

MetricStream Universal Installer



INSTALLATION GUIDE

(FOR LINUX)

RELEASE 6.1 SP1 - PATCH 3

SEPTEMBER 2014

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About This Guide

Preface

The MetricStream **MetricStream Universal Installer Installation Guide Release 6.1 SP1 - Patch 3** provides information on using the MetricStream **MetricStream Universal Installer** (MSUI) tool. The **MetricStream Universal Installer** tool is used to install and configure database, web server, EGRCP and other MetricStream applications.

Documentation Conventions

The following conventions are used in this document.

Conventions	Description
Note:	Key pointers, in the form of notes, to help you use this application effectively and efficiently are provided throughout this guide. You can recognize a note when you come across a new paragraph in italics with the word 'Note' in red at the beginning of the paragraph. For example: Note: <i>The installer uses the parameters from the property file to perform its task, make sure you enter the enter correct values in the file before the installation.</i>
Boldface	All MetricStream application names, software references, and document names appear in boldface. Examples: <ul style="list-style-type: none"> Application Name: MetricStream Universal Installer Software reference: Selected Installers pane
	References to different topics within this User Guide. For example:  <i>For more information on the parameters, refer to the Appendix section.</i>

Target Audience

This guide is intended for users who want to install and use the **MetricStream Universal Installer** tool. This tool is used for installing MetricStream applications such as EGRCP, Audit Management, Risk Management, and so on.

Chapter Summaries

This guide consists of the following chapters.

Chapter Title	Description
MSUI - Features and Prerequisites	Provides an overview on the MetricStream Universal Installer application.
Installing MSUI	Provides information on how to install MSUI.
Installing GRC Platform and Applications	Provides information on installing GRC platform and other MetricStream applications using MSUI .
Appendix	Provides information on the Parameters.properties file.

Related Documents

You can refer to the following documents:

- MetricStream Universal Installer Guide Windows Release 6.1 SP1 - Patch 3

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MSUI - Features and Prerequisites

This chapter provides an overview on the **MetricStream Universal Installer** tool, minimum system requirements to install the **MetricStream Universal Installer**.

Sections of this chapter:

1. [Key Features of MSUI](#)
2. [Prerequisites and Assumptions](#)
3. [Software and Hardware Requirements](#)
4. [Additional Requirements](#)

Key Features of MSUI

Following are the important features of MSUI:

- Easy installation, upgrade, and configuration of Apache and Tomcat servers
- Installation, upgrade, and configuration of GRC platform and other MetricStream applications
- Configurator interface to modify the client.config.xml values
- Log records of installation for easy debugging of errors
- Database verification of prerequisites
- Automatic backups of files while upgrading the applications
- Automatic update of client.config.xml values after installation of GRC platform and applications
- Dependency check across modules and versions and related alert messages to complete the installations
- Supports silent (command line) and GUI modes of installation

Prerequisites and Assumptions

The following are the prerequisites and assumptions for Installing MSUI:

- An application server is a database server
- Oracle client must be present and installed on the application server (This prerequisite will be deprecated shortly)
- Minimum of 5GB free space on application server and 7GB on database server
- The MSUI supports any combination of operating system on application and database server

Software and Hardware Requirements

The following table provides the hardware and software requirements for installing MSUI.

Type	Requirement
Operating System	Red Hat Enterprise Linux, CentOS Linux (32-bit and 64-bit)
RAM	4GB
HDD Size	40GB
Application Servers	Oracle 11.2.0.3 (client and Server) with a database schema
MSUI	6.1 SP1

Additional Requirements

- The MSUI supports Apache and Tomcat installations. Any server installation other than Apache and Tomcat is handled manually.
- You need to complete the database, web server installation, and configuration before installing the MetricStream applications.

Installing MSUI

This chapter provides information on how to install **MSUI**.

Sections of this chapter:

1. [Installation Overview](#)
2. [Command Line \(Silent\) Installation](#)
3. [Re-Installing MSUI](#)

Installation Overview

You can install **MSUI** using the command line on Linux and GUI on windows. The command line installation is also termed as silent installation and you can execute the installer using Putty or Linux terminal.

Command Line (Silent) Installation

To install MSUI for Linux platform using the command line, perform the following steps:

Step 1 Download the installer software `MS_Universal_Installer.bin`.

Note: Provide execute permission to `MS_Universal_Installer.bin` (`chmod 755 MS_Universal_Installer.bin`).

