

Oracle® Hospitality Cruise SilverWhere System Installation Guide



Release 8.0.80.0
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Oracle Hospitality Cruise SilverWhere System Installation Guide Release 8.0.80.0

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Contents

Contents	3
<hr/>	
Preface	4
<hr/>	
1 Getting Started	1-1
<hr/>	
What You Should Know	1-1
What You Should Follow	1-1
Where to download SilverWhere	1-3
2 Overview of SilverWhere Components	2-1
<hr/>	
SilverWhere Database Server	2-1
SilverWhere Web Server	2-2
SilverWhere Application Clients	2-4
Installing the SilverWhere Components	2-4
3 Setting up SilverWhere Database	3-1
<hr/>	
SilverWhere Database Prerequisites	3-1
SilverWhere Database Installation Steps	3-1
4 Setting up SilverWhere Web Server	4-1
<hr/>	
SilverWhere Web Service Prerequisites	4-1
SilverWhere Secure and SWMobile Web Service Installation Steps	4-1
SilverWhere SW2ASR Web Service	4-13
5 Setting up SilverWhere Application Clients	5-1
<hr/>	
SilverWhere Application Clients Prerequisites	5-1
SilverWhere Clients Installation Steps	5-1
SWMobile Client Installation Steps	5-5
6 Troubleshooting	6-1
<hr/>	
7 Appendix	7-1
<hr/>	

Preface

This document provides instructions on how to install the Oracle Hospitality Cruise SilverWhere version 8.0.80.0.

Audience

This document is intended for installers, programmers, technical support teams, product specialists and others who are responsible for setting up SilverWhere version 8.0.80.0.

Customer Support

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

<https://support.oracle.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>

Table 1-1 Revision History

Date	Description
March 2022	<ul style="list-style-type: none">• Initial Publication

1

Getting Started

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

What You Should Know

General Knowledge

- Have an operational understanding of Personal Computers (PC).
- Understand the basic network concepts.

Operating System

- Have a 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 2012 R2, 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.
- You must logged on with Windows Administrative privileges before performing any SilverWhere upgrade or installation.

What You Should Follow

Windows Operating System

- It is recommended to always configure 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 Microsoft product documentation library at <https://technet.microsoft.com/en-us/> for instructions.

- Turn off Autoplay if required. See Microsoft product documentation library at <https://technet.microsoft.com/en-us/> for instructions.
- Turn off Remote Assistance if required. See 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. If the system detects an active program or process, you may be notified to terminate them before you can proceed.
- During the SilverWhere database upgrade or SilverWhere installation, follow the prompts carefully and do as instructed. If the process is forced canceled or terminated through any method not as shown on the prompts, the results can be unpredictable.

Securing SilverWhere

- It is paramount to understand and follow closely the guidelines provided by the SilverWhere Security Guide. It is highly recommended that you read and understand the Security Overview in Section 1 of the SilverWhere Security Guide, available on Oracle Help Center for Oracle Hospitality Cruise SilverWhere Release 8.0.80.0.
- Security patches are frequent occurrences and quarterly patch releases are common. 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 characters, 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 for 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 with the minimum privilege level required to perform their job functions.

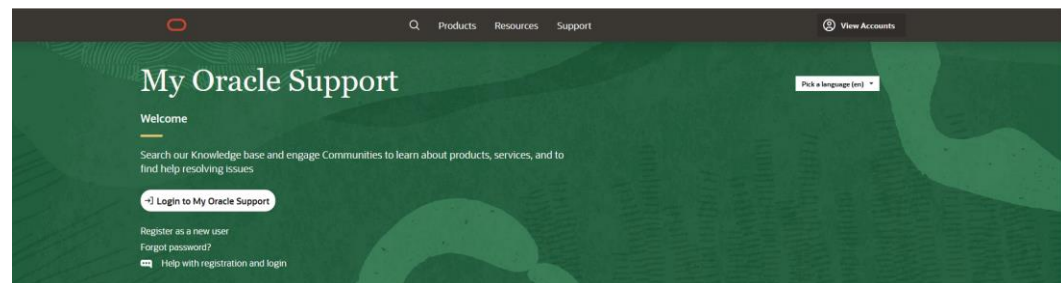
Where to download SilverWhere

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 My Oracle Support (MOS) webpage using the below instructions:

1. Login to My Oracle Support.

Figure 1-1 My Oracle Support



2. On successful login, go to the **Patches and Updates** tab.
3. Select **Product or Family (Advanced)** and search for Oracle Hospitality Cruise SilverWhere and select Oracle Hospitality Cruise SilverWhere 8.0.73
4. Choose the package version and click **Download**

2

Overview of SilverWhere Components

To set up a full SilverWhere 8.0.80.0 environment, the following components are required:

1. SilverWhere Database server,
2. SilverWhere Web Server, and
3. SilverWhere Application Clients

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

SilverWhere Database Server

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 2012x64 R2
- 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
- Web Browser:
 - Internet Explorer 8.0
- Microsoft .NET Framework runtime:
 - Framework version 4.5 enabled

SilverWhere Web Server

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 Web Service,
2. SilverWhere SWMobile Web Service,
3. SilverWhere SW2ASR Web Service

The SilverWhere Secure Web Service is bundled with Secure Web features that handle HTTPS requests from multiple clients, protected with SSL (HTTPS) protocol. The 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 a single server.

