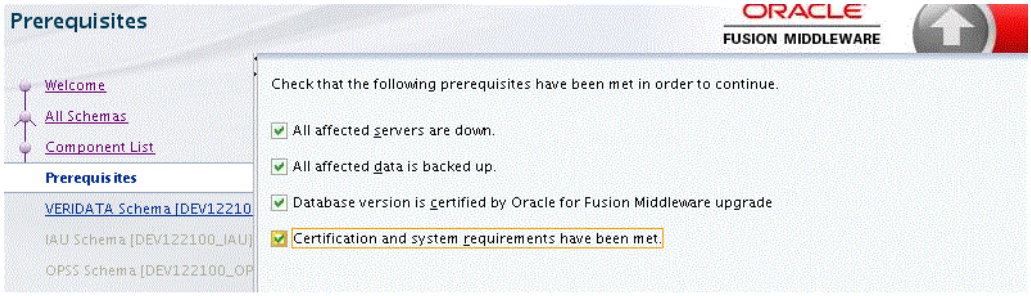
2. Select **Individually Selected Schemas** as the upgrade type. Click **Next**.



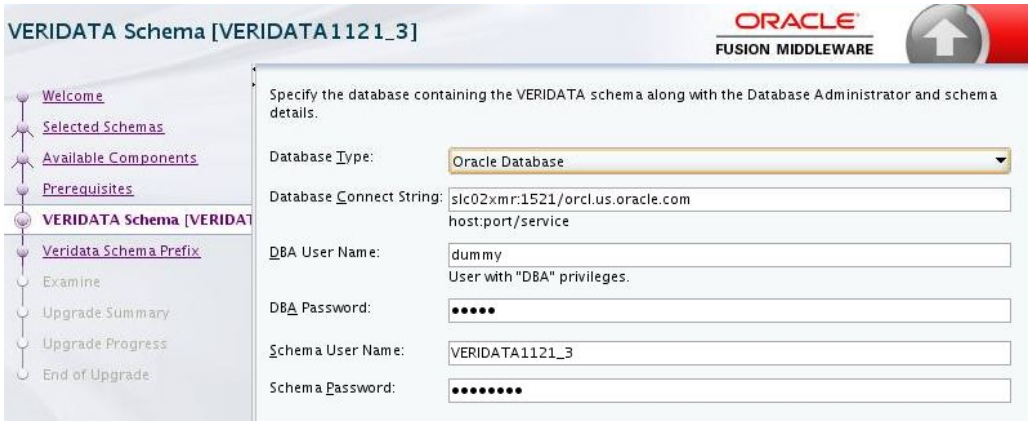
3. The Upgrade Assistant lists all schemas available for upgrade. Select *only* **Oracle GoldenGate Veridata**. Ensure that no other schemas are selected for upgrade.



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



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



6. On the Veridata Schema Prefix page, enter the prefix that was entered while creating the schema using RCU. See Creating Repository Schemas using Repository Creation Utility.

7. 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.
8. 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.

Upgrading Oracle GoldenGate Veridata Schema from 12.1.3 Compact Domain to 12.2.1.2.0

The Oracle Fusion Middleware Upgrade Assistant upgrades your Oracle GoldenGate Oracle GoldenGate Veridata schema to 12*c* (12.2.1.2.0).

To upgrade the Oracle GoldenGate Veridata repository schema from 12.1.3 Compact Domain to 12.2.1.2.0 follow the instructions below:

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

   On UNIX: `./ua`

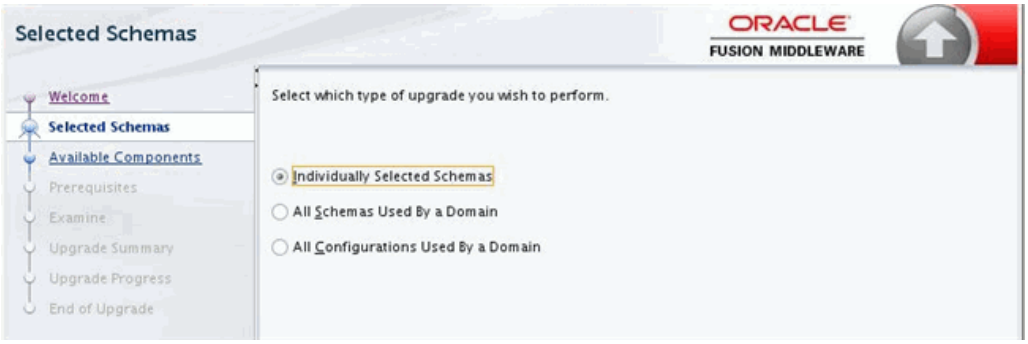
   > **Note:**
   >
   > A default logging level is NOTIFICATION. In general -logLevel TRACE is recommended for Veridata.
   > When setting the -logLevel to TRACE, more information is logged and that is used to troubleshoot a failed upgrade. The Oracle Fusion Middleware Upgrade Assistant's log files may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

