



Statistical Management System (SMS)

Installation Guide version 1.4
(For Windows 11 64-bit)

Last updated: 07-08-2023

Table of contents

Table of contents.....	2
Abstract	3
1. Installation	4
2. Uninstallation.....	9
3. Multi-instance.....	17
3.1. Instance Creation.....	17
3.2 Instance Deletion	26
4. Setting Up	28
5. Troubleshooting.....	33
5.1 Login – Invalid user id or password	33
5.2 Login – Failed to contact server.....	34
5.3 Setup – Fail to obtain Middle-Tier	36
5.4 Registration – Failed to update settings	37
5.5 Tests – SMS service	38
5.6 Tests – SQL Service	39
5.7 Tests – Connectivity test.....	40
5.8 Tests – Telnet.....	41

Abstract

This document is the guide to the installation of Labuan FSA SMS application for the reporting entities. It includes steps for re-installation of a newer version, initial setup steps and troubleshooting.

System Requirements

- CPU Intel Core 2 64-bit 2.0Ghz or above
- 8GB Ram or above
- 20GB Free Hard Disk Space or more

Software Requirements:

- Windows 11 64-bit

Only Microsoft Windows of the above version is supported. Non-windows operating system is not supported.

User must login as System Administrator to install the software.

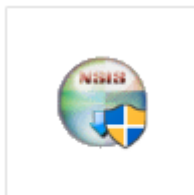
It is recommended to have an additional hard disk space of 2GB per user instance created.

Security Considerations:

- Ensure that notebook / desktop / server that SMS client will be installed on is pre-installed with antivirus solution.
- Ensure that the Windows and the antivirus is always up-to-date with latest updates.
- Ensure that the built in Windows firewall of the system and the Antivirus is always on and enabled.
- Not using the notebook / desktop / server to access any unauthorized websites, click on unknown links and downloading files from websites with low trust should be avoided to prevent security risks.

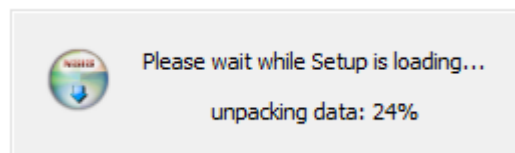
1. Installation

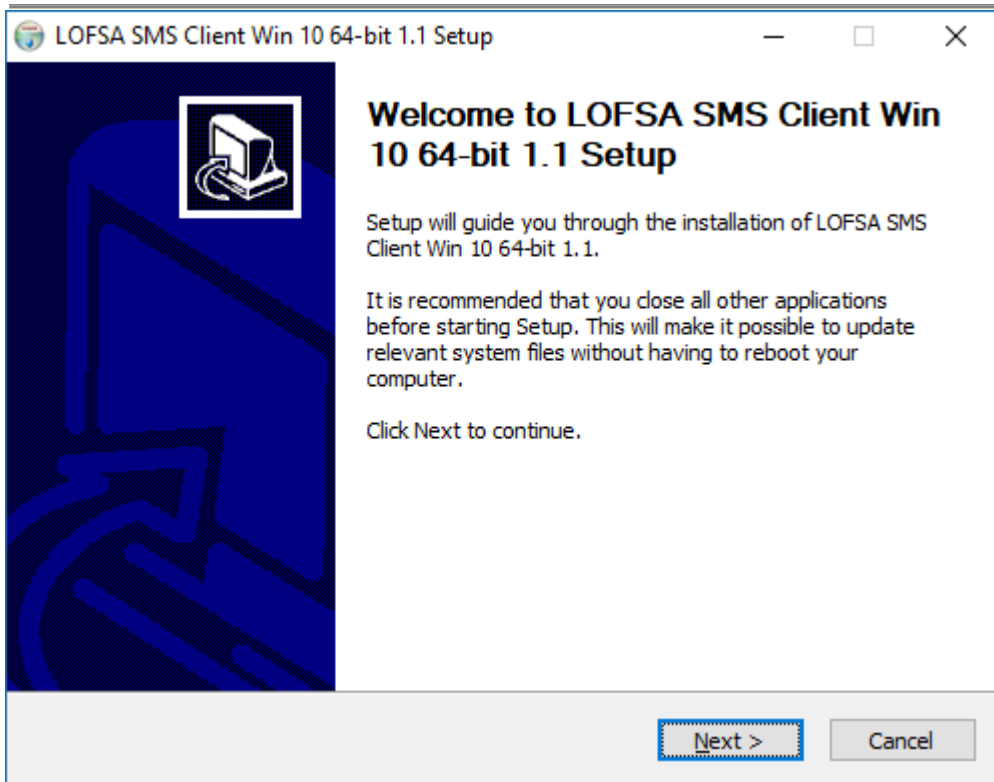
- The LFSA SMS installation client can be downloaded from:
<https://www.labuanibfc.com/clients/SMS-Win10-Program-Installer.zip>
- If a previous version of the SMS application is already installed, this version must be fully uninstalled before proceeding. (Refer to [Uninstallation](#))



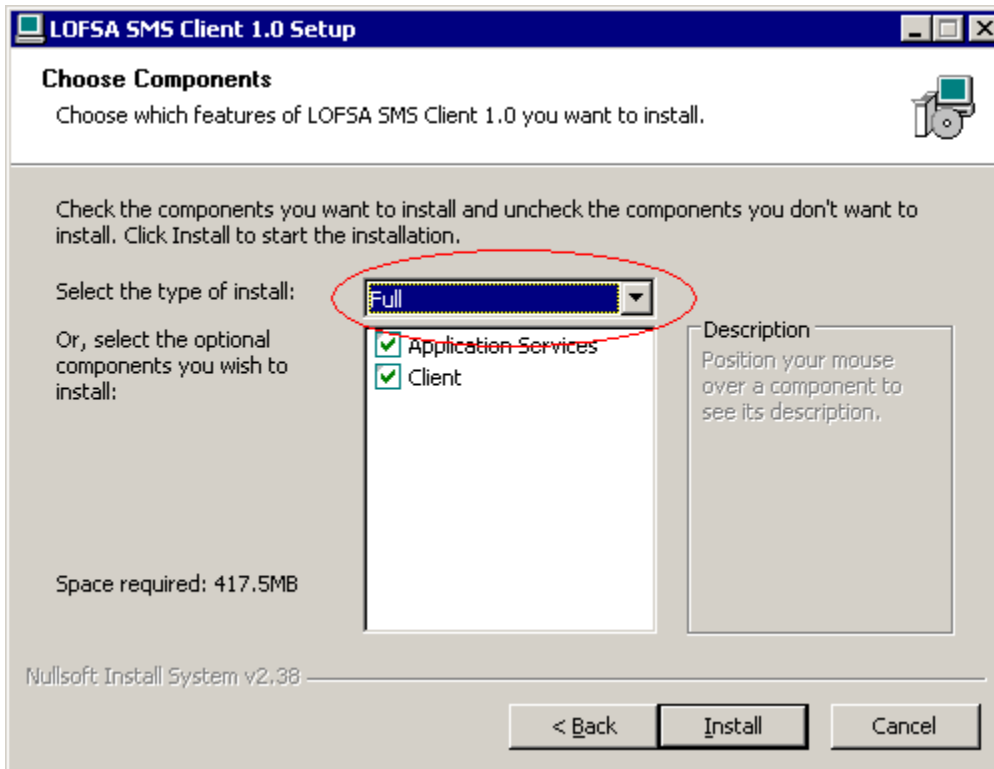
Setup-Win10.exe

- 1.1 Double click on the setup.exe file to run it. If you are prompted by Windows to allow the program to make changes to your computer, click Allow.
- 1.2 The installer will take some time to unpack its contents





1.3 When the Welcome screen appears, Click **Next**.

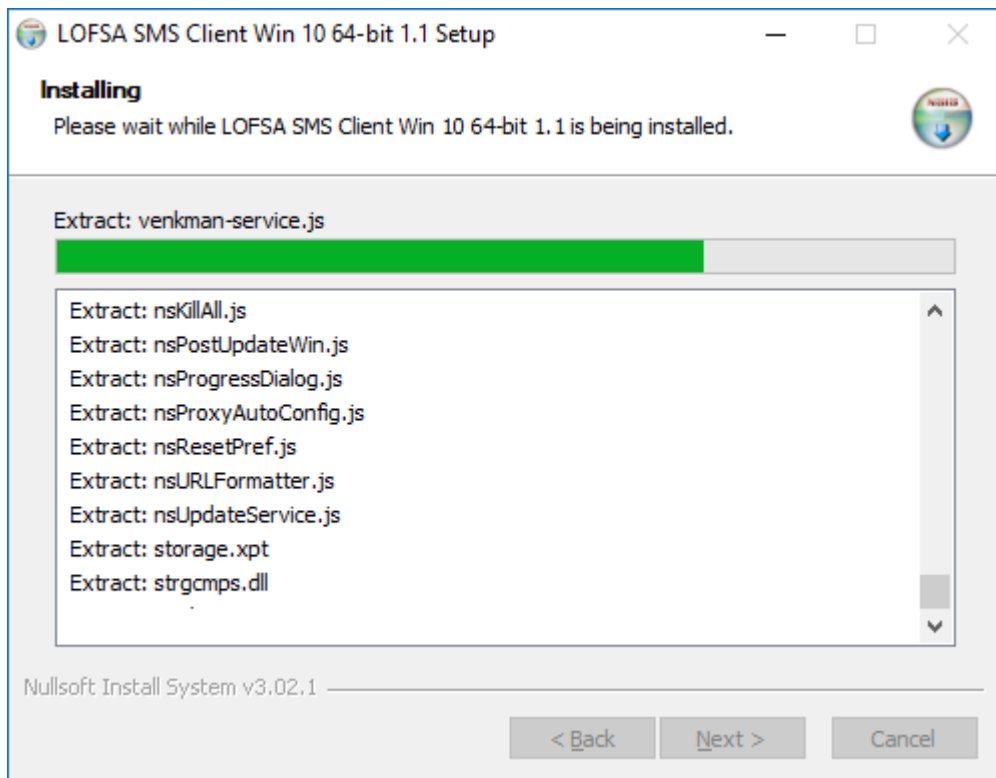


1.4 The Type of installation depends on whether a user database will be created or not. **Full** installation will install a user database. The **Client Only** installation requires the user site to already have a full installation already done.

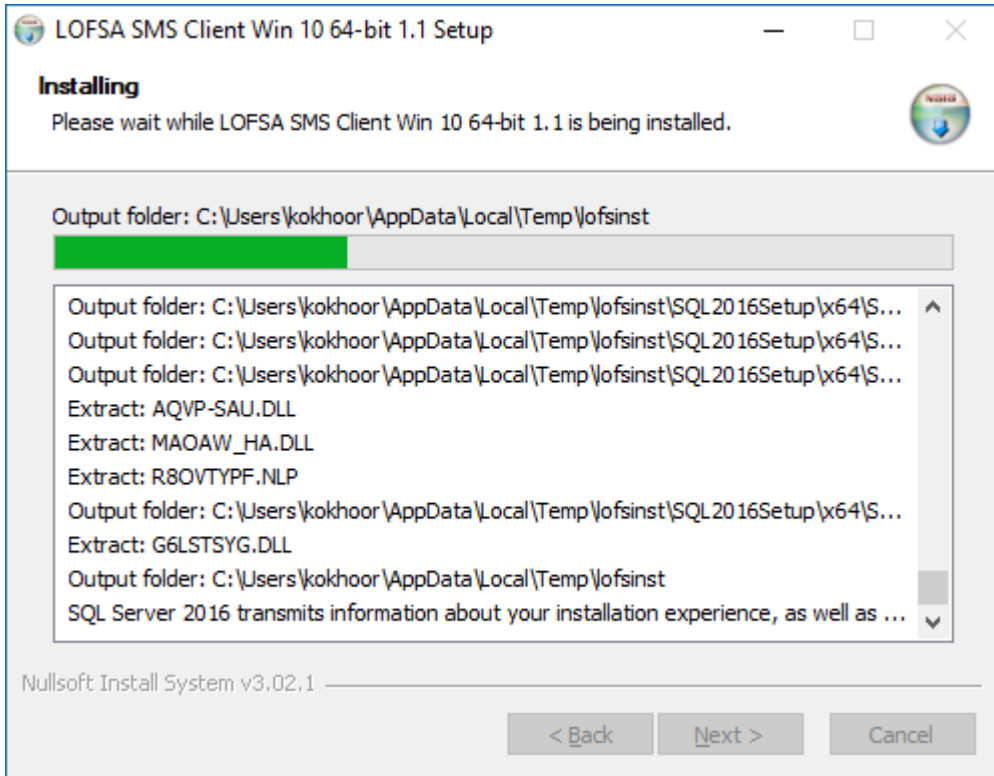
(Refer to LFSA SMS User Guide (RE) Architecture for details)

1.4.1 If Full installation is required, choose Full installation type. Then click on Install.

1.4.2 If **Client Only** installation is required, choose **Client Only** installation type. Then click on **Install**.

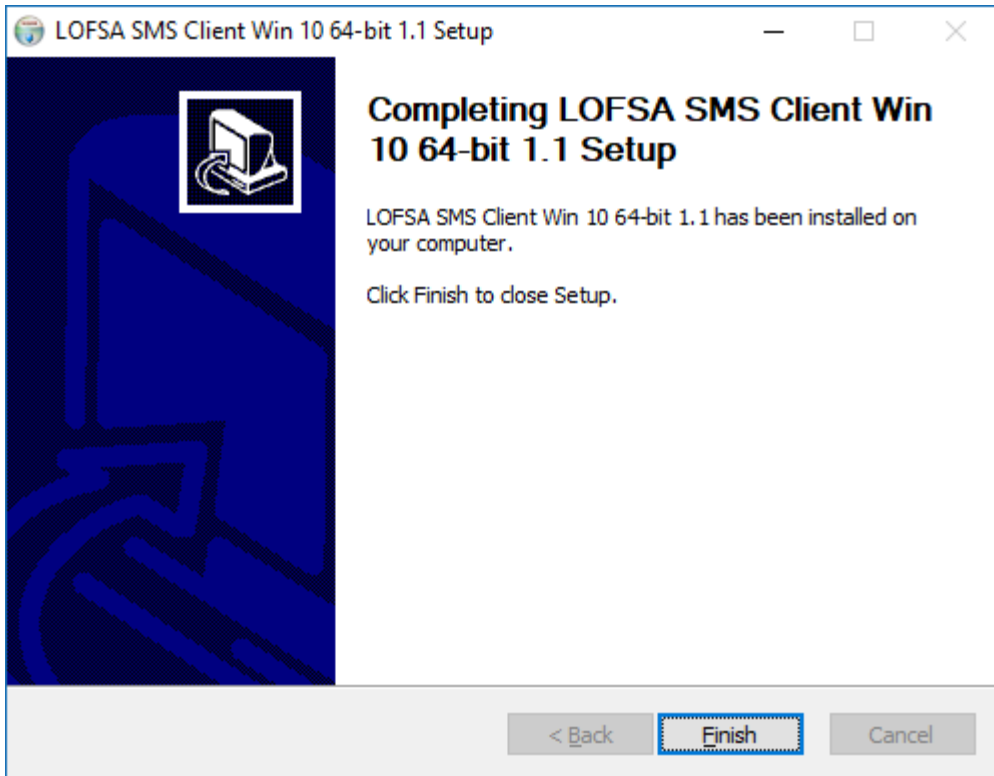


1.5 Wait while setup performs the installation.



1.6 Setup will then proceed to install the SQLServer 2016 Express database if the installation type selected is **Full**. If **Client Only** installation type is selected, this step will not be performed.