Figure 2-1 Separate instance

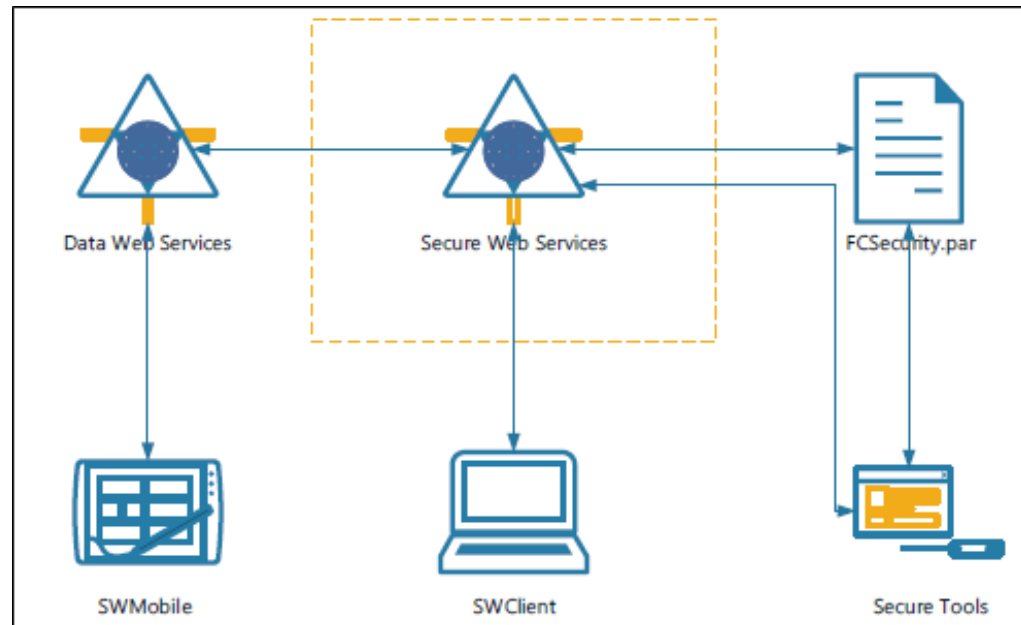


Figure 2-2 Combined instances

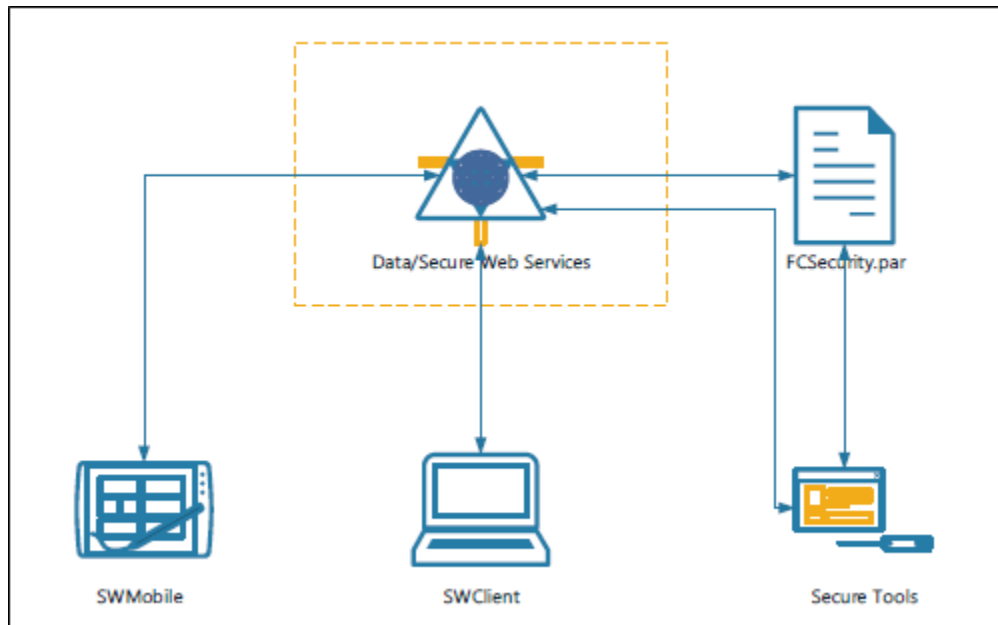
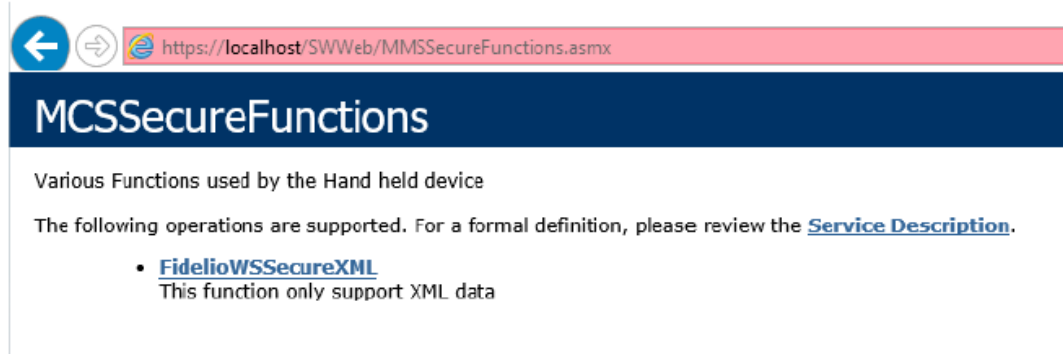


Figure 2-3 Secure Web method



Minimum System Specification

- Operating System:
 - Microsoft Windows Server 2012x64 R2
- 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

- Web Browser:
 - Internet Explorer 8.0
- Microsoft Internet Information Services (IIS):
 - IIS v6 with Management Compatibility Services
- Microsoft .NET Framework runtime:
 - Framework version 4.5 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, and
- SWMobile Client

Minimum System Specification

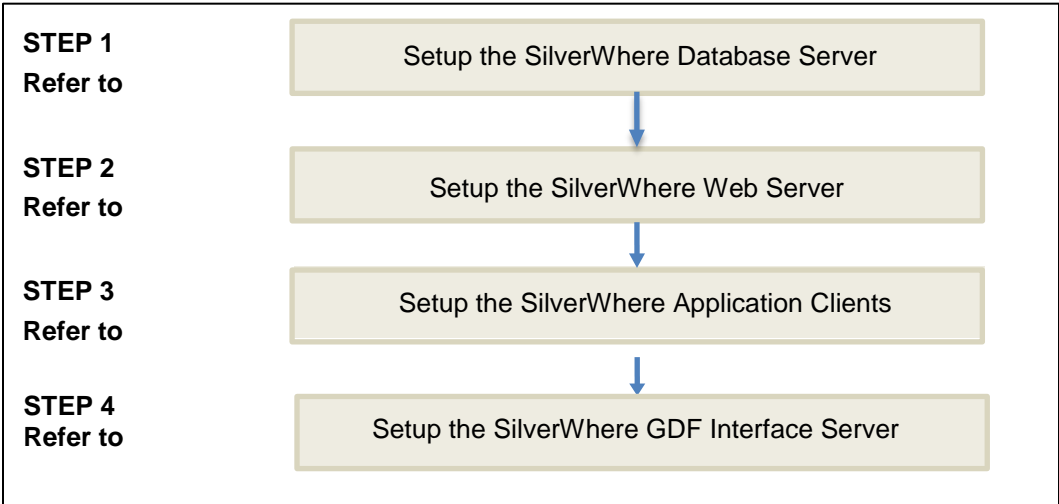
- Operating System:
 - Microsoft Windows 10 Standard Edition
- Memory:
 - 8 GB of RAM, and
 - 160 GB of disk space.
- Oracle Database Client Version:
 - Oracle Database 32-bit Full Client for 12c including the ODAC
- Microsoft .NET Framework runtime:
 - Framework version 4.5 enabled

Installing the SilverWhere Components

The SilverWhere installation consists of setting up all the below components. .

1. SilverWhere Database Server,
2. SilverWhere Web Server,
3. SilverWhere Application Clients, and
4. SilverWhere GDF Interface Server.

Figure 2-4 SilverWhere 8.0.80.0 Summarized Installation Process Flow



3

Setting up SilverWhere Database

SilverWhere Database Prerequisites

- Microsoft .NET Framework 4.5 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](#).
- SilverWhere 8.0.80.0 release package is downloaded and available in the target machine. See [SilverWhere Installation File](#) for download instructions.

For the SilverWhere Database upgrade:

Before you upgrade the SilverWhere Database, you must ensure that the SilverWhere Database version is at minimum version 8.0.x. An upgrade from Database version 2.x is not supported.

SilverWhere Database Installation Steps

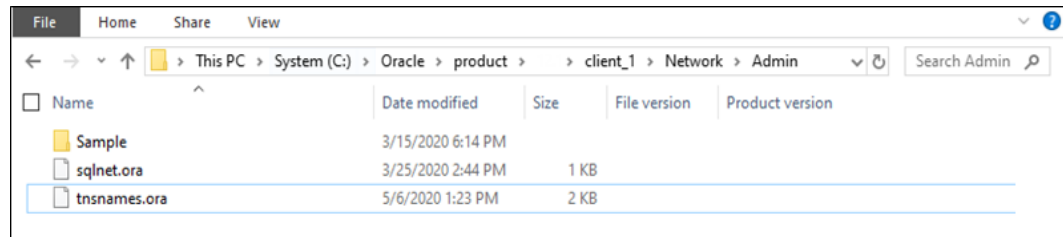
Follow these steps to set up the SilverWhere Database.

Setting Up SilverWhere Database Connection

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 the Database TNS entry is correct 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 in Oracle Client folder



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 User Defined Parameters in Tnsnames.ora file

Tnsnames Parameters	Description
<DB_TNS_NAME>	Oracle Database TNS name. By design, SilverWhere applications or web services refer 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.