Step 2 Execute the following command in the directory that contains the downloaded installer

```
./MS_Universal_Installer.bin < MetricStream Installation directory>
```

The following message appears.

```

[opt]# ./MS_Universal_Installer.bin /opt/MetricStreamInstallationDirectory
***INFO:Installing MSUI into /opt/MetricStreamInstallationDirectory
***PROGRESS:Please Wait ... This process will take few minutes

***COMPLETED:Finished Installing MSUI.
.....
***INFO:1 - Update the /opt/MetricStreamInstallationDirectory/MS_Universal_Installer/msui/parameters.properties file with all values.
***INFO:2 - Run /opt/MetricStreamInstallationDirectory/MS_Universal_Installer/MS_Universal_Installer.sh to start Metricstream configuration / Installation.
.....

```

Figure 1: MSUI Installation Message

After installation the following directories are created in the **MSUI** installed folder.

```

MS_Installers
MS_Universal_Installer
SYSTEMi

```

Figure 2: Installation Directories

Re-Installing MSUI

To re-install **MUSI**, perform the following step:

- Extract a backup of the MS_Universal_Installer directory and re-install in the same location.

Installing GRC Platform and Applications

This chapter provides information on installing GRC platform and other MetricStream applications using **MSUI**.

Sections of this chapter:

1. [Pointers Before Installing GRC Platform and Applications](#)
2.
 - [Using MSUI Command Line Interface](#)
 - [Commands](#)
 - [Command Options](#)
3.
 - [Using the MSUI-GUI Interface](#)
 - [Database Configuration](#)
 - [EGRCP Configuration](#)
 - [Web Sever Configuration](#)
 - [Application Server Configuration](#)
 - [Install Modules](#)
4. [Pointers After Installing EGRCP and Other Applications](#)

Pointers Before Installing GRC Platform and Applications

The below points are to be considered before you install EGRC and other applications using the Command Line interface (CLI):

- Edit the property file of the MetricStream Installation directory\MS_Universal_Installer\msui\parameters.Properties with the relevant values for your installation.



For more information on the parameters, refer to the [Appendix](#) section.

Note: *The installer uses the parameters from the property file to perform its task, make sure you enter the enter correct values in the file before the installation.*

- The default location for the parameters.properties file is MetricStream Installation directory\MS_Universal_Installer\msui\. The entries in the Installer_List.txt must contain the list of modules to be installed. The entries in the Installer_list.txt file must be the name of the installer file including the extension. for example, ISM_6.1.1.jar
- Do not delete or rename the text file Installer_List.txt present in the MS_Installers directory.

Using MSUI Command Line Interface

To install EGRCP using MSUI Command line interface, perform the following steps:

Step 1 Change the working directory to MetricStream Installation directory\MS_Universal_Installer

Step 2 Run the following command.

```
./MS_Universal_Installer.sh [-f] [-health] [-help] [-p <schemapassword>] [-s <sys-  
tempassword>]
```

The installer is invoked. To continue the installation use the commands provided in the below table.

Note: *If the schema already exists, then MSUI installs the products mentioned in the Installer_list.properties.*

Commands

The following table provides the commands and its descriptions.

Command	Use this Command to...	Usage
-f	Run in command/shell mode with force installation.	Not applicable
-health	Validate the system health.	<p>This command prompts the user to provide the schema password. If valid password is entered, it performs the validation and generates the report. The reports are available at MetricStream Installation directory\logDir or in the log directory configured in the parameters.properties. The file name is HealthCheck_(timestamp).html The output for the command is given below:</p> <pre> ..\MS_Universal_Installer>MS_universal_Installer -health MetricStream Universal Installer - [Version - 6.1.1.0 Alpha] Press ENTER to use the property file from default location OR provide the fully qualified path of the property file:[ENTER] Next, system will prompt for the properties file as: Input: Enter Oracle Schema Password (Invisible):: </pre>
-help	View the version numbers and available options for installation.	<pre> usage: ./MS_Universal_Installer.sh [-f] [-health] [-help] [-i] [-p <schemaPassword>] [-s <systemPassword>] -f Script will Run in Command/Shell Mode with force installation. -health Health check of Database -help To see the Version and Available Options. -i For Interactive Mode Installation. Supported Only on GUI Console (eg: XManager). -p <schemaPassword> Silent boot Mode for EGRCP and Module Installation. -s <systemPassword> Silent boot Mode for 1. Installing and configuring Apache. 2. Installing and configuring Tomcat. 3. Creating database schema if not present and 4. Installation of EGRCP and modules. </pre>