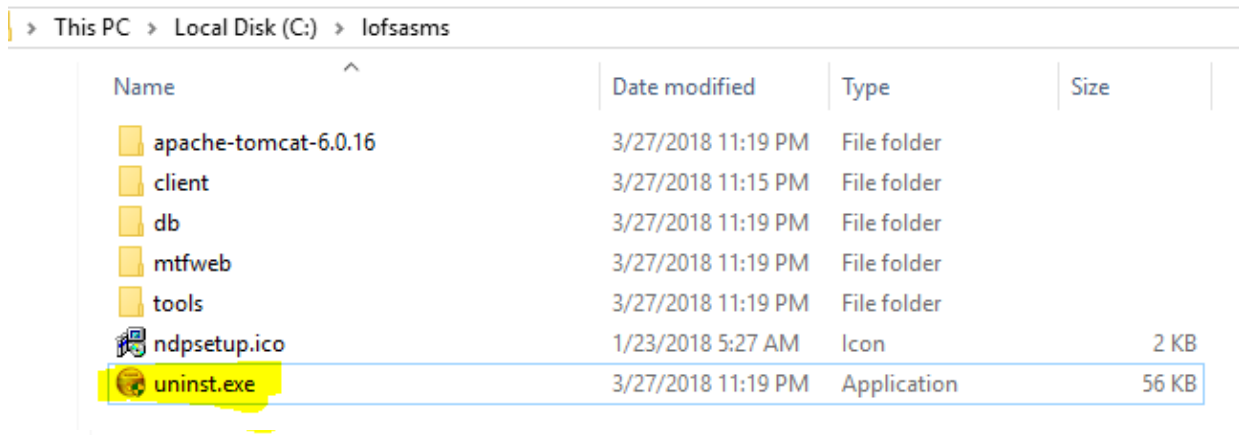
1.7 The installation of the SQLServer 2016 Express database could take a while.



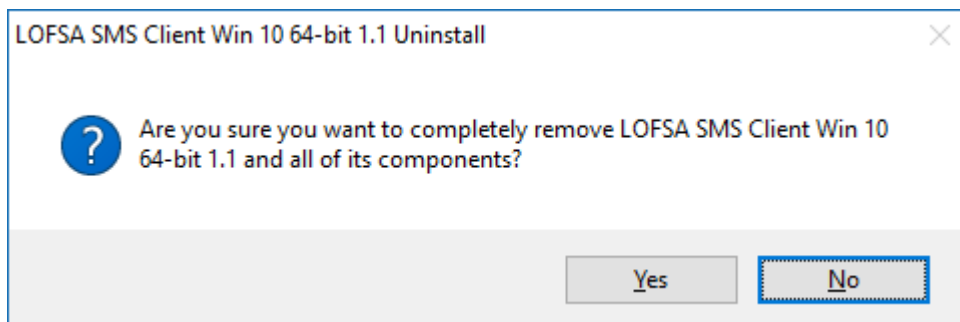
- 1.8 Once the Installation completed message appear, click on **Finish** to complete the installation.

2. Uninstallation

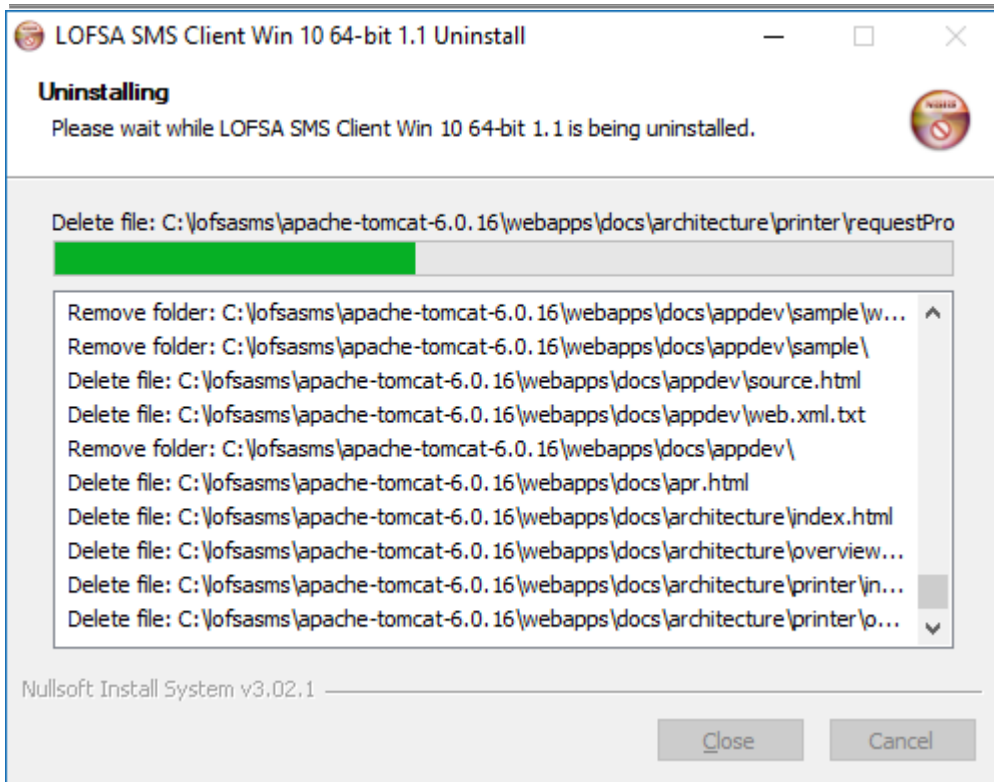
If a previously installed instance exists, then this instance must be fully uninstalled before installing. This can be done by browsing to the C:\lofsasms folder using Windows Explorer and clicking on the uninstall.exe application.



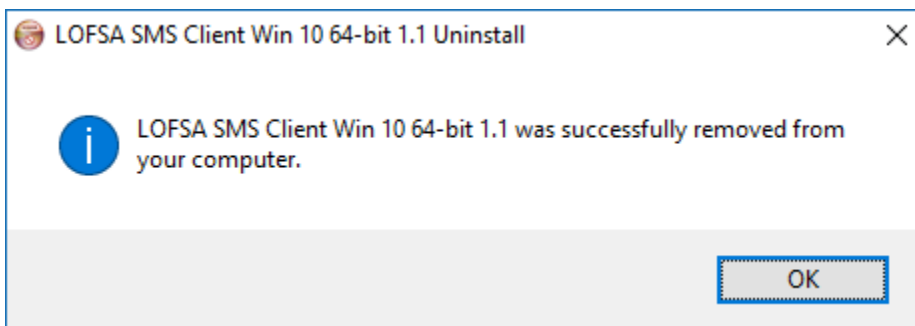
- 2.1 Execute the uninstall application. If you are prompted by Windows to allow the program to make changes to your computer, click Allow.



- 2.2 Click **Yes** to confirm.

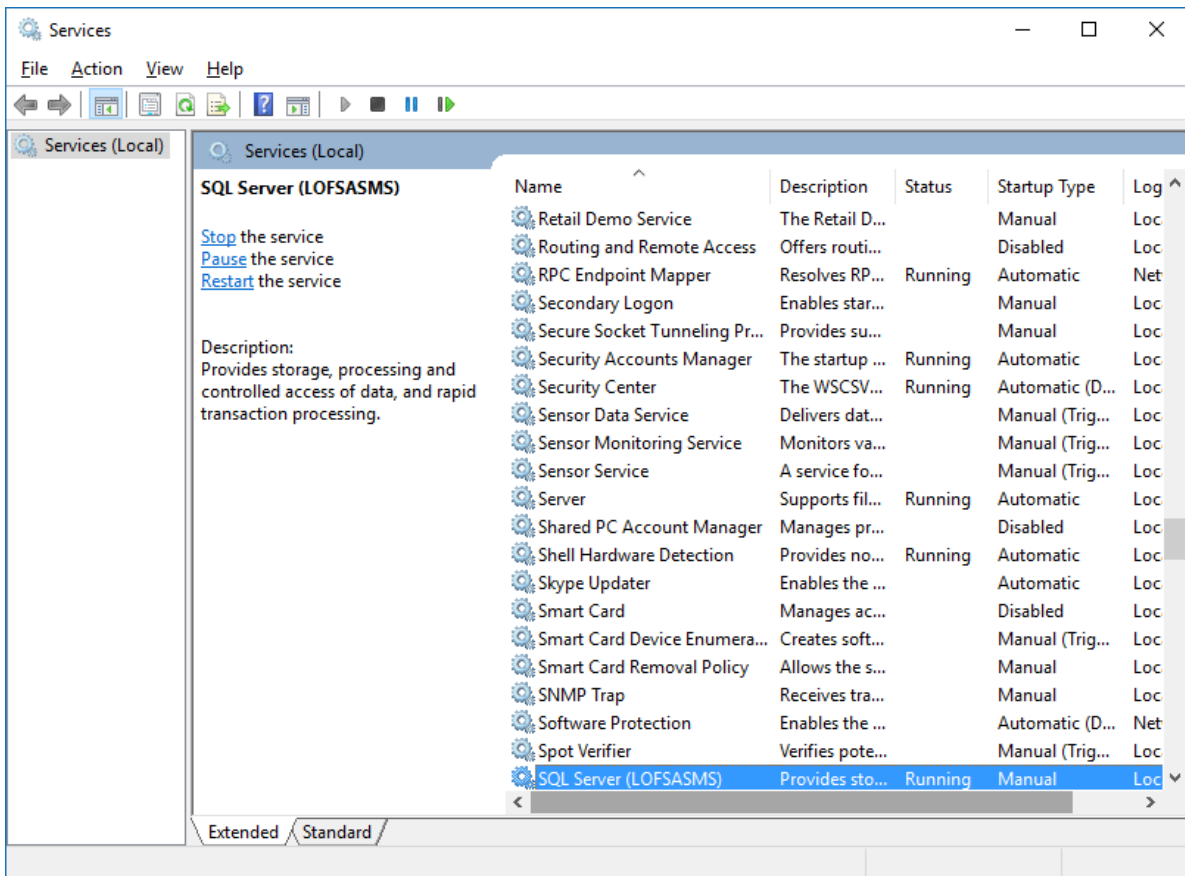


2.3 The uninstall process will take a few minutes.



2.4 A message will appear upon completion.

If the installed application is the **Full Application** then proceed to next steps. Otherwise the SMS application is already uninstalled.



