

How to deploy ICE iPush[®] Communication Server V2 in Microsoft Cluster Service

(for Windows Server 2003 Enterprise & Datacenter Edition)

By: ICE Technology Corp., April 20, 2005

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E-mail: service@icetechnology.com Tel: +886-2-23961880 Fax: +886-2-23961881

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1. Environment Requirement

Environment Requirement

OS: Windows Server 2003 Enterprise Edition or Datacenter Edition installed as domain controller

Cluster model: Single quorum device server clusters or Majority node set server clusters

Shard Hard Disk: setup at lease one shared hard dist space with the same driver name mapping in all cluster nodes

NIC: 2 Ethernet network adapters in each cluster node; one for private network, one for public network.

2. List of Components Needed for Installation

Component	Description
setup_V2.1_Buildxxx.exe	ICE iPush [®] Communication Server installation file for Windows.
j2sdk-1_4_2_04-windows-i586-p.exe	J2SDK v1.4.2.04 installation file
*.lic	iPush Server V2 license key file (binding with cluster virtual IP)

3. Architecture of Sample Deployment

Cluster Name: ClusterOne

Cluster Virtual IP: 192.168.0.213

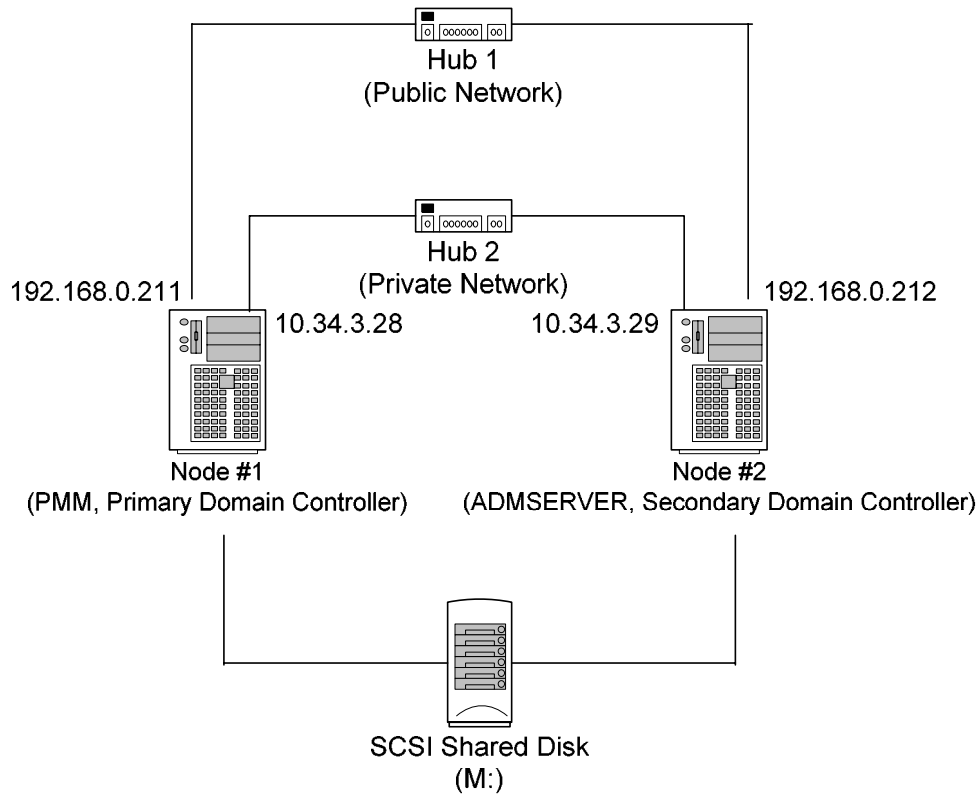


Figure 1. Sample architecture deployed for this document

And the quorum has been set to locate at Shared Disk (M:).

After the iPush Server V2 successfully installed and configured in MSCS, you may see the iPush related resources in Cluster Administrator window as Figure 2. below:

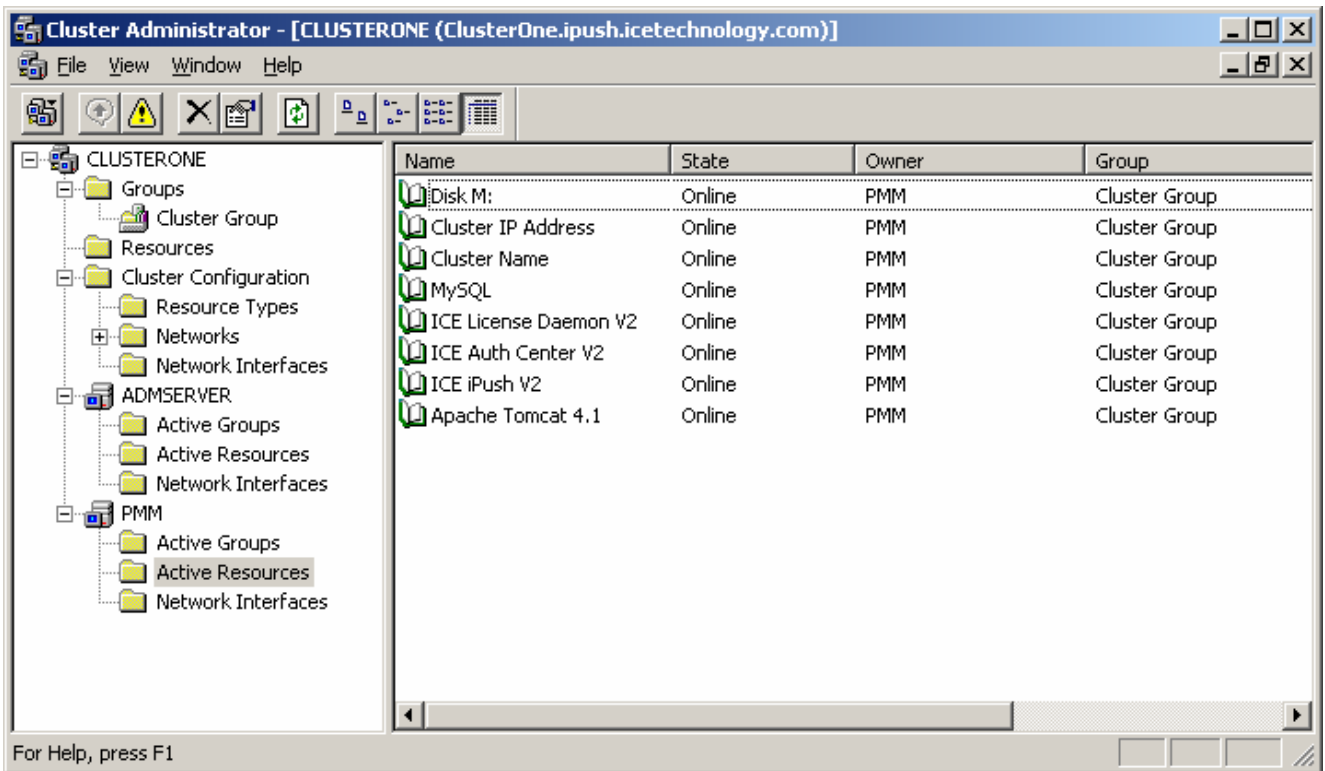


Figure 2.

4. Begin to Install

For Node #1 (PMM, the primary domain controller)

Step 1. Install J2SDK (j2sdk-1_4_2_04-windows-i586-p.exe) to Shared Disk (M:) or other disk.

Step 2. Make sure Environment Variable “**JAVA_HOME**” containing correct values has already existed in Windows system.

- ▶ Open in order: [Start] / [Settings] / [Control Panel] / [System] / Tab <Advanced>

Click , find variable “**JAVA_HOME**” in “System variables”. If it existed, make sure the value is the correct installation path of J2SDK required by Tomcat:

Step 3. Start to install iPush Server V2 for Windows (setup_V2.1_Build103.exe). There are some points you have to keep aware of:

3.1. You should install the iPush Server V2 package to Shared Disk (M:), as Figure 3. shown:

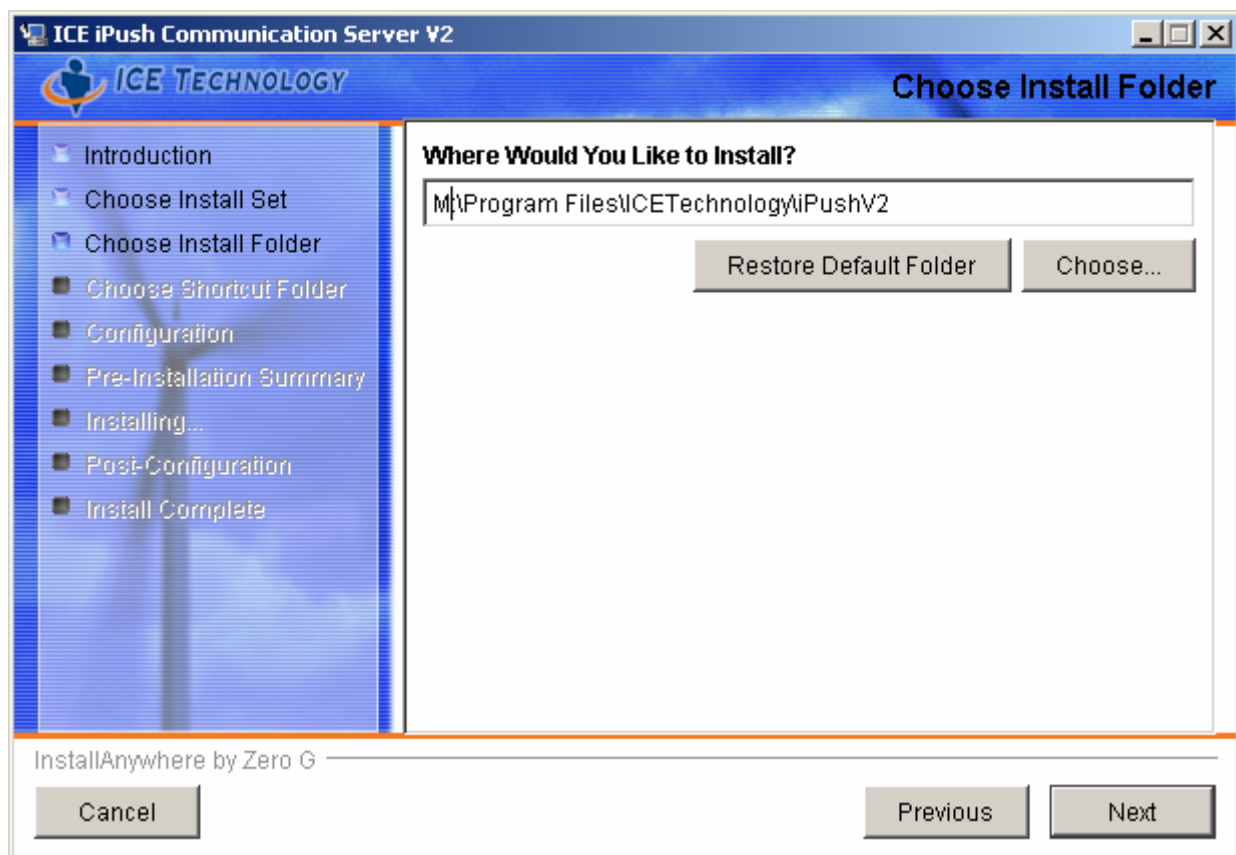


Figure 3.

3.2. In [Host & Port Configuration] dialog box, change the LicenseDaemon Address & AuthCenter Address from private IP or public IP to Cluster virtual IP (192.168.0.213) if necessary, as Figure 4. shown:

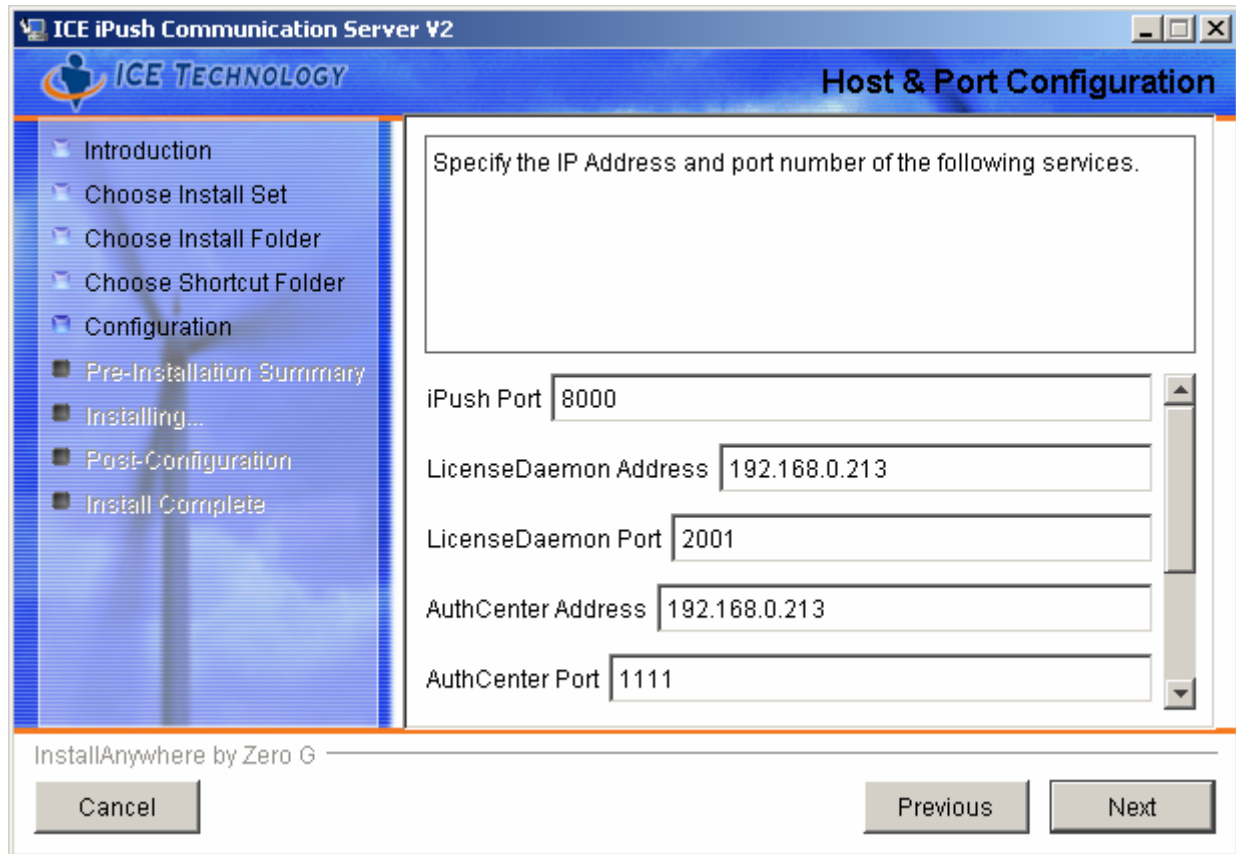


Figure 4.

