



WEB APPLICATION INSTALLATION GUIDE

Version 1.0.0



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1 Preface

This guide provides instructions about installing and configuring LogiLAB SDMS (Scientific Data Management System) Web Application.

This preface contains these topics:

- [Audience](#)
- [Documentation Accessibility](#)
- [Conventions](#)

1.1 Audience

LogiLAB SDMS Installation Guide is intended for administrators or anyone installing LogiLAB SDMS Web Application on a computer.

- A supported Microsoft Windows operating system installed and tested on your computer system
- Administrative privileges on the computer where you are installing the SQL Database software
- Knowledge about the following concepts:
 - Domain Name System (DNS)
 - Firewalls
 - Public and private networks
 - Connected applications
 - Internet Information Server (IIS)
 - File Transfer Protocol (FTP)

1.2 Documentation Accessibility

LogiLAB SDMS Web Application documentation set consists of the following:

LogiLAB SDMS Web Installation Guide

LogiLAB SDMS Web User Manual / Online Help System

1.3 Conventions

The following text conventions are used in this document:

1.3.1 Commands

When a command is referred to in the manual, the following distinctions have been made:

When menu commands are referred to, the manual will refer you to the menu bar – E.g. “Choose File from the menu bar and then Print”.

When dialog box options are referred to, the following style has been used for the text – “In the **Page Range** section of the Print dialog, click the **Current Page** option”

Dialog box buttons are shaded and boxed – “Click to close the Print dialog and launch the print.”

1.3.2 Keyboard

Keys are referred to throughout the manual in the following way:

[ENTER] – denotes the return or enter key, [DELETE] – denotes the Delete key and so on.

Where a command requires two keys to be pressed, the manual displays this as follows:

[CTRL][P] – this means press the letter “p” while holding down the Control key.

1.3.3 Notes

Within each section, any items that need further explanation or extra attention devoted to them are denoted by shading. For example:

Note: “SDMS will not let you close a screen or window that you haven’t already saved changes to without prompting you to save.”

1.3.4 Callout

Callouts are used to denote an action or describe something in the interface.



1.3.5 Description

This style denotes the sequence that follows an action. In general, a screen shot appears under the style that denotes the result of an action. For Example: The Add User screen appears as shown in the figure.

1.3.6 Hyperlink

Clicking on hyperlinks will help the user to go to the topic directly in the same document.

Example: [Click here to see how to setup FTP site.](#)

2 System requirements

2.1 Hardware Requirements

Computer	Component	Minimum requirement
Client	Processor	Pentium III More than 700 MHz
	RAM	4 GB or higher
	Hard disk	20 GB of free space
	Network Access	100 Mbps speed or higher
Server	Processor	Xeon Class 3GHz
	RAM	8 GB or higher
	Hard disk	40 GB of free space for installation of database and App server. Minimum RAID I for data protection

2.2 Software Requirements

Computer	Minimum requirement
Client	Microsoft® Windows® 2000 or Windows® XP or Windows Vista or higher(needs special version of client) Windows 7 or Windows 8 or Windows 10 (normal version) Latest version of Google Chrome
Server	Microsoft® Windows® 2012 server or higher. MS SQL Server 2014 or higher

3 Installation

LogiLAB SDMS Web installation process consists of the following steps:

Step 1: [Installing LogiLAB SDMS Service](#)

Step 2: [Copying LogiLAB SDMS Web Installation package files to Tomcat](#)

Step 3: [Configuring Database](#)

Step 4: [Updating Commonfunction.js file](#)

Step 5: [Updating log4j.properties file](#)

Step 6: [Restarting Tomcat Service](#)

Step 7: [Adding FTP site and defining access](#)

Step 8: [LogiLAB SDMS Web Basic Configuration](#)

3.1 Installing LogiLAB SDMS Service

To use LogiLAB SDMS Web application, you must install LogiLAB SDMS Service in your computer. If you use client and server in different computers, then install LogiLAB SDMS Service in both client and Server machines.

To install LogiLAB SDMS Service, follow these steps:

1. Log in to an administrator account on your computer, quit all open applications, and log out any other users on your computer.
2. Extract the Zip file, open **LogiLAB SDMS Service** folder and then double-click **Setup** file. The **LogiLAB SDMS Setup Wizard** appears as shown in the figure:



FIGURE: - LogiLAB SDMS Service Setup Wizard

3. Click **Next**. The **Connect Database** dialog appears as shown in the figure:

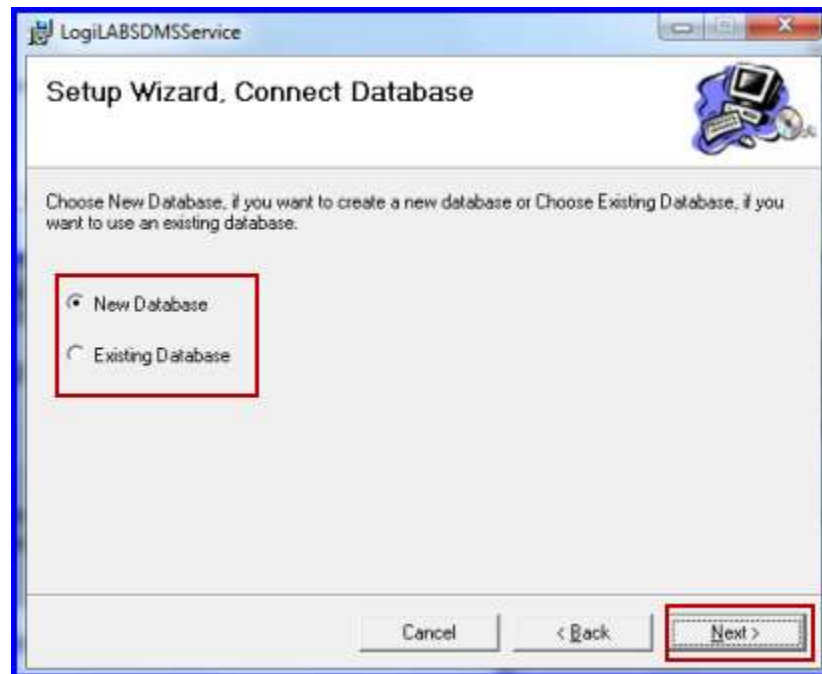


FIGURE: - Connect Database Dialog

4. Click to select **New Database** if you want to create a new database for the SDMS application. Or click to select **Existing Database** if you want to use an existing one. And then click **Next**. The Database Credentials dialog appears as shown in the figure:

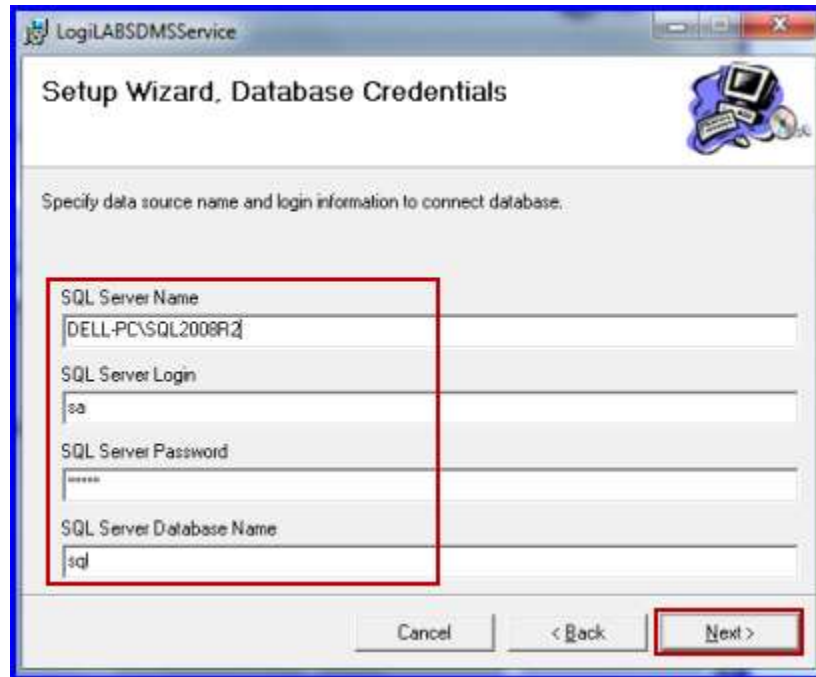


FIGURE: - Database Credentials Dialog

5. In the **SQL Server Name** box, type the server name. In the **User Name** and **Password** box type the user name and password that you use to login SQL server.
6. Click **Next**. The **Enable Feature** dialog appears as shown in the figure:

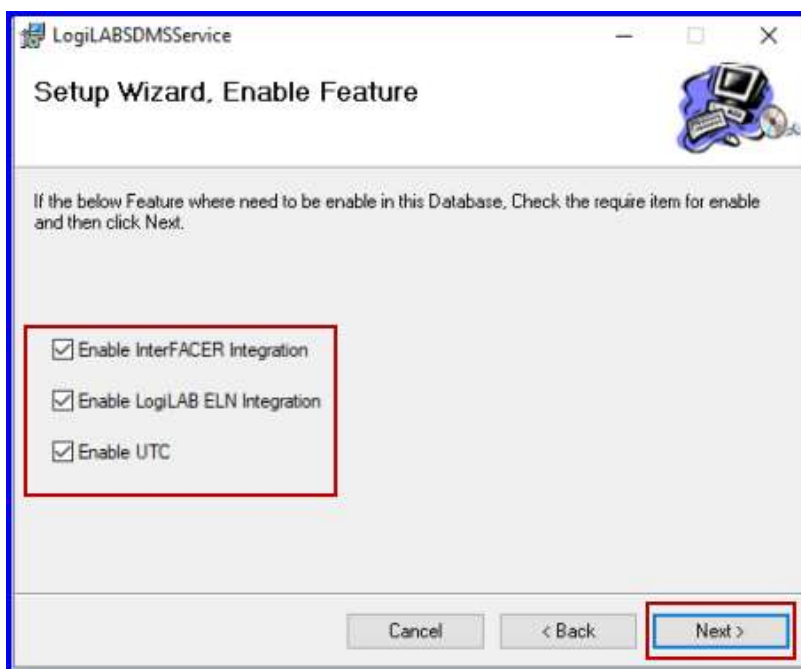


FIGURE: - Enable Feature Dialog

7. Click to select **Enable InterFACER** to integrate SDMS to Interfacier.
8. Click to select **Enable LogiLAB ELN** to integrate SDMS to ELN.
9. Click to select **Enable UTC** to enable Universal Time Coordinated feature. UTC stands for Coordinated Universal Time, a standard used to set all time zones around the world.
10. You can select all three options if required.
11. Click **Next**. The **Specify Configuration** dialog appears as shown in the figure:

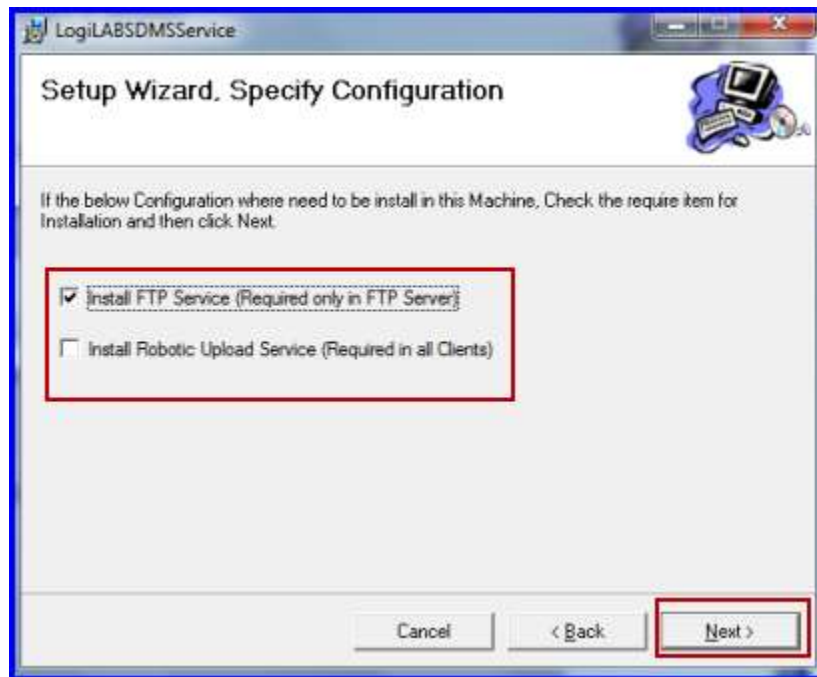


FIGURE: - Specify Configuration Dialog

12. Click to select **Install FTP Service** when you install LogiLAB SDMS Service in FTP server.
13. Click to select **Install Robotic Upload Service** when you install LogiLAB SDMS Service in your client computer.
14. Click **Next**. The **Select Installation Folder** dialog appears as shown in figure:

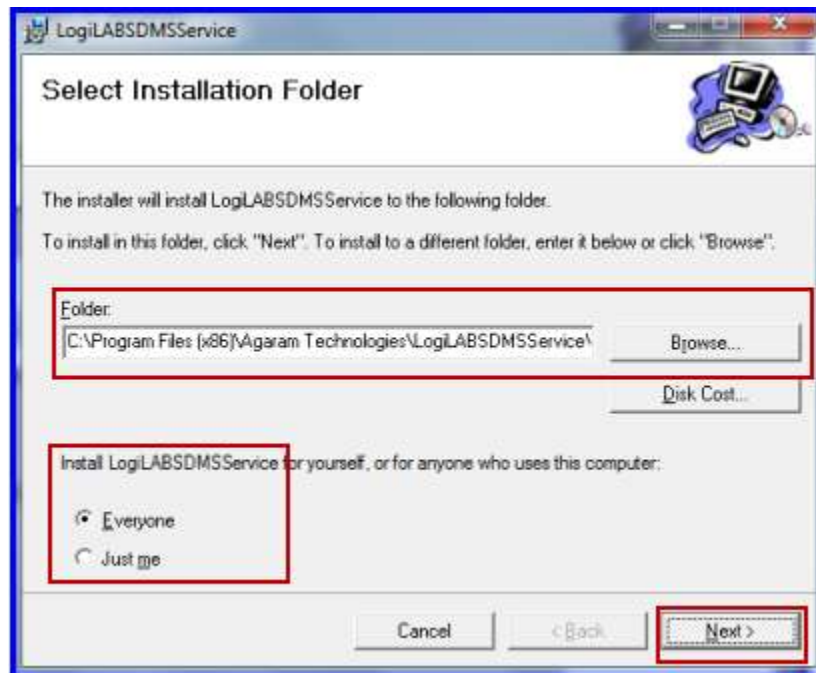


FIGURE: - Select Installation Folder Dialog

15. By default, the installer will install LogiLAB SDMS in the “C:\Program Files\AgaramTechnologies\LogiLAB SDMS” folder.
16. To install LogiLAB SDMS in the default folder, click **Next**.
17. If you want to install in a different folder, click **Browse** and select the folder to install.
18. By default, LogiLAB SDMS is installed for your use. If you want install it for anyone who uses your computer click to select **Everyone** and then click **Next**. The **Confirm Installation** dialog appears as shown in the figure:

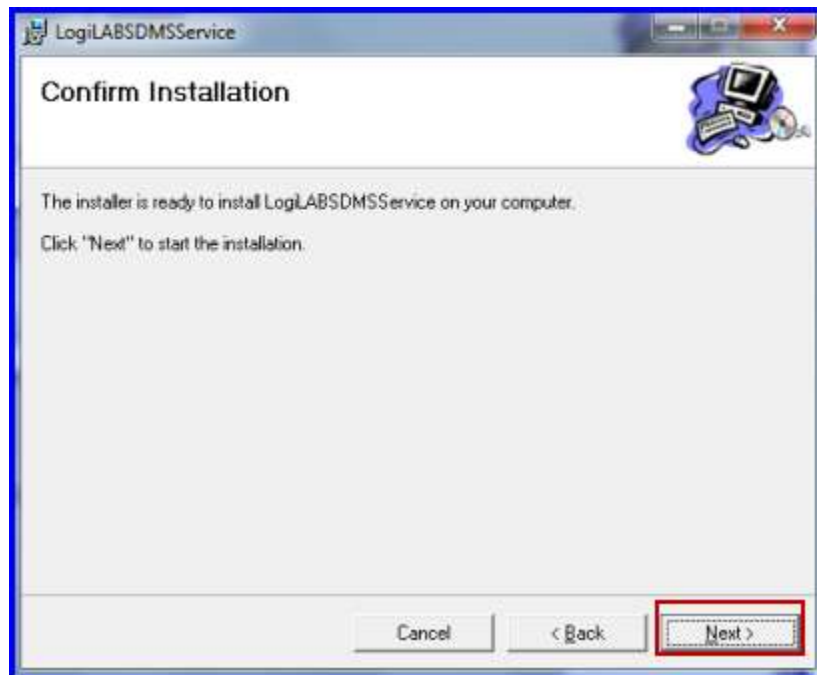


FIGURE: - Confirm Installation Dialog

Wait until the setup completes the installation. On successful installation you will see **Installation Complete** dialog.

