Oracle® Hospitality Cruise SilverWhere
Installation Guide

Release 9.1

F70378-05

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Oracle Hospitality Cruise SilverWhere Installation Guide, Release 9.1

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Preface

This document provides instructions on how to install the Oracle Hospitality Cruise SilverWhere version 9.1

Audience

This document is intended for installers, programmers, technical support teams, product specialists, and others responsible for setting up SilverWhere version 9.1

Customer Support

To contact Oracle Customer Support, access the Customer Support Portal at the following URL:

https://iccp.custhelp.com

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Documentation

Oracle Hospitality product documentation is available on the Oracle Help Center at http://docs.oracle.com/en/industries/hospitality/cruise.html.

Revision History

Table 1   Revision History

Date	Description of Change
November 2022	Initial publication
April 2023	Corrected the required server host name in SilverWhere Webservices Installation Steps
	Amended the Crystal Report runtime version
May 2023	Updated Customer Support Portal URL
January 2024	Removed 'Run as Administrator' privilege references
	Added new topic — Upgrading to SilverWhere 9.1.2
March 2024	Updated document to new format

1

Getting Started

The following sections provide the information you should know before you install Oracle Hospitality Cruise SilverWhere (SW).

What You Should Follow

General Knowledge

- Have an operational understanding of Personal Computers (PC).

- Understand the basic network concepts.

Operating System

- Have working knowledge of Microsoft Windows OS and its user interface (UI).

- Have working experience with Microsoft Windows Administrative privilege.

- Have working experience with Microsoft Windows Server OS, especially Windows Server 2016, or newer version of Windows Server OS.

Database Management System

- Have working experience with the Relational Database Management System (RDBMS), especially Oracle Database 12c or newer version of Oracle Database.

SilverWhere Installation

- You can only install SilverWhere to local drives. Installation of SilverWhere on network mapped drives is not supported.

- Before any SilverWhere database upgrade or SilverWhere software installation, you must be logged on with Windows Administrative privileges.

What You Should Follow

Windows Operating System

- The Windows regional settings should be configured to US/ UK and the language settings should be set to English. It is recommended to keep the Windows regional settings to US/UK and the language settings to English on each PC using SW, for the expected SW functionality.

- Turn on Data Execution Prevention (DEP) if required. See the Microsoft product documentation library at https://technet.microsoft.com/en-us/ for instructions.

- Turn off Autoplay if required. See the Microsoft product documentation library at https://technet.microsoft.com/en-us/ for instructions.

- Turn off Remote Assistance if required. See the Microsoft product documentation library at https://technet.microsoft.com/en-us/ for instructions.

SilverWhere Installation

- If a problem occurs during the SW application installation, you **cannot** repair or modify SilverWhere installation features. You must reinstall SilverWhere.

- Before you install SilverWhere software or upgrade the SilverWhere database, ensure that all other programs and applications are closed on the target machine. The system may detect an active program or process, and you may be notified to terminate them before proceeding.

- During the SilverWhere database upgrade or SilverWhere installation, follow the prompts carefully and do as instructed. The results can be unpredictable if the process is forced canceled or terminated through any method not as shown on the prompts.

Securing SilverWhere

- It is paramount to understand and follow closely the guidelines provided by the SilverWhere Security Guide. You must read and understand the Security Overview in Section 1 of the SilverWhere Security Guide. The Security Guide document can be downloaded from the Oracle Help Center for Oracle Hospitality Cruise SilverWhere Release 9.1.

- Security patches are frequent occurrences, and quarterly patch releases are expected. Therefore, it is the user's responsibility to ensure that the SilverWhere system is still supported and updated to the latest patch. Always apply security patches promptly to prevent and reduce the risk of security vulnerabilities. Check regularly for:

  – Critical Security Patch of the Operating System.

  – Critical Security Patch of the Database Management System.

- Adhere to the below system-enforced password policy rules, or whichever is deemed safer when dealing with passwords, regardless of the Database user password, Operating System user password, or SilverWhere user password. The Password must be:

  – At least ten (10) characters long.

  – A combination of uppercase and lowercase letters, numeric, and special characters.

  – Must not be the same as the last three passwords used.

- As for the SilverWhere product passwords, they are configured in the SilverWhere User Setup module. Administrators should adopt a strong password policy after the initial installation of the application and review the policy periodically. Ensure the password adheres to the following strength requirements:

  – Idle minutes before logging out is 30.

  – When logging in for the first time, you are required to change the user password in SilverWhere, using the above guidelines.

  – When setting up users for the SilverWhere application, ensure that they are assigned the minimum privilege level required to perform their job functions.

Where to Download SilverWhere

SilverWhere releases are available at:

1. Oracle Software Delivery Cloud and

2. Customer Support Portal

For a Major/ Minor release, the initial upload will be to the OSDC. Subsequent Patch/ Hotfix releases are uploaded to MOS. See My Oracle Support Help for download instructions.

SilverWhere Installation File

The SilverWhere Installation file contains the programs, libraries, web services, and scripts deployed by SilverWhere. You can download the SilverWhere package files from the Oracle Software Delivery Cloud webpage and follow the setup instructions in the next section.

1. Login to the Oracle Software Delivery Cloud.

2. Search for Oracle Hospitality Cruise SilverWhere and download the SilverWhere installation package.

Figure 1-1   Oracle Software Delivery Cloud
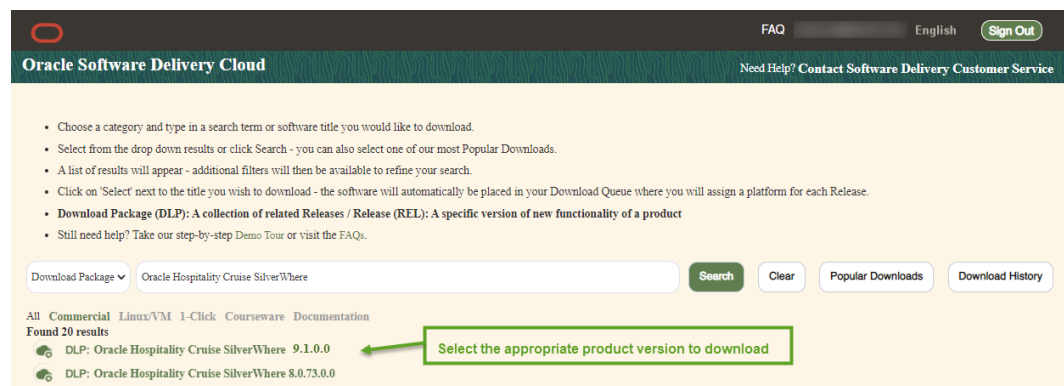
3. Choose the version of the release you wish to download.

4. Locate the downloaded SilverWhere installation package in your download folder.

2
Overview of SilverWhere Components

To set up a full SilverWhere 9.1 environment, the following components are required:

1. SilverWhere database,
2. SilverWhere web services,
3. SilverWhere application clients, and
4. SilverWhere General Dynamic Interface (GDF)

You must know and understand that each of the components listed above is not restricted to one machine per component. You can choose to install the components all under the same machine, in each individual machine, or whichever combination you deem appropriate, depending on your operation requirements and resource availability.

SilverWhere Database

The SilverWhere database server is the machine that hosts the database for the SilverWhere applications. It is the core or heart of the SilverWhere environment. It must be installed with database management software and configured such that it can handle database requests from multiple clients. For the latest requirements, see Compatibility Matrix at Oracle Help Center.

Minimum System Specification

- Operating System:
  - Microsoft Windows Server 2016
- Memory:
  - 8 GB of RAM, and
  - 160 GB of disk space.
- Oracle Database Version:
  - Oracle Database Server 12c
- Oracle Database Client Version:
  - Oracle Database 32-bit Full Client for 12c including the ODAC
- Microsoft .NET Framework runtime:
  - Framework version 4.8 enabled

SilverWhere Web Services

The SilverWhere web server hosts the SilverWhere web services for SilverWhere applications and integrations. It provides a SOAP-based web services to access the SilverWhere functionality. SilverWhere web services are hosted on Microsoft IIS. Oracle recommends that you secure the services using SSL (HTTPS) protocol. For the latest server requirements, see Compatibility Matrix at Oracle Help Center.

The SilverWhere web services distributed are:

1. SilverWhere Secure and Mobile web service

2. SilverWhere SWAuthentication web service

3. SilverWhere SWReservation web service

SilverWhere Secure and Mobile web service

The SilverWhere Secure and Mobile web service has been bundled with secure web features that handle HTTPS requests from multiple clients, protected with SSL (HTTPS) protocol. The web service provides the Oracle authorized encryption method to distribute the password across the SilverWhere application suite (schema password distribution method). You can choose to deploy the services on different servers or on a single server.

SilverWhere SWAuthentication web service

The SWAuthentication Web Service is responsible for authenticating all the HTTPS requests coming from multiple clients. It implements the OAuth internet protocol which allows the SilverWhere application suite to exchange information without giving away the password. It is protected by SSL (HTTPS) protocol. This is achieved by configuring an authentication user and distributing the authentication user credentials using Oracle authorized encryption method across the SilverWhere application suite. Each HTTPS web request is authenticated by checking the validity of the bearer token present in the request header.

SilverWhere SWReservation web service

The SWReservation Web Service is developed for dining bookings via 3rd party applications, such as onboard apps, customer websites, and so on. The functionalities of the SWReservation can be found in the *SWReservation Web Services Technical Specification* documentation

Minimum System Specification

- Operating System:

  – Microsoft Windows Server 2016

- Memory:

  – 8 GB of RAM, and

  – 160 GB of disk space.

- Oracle Database Version:

  – Oracle Database Server 12c

- Oracle Database Client Version:

  – Oracle Database 32-bit Full Client for 12c including the ODAC

- Microsoft Internet Information Services (IIS):

  – IIS v6 with Management Compatibility Services

- Microsoft .NET Framework runtime:

  – Framework version 4.8 enabled

SilverWhere Application Clients

The SilverWhere application clients are service consumers that connect to the SilverWhere database server or SilverWhere web server to perform their intended operation. For the latest client requirements, see Compatibility Matrix at Oracle Help Center.

