



**ExpressCluster X SingleServerSafe for Windows**

**Quick Start Guide for Microsoft SQL Server**

**(Installation & Configuration Guide)**



**NEC ExpressCluster X SingleServerSafe (SSS) for Windows**  
**Quick Start Guide to install and configure SSS with Microsoft SQL Server**

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NEC Corporation

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## Installing ExpressCluster X SSS on Windows Server 2003

1. Install the ExpressCluster X SSS software
  - Insert ExpressCluster X SSS CD in CD-Drive. “NEC ExpressCluster Setup Menu” screen will be shown. In case it is not shown, open the ExpressCluster X SSS CD and click on “menu.exe”
  - Click “NEC ExpressCluster SingleServerSafe for Windows” option
  - Click “NEC ExpressCluster X SingleServerSafe for Windows” option
  - Click “Next”
  - Click “Next”
  - Click “Install”
  - Keep the default WebManager HTTP Port to 29003 and click “Next”
  - Click “Register”
  - Click “Register with License Information” if you have license key. You can also click “Register with License File” if you have softcopy file of license. For now we are assuming softcopy of license key, so will click “Register with License File”.
  - Browse to the folder where license file is kept. Select the license file and click “Open”.
  - On successful registration of license, a window with message “The license was registered.” will be shown.
  - Click “OK”
  - Click “Finish”
  - Restart the server.
2. Install the JRE (Java runtime)
  - Get the JRE and install it.

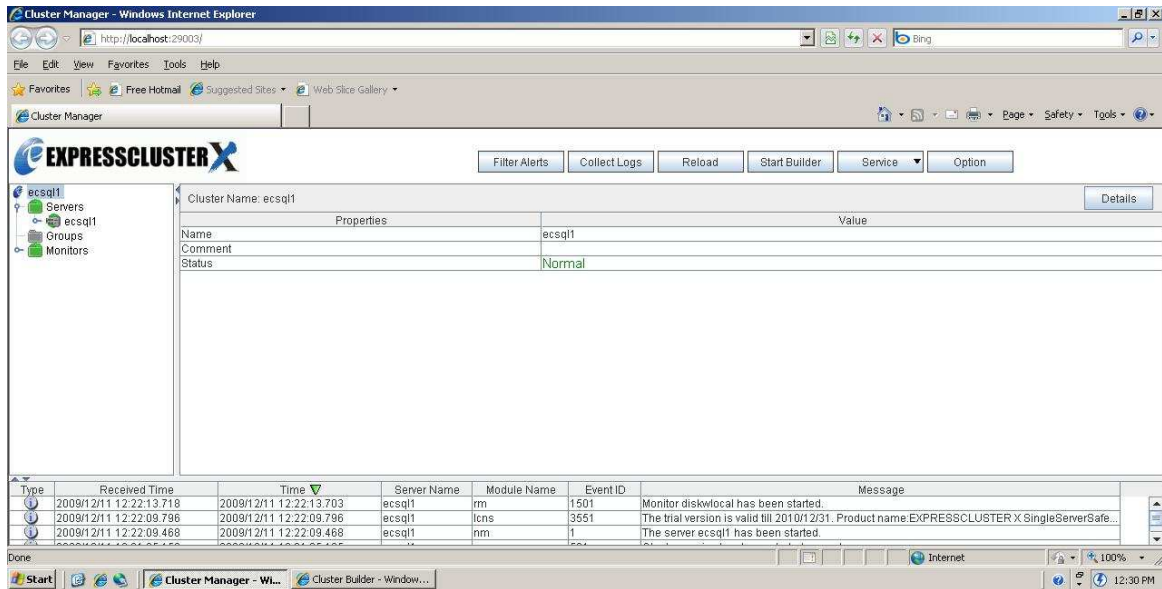
## Configuring ExpressCluster X SSS for MS SQL Server

Prerequisite – Before configuring ExpressCluster X SSS, MS SQL Server must be installed on server on which SSS is installed.