19. On the **Installation Complete** dialog, click **Close** to exit the installation wizard.

3.2 Copying LogiLAB SDMS Web Installation package files to Tomcat

1. Unzip LogiLAB SDMS Web Installation package. You can see the following folders:

- | | | |
|------|----------------------|---|
| i) | <i>SDMS_Boot-1.0</i> | : contains all the services required to run LogiLAB SDMS Web Application. |
| ii) | <i>SDMS_Web</i> | : contains files related to LogiLAB SDMS Web user Interface. |
| iii) | <i>SDMSChatPath</i> | : An empty folder that is used to store chats locally. |
| iv) | <i>SDMSTempPath</i> | : An empty folder which is used to store temporary view files. |

- Copy the above folders to the <Apache Tomcat installation folder>\webapps directory as shown in the figure:

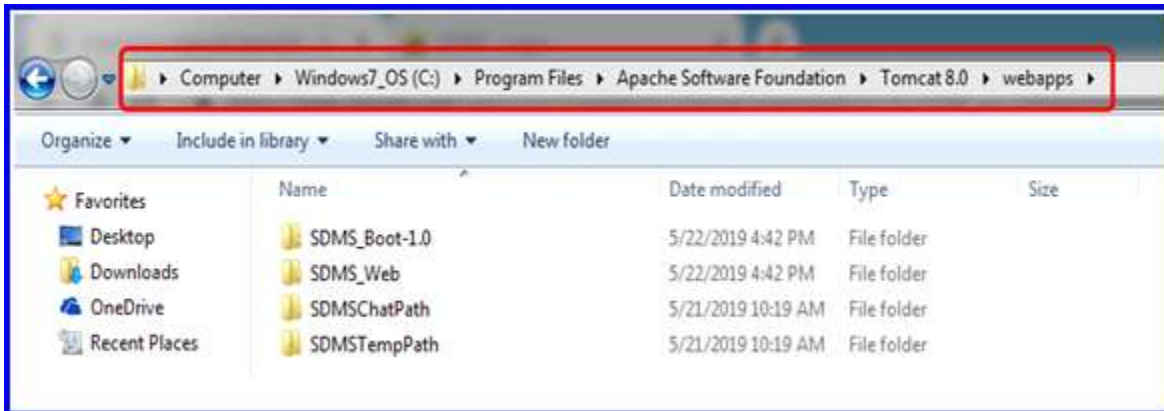


FIGURE: Copying files to Tomcat\Webapps folder

3.3 Configuring Database

- Go to the <Apache Tomcat installation folder>\webapps \SDMS_Boot-1.0 / WEB-INF/classes folder and open the **application.properties** file in edit mode as shown in the figure:

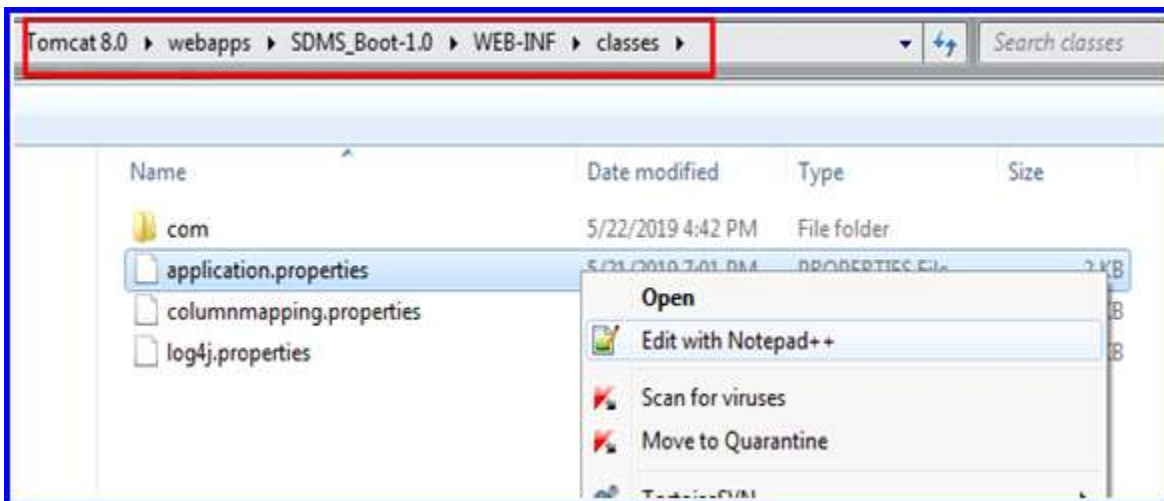


FIGURE: Copying files to Tomcat\Webapps folder

3.3.1 Configure SDMS

- To configure database for SDMS, update the code as follows:


```

spring.sdms.datasource.url =jdbc:sqlserver://<your SQLserver name >
Database= <your Database Name>

sdms.databasesname = <your Database name>

spring.sdms.datasource.username = <your SQL server user name>

spring.sdms.datasource.password = <your SQL server password)
    
```

Refer the sample code:

```

spring.sdms.datasource.url =jdbc:sqlserver://AGD33\\SQLEXPRESS2014;Database=SDMSWEB
sdms.databasesname = SDMSWEB
spring.sdms.datasource.username = sa
spring.sdms.datasource.password = admin123
spring.sdms.datasource.driver-class-name =com.microsoft.sqlserver.jdbc.SQLServerDriver
    
```

3.3.2 Configure ELN

- To configure database for ELN, update the code as follows:

```

spring.eln.datasource.url =jdbc:sqlserver://<your SQL server name>;
Database=<your Database Name>

eln.databasesname = <your Database Name>

eln.database = false //This property is used to enable ELN, change to "true" to
enable ELN

spring.eln.datasource.username = <your SQL server user name>

spring.eln.datasource.password = <your SQL server user name Password>
    
```

Refer the sample code:

```

spring.eln.datasource.url =jdbc:sqlserver://AGD33\\SQLEXPRESS2014;Database=ELNBRISTOL
eln.databasesname = ELNBRISTOL
eln.database = false
spring.eln.datasource.username = sa
spring.eln.datasource.password = admin123
spring.eln.datasource.driver-class-name =com.microsoft.sqlserver.jdbc.SQLServerDriver
    
```

3.3.3 Configure Archive

4. To configure database for Archive, update the code as follows:

i) *spring.archive.datasource.url = jdbc:sqlserver:// <your SQL server name>;
Database=<your ARCHIVE Database Name>*

ii) *archive.databasesname = <your ARCHIVE Database Name>*

NOTE: *If there is no existing Archive database it will be created automatically in the name provided by you in property(i)*

iii) *archive.database = true (This Property should always remain true, Which is used to create database automatically if it does not exists)*

iv) *spring.archive.datasource.username = <your SQL server user name>*

v) *spring.archive.datasource.password = <your SQL server password>*

Refer the sample code:

```
spring.archive.datasource.url =jdbc:sqlserver://AGD33\\SQLEXPRESS2014;Database=LSDMSAUDITARCHIVE
archive.databasesname = LSDMSAUDITARCHIVE
archive.database = true
spring.archive.datasource.username = sa
spring.archive.datasource.password = admin123
spring.archive.datasource.driver-class-name =com.microsoft.sqlserver.jdbc.SQLServerDriver
```