Command	Use this Command to...	Usage
<p>-s <system password> -p <schema password> -f</p>	<p>Run the installers in silent mode.</p>	<p>Use this command to install individual applications. If you want to install any application, copy the installers or jars to MetricStream Installation directory\MS_Installers directory. Make an entry (installer name with extension) in the Installer_List.txt file in the order in which the modules need to be installed before initiating the installation process.</p> <p>If the schema password is not entered in the command line, then the system will prompt for the schema password.</p> <p>The output for the command is given below:</p> <pre> ..MS_Universal_Installer>MS_universal_Installer -p MetricStream Universal Installer - [Version - 6.1.1.0 Alpha] Input: Enter Oracle Schema Password (Invisible):: </pre>
<p>-p <schemapassword> -F and -s</p>	<p>Run the GRCG platform and application installers in silent mode.</p>	<ul style="list-style-type: none"> ● -p <schemapassword> -f option is used for force installation of modules. (that is, reinstall even if the application is successfully installed earlier). ● -p <schemapassword> -s option perform a silent installation of the modules specified in the Installer_list.txt file. Copy the installers or jars to MetricStream Installation directory\MS_Installers directory. Make an entry (installer name with extension) in the Installer_List.txt file in the order in which the modules need to be installed before initiating the installation process. The system will prompt the user for the schema password. <ul style="list-style-type: none"> ○ Next, system will prompt for the properties file as shown below: <pre> Press ENTER to use the property file from default location OR provide the fully qualified path of the property file:[ENTER] </pre> <p>After choosing -s option the system allows the user to perform the following administrative related activities:</p> <p>If the system password is not entered in the command line, the system prompts the user to enter the system password as shown below:</p> <pre> ..\MS_Universal_Installer>MS_universal_Installer.bat -s MetricStream Universal Installer - [Version - 6.1.1.0 Alpha] Input: Enter Oracle System Password (Invisible):: </pre> <ul style="list-style-type: none"> ○ System prompts for the properties file as shown below: <pre> Press ENTER to use the property file from default location OR provide the fully qualified path of the property file:[ENTER] </pre>

Command	Use this Command to...	Usage
		<ul style="list-style-type: none"> • If <code>-p</code> option and schema password is not available on the command line along with <code>-p</code>, then the system displays the message to the user for providing valid schema password. • If valid system password and schema password is entered, and if MSUI cannot find the schema in the database mentioned, then the system will prompt the user as shown below: <pre> 2013/07/24 10:33:09 DEBUG MSUI : MetricStream Universal Installer - [Version - 6.1.0.0 Alpha] Install Apache and Tomcat? [y/n]: y Configure Apache and Tomcat? [y/n]: y Configure Database? [y/n]: y Install the Applications? [y/n]: y CONFIRM : Are you sure ? [Y/N]: y </pre>



For more information on command options, refer to the below table.

Command Options

The following table provides information on the command options. These options enables you to install Apache, Tomcat, and configure the database. The entries in the `Installer_List.txt` contain the list of modules to be installed. The installer performs a validation of the data provided and you can view the results at `MetricStream Installation directory\MS_Universal_Installer\HealthCheck_xxx(timestamp).html`.

Option	Description
<i>Install Apache and Tomcat? [y/n]</i>	<ul style="list-style-type: none"> • Y: To install Apache, select this option • N: To skip installation of Apache, select this option.
<i>Configure Apache and Tomcat? [y/n]</i>	<ul style="list-style-type: none"> • Y: To install Tomcat, select this option • N: To skip installation of Tomcat, select this option.
<i>Configure Database? [y/n]</i>	<ul style="list-style-type: none"> • Y: If you want the installer to perform the database configuration, select this option. • N: If you do not want the installer to perform the database configuration, select this option. <p>Note: You can use the option <code>y</code> where the database configuration is yet to be done.</p>

Option	Description
<i>Install the Applications? [y/n]</i>	<ul style="list-style-type: none"> ● Y: To install selected applications, select this option. ● N: To skip installation of selected applications, select this option. <p>Note: <i>To install any application, copy the installers or jars to MetricStream Installation directory\MS_Installers directory. Make an entry (installer name with extension) in the Installer_List.txt file in the order in which the modules need to be installed.</i></p>
<i>CONFIRM: Are you sure? [Y/N]</i>	<ul style="list-style-type: none"> ● Y: To confirm the choice and continue the installation, select this option. ● N: To reenter the choice and cancel the installation, select this option.