   On Windows: `ua.bat`

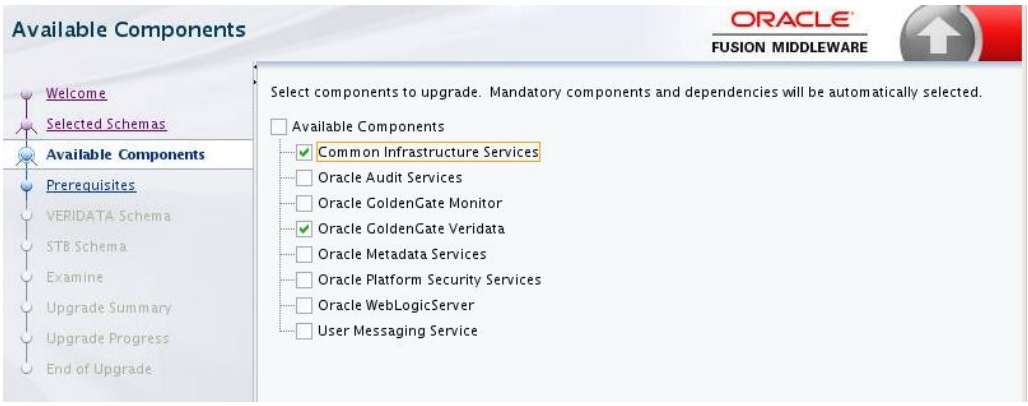
> **Note:**
>
> A default logging level is NOTIFICATION. In general `-logLevel TRACE` is recommended for Veridata.
> When setting the `-logLevel` to `TRACE`, more information is logged and that is used to troubleshoot a failed upgrade. The Oracle Fusion Middleware Upgrade Assistant's log files may become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

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

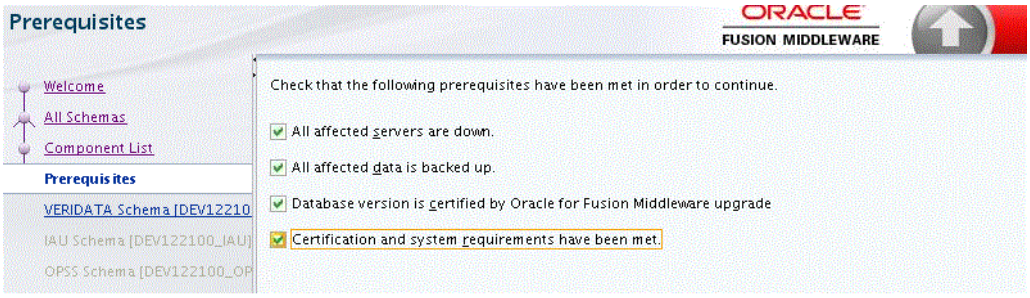
2. Select **Individually Selected Schemas** as the upgrade type. Click **Next**.



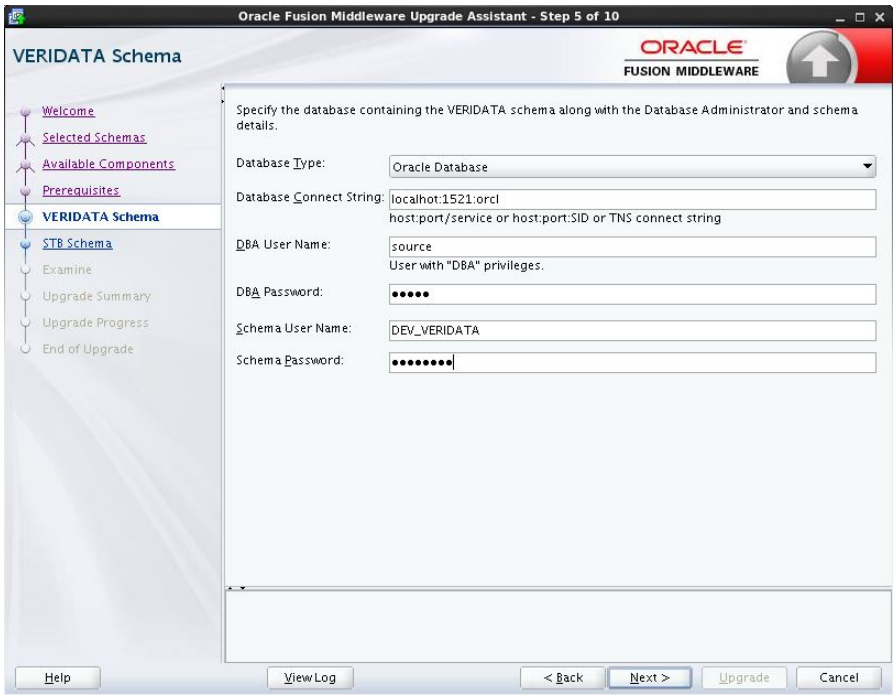
3. The Upgrade Assistant lists all schemas available for upgrade. Select *only* **Common Infrastructure Services** and **Oracle GoldenGate Veridata**. Ensure that no other schemas are selected for upgrade.