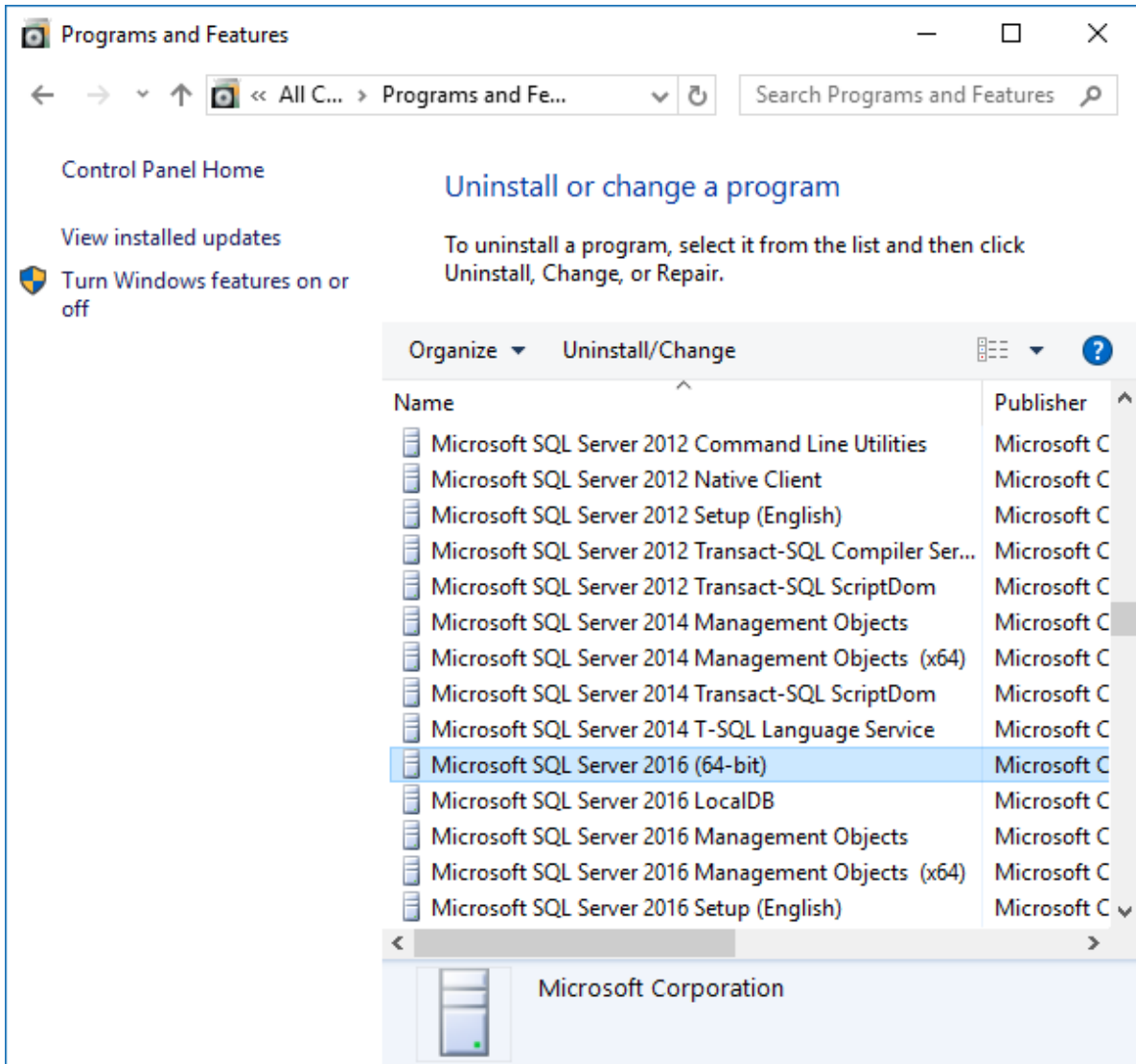
To find out if the installed version is a Full Application, go to:

Control Panel → Administrative Tools → Services.

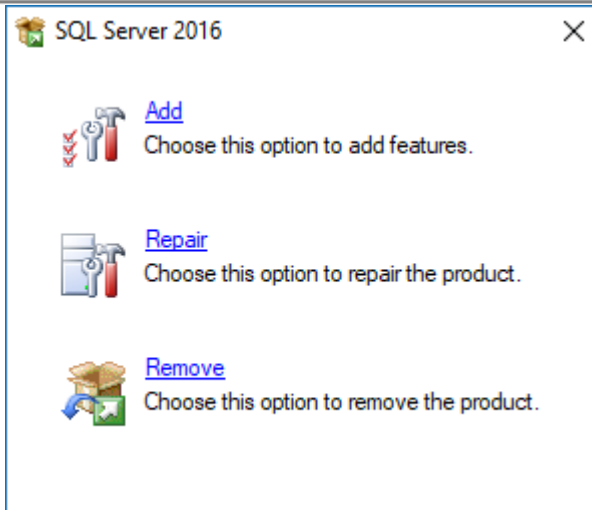
Look for **SQL Server (LOFSASMS)**. If this service is found then this is a Full Application.

**** Click on the name column header to sort the services.**

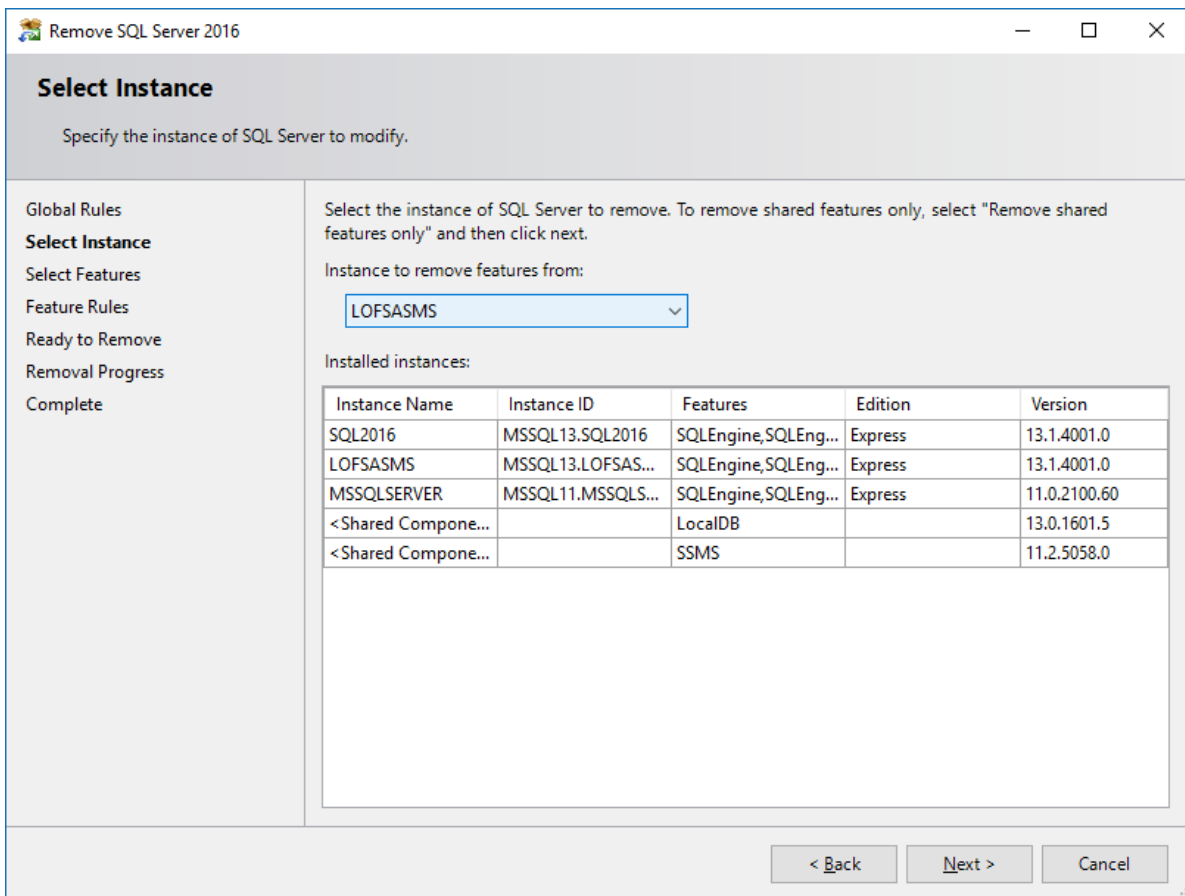
- 2.5 To completely remove the SMS application, the SQLServer 2016 Express engine instance will also have to be removed. First go to Control Panel → Programs and Features.



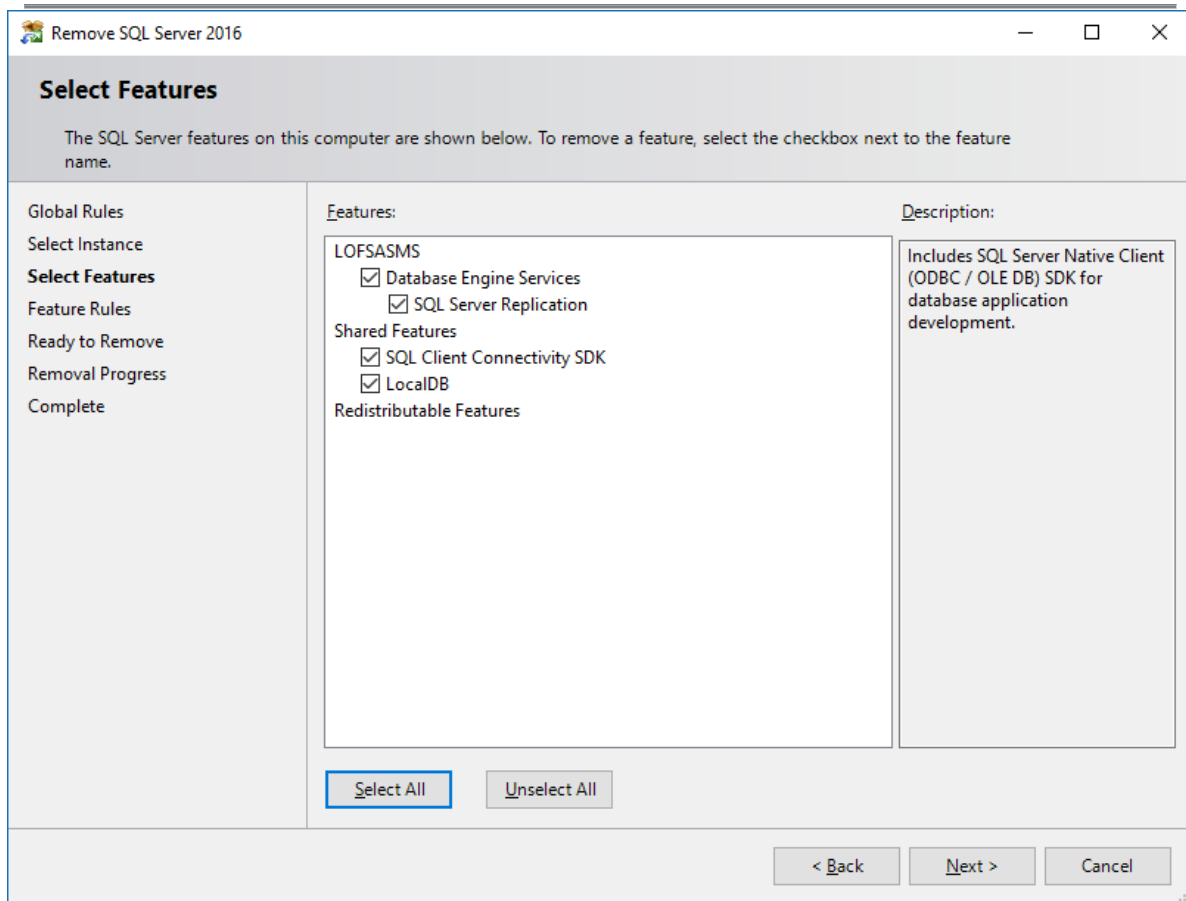
- 2.6 Search for **Microsoft SQL Server 2016 (64-bit)** in the Programs and Features program window. Select the item, and click on Uninstall / Change to start the removal.



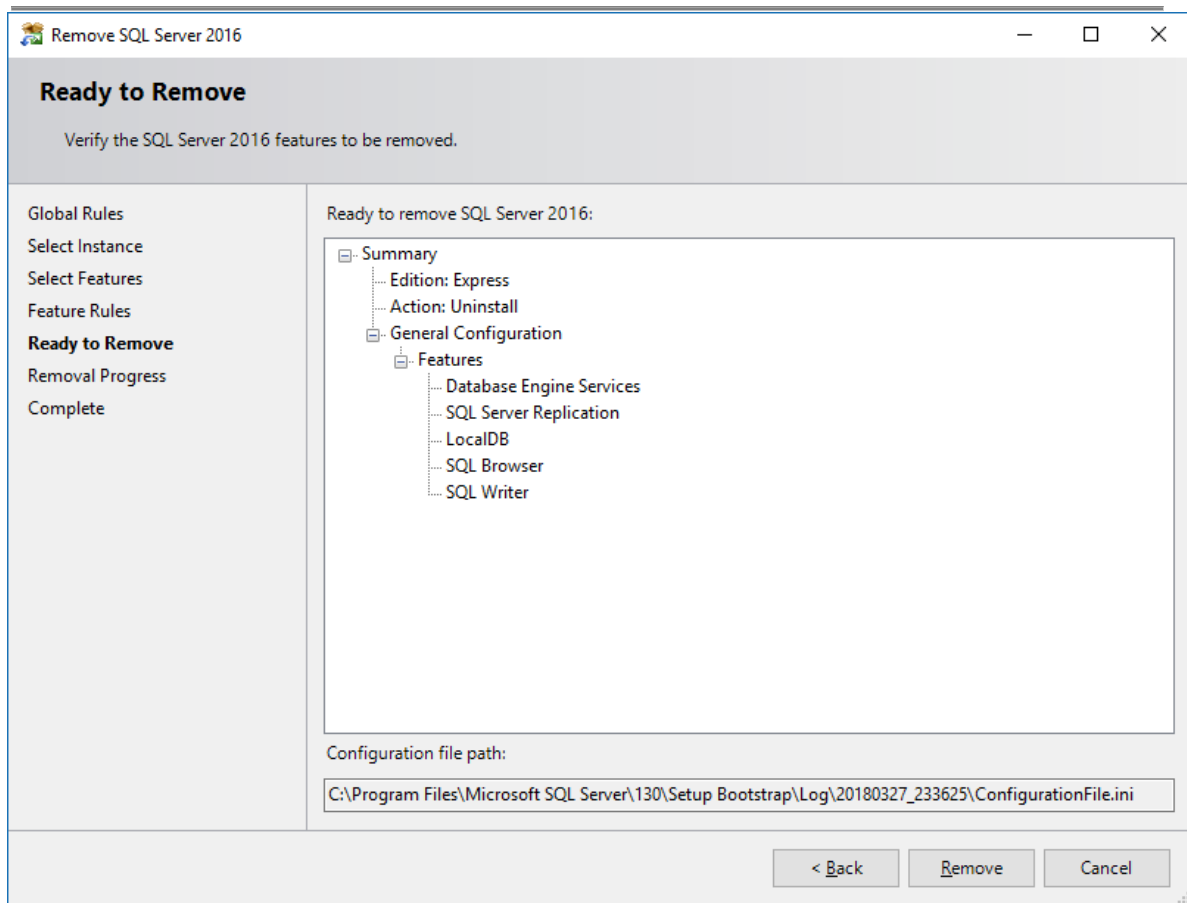
2.6.1 When prompted, click on Remove to Uninstall the database.