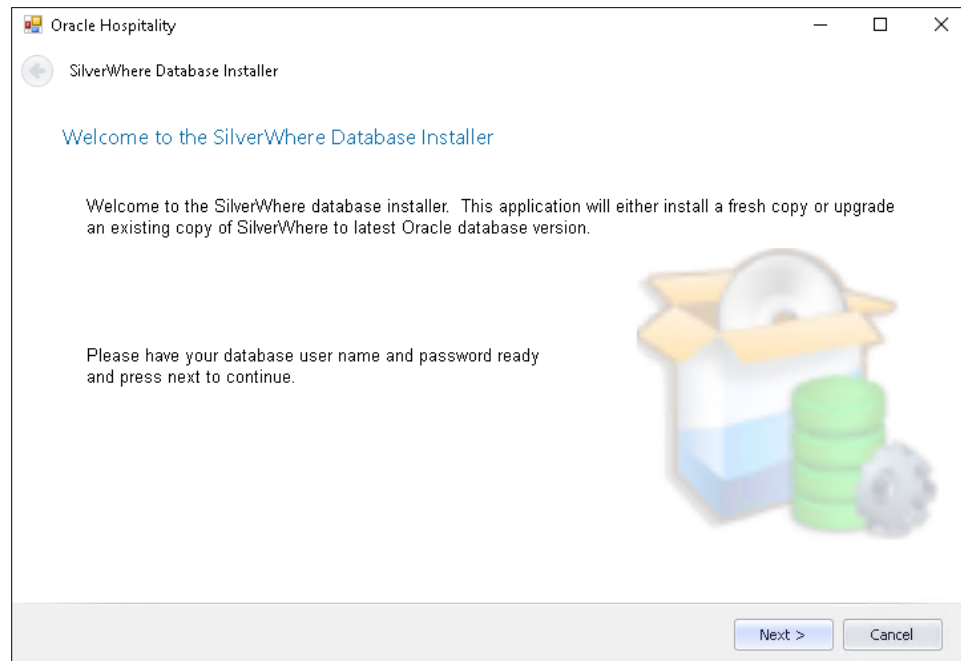
Setting Up New SilverWhere 8.0.80.0 Database

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 the SilverWhere on the target machine See topic [Installing SilverWhere Client for detailed instructions](#).
2. From the downloaded SilverWhere Installation File package, browse to the \SWNET_8_0_80_0\Files\Latest Compile folder
3. Copy the **SWDatabaseInstaller.exe** to the SilverWhere Client installed folder, for example, C:\Program Files (x86)\Oracle Hospitality\SilverWhere Client NET

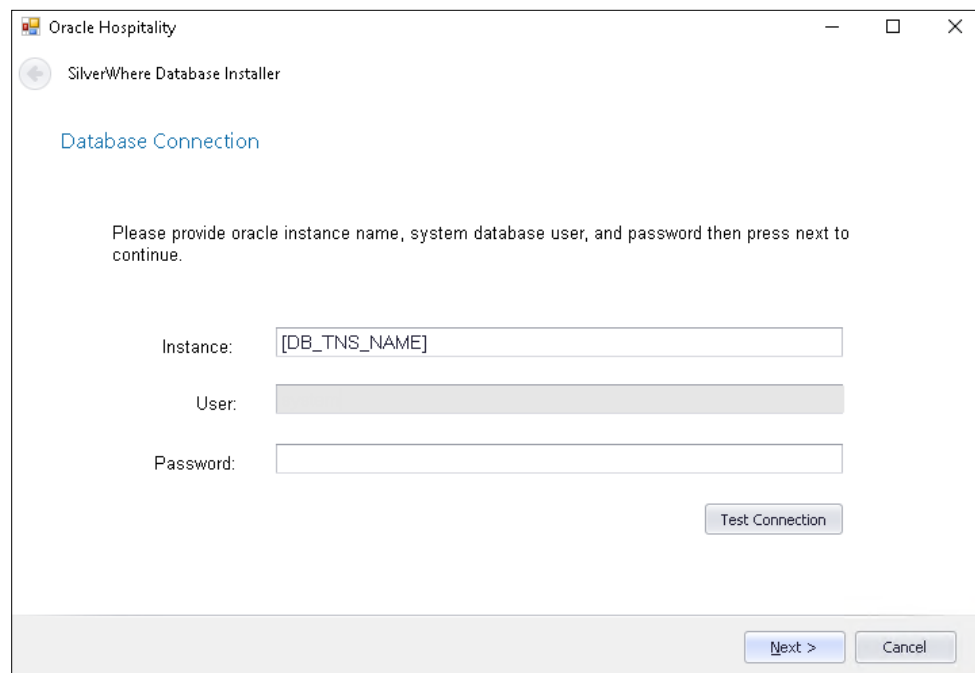
4. Run the **SWDatabaseInstaller.exe** with 'Run as administrator' privilege.

Figure 3-2 SilverWhere Database Installer Welcome Screen



5. At the SilverWhere Database Installer Welcome window, click the **Next** button to navigate to the next screen.

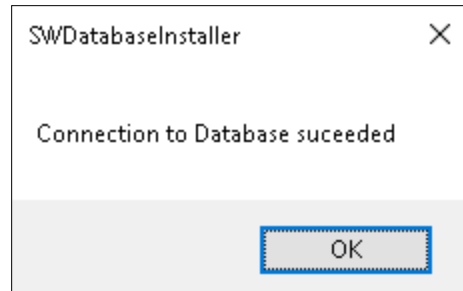
Figure 3-3 SilverWhere Database Connection Instance selection



6. On the Database Connection window, enter the **Database TNS name** and **Database Schema Password** for SilverWhere.

7. If the Database TNS name or Database Schema password is incorrect, you will receive an error message. Correct the information and retry
8. To validate the Database connection, click the **Test Connection** button.

Figure 3-4 SilverWhere Database Installer Connection Successful



9. 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 generate a list of changes that the system will apply. These changes will not affect the SPMS Database until you run the standard mode.
 - **Columns:**
 - 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.
10. Click the **Next** button to proceed to the Administrator account screen
11. On the Administrator account screen, enter the ADMIN user details and click the **Next** button to continue. This navigates to the Embedded Module Options screen.
12. 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
13. Click the **Next** button to proceed to the Confirmation screen.
14. On the Confirmation screen, click the **Next** button to start the SilverWhere Database Installation process.

15. 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, SilverWhere SWMobile, and the SilverWhere SW2ASR Web Services. You can choose to install the SilverWhere Secure Web Service in the same machine as the other SilverWhere Web Services or on a separate one.

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 Service 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 4.5 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.
- SilverWhere 8.0.80.0 release package is downloaded and available in the target machine. Refer to the [SilverWhere Installation File](#) for download instructions.

SilverWhere Secure and SWMobile Web Service 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 Server.

To set up the SilverWhere Secure and SWMobile Web Service, follow the steps below.

1. Refer to [Steps to Set up SilverWhere Secure and SWMobile Web Service Database Connection](#).

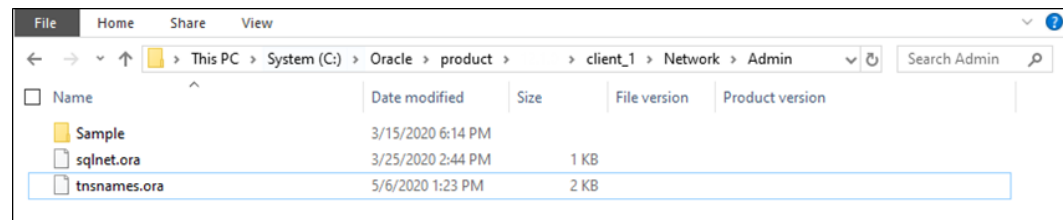
2. Refer to [Steps to Set up combined SilverWhere Secure Web and SWMobile Web Service](#).
3. Refer to [Steps to Install SilverWhere Secure Tools Client](#).

Setting up SilverWhere Secure and SWMobile Web Service Database Connection

For the SilverWhere Web Service to connect to the database, the database TNS Name entry needs to be configured:

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 4-1 Tnsnames.ora File Location in Oracle Client folder



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 4-1 User Defined Parameters in Tnsnames.ora file

