



## Windows 2012 R2 Installation

**Customer: Grant Investrade Ltd**

### Document History:

<b>Document Title:</b>	SOP for Grant Investrade Ltd
<b>Process Name:</b>	Windows 2012 R2 Installation
<b>Document Owner:</b>	Insight Business Machines Pvt. Ltd.
<b>Prepared By</b>	Darshan C / Kaushik W
<b>Date</b>	20 <sup>th</sup> June 2016

## Table of Contents

1. Introduction .....	3
2. Introduction for SOP .....	3
3. Objective .....	3
4. Scope .....	3
5. Audience .....	3
6. Installation of Windows 2012 R2.....	4
7. Document Acceptance; .....	30
8. Annexure;.....	30

## **1. Introduction**

Insight Business Machines Pvt. Ltd. has been in the field of Computing Technology since 1992. What Insight envisages: The right mix of Products, services, People, infrastructure, Resources and Technical expertise. The prime push for INSIGHT has been towards diversifying itself into many arenas of Digital Information Technology. Today customers are turning to INSIGHT for flexible and operable solutions. Be it Systems Integration, Infrastructure Consolidation, Networking or Application Development we providing efficient, cost effective & cutting-edge technology has been the driving initiative at INSIGHT since last more the one decade. Our expertise in the Information Technology and the industry domain has been acknowledged by the business community at large. A testimony of this is our distinguished client portfolios that are leaders in their vertical and an achievement that Insight is proud of. Our vision is Instigate Values by Service Integration and Solutions.

Solutions we provide: Compliance, Convergence, and Manageability & Lifecycle Management.

## **2. Introduction for SOP**

A Standard Operating Procedure (SOP) is a set of written instructions that document a routine or repetitive activity followed by an organization / team. The development and use of SOPs are an integral part of a successful quality system as it provides individuals with the information to perform a required job properly, and facilitates consistency in the quality and integrity of an end-result.

The use of Standard Operating Procedures by teams will provide several Benefits. First, the intent will be communicated to all individuals in the team. Second, SOPs provide subordinate employees with the desired end state and allow them to use their discretion if decisions need to be made. SOPs provide leaders the framework to conduct business safely by allowing them to focus on critical decisions instead of routine ones thus enhancing their decision making ability in stressful situations. Finally, SOPs provide a mechanism to identify needed changes, implement appropriate policy, enhance training, describe desired performance, and evaluate operational performance. The result is improved operational efficiency, greater accountability, and customer (user) satisfaction.

## **3. Objective**

The primary objective of this document is to serve as a set of written instructions for remotely managing the infrastructure of Grant Investrade Ltd, it provides the standard Process Framework and detailed procedures in carrying out the services effectively and efficiently.

## **4. Scope**

The scope of this document is to follow the step by step process for the VMware deployment at Grant Investrade Ltd. On daily basis it will help the support team for managing the infrastructure, and analyse any possible security threat or anomalies that can be fatal for business.

## **5. Audience**

The intended audience for this document is Help Desk, System Engineer / System Administrator, Team Leader and IT End Users at Grant Investrade Ltd (Mumbai)

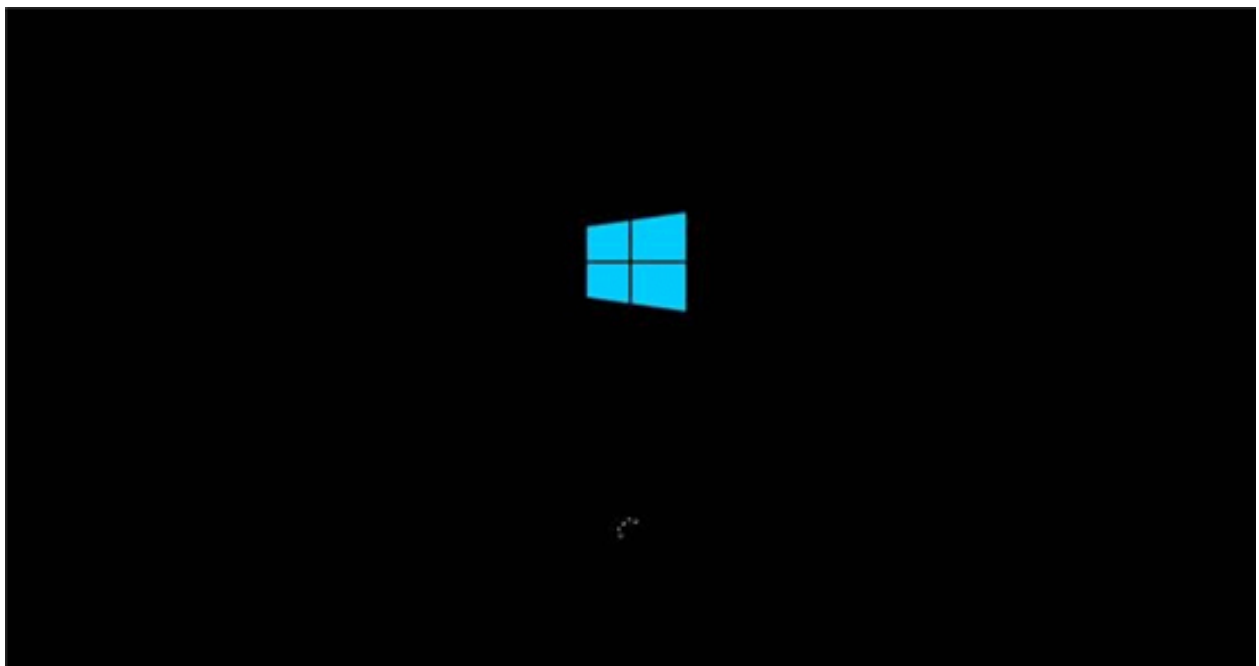
## 6. Installation of Windows 2012 R2

**Step-1:-** Insert the Windows Server 2012 R2 DVD, and once you get the following message press Enter to boot from the setup



Press any key to boot from CD or DVD.....

**Step-2:-** Wait for a while till the setup loads all necessary files (Depending on your machine, it will take couple of minutes)



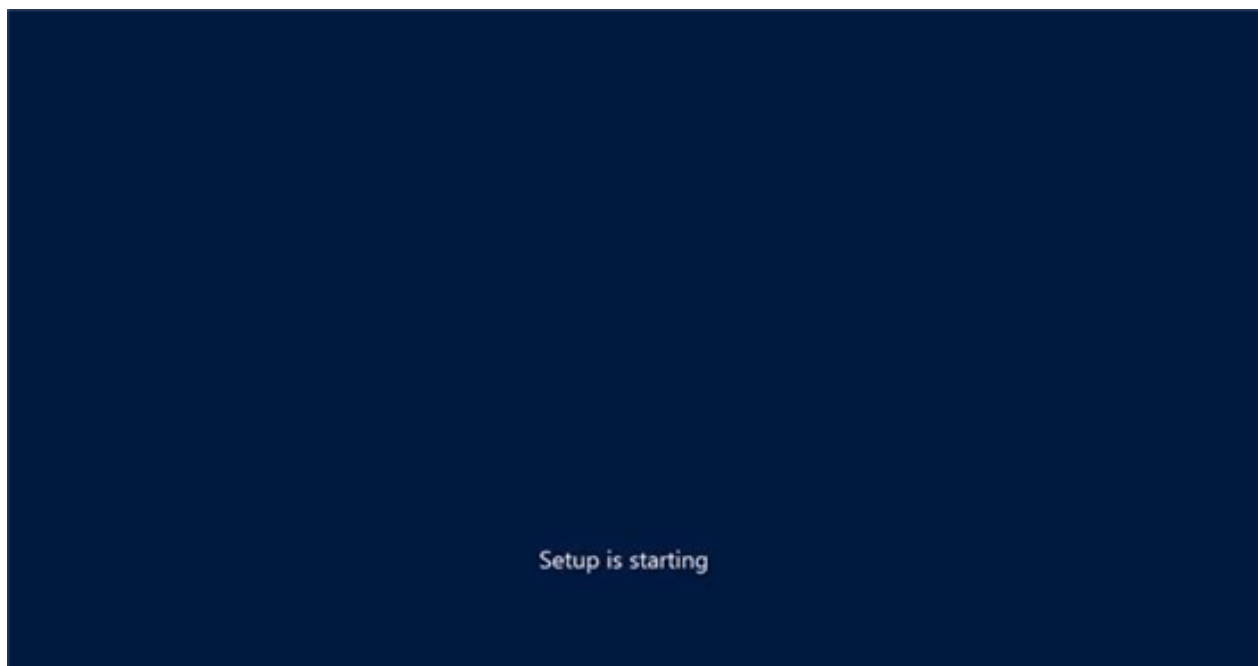
**Step-3:-** Once the setup files are loaded, the setup will start with the following screen. You can change these to meet your needs (the default values should be fine for now)



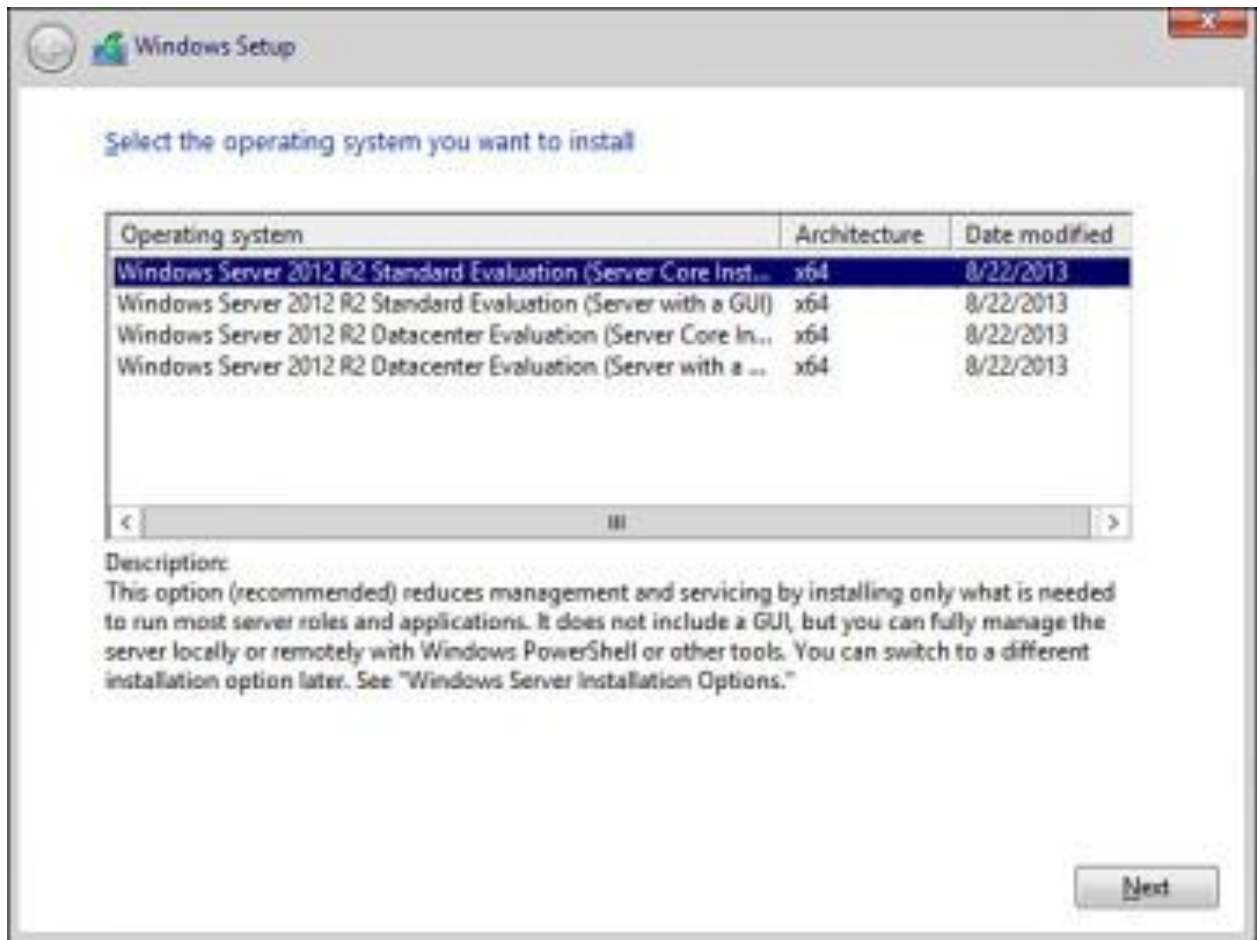
**Step-4:-** Once you click Next, you can start the installation, click "Install now"



**Step-5:-** You will see the following screen, wait until it finishes loading



**Step-6:-** In the following setup screen, you will see four options. Select Windows Server 2012 Standard Evaluation (Server With GUI).