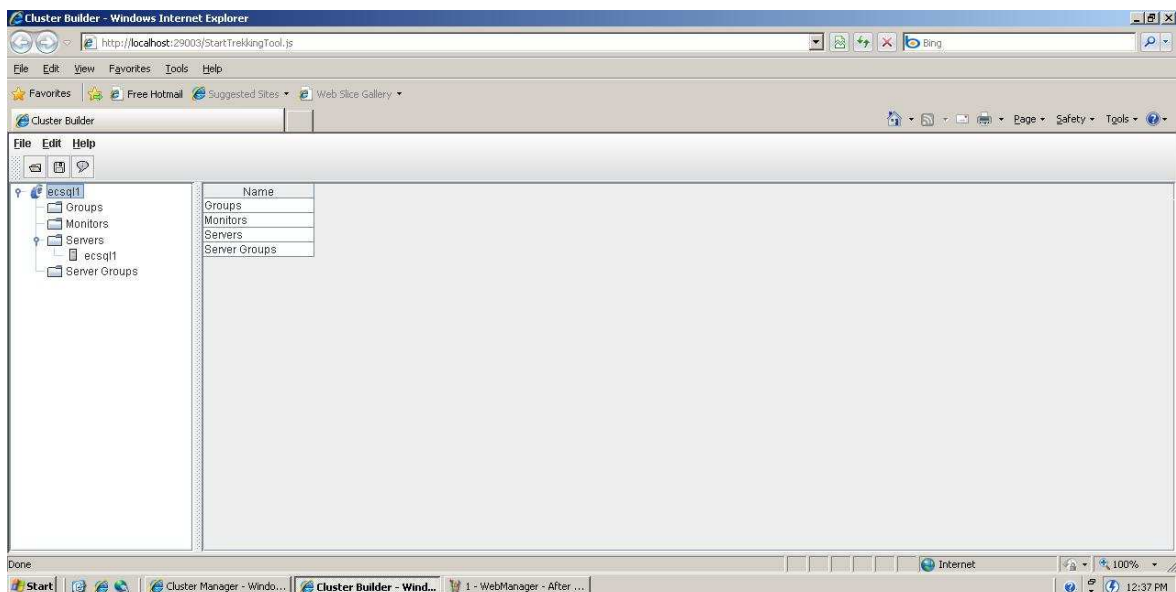
For details on how to start the web manager & definitions of features available in SSS, refer the ExpressCluster X SSS manuals. Given below is a brief demonstration on how to configure SSS using sample service application. Application being used for preparation of this document is MS SQL Server 2005

**Step 1:** Open SSS WebManager by opening link “<http://localhost:29003>” in browser of server on

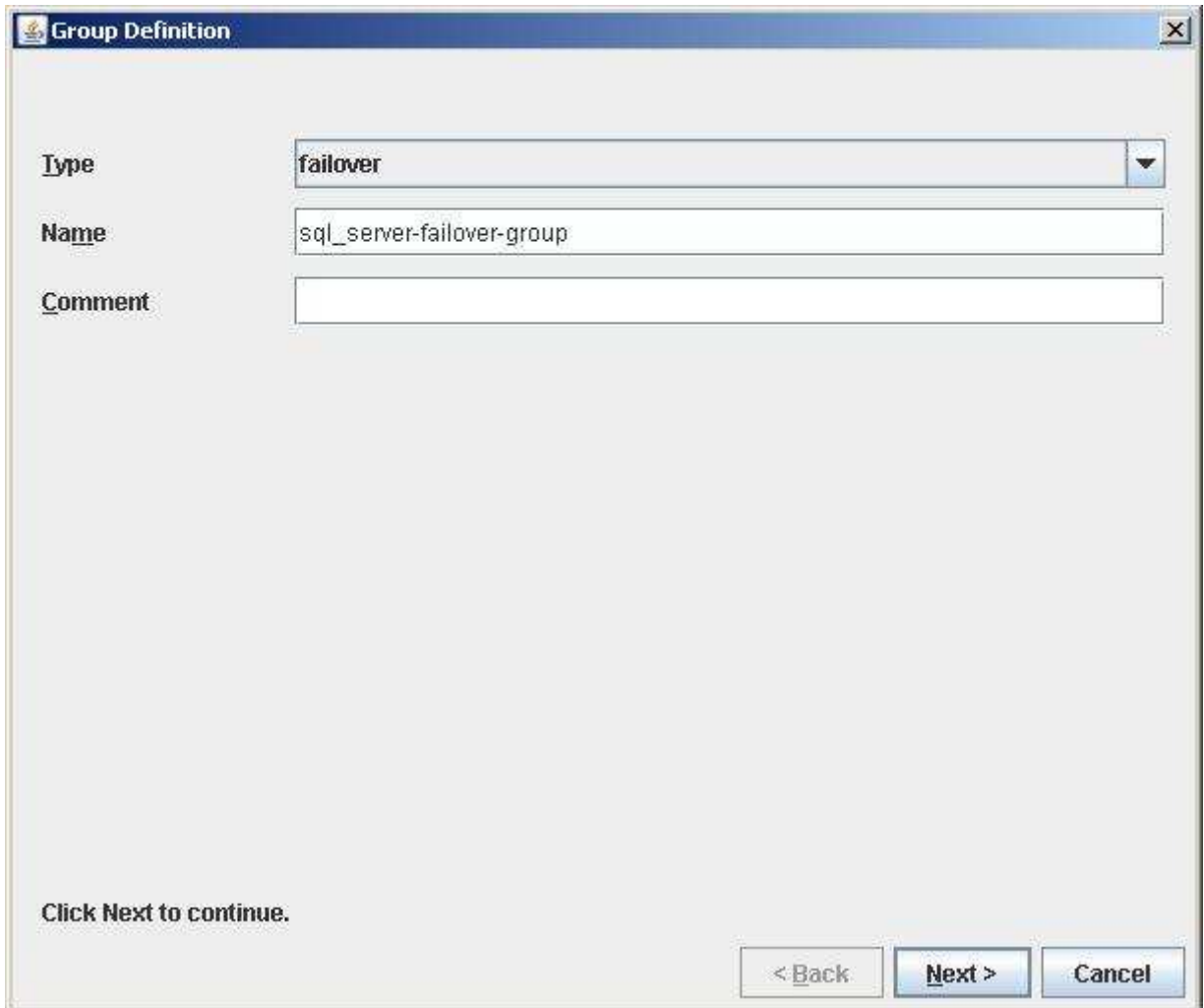
which SSS is installed. You will see the default cluster already created as shown in below image. In below image “ecsqli1” is the hostname of server. You will see the hostname of your SSS server here.