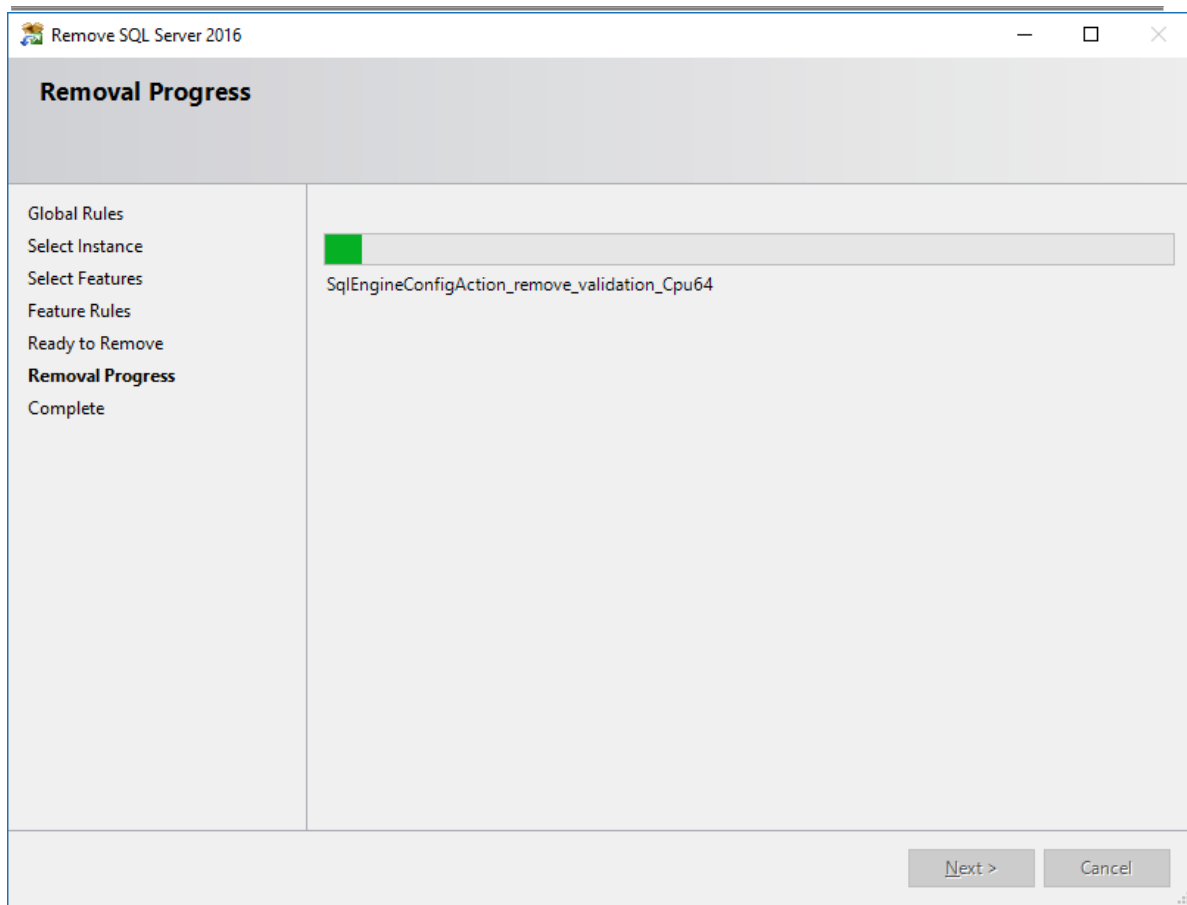
2.7 At the 'Instance to remove features from' prompt, select **LOFSASMS** and click on **Next**.



2.7.1 Click on [Select All](#) to select features to be uninstalled, and click [Next](#).



2.8 Click on [Remove](#) to confirm.



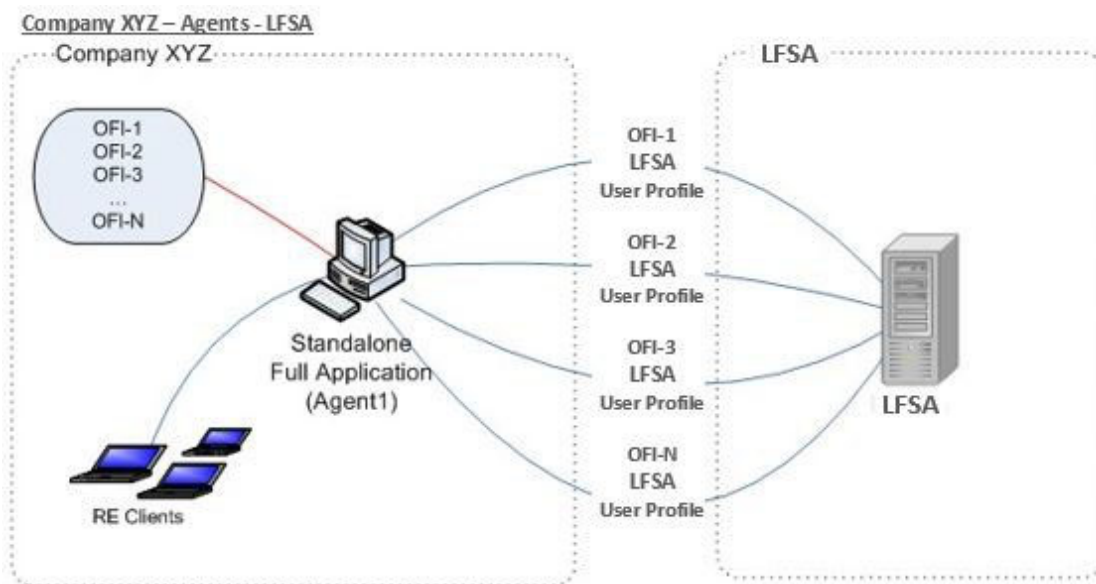
- 2.9 The removal process could take a while to complete. When completed, click on the Close button.

3. Multi-instance

Note:

This is only applicable to those that manage the submissions of multiple companies.

This setup is optional. Multi-instance should only be done if the RE is in charge of multiple OFIs. In this case, each OFI will need to have its own submission instance, registered with its Labuan FSA profile, on the RE Full Application. A new instance means a separate OFI database in the RE Full Application.



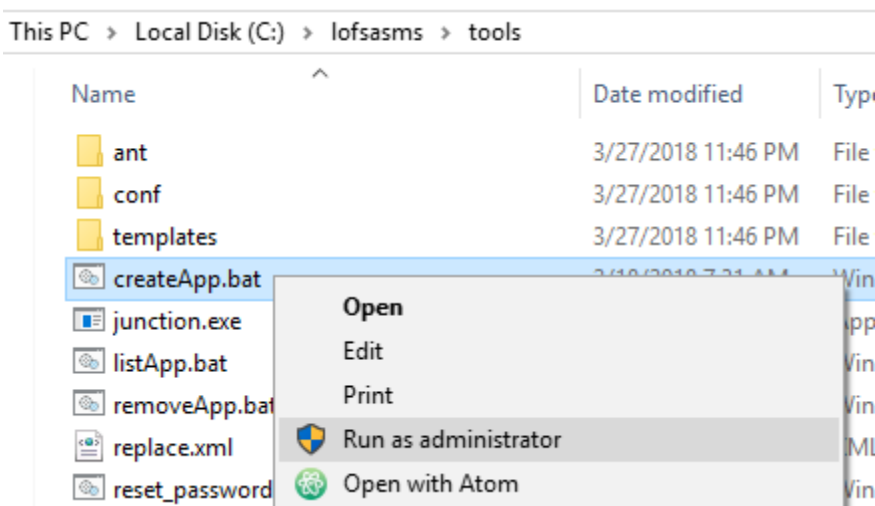
3.1. Instance Creation

Instance creation utility (createApp.bat) is located in the c:\lofsasms\tools folder.

This PC > Local Disk (C:) > lofsasms > tools				
Name	Date modified	Type	Size	
ant	3/27/2018 11:46 PM	File folder		
conf	3/27/2018 11:46 PM	File folder		
templates	3/27/2018 11:46 PM	File folder		
createApp.bat	2/18/2018 7:31 AM	Windows Batch File	3 KB	
junction.exe	1/23/2018 5:28 AM	Application	19 KB	
listApp.bat	1/23/2018 5:28 AM	Windows Batch File	1 KB	
removeApp.bat	2/18/2018 7:32 AM	Windows Batch File	3 KB	
replace.xml	1/23/2018 5:28 AM	XML Document	2 KB	
reset_password.bat	2/18/2018 7:32 AM	Windows Batch File	1 KB	

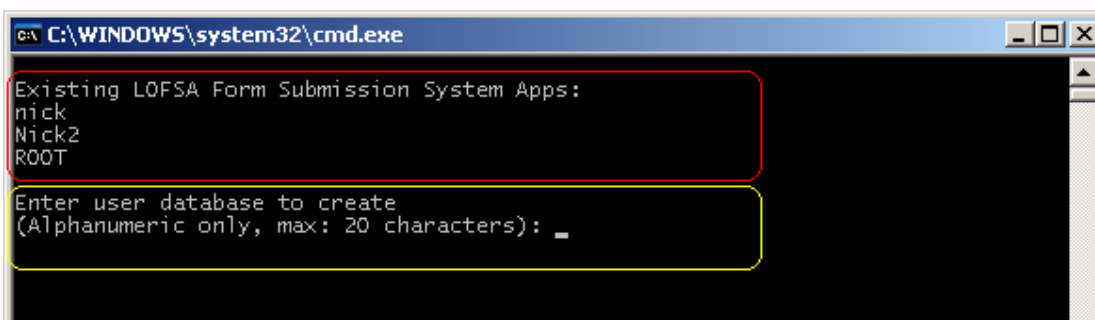
A new OFI database instance is created by the steps below:

- 3.1.1 Execute createApp.bat by right-clicking on the createApp batch file and click on “Run as administrator”.



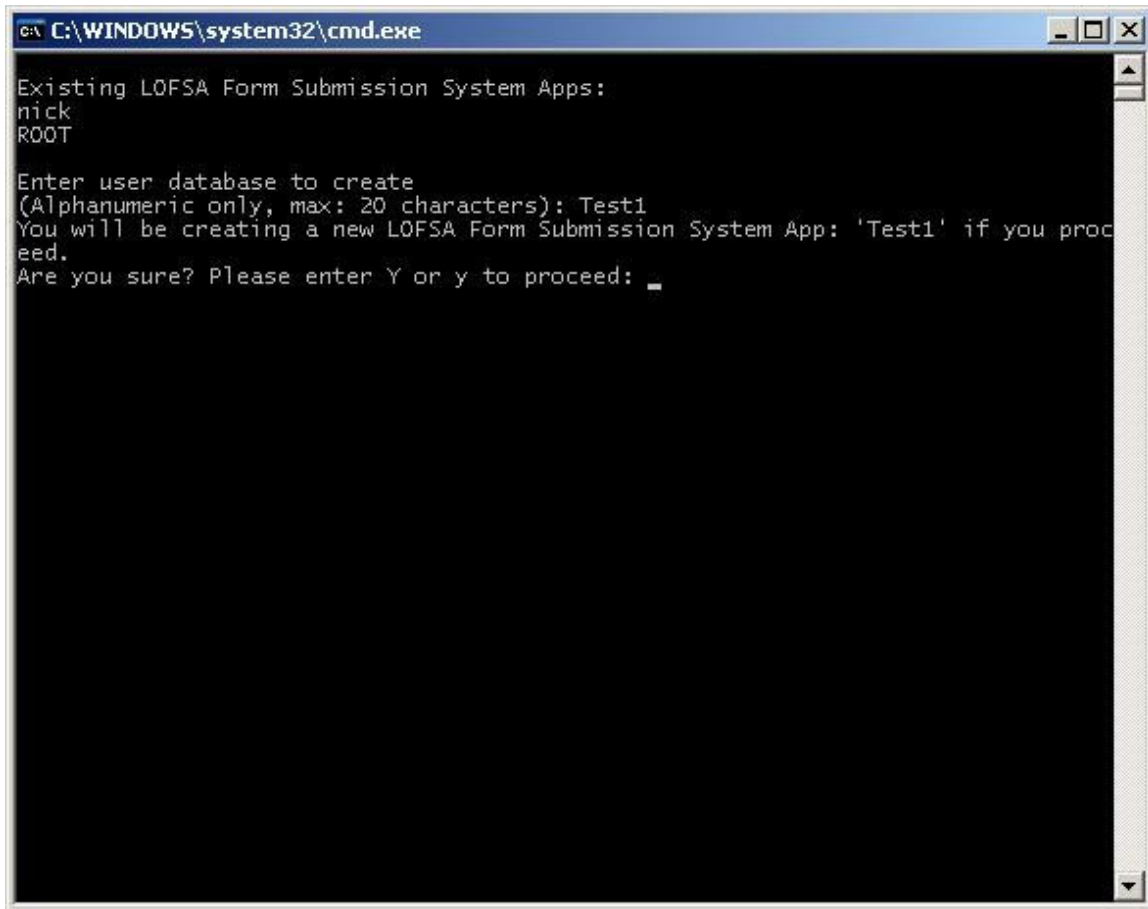
When prompted whether to allow app to make changes to this device, click Allow.

- 3.1.2 A console screen will appear.



The top part of the screen (red box above) is the listing of the existing instances (if any).