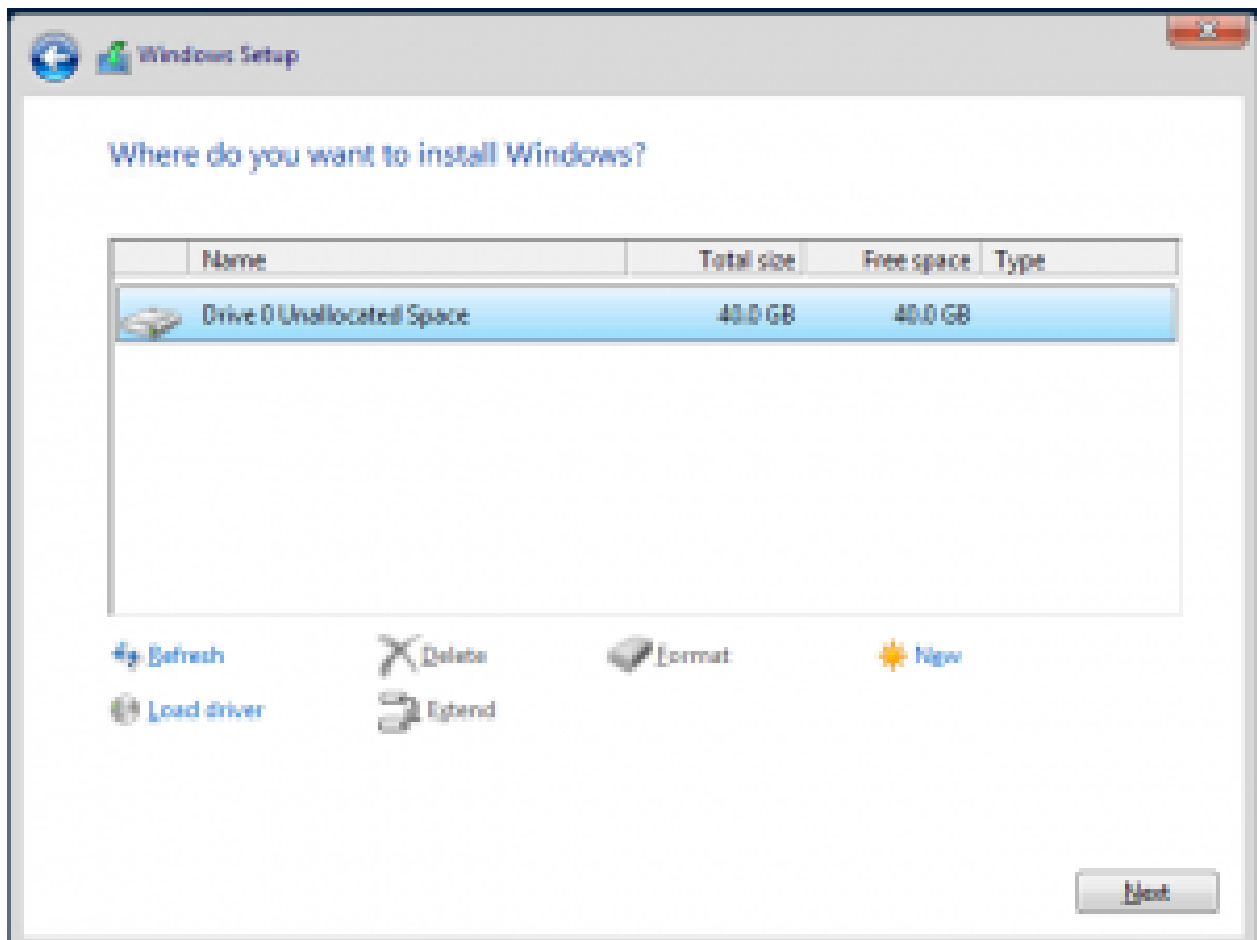
**Step-7:-** After you click Next from previous screen, Read the License terms, tick the "I accept the license terms" and click Next



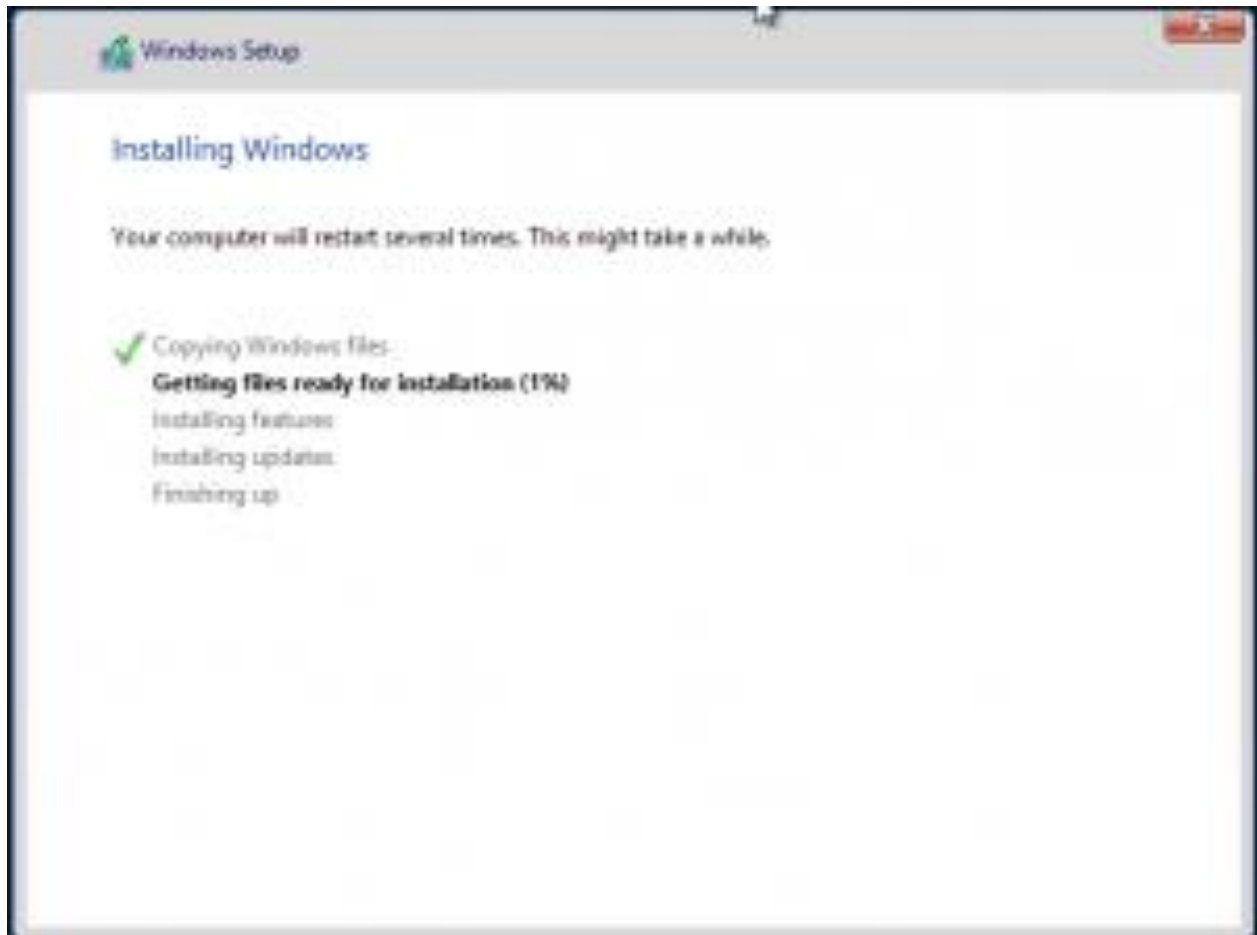


**Step-8:-** Now It will ask you for the drive (or partition) you want to install Windows on.

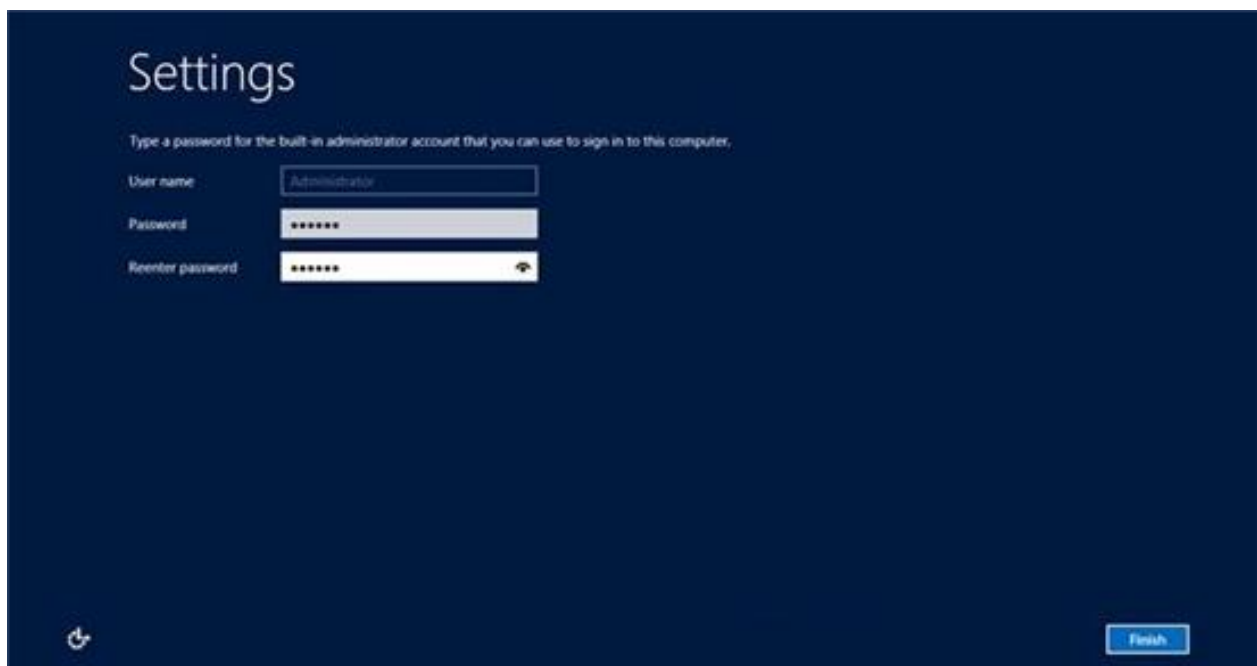
NOTE: This will remove the content of the partition.



**Step-9:-** Now once we picked our partition, clicking on next from previous screen will start the setup. This process might take a while.



**Step-10:-** Once the setup is done, it will restart and start your Windows Server 2012 R2 for the first time. It will ask you then to set up a password for the Administrator user.



**Step-11:-** The setup will finalize your settings, might take a couple of minutes.



**Step-12:-** Once the setup is done, you can log in for the first time to your Windows Server, as the screen says, press Ctrl+Alt+Delete to log in, and use the password you set in the setup process

Press Ctrl+Alt+Delete to sign in.

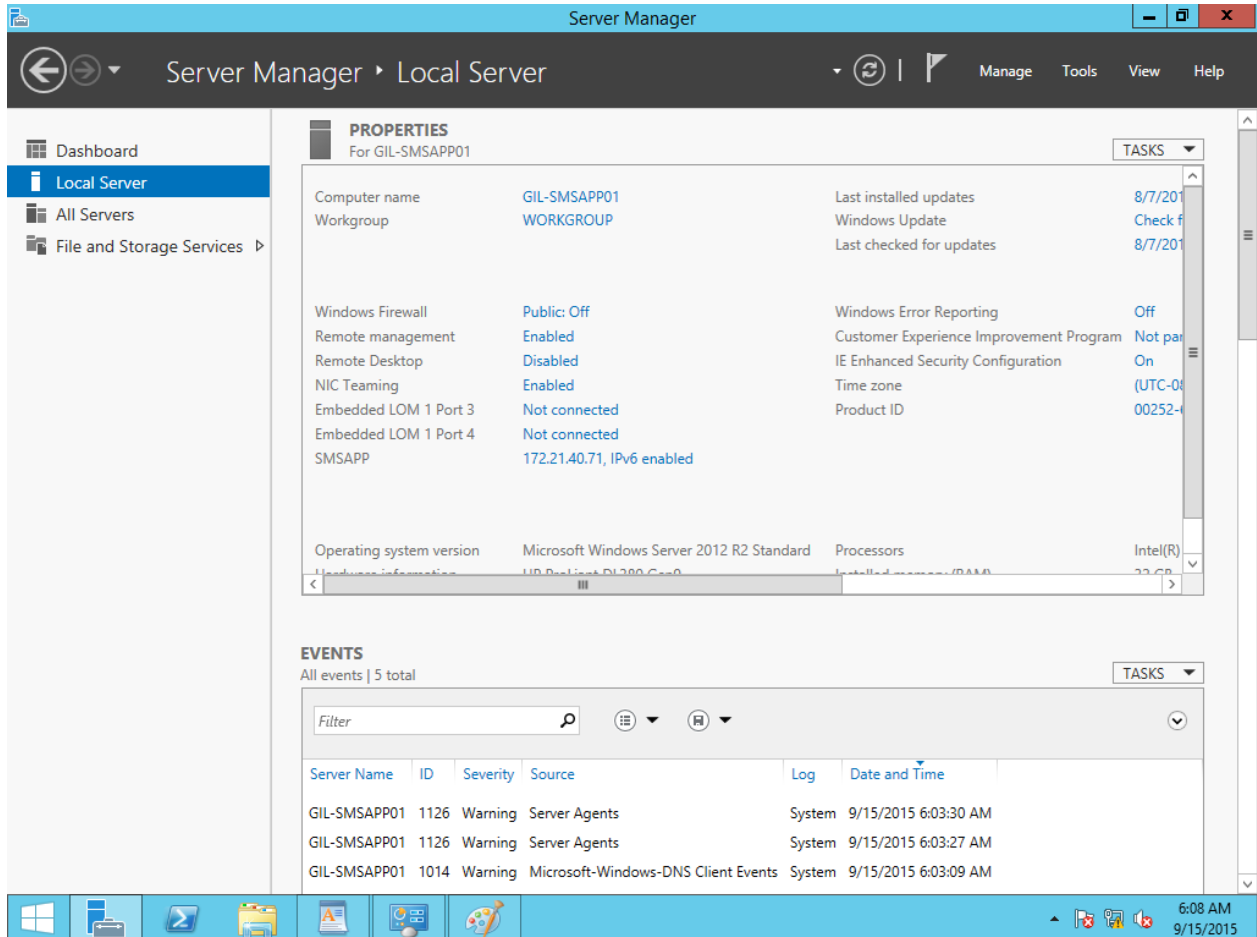
5:10

Tuesday, June 25



**Step-13:-** Once you Log in, Windows Server 2012 R2 will Congratulations! You have now Windows server 2012 R2 Installed with Standard.