The SilverWhere application clients distributed are:

- SilverWhere .Net client,
- SilverWhere VB6 client,
- SilverWhere Reports client,
- SilverWhere Secure Tools client,
- SWMobile client, and
- SilverWhere GDF Configurator . See SilverWhere General Dynamic Interface

Minimum System Specification

- Operating System:
  - Microsoft Windows 10
- Memory:
  - 8 GB of RAM, and
  - 160 GB of disk space.
- Oracle Database Client Version:
  - Oracle Database 32-bit Full Client for 12c including the ODAC
- Microsoft .NET Framework runtime:
  - Framework version 4.8 enabled

SilverWhere General Dynamic Interface

The Oracle Hospitality Cruise General Dynamic Interface (GDF) is a data integration tool that transforms data from the SPMS database to the SilverWhere database, using the code base template to perform the transfer, compiling, and run of each code during runtime. For the latest requirements, see Compatibility Matrix at Oracle Help Center

Minimum System Specification

- Operating System:
  - Microsoft Windows Server 2016
  - Microsoft Windows 10
- Memory:
  - 8 GB of RAM, and
  - 160 GB of disk space.
- Oracle Database Client Version:
  - Oracle Database 32-bit Full Client for 12c including the ODAC

- Microsoft .NET Framework runtime:
  - Framework version 4.8 enabled

3

Setting Up SilverWhere Database

There are two options for the SilverWhere database installation:

1. Set up a new SilverWhere 9.1 database, or
2. Upgrade from an existing SilverWhere 8.0.80.x database to SilverWhere 9.1 database.

Since there are two options for the SilverWhere database, you need to understand that:

- When performing a new installation, there should not be any BKSTG_DINING schema existing on the target machine.
- By upgrading from an existing SilverWhere 8.80.x database, there could be existing data in the database. Therefore, you need to validate the database to ensure that all data is valid and error-free.

SilverWhere Database Prerequisites

- Microsoft .NET Framework 4.8 features are enabled on the target machine.
- Minimum Oracle 12c Database client with ODAC is installed on the target machine. See Oracle Database Client and ODAC Installation
- SilverWhere 9.1 release package is downloaded and available on the target machine. See SilverWhere Installation File for download instructions.

For the SilverWhere Database upgrade:

Before upgrading the SilverWhere database, you must ensure that the SilverWhere version is at minimum version 8.0.80.0. An upgrade from SilverWhere version 2.x is **not** supported.

Please reach out to the Consulting team for further guidance.

SilverWhere Database Installation Steps

Follow the steps to set up the SilverWhere database

1. If you are performing a new SilverWhere database 9.1 installation, follow the steps below.
2. If you are upgrading the SilverWhere database from version 8.0.80.x to version 9.1, see the topic Upgrading to SilverWhere 9.1 Database

Setting Up SilverWhere Database Connection

In order for the SilverWhere application clients and SilverWhere web services to connect to the database, you must configure the database TNS name.

1. In the installed Oracle Client home folder, ensure there is a correct database TNS entry in the Oracle tnsnames.ora file. You will need the database TNS name entry created in the tnsnames.ora file so that SilverWhere can locate the correct database when it references the database TNS.

2. The installed Oracle Client folder for SilverWhere is typically C:/Oracle/product. You may choose to install it in a different folder.

Figure 3-1   Tnsnames.ora File Location
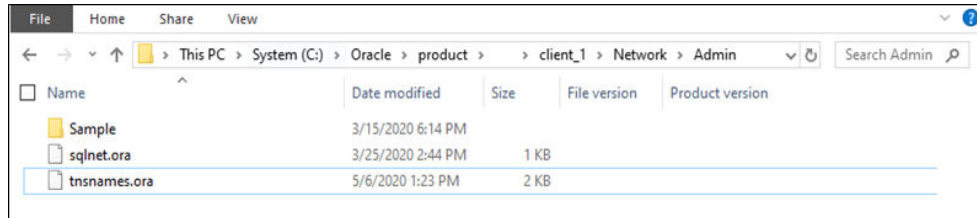
3. You will need to create a database TNS entry in the tnsnames.ora file so that the SilverWhere Secure Web Service can locate the database TNS and subsequently, be able to establish a connection to the SilverWhere database

Table 3-1   Tnsnames.ora fields

Tnsnames Parameters	Description
<DB_TNS_NAME>	Oracle Database TNS name. By design, SilverWhere applications or web services refers to the Database using the TNS name.
<DB_ADDRESS>	Address of the Oracle Database. It can be an IP address (for example, 127.0.0.1) or the machine name.
<DB_PORT>	Listener port of the Oracle Database. The port is used by the Database Server to listen for a connection.
<DB_NAME>	Oracle Database Service name. This is the name used by the Oracle Database Server to identify the Oracle Database instance.

For example:

```
<DB_TNS_NAME> = (
        DESCRIPTION = (
            ADDRESS_LIST = (
                ADDRESS = (PROTOCOL = TCP)
                          (HOST = <DB_ADDRESS>)
                          (PORT = <DB_PORT>)
            )
        )
            (CONNECT_DATA = (SERVICE_NAME = <DB_NAME>)
        )
    )
```

4. You will need to verify that you can connect to the SilverWhere database using the SQLPlus* tool, which is installed along with the Oracle Database Management System. This is important so that you can resolve any database related issues.

Installing SilverWhere 9.1 Database

The SilverWhere Database Installer is an installer that creates the SilverWhere database schema called BKSTG_DINING. Follow the instructions below to perform the installation.

1. Install SilverWhere components on the target machine. See topic Installing SilverWhere Client for detailed instructions.

2. Browse to the `C:\Program Files (x86)\OHCSilverWhere\SilverWhere Client` folder and run the SWDatabaseInstaller.exe.

Figure 3-2   SilverWhere Database Installer Welcome Screen
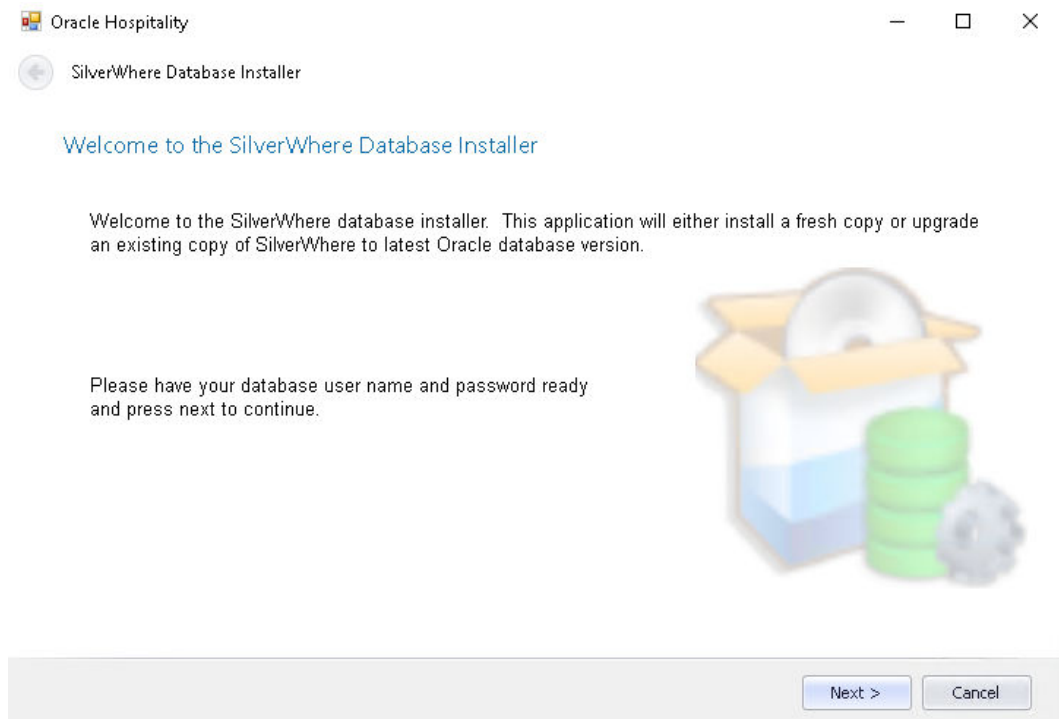
3. At the SilverWhere Database Installer Welcome window, click the **Next** button to navigate to the next screen.

4. On the Database Schema Connection screen, enter the **Database Schema Password** for SilverWhere

Figure 3-3   Database Connection Instance Selection
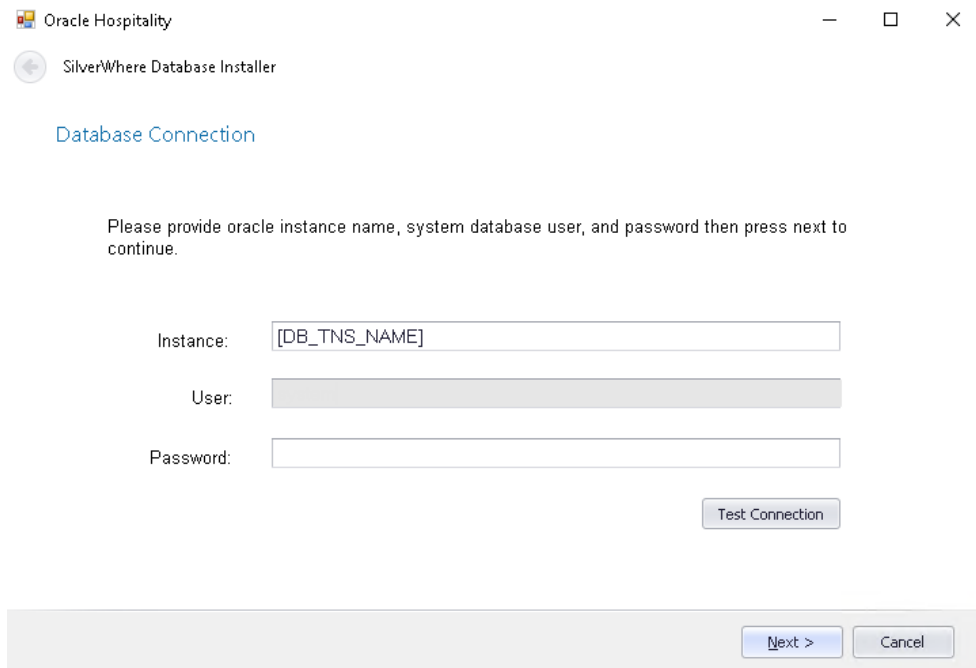
Figure 3-4   Database Schema Connection
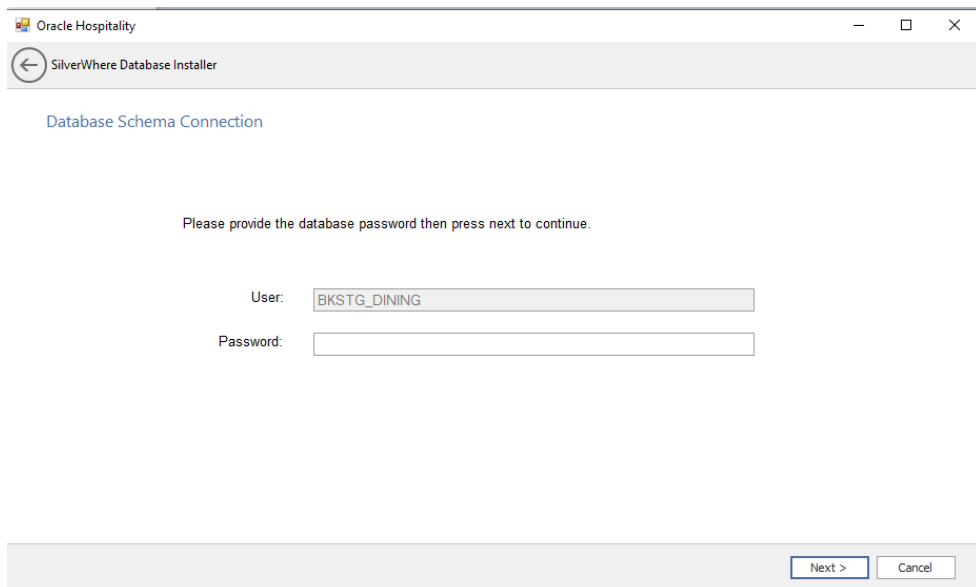
5. On the Database Connection window, enter the **Database TNS name** and **Database Schema Password** for System user.