Tnsnames Parameters	Description
<DB_TNS_NAME>	Oracle Database TNS name. By design, SilverWhere applications or web services refer 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>)
)
)
```

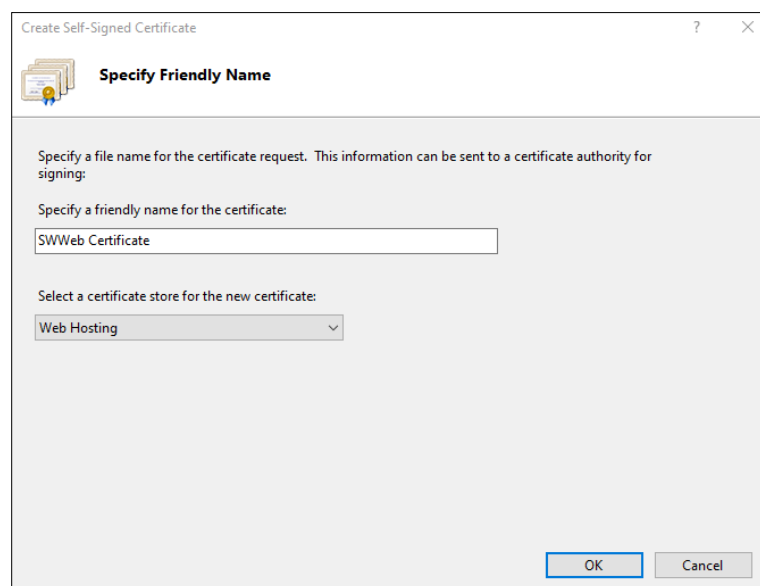
4. You will need to verify that you can connect to the SilverWhere Database using the SQLPlus* tool, which is installed along with the Oracle Database Management System. This is important so that you can resolve any database-related issues.

Setting up combined SilverWhere Secure and SWMobile Web Service

To install the combined SilverWhere Secure and SWMobile Web Service on the target machine, follow the instructions listed below:

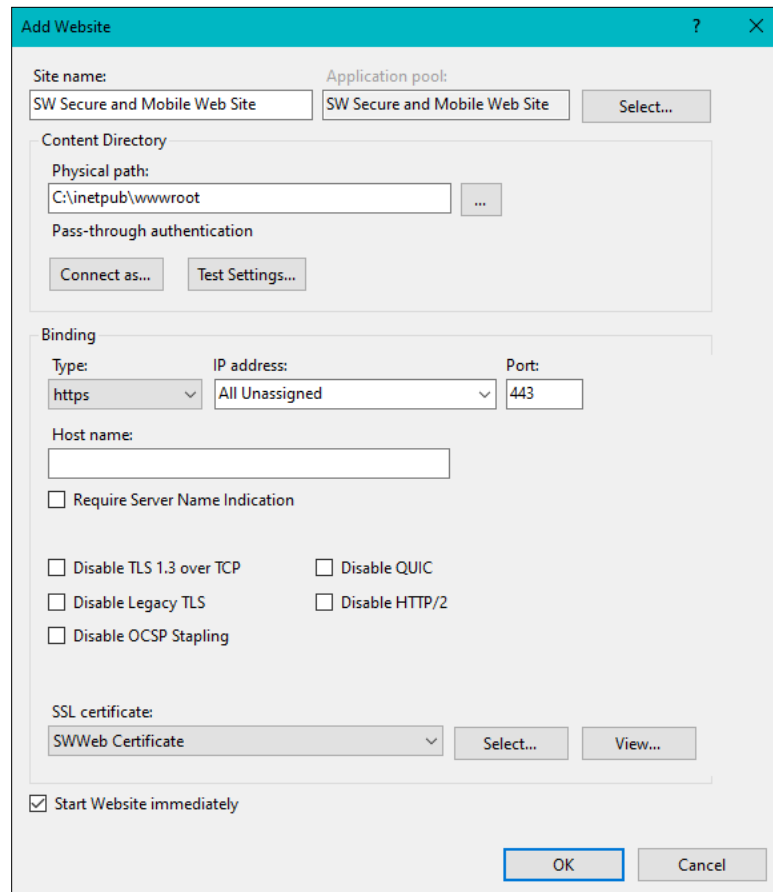
1. On your target machine, open the **IIS Manager** and verify that you are on the top level of the hierarchy, then double-click on **Server Certificate**.
2. In the Actions section, click on **Create Self-Signed Certificate**

Figure 4-2 Create Self-Signed Certificate window



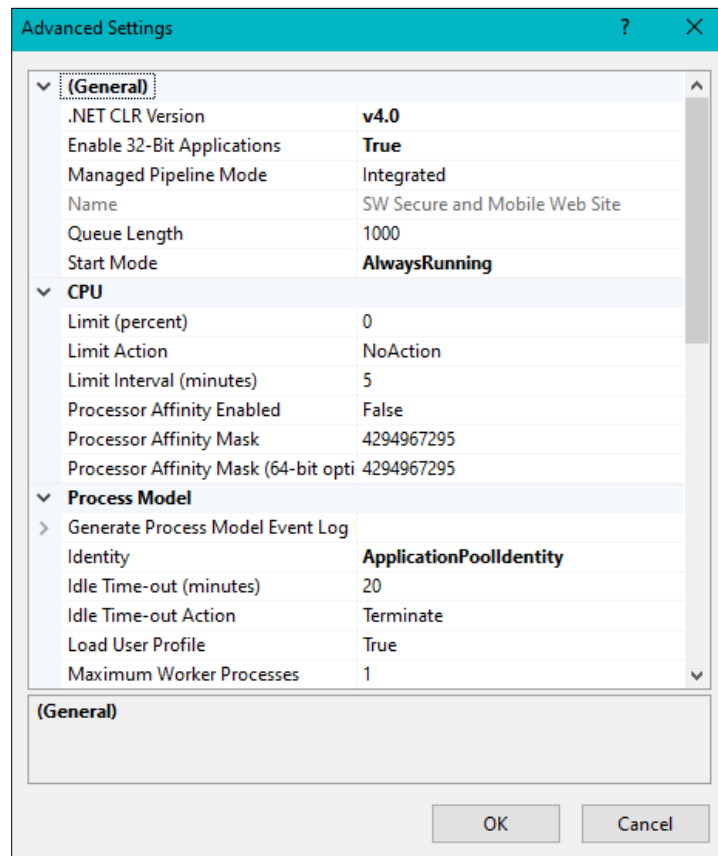
3. On the Create Self-Signed Certificate window, enter the name for the certificate and choose **Web Hosting** from the certificate store drop-down menu. Click on **OK** to complete the creation.
4. On the left panel of the IIS, right-click on **Sites** and then choose **Add Website**

Figure 4-3 – Add Website window



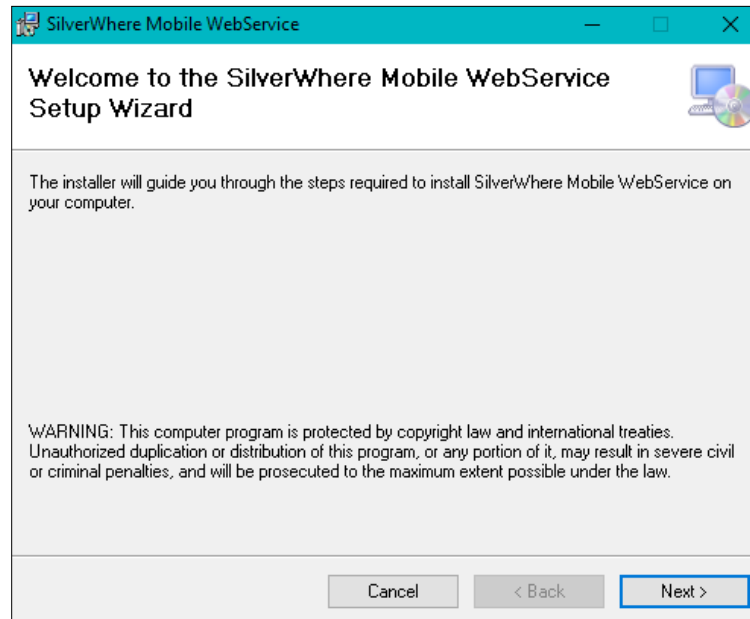
5. On the Add Website window, enter the Site name, select the **Physical path** and point it to `C:\inetpub\wwwroot`. Choose **HTTPS** as Binding Type and select the SSL certificate created previously in steps 2 to 3.
6. Click on **OK** to complete the process.
7. On the left panel of the IIS Manager, click on **Application Pools** and choose the **Application Pool** that were automatically created when adding the website in the previous step 4.
8. Click on Advanced Settings to edit the Application Pool and set the **Enable 32-Bit applications** and **Load User Profile** to *True* and **Start Mode** to *AlwaysRunning*.

Figure 4-4 Application Pool Advanced Setting window



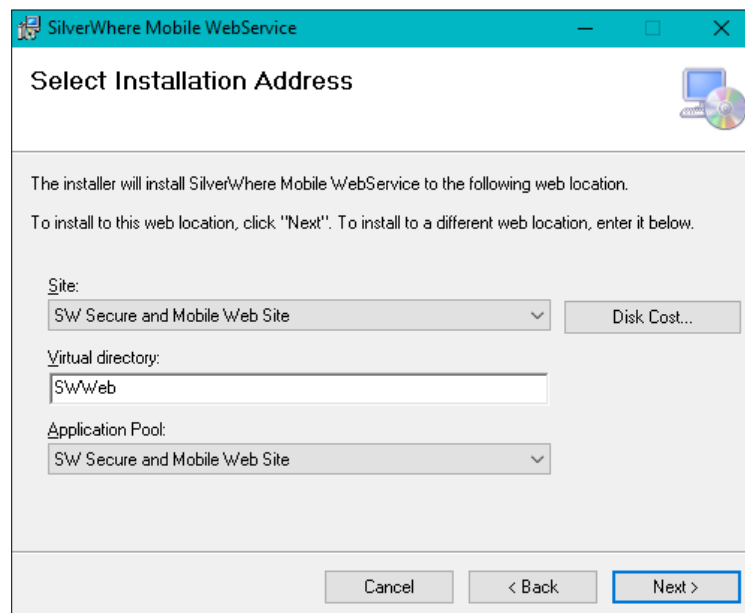
9. Click on **OK** to complete the process.
10. From the downloaded SilverWhere Installation File package, browse to the `\SWNET_8_0_80_0\Install\SilverWhere WebService` folder.
