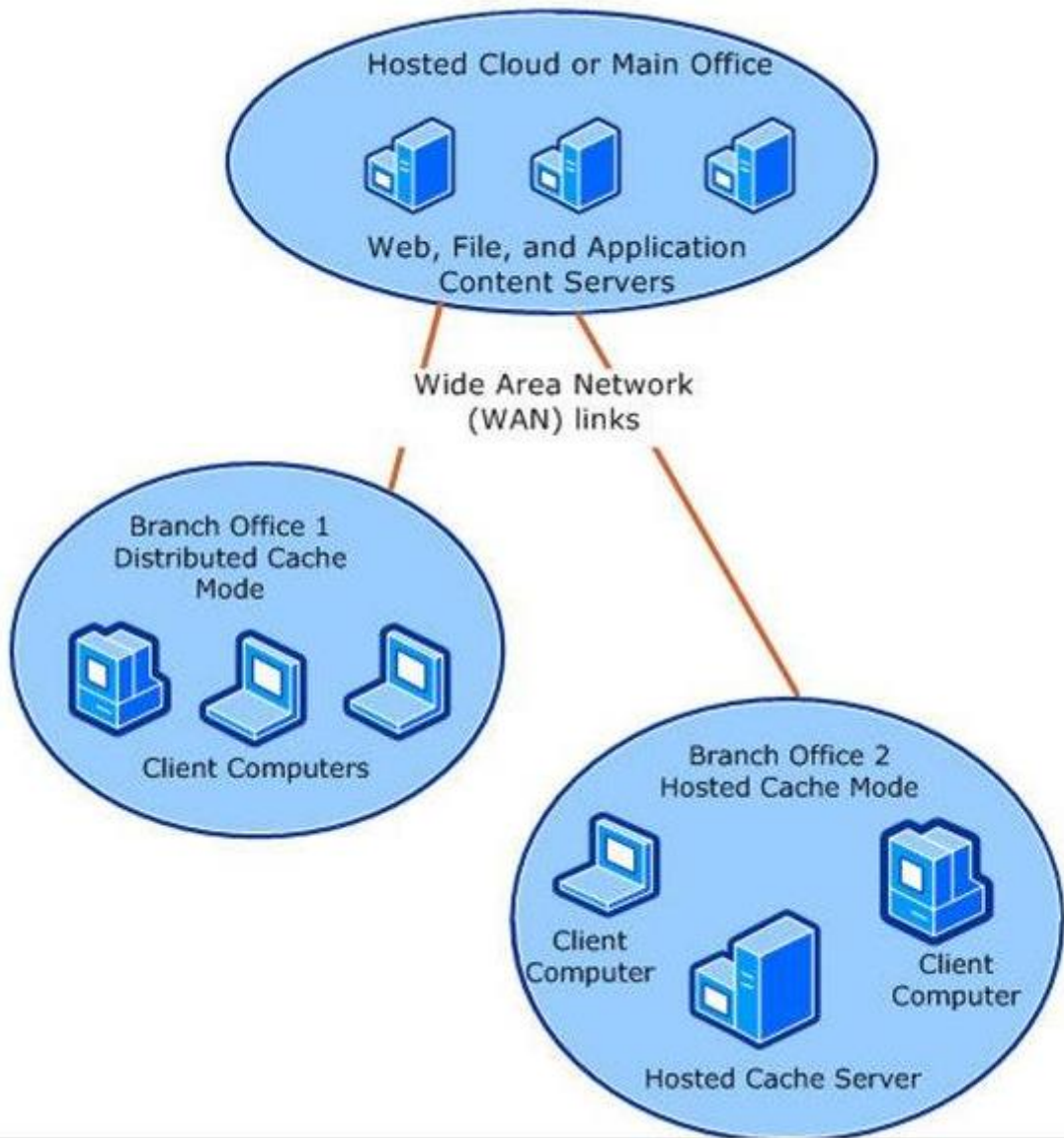BranchCache enables remote offices to have centralized access to file shares over the wide area .

- Create a BranchCache Enabled File Share

- Use Group policy to configure BranchCache modes

BranchCache has two modes of operation.

- Distributed cache mode:
  (content cache at a branch office is distributed among client computers.)

- Hosted cache mode:
  (content cache at a branch office is hosted on one or more server computers called hosted cache servers.