6. If the Database TNS name or Database Schema password is incorrect, you will receive an error message. Correct the information and retry

7. To validate the Database connection, click the **Test Connection** button

8. Click the **Next** button to proceed to the Options screen, and select from the below:

    •   Mode:

- – **Standard:** Updates the SilverWhere Database with the required changes.

  – **Simulation:** Checks and generates a list of changes the system will apply. These changes will not affect the SPMS Database until you run the standard mode.

- • Additional options:

  – **Reinstall Application Setting (PARAM):** Inserts all default values for `LOOK_UP_VALUE = 'PARAM'`.

  – **Reinstall Application Configuration (LOOK UP):** Inserts all default values for the LOOK_UP table (except for `LOOK_UP_VALUE= 'PARAM'`).

  – **Update Table Columns Only:** Checks and updates the database table columns.

- • Rights:

  – **Remove DBA rights from Bkstg_dining user:** Removes the DBA rights from the SilverWhere BKSTG_DINING schema user.

9. Click the **Next** button to proceed to Administrator account screen

10. On the Administrator account screen, enter the ADMIN user details and click the **Next** button to continue. This will lead you to the Embedded Module Options screen.

11. On the Embedded Module Options screen, select the application groups that shall be updated

    - • **SilverWhere .Net** client

    - • **SWMobile** client

    - • **Updater Services**

    - • **Purge each selected Application files and .DLL files before upload new files:** Enable to purge all existing application files and .dll files from the database

12. Click the **Next** button to proceed to the Confirmation screen.

13. On the Confirmation screen, click the **Next** button to start the SilverWhere Database Installation process.

14. The SilverWhere Database Installation process is shown in the Status screen. Upon completion of the installation process, click the **Close** button to proceed.

4

Setting Up SilverWhere Web Server

Before you proceed, it is important to know where you intend to set up the SilverWhere Secure and SWMobile, the SilverWhere Authentication, and the SilverWhere SWReservation Web Services.

The SilverWhere Secure Web Service must be reachable by all SilverWhere Application Clients and SilverWhere Web Services as it manages the database user credentials, which will require an established SilverWhere database connection. The SilverWhere Secure Web Service must be able to connect to the SilverWhere database as it will need to verify the database connection before it can store the database user credentials.

The below topics describes the recommended installation path, combining the Secure Web Service with the SWMobile Web Service on one machine.

SilverWhere Web Services Prerequisites

- Microsoft Internet Information Services (IIS) is installed on the target machine
  - IIS v6 with Management Compatibility Services
- Minimum Internet Explorer 8.0 is installed on the target machine
  - Microsoft .NET Framework 4.8 features are enabled on the target machine.
  - Minimum Oracle 12c Database client with ODAC is installed on the target machine. See Oracle Database Client and ODAC Installation.
- SilverWhere 9.1 release package is downloaded and available in the target machine. Refer to the SilverWhere Installation File for download instructions.
- Disable TLS 1.0 and TLS 1.1, and enable TLS 1.2. See *Security Guide* for more information.
- Optional: Enable Allowed Origins for SilverWhere Authentication web service. See *Security Guide* for more information.

SilverWhere Web Services Installation Steps

The SilverWhere Secure Web Service was developed to manage login credentials and encryption keys. It is comparable to a password management application.

The SilverWhere SWMobile Web Service was developed for the SWMobile application to manage the access of the mobile clients to the SilverWhere database.

The SilverWhere Authentication Web Service was developed for the SWMobile application to authenticate the token in order to access the SilverWhere database.

The SilverWhere SWReservation Web Service was developed for Third-Party vendors to integrate with SilverWhere and allow dining bookings via a website, onboard app, etc.

Follow the steps below to setup the SilverWhere Web Services:

1. Refer to Setting Up SilverWhere Database Connection.

2. Refer to Secure Sockets Layer (SSL) digital certificate

3. Refer to Install the SilverWhere Web Services using the Setup.exe

4. Refer to Setting up SilverWhere Secure and SWMobile Web Service

5. Refer to Setting up SilverWhere SWAuthentication

6. Refer to Steps to Install SilverWhere Secure Tools Client.

7. Refer to Setting up SilverWhere Secure Tools Client

Secure Sockets Layer (SSL) digital certificate

The use of digital certificates is common in today's service-oriented architecture. A digital certificate is especially important in the identification of a system. It is similar to using a government issued identification document to identify an individual. From the SilverWhere context, the digital certificate is required to identify the SilverWhere web services. This is to prevent an unscrupulous party from impersonating SilverWhere web services and stealing sensitive information from SilverWhere. It is recommended that the Digital Certificate used to identify SilverWhere web services is acquired from a recognized and valid Certification Authority.

You must install the Secure Sockets Layer (SSL) digital certificate as this is required on an IIS Web Server for HTTPS communication to web services. Secure Sockets Layer (SSL) usage on SilverWhere Security Server is mandatory. Self-signed certificates should be used only if the customer fails to provide a certificate from a Certificate Authority (CA). Refer to the Microsoft product documentation library at https://support.microsoft.com/en-sg/help/324069/how-to-set-up-an-https-service-in-iis for information about the installation of secure certificates.

The responsibility of acquiring a valid Digital Certificate lies solely with the user. The process does not differ much between different Certification Authorities.

1. You will need to identify the trusted Certification Authority (CS) that you intend to buy the Digital Certificate from.

2. Through the CA online purchase portal, you can easily provide the information such as the URL, the purpose of the certificate, and the necessary information to acquire a Digital Certificate.

3. Alternatively, you can generate a Certificate Signing Request and send it to the CA to be signed.

4. Regardless of the differences, the purpose remains the same, which is to acquire a Secure Sockets Layer (SSL) compliant digital certificate for the SilverWhere web services from a recognized and valid Certification Authority.

The act of generating a self-signed Digital Certificate to identify the SilverWhere web services is not recommended for the production environment. It increases the risk of an unscrupulous party impersonating the SilverWhere web services to steal sensitive information. However, it is still possible for SilverWhere web services to use a self-signed certificate despite the increased security risk, which means you would have to agree to bear the consequences.

Install using the Setup.exe

In order to install the SilverWhere Web Services on the target machine, follow the instructions listed below:

1. On your target machine, open the **IIS Manager**, click **Sites** and then choose the **Default Web Site**

2. On the right side in the IIS, right click **Bindings…**

3. On the Site Bindings window, click **Add…** to open the Add Site Binding window

4. Choose *https* as Binding Type and select the SSL certificate imported previously

5. Click **OK** to complete the process

6. On the Site Bindings window, select the *http* entry and click **Remove**

7. Click on **Yes** to complete the process, and then click **Close**

8. From the downloaded SilverWhere Installation File package, browse to the `\OHC SilverWhere 9.1 Web Services Setup` folder and run the setup.exe.

9. At the SilverWhere Web Service Installer Welcome window, click the **Next** button to navigate to the next screen

10. Select the web service(s) you want to install on the machine

    • SW Secure and Mobile Web Service

    • SW Reservation Web Service

    • SW Authentication Web Service

11. Click the **Next** button to navigate to the next screen and confirm the installation process by clicking on **Install**

12. The installation process is shown in the Status window. Upon completion of the installation process, click the **Finish** button to close the InstallShield Wizard

13. Open the IIS Manager, and click **Application Pools** on the left side, and choose the **Application Pool** created in the previous step (Step 8-12)

14. Click on **Advanced Settings** to edit the Application Pool and set the **Start Mode** to *AlwaysRunning*. Repeat that for all newly created application pools