Go to Server Manager, In Server Manager, click on local server on left panel and then click on NIC teaming.



The screenshot shows the Windows Server 2012 R2 Server Manager interface. The left-hand navigation pane is expanded to 'Local Server'. The main area displays the 'PROPERTIES' for the local server 'GIL-SMSAPP01'. Below this, the 'EVENTS' section shows a list of recent events.

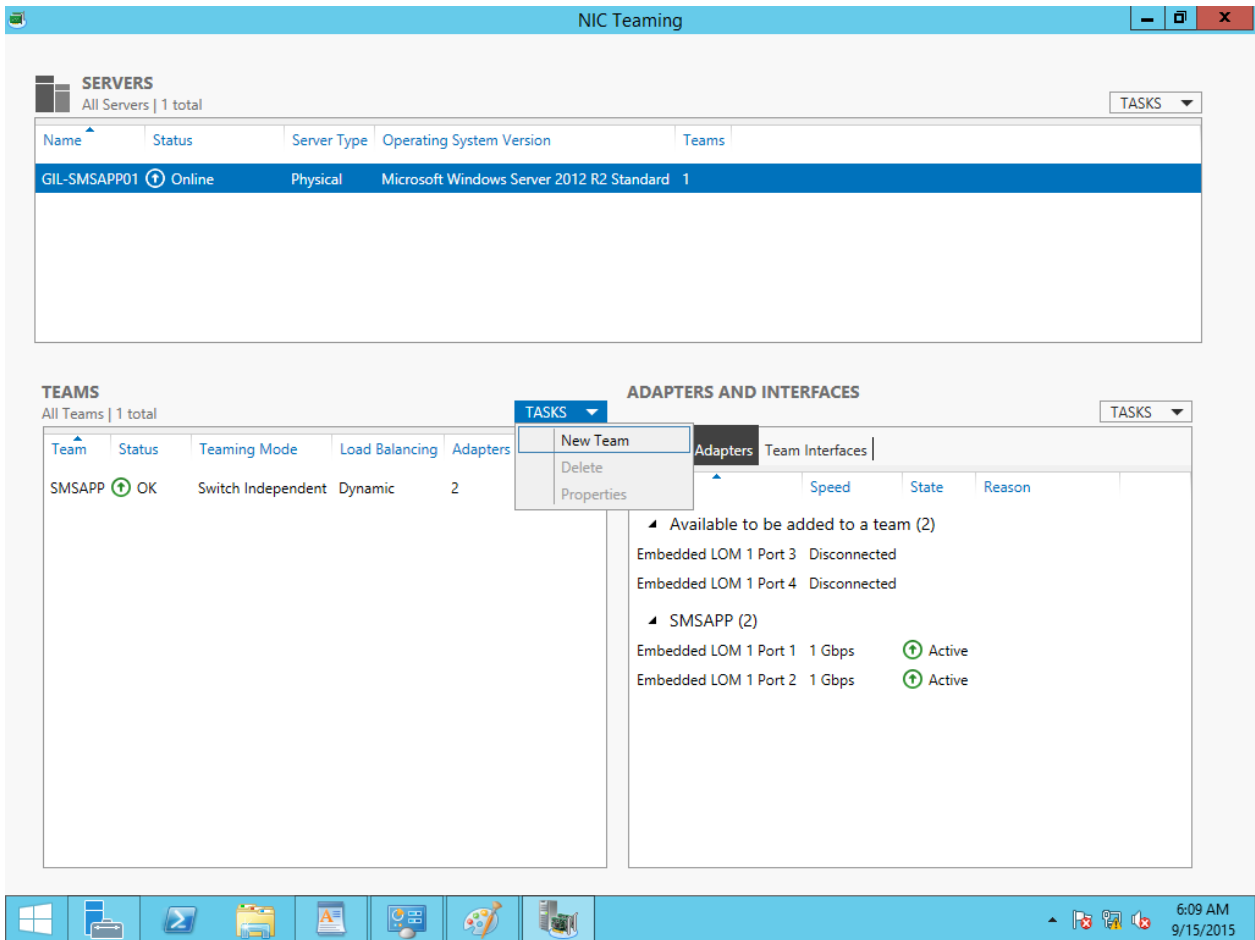
**PROPERTIES For GIL-SMSAPP01**

Computer name	GIL-SMSAPP01	Last installed updates	8/7/2015
Workgroup	WORKGROUP	Windows Update	Check for updates
		Last checked for updates	8/7/2015
Windows Firewall	Public: Off	Windows Error Reporting	Off
Remote management	Enabled	Customer Experience Improvement Program	Not participating
Remote Desktop	Disabled	IE Enhanced Security Configuration	On
NIC Teaming	Enabled	Time zone	(UTC-08:00) Pacific Time (US & Canada)
Embedded LOM 1 Port 3	Not connected	Product ID	00252-100000000000000000
Embedded LOM 1 Port 4	Not connected		
SMSAPP	172.21.40.71, IPv6 enabled		
Operating system version	Microsoft Windows Server 2012 R2 Standard	Processors	Intel(R) Xeon(R) CPU E5-2680 v2 @ 2.60GHz
Hardware information	UD-DeLima-DL200 Gen9	Installed memory (RAM)	32 GB

**EVENTS**  
All events | 5 total

Server Name	ID	Severity	Source	Log	Date and Time
GIL-SMSAPP01	1126	Warning	Server Agents	System	9/15/2015 6:03:30 AM
GIL-SMSAPP01	1126	Warning	Server Agents	System	9/15/2015 6:03:27 AM
GIL-SMSAPP01	1014	Warning	Microsoft-Windows-DNS Client Events	System	9/15/2015 6:03:09 AM

**Step-14:-** In NIC Teaming wizard. Inside TEAMS, click on Tasks->New Team.



The screenshot shows the 'NIC Teaming' application window. The 'SERVERS' section at the top lists one server: GIL-SMSAPP01, which is Online, Physical, and running Microsoft Windows Server 2012 R2 Standard. Below this, the 'TEAMS' section shows one team: SMSAPP, which is OK, using Switch Independent Teaming Mode, Dynamic Load Balancing, and has 2 Adapters. A context menu is open over the 'TASKS' button in the TEAMS section, with 'New Team' selected. The 'ADAPTERS AND INTERFACES' section on the right shows two available adapters (Embedded LOM 1 Port 3 and 4, both Disconnected) and two active adapters (Embedded LOM 1 Port 1 and 2, both 1 Gbps and Active).

Name	Status	Server Type	Operating System Version	Teams
GIL-SMSAPP01	Online	Physical	Microsoft Windows Server 2012 R2 Standard	1

Team	Status	Teaming Mode	Load Balancing	Adapters
SMSAPP	OK	Switch Independent	Dynamic	2

Adapters	Team Interfaces	Speed	State	Reason
Available to be added to a team (2)				
Embedded LOM 1 Port 3			Disconnected	
Embedded LOM 1 Port 4			Disconnected	
SMSAPP (2)				
Embedded LOM 1 Port 1		1 Gbps	Active	
Embedded LOM 1 Port 2		1 Gbps	Active	

**Step-15:-** Enter the name for new team & select the Ethernet ports to add to team and click OK.

NIC Teaming

## New team

Team name:

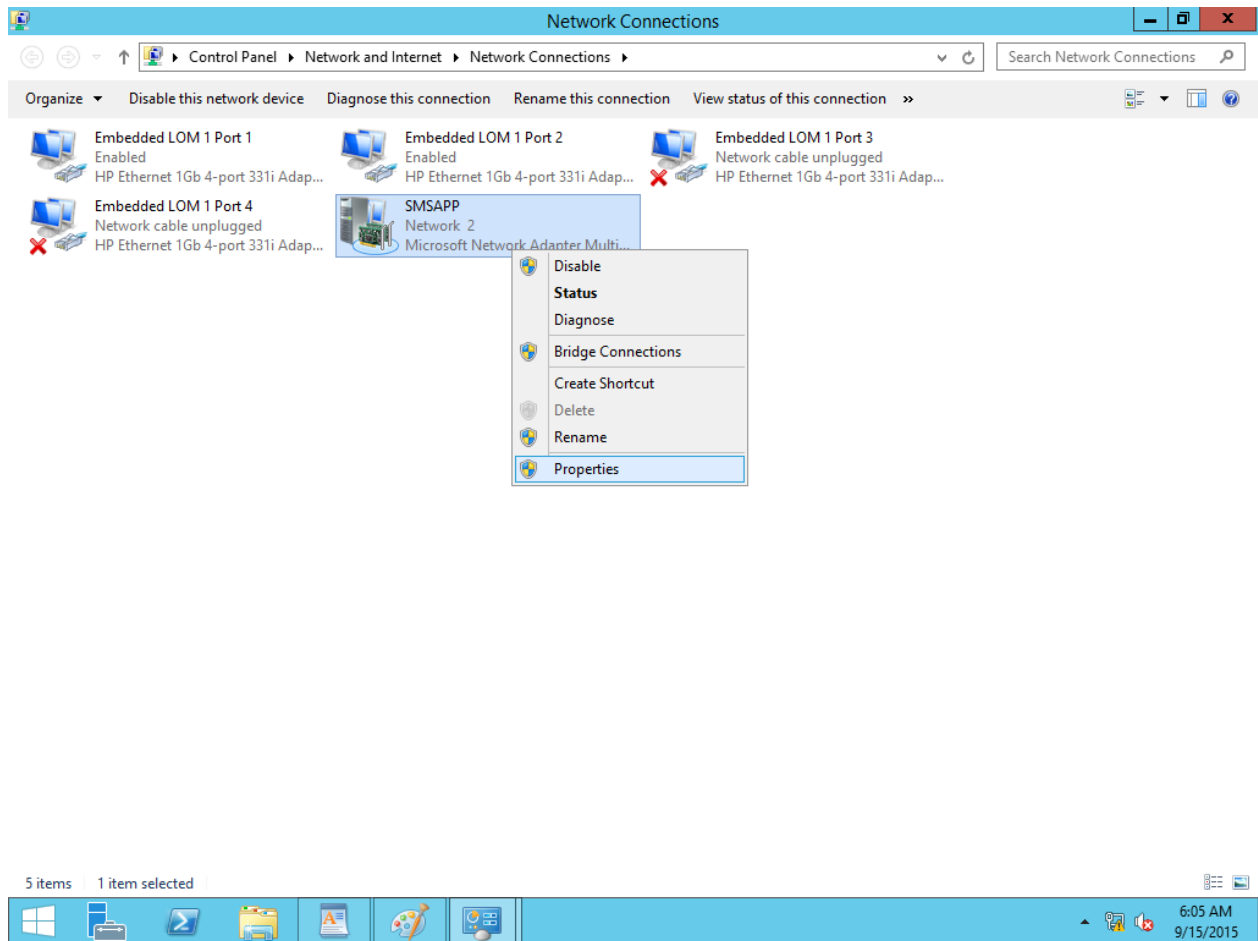
Member adapters:

In Team	Adapter	Speed	State	Reason
<input checked="" type="checkbox"/>	Embedded LOM 1 Port 3		Disconnected	
<input checked="" type="checkbox"/>	Embedded LOM 1 Port 4		Disconnected	

☐ Additional properties

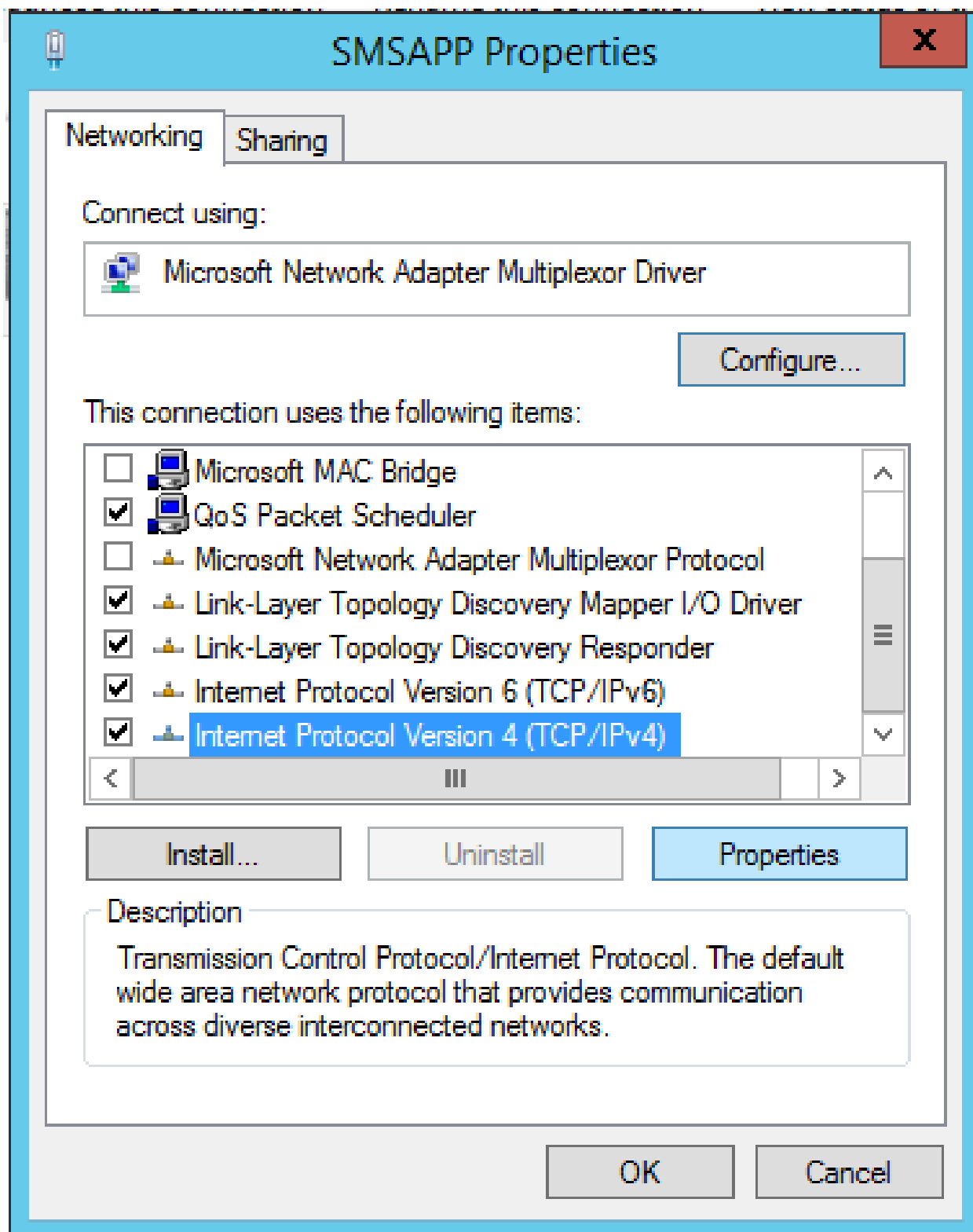
OK
Cancel

**Step-16:-** For Network configuration go to control panel->Network & Sharing Center-> Change adapter settings. Here you can see adapters & created teams. Rightclick on adapter or team and click on properties.