- 3.1.3 Type the name of the new instance to be created (yellow box above). The instance name is an alphanumeric field but must begin with an alphabet. Wildcard characters (like \$ % ^ & #) and space are not allowed.



```
C:\WINDOWS\system32\cmd.exe

Existing LOFSA Form Submission System Apps:
nick
ROOT

Enter user database to create
(Alphanumeric only, max: 20 characters): Test1
You will be creating a new LOFSA Form Submission System App: 'Test1' if you proceed.
Are you sure? Please enter Y or y to proceed: _
```

- 3.1.4 A confirmation dialog will appear. To confirm, input 'Y' or 'y' and hit enter, otherwise input any key and hit enter.

```

C:\WINDOWS\system32\cmd.exe
Are you sure? Please enter Y or y to proceed: Y
Processed 3224 pages for database 'lfs_Test1', file 'data' on file 1.
Processed 4 pages for database 'lfs_Test1', file 'log' on file 1.
RESTORE DATABASE successfully processed 3228 pages in 4.065 seconds (6.503
MB/sec).
..\ROOT\Error.vm
..\ROOT\index.vm
..\ROOT\viewAttachment.jsp
..\ROOT\WEB-INF\generated_web.xml
..\ROOT\WEB-INF\toolbox.xml
..\ROOT\WEB-INF\velocity.properties
..\ROOT\WEB-INF\web.xml
..\ROOT\WEB-INF\web_org.xml
..\ROOT\WEB-INF\classes\org\apache\jsp\viewAttachment_jsp.class
..\ROOT\WEB-INF\data\busobjLocal.xml
..\ROOT\WEB-INF\data\default.sched
..\ROOT\WEB-INF\data\poolman.xml
..\ROOT\WEB-INF\inc\index.inc
..\ROOT\WEB-INF\inc\logout.inc
..\ROOT\WEB-INF\inc\processLogin.inc
..\ROOT\WEB-INF\includes\config.vm
..\ROOT\WEB-INF\includes\global.vm
..\ROOT\WEB-INF\includes\VirtualTable.vm
..\ROOT\WEB-INF\includes\VirtualTableColumn.vm
..\ROOT\WEB-INF\layout\Default.vm
..\ROOT\WEB-INF\layout\JSLayout.vm
..\ROOT\WEB-INF\layout\NoLayout.vm
..\ROOT\WEB-INF\layout\XULLayout.vm
..\ROOT\WEB-INF\src\viewAttachment_jsp.java
24 File(s) copied
Buildfile: c:\lofsasms\tools\replace.xml

cloneTemplate:
  [copy] Copying 3 files to c:\lofsasms\mtfweb\apps\Test1\WEB-INF\data
  [copy] Copying 1 file to c:\lofsasms\mtfweb\conf\Catalina\localhost

BUILD SUCCESSFUL
Total time: 0 seconds

The LOFSASMS service was stopped successfully.

The LOFSASMS service is starting..
The LOFSASMS service was started successfully.

App Test1 created successfully

The new instance URL: The URL created is http://127.0.0.1:81/Test1/

Press any key to continue . . .
  
```

3.1.5 The instance creation process will then begin. The message “Press any key to continue . . .” (green box above) signals the completion of processing.

3.1.6 Take note of the URL created (red box above). This will be the server URL for the server connection setup in the LFSA SMS application.

```

..\ROOT\WEB-INF\includes\VirtualTable.vm
..\ROOT\WEB-INF\includes\VirtualTableColumn.vm
..\ROOT\WEB-INF\layout\Default.vm
..\ROOT\WEB-INF\layout\JSLayout.vm
..\ROOT\WEB-INF\layout\NoLayout.vm
..\ROOT\WEB-INF\layout\XULLayout.vm
..\ROOT\WEB-INF\src\viewAttachment_jsp.java
24 File(s) copied
Buildfile: c:\lofsasms\tools\replace.xml

cloneTemplate:
  [copy] Copying 3 files to c:\lofsasms\mtfweb\apps\Test1\WEB-INF\data
  [copy] Copying 1 file to c:\lofsasms\mtfweb\conf\Catalina\localhost

BUILD SUCCESSFUL
Total time: 0 seconds

The LOFSASMS service was stopped successfully.

The LOFSASMS service is starting.
The LOFSASMS service was started successfully.

App Test1 created successfully

The new instance URL: The URL created is http://127.0.0.1:81/Test1/

```

3.1.7 To copy the server URL, right click on the console screen and click on [Mark](#).

```

..\ROOT\WEB-INF\includes\VirtualTable.vm
..\ROOT\WEB-INF\includes\VirtualTableColumn.vm
..\ROOT\WEB-INF\layout\Default.vm
..\ROOT\WEB-INF\layout\JSLayout.vm
..\ROOT\WEB-INF\layout\NoLayout.vm
..\ROOT\WEB-INF\layout\XULLayout.vm
..\ROOT\WEB-INF\src\viewAttachment_jsp.java
24 File(s) copied
Buildfile: c:\lofsasms\tools\replace.xml

cloneTemplate:
  [copy] Copying 3 files to c:\lofsasms\mtfweb\apps\Test1\WEB-INF\data
  [copy] Copying 1 file to c:\lofsasms\mtfweb\conf\Catalina\localhost

BUILD SUCCESSFUL
Total time: 0 seconds

The LOFSASMS service was stopped successfully.

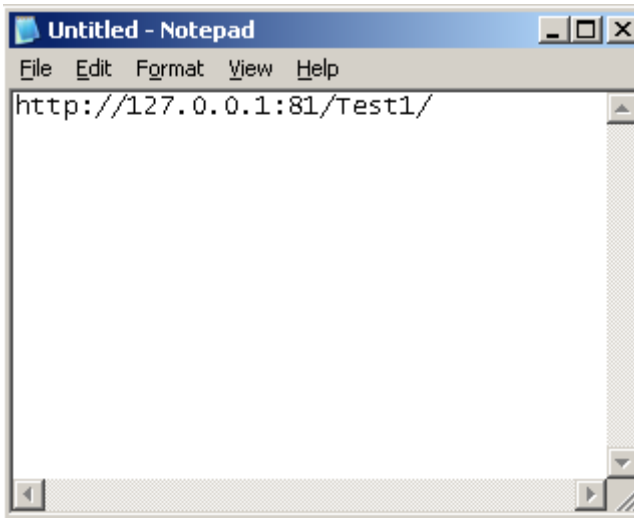
The LOFSASMS service is starting.
The LOFSASMS service was started successfully.

App Test1 created successfully

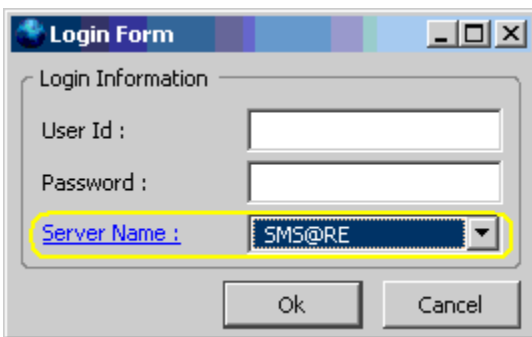
The new instance URL: The URL created is http://127.0.0.1:81/Test1/
Press any key to continue . . .

```

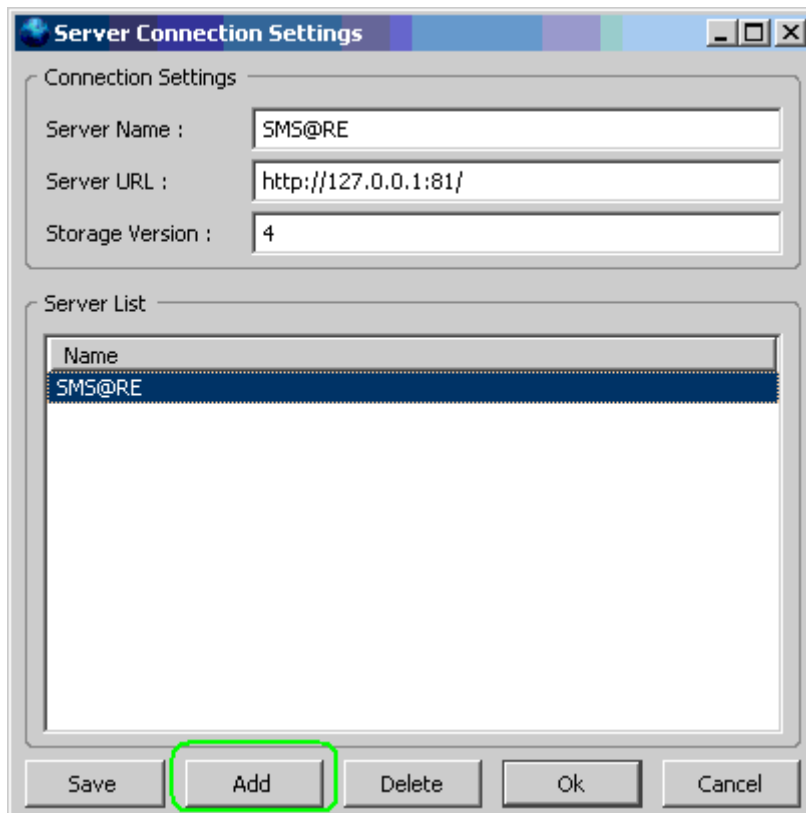
3.1.8 Then select the portion of the screen to copy by holding down left click. When the texts have been selected let go of the left click button and right click.



3.1.9 Paste the copied text into any text editor like normal (ctrl-v). Keep this text editor open for later use.



3.1.10 The newly created instance needs to be configured in the SMS application. In the login dialog, click on Server Name to bring up the [server connection settings](#) (yellow box above).



3.1.11 In the server connection settings, click on Add to create a new server connection.

Server Connection Settings

Connection Settings

Server Name : SMS@RE

Server URL : http://127.0.0.1:81/

Storage Version : 4

Server List

Name
SMS@LOFSA
SMS@RE
SMS@RE

Save Add Delete Ok Cancel

3.1.12 Assign a server name for the connection (yellow box above). This is for visual purposes, so it is best to use a recognizable name. For example, if the connection is for Insurance Company XYZ, assigning SMS@InsuranceXYZ would be a good idea.

3.1.13 The server URL (red box) comes from step 3.1.6. Copy the URL stored and replace the one in the [Server URL](#) field.

Server Connection Settings

Connection Settings

Server Name : SMS@Test1

Server URL : http://127.0.0.1:81/Test1/

Storage Version : 4

Server List

Name
SMS@LOFSA
SMS@RF
SMS@Test1

Save Add Delete Ok Cancel

3.1.14 Click on Save (red above) when done. The server list will be updated with the newly added server name (blue above). Click on OK (yellow above) to apply the change.

Login Form

Login Information

User Id :

Password :

Server Name : SMS@Test1

Ok Cancel

3.1.15 To login to this instance, select the server name (green above) from the login dialog.

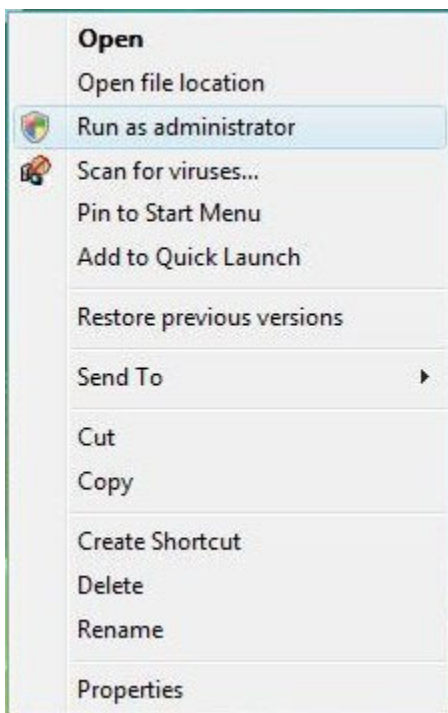
3.2 Instance Deletion

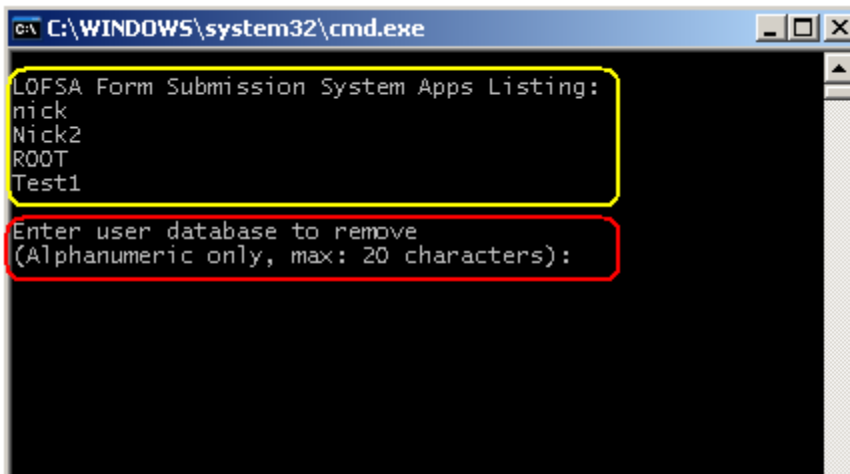
Instance creation utility (removeApp.bat) is located in the c:\lofsasms\tools folder.

The ROOT instance cannot be removed.

An OFI instance can be removed by the steps below:

- 3.2.1 Execute removeApp by right-clicking on removeApp and select "Run as administrator".