**Step 2:** Click “Start Builder” to open the cluster builder window. Within this window we can alter/customize the SSS configuration. Cluster window will look like as shown in below image. In below image “ecsqli1” is the hostname of server. You will see the hostname of your SSS server here.

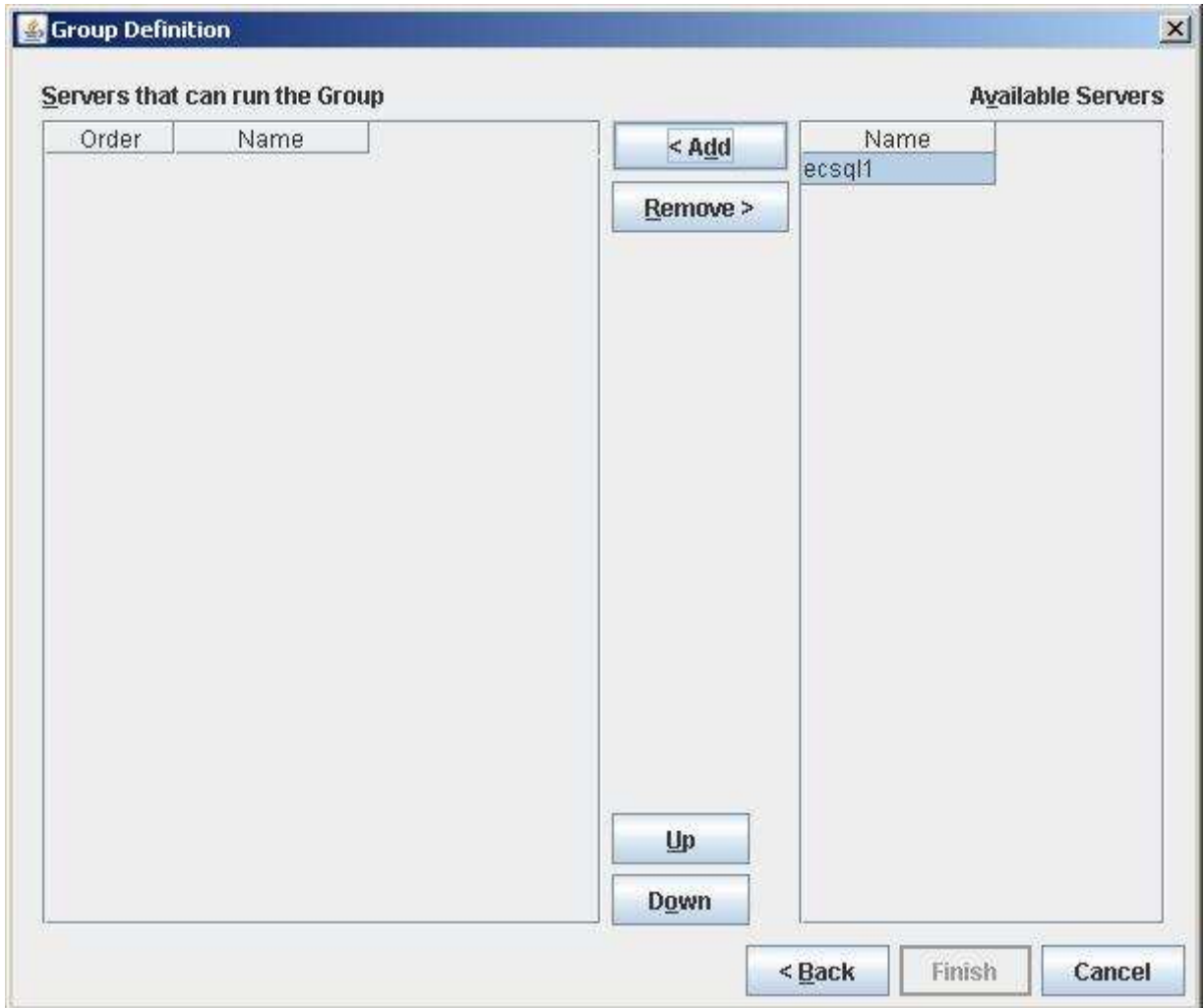


**Step 3:** Right click “Groups”. Click “Add Group”. A wizard will open to create a group as shown in below image. Enter the name of group. Let’s name it “sql\_server-failover-group”.