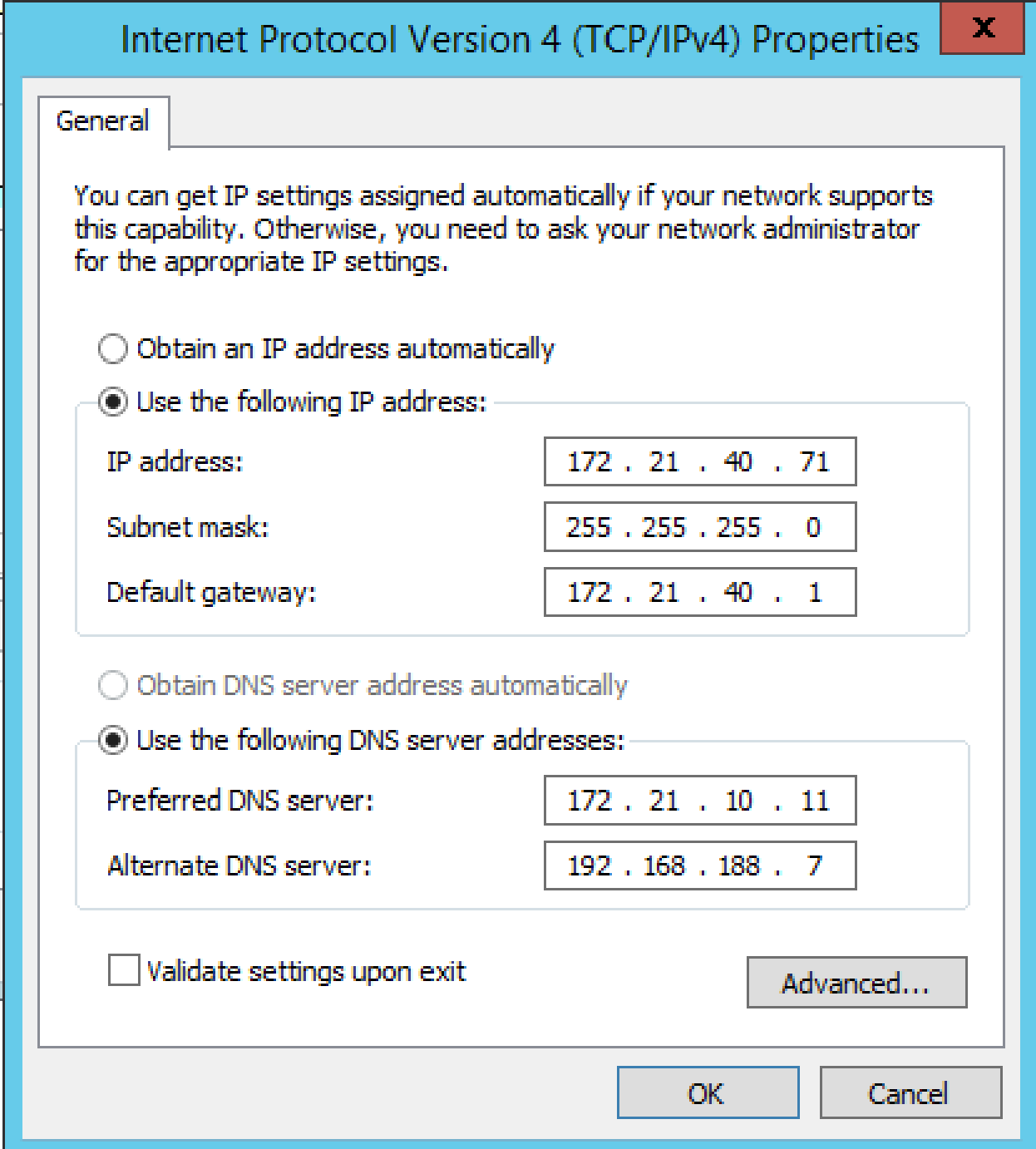




**Step-17:-** Select IPv4 and click on properties.



**Step-18:-** If want to use static IP settings, then select “Use following IP address” & enter details and click OK.



### Internet Protocol Version 4 (TCP/IPv4) Properties ✕

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically
   
☒ Use the following IP address:

IP address:	172 . 21 . 40 . 71
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	172 . 21 . 40 . 1

☐ Obtain DNS server address automatically
   
☒ Use the following DNS server addresses:

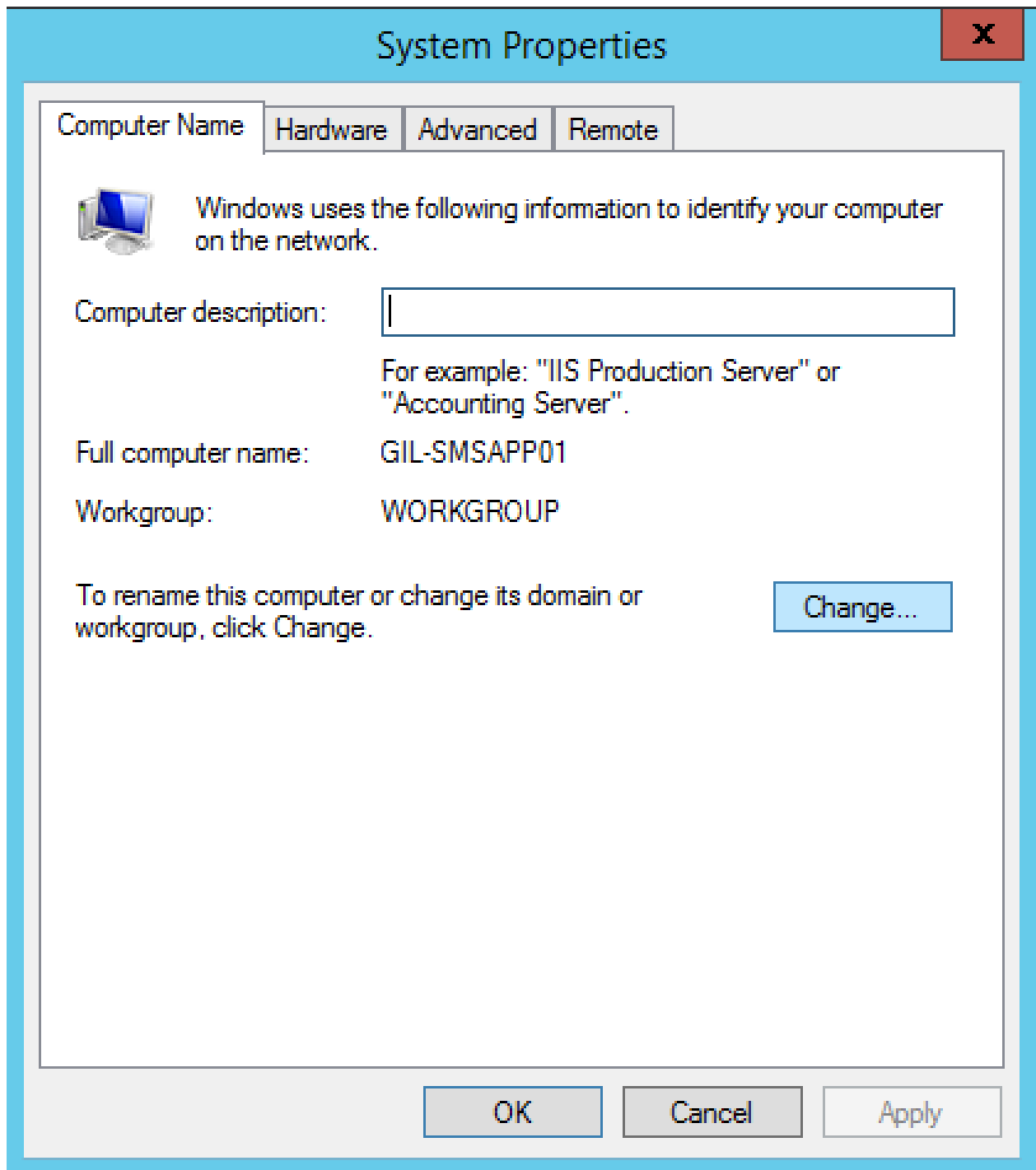
Preferred DNS server:	172 . 21 . 10 . 11
Alternate DNS server:	192 . 168 . 188 . 7

☐ Validate settings upon exit
 Advanced...

OK

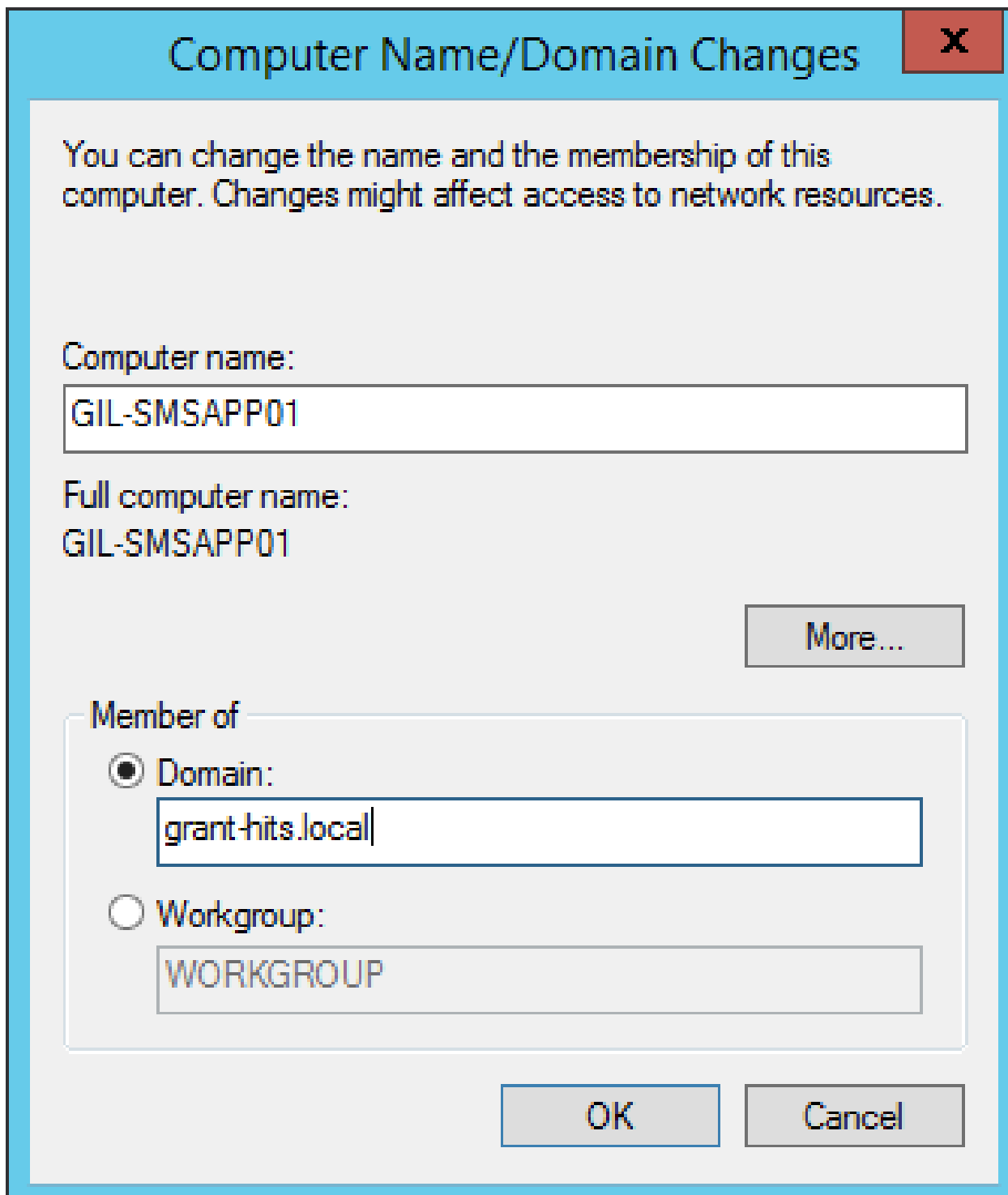
Cancel

**Step-19:-** To change Hostname of server and to add server to the domain, go to control panel->system->change settings and click on change.