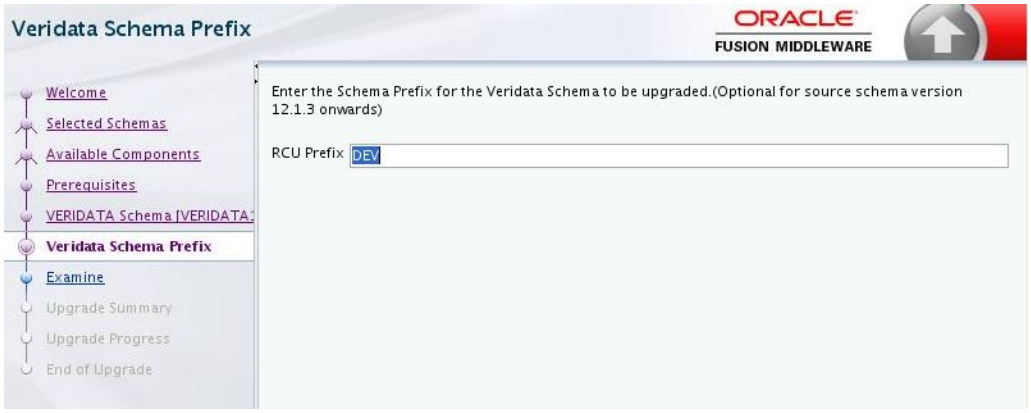
4. You must select all the checkboxes to continue. The Upgrade Assistant will not verify that the prerequisites have been met.



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



6. On the Veridata Schema Prefix page, enter the prefix that was entered while creating the schema using RCU. See Creating Repository Schemas using Repository Creation Utility.



7. 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.

8. 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.

Upgrading Veridata Schemas from 12.1.3 Expanded Domain to 12.2.1.2.0

The Oracle Fusion Middleware Upgrade Assistant upgrades your Oracle GoldenGate Veridata schema to 12*c* (12.2.1.2.0).

To upgrade the Veridata repository schema from 12.1.3 Expanded Domain to 12.2.1.2.0 follow the instructions below:

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

   On UNIX: `./ua`

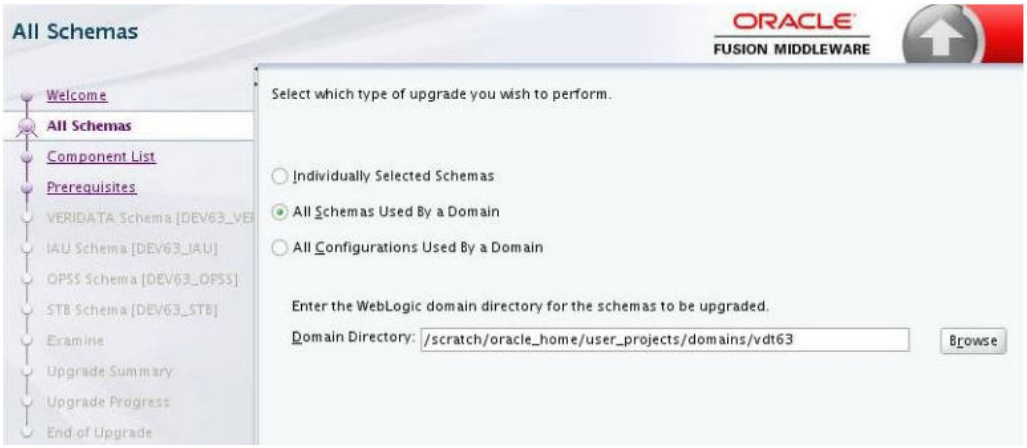
   > **Note:**
   >
   > A default logging level is NOTIFICATION. In general -logLevel TRACE is recommended for Veridata.
   > When setting the -logLevel to TRACE, more information is logged and that is used to troubleshoot a failed upgrade. The Oracle Fusion Middleware Upgrade Assistant's log files may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