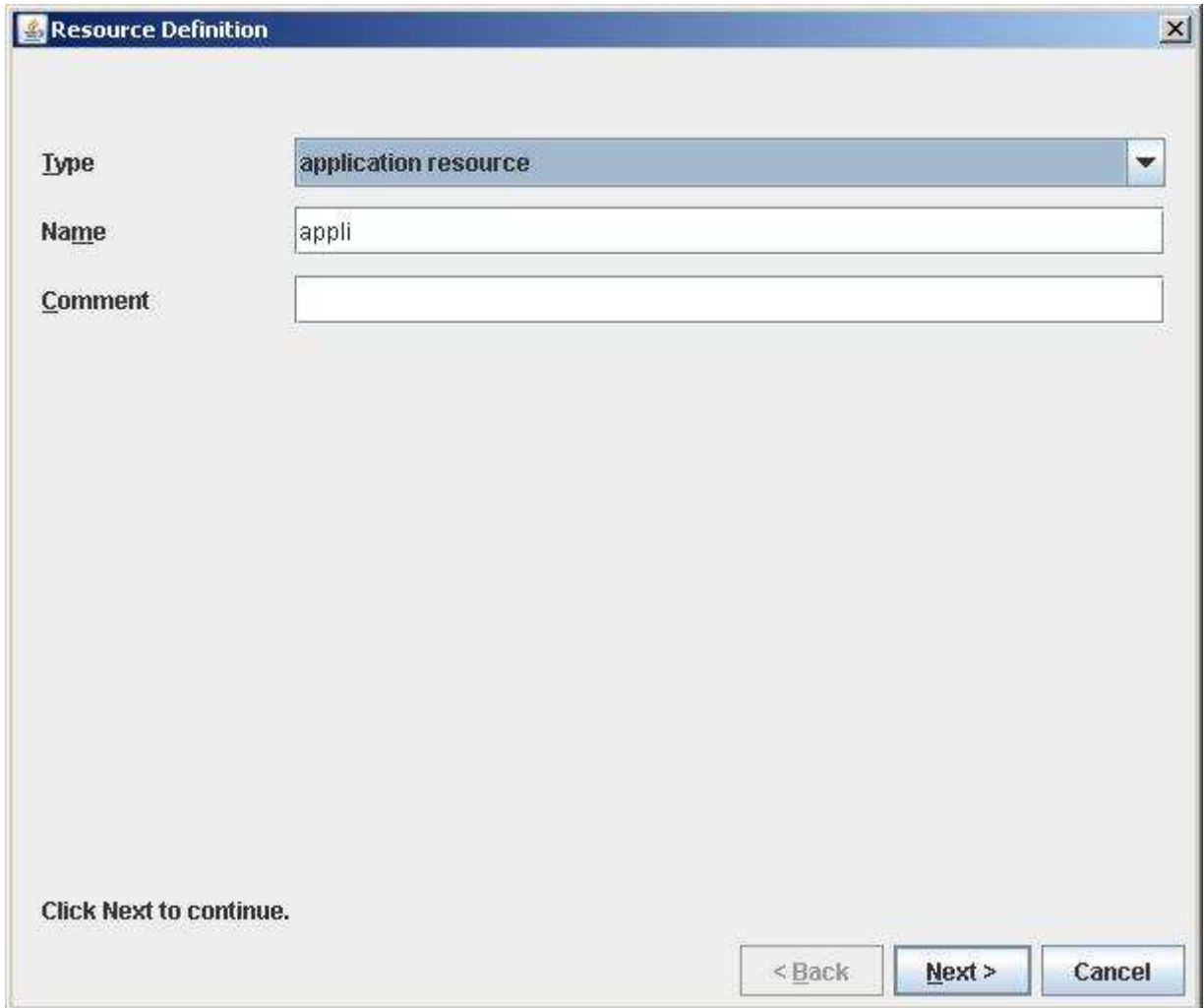


The image shows a Windows dialog box titled "Group Definition". It contains three input fields: "Type" with a dropdown menu set to "failover", "Name" with a text box containing "sql\_server-failover-group", and "Comment" with an empty text box. At the bottom, there are three buttons: "< Back", "Next >", and "Cancel". The text "Click Next to continue." is located in the bottom left corner of the dialog.

**Step 4:** Click “Add” to add the server ecsql1 on which this failover group will run. Click “Finish”. On completion, a group “sql\_server-failover-group” will be added under “failover”.



**Step 5:** Right click "sql\_server-failover-group". Click "Add Resource". Window to add resource will be displayed as shown in below window.



**Step 6:** In "Type" field select "service resource". In "Name" field, let's name this resource as "sql\_server-service". Click "Next".

**Step 7:** In "Service Name" field enter "MSSQLSERVER". Click "Next".

**Step 8:** In this window, do the setting as shown in below image. Set "Retry Count" to "3". Set "Final Action" for "Recovery Operation at activity failure detection" to "Stop Group". Set the "Final Action" for "Recovery Operation at Deactivity Failure Detection" to "No Operation (Deactivate Next Resource)". Click "Next" and then click "Finish" in next window. On completion, a service resource will be added with name "sql\_server-service".

**Resource Definition**

**Recovery operation at activity failure detection**

**Retry Count**  time

**Failover Target Server**

Stable Server  Maximum Priority Server

**Failover Threshold**

Set as much as the number of the servers  Set Number  time

**Final Action**  ▼

Execute Script before Final Action

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**Recovery Operation at Deactivity Failure Detection**

**Retry Count at Deactivation Failure**  time

**Final Action**  ▼

Execute Script before Final Action

**Step 9:** Now let's add monitor which can detect MS SQL Server failure or hung-up situation. Right click "Monitors". Click "Add Monitor Resource". Window to add monitor resource will be displayed as shown below.