Figure 4-1   Application Pool Advanced Setting window
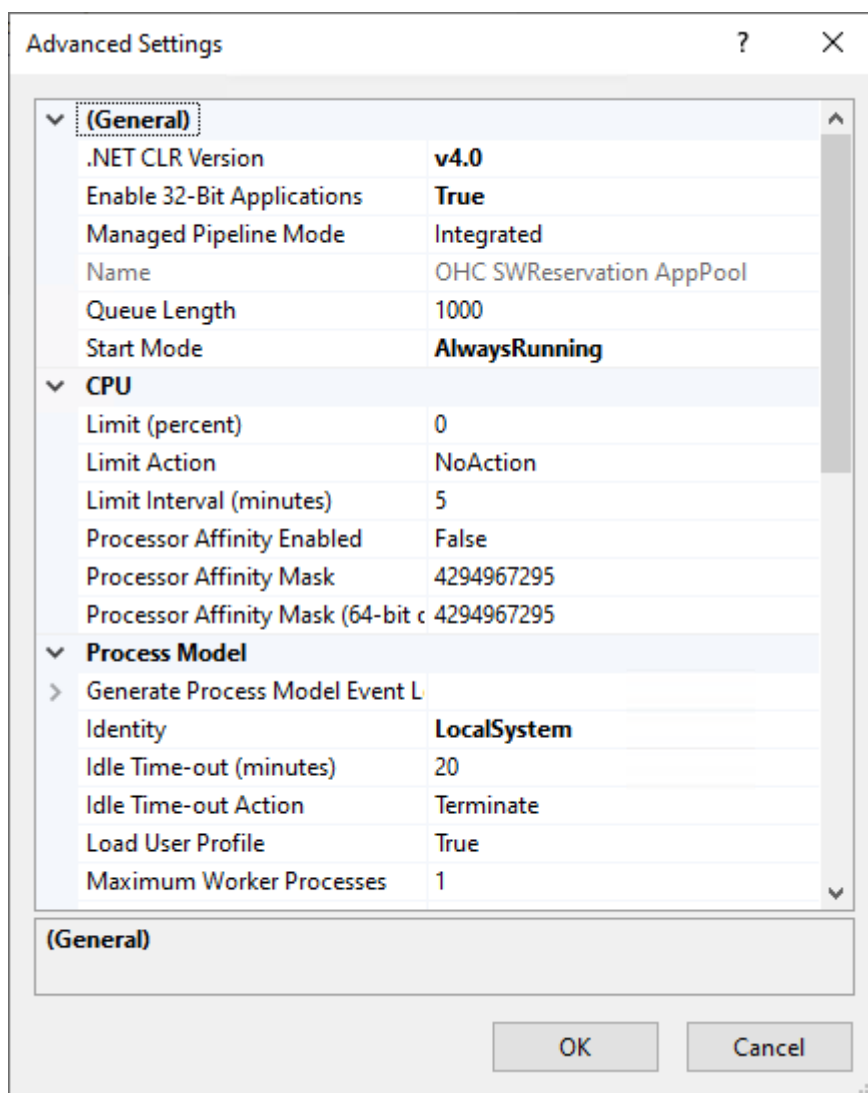
15. Click on **OK** to complete the process.

16. Click on **Sites** and choose the **Web Site** created previously (steps 8 to 12)

17. Click on **Advanced Settings** to edit the Site. Ensure the **Preload Enabled** is set to *True*

Figure 4-2   Web Site Advanced Settings
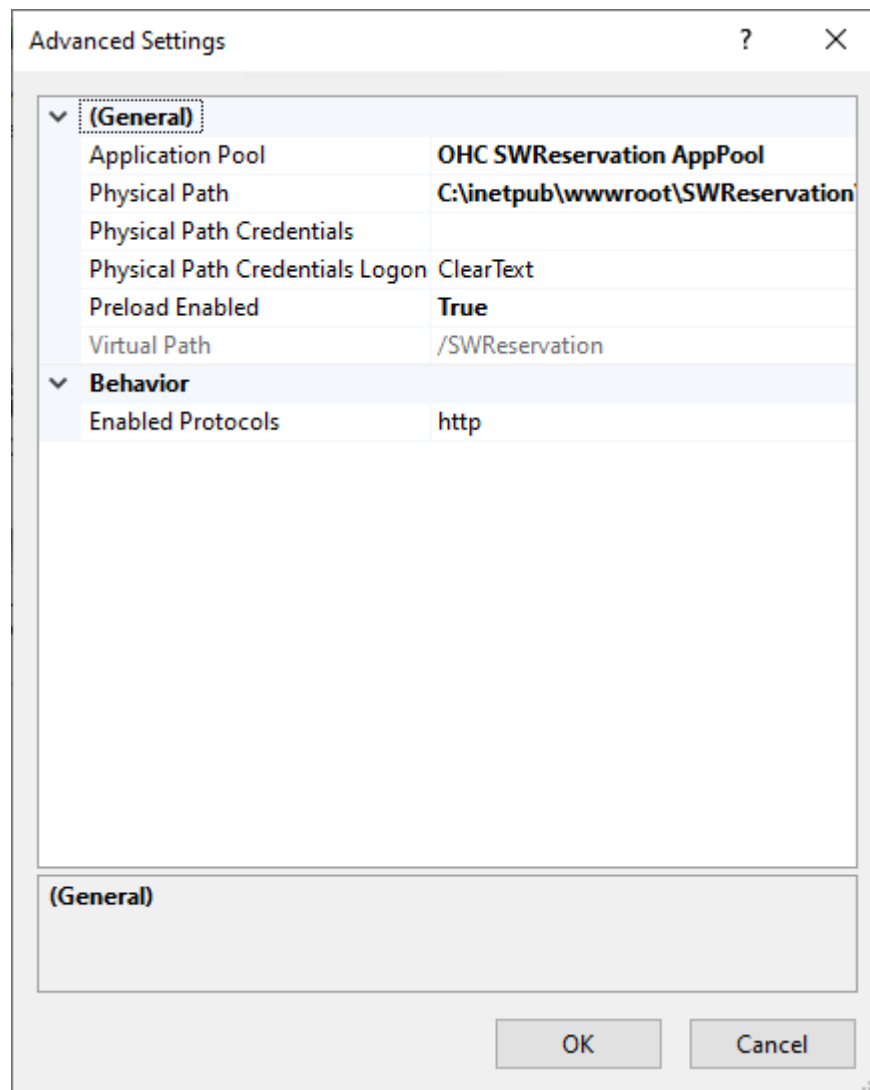
18. Click **OK** to continue

Setting up SilverWhere Secure and Mobile Web Service

In order to configure the SilverWhere Secure and Mobile Web Service on the target machine, follow the instructions listed below:

1. Follow steps 1 to 15 of Setting up SilverWhere Web Services in order to install the web service

2. Expand the **Sites** folder on the left panel of the IIS Manager, then navigate to the converted application and double click **Default Document**

3. Select **MMSFunctions.asmx** and move it to the top of the list

4. You will need to set up the SilverWhere Web Services Database connection. This step is required so that the web services know which Database TNS it should connect to. You can do so by editing the web.config file

5. Navigate to the web.config file for SilverWhere Secure and SWMobile Web Service at `C:\inetpub\wwwroot\SWWeb`

6. Under the `<appSettings>` section, set the SilverWhere Secure Login Information

```
<appSettings>
     <add key="SecureLogin" value="FULLDEVICENAME_or_IPWEBSERVICE/
SWWeb"/>
</appSettings>
```

For example:

```
<appSettings>
     <add key="SecureLogin" value="FULLDEVICENAME/SWWeb"/>
   </appSettings>
```

7. Under the `<appSettings>` section, set the SilverWhere Authentication web service information.

```
<appSettings>
     <add key="DefaultServer" value="addDefaultServer" />
     <add key="AuthService" value="FULLDEVICENAME_or_IPWEBSERVICE/
SWAUTHENTICATION" />
   </appSettings>
```

For example:

```
<appSettings>
     <add key="DefaultServer" value="UserID" />
     <add key="AuthService" value="FULLDEVICENAME/
SWAuthentication" />
   </appSettings>
```

8. Under the `<connectionStrings>` section, set the Database Server Address and the Database TNS name (SID).

For example:

```
<connectionStrings>
      <add name="MmsiDbConnection" connectionString="Data
source=(DESCRIPTION = (ADDRESS = (PROTOCOL = TCP)(HOST =
FULLDEVICENAME)(PORT = 1521))(CONNECT_DATA =(SID = AddSSID)));User
ID=bkstg_dining;"/>
   </connectionStrings>
```

9. Restart the SilverWhere Secure and SWMobile Web Service. You can do this from the IIS Manager

To confirm whether the SilverWhere Secure and SWMobile Web Service is running properly,

1. Launch a web browser

2. Type in the URL https://localhost/SWWeb/MMSSecureFunctions.asmx

3. Press **Enter**

The SilverWhere Secure and SWMobile Web Service is hosted correctly if the below page is shown:

Figure 4-3   SilverWhere Secure and SWMobile Web Service page hosted on the SilverWhere Web Service Server
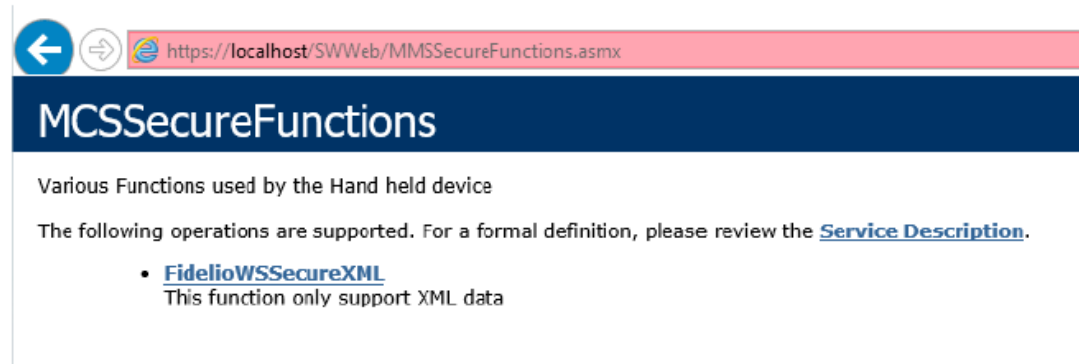
> **Note:**
>
> It is important to know that successful hosting of the SilverWhere Secure and SWMobile Web Service does not guarantee a successful SilverWhere database connection, which is required for the SilverWhere operation. Therefore, it is important to configure the SilverWhere Secure and SWMobile Web Service connection to the SilverWhere Database in the SilverWhere Secure Tools client. Connection to the SilverWhere Database is only possible when the Database TNS Connection for SilverWhere Secure and SWMobile Web Service is properly setup and with the correct SilverWhere Database password. The password is stored in a protected OHCSWSecurity.par file on SilverWhere Web Service Server in `\Users\Public\Public Documents\Oracle Hospitality Cruise` directory.