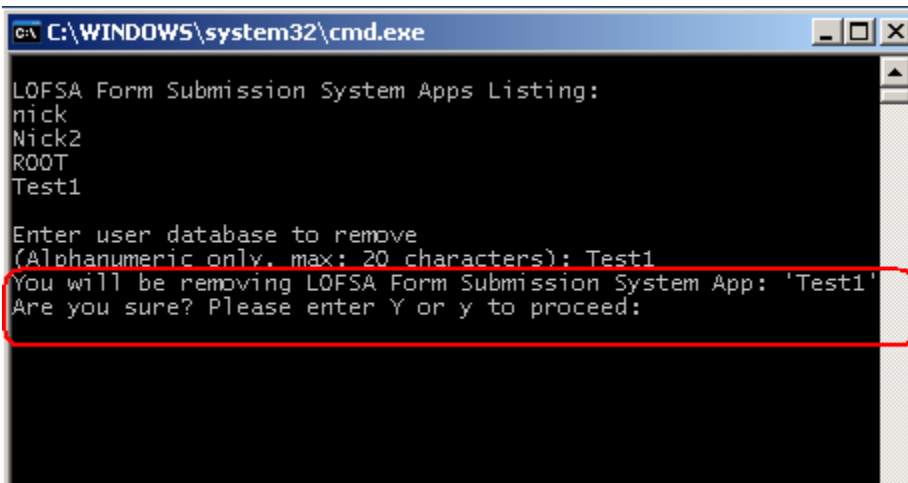
```
C:\WINDOWS\system32\cmd.exe

LOFSA Form Submission System Apps Listing:
nick
Nick2
ROOT
Test1

Enter user database to remove
(Alphanumeric only, max: 20 characters):
```

3.2.2 A console screen will appear. It will show the current instance already created (yellow above). Enter the instance that needs to be removed (red box) and hit enter.

(Note: ROOT cannot be deleted.)



```
C:\WINDOWS\system32\cmd.exe

LOFSA Form Submission System Apps Listing:
nick
Nick2
ROOT
Test1

Enter user database to remove
(Alphanumeric only, max: 20 characters): Test1
You will be removing LOFSA Form Submission System App: 'Test1'
Are you sure? Please enter Y or y to proceed:
```

3.2.3 A confirmation is required (red above). Punch in 'Y' or 'y' and hit enter to confirm. Otherwise, input any key and hit enter to cancel.

```
C:\WINDOWS\system32\cmd.exe

LOFSA Form Submission System Apps Listing:
nick
Nick2
ROOT
Test1

Enter user database to remove
(Alphanumeric only, max: 20 characters): Test1
You will be removing LOFSA Form Submission System App: 'Test1'
Are you sure? Please enter Y or y to proceed: y

The LOFSASMS service was stopped successfully.

c:\lofsasms\db\lfs_Test1.ldf
c:\lofsasms\db\lfs_Test1.mdf
2 file(s) moved.
The LOFSASMS service is starting..
The LOFSASMS service was started successfully.

App Test1 removed successfully
The database files are archived at c:\lofsasms\db\detach\ fold
Remember to move them to storage if required.

Press any key to continue . . .
```

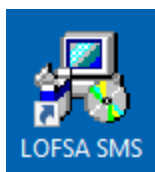
3.2.4 The database instance files are moved to c:\lofsasms\db\detach. It is recommended to copy the files out and keep this folder empty.

4. Setting Up

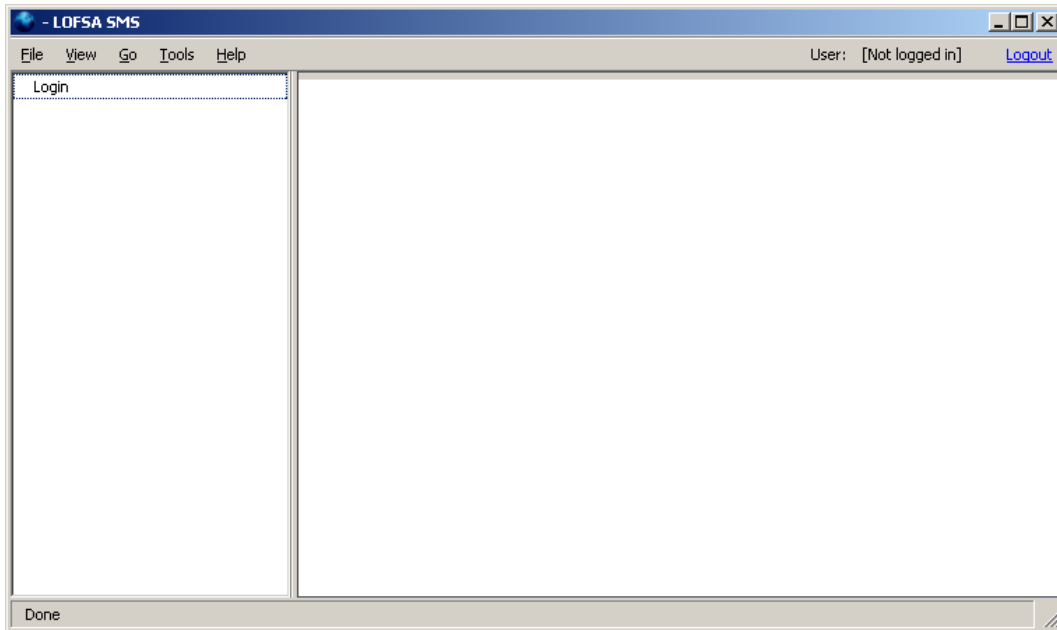
The SMS application for reporting entities (REs) needs to be registered with a login user profile. This is done at the Full Application machine.

The process to register the user profile:

- 4.1 Execute LFSA SMS application by clicking on LOFSA SMS icon on the desktop

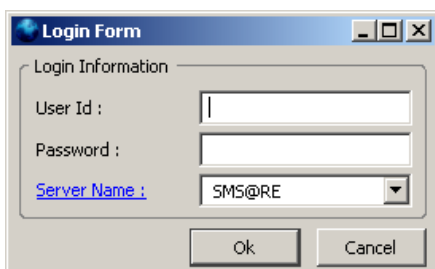


- 4.2 Double click on [Login](#).



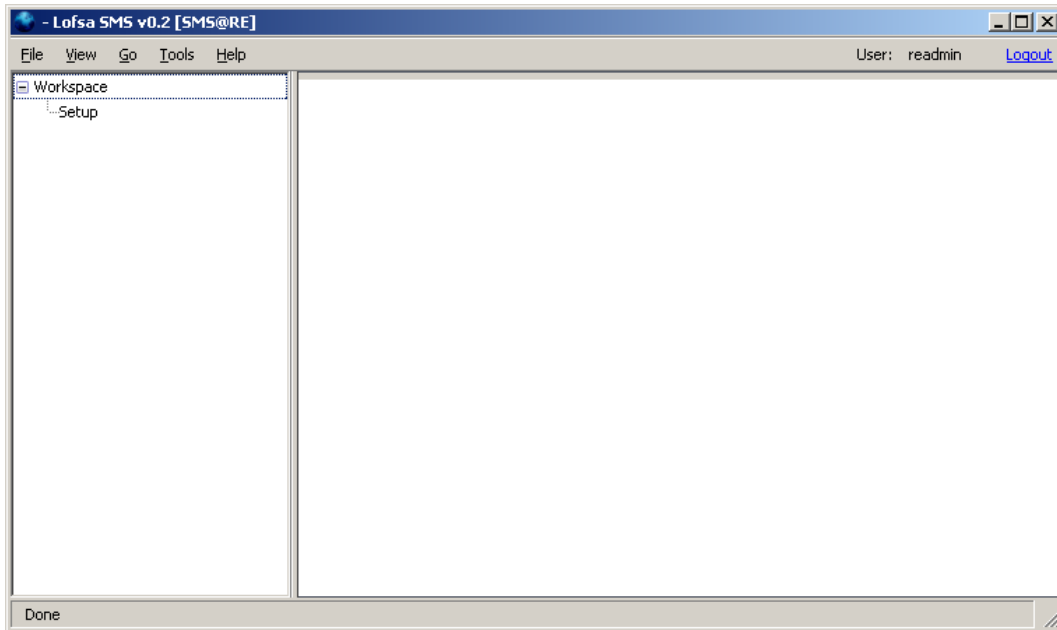
- 4.3 Select the server to login to. (default: [SMS@RE](#)) Enter the below:

User Id: readmin
Password: password
Then click [OK](#).

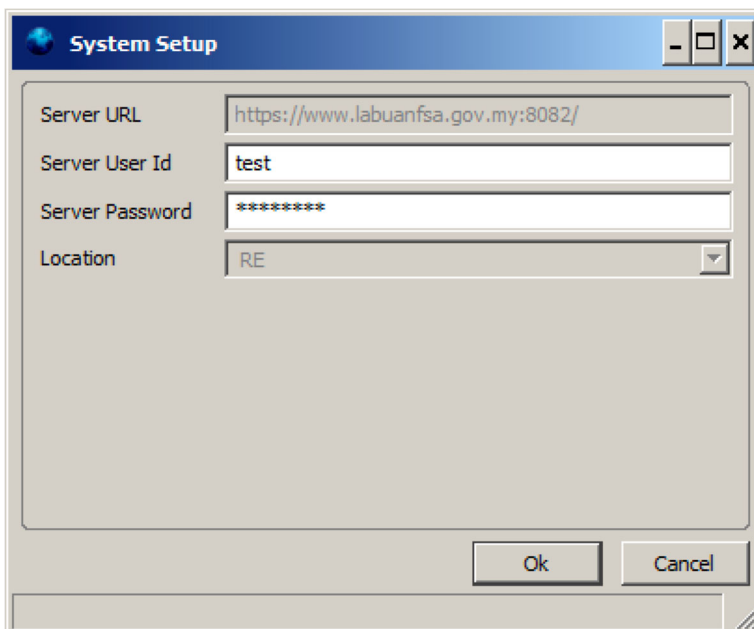


Note: This login profile (readmin) is only for the registration purpose and has no rights for any other functions.

- 4.4 Double click on [Setup](#).



- 4.5 Enter the User ID and Password assigned by Labuan FSA. Click **OK**. It will take a few seconds to a few minutes to update the RE application.



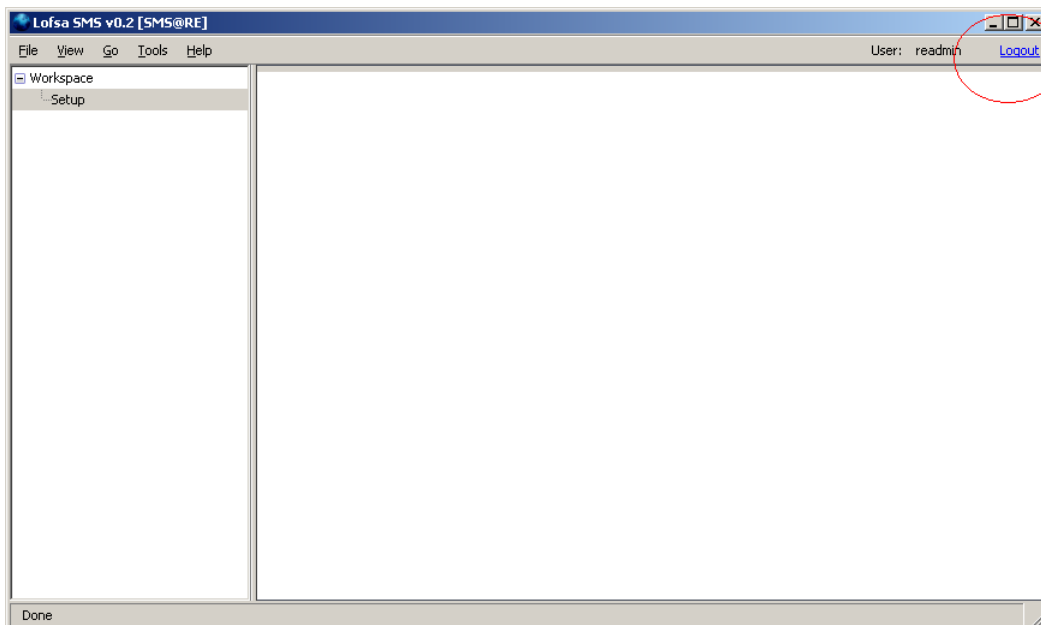
If this step is successful, step below can be skipped.

- 4.6 If the user profile is **already registered** then an error will prevent the registration. This is to prevent one Principal Officer from having two sets of submission data.

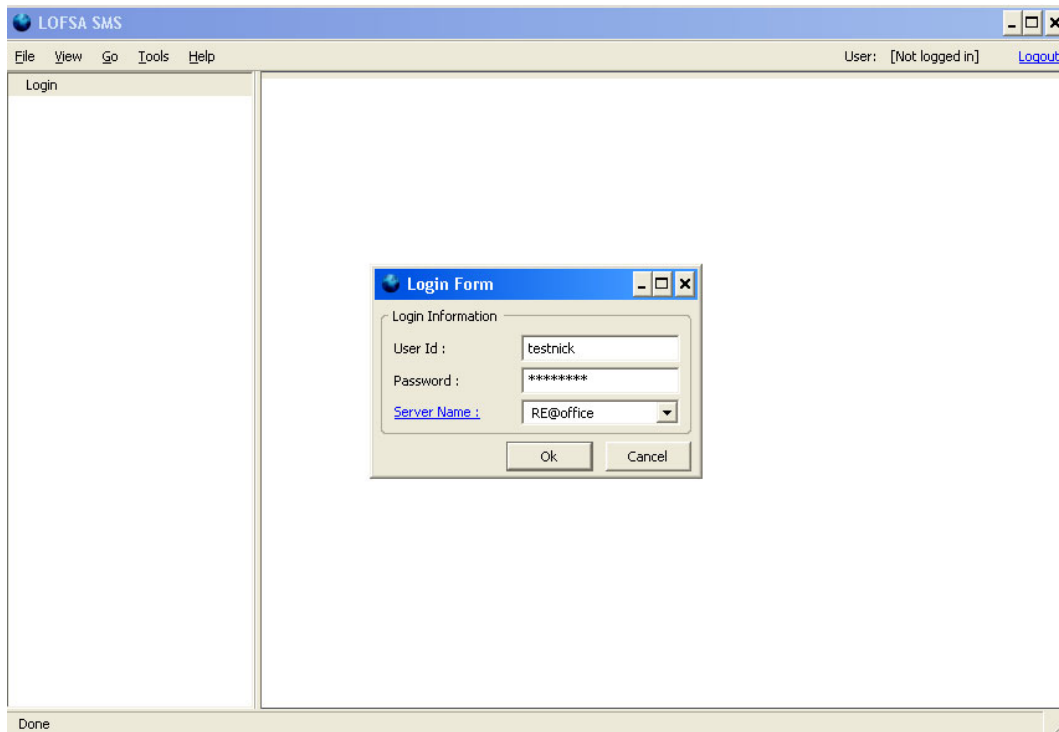


When this happens, Labuan FSA has to be contacted for a profile unlock. Apart from the machine currently being registered, any other machines utilizing the same user profile have to be disabled from doing submissions in the future. This is to prevent duplicate submissions done on behalf of the same reporting entities.