Monitor Resource Definition

Type: application monitor

Name: appliw

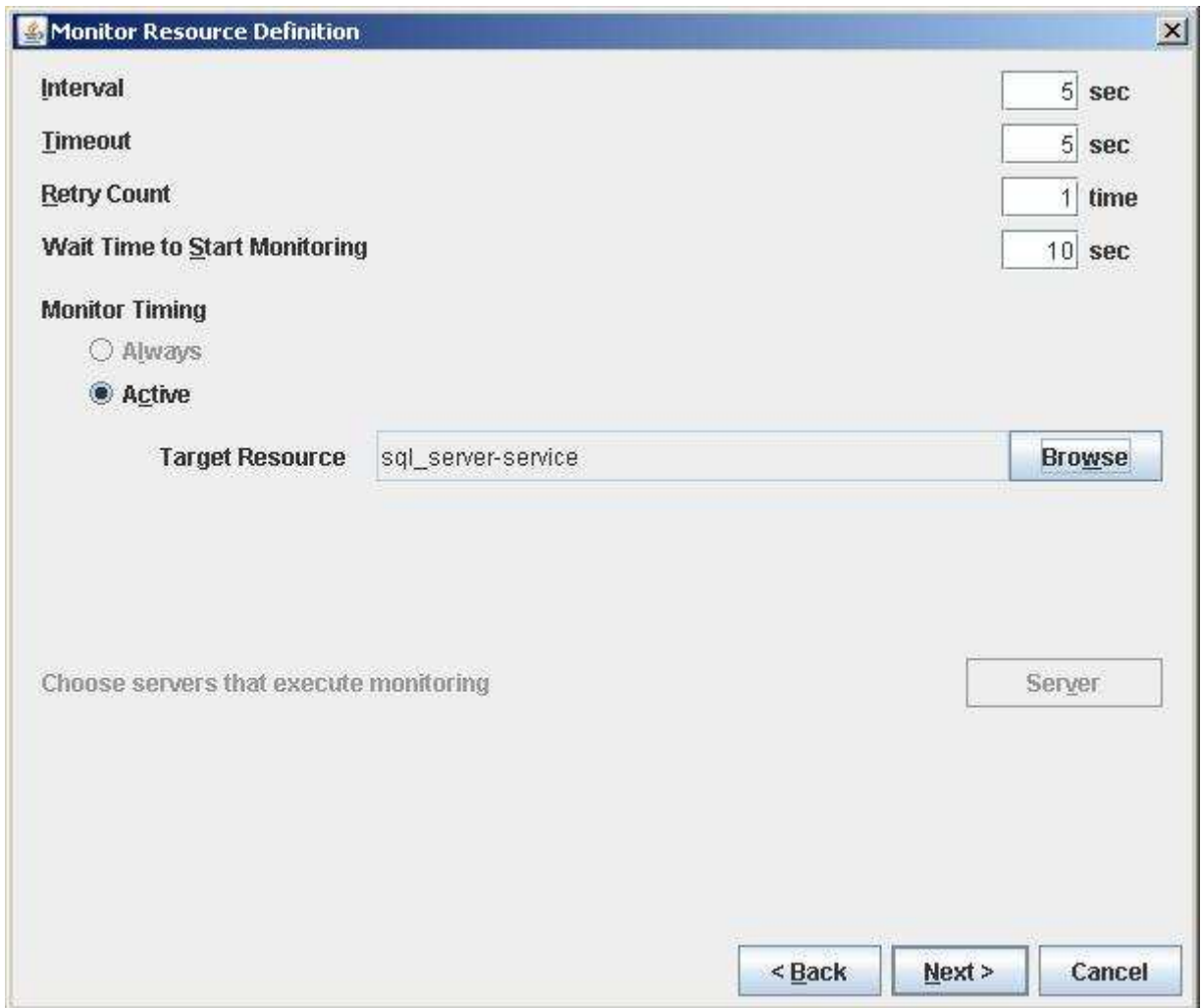
Comment:

Click Next to continue.