3.3. Make sure you give the right license key file path, as Figure 5. shown:

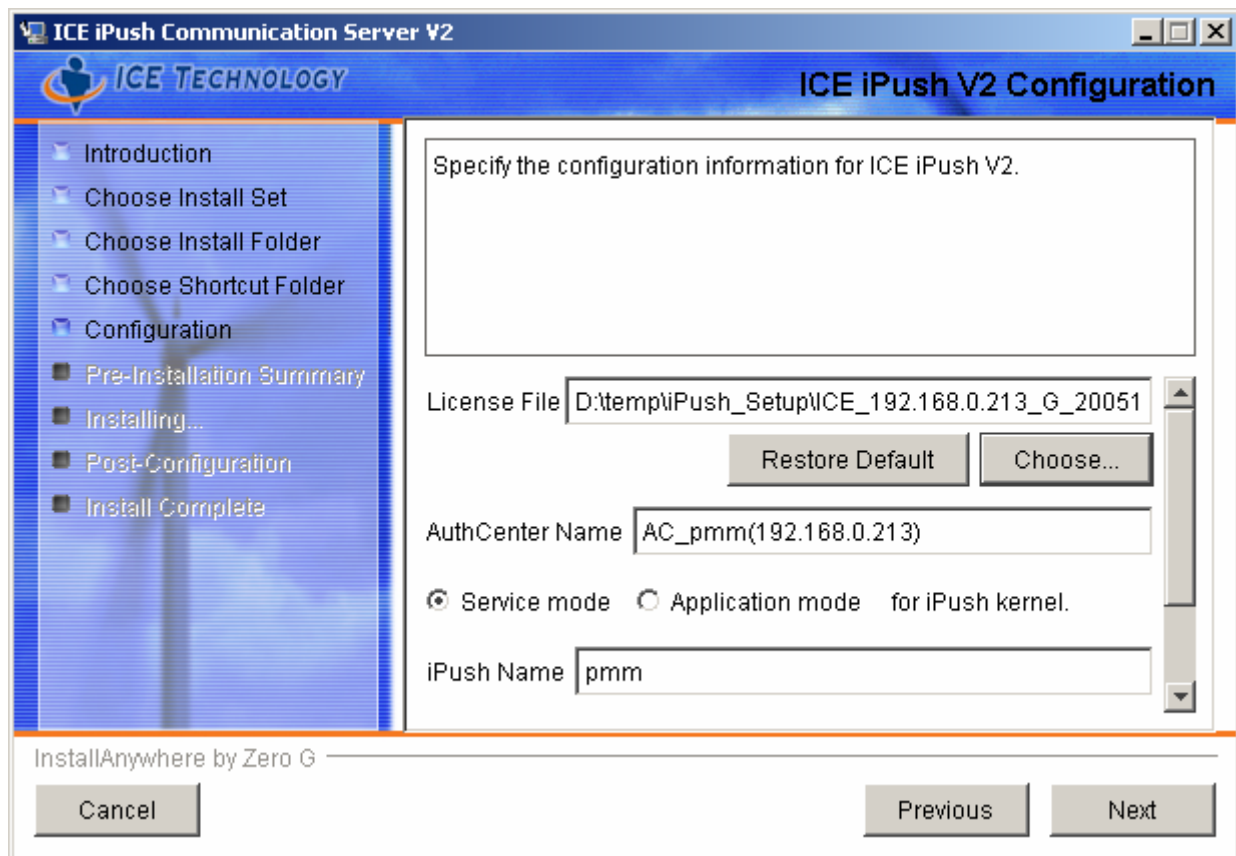


Figure 5.

3.4. Install Apache Tomcat to Shared Disk (M:) too, as Figure 6. shown:

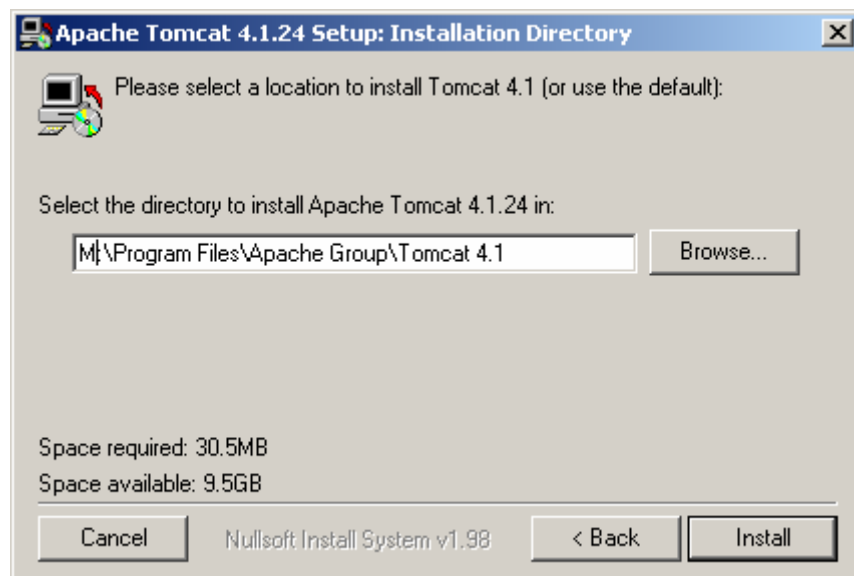


Figure 6.