11. Double click the **Oracle Hospitality SilverWhere Mobile WebService.msi** to start the installation process.

Figure 4-5 SilverWhere Web Service Installer Welcome Screen



12. At the Welcome Screen of the Setup Wizard, click the **Next** button to navigate to the next screen.
13. On the Installation Address window, select the previously created **Site** and the **Application Pool** for the Web Service and enter the name of the **Virtual directory**.

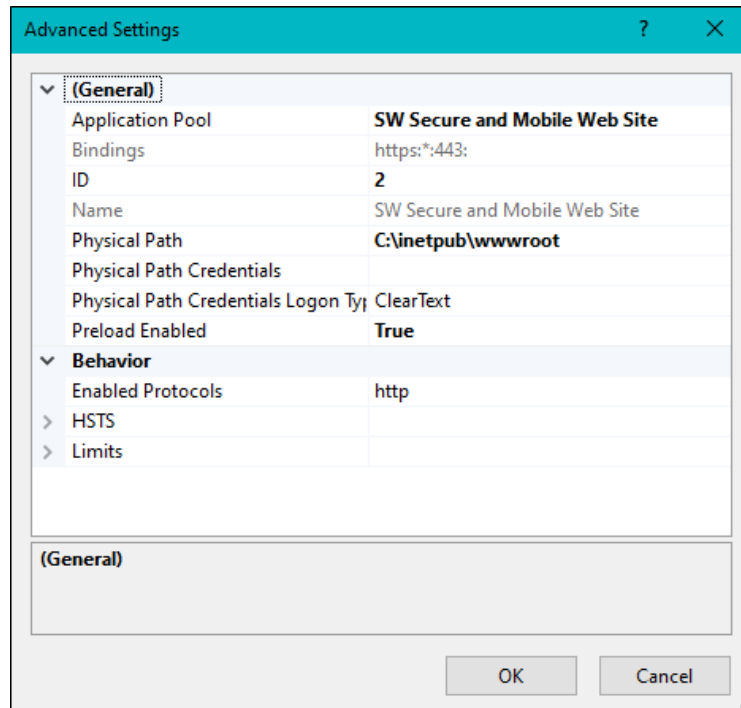
Figure 4-6 SilverWhere Web Service Installation Address selection



14. Click the **Next** button to navigate to the Confirmation window.
15. On the Confirmation window, click the **Next** button to start the SilverWhere Web Service Installation process.

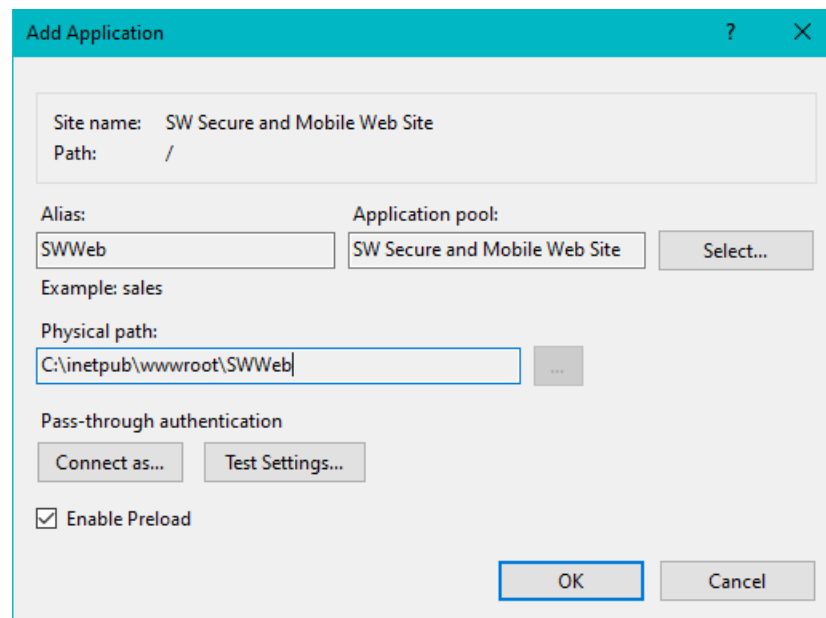
16. The SilverWhere Web Service Installation process is shown in the Status window. Upon completion of the installation process, click the **Close** button.
17. Open the IIS Manager, click on **Sites** and choose the **Web Site** created previously in steps 4 to 6.
18. Click on **Advanced Settings** to edit the Site. Ensure the **Preload Enabled** is set to *True*.
19. Click on **OK** to continue.

Figure 4-7 Web Site Advanced Settings window



20. Expand the **Sites** folder on the left panel of the IIS Manager, then navigate to the **Site** created for SilverWhere.
21. Right-click on the **Virtual directory** folder created previously in step 13 and click on **Convert to Application**.

Figure 4-8 Convert to Application window



22. Verify the settings in the Add Application window and confirm by clicking **OK**.
23. Select the converted application in the IIS Manager and double click on **Default Document**.
24. Click **Add** in and insert below Default Documents:
 - a. MMSecureFunctions.asmx
 - b. MMSFunctions.asmx
25. Confirm each entry by clicking on **OK**.
26. 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 to connect. You can do so by editing the `web.config` file .
27. Navigate to the `web.config` file for SilverWhere Secure and SWMobile Web Service at `C:\inetpub\wwwroot\SWWeb` or the directory name for the Virtual directory – see step 5..
Under the `<appSettings>` section, set the SilverWhere Secure Login Information.

For example:

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

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

For example:

```
<connectionStrings>

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

</connectionStrings>
```

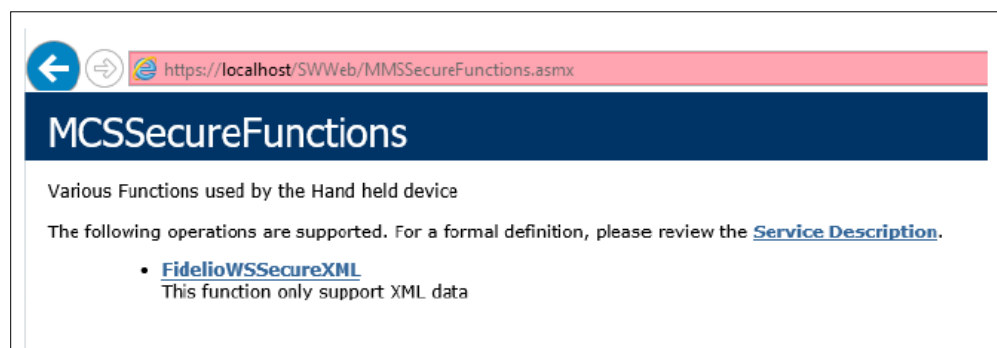
29. Restart the SilverWhere Secure and SWMobile Web Service. You can do this from the IIS Manager.

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/MMSecureFunctions.aspx>
3. Press **Enter**

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

Figure 4-9 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

Connection to the SilverWhere Database is only possible when the Database TNS Connection for SilverWhere Secure and SWMobile Web Service is property setup and with the correct SilverWhere Database password. The password is stored in a protected FCSecurity.par file on SilverWhere Web Service Server in \Users\Public\Documents\Oracle Hospitality Cruise directory.

Installing SilverWhere Secure Tools Client

The SilverWhere Secure Tools application is the Password Management tool that manages multiple database passwords of the SilverWhere application suite.

To install the SilverWhere Secure Tools Client on the target machine,

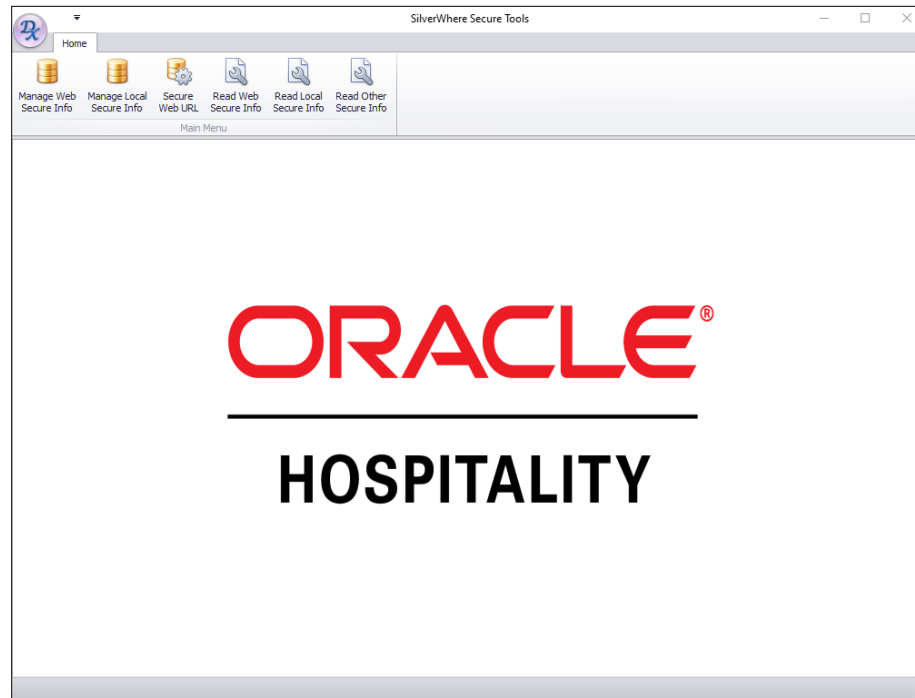
1. From the downloaded SilverWhere Installation File package, browse to the \SWNET_8_0_80_0\Install\SilverWhere Secure Tools folder.
2. Double click the **Oracle Hospitality SilverWhere Secure Tools Setup.msi** to run the setup. You can also right-click on **Setup.Exe** and select **Run as Administrator** to start the installation.
3. At the SilverWhere Secure Tools Installer Welcome Wizard, click the **Next** button to navigate to the Installation Folder selection window.
4. On the Installation Folder Selection window, choose the directory of the SilverWhere Secure Tools folder and select *Everyone* to make the application available for all users. The default path is *C:\Program Files (x86)\Oracle Hospitality\SilverWhere Secure Tools*.
5. Click the **Next** button to proceed to the Confirmation window.
6. On the Confirmation window, click the **Next** button to start the SilverWhere Secure Tools Installation.
7. The SilverWhere Secure Tools Installation process is shown in the Status window. Upon completion of the installation, click the **Close** button to proceed.

Configuring SilverWhere Secure Tools Client

For the SilverWhere Application Clients to connect to the SilverWhere Database, you must configure the SilverWhere Secure Tools Client:

1. Browse to the folder where the SilverWhere Secure Tools client is installed, by default it is *C:\Program Files (x86)\Oracle Hospitality\SilverWhere Secure Tools*.
2. Open the SilverWhere Secure Tools client with administrator privileges. A message will appear if the database information cannot be retrieved. Confirm the message by clicking **OK**.
3. Provide the database information and click on **Apply**. Confirm the success message by clicking **OK**.
4. Open the SilverWhere Secure Tools client with administrator privileges, enter the user credentials for the Administrator user and click **OK**.
5. This will launch the SilverWhere Secure Tools Client.

Figure 4-10 SilverWhere Secure Tools Client



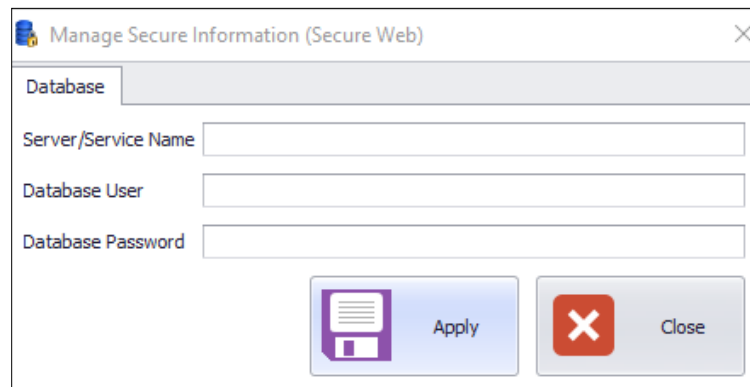
6. Click the **Secure Web URL** button to open the below window.

Figure 4-11 Secure Login URL window



7. Enter the **URL**, for example, IPWEBSERVICE /SWWeb or LOCALHOST/SWWeb and confirm by clicking **OK**.
8. Click the **Manage Web Secure Info** button to open the window below.

Figure 4-12 Manage Secure Information (Secure Web) window



9. Enter the Database Connection details and confirm by clicking **Apply**.
10. Repeat steps 8 and 9 and add the 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)))
```
11. Click the **Read Web Secure Info** button to view all the configured database connection details.

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 on the entry, then 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.

Creating SWSecurity.par, SMSecurity.par and SWWebSecurity.par files

For the SilverWhere Clients to connect to the SilverWhere Database, the SWSecurity.par, the SMSecurity.par and the SWWebSecurity.par file needs 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 is created when opening the Secure Tools for the first time and entering the database information. See steps 6-7 of [Configuring SilverWhere Secure Tools Client](#)

SWWebSecurity.par file

The SilverWhere Client connects to the database using the SWWebSecurity.par. Follow the instructions below to create the SWWebSecurity.par file:

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

SMSecurity.par file

The SMSecurity.par file is used by the SWMobile clients and it gets created when starting the SWMobile client for the first time.

SilverWhere SW2ASR Web Service

The SilverWhere SW2ASR Web Service is developed for dining bookings via 3rd party applications, such as onboard apps, customer websites and so on. The functionalities of the SW2ASR can be found in the [Advanced Shipboard Webservices](#) documentation.

Installing and configuring SilverWhere SW2ASR Web Service

To install and configure the SilverWhere SW2ASR Web Service on the target machine, follow the instructions below:

1. From the downloaded SilverWhere Installation File package, browse to the \SWNET_8_0_80_0\Files\Latest Compile folder.
2. Select the SW2ASR Web Service folder **SW2ASR_8_0_80_0_Net4.0** and unzip it to the *C:\inetpub\wwwroot* folder as SW2ASR on your target machine.
3. Navigate to the *C:\inetpub\wwwroot\SW2ASR* folder and open the **SWPARAM.XML** with the Notepad application. Under the <ORACLE> section, provide the Database Connection details for the SW2ASR Web Service.

For example:

```
<ORACLE>
<USERID>DB_SCHEMA</USERID>
<PASSWORD>DB_SCHEMAPASSWORD</PASSWORD>
<DATABASE>DB_TNS_NAME</DATABASE>
<PROVIDER>OraOLEDB.Oracle.1</PROVIDER>
<CATALOG></CATALOG>
</ORACLE>
```

4. Configure the below settings of the SW2ASR Web Service:
- **RESERVE:** The reserve availability to 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 is not allowed to use Reserve1 or Reserve3. RESERVE fields must be set up as per the LOOK UP SETUP – RESERVE.
 - **MINUTES:** Enter the number of minutes the SW2ASR Web Service shall wait before canceling the TEMP reservation automatically. The default value is 120 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 SW2ASR Web Service.
 - **SHIPSORACLE:** Enter the ship code and use a comma-separator for multiple ships in the headquarter database.
 - **LOCTRANSACTIONS:** Enable to log the web service transactions into the SERVICE HISTORY database table.
 - **VIPRESERVE:** Enter the RESERVE field used for passengers with VIP status. RESERVE fields must be set up as per the 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.
 - **DATABASEID:** 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.