Setting up SWAuthentication web service

In order to configure the SilverWhere Authentication web service on the target machine, follow the instructions listed below:

1. Follow steps 1 to 15 of Setting up SilverWhere Web Services in order to install the web service

2. You will need to set up the SilverWhere Authentication web services Database connection. This step is required so that the web services know which Database TNS it should connect to. You can do so by editing the web.config file

3. Navigate to the web.config file for SilverWhere Authentication web service at `C:\inetpub\wwwroot\SWAuthentication`

4. Under the `<appSettings>` section, set the SilverWhere Secure Login Information (URL)

For example:

```
<appSettings>
<add key="SecureLogin" value="FULLDEVICENAME/SWWeb"/>
  </appSettings>
```

5. Under the `<connectionStrings>` section, set the Database TNS name (SID).

   For example:

```
<connectionStrings>
   <add name="MmsiDbConnection" connectionString="Data
Source=addSID;User Id=bkstg_dining;" />
  </connectionStrings>
```

6. Restart the SilverWhere Authentication web service. You can do this from the IIS Manager

Setting up SWReservation Web Service

In order to configure the SWReservation Web Service on the target machine, follow the instructions listed below:

1. Follow steps 1 to 15 of Setting up SilverWhere Web Services in order to install the web service

2. Navigate to the `C:\inetpub\wwwroot/SWReservation` folder and create a copy of the web.config file in order to change the database information at a later stage

3. Edit the original web.config file to define the SilverWhere database server name `<SOURCE>`, User ID `<DBUSER>` and password <PASSWORD> under <connectionStrings>

   For example:

```
<connectionStrings>
    <add name="DBConnection"
connectionString="provider=OraOLEDB.Oracle.1;DATA
SOURCE=AddSID;USER ID=bkstg_dining;PASSWORD=AddPWD;"/>
  </connectionStrings>
```

4. To verify if the SWReservation Web Service is running properly, click **Browse** in the IIS Manager to launch the web browser. The SilverWhere SWReservation Web Service is hosted correctly if the below page is shown:

Figure 4-4   SWReservation Web Services page hosted on SilverWhere Web Service Server

5. Configure the below settings of the SWReservation Web Service in the **SWPARAM.XML**:

    • **RESERVE:** The reserve availability that should be subtracted from total availability when determining if a reservation is possible or not. Reserve fields range from 1 to 5 and can be combined in the parameter. For example "13" would indicate that the booking service was not allowed to use Reserve1 or Reserve3. RESERVE fields must be setup as per LOOK UP SETUP – RESERVE

    • **MINUTES:** Enter the number of minutes the SWReservation Web Service shall wait before cancelling TEMP reservation automatically. The default value is 90 minutes

    • **CURRENT:** Not in use.

    • **CUTOFF:** Enter the time, in military format with no colons (e.g. 1500), after which dining reservations cannot be made for today via the SWASR Web Service. The default value is 1500

    • **CHECKOPEN:** Not in use

    • **FUTURERES:** Not in use

    • **ALPHAPAX:** Not in use. Indicates that the PAXALPHA_ID and not the numeric Passes the PASSENGER ID to the SWReservation Web Service.

    • **SHIPSORACLE:** Not in use

    • **LOCTRANSACTIONS:** Enable to log the web service transactions into the BKSTG_DINING.SERVICE_HISTORY database table

    • **VIPRESERVE:** Enter the RESERVE field that's being used for passengers with VIP status. RESERVE fields must be setup as per `LOOK UP SETUP - RESERVE`

- **ENABLEBOOKINGRESTRICTIONS:** Enable to restrict multiple bookings on the same product for the same day

- **ENABLEPRODUCTGROUPRESTRICTIONS:** Enable to restrict multiple bookings on the same product group for the same day

- **TIMEOUT:** Enter the database connection timeout in minutes. The default value is 30

- **DATBASEID:** Enter the ship database ID. Use ID 99 for the headquarter database

- **FLEXDININGENABLED:** Enable to search for Flex Table on availability

- **MULTITABLEENABLED:** Enable to search for multi-table on availability

For example:

```
 <RESERVE>23</RESERVE>
<SHIP />
<MINUTES>90</MINUTES>
<CURRENT>Y</CURRENT>
<CUTOFF>1500</CUTOFF>
<CHECKOPEN>N</CHECKOPEN>
<FUTURERES>N</FUTURERES>
<ALPHAPAX>N</ALPHAPAX>
<SHIPSORACLE></SHIPSORACLE>
<LOGTRASACTIONS>Y</LOGTRASACTIONS>
<VIPRESERVE>1</VIPRESERVE>
<ENABLEBOOKINGRESTICTIONS>Y</ENABLEBOOKINGRESTICTIONS>

<ENABLEPRODUCTGROUPRESTRICTIONS>N</ENABLEPRODUCTGROUPRESTRICTIONS>
<TIMEOUT>30</TIMEOUT>
<DATABASEID>10</DATABASEID>
<FLEXDININGENABLED>N</FLEXDININGENABLED>
<MULTITTABLEENABLED>Y</MULTITTABLEENABLED>
```

5

Setting up SilverWhere Application Clients

There are different SilverWhere Application Clients based on the operational needs. The distributed clients are:

- SilverWhere Desktop clients, used for desktop computers with the option to distribute the SilverWhere Database Installer executable
- SilverWhere Mobile client, used for mobile devices
- SilverWhere Secure Tools client, used for storing the database connection details
- SilverWhere Interface client, used for synchronization between the Oracle Hospitality

SilverWhere Application Clients Prerequisites

- Microsoft .NET Framework 4.8 features are enabled on the target machine
- Minimum Oracle 12c Database client with ODAC is installed on the target machine. See topic Oracle Database Client and ODAC Installation
- SAP Crystal Report runtime engine for .NET Framework (32–bit) version 13.0.x is installed on the target machine. See Document SilverWhere - How to Install/ Upgrade Crystal Reports runtime engine at Oracle Support Portal for further information.
- SilverWhere 9.1 release package is downloaded and available in the target machine. Refer to the Where to Download for download instructions
- Ensure that the Windows Regional and Language Settings is configured to US/ UK and the language settings should be set to English on the target machine. This is to ensure that the functionalities are working as expected
- Disable TLS 1.0 and TLS 1.1, and enable TLS 1.2. See *Security Guide* for more information

SilverWhere Application Clients Installation Steps

Install using the Setup.exe

SilverWhere Application Clients can be installed by running the setup.exe and left unattended until it completes the installation. Follow the instructions below to install the SilverWhere Application Clients:

1. Download the SilverWhere Installer. See topic Where to download
2. From the downloaded SilverWhere Installation File package, browse to the `\OHC SilverWhere 9.1 Clients Setup` folder and run the setup.exe
3. At the SilverWhere Installer Welcome window, click the **Next** button to navigate to the next screen
4. Select the applications you want to install on the machine
   - SW Desktop Applications

       –   SilverWhere Database Installer

- SilverWhere Mobile

- SilverWhere Secure Tools

- SilverWhere Interface

5. Click the **Next** button to navigate to the next screen and confirm the installation process by clicking on **Install**

6. The installation process is shown in the Status window. Upon completion of the installation process, click the **Finish** button to close the InstallShield Wizard

7. A shortcut is placed automatically to the desktop for each of the application clients, except for the SilverWhere Database Installer executable. It will be only placed to the `C:\Program Files (x86)\OHCSilverWhere\SilverWhere Client` folder

Setting up SilverWhere Secure Tools Client

In order for the SilverWhere Application Clients to connect to the SilverWhere Database, you must configure the SilverWhere Secure Tools Client:

1. Follow steps 1 to 7 of Setting up SilverWhere Application Clients in order to install the client

2. Open the **SilverWhere Secure Tools Client** by **double-clicking** on the icon on the desktop.

3. A message will be displayed as the database information cannot be retrieved. Confirm the message by clicking **OK**

4. Provide the database information and click **Apply**. Confirm the success message by clicking **OK**

5. Open the **SilverWhere Secure Tools Client** by **double-clicking** on the icon on the desktop, then enter the user credentials for the Administrator user and click **OK**

6. This will launch the SilverWhere Secure Tools Client

Figure 5-1   Secure Tools Clients
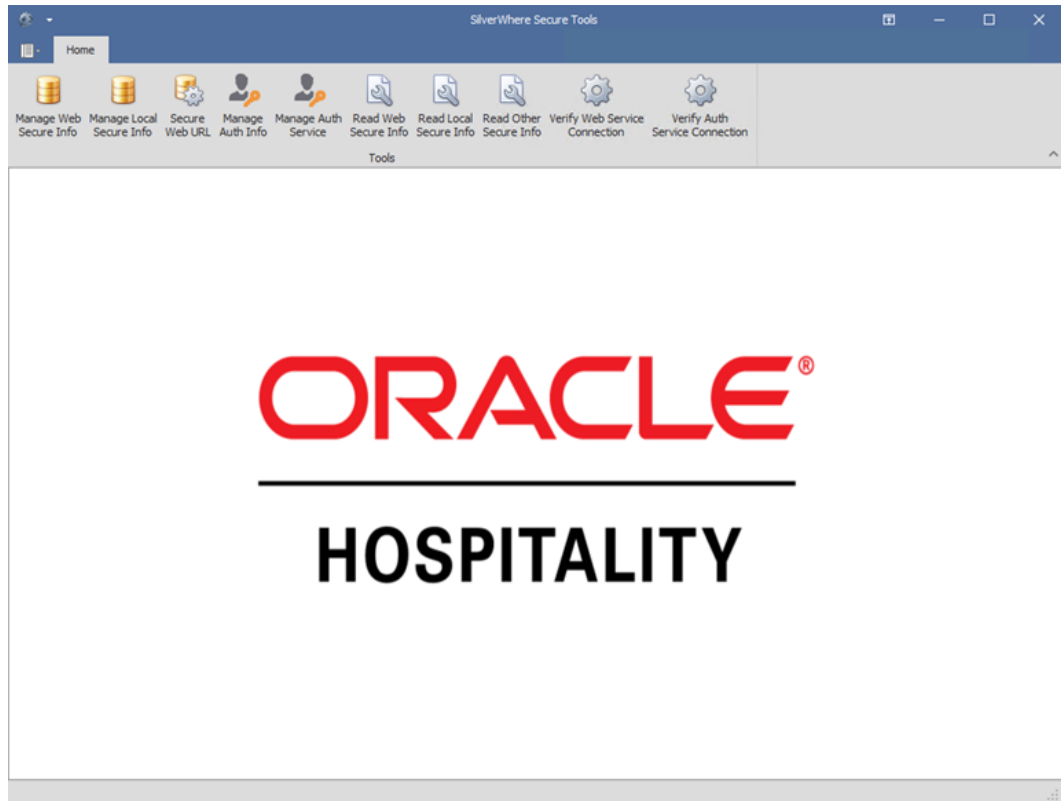
7. Click the **Secure Web URL** button to open the below window

Figure 5-2   Secure Login URL window

8. Enter the **URL**, for example: `IPWEBSERVICE /SWWeb` or `FULLDEVICENAME/SWWeb` and confirm by clicking **OK** and then **Cancel**