5. Ensure that the paths of **sdmstemp.path.location** and **sdmschat.path.location** properties are correct.
6. Verify **sdmstomcat.filepath.location** = **http://\\ag33:8080\\SDMSTempPath**. (ag33 - machine name, 8080 - Tomcat Port number)

Refer the sample code:

```

application.properties
1 spring.sdms.datasource.url=jdbc:sqlserver://AGD33\\SQLEXPRESS2014;Database=SDMSWEB
2 sdms.databasename = SDMSWEB
3 spring.sdms.datasource.username = sa
4 spring.sdms.datasource.password = admin123
5 spring.sdms.datasource.driver-class-name=com.microsoft.sqlserver.jdbc.SQLServerDriver
6
7 spring.eln.datasource.url=jdbc:sqlserver://AGD33\\SQLEXPRESS2014;Database=ELNBRISTOL
8 eln.databasename = ELNBRISTOL
9 eln.database = false
10 spring.eln.datasource.username = sa
11 spring.eln.datasource.password = admin123
12 spring.eln.datasource.driver-class-name=com.microsoft.sqlserver.jdbc.SQLServerDriver
13
14 spring.archive.datasource.url=jdbc:sqlserver://AGD33\\SQLEXPRESS2014;Database=LSDMSAUDITARCHIVE
15 archive.databasename = LSDMSAUDITARCHIVE
16 archive.database = true
17 spring.archive.datasource.username = sa
18 spring.archive.datasource.password = admin123
19 spring.archive.datasource.driver-class-name=com.microsoft.sqlserver.jdbc.SQLServerDriver
20
21
22 spring.jpa.show-sql = true
23 spring.jpa.hibernate.ddl-auto = validate
24 spring.jpa.properties.hibernate.dialect = org.hibernate.dialect.SQLServerDialect
25 server.port = 8094
26 server.servlet.contextPath = /SDMS
27 spring.jpa.properties.hibernate.current_session_context_class = org.springframework.orm.hibernate5.SpringSessionContext
28
29 sdmstemp.path.location = C:\\Program Files\\Apache Software Foundation\\Tomcat 8.0\\webapps\\SDMSTempPath
30 sdmchat.path.location = C:\\Program Files\\Apache Software Foundation\\Tomcat 8.0\\webapps\\SDMSChatPath
31 sdmstomcat.file.path.location = http:\\\\agd33:8080\\SDMSTempPath

```

3.4 Updating Domain URL in commonfunction.js file

1. Go to the <Apache Tomcat installation folder>\webapps \ SDMS_Web/js/customize folder and open the **commonfunction.js** file in edit mode as shown in the figure:

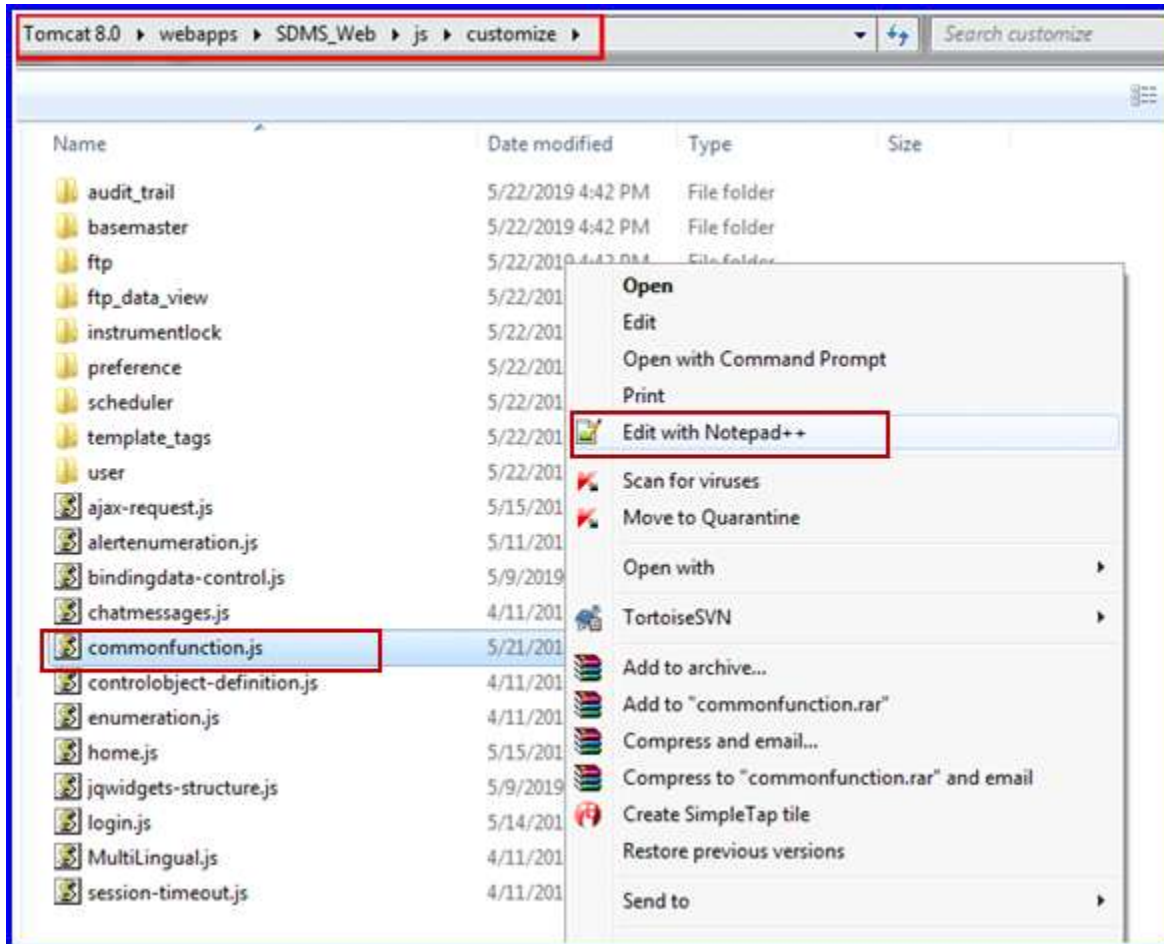


FIGURE:- Updating Domain URL in commonfunction.js file

2. Update the DomainURL as shown below:

```
var DomainURL = http://<your machine name>:<your Tomcat port number>/SDMS Boot-1.0 (or) "; http://<your Network IP address>:<your Tomcat port number>/SDMS Boot-1.0
```

For example:

["http://agd33:8080/SDMS Boot-1.0"](http://agd33:8080/SDMS Boot-1.0)

“agd33” is the Machine name

Alternatively, you can also type your network IP address instead of the machine name.

["http://192.168.0.173:8080/SDMS Boot-1.0"](http://192.168.0.173:8080/SDMS Boot-1.0)

192.168.0.173 is the network IP address

8080 is the Tomcat Port number.

```

commonfunction.js
1  var UrlOrigin = window.location.origin;
2
3  function CF_DomainReturnServer() {
4      var DomainURL = "http://agq33:8080/SDMS_Boot-1.0";
5      return DomainURL;
6  }
7
    
```

Machine name Tomcat Port number

3.5 Updating log4j.properties file

1. Go to the <Apache Tomcat installation folder>\webapps \SDMS_Boot-1.0 / WEB-INF/classes folder and open the **log4j.properties** file in edit mode as shown in the figure:

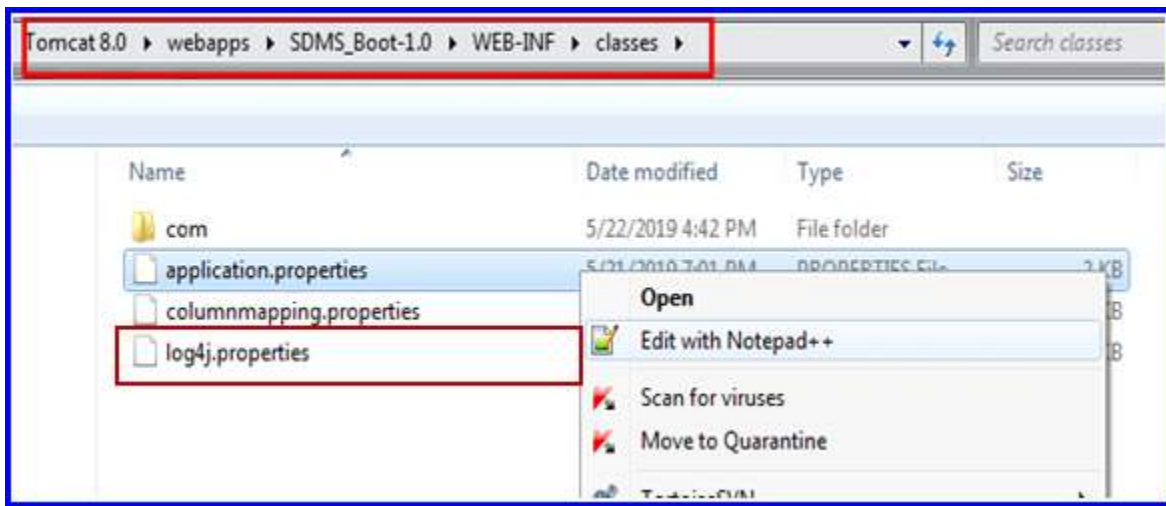


FIGURE: Updating log4j.properties file

Here in the log4j.properties file you configure path to store SDMS log files. All SDMS activities, errors and exceptions are stored in his log file. To do so, update the code as follows:

```

Log4j.appender.file.File=c:\Program Files\Apache Software
Foundation\Tomcat 8.0\webapps\SDMSAppLogs\sdmslog.logs

//sdmslog.logs – log file name. And the same will be created in the given path
    
```

Refer the sample code:

```

log4j.properties
1 # Root logger option
2 log4j.rootLogger=DEBUG, stdout, file
3
4 # Redirect log messages to console
5 #log4j.appender.stdout=org.apache.log4j.ConsoleAppender
6 #log4j.appender.stdout.Target=System.out
7 #log4j.appender.stdout.layout=org.apache.log4j.PatternLayout
8 #log4j.appender.stdout.layout.ConversionPattern=%d{yyyy-MM-dd HH:mm:ss} %-5p %c{1}:%L - %m%n
9
10 # Redirect log messages to a log file
11 log4j.appender.file=org.apache.log4j.RollingFileAppender
12 #outputs to Tomcat home
13 log4j.appender.file.File=C:\\Program Files\\Apache Software Foundation\\Tomcat 8.0\\webapps\\SDMSAppLogs\\sdmslogs.log
14 log4j.appender.file.MaxFileSize=5MB
15 log4j.appender.file.MaxBackupIndex=10
16 log4j.appender.file.layout=org.apache.log4j.PatternLayout
17 log4j.appender.file.layout.ConversionPattern=%d{yyyy-MM-dd HH:mm:ss} %-5p %c{1}:%L - %m%n
18

```

3.6 Restarting Tomcat Service

To restart Tomcat service, follow these steps:

1. Click **Start**.
2. In the Search bar, type “**Services**”. And then click **View local services** as shown in the figure:

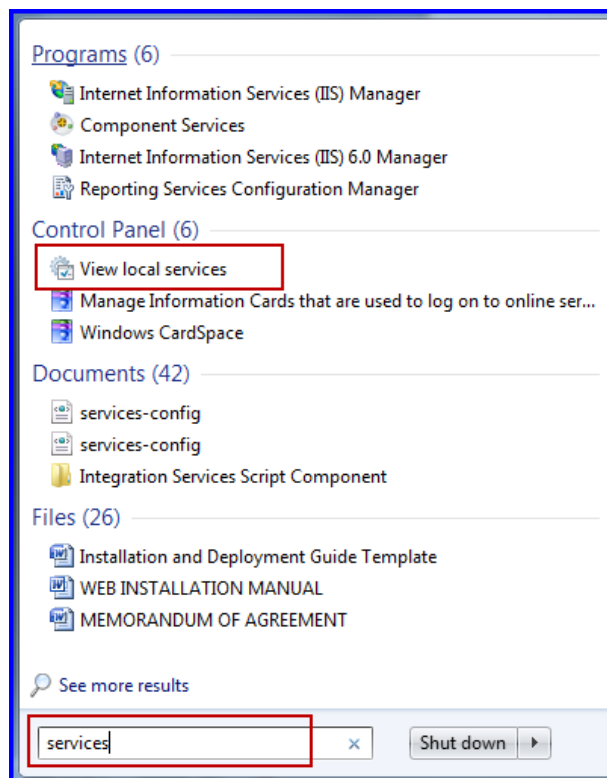


FIGURE:- Restarting Tomcat Service

3. In the **Services** screen, click to select the **Apache Tomcat Service** and then click **Restart** as shown in the figure:

3.7 Creating FTP site for SDMS in IIS

1. Click **Start**.
2. In the Search bar, type “**IIS**”. And then click **Internet Information services (IIS) Manager** as shown in the figure:

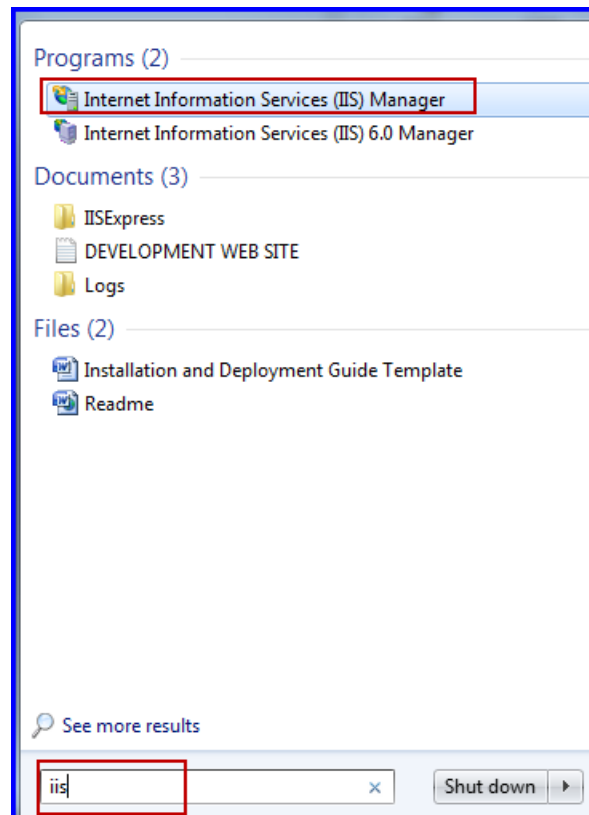


FIGURE: – Open IIS Manager

3. In the **Connections** pane, right click **Sites** and then click **Add FTP Site...**

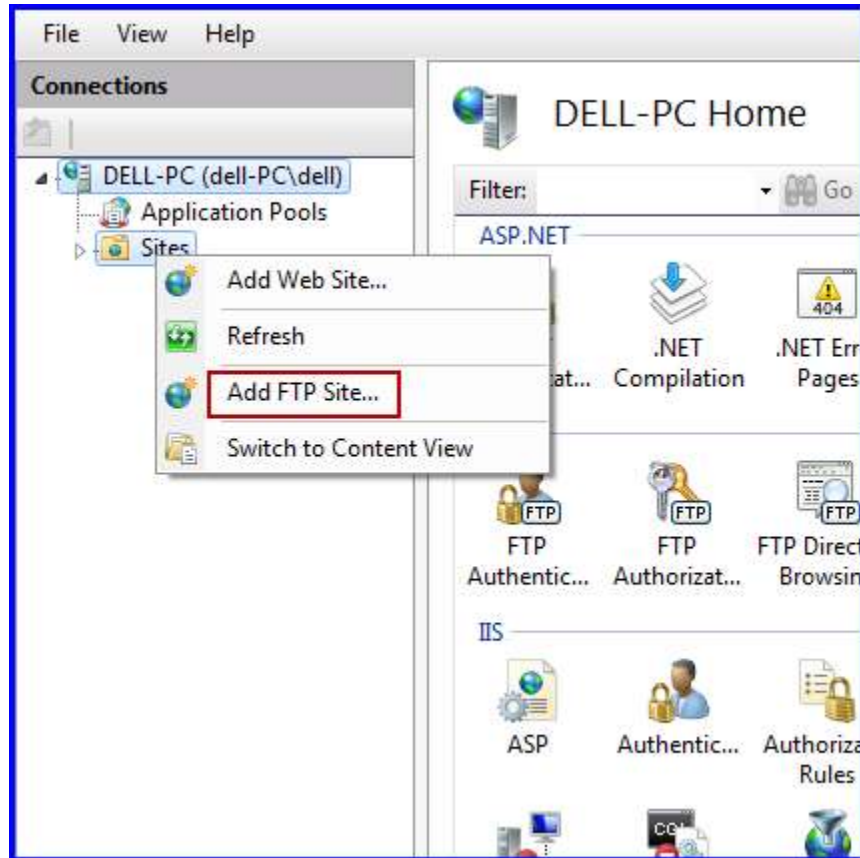


FIGURE: – IIS Manager Adding FTP Site

4. The Add FTP Site dialog appears as shown in the figure:

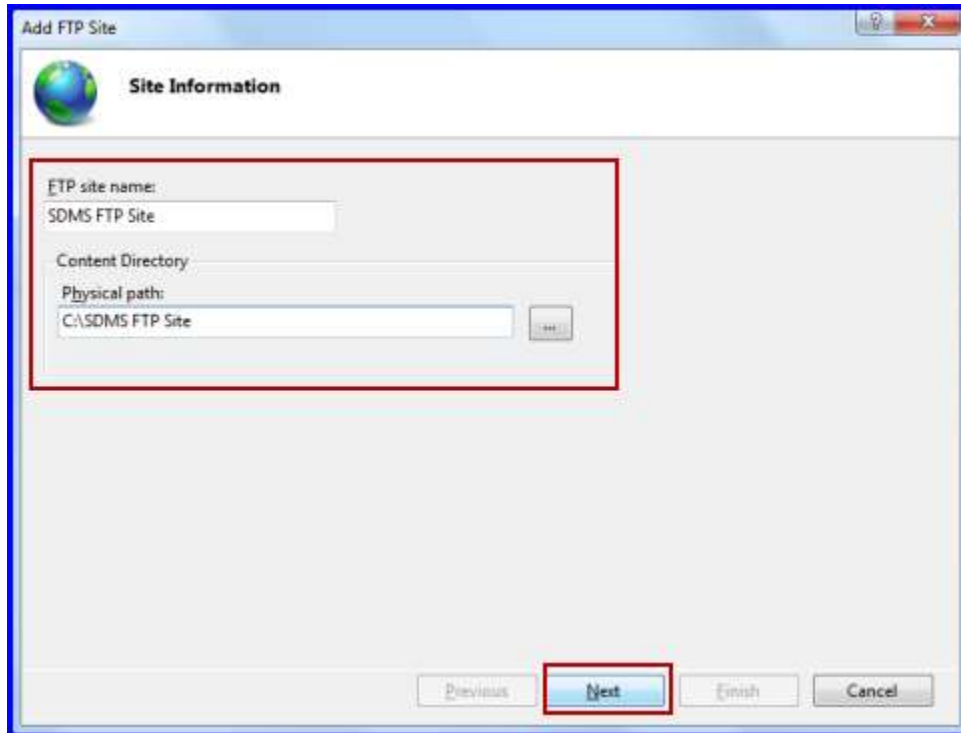


FIGURE: - Add FTP Site

5. In the **FTP Site Name** box, type a name for your new FTP site that you want to create.
6. In the **Physical Path** box, type a storage path or navigate and locate a folder to store FTP files.
7. Click **Next**.

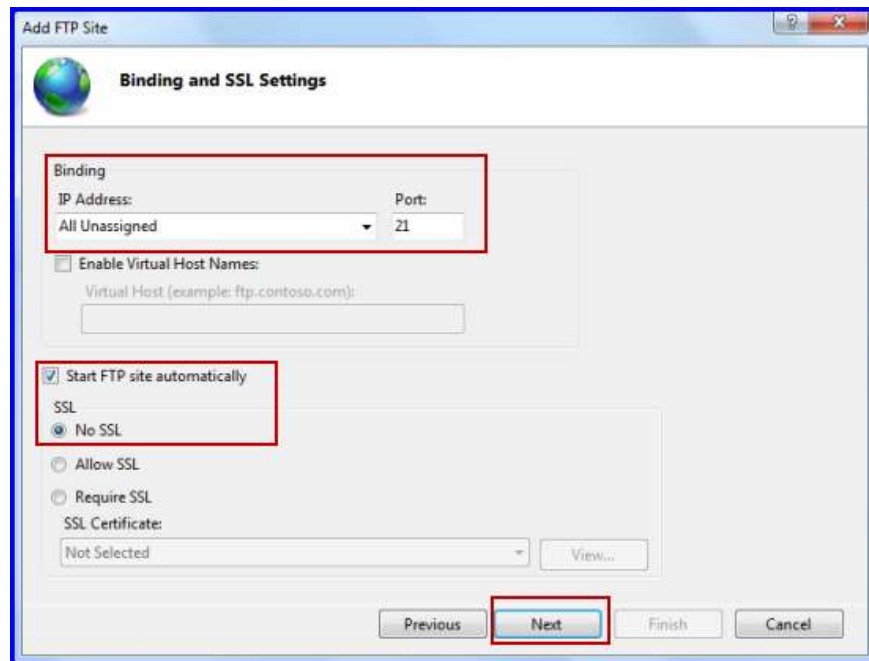


FIGURE: - Add FTP Site –Binding and SSL Settings

8. Under Binding, ensure that in the **IP Address** box, **All Unassigned** is selected. In the **Port** box type 21.
9. Under **SSL**, click to select **No SSL** and then click **Next**. The **Authentication and Authorization Information** dialog appears as shown in the figure:

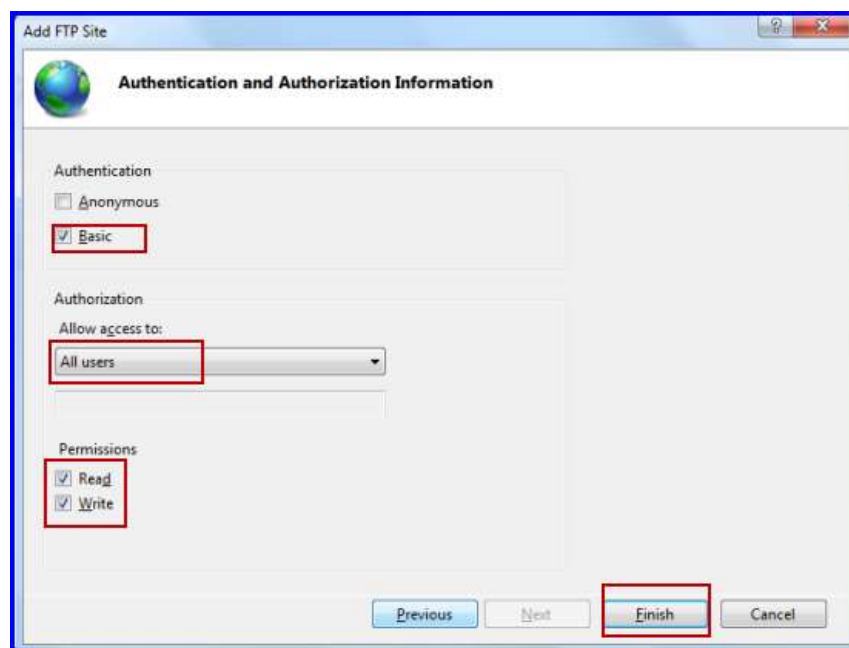


FIGURE: - Add FTP Site – Authentication and Authorization Information dialog

10. Under **Authentication**, select **Basic**.
11. Under **Authorization**, select **All Users** under **Allow Access to**.
12. Under **Permissions**, click to check both **Read** and **Write** access.
13. Then click **Finish**.