- 4.7 To exit, click on [Logout](#) on the top right corner of window.



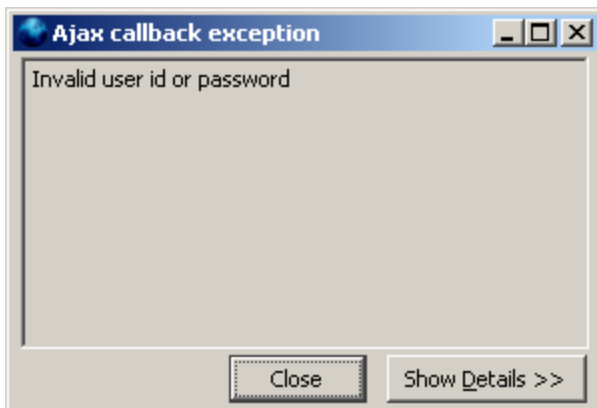
- 4.8 After registration is done, reporting entities can now login with their assigned profile. Double click on Login, and enter Labuan FSA assigned username and password. Then click [OK](#).



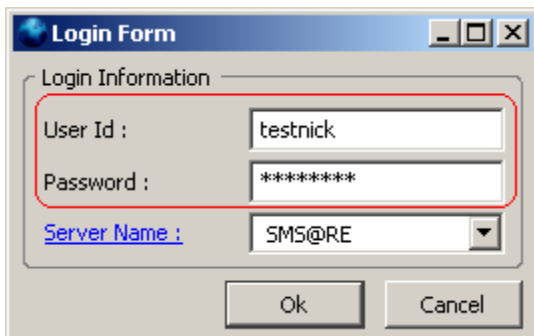
5. Troubleshooting

This section covers the troubleshooting for installation.

5.1 Login – Invalid user id or password



Possible cause:

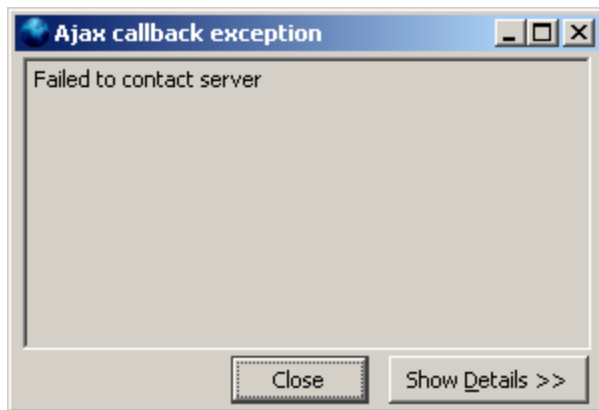


- Wrong User Id
- Wrong password

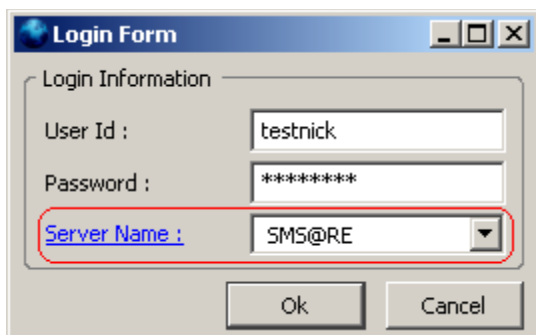
Troubleshooting:

- Registration step with id "readmin" must be successful before a user can login with the Labuan FSA provided ID. Refer LFSA SMS Training Guide (RE) section 3.1.
- If registration step is done, check the user ID and password provided by Labuan FSA.

5.2 Login – Failed to contact server



Possible cause:



- The SMS application cannot contact the SMS service configured in the Server Name.
- The SMS service as referred to in the Server Name is not running.

Troubleshooting:

- Check the SMS service configured in Server Name.

Server Connection Settings

Connection Settings

Server Name : SMS@RE

Server URL : http://127.0.0.1:81/

Storage Version : 4

Server List

Name
SMS@RE

Save Add Delete Ok Cancel

The default connection should be the above.

(<http://127.0.0.1:81/>)

Use the above configuration when connecting from the Full Application. Otherwise, replace the IP address in Server URL with the IP address of the full application.

Refer: Labuan FSA SMS Training Guide (RE) section 3.2.

- Check SMS service.

If the SMS service is down on the SMS Full Application machine, then the SMS application will not be able to function. Refer to [SMS service test](#).

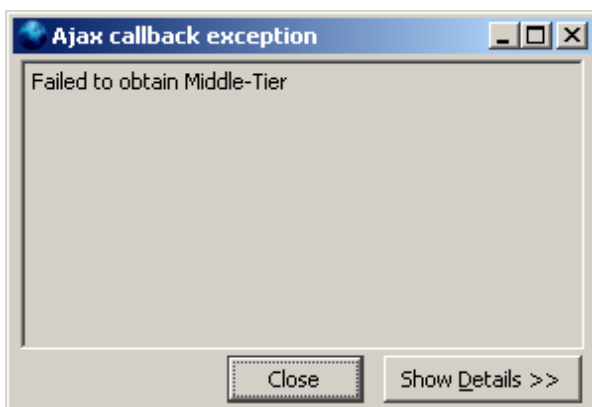
- Check network connection.

A ping test on the connecting machine can determine if the SMS service machine is accessible. Refer to [Ping test](#).

- Check destination port.

A telnet test can determine if the necessary ports in the Full Application machine is accessible. This test should only be done if the ping test was successful. This test can be done on the Full Application machine itself or on the machine connecting to it. Refer to [Telnet test](#).

5.3 Setup – Fail to obtain Middle-Tier



Possible cause: Full Application computer is unable to locate the local MSSQL 2016 database.

Troubleshooting: Proceed with [MSSQL 2016 database test](#).

5.4 Registration – Failed to update settings

This usually happens when registering the Labuan FSA profile with the initial “readmin” login.



Possible cause:

- The Full Application machine is unable to establish a connection to Labuan FSA.
- The LFSA SMS application server may be down.

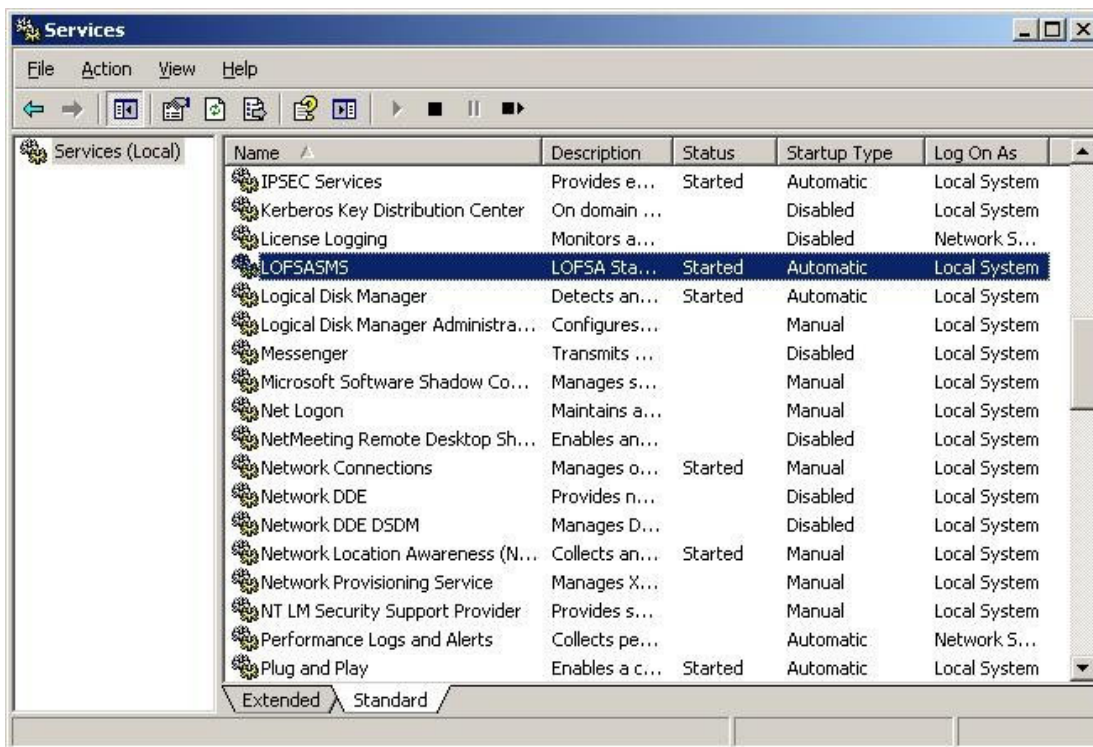
Troubleshooting:

- Check the connectivity to Labuan FSA.
A [ping test](#) should be done from the Full Application machine to the URL <http://www.labuanfsa.gov.my> (LFSA SMS application server).
- If the ping test is successful, then a [telnet test](#) should be done using the port 8082.

5.5 Tests – SMS service

At the full application machine, go to the service listing by:

Start → Settings → Control Panel → Administrative Tools → Services



The LOFSASMS service must be in Started state in order for the SMS application to function.

The LOFSASMS service is not found

Possible root cause:

- Error in installation.
- Corrupted installation file.

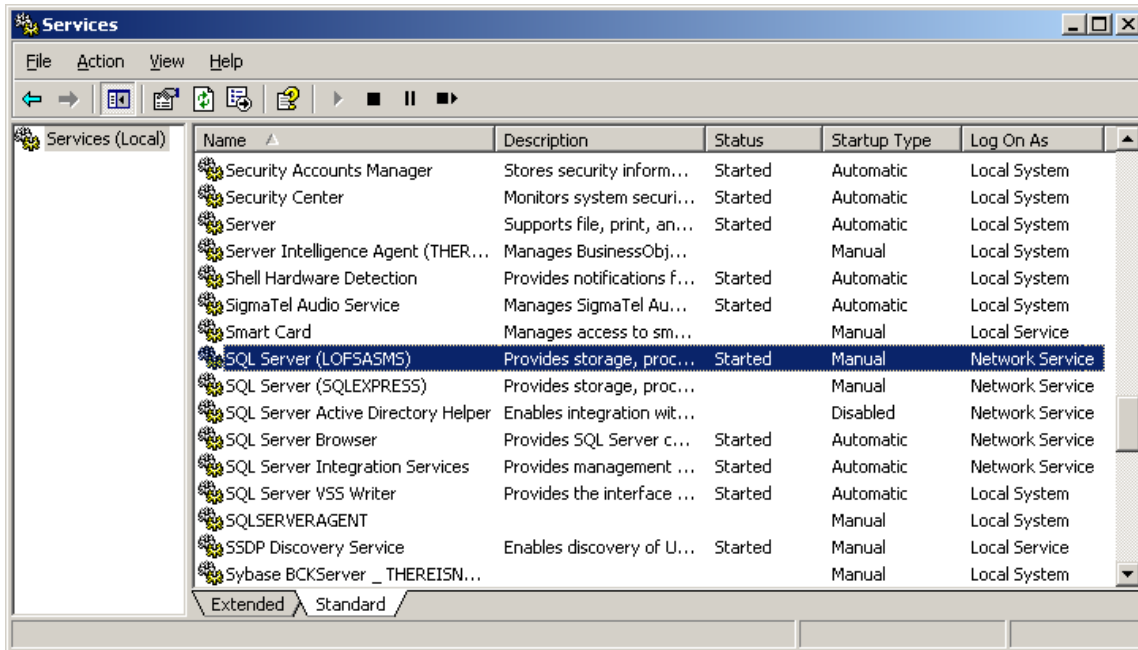
Proposed solution:

- Download the installation package again.
- Fully uninstall the application and try re-installing.

5.6 Tests – SQL Service

At the full application machine, go to the service listing by:

Start → Settings → Control Panel → Administrative Tools → Services



The **SQL Server (LOFSASMS)** service must be in Started state in order for the SMS application to function.

The SQL Server (LOFSASMS) service is not found

Possible root cause:

- Error in installation.
- Corrupted installation file.