**Step-20:-** Enter Computer name & Domain name and then click OK.

Note:- Changing Computer name or Domain name requires restart.



**Computer Name/Domain Changes** X

You can change the name and the membership of this computer. Changes might affect access to network resources.

Computer name:  
GIL-SMSAPP01

Full computer name:  
GIL-SMSAPP01

More...

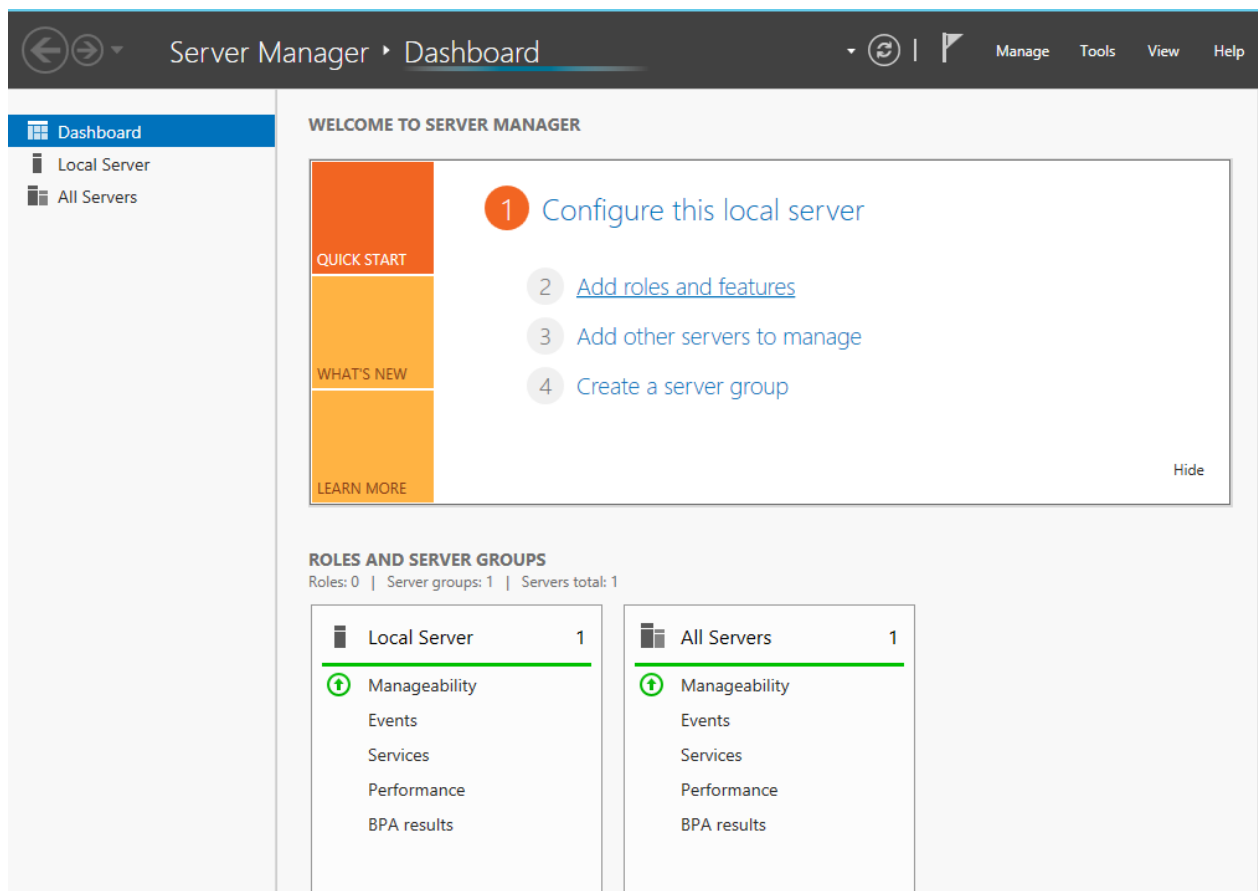
Member of

☒ Domain:  
grant-hits.local

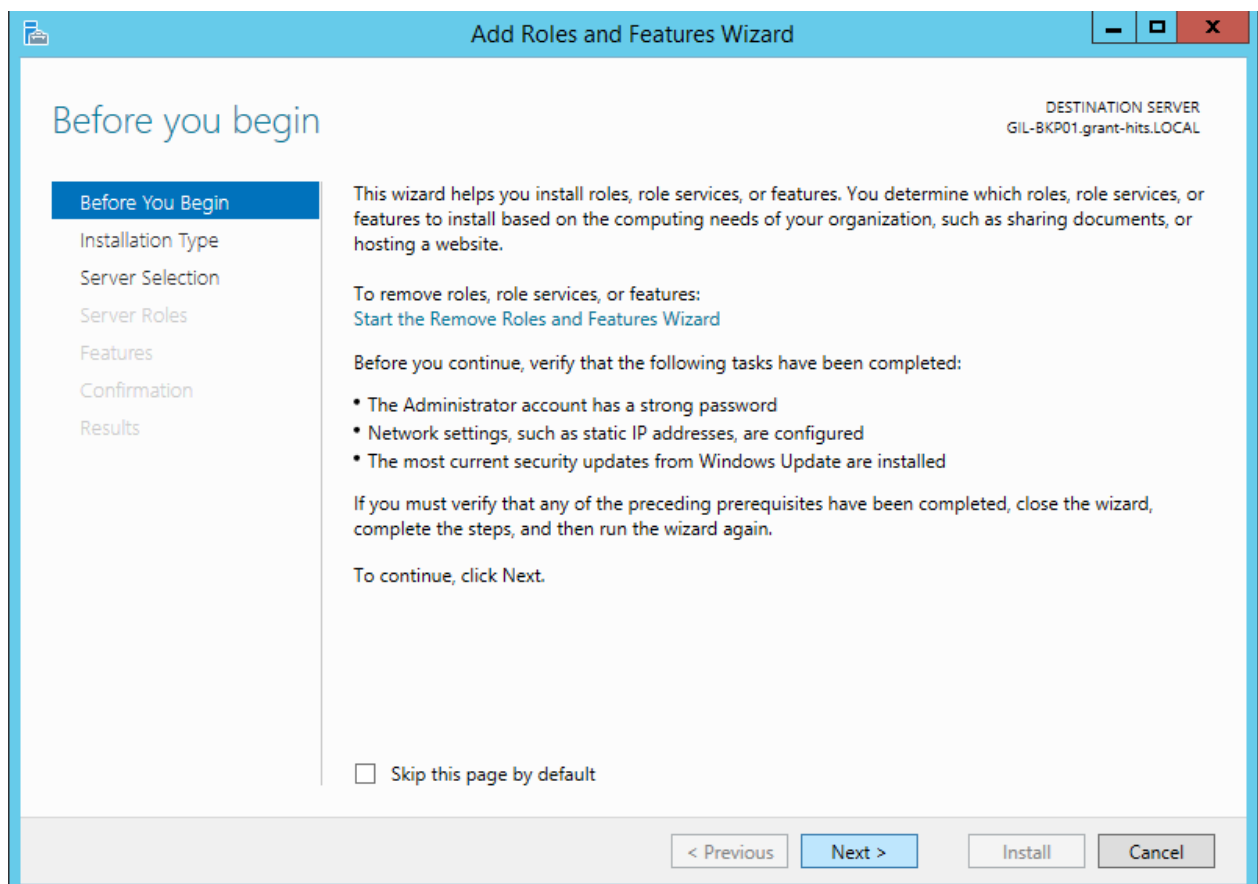
☐ Workgroup:  
WORKGROUP

OK Cancel

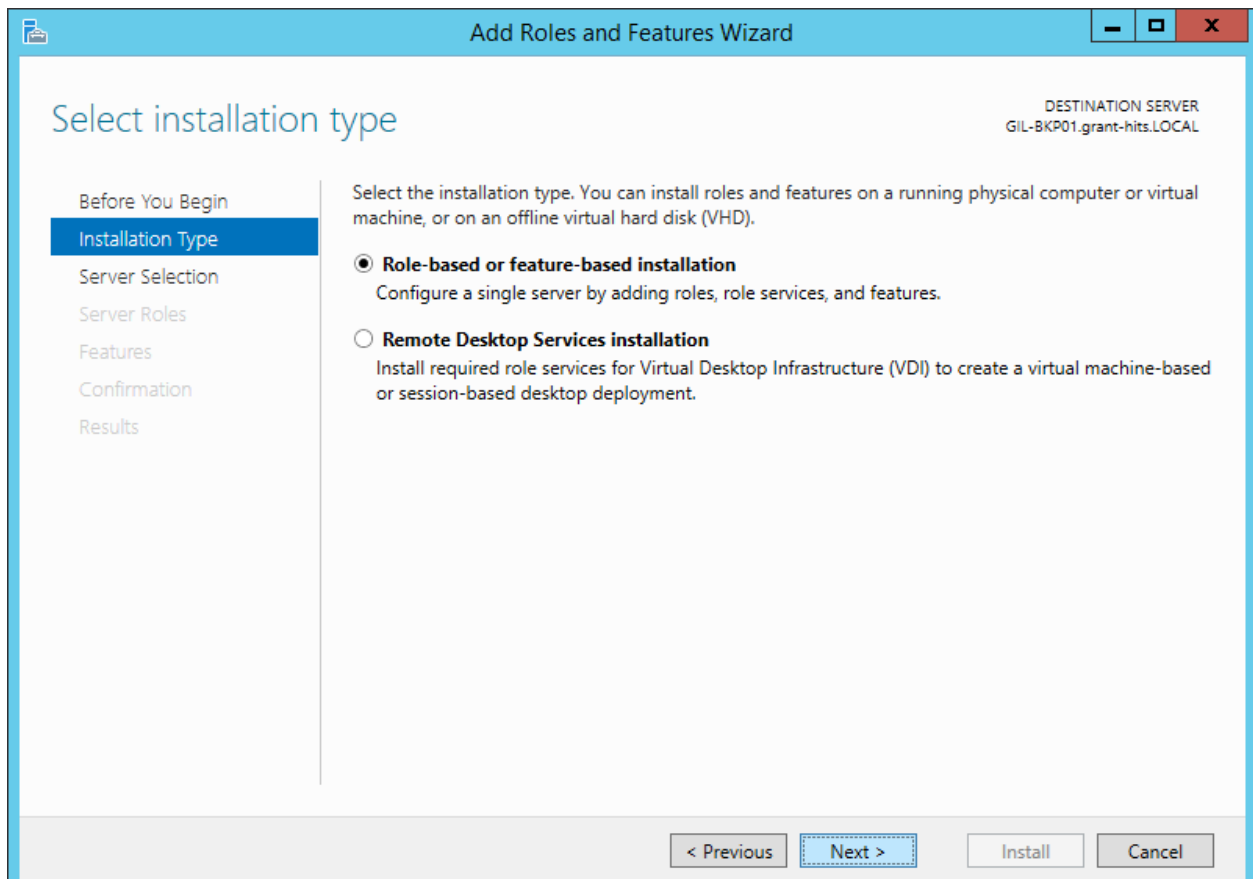
**Step-21:-** To add new role or feature to the server, Go to Server Manager & click on “Add roles and features”.



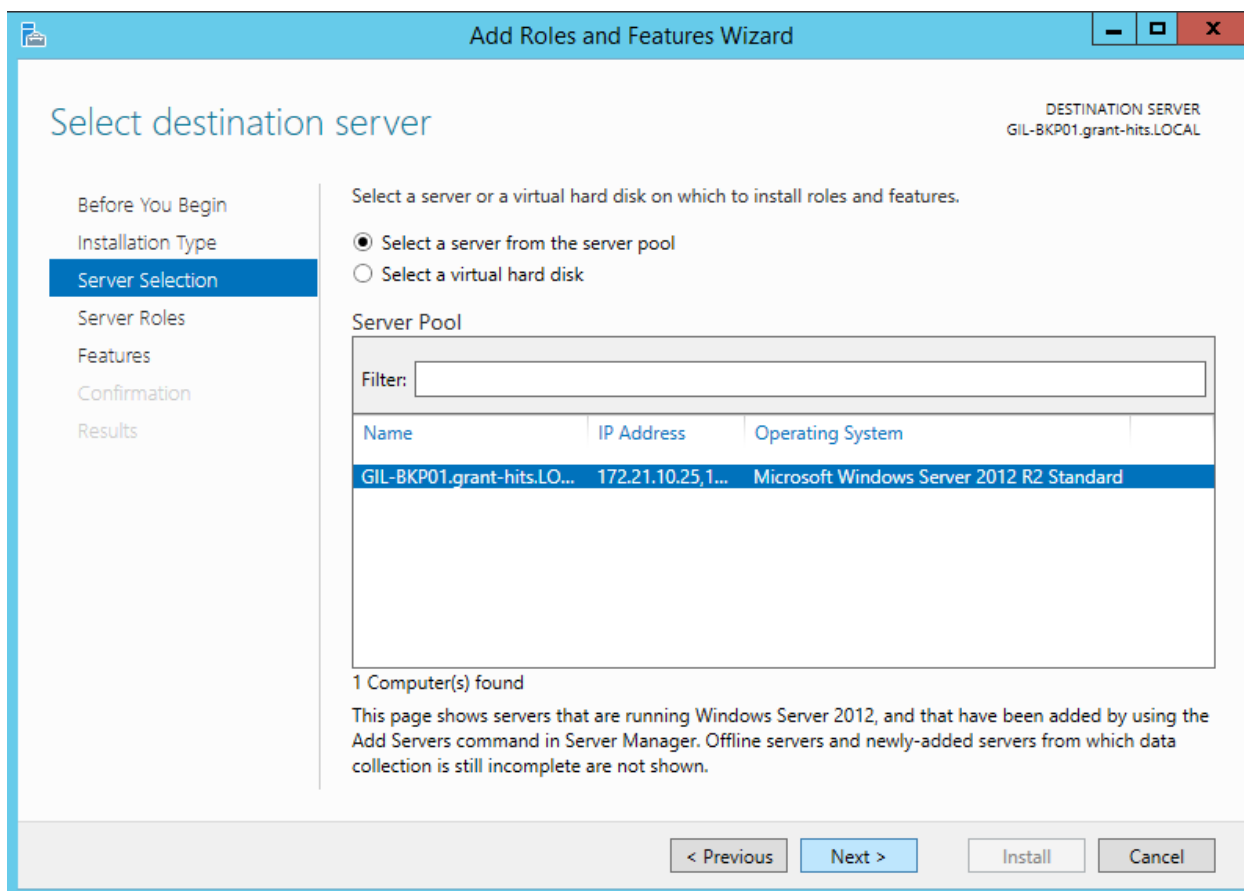
**Step-22:-** Add new roles and features wizard opens, click Next to continue.