Example:

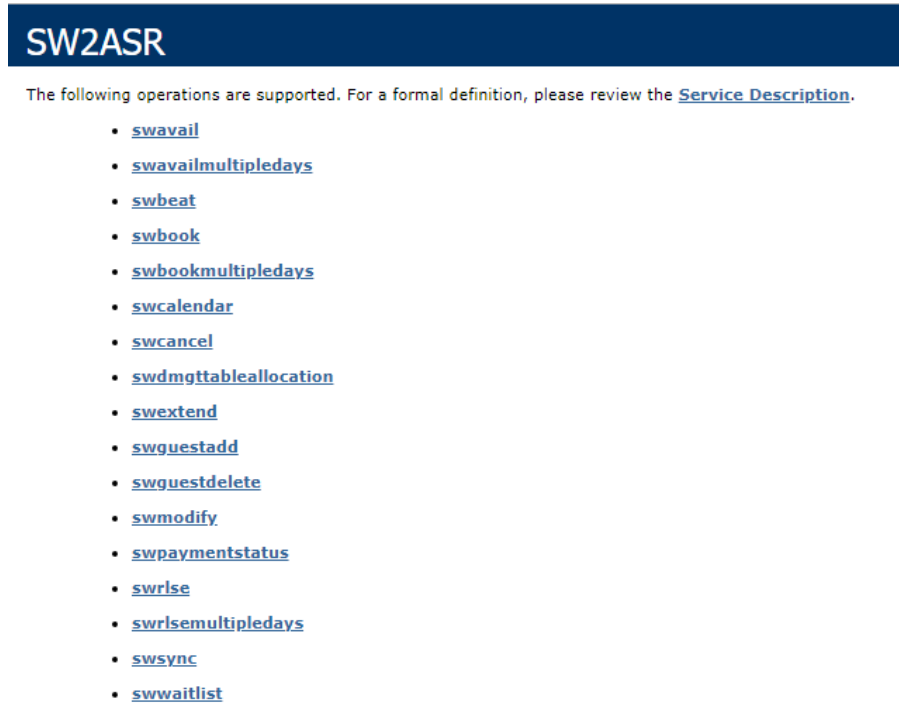
```
<RESERVE>23</RESERVE>
<SHIP />
<MINUTES>90</MINUTES>
<CURRENT>Y</CURRENT>
<CUTOFF>1500</CUTOFF>
<CHECKOPEN>N</CHECKOPEN>
<FUTURERES>N</FUTURERES>
<ALPHAPAX>N</ALPHAPAX>
<SHIPSORACLE>OH, </SHIPSORACLE>
<LOGTRASACTIONS>Y</LOGTRASACTIONS>
<VIPRESERVE>1</VIPRESERVE>
<ENABLEBOOKINGRESTICTIONS>Y</ENABLEBOOKINGRESTICTIONS>
<ENABLEPRODUCTGROUPRESTRICTIONS>N</ENABLEPRODUCTGROUPRESTRICTIONS>
<TIMEOUT>30</TIMEOUT>
<DATABASEID>10</DATABASEID>
<FLEXDININGENABLED>N</FLEXDININGENABLED>
<MULTITTABLEENABLED>Y</MULTITTABLEENABLED>
```

IIS Manager Configuration

1. On your target machine, open the **IIS Manager**.
2. Right-click on **Application Pools** and choose **Add Application Pool**.
3. On the Add Application Pool window, enter the **Application Pool name**, select the **.NET CLR version**, choose *Integrated* for **Managed pipeline mode** and enable **Start application pool immediately**. Click on **OK** to continue.
4. Click on **Advanced Settings** to edit the newly created Application Pool.
5. On the Advanced Settings window, ensure that **Enable 32-Bit Applications** is set to *True* and the **Start Mode** is set to *AlwaysRunning*. Click on **OK** to continue.
6. In the IIS Manager, click on **Sites** and expand the available **Web Sites**. Right-click on the icon with the naming of your folder in *C:\inetpub\wwwroot\SW2ASR* and choose **Convert to Application**.
7. Verify the settings in the Add Application window, check the **Enable Preload** box and confirm by clicking **OK**.
8. Select the converted application in the IIS Manager and double click on **Default Document**. Then click on **Add** to insert below Default Document:
 - SW2ASR.asmx
9. Confirm by clicking on **OK**

To verify if the SilverWhere SW2ASR Web Service is running properly, click on **Browse** in the IIS Manager to launch the web browser. The SilverWhere SW2ASR Web Service is hosted correctly when the below page is shown:

Figure 4-13 SilverWhere SW2ASR Service page hosted on the SilverWhere Web Service server



5

Setting up SilverWhere Application Clients

Below are the two SilverWhere Application Clients distributed with the installation package:

- SilverWhere Clients for desktop computers
- SWMobile Client for mobile devices

SilverWhere Application Clients Prerequisites

- Microsoft .NET Framework 4.5 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](#).
- SilverWhere 8.0.80.0 release package is downloaded and available in the target machine. Refer to the [SilverWhere Installation File](#) for download instructions.
- Obtain required OCX files from Consulting and are available in the target machine.
- Ensure that the Windows Regional and Language Settings are 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.

SilverWhere Clients Installation Steps

Setting up SilverWhere Clients Database Connection

For the SilverWhere Clients to connect to the database, you must configure the Database TNS Name entry.

1. In the installed Oracle Client home folder, ensure you enter a Database TNS entry in the Oracle `tnsnames.ora` file so that the SilverWhere Clients 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 5-1 Tnsnames.ora File Location in Oracle Client folder