For Node #2 (ADMSERVER, the secondary domain controller)

Just follow the same procedures from Step 1. to Step 3. for Node #1 above , install iPush Server V2 for Node #2.

Please keep aware of all iPush related components need to be installed to Shared Disk (M:).

For the time being, all 5 iPush related services (Apache Tomcat 4.1, ICE Auth Center V2 ICE License Daemon V2, ICE iPush V2, and MySQL) should be installed in Windows Services consoles of Node #1 and Node #2 (Started or Stop, depend on the ownership of Shared Disk at the moment), as Figure 7 shown:

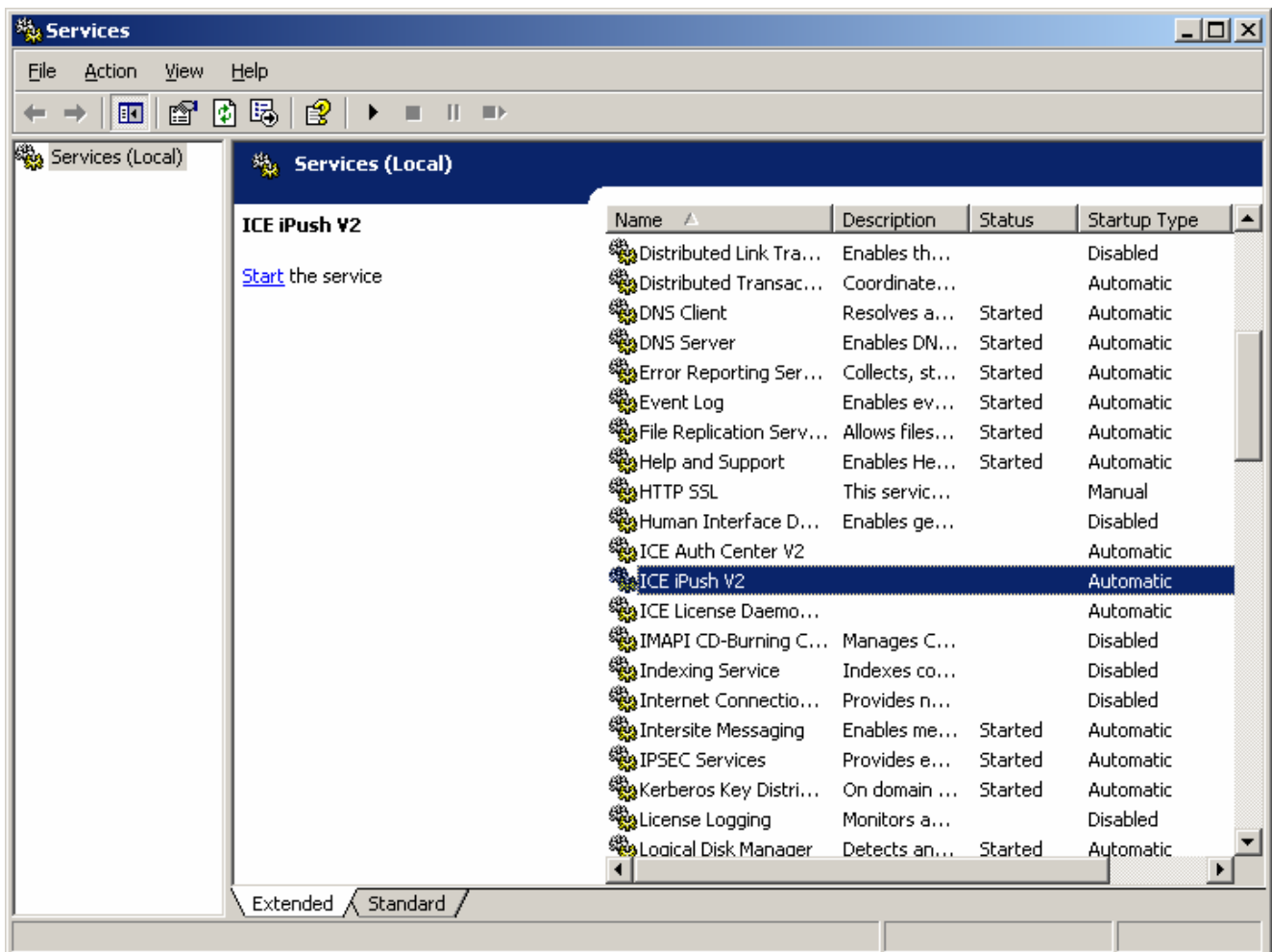


Figure 7.

5. Configure the Cluster Resources for iPush Server V2

Step 1. Open the Cluster Administrator in active node.