   On Windows: `ua.bat`

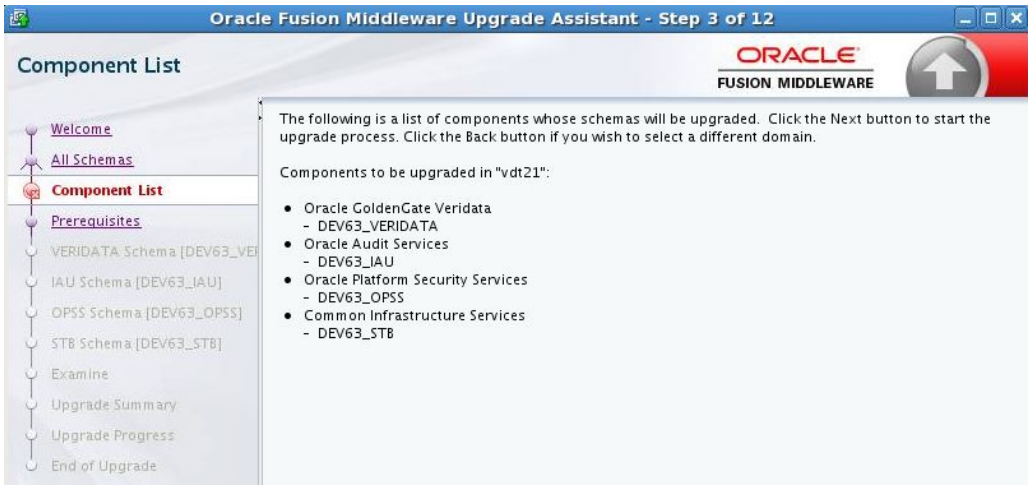
   > **Note:**
   >
   > A default logging level is NOTIFICATION. In general -logLevel TRACE is recommended for Veridata.
   > When setting the -logLevel to TRACE, more information is logged and that is used to troubleshoot a failed upgrade. The Oracle Fusion Middleware Upgrade Assistant's log files may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

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

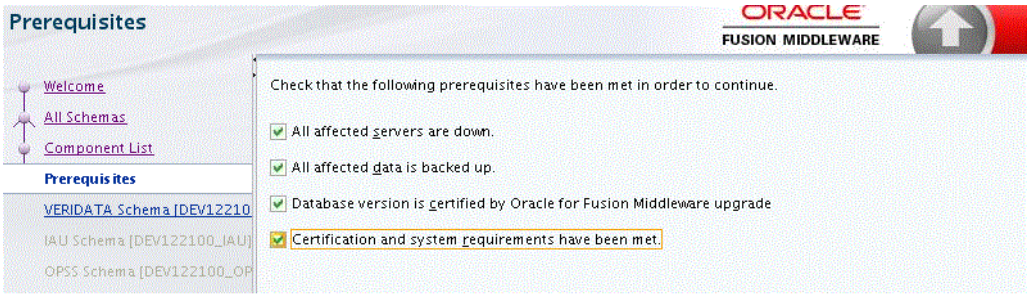
2. Select **All Schemas Used By a Domain** as the upgrade type. Click **Next**.



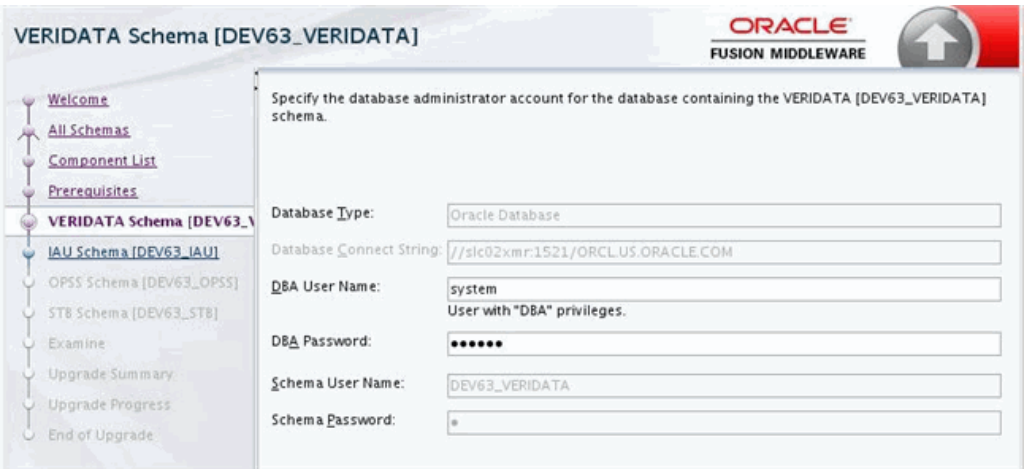
After selecting Next, the screen displays the auto-selected schemas as shown in the following figure:



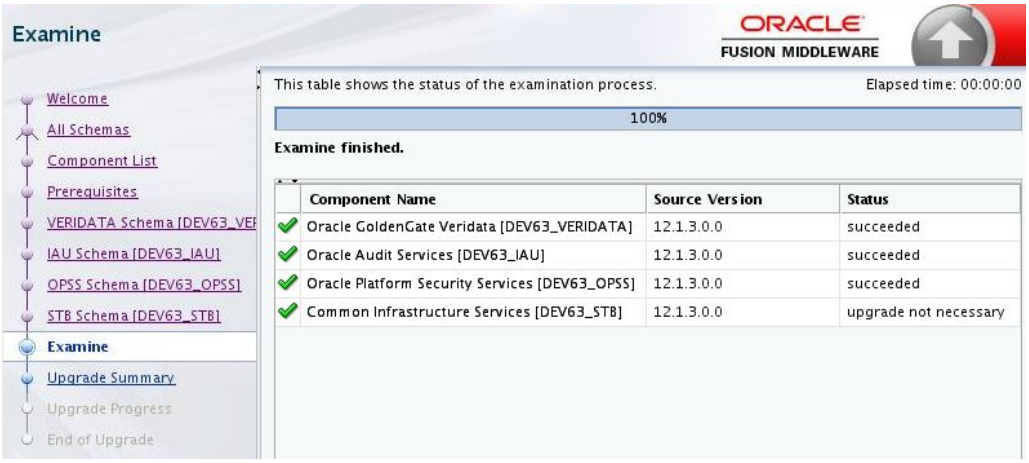
3. You must select all the checkboxes to continue. The Upgrade Assistant will not verify that the prerequisites have been met.



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.

Upgrading Veridata Schemas from 12.2.1 Domain to 12.2.1.2.0

The Oracle Fusion Middleware Upgrade Assistant upgrades your Oracle GoldenGate Veridata schema to 12*c* (12.2.1.2.0).

To upgrade the Veridata repository schema from 12.2.1 Domain to 12.2.1.2.0 follow the instructions below:

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

   On UNIX: `./ua`

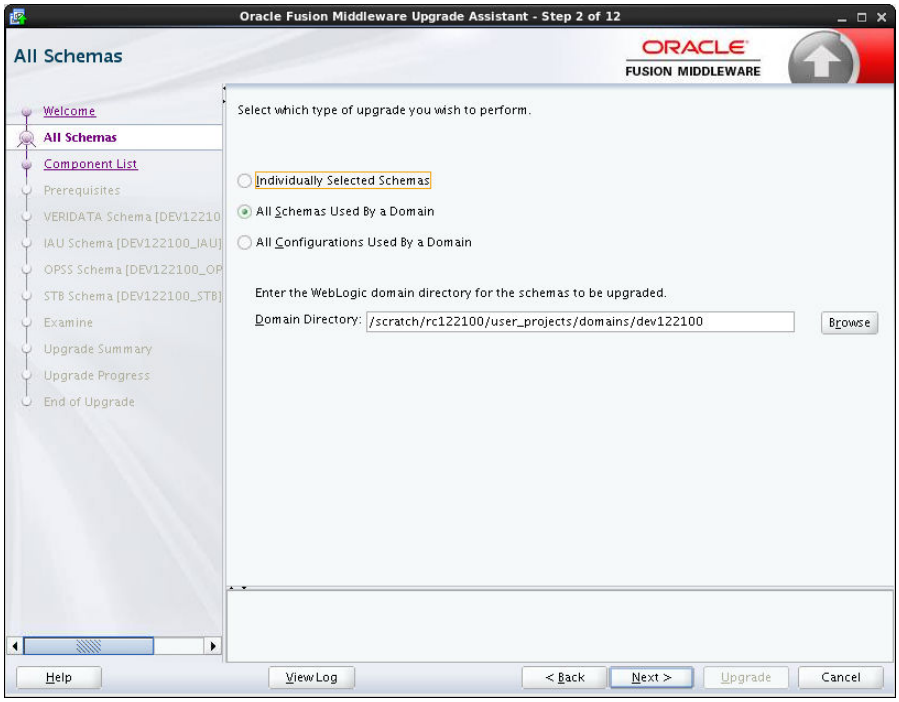
> **Note:**
>
> A default logging level is NOTIFICATION. In general -logLevel TRACE is recommended for Veridata.
> When setting the -logLevel to TRACE, more information is logged and that is used to troubleshoot a failed upgrade. The Oracle Fusion Middleware Upgrade Assistant's log files may become very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