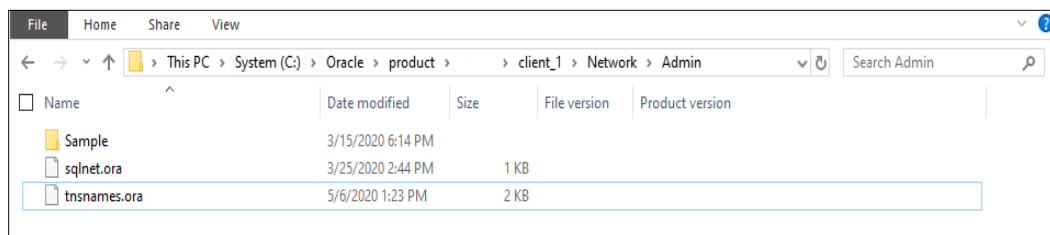


Table 5-1 User Defined Parameters in Tnsnames.ora file

Tnsnames Parameters	Description
<DB_TNS_NAME>	Oracle Database TNS name. By design, SilverWhere applications or web services refer 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>))
  )
```

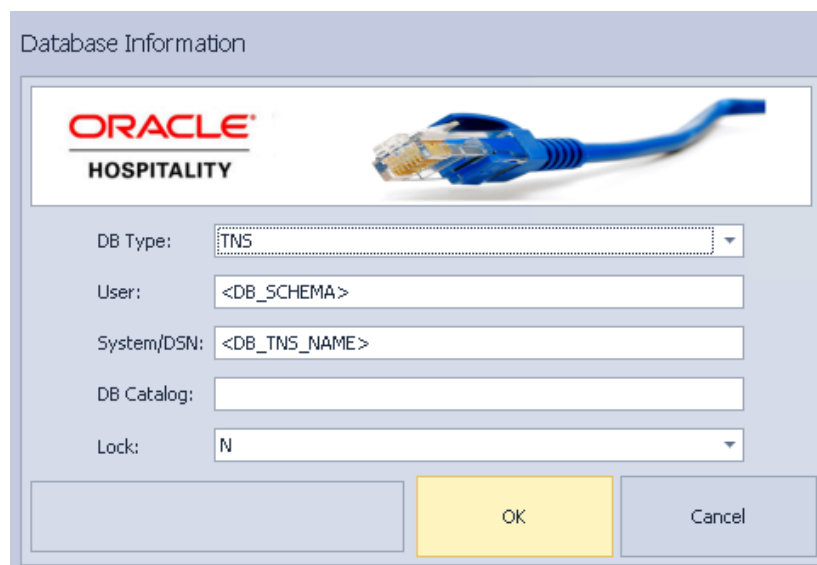
3. You will need to verify that you can connect to the SilverWhere Database using the SQLPlus* tool, which is installed along with the Oracle Database Management System. This is important so that you can resolve any Database related issues.

Installing SilverWhere Client

To install the SilverWhere Client and all its components on the target machine, follow the instructions listed below:

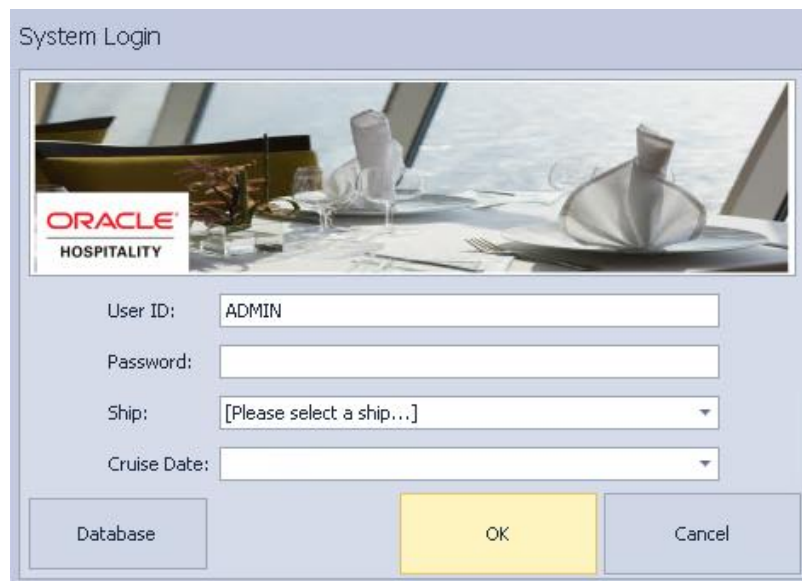
1. From the downloaded SilverWhere version 8.0.80.0 Installation File package, browse to the \SWNET_8_0_80_0\Install\SilverWhere Client folder.
2. Double-click the **Oracle Hospitality SilverWhere Client Setup.msi** or right-click on the **Setup.Exe** and select **Run as Administrator** to start the installation process.
3. This will launch the SilverWhere Client Installer Wizard.
4. Click the **Next** button to navigate to the Installation Folder selection window.
5. On the Installation Folder Selection window and choose the directory of the SilverWhere Client folder. The default folder path is *C:\Program Files (x86)\Oracle Hospitality\SilverWhere Client NET*) and select *Everyone* to make the application available for all users.
6. Click the **Next** button to proceed to the Confirmation window.
7. On the Confirmation window, click the **Next** button to start the SilverWhere Client Installation process.
8. The SilverWhere Client Installation process is shown in the Status window. Upon completion of the installation process, click the **Close** button to proceed.
9. A shortcut is placed automatically to the desktop.
10. Copy all the OCX files obtained to C:\Program Files (x86)\Oracle Hospitality\SilverWhere Client NET
11. From the downloaded SilverWhere version 8.0.80.0 Installation File package, browse to the \SWNET_8_0_80_0\Install\Batch folder.
12. Copy the **Register SWSecure.bat** and **SWSecure.dll** to the SilverWhere Client installed folder, for example, C:\Program Files (x86)\Oracle Hospitality\SilverWhere Client NET
13. Run the **SWSecure.bat** by right-clicking on it to register the SWSecure.dll.
14. From the downloaded SilverWhere version 8.0.80.0 Installation File package, browse to the \SWNET_8_0_80_0\Install\CR Runtime folder.
15. Run the **CRRuntime_32bit_13_0_8.msi** by double-clicking on it to start the installation process.
16. Create shortcuts to the desktop for:
 - a. SilverWhere .Net Client
 - b. SilverWhere VB6 Client
 - c. SilverWhere Reports Client
17. Open the **SilverWhere .Net Client** by double-clicking on the **icon** on the desktop

Figure 5-2 Database Information window



18. Select the **DB Type** and enter the **User** and the **System/DNS**. Confirm by clicking on **OK**.
19. Enter the **URL** in the Secure Login Window, for example IPWEBSERVICE /SWWeb or LOCALHOST/SWWeb, same as it was used for [step 5 of Configuring SilverWhere Secure Tools Client](#) and confirm by clicking **OK**.

Figure 5-3 SilverWhere .Net Client System Login window



20. Enter the **ADMIN** user details given in [Setting Up New SilverWhere 8.0.80.0 Database - step 9](#) and click the **OK** button to log in to the application.

SWMobile Client Installation Steps

Setting up SWMobile Client Database Connection

For the SWMobile Client to connect to the database, the Database TNS Name entry needs to be configured:

1. In the installed Oracle Client home folder, ensure you enter a correct Database TNS entry in the Oracle `tnsnames.ora` file so that SWMobile can locate the correct Database when it references the Database TNS.
2. The installed Oracle Client folder for SWMobile is typically `C:/Oracle/product`. You may choose to install it in a different folder. See [TNS Parameters](#) in Setting up SilverWhere Clients Database Connection
3. 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 SWMobile Client

To install the SWMobile Client on the target machine, follow the instructions listed below:

1. From the downloaded SilverWhere version 8.0.80.0 Installation File package, browse to the `\SWNET_8_0_80_0\Install\SilverWhere Mobile Client` folder.
2. Double-click the **Oracle Hospitality SilverWhere Mobile Setup.msi** or right-click on the **Setup.Exe** and select **Run as Administrator** to start the installation process.
3. This will launch the SWMobile Client Installer Wizard
4. Click the **Next** button to navigate to the Installation Folder selection screen.
5. On the Installation Folder Selection screen, choose the directory of the SWMobile Client folder (by default it is `C:\Program Files (x86)\Oracle Hospitality\SilverWhere Mobile`) and select *Everyone* to make the application available for all users.
6. Click the **Next** button to proceed to the Confirmation screen.
7. On the Confirmation screen, click the **Next** button to start the SWMobile Client Installation process.
8. The SWMobile Client Installation process is shown in the Status screen. Upon completion of the installation process, click the **Close** button to proceed.
9. A shortcut will be added to the desktop automatically.
10. From the downloaded SilverWhere version 8.0.80.0 Installation File package, browse to the `\SWNET_8_0_80_0\Install\CR Runtime` folder.
11. Run the **CRRuntime_32bit_13_0_8.msi** by double-clicking on it to start the installation process.

- Open the **SWMobile Client** by double-clicking on the **icon** on the desktop

Figure 5-4 Web server address screen

Please enter web server address


localhost/SWWeb

Clear Done


ESC	1	2	3	4	5	6	7	8	9	0	-	=	BKS
TAB	q	w	e	r	t	y	u	i	o	p	[]	\
LOCK	a	s	d	f	g	h	j	k	l	;	'	ENTER	
SHIFT	z	x	c	v	b	n	m	,	.	/	SHIFT		
CTRL	ALT		SPACE						ALT		CTRL		

- Enter the **web service address**, for example: IPWEBSERVICE /SWWeb or LOCALHOST/SWWeb, same as it was used for [step 5 of Configuring SilverWhere Secure Tools Client](#) and confirm by clicking **DONE**.

Figure 5-5 SWMobile Login screen



SilverWhere Dining Management System


Login

Clear Done

- Click on **Login**, enter the **User Credentials** and press **DONE** to login to the SWMobile Client.

6

Troubleshooting

Common errors encountered during the installation of the SW2ASR Web Service:

- Error 'ORA-12154: TNS could not resolve the connect identifier specified:
 - Adjust the SWPARAM.xml as mentioned in the above chapter
- Issue as no Full Oracle Client is installed:
 - Re-install ODAC or re-install the Full Oracle Client
- Issue as not the correct .NET Framework version is installed:
 - Install .NET framework as per prerequisites
- Issue as 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 a secure site.'
 - The issue is caused as the Secure Info is not yet configured in the Secure Tools Client

7

Appendix

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.

Similarly, to install the Oracle Database Setup file, refer to the website at <https://www.oracle.com/database/technologies/instant-client/downloads.html> and download the appropriate Microsoft Windows installation file or 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 users 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

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