Hosted Cloud or Main Office

Web, File, and Application Content Servers

Wide Area Network (WAN) links

Branch Office 1 Distributed Cache Mode

Client Computers

Branch Office 2 Hosted Cache Mode

Client Computer

Client Computer

Hosted Cache Server

Server Manager

Server Manager ▸ Dashboard

Manage   Tools   View

Add Roles and Features

Remove Roles and Features

Add Servers

Create Server Group

Server Manager Properties

WELCOME TO SERVER MANAGER

Dashboard

Local Server

All Servers

AD CS

AD DS

AD RMS

DNS

File and Storage Services ▷

IIS

NAP

Remote Access

QUICK START

1 Configure this local server

2 Add roles and features

3 Add other servers to manage

WHAT'S NEW

4 Create a server group

5 Connect this server to cloud services

LEARN MORE

Hide

Add Roles and Features Wizard

Before you begin

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

This wizard helps you install roles, role services, or features. You determine which roles, role services, or features to install based on the computing needs of your organization, such as sharing documents, or hosting a website.

To remove roles, role services, or features:
Start the Remove Roles and Features Wizard

Before you continue, verify that the following tasks have been completed:

* The Administrator account has a strong password
* Network settings, such as static IP addresses, are configured
* The most current security updates from Windows Update are installed

If you must verify that any of the preceding prerequisites have been completed, close the wizard, complete the steps, and then run the wizard again.

To continue, click Next.

☐ Skip this page by default

< Previous   Next >   Install   Cancel

Add Roles and Features Wizard

Select installation type

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

Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).

◉ **Role-based or feature-based installation**

Configure a single server by adding roles, role services, and features.

○ **Remote Desktop Services installation**

Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment.

< Previous   Next >   Install   Cancel

Add Roles and Features Wizard

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
testse		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

Add Roles and Features Wizard

Select server roles

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

Roles

▷ ☑	Active Directory Certificate Services (Installed)
☑	Active Directory Domain Services (Installed)
☐	Active Directory Federation Services
☐	Active Directory Lightweight Directory Services
▷ ◼	Active Directory Rights Management Services (1 o
☐	Application Server
☐	DHCP Server
☑	DNS Server (Installed)
☐	Fax Server
◢ ◼	File and Storage Services (3 of 12 installed)
◢ ◼	File and iSCSI Services (2 of 11 installed)
☑	File Server (Installed)
☑	**BranchCache for Network Files**
☐	Data Deduplication

Description

BranchCache for Network Files provides support for BranchCache on this file server. BranchCache is a wide area network (WAN) bandwidth optimization technology that caches content from your main office content servers at branch office locations, allowing client computers at branch offices to access the content locally rather than over the WAN. After you complete installation, you must share folders and enable hash generation for shared folders by using Group Policy or Local Computer Policy.

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

< Previous | Next > | Install | Cancel

Add Roles and Features Wizard

Select features

Before You Begin

Installation Type

Server Selection

Server Roles

Features

Confirmation

Results

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

Features

- ▷ ■ .NET Framework 3.5 Features (1 of 3 installed)
- ▷ ■ .NET Framework 4.5 Features (4 of 7 installed)
- ▷ ☐ Background Intelligent Transfer Service (BITS)
- ☐ BitLocker Drive Encryption
- ☐ BitLocker Network Unlock
- ☐ BranchCache
- ☐ Client for NFS
- ☐ Data Center Bridging
- ☐ Direct Play
- ☐ Enhanced Storage
- ☐ Failover Clustering
- ☑ Group Policy Management (Installed)
- ☐ IIS Hostable Web Core
- ☑ Ink and Handwriting Services (Installed)

Description

.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.

< Previous | Next > | Install | Cancel

Add Roles and Features Wizard

Confirm installation selections

Before You Begin

Installation Type

Server Selection

Server Roles

Features

Confirmation

Results

To install the following roles, role services, or features on selected server, click Install.

☐ Restart the destination server automatically if required

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.

File and Storage Services
    File and iSCSI Services
        BranchCache for Network Files

Export configuration settings
Specify an alternate source path

< Previous   Next >   Install   Cancel

Add Roles and Features Wizard

■ □ ✕

Installation progress

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

View installation progress

ℹ️ Feature installation

Installation succeeded on testserver.testserver.com.

File and Storage Services
    File and iSCSI Services
        BranchCache for Network Files

You can close this wizard without interrupting running tasks. View task progress or open this page again by clicking Notifications in the command bar, and then Task Details.

Export configuration settings

< Previous   Next >   Close   Cancel

WELCOME TO SERVER MANAGER

Dashboard	
Local Server	**QUICK START**
All Servers	
AD CS	
AD DS	
AD RMS	
DNS	
File and Storage Services ▷	**WHAT'S NEW**
IIS	
NAP	
Remote Access	**LEARN MORE**

1 Configure this local server

2 Add roles and features

3 Add other servers to manage

4 Create a server group

5 Connect this server to cloud services

SHARES
All shares | 5 total

TASKS ▼

New Share...