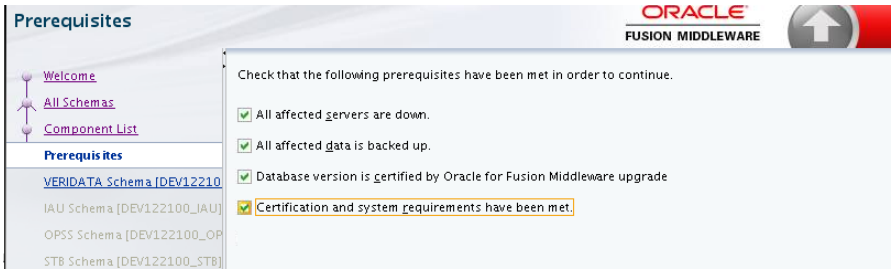
The Welcome screen of the Upgrade Assistant appears. Click **Next**.

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

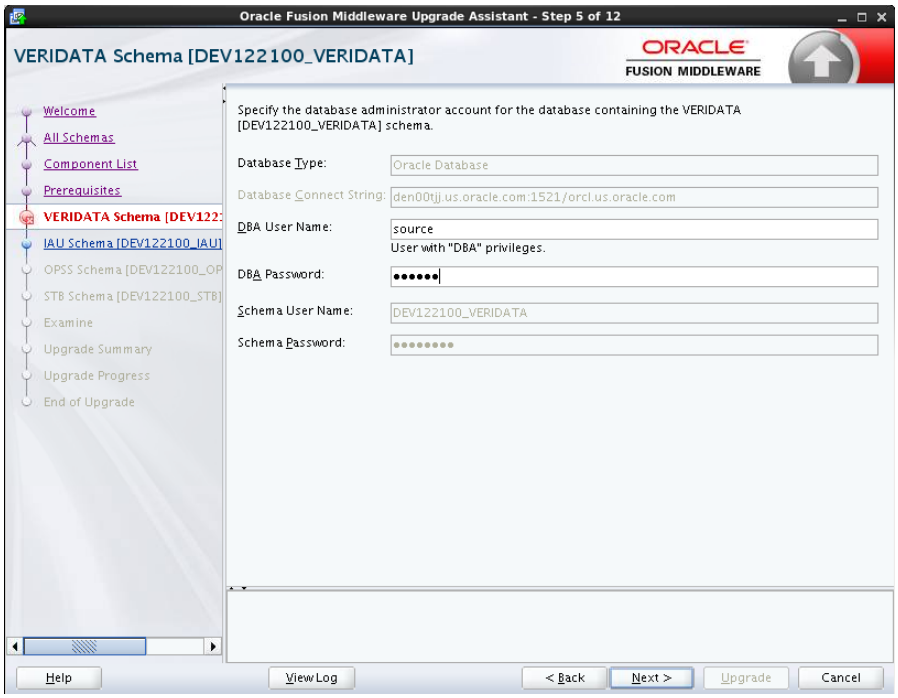


After selecting Next, the screen displays the auto-selected schemas as shown in the following figure:

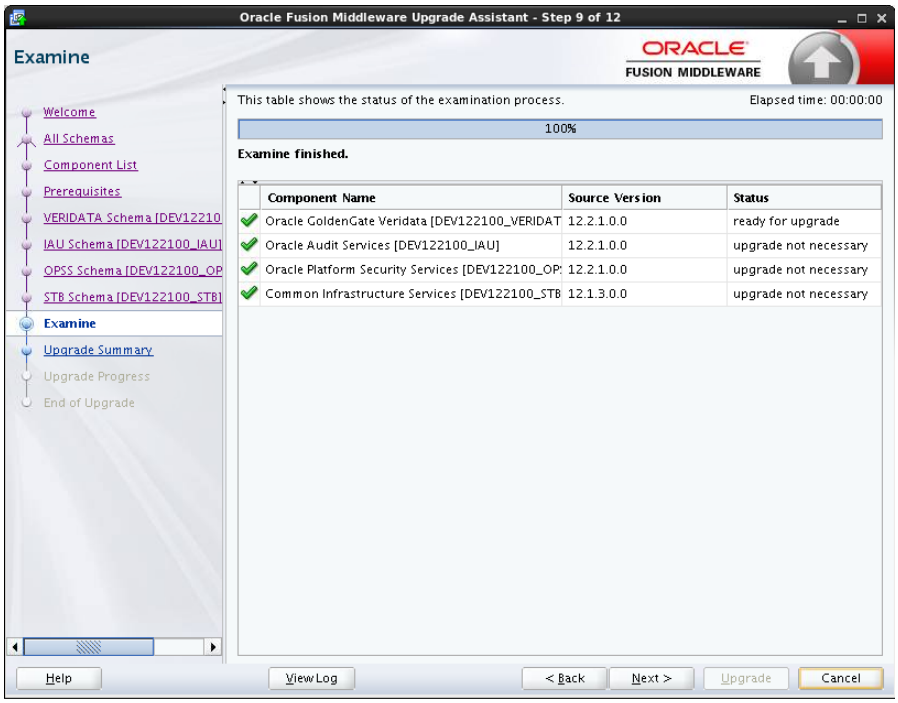
3. You must select all the checkboxes to continue. The Upgrade Assistant will not verify that the prerequisites have been met.



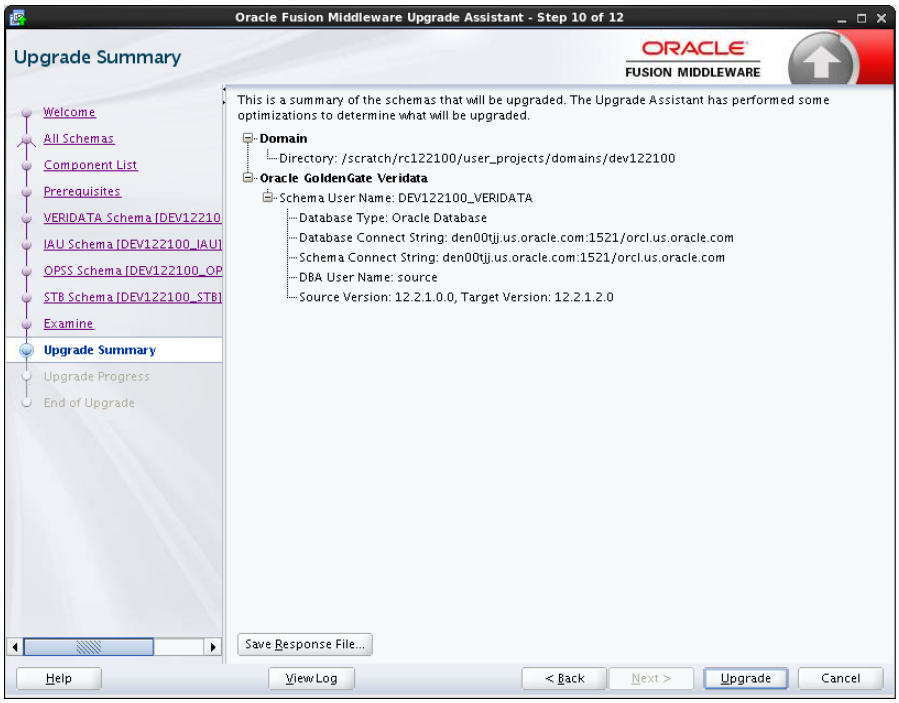
4. On the **VERIDATA Schema** page, enter the connection credentials for the database containing the schema you want to upgrade.



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.