Step 2. Click the right mouse button on the cluster tree, select [New] -> [Resource], in dialog box [New Resource], fill in:

Name: MySQL

Description: leave blank

Resource type: Generic Service

Group: [Cluster Group] (or other user defined)

As Figure 8. shown. Click  to continue.

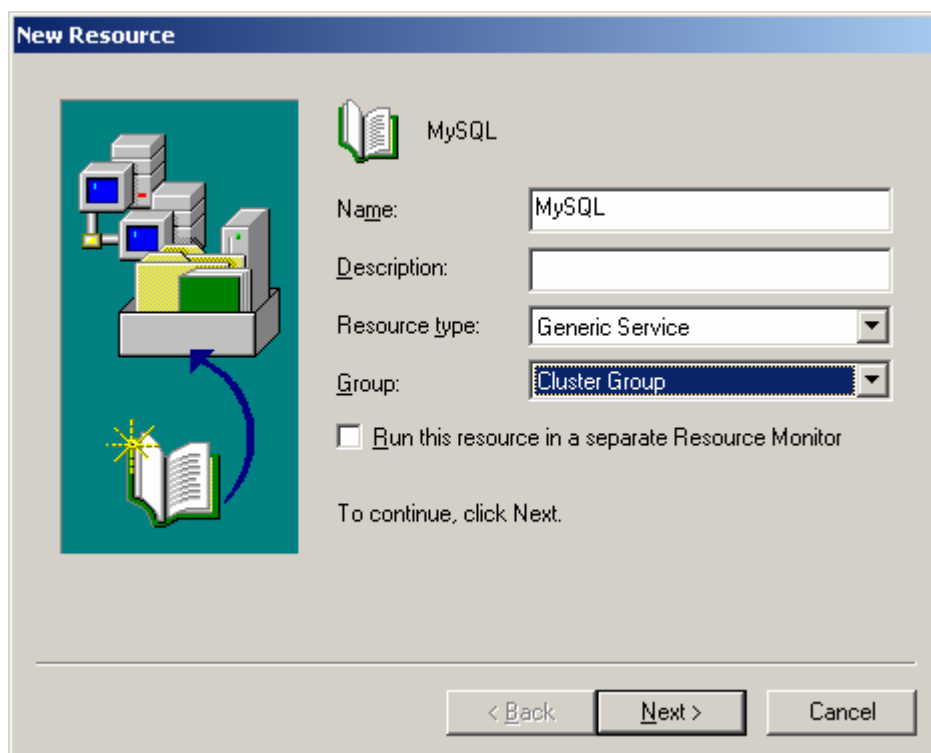



Figure 8.

Step 3. In dialog box [Possible Owners], add the name of Node #1 (PMM) and Node #2 (ADMSERVER) from Available nodes table to Possible owners table. As Figure 9. shown. Click  to continue.

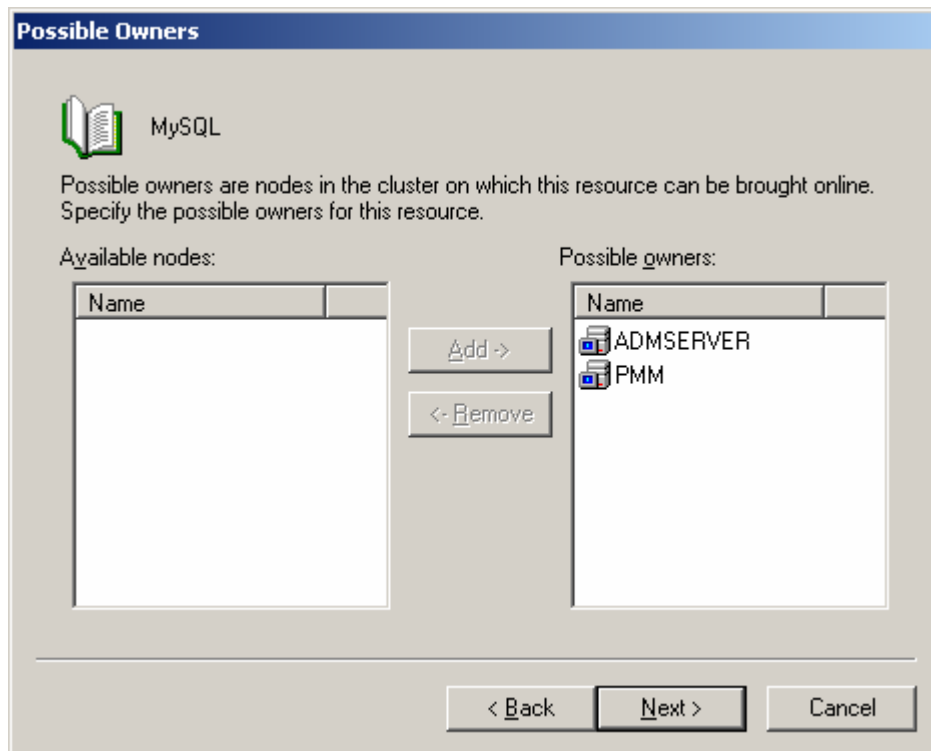



Figure 9.