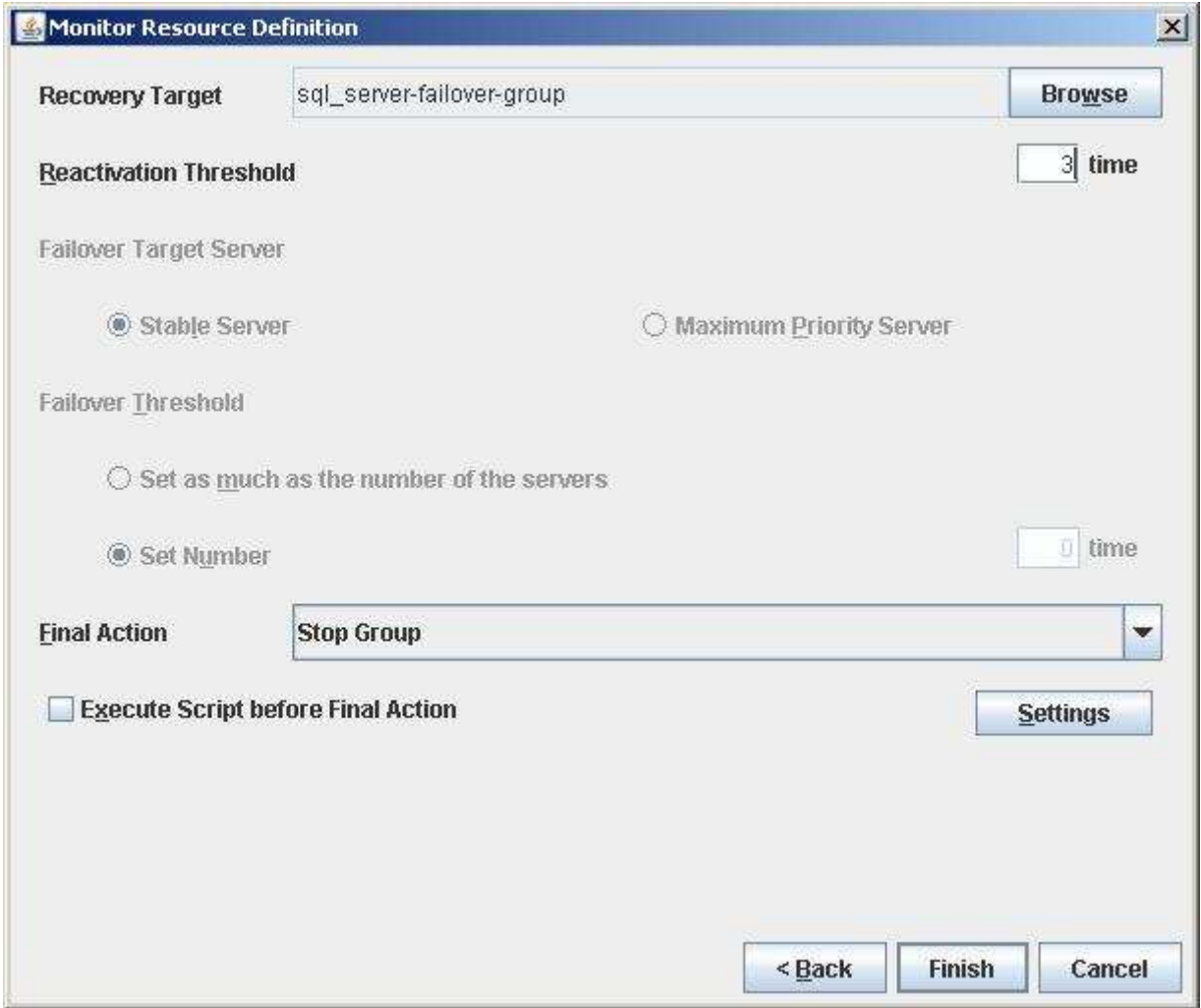
< Back   Next >   Cancel

**Step 10:** In “Type” field, select “service monitor”. In “Name” field, let’s enter “sql\_server-monitor” as