Refresh

VOLUM
CertEnrol

Servers

Volumes

Disks

Storage Pools

Shares

iSCSI

Work Folders

Filter

55.5%

Share	Local Path	Protocol	Availability Type
▲ testserver (5)			
CertEnroll	F:\Windows\system32\CertSrv\Cer...	SMB	Not Clustered
DocShare	F:\DocShare	SMB	Not Clustered
NETLOGON	F:\Windows\SYSVOL\sysvol\testse...	SMB	Not Clustered
RMStemplates	F:\RMStemplates	SMB	Not Clustered
SYSVOL	F:\Windows\SYSVOL\sysvol	SMB	Not Clustered

Go to V

QUOTA
No data a

New Share Wizard

Select the profile for this share

- Select Profile
- Share Location
- Share Name
- Other Settings
- Permissions
- Confirmation
- Results

File share profile:

SMB Share - Quick
SMB Share - Advanced
SMB Share - Applications
NFS Share - Quick
NFS Share - Advanced

Description:

This basic profile represents the fastest way to create an SMB file share, typically used to share files with Windows-based computers.

- Suitable for general file sharing
- Advanced options can be configured later by using the Properties dialog

< Previous   Next >   Create   Cancel

New Share Wizard

Select the server and path for this share

Server:

Server Name	Status	Cluster Role	Owner Node
testserver	Online	Not Clustered	

Share location:

⦿ Select by volume:

Volume	Free Space	Capacity	File System
C:	29.9 GB	185 GB	NTFS
E:	15.9 GB	200 GB	NTFS
F:	27.3 GB	61.3 GB	NTFS

The location of the file share will be a new folder in the \Shares directory on the selected volume.

○ Type a custom path:

[   ] Browse...

< Previous   Next >   Create   Cancel

New Share Wizard

Specify share name

- Select Profile
- Share Location
- **Share Name**
- Other Settings
- Permissions
- Confirmation
- Results

Share name:

nfs_share

Share description:

Local path to share:

F:\Shares\nfs_share

ⓘ If the folder does not exist, the folder is created.

Remote path to share:

\\testserver\nfs_share

< Previous   Next >   Create   Cancel

New Share Wizard

Configure share settings

☐ Enable access-based enumeration

Access-based enumeration displays only the files and folders that a user has permissions to access. If a user does not have Read (or equivalent) permissions for a folder, Windows hides the folder from the user's view.

☑ Allow caching of share

Caching makes the contents of the share available to offline users. If the BranchCache for Network Files role service is installed, you can enable BranchCache on the share.

   ☑ Enable BranchCache on the file share

   BranchCache enables computers in a branch office to cache files downloaded from this share, and then allows the files to be securely available to other computers in the branch.

☐ Encrypt data access

When enabled, remote file access to this share will be encrypted. This secures the data against unauthorized access while the data is transferred to and from the share. If this box is checked and grayed out, an administrator has turned on encryption for the entire server.

< Previous   Next >   Create   Cancel

New Share Wizard

Specify permissions to control access

Permissions to access the files on a share are set using a combination of folder permissions, share permissions, and, optionally, a central access policy.

Share permissions: Everyone Full Control

Folder permissions:

Type	Principal	Access	Applies To	
Allow	CREATOR OWNER	Full Control	Subfolders and files only	
Allow	BUILTIN\Users	Special	This folder and subfolders	
Allow	BUILTIN\Users	Read & execute	This folder, subfolders, and files	
Allow	BUILTIN\Administrators	Full Control	This folder, subfolders, and files	
Allow	NT AUTHORITY\SYSTEM	Full Control	This folder, subfolders, and files	

Customize permissions...

< Previous   Next >   Create   Cancel

New Share Wizard

Confirm selections

Confirm that the following are the correct settings, and then click Create.

SHARE LOCATION

Server:	testserver
Cluster role:	Not Clustered
Local path:	F:\Shares\nfs_share

SHARE PROPERTIES

Share name:	nfs_share
Protocol:	SMB
Access-based enumeration:	Disabled
Caching:	Enabled
BranchCache:	Enabled
Encrypt data:	Disabled

< Previous   Next >   Create   Cancel

New Share Wizard

View results

The share was successfully created.

Task	Progress	Status
Create SMB share		Completed
Set SMB permissions		Completed

< Previous   Next >   **Close**   Cancel