Step 4. In dialog box [Dependencies], add [Cluster IP Address] & [Disk M:] (the Shared Disk) from Available resources table to Resource Dependencies table. As Figure 10. shown. Click  to continue.

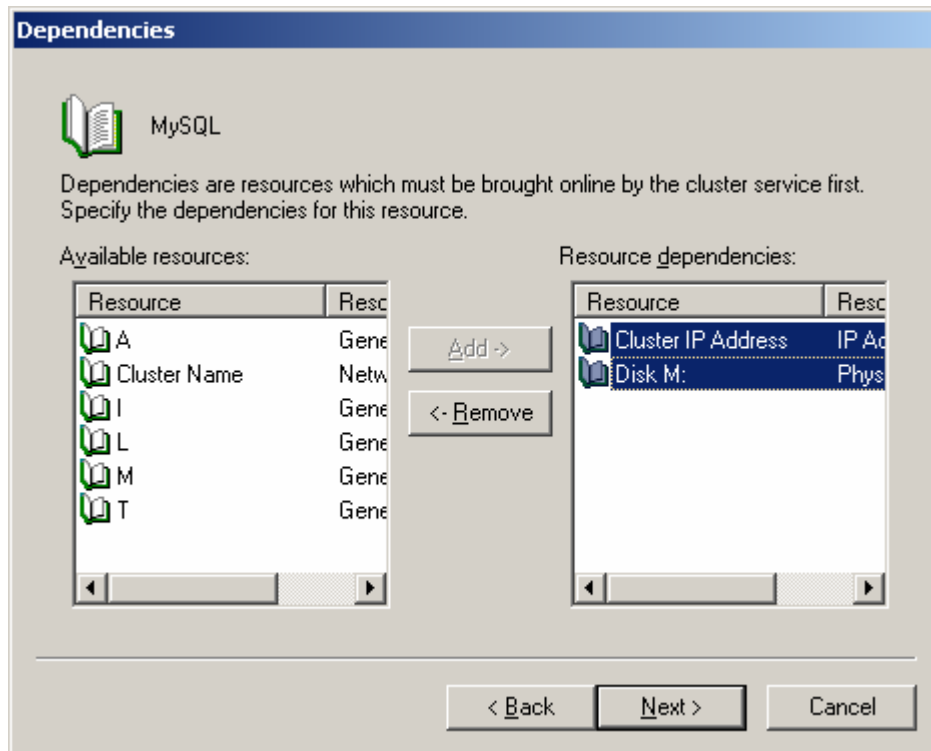


Figure 10.

Step 5. In dialog box [Generic Service Parameters], fill in:

Service name: MySQL (the exact name of it in Windows Services console)

Start parameters: leave blank

As Figure 11. shown. Click  to continue.

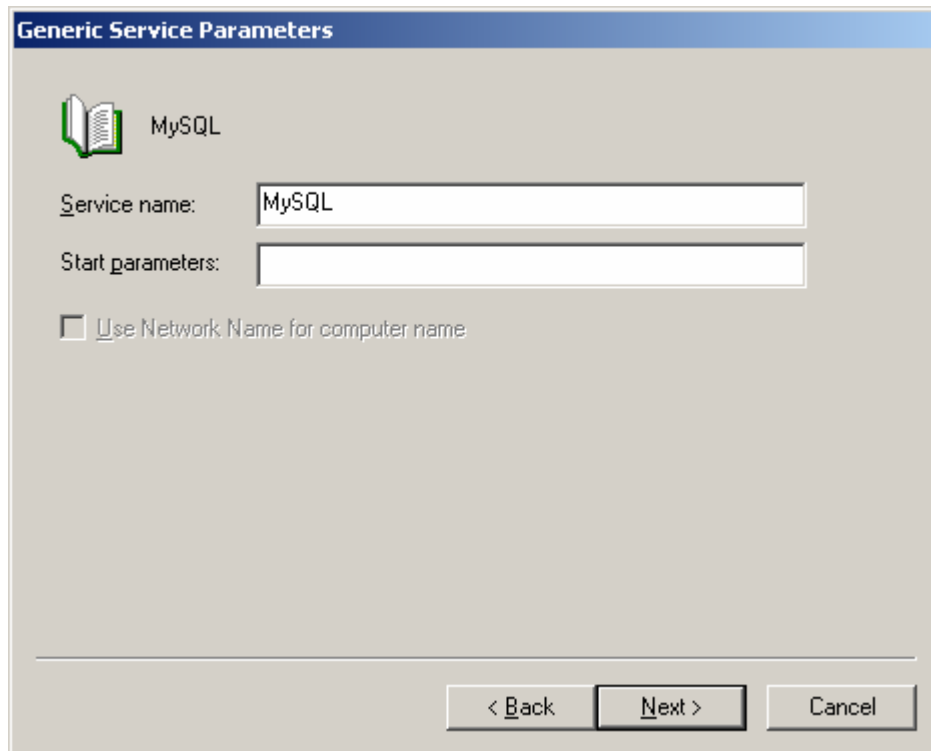


Figure 11.

Step 6. In dialog box [Register Replication], just click the [Finish] button. As Figure 12. shown.