Using the MSUI-GUI Interface

You can install the EGRC and other applications using the MSUI interface. To perform tasks using the GUI installation, you need to use Xmanager or any other tool which supports Linux GUI based installation.

The following figure depicts the MSUI interface.

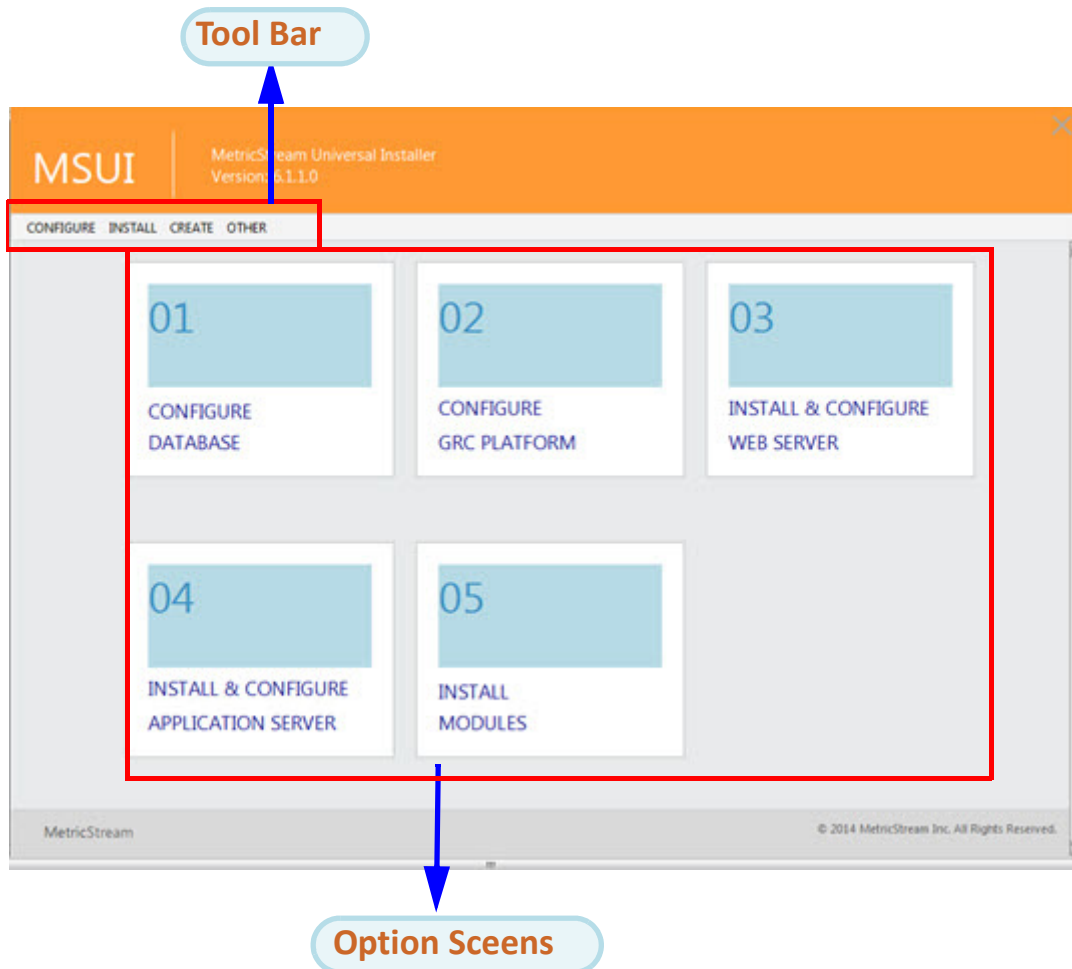


Figure 3: MSUI Interface

The **MSUI** interface comprises the following options.

Option Screen Number	Use this Option to...
01	Configure the Database
02	Configure the GRC platform.
03	Install and configure the Tomcat server.
04	Configure the Web server.
05	Install the selected applications.

Database Configuration

Use the **Database Configuration** screen to provide the database configuration details. You must provide the valid database details in this screen. The following table provides the fields of this screen.