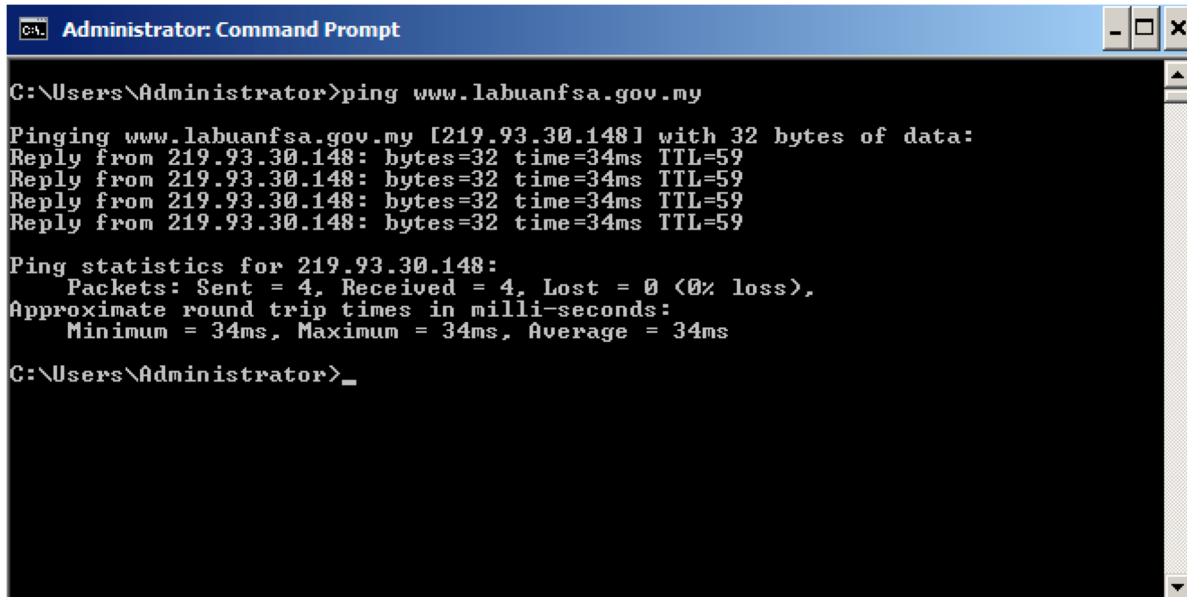
Proposed solution:

- Download the installation package again.
- Fully uninstall the application and try re-installing.

5.7 Tests – Connectivity test

Go to Start → Run. Type in cmd and hit enter. A console screen will appear.

Type in: ping www.labuanfsa.gov.my, And hit enter.



```
Administrator: Command Prompt

C:\Users\Administrator>ping www.labuanfsa.gov.my

Pinging www.labuanfsa.gov.my [219.93.30.148] with 32 bytes of data:
Reply from 219.93.30.148: bytes=32 time=34ms TTL=59
Reply from 219.93.30.148: bytes=32 time=34ms TTL=59
Reply from 219.93.30.148: bytes=32 time=34ms TTL=59
Reply from 219.93.30.148: bytes=32 time=34ms TTL=59

Ping statistics for 219.93.30.148:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 34ms, Maximum = 34ms, Average = 34ms

C:\Users\Administrator>_
```

The IP address (219.93.30.148) after the ping command should be the IP address of the target machine.

If the target machine is contactable, a reply would be received. This means the test is a success.

Example:

- Reply from 219.93.30.148: bytes=32 time=68ms TTL=53

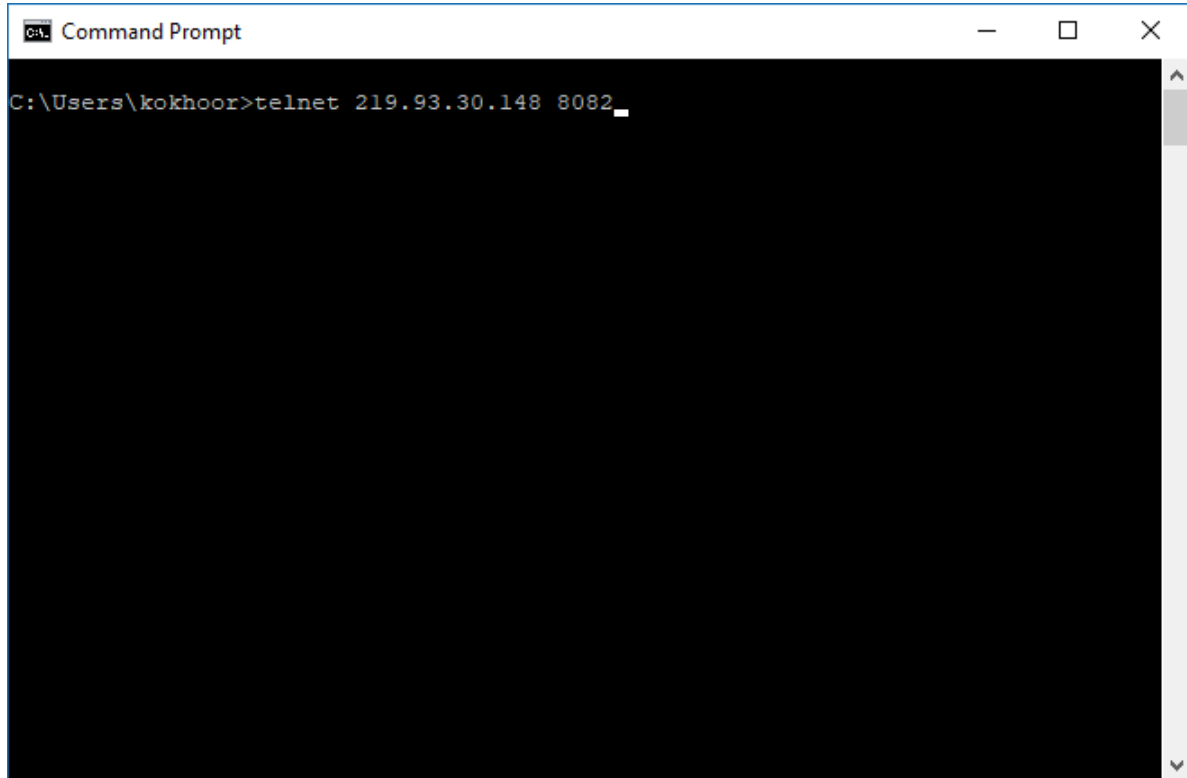
If the target machine cannot be reached (ping test failed), the reply would be:

- Reply from 219.93.30.148: Destination host unreachable.
- Request timed out.

This means the target is unreachable.

5.8 Tests – Telnet

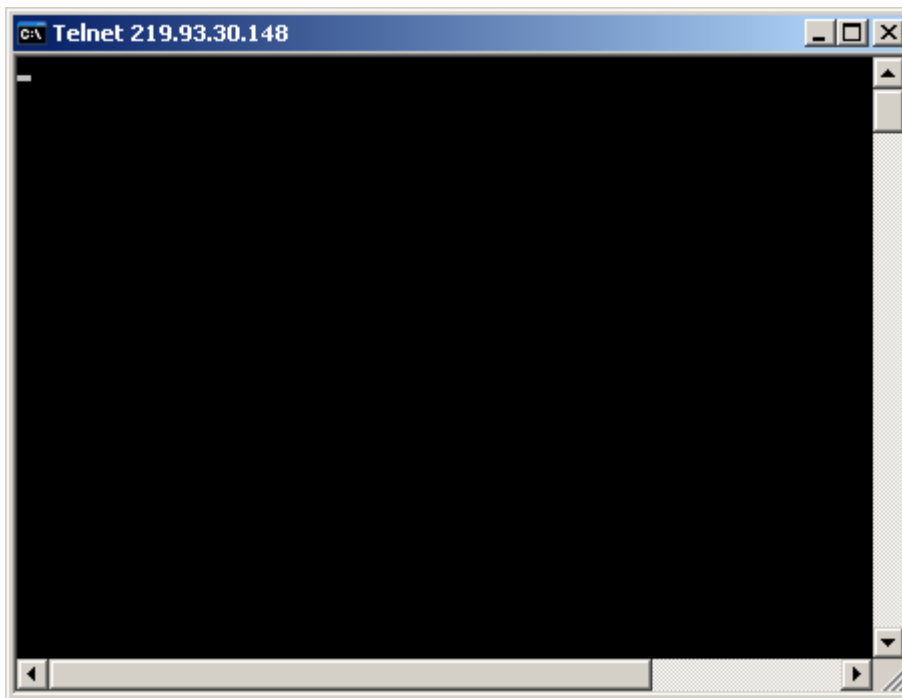
Go to Start → Run. Type in cmd and hit enter. A console screen will appear.



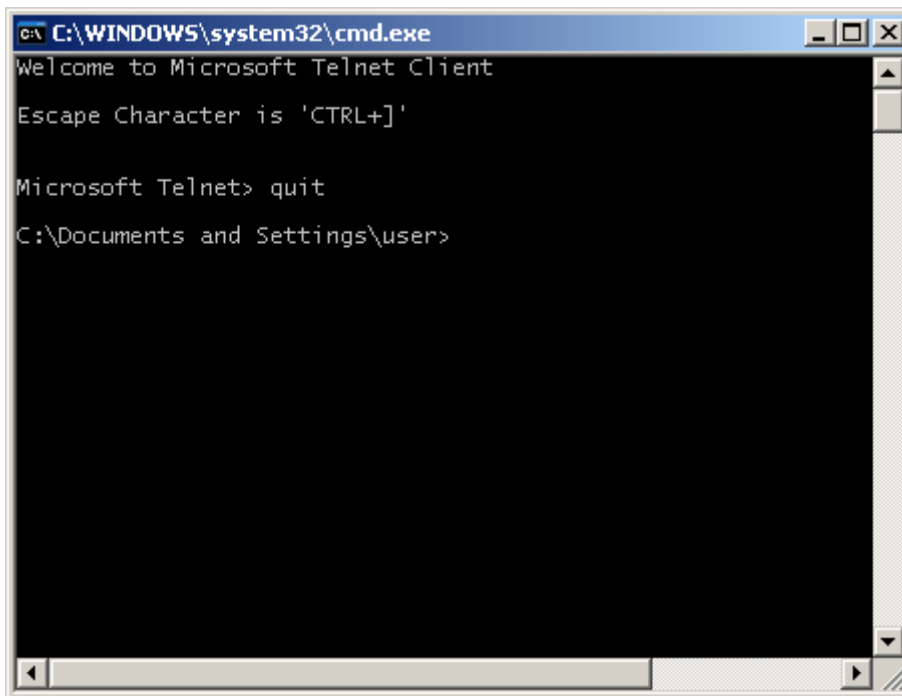
Type in: telnet “IP Address” “Port”

And hit enter.

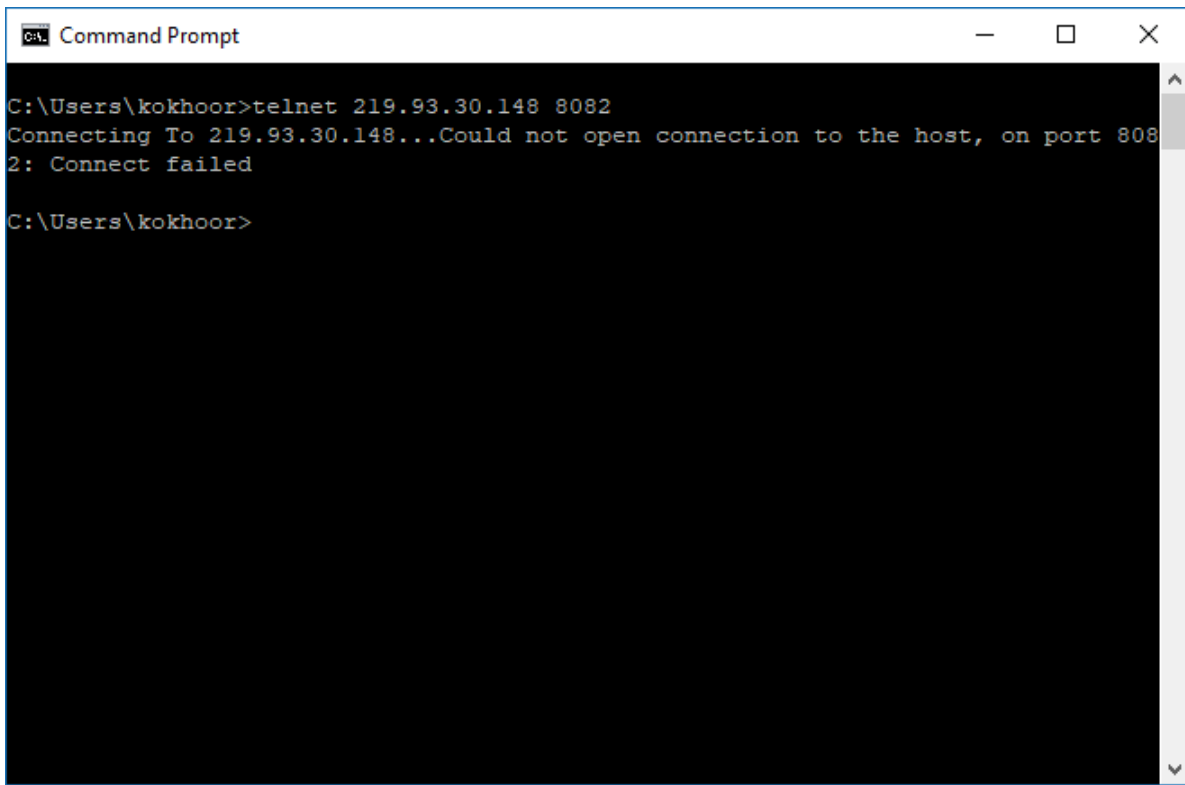
The IP Address is the IP Address of the target machine, and the Port is port number the connection utilizes.



A blank console screen will appear on successful connection.



To exit, press ctrl-]. Then key in **quit** and hit enter.



```
C:\Users\kokhoor>telnet 219.93.30.148 8082
Connecting To 219.93.30.148...Could not open connection to the host, on port 8082:
2: Connect failed

C:\Users\kokhoor>
```

A failed telnet test will result in the error message:
Connecting To [219.93.30.148](#)...Could not open connection to the
host, on port [8082](#): Connect failed

This means a connection cannot be established with the machine
([219.93.30.148](#)) using the port [8082](#).

This could be caused by:

- Firewall preventing outgoing traffic.
- Network policies preventing this connection.
- Target is unreachable or target port is closed.