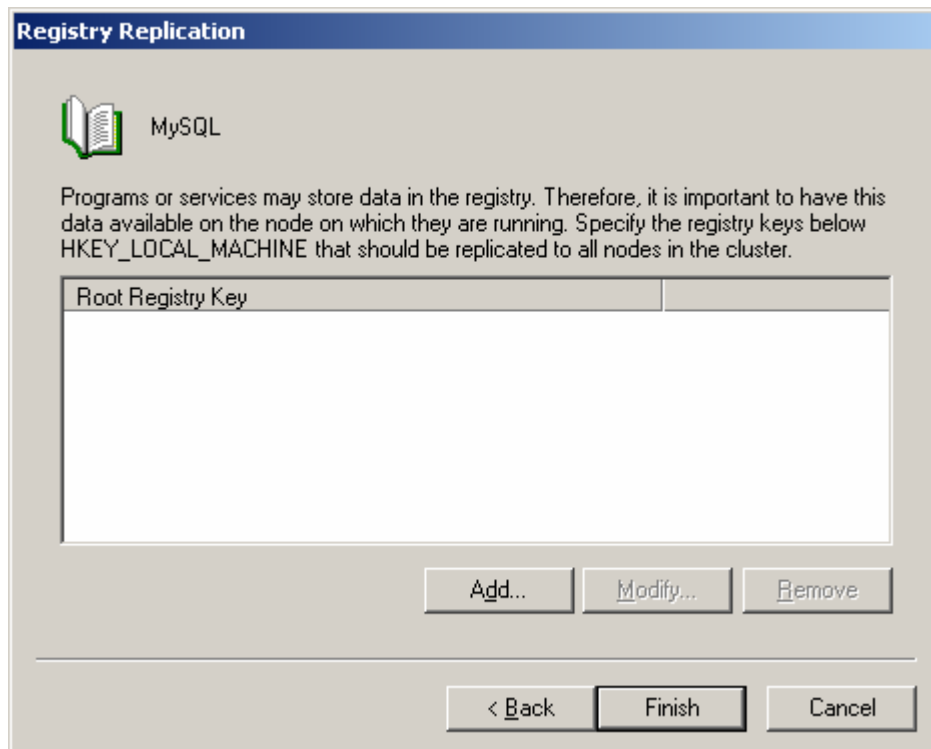


Figure 12.

If everything went fine, the message dialog box as Figure 13 shown would come after:

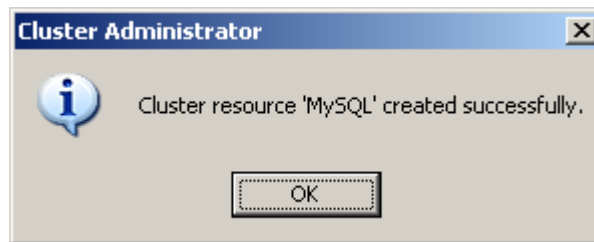


Figure 13.

After go back Cluster Administrator windows, if the resource you just added was in the state of “Online”, you may click right mouse button to execute command [Bring Online].

Keep adding new resources for other 4 iPush related services as Step 2 to Step 6.. We list all the information for you proceeding:

For License Daemon

Dialog box	Information
New Resource	Name: ICE License Daemon V2 Description: leave blank Resource type: Generic Service Group: [Cluster Group] (or other user defined)
Possible Owners	Node #1 (PMM) Node #2 (ADMSERVER)
Dependencies	[Cluster IP Address] [Disk M:] (the Shared Disk)
Generic Service Parameters	Service name: ICE License Daemon V2 Start parameters: leave blank
Register Replication	leave blank

For Auth. Center

Dialog box	Information
New Resource	Name: ICE Auth Center V2 Description: leave blank Resource type: Generic Service Group: [Cluster Group] (or other user defined)
Possible Owners	Node #1 (PMM)

	Node #2 (ADMSERVER)
Dependencies	[ICE License Daemon V2] [MySQL]
Generic Service Parameters	Service name: ICE Auth Center V2 Start parameters: leave blank
Register Replication	leave blank

For iPush Kernel

Dialog box	Information
New Resource	Name: ICE iPush V2 Description: leave blank Resource type: Generic Service Group: [Cluster Group] (or other user defined)
Possible Owners	Node #1 (PMM) Node #2 (ADMSERVER)
Dependencies	[ICE Auth Center V2]
Generic Service Parameters	Service name: ICE iPush V2 Start parameters: leave blank
Register Replication	leave blank

For Tomcat

Dialog box	Information
New Resource	Name: Apache Tomcat 4.1 Description: leave blank Resource type: Generic Service Group: [Cluster Group] (or other user defined)
Possible Owners	Node #1 (PMM) Node #2 (ADMSERVER)
Dependencies	[Cluster IP Address] [Disk M:] (the Shared Disk)
Generic Service Parameters	Service name: Apache Tomcat 4.1 Start parameters: leave blank
Register Replication	leave blank

After all these 5 iPush related resources are added to cluster and brought online, feel free to test the cluster failover or stop/start cluster service for each node.