9. Click the **Manage Web Secure Info** button to open below window

Figure 5-3   Manage Secure Information (Secure Web) window
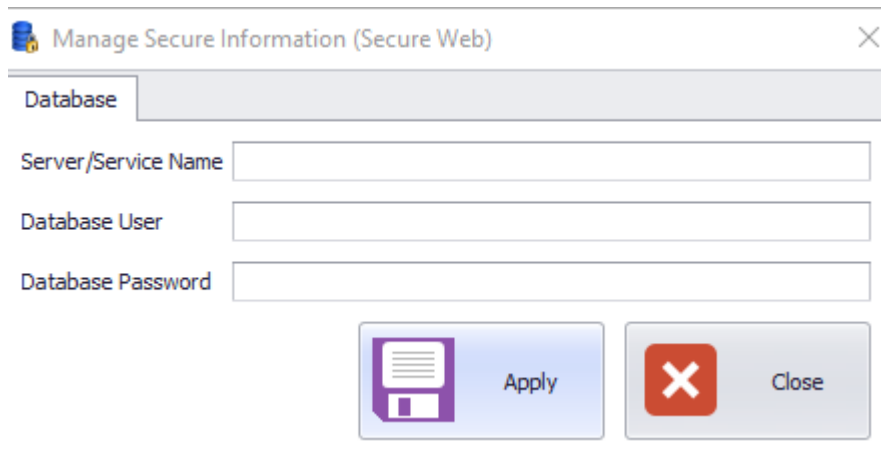
10. Enter the Database Connection details and confirm by clicking **Apply**

11. Repeat steps 6 and 7 and add the below to below for **Server/ Service Name** to create the entry for the SWMobile application:

    ```
    (DESCRIPTION = (ADDRESS = (PROTOCOL = TCP)(HOST = AddServerAddress)
    (PORT = 1521))(CONNECT_DATA =(SID = AddSSID)))
    ```

12. Click the **Read Web Secure Info** button to view all the configured database connection details

13. Click on the **Manage Auth Service** button to open the below window

Figure 5-4   Manage Authentication Service connection window
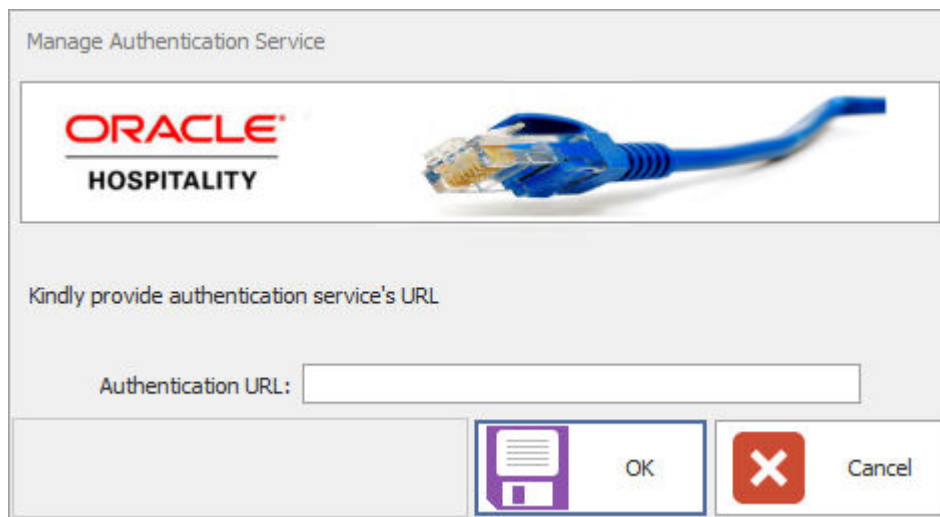
14. Enter the **URL**, for example: `FULLDEVICENAME/SWAuthentication` or `<IP Address>/SWAuthentication` and confirm by clicking **OK**

15. Complete the process by clicking on **OK**

16. Before you can continue the configuration in the SilverWhere Secure Tools client, we have to create a user for the newly created *Authentication* user group. Open the **SilverWhere .Net Client** by double-clicking on the **icon** on the desktop

17. Navigate to the **System Setup** tab, and click the **User Setup** module

18. Select the *Authentication* user group, and click **Add User**

19. Enter the user details for the authentication user, for example `USER ID = AUTH1`, and click **Save**

20. Go back to the **SilverWhere Secure Tools client** or open it by double-clicking on the **icon** on the desktop.

21. Click on **Manage Auth Info**, select the first secure server from the drop-down menu and enter the user and user password for the authentication user (created in steps 16 to 19) in the Manage Authentication Information window

22. Complete the process by clicking **Apply** and then **OK**

23. Repeat steps 21 and 22 and select the second secure server from the drop-down menu

Other functionalities in the SilverWhere Secure Tools client are:

- Update Secure Information:
    – To update the password of a Secure Info entry, click the **Read Web Secure** Info button and **double click** the entry, and enter the password

- Delete Secure Information:
    – To delete the Secure Info entry, click the **Read Web Secure** Info button, select the entry and press the **Delete** key on the keyboard

- Verify Web Service Connection:
    – To verify the Web Service Connection, click the **Verify Web Service Connection** button and press **Verify**

- Verify Auth Service Connection:
    – To verify the SWAuthentication Web Service Connection, click the **Verify Auth Service Connection** button and press **Verify**

Creating SilverWhere par files

In order for the SilverWhere Clients to connect to the SilverWhere Database, the SWSecurity.par, the SMSecurity.par, the SWWebSecurity.par file and the SWAuthService.par files have to be created. All files will be stored under the `C:\ProgramData\SilverWhere` folder.

SWSecurity.par file

The SWSecurity.par file is used by the Secure Tools Client and it gets created when opening the Secure Tools for the first time and entering the database information. See steps 6-7 above.

SWWebSecurity.par file

The SWWebSecurity.par file is used by the SilverWhere Client to connect to the database. Follow the instructions listed below in order to create the SWWebSecurity.par file:

1. Open the IIS Manager, select the SilverWhere Secure and SWMobile Web Service (e.g. SWWeb) and click **Restart**

2. Click on **Browse** to launch the web browser

3. Click on **MMSFunctions.asmx** and then on **Invoke** to create the SWWebSecurity.par file

SWAuthSecurity.par file

The SWAuthSecurity.par file gets created when clicking Verify Auth Service Connection

for the first time and entering the database information. See steps 13 to 15 of Setting Up SilverWhere Secure Tools Client.

SWAuthInfo.par file

The SWAuthInfo.par file is used by the SilverWhere SWMobile Client to authenticate the SilverWhere Web Services. It is also being used by the SilverWhere Application Clients to connect to database (residing on a different VM). This file contains the authentication user credentials.

SMKeyInfo.par file

This file contains the key to encrypt/ decrypt the local SQLite Database, which is created during the initial launch of the SilverWhere SWMobile Client.

Follow the instructions listed below to change the encryption key of the local database:

1. Delete the SMKeyInfo.par file

2. Delete the local database file in `\Users\CurrentUser\AppData\Local\SWMobile\Database\ SWDB9.1.0.0.db3`

3. Restart the SilverWhere SWMobile Application

> **✎ Note:**
>
> The connection to the SilverWhere Database is only possible when the Database TNS Connection for SilverWhere Secure and SWMobile Web Service is properly setup and with the correct SilverWhere Database password. The password is stored in a protected OHCSWSecurity.par file on SilverWhere Web Service Server in `\Users\Public\Documents\Oracle Hospitality Cruise` directory. This OHCSWSecurity.par file will be updated with the port number of the SWAuthentication web service and also the authentication information of the SWAuthentication web service.
>
> In order for SilverWhere to run without the administrator privilege, the OHCSWSettings.par file is required.

Setting up SilverWhere .Net, SilverWhere and SilverWhere Reports Client

In order to configure SilverWhere .Net, SilverWhere or SilverWhere Report Client on the target machine, follow the instructions listed below:

1. Follow steps 1 to 7 of Setting up SilverWhere Application Clients to install the client

2. Open the **SilverWhere Client** application by double clicking on the **icon** on the desktop

Figure 5-5   Database Information Window
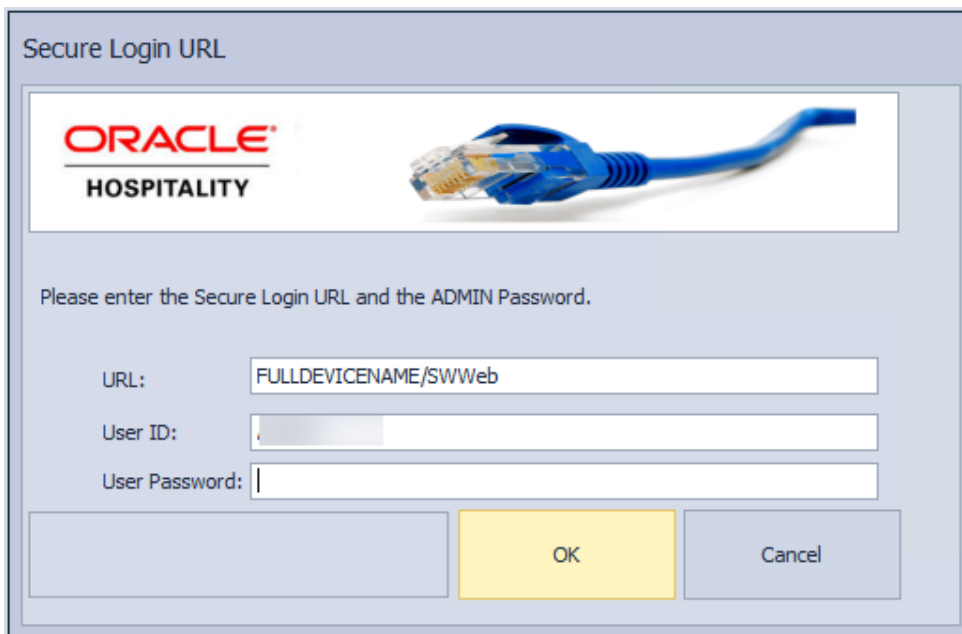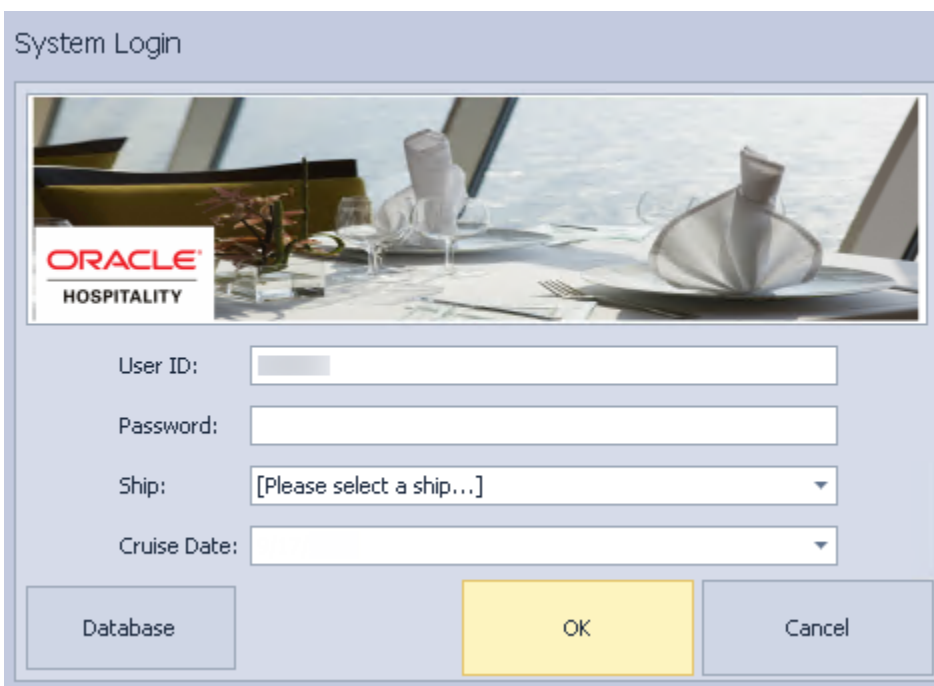
3. Select the **DB Type** and enter the **User** and the **System/DNS**. Confirm by clicking on **OK**