3.7.1 Defining Access Permission for FTP Site

1. Right click the FTP site that you created and then click **Basic Settings** as shown in the figure:

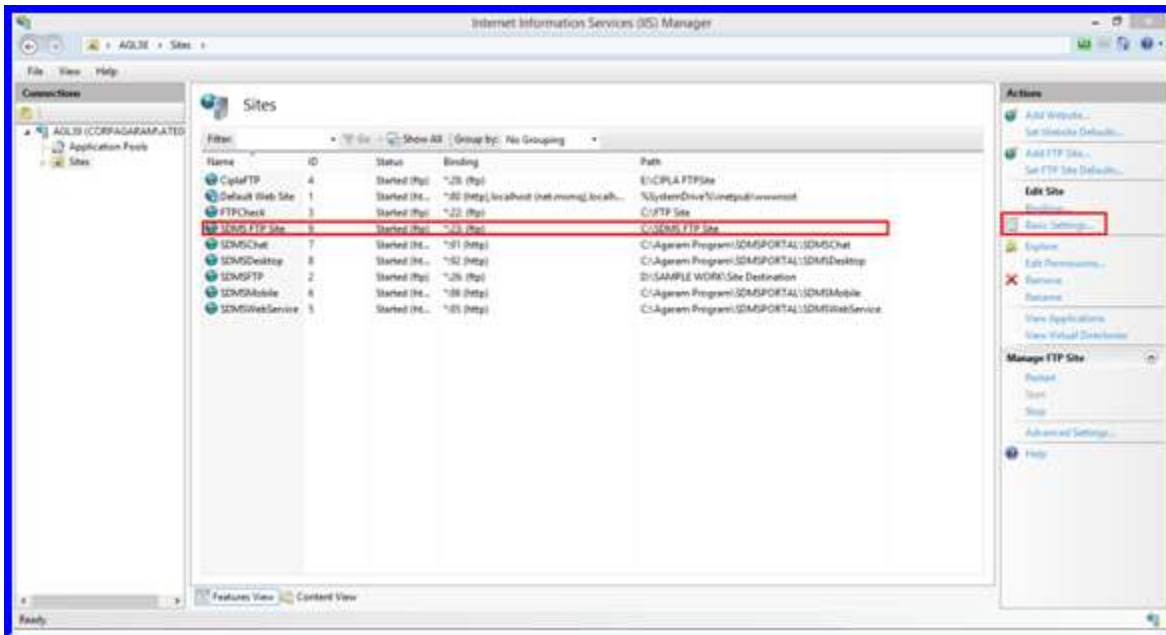


FIGURE: - Defining Access to FTP Site

2. The **Edit Site** dialog appears. In the **Edit Site** dialog, click **Connect As**.
3. In the **Connect As** dialog, under **Path Credentials** click to select **Specific user** and then click **Set** as shown in the figure:

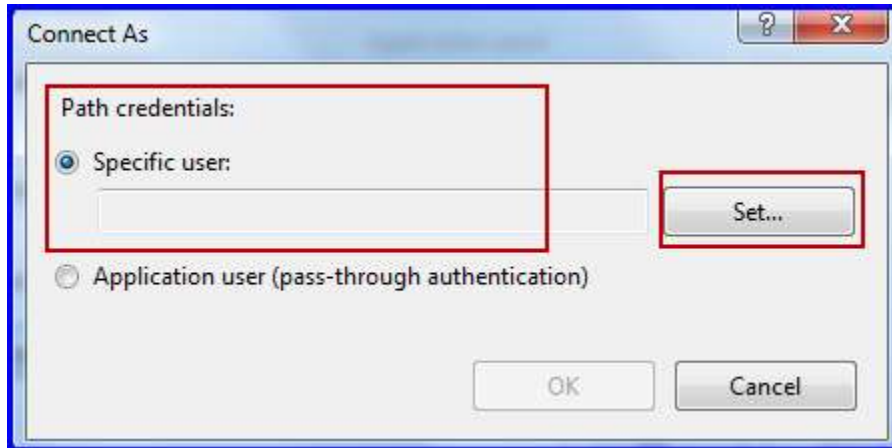


FIGURE: - Connect As Dialog

4. The **Set Credentials** dialog appears as shown in the figure:

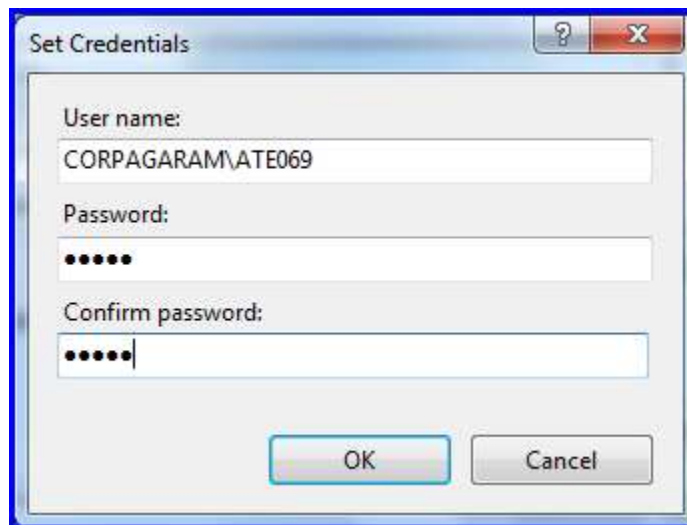


FIGURE: - Set Credentials Dialog

If you already have a Domain, Specify user name and Password of the domain or you can also set your system (that you create FTP Site) user name and password here.

5. Click Ok.
6. In the **Connect As** dialog, click **Ok**.
7. In the **Edit Site** dialog, click **Test Settings**.

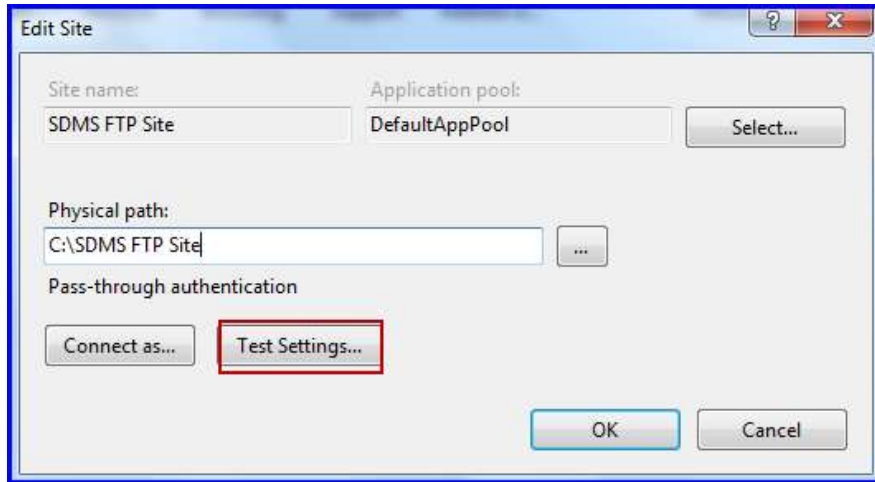


FIGURE: - Edit Site Dialog

8. On successful authentication and authorization you will see a message as shown below:

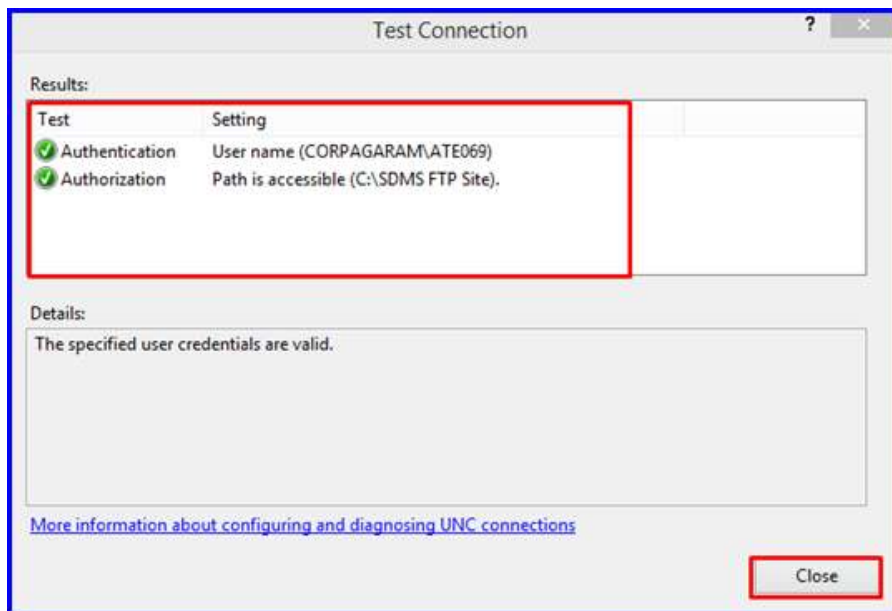


FIGURE: - Test Connection Dialog

9. Click **Close**.
10. Click **Close** again to close the **Edit Site** dialog.

3.8 LogiLAB SDMS Web Basic Configuration

3.8.1 Creating Site

Once you complete all the above steps, you can run LogiLAB SDMS Web application. While you run the Web application for the first time, you will be prompted to create a site. To do so, follow these steps:

1. Open Google Chrome, in the address bar type http://AGD37:8080/SDMS_Web/Login.html and then press ENTER. The **Site Master** screen appears as shown in the figure:

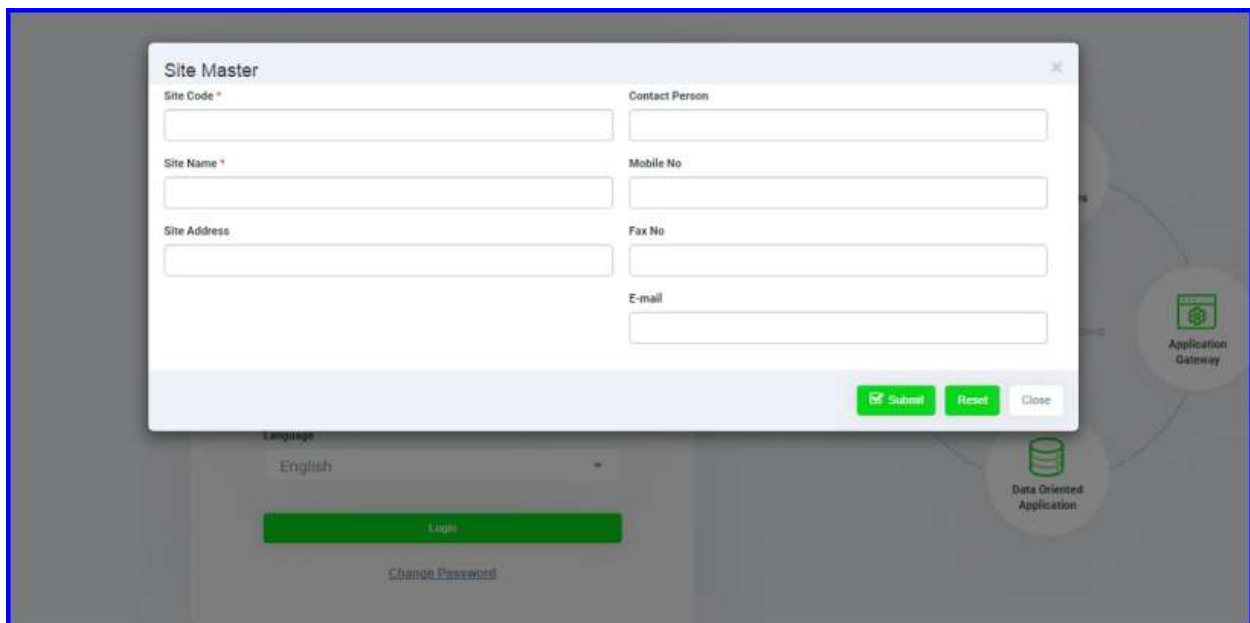


FIGURE: - Site Master Screen

2. In the **Site Code** box, type the site code.
3. In the **Site Name** box, type a name for the site.
4. Fill in other fields whichever is applicable. Click **Submit**.

3.8.2 First Time Login

1. First time when you log in to the SDMS Web application, login as administrator. You must create password in the first login.

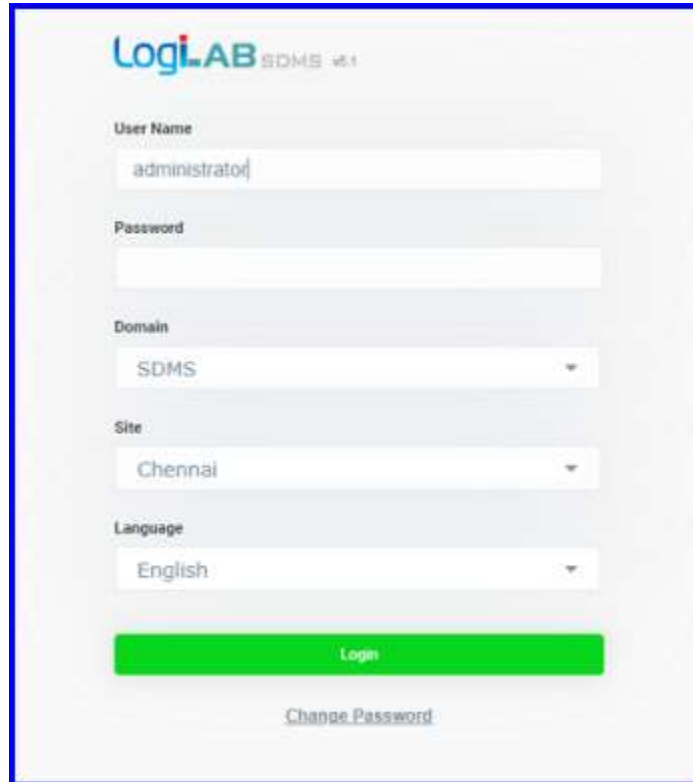
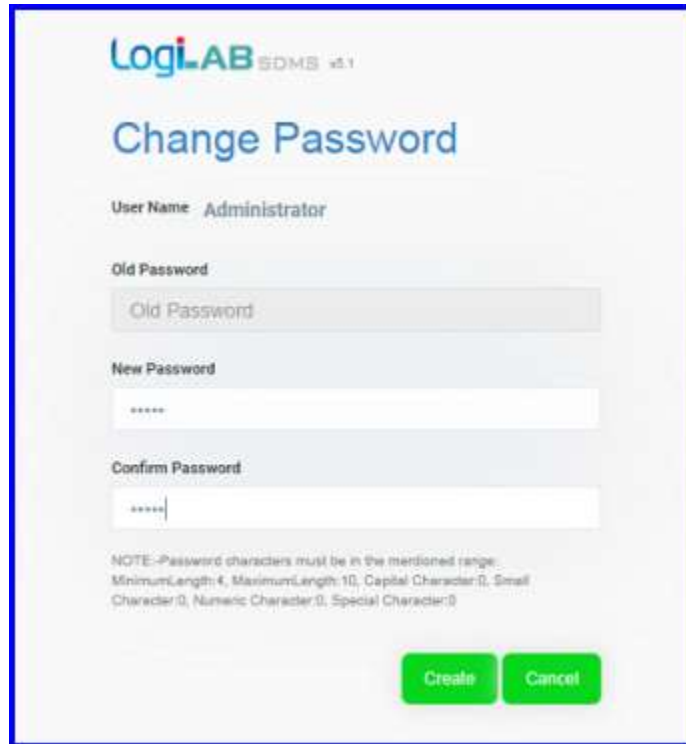


FIGURE: - First time Login

2. In the **User Name** box, type “Administrator”.
3. When you move cursor to the **Password** box, the **Change Password** screen appears as shown in the figure:



LogiLAB SDMS v5.1

Change Password

User Name Administrator

Old Password

Old Password

New Password

Confirm Password

NOTE-Password characters must be in the mentioned range:
MinimumLength:4, MaximumLength:10, Capital Character:0, Small
Character:0, Numeric Character:0, Special Character:0

Create Cancel

FIGURE: - First time Login – Create Password

4. In the **New Password** and **Confirm Password** boxes, type/create your password.
5. Click **Create**.
6. Log in as administrator with new password created.