Figure 4: Database Configuration Screen

Field Name	Type the...
Database URL	URL of the target DB. Example: jdbc:oracle:thin:@localhost:1521:orcl
Database Driver	Driver of the database. Example: oracle.jdbc.OracleDriver
System Password	Password for the DB system.
Schema User Name	Name of the DB schema that you want to create.
Schema Password	Password of the DB schema that you want to create.
Confirm Schema Password	Re-enter the same password entered in the Schema Password field.
Data Tablespace Name	Name of the tablespace that you want to create.
Data Tablespace Location	Physical location of the DB tablespace.
Index Tablespace Name	Name of the index tablespace that you want to create.
Index Tablespace Location	Physical location of the index tablespace.
Temp Tablespace Name	Name of the temp tablespace.
Default Locale	Default language that needs to be considered.

EGRCP Configuration

Use the **Configure GRC Platform** screen to configure the GRC platform. The information provided in this screen is used by MSUI to configure EGRCP whenever it is installed or upgraded.

Field Name	Description
Deployment Type	Displays the value "Single Node Deployment".
Use Secure Installation	Yes: If you want to secure the installation, select this option. No: If you do not want to secure the installation, select this option.
Min Heap Size	Type the minimum heap size. Example: 256m
Max Heap Size	Type the maximum heap size. Example: 1024m
Enterprise Name	Type the Enterprise name. Example: MetricStream Note: 'ECP' must not be provided as the Enterprise Name.
Webserver Admin Email	Type the e-mail ID of the admin server. Example: abcd@metricstream.com
Webserver Domain Name	Type the name of the domain web server. Example: msi-l1234.metricstream.com
Work Flow Host Name	Type the workflow host name. Example: msi-l1234.metricstream.com
Agent Port Number(SQL Infolet)	Type the port number for SQL infolet. Example: 8277
Agent Port Number(Non-SQL Infolet)	Type the port number for non-SQL infolet.
Web Service Port Number	Type the port number of the web server. Example: 8279
Log Directory	Type the name of the directory where MSUI needs to record the logs.

Web Sever Configuration

Use the **Web Sever Configuration** screen to configure the Apache web server. The following table provides the fields of this screen.

Figure 5: Web Server Configuration

Field Name	Type the...
Web Server Host Name	Name of the host server. Example: msi-l1234.metricstream.com
Web Server Service Name	Name of the Apache server that needs to be created. Example: MSApache25
Web Server Port Number	Port number of the Apache server that needs to be created. Example: 8055

Application Server Configuration

Use the **Application Server Configuration** screen to configure the Tomcat application server. The following table provides the fields of this screen.

Figure 6: Application Server Configuration Screen

Field Name	Description
User Load balancing?	<p>This field has the following option buttons:</p> <ul style="list-style-type: none"> ● Yes: If you want to distribute the data load across multiple computing resources, select this option. ● No: If you do not want to distribute the data load across multiple computing resources, select this option. <p>Note: Load balancing optimizes resource use, maximize throughput, minimize response time, and avoid overload of any one of the resources.</p>
Tomcat Connector Port(AJP)	Type the unique port that is used for connecting Tomcat with Apache server. Example: 8217
Tomcat Connector Port(HTTP)	Type the unique port number for Tomcat to listen to HTTP requests. Example: 8218
Tomcat Control Port	Type the unique control port number for the Tomcat server. Example: 8219

Field Name	Description
Application Server Host Name	Type the host name of the sever where you want to host the Tomcat server. Example: msi-l1234.metricstream.com Note: This field is made unavailable if you select the value No in the User Load balancing? field.
Tomcat Service Name	Type the name of the Tomcat host service. Example: MSTomcat25 Note: This field is made unavailable if you select the value No in the User Load balancing? field.

Install Modules

Use the **Install Modules** screen to install the GRC platform and other applications. This screen comprises the following panes:





- Available Installers
- Selected Installers

Available Installers Pane

The **Available Installers** pane shows the list of Installers that are available. You need to place the installers in the ms_installer folder of the MSUI. You can use WinScp to copy the required installers.

Click the **Install >> Modules** option on the Tool bar to populate the list of available installers in this pane.





The following table provides the list of buttons available in this pane.

Button	Use this Button to...
	Move all the available installers from the Available Installer pane to the Selected Installer pane.
	Move the selected installers from the Available Installer pane to the Selected Installer pane.
	Move the selected installers from the Selected Installer to the Available Installer pane to pane.
	Move all the selected installers from the Selected Installer to the Available Installer pane to pane.