4. Enter the **URL** in the Secure Login Window, for example: `IPWEBSERVICE /SWWeb` or `FULLDEVICENAME/SWWeb` (same as was used for Configuring SilverWhere Secure Tools Client - Step 6) and confirm by clicking **OK**

Figure 5-6   Secure Login URL — SilverWhere .Net Client

Figure 5-7   System Login Window — SilverWhere .Net Client

5.   Enter the **ADMIN** user details given in Setting Up New SilverWhere 9.1 Database - Step 10 and click the **OK** button to login to the application

6.   Open the **SilverWhere** or **SilverWhere Report** application by double clicking on the **icon** on the desktop

Setting up SilverWhere Mobile Client

In order to configure the SilverWhere Mobile Client on the target machine, follow the instructions listed below:

1. Follow steps 1 to 7 of Setting up SilverWhere Application Clients to install the client

2. Open the **SilverWhere Mobile Client** by double clicking on the **icon** on the desktop

Figure 5-8   Web server address screen

3. Enter the **web service address**, for example: `IPWEBSERVICE /SWWeb` or `FULLDEVICENAME/ SWWeb`, same as it was used for Setting up SilverWhere Secure Tools Client (step 6) and confirm by clicking **Done**

Figure 5-9   SilverWhere Mobile Login Screen
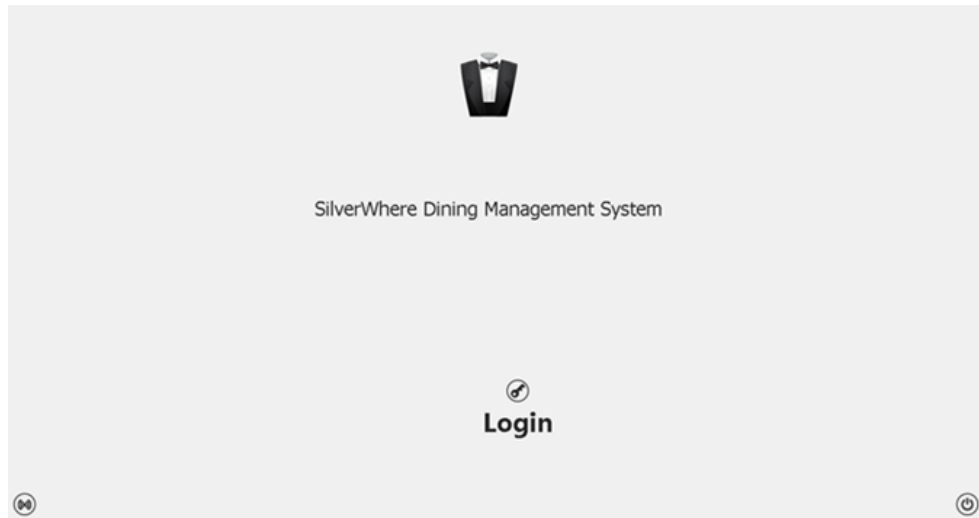
4. Click on **Login**, enter the **User Credentials** and press **DONE** to login to the SilverWhere Mobile Client

Setting up SilverWhere GDF Interface Client

The SilverWhere GDF Interface consists of two parts, namely the GDF Configuration executable and the GDF Templates. Oracle Hospitality Cruise provides the GDF Templates, for the purpose of data synchronization and can be configured based on the operational needs. You have to import them using the GDF Configuration executable.

SilverWhere GDF Interface Prerequisites

• Microsoft .NET Framework 4.8 features are enabled on the target machine

• Minimum Oracle 12c Database client with ODAC is installed on the target machine. See Oracle Database Client and ODAC Installation

• SilverWhere 9.1 release package is downloaded and available in the target machine. Refer to the Where to Download for download instructions

SilverWhere GDF Interface configuration

In order to configure the SilverWhere GDF Interface on the target machine, follow the instructions listed below:

1. Follow steps 1 to 7 of Setting up SilverWhere Application Clients in order to install the client

2. Open the **SilverWhere GDF Interface Client** by double clicking on the **icon** on the desktop

3. See *General Dynamic Interface Guide* for more information on how to configure the interface

> **Note:**
>
> Upgrade of ODAC
>
> If you are upgrading ODAC on the server where GDF is installed, ensure to run the *'Include_EntityFramework_dll.bat'* to register the Oracle.Managed.DataAccess.EntityFramework.dll on the server.

6
Upgrading to SilverWhere 9.1

There is the possibility to upgrade from an existing SilverWhere environment to SilverWhere 9.1. In order to do so, you have to have at least SilverWhere version 8.0.80.0 installed.

SilverWhere Upgrade Prerequisites

- Microsoft .NET Framework 4.8 features are enabled on the target machine
- Minimum Oracle 12c Database client with ODAC is installed on the target machine. See topic SilverWhere Database Prerequisites
- SAP Crystal Report runtime engine for .NET Framework (32–bit) version 13.0.x is installed on the target machine. See Document ID: DOC3460 at Oracle Support Portal for further information.
- SilverWhere 9.1 release package is downloaded and available in the target machine. Refer to the SilverWhere Installation File for download instructions
- Delete all par files from `C:\ProgramData\SilverWhere` on the target machine
- Delete all par files from `C:\Users\Public\Documents\Oracle Hospitality Cruise` on the target machine
- For SWMobile, delete the local database under `C:\Users\xxx\AppData\Local\SWMobile\Database` on the target machine
- For GDF, delete the folder `C:\ProgramData\Oracle Hospitality\Oracle Hospitality Cruise` on the target machine

SilverWhere Upgrade Steps

Upgrade Application Clients and Database to SilverWhere version 9.1

The following section describes the steps to upgrade the SilverWhere programs on each client where SilverWhere is installed.

1. Follow the steps of the chapter SilverWhere Application Clients Installation Steps in order to uninstall SilverWhere version 8.0.80.0 or higher and install SilverWhere version 9.1 automatically

> **✎ Note:**
>
> The folder structure for SilverWhere version 9.1 has changed. During the uninstallation process, all files and folders that are part of previous SilverWhere version 8.0.80.0 will deleted. Additional files will not be deleted and it might be the case that previous SilverWhere Client folders aren't deleted, and this includes application pools as well.

2. Follow the steps of the chapter Installing SilverWhere 9.1 Database in order to upgrade the database to SilverWhere version 9.1

3. Follow the steps of the chapter Setting up SilverWhere Secure Tools Client in order to configure the SilverWhere Secure Tools client on the target machine

4. Follow the steps of the chapter Setting up SilverWhere .Net, SilverWhere and SilverWhere Reports Client in order to configure the SilverWhere .Net, SilverWhere or SilverWhere Reports client on the target machine

5. Follow the steps of the chapter Setting up SilverWhere Mobile Client in order to configure the SilverWhere Mobile client on the target machine

6. Follow the steps of the chapter Setting up SilverWhere GDF Interface Client in order to configure the SilverWhere GDF Interface client on the target machine

Upgrade Web Services to SilverWhere version 9.1 using the Setup.exe

The following section describes the steps to upgrade the SilverWhere programs.

1. Follow the steps of chapter SilverWhere Web Services Installation Steps in order to uninstall SilverWhere version 8.0.80.0 or higher and install SilverWhere version 9.1 automatically

> **Note:**
>
> The folder structure has been changed in SilverWhere version 9.1. During the uninstallation process, all files and folders for SilverWhere version 8.0.80.0 will be deleted if they have been part of the previous installers. Additional files will not be deleted and it might be the case that previous SilverWhere Client folders won't get deleted.

2. Follow the steps of the chapter Setting up SilverWhere Secure and Mobile Web Service in order to configure the SilverWhere Secure and Mobile Web Service on the target machine

3. Follow the steps of the chapter Setting up SWAuthentication web service in order to configure the SilverWhere Authentication Web Service on the target machine

4. Follow the steps of the chapter Setting up SWReservation Web Service in order to configure the SilverWhere Reservation Web Service on the target machine

Updating Oracle Hospitality Cruise IDEA to synchronize new database tables and columns

In SilverWhere version 9.1, a number of database tables and columns got added. Follow the instructions below to ensure that the Oracle Hospitality Cruise IDEA application is transferring this data:

1. Download the SilverWhere Installer. See topic Where to download

2. From the downloaded SilverWhere Installation File package, browse to the OHC SilverWhere 9.1 Scripts folder and **open** the IDEA script for SilverWhere Version 9_1.txt file

3. **Copy** the script and run it in the SQL Developer or Command Prompt

> **✎ Note:**
>
> The script will enable all new database tables and columns for transfer. If you do not wish to transfer the data, the database tables and columns need to be disabled for transfer

7

Upgrading to SilverWhere 9.1.2

To upgrade to SilverWhere version 9.1.2, you have to have at least *SilverWhere version 9.1.1* installed.