name of monitor. Click “Next”.

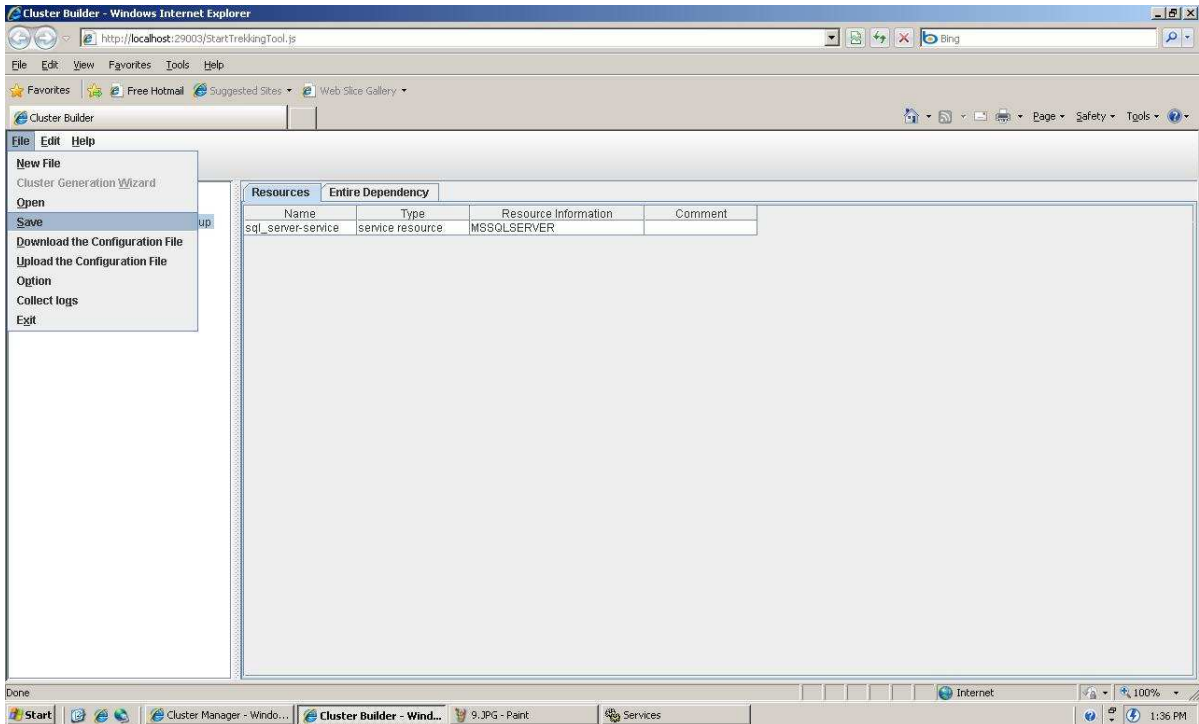
**Step 11:** In this window, set the parameters as shown in below image. Click “Next”.