**Step-23:-** Select Role-based or feature-based installation” and click next.



**Step-24:-** Select server on which to install role and feature and click next.



**Add Roles and Features Wizard**

DESTINATION SERVER  
GIL-BKP01.grant-hits.LOCAL

Select destination server

Before You Begin  
Installation Type  
**Server Selection**  
Server Roles  
Features  
Confirmation  
Results

Select a server or a virtual hard disk on which to install roles and features.

☒ Select a server from the server pool  
☐ Select a virtual hard disk

Server Pool

Filter:

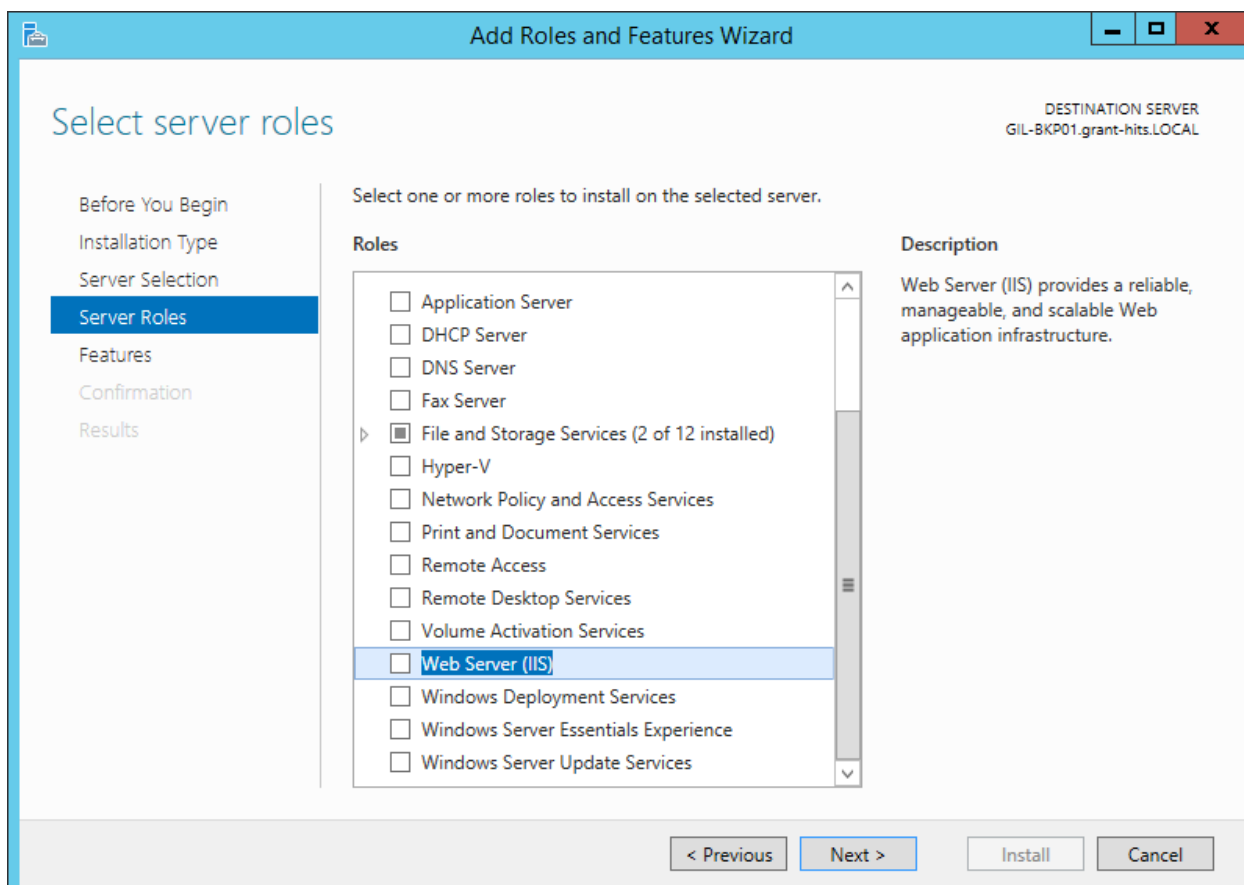
Name	IP Address	Operating System
GIL-BKP01.grant-hits.LO...	172.21.10.25, 1...	Microsoft Windows Server 2012 R2 Standard

1 Computer(s) found

This page shows servers that are running Windows Server 2012, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.

< Previous   Next >   Install   Cancel

**Step-25:-** Select the (Web Server)IIS role to install and click next.



**Add Roles and Features Wizard**

DESTINATION SERVER  
GIL-BKP01.grant-hits.LOCAL

Select server roles

Before You Begin  
Installation Type  
Server Selection  
**Server Roles**  
Features  
Confirmation  
Results

Select one or more roles to install on the selected server.

Roles

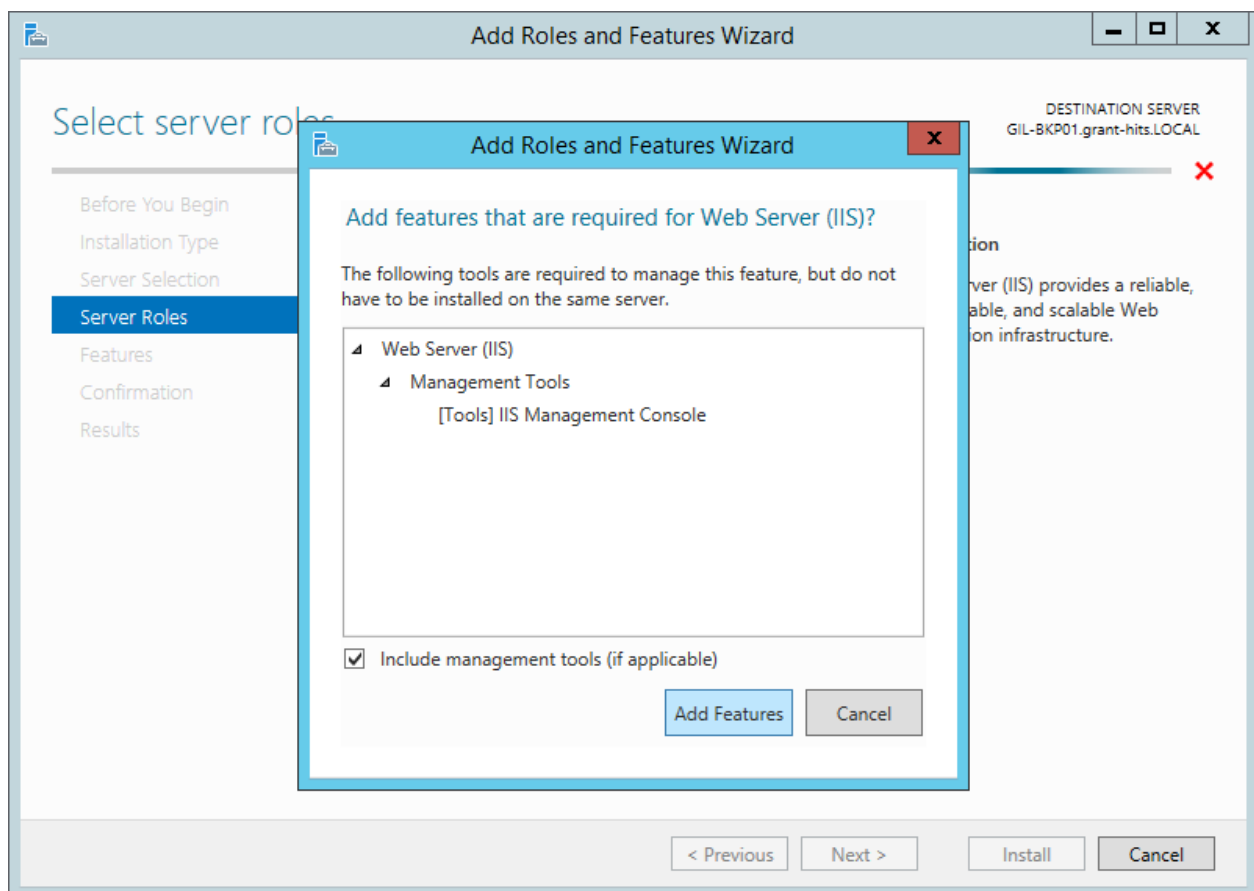
- ☐ Application Server
- ☐ DHCP Server
- ☐ DNS Server
- ☐ Fax Server
- ☒ File and Storage Services (2 of 12 installed)
- ☐ Hyper-V
- ☐ Network Policy and Access Services
- ☐ Print and Document Services
- ☐ Remote Access
- ☐ Remote Desktop Services
- ☐ Volume Activation Services
- ☒ **Web Server (IIS)**
- ☐ Windows Deployment Services
- ☐ Windows Server Essentials Experience
- ☐ Windows Server Update Services

Description

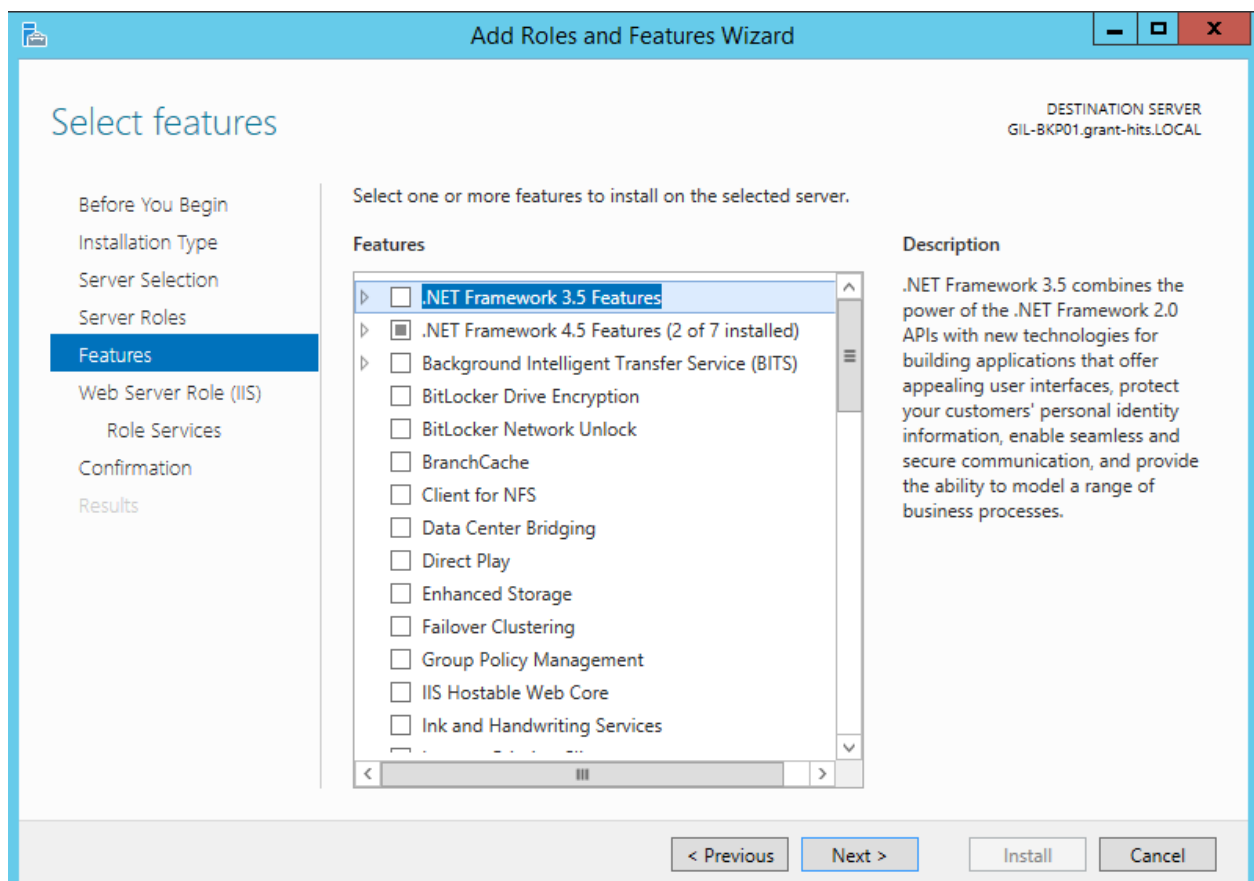
Web Server (IIS) provides a reliable, manageable, and scalable Web application infrastructure.