Selected Installers Pane

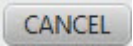

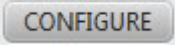
The **Selected Installers** pane shows the list of Installers that you have chosen. You need to use the buttons available in the Available Installers pane to move the required installers that you want to install. You can also define the sequence in which you want to install the applications in this pane.

The following table provides the list of buttons available in this pane.

Button	Use this Button to...
	Move the selected installer to the top.
	Move the selected installer upwards.
	Move the selected installer downwards.
	Move all the selected installers to the bottom.

MSUI Interface Buttons

The **MSUI** user interface include common buttons. The following table provides the a list of buttons and their descriptions.

Button	Use this Button to...
	Discard the entered details and close the screen. Note: After clicking this button, the MSUI start screen appears.
	Save the details entered in the screen. Note: After clicking this button, the MSUI start screen appears.
	Configure or Install the application or server.

Pointers After Installing EGRCP and Other Applications

The below points are to be considered after you install EGRCP and other applications using the command line interface (CLI):

- After installation you can view all the configuration parameters for the application at MetricStream Installation directory\MS_Universal_Installer\msui\msuiConfig.xml.
- Generate fresh license keys and copy them to MetricStream Installation directory\SYSTEMi\Systemi\keys folder.

Appendix

The following section provides information on the Parameters.properties file.

#DATABASE Parameters

Comment	Description
DatabaseHostName =	Host name of the database server
DbPort =1521	Database port
Sid=	Database name of the INSTANCE.
Oracle_Client=thin	Value as thin/ thick Oracle client [default thin]
SchemaName=	Schema Name for Metricstream Application.
TableSpace_Data=	Data Tablespace name only
TableSpace_IDX=	Index Tablespace name only
TableSpace_Idx_Location=	Complete path to the <i>TableSpace_IDX</i> without tablespace name
TableSpace_Data_Location=	Complete path to the <i>TableSpace_Data</i> without table space name
TableSpace_Temp=TEMP	Use value TEMP tablespace name
EnterpriseName=	Enterprise name for Metricstream Application
Locale=en_US	Default locale
DataBaseDriverName=oracle.jdbc.OracleDriver	The driver class for database connection
JdbcExecutionFlag=No	Whether the JDBC connection needs to be used for running Database scripts or not

#APACHE Parameters

Comment	Description
Deployment_Type=Single	Single / multi node deployment [default single]
HostName=	Metricstream application host name
WebServer_HostName=	MetricStream Web server Name
Admin_Email=	admin email id to be used
Webserver_Port=8085	Metricstream application host name
WorkFlow_HostName=	Host name
Sql_AgentPort=8274	Metricstream application host name
NonSql_AgentPort=8278	Metricstream application host name
Secure_Option=No	Metricstream application host name
Java_Min_HeapSize=256m	Minimum value for the heap size to be used by JVM

Comment	Description
Java_Max_HeapSize=1024m	maximum value for the heap size to be used by JVM
WebService_Port=8201	web service port number

#Tomcat Parameters

Comment	Description
AjpPort=8202	AJP connector port
HttpPort=8203	Http port to be used by the application
CtrlPort=8204	Control port Number
Tomcat_ApplicationHostName=	MetricStream Tomcat Hostname

#Apache Tomcat Service Names

Comment	Description
ApacheServiceName=	Service name for Apache
TomcatServiceName=	Service name for Tomcat

#ECP Logs

Comment	Description
EcpLogsDirectory=	Complete path to the directory where the logs should be generated

Xmanager

The Xmanager is a powerful and easy-to-use PC X server software program that runs on a Windows platform. It allows you to bring remote UNIX/Linux desktops to your Windows PC seamlessly. You can also run remote X applications securely through the SSH (Secure Shell) protocol even when your Windows PC is inside a private network and a firewall is between your PC and the remote server. The Xmanager incorporates a variety of new features such as multiple server profiles, multi-visual, multi-monitor support, multi-user configuration, multiple XDMCP sessions and SSH security enhancement. It offers many advanced options to meet the needs of professional users and also has been designed as simply as possible for beginners. For more information, refer to http://www.netsarang.com/docs/xmanager30_manual.pdf.

PuTTY

PuTTY is a free software application for various operating systems which can be used to make an SSH connection to your server.