Upgrading Your Oracle GoldenGate Veridata Configuration

The Oracle Fusion Middleware Upgrade Assistant is also used to upgrade your Oracle GoldenGate Veridata repository schema using the following steps:

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

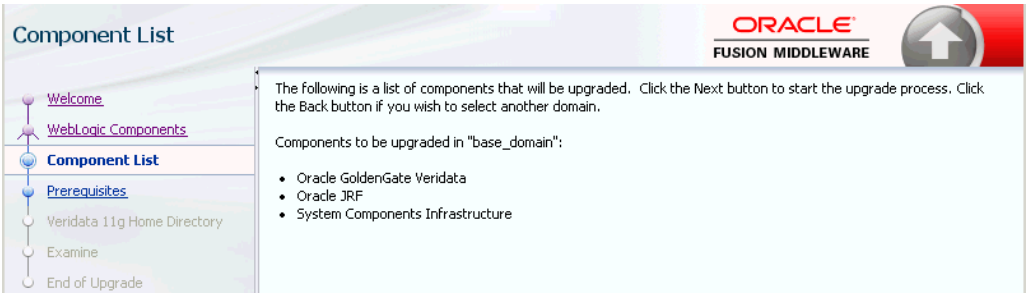
   On UNIX: `./ua`

   > **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.

2. Select **All Configurations Used by a Domain** on the All Configurations page and enter the domain directory path, then click **Next**.
3. Select the Veridata domain to be upgraded. See Creating the Veridata Domain using the Upgraded Schema.
4. The Component List page displays a list of components that will be upgraded. Review the list and click **Next** to start the upgrade process.



5. The Prerequisites screen lists items that you must check and verify before you can proceed.

   You must check the boxes before you can continue. The Upgrade Assistant will not verify that the prerequisites have been met.
6. Depending on the upgrade path, perform one of the below mentioned actions:

   On the Veridata 11*g* Home Directory page, specify the location of the Veridata 11*g* installation:

When SQL Server was used as Veridata repository for 11g and 12.1.3, the following figure will be applicable:

When you upgrade from 12.1.3 expanded domain and 12.2.1.0.0, Veridata Home Directory page is not displayed.

7. 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** to start the upgrade process.
8. 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.

Upgrading the Veridata Agent

1. Upgrade your existing Veridata Agent the new 12c (12.2.1.2.0) agent using one of the following commands:

   Upgrading from 11g

   Deploy the Oracle GoldenGate Veridata Agent to a directory outside *ORACLE_HOME*.

   ```
   ORACLE_HOME/veridata/agent/bin/agent_config.sh NEW_AGENT_ORACLE_HOME
   ```

   Upgrading from 12c (12.1.3 or 12.2.1)

   Deploy the Veridata Agent to the same location used in 12c(12.1.3 or 12.2.1) setup.

   ```
   ORACLE_HOME/veridata/agent/agent_config.sh OLD_AGENT_ORACLE_HOME
   ```

   Either command replaces the following files with the new 12.2.1.2.0 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 1in 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 *Administering Oracle GoldenGate Veridata*.
4. Start your 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 Veridata Configuration Upgrade
- Managing Veridata Users
- Verifying Veridata Report Files
- Troubleshooting your Upgrade

- Verifying the Schema Upgrade
- Verifying the Veridata Configuration Upgrade
- Managing Veridata Users
- Verifying Veridata Report Files
- Troubleshooting your Upgrade

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
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	12.1.3.0.0	VALID	N
VERIDATA	Veridata Repository	DEV100	VERIDATAONE	12.2.1.2.0	VALID	Y

Verifying the Veridata Configuration Upgrade

After upgrading to Oracle GoldenGate Veridata 12*c* (12.2.1.2.0), 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 11g 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.

Managing Veridata Users

After upgrading to Oracle GoldenGate Veridata 12*c* (12.2.1.2.0), users are managed as follows:

- Veridata 12.2.1 users for Oracle can be used in Veridata 12.2.1.2.0.
- Veridata 12.1.3 users for Oracle can be used in Veridata 12.2.1.2.0.
- Veridata 12.1.3 users for SQL Server cannot be used in Veridata 12.2.1.2.0. You must create Veridata users and assign privileges.

- Veridata 11g users cannot be used in Veridata 12.2.1.2.0. You must create Veridata users and assign privileges.

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 *Administering Oracle GoldenGate Veridata*.

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* (12.2.1.2.0), the default location is *`VERIDATA_DOMAIN_HOME`*`/veridata/reports`. For more information about the `server.veridata_data` property see "Server Parameters" section in *Administering Oracle GoldenGate Veridata*.

If you have specified another location for the report files in the Veridata 12.2.1 installation then the same location will be used in Veridata 12*c* (12.2.1.2.0) after upgrade. To access the old report files after upgrade, you should retain the directory structure of the report files.

Note that the report location of 12.1.3 reports are not updated after upgrade.

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 *Upgrading with the Upgrade Assistant*.