< Previous   Next >   Install   Cancel

**Step-26:-** Required features for Web Server(IIS) wizard opens, click Add Features.

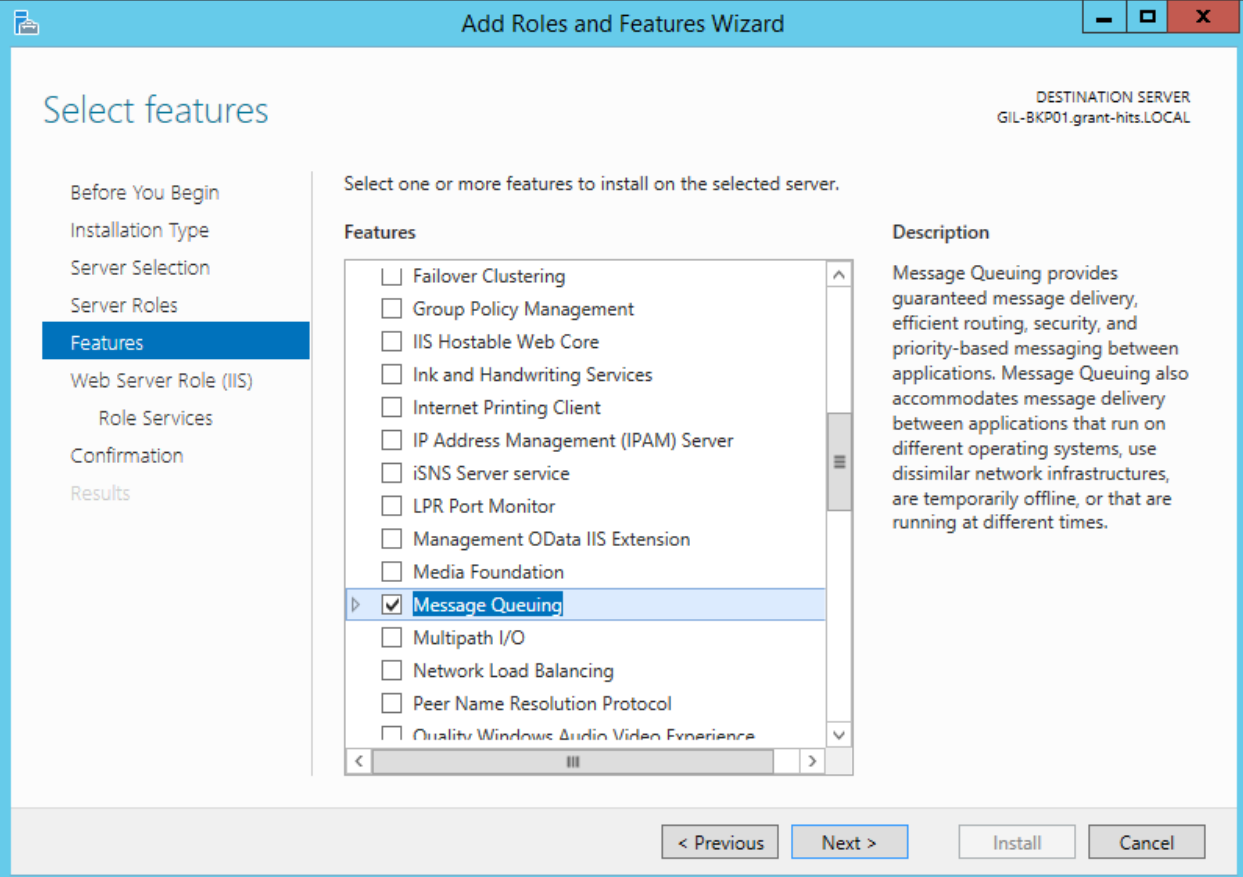


**Step-27:-** Select .Net Framework 4.5 Features.





**Step-28:-** Select Message Queuing feature to install and click Next.



**Add Roles and Features Wizard**

DESTINATION SERVER  
GIL-BKP01.grant-hits.LOCAL

### Select features

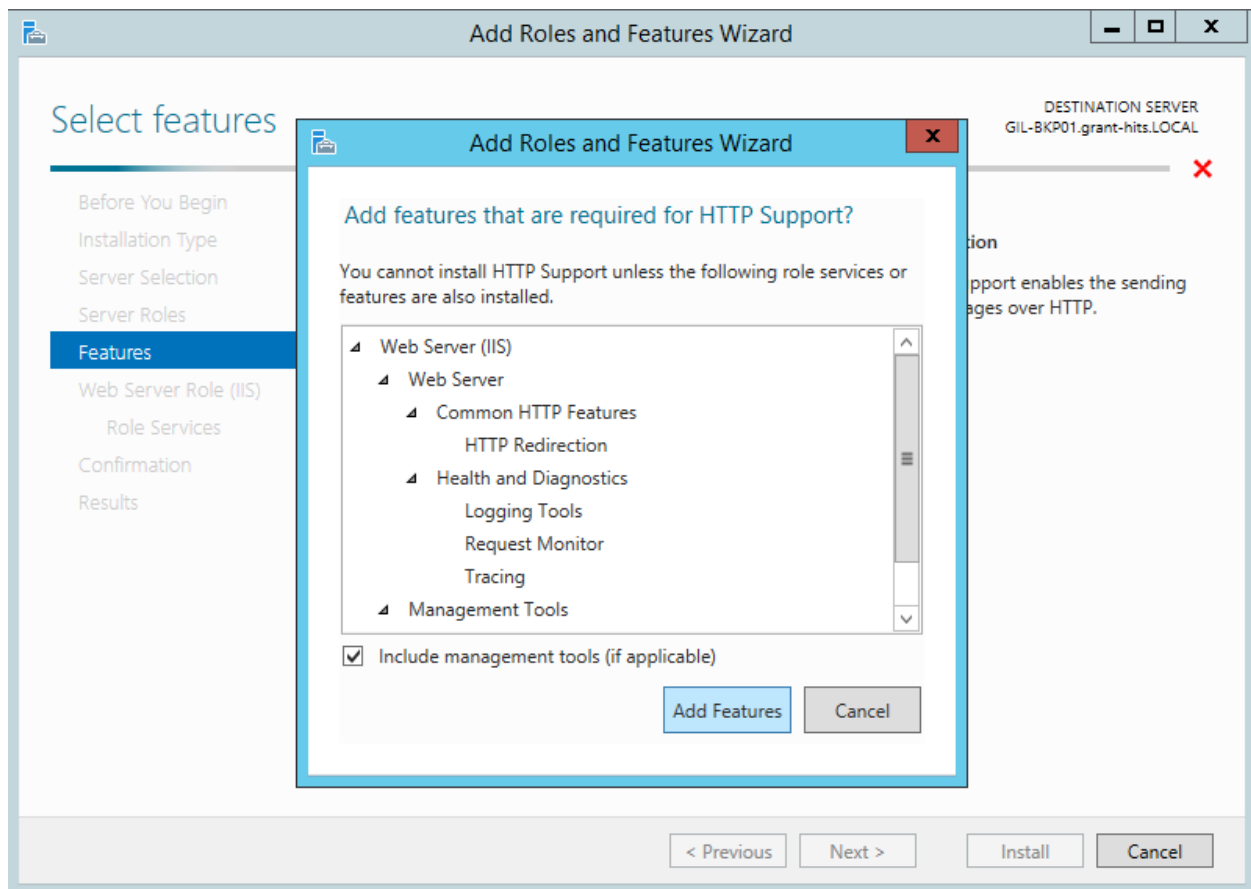
Before You Begin  
Installation Type  
Server Selection  
Server Roles  
**Features**  
Web Server Role (IIS)  
Role Services  
Confirmation  
Results

Select one or more features to install on the selected server.

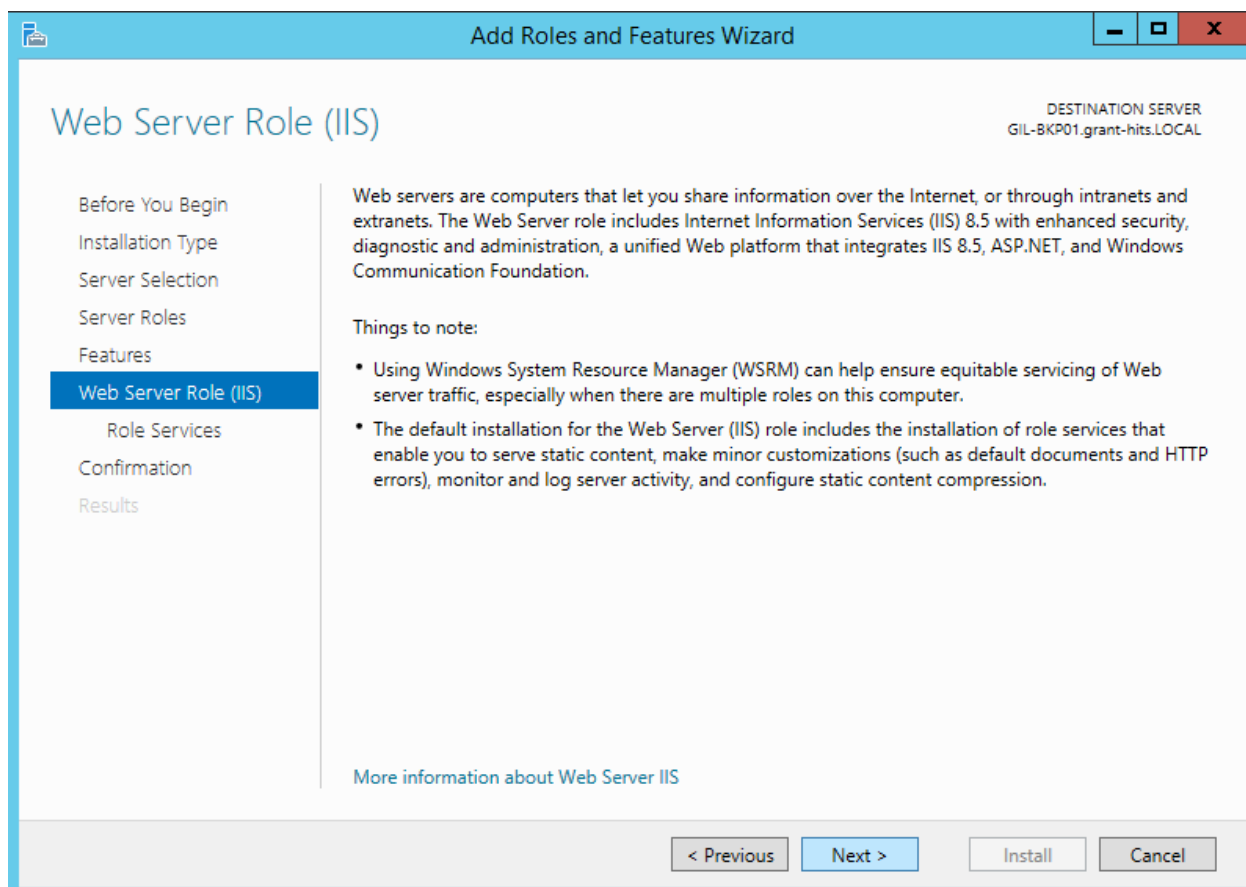
Features	Description
<input type="checkbox"/> Failover Clustering	
<input type="checkbox"/> Group Policy Management	
<input type="checkbox"/> IIS Hostable Web Core	
<input type="checkbox"/> Ink and Handwriting Services	
<input type="checkbox"/> Internet Printing Client	
<input type="checkbox"/> IP Address Management (IPAM) Server	
<input type="checkbox"/> iSNS Server service	
<input type="checkbox"/> LPR Port Monitor	
<input type="checkbox"/> Management OData IIS Extension	
<input type="checkbox"/> Media Foundation	
<input checked="" type="checkbox"/> <b>Message Queuing</b>	Message Queuing provides guaranteed message delivery, efficient routing, security, and priority-based messaging between applications. Message Queuing also accommodates message delivery between applications that run on different operating systems, use dissimilar network infrastructures, are temporarily offline, or that are running at different times.
<input type="checkbox"/> Multipath I/O	
<input type="checkbox"/> Network Load Balancing	
<input type="checkbox"/> Peer Name Resolution Protocol	
<input type="checkbox"/> Quality Windows Audio Video Experience	