SilverWhere Upgrade Steps

Upgrade Webservices to SilverWhere version 9.1.2 using the Update.exe

To upgrade the SilverWhere Web Services on the target machine, follow the steps below:

1. Download the SilverWhere Upgrade File package

2. Browse to the `\SWWebServices` folder and run the Update.exe.

3. At the SilverWhere Web Service Patch Welcome window, click the **Update** button to navigate to the next screen.

4. The upgrade process is shown in the Status window. Upon completion of the upgrade process, click the **Finish** button to close the InstallShield Wizard.

5. Open the IIS Manager, and click **Application Pools** on the left side, and choose the first SilverWhere **Application Pool**.

6. Click the **Advanced Settings** to edit the Application Pool and set the **Start Mode** to *Always Running.*

7. Click **OK** to complete the process. Repeat that for all the SilverWhere application pools.

8. Expand the **Sites** folder on the left panel of the IIS Manager as well as the one with the SilverWhere web sites.

9. Select the first SilverWhere web site.

10. Click **Advanced Settings** to edit the Site. Ensure the **Preload Enabled** is set to True.

11. Click **OK** to complete the process. Repeat that for all the SilverWhere web sites.

12. Navigate to the SWWeb web site and double-click Default Document.

13. Click **Add** to add a new Default Document called **MMSFunctions.asmx**.

14. Click **OK** to complete the process.

15. Navigate to the SWReservation web site and double-click Default Document.

16. Click **Add** to add a new Default Document called **SWReservation.asmx**

17. Click **OK** to complete the process.

Setting up SilverWhere Secure and Mobile Web Service

To configure the SilverWhere Secure and Mobile Web Service on the target machine, follow the steps below:

1. Navigate to the web.config file for SilverWhere Secure and SWMobile Web Service at `C:\inetpub\wwwroot\SWWeb`

2. Under the `<appSettings>` section, set the SilverWhere Secure Login Information

```
<appSettings>
<add key="SecureLogin" value="FULLDEVICENAME_or_IPWEBSERVICE/
SWWeb"/>
</appSettings>
```

3. Under the `<appSettings>` section, set the SilverWhere Authentication web service information.

```
<appSettings>
<add key="DefaultServer" value="addDefaultServer" />
<add key="AuthService" value="FULLDEVICENAME_or_IPWEBSERVICE/
SWAUTHENTICATION" />
</appSettings>
```

4. Under the `<connectionStrings>` section, set the Database Server Address and the Database TNS name (SID).

```
<connectionStrings>
<add name="MmsiDbConnection" connectionString="Data
source=(DESCRIPTION = (ADDRESS = (PROTOCOL = TCP)(HOST =
FULLDEVICENAME)(PORT = 1521))(CONNECT_DATA =(SID = AddSSID)));User
ID=bkstg_dining;"/>
</connectionStrings>
```

5. Restart the SilverWhere Secure and SWMobile Web Service. You can do this from the IIS Manager

Setting up SilverWhere Authentication Web Service

To configure the SilverWhere Authentication Web Service on the target machine, follow the steps below:

1. Navigate to the web.config file for SilverWhere Authentication web service at `C:\inetpub\wwwroot\SWAuthentication`

2. Under the `<appSettings>` section, set the **SilverWhere Secure Login Information (URL)**

```
<appSettings>
<add key="SecureLogin" value="FULLDEVICENAME_or_IPWEBSERVICE/
SWWeb"/>
</appSettings>
```

3. Under the `<connectionStrings>` section, set the **Database TNS name (SID)**.

```
<connectionStrings>
<add name="MmsiDbConnection" connectionString="Data
Source=addSID;User Id=bkstg_dining;" />
</connectionStrings>
```

4. Restart the SilverWhere Authentication web service. You can do this from the IIS Manager.

Upgrade SilverWhere Application Clients

7-3

To upgrade the SilverWhere Application clients on the target machine, follow the steps below:

1. From the downloaded SilverWhere Upgrade File package, browse to the `\SWDesktopApps` folder and run the **Update.exe**.

2. At the SilverWhere Application Client Patch Welcome window, click the **Update** button to navigate to the next screen.

3. The upgrade process is shown in the Status window. Upon completion of the upgrade process, click the **Finish** button to close the InstallShield Wizard.

4. Browse to the `C:\Program Files (x86)\OHCSilverWhere\SilverWhere Client` folder, run the **SWDatabaseInstaller.exe** and follow the steps of the wizard. Click the **Finish** button to close the wizard.

5. Open the **SilverWhere Secure Tools Client** by double-clicking the icon on the desktop, then enter the user credentials for the Administrator user and click **OK.**

6. This will launch the SilverWhere Secure Tools Client and create a new .par file, allowing the application suite to run without the *Run as Administrator* privilege.

8
Troubleshooting

Common errors encountered during the installation of the SilverWhere SWAuthentication and Secure and Mobile Web Service:

SilverWhere Secure Tools Client:

- Message "Failed to update the address for authentication service!! ":

  An issue with the secure server.

- Message "Connection to authentication service failed. Enter a valid address!! ":

  Enter the correct authentication web service address.

- Message "Authentication server verification failed!! ":

  Browse to the web.config file of the SilverWhere Authentication Web Service and verify the SecureLogin URL and the connection string information.

- Message "Failed to update the authentication details!! ":

  An issue with the secure server.

- Message "Invalid login credentials!! ":

  In the User Setup module, verify if the authentication user under the Authentication user group exists. If not, create one. If the Authentication user group itself does not exist, run the SWDatabaseInstaller.exe to create the user group.

- Message "Failed to login to Secure WS!! ":

  Verify if the secure server is up and running.

SilverWhere SWMobile Client:

- Message "Authentication credentials not found for SERVER_NAME on secure service."

  Login to the Secure Tools client and click **Manage Auth Info**. Select the server from the drop-down menu and click **Save** in order to update the DefaultServer value in the SWWebservice web.config file.

- Message "No entry for default server found on secure service. Please update the web.config file."

  Open the web.config file of the SWWebServices and enter a value for "DefaultServer"

- Message "Connect to authentication service failed. Kindly get assistants from System Administrator. ":

  Check if the SilverWhere Authentication Web Service is up and running.

- Message "Failed to login to secure service!!"

  Verify if the secure service is up and running.

- Message "No entry for authentication service address found on secure service. Kindly get assistance from System Administrator. ":

Login to the SilverWhere Secure Tools clients and click the **Manage Auth Service** button, enter the Authentication URL and click **OK**.

- Message "Webservice authentication failed!! Please verify authentication service.":

  The token registration has failed. This could be due to multiple reasons. Follow the SWAuthentication web service configuration

Common errors encountered during the installation of the SilverWhere SWReservation Web Service:

- Message "ORA-12154: TNS could not resolve the connect identifier specified":Adjust the SWPARAM.xml as mentioned in the above chapter

- No Full Oracle Client is installed on the target machine:

  Re-install ODAC or re-install the Full Oracle Client. See Where to Download Oracle Database Client

- Wrong .NET framework version is installed:

  Install the correct .NET framework version as per the prerequisites

- Directory Browse is disabled within the IIS:

  Enable Directory Browse in the IIS Manager

Common errors encountered during the SilverWhere Client installation:

Message prompt 'Secure Server is not running or network not available. Please try again or contact System's Administrator'

- Ensure that you enter a valid Secure Web URL

Message prompt 'Fail retrieving connection's credential from secure site.'

- The issue is caused as the Secure Info is not yet configured in the Secure Tools Client

9

Appendix

Where to enable and find SilverWhere logs

The SilverWhere applications are storing log files in the below areas:

- SWDatabaseInstaller:

  You will find a process and error log saved in the `C:\SWDBInstallerLog` folder.

- SilverWhere Secure and Mobile web service:

  The logs will be stored in the Event Viewer. To enable the logging, navigate to the web.config file for the SilverWhere Secure and Mobile web service at `C:\inetpub\wwwroot\SWWeb`:

```
<appSettings>
   <add key="LogEvents" value="Y" />
    <add key="LogLongEvents" value="Y" />
    <add key="LogMaxTime" value="1000" />
    <add key="LogDecryptedSQL" value="Y" />
    <add key="LogIncludeParameterValue" value="
```

- SilverWhere SWReservation web service:

  The logs will be stored in the BKSTG_DINING.SERVICE_HISTORY database table. To enable the logging, navigate to the SWPARAM.XML file for the SilverWhere SWReservation web service at `C:\inetpub\wwwroot\SWReservation`:

```
<SETTINGS>
    <LOGTRASACTIONS>Y</LOGTRASACTIONS>
```

Where to Download Oracle Database Client

For instructions, download a copy of the installation manual from the official Oracle Help Center website at https://docs.oracle.com/en/database/ and refer to the manual for steps to install.

Alternatively, you could obtain a specific setup file from Oracle Support/DBA.

How to Register Oracle Database Client DLLs to the Local Environment

The Oracle Database Setup file downloaded from Oracle website will not automatically register the above DLLs to the local client. Oracle provides a tool (OraProvCfg.exe) to help user to register the DLLs. See instructions at https://docs.oracle.com/cd/E71422_01/doc.212/E72234/index.htm?toc.htm?207666.htm on how to register the DLLs. However, the specific Setup file from Oracle Support/DBA will normally register DLLs automatically.

For SilverWhere to be able to connect to the Oracle Database, the Oracle Database Client DLLs must be registered to the local client. The DLLs that must be registered are:

- Oracle.DataAccess.dll

- – Folder: `ORACLE_HOME\odp.net\bin\4`
- All DLLs under PublisherPolicy folder: Policy.X.XXX.Oracle.DataAccess.dll
  - – Folder: `ORACLE_HOME\odp.net\PublisherPolicy\4`
- Oracle.ManagedDataAccess.dll
  - – Folder: `ORACLE_HOME\odp.net\managed\common`
- All DLLs under PublisherPolicy folder: Policy.X.XXX.Oracle.ManagedDataAccess.dll
  - – Folder: `ORACLE_HOME\odp.net\managed\PublisherPolicy\4`

> **Note:**
>
> To establish a Database connection using Oracle Net Manager, follow the steps below
>
> 1. Once the Oracle Client installation is successful, launch the Oracle Net Manager to establish the connection between the Database Client and Database Server
>
> 2. When installing the ODAC, ensure the following components for Oracle 12c are installed:
>   - Oracle Data Provider for .NET
>   - Oracle Providers for ASP.NET
>   - Oracle Services For Microsoft Transaction Server