< Previous   **Next >**   Install   Cancel

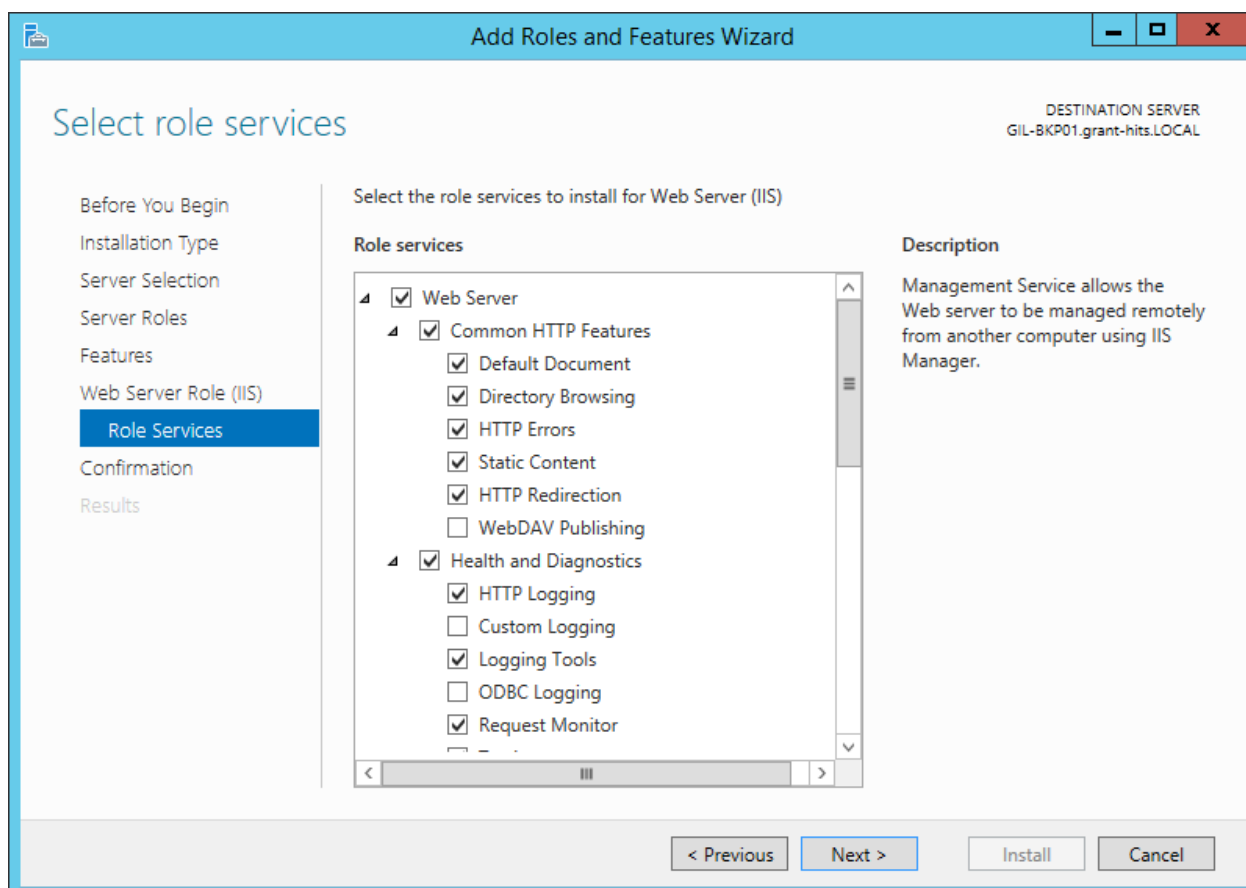
**Step-29:-** Add required feature for HTTP support wizard opens, click Add Features.



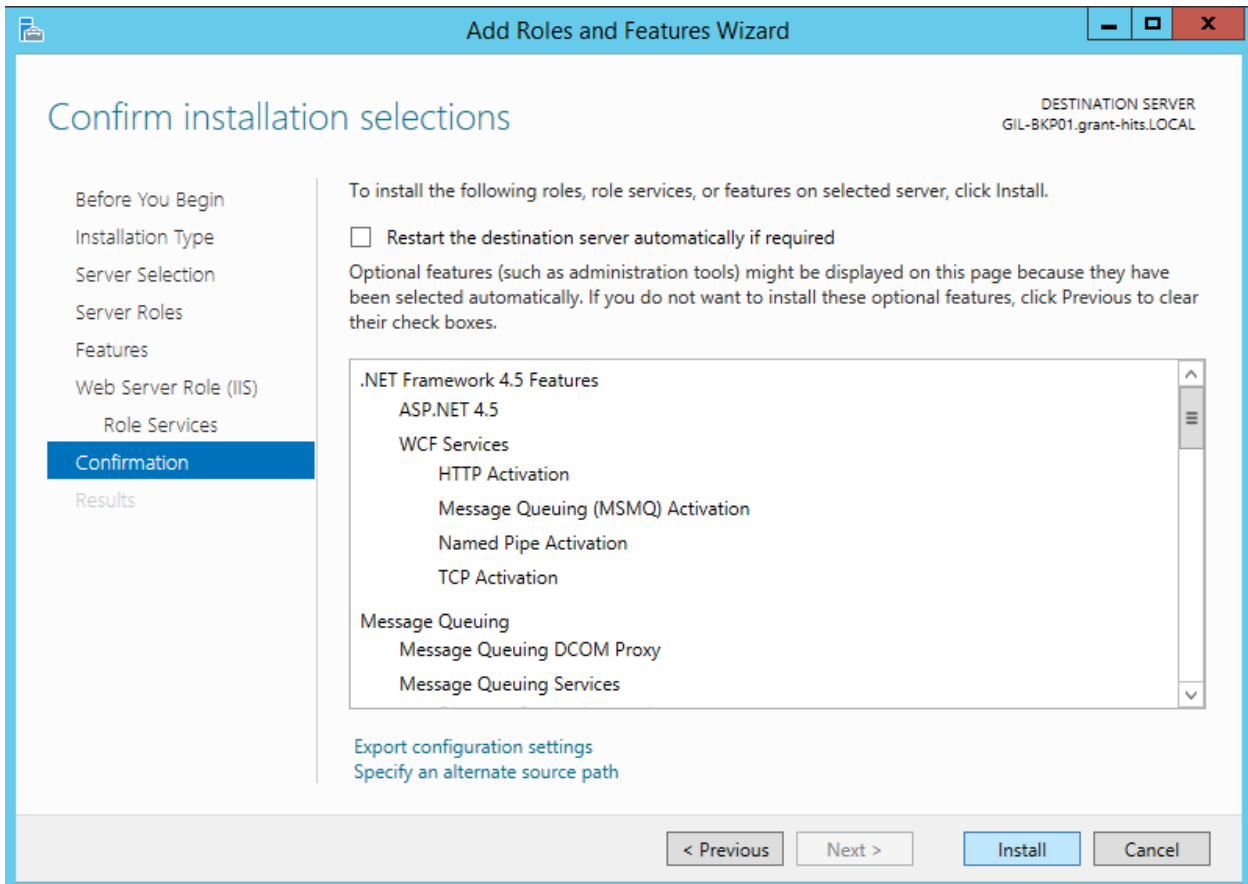
**Step-30:-** Information about Web Server will be displayed, click Next.



**Step-31:-** Select role services to be installed and click Next.

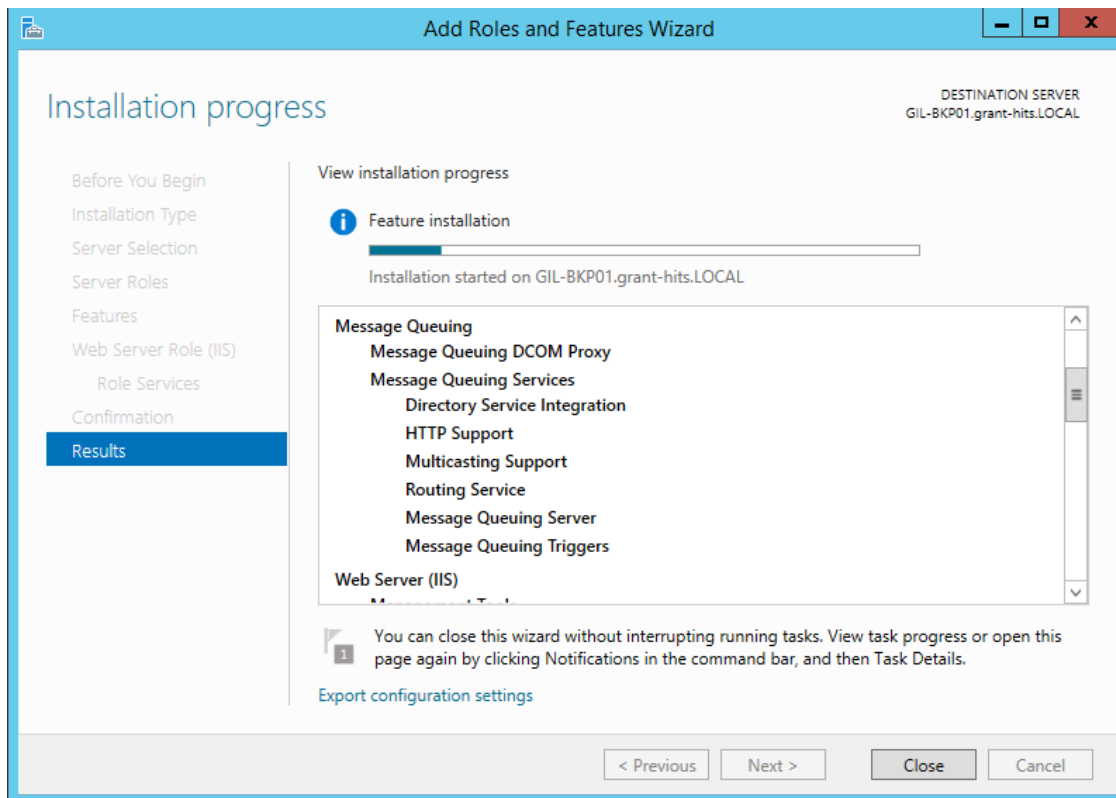


**Step-32:-** Confirm installation selections and click Install.

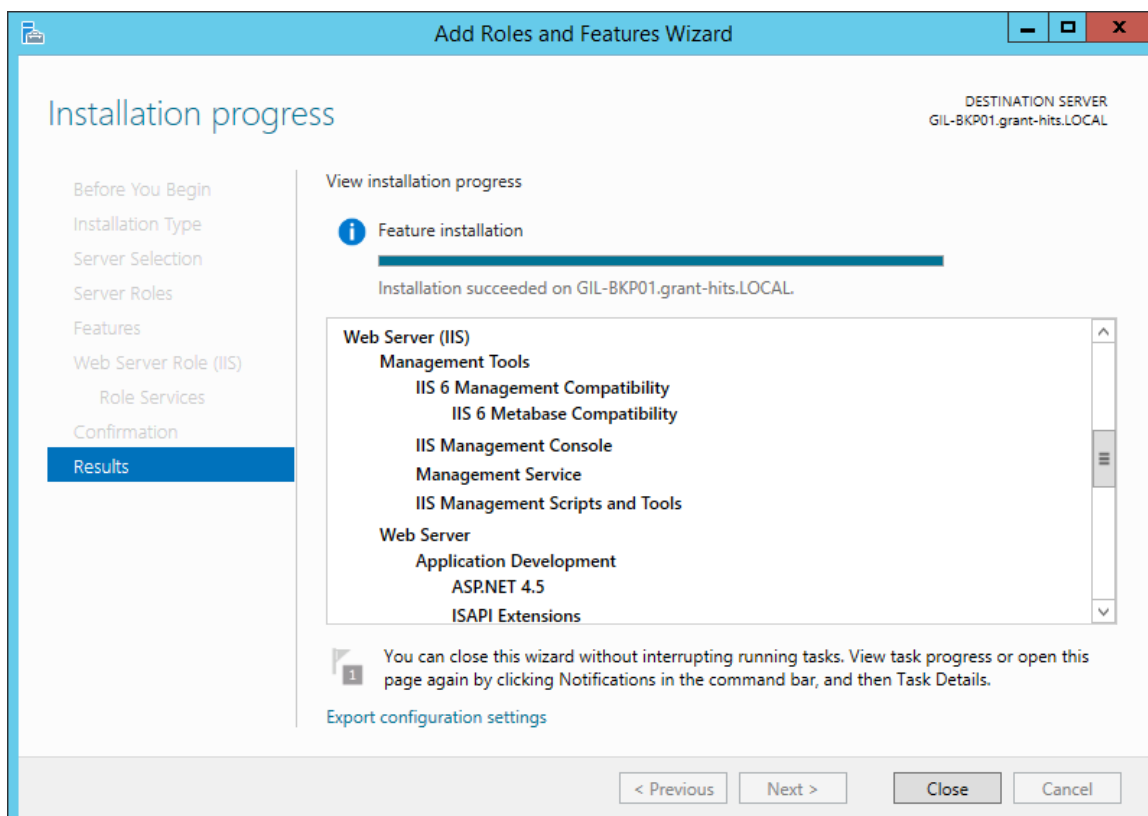


The screenshot shows the 'Add Roles and Features Wizard' window. The title bar reads 'Add Roles and Features Wizard'. The main heading is 'Confirm installation selections'. In the top right corner, it says 'DESTINATION SERVER: GIL-BKP01.grant-hits.LOCAL'. On the left, a navigation pane lists the steps: 'Before You Begin', 'Installation Type', 'Server Selection', 'Server Roles', 'Features', 'Web Server Role (IIS)', 'Role Services', 'Confirmation' (which is highlighted in blue), and 'Results'. The main area contains the following text: 'To install the following roles, role services, or features on selected server, click Install.' Below this is a checkbox labeled 'Restart the destination server automatically if required'. A paragraph follows: 'Optional features (such as administration tools) might be displayed on this page because they have been selected automatically. If you do not want to install these optional features, click Previous to clear their check boxes.' A list box contains the following items: '.NET Framework 4.5 Features', 'ASP.NET 4.5', 'WCF Services', 'HTTP Activation', 'Message Queuing (MSMQ) Activation', 'Named Pipe Activation', 'TCP Activation', 'Message Queuing', 'Message Queuing DCOM Proxy', and 'Message Queuing Services'. At the bottom left of the main area, there are two links: 'Export configuration settings' and 'Specify an alternate source path'. At the bottom right, there are four buttons: '< Previous', 'Next >', 'Install' (highlighted in blue), and 'Cancel'.

**Step-33:-** You can see installation progress in following screen.



**Step-34:-** Installation is successfully completed, you can now close wizard.



## 7. Document Acceptance;

The parties, in signing this acceptance, have agreed the above mentioned deliverables & scope of work. This signoff is required prior to any Services being carried out onsite.

Insight and Customer have caused this SOW to be signed and delivered by their duly authorized representatives.

Grant Investrade Ltd.		Insight Business Machines Pvt Ltd	
Name	Seal & Signature	Name	Seal & Signature
Vinyak S		Darshan C	
Vijay K		Kamlesh S	

## 8. Annexure;

NA