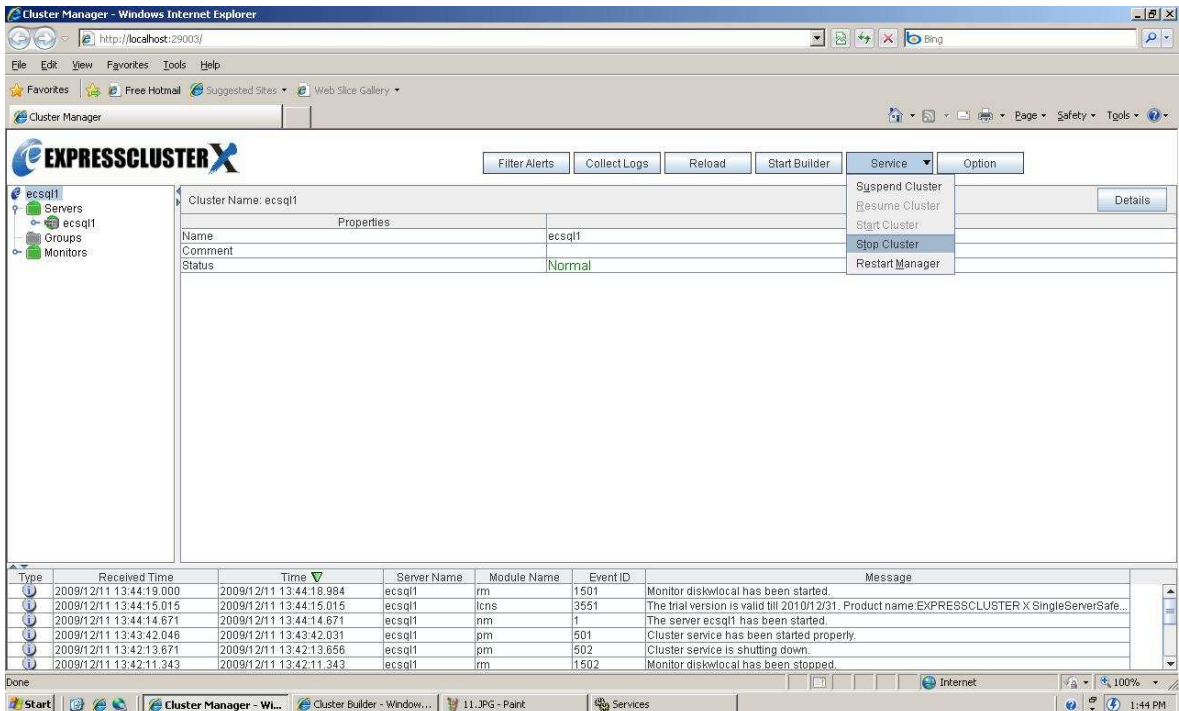
**Step 12:** In this window, set the parameters as shown in below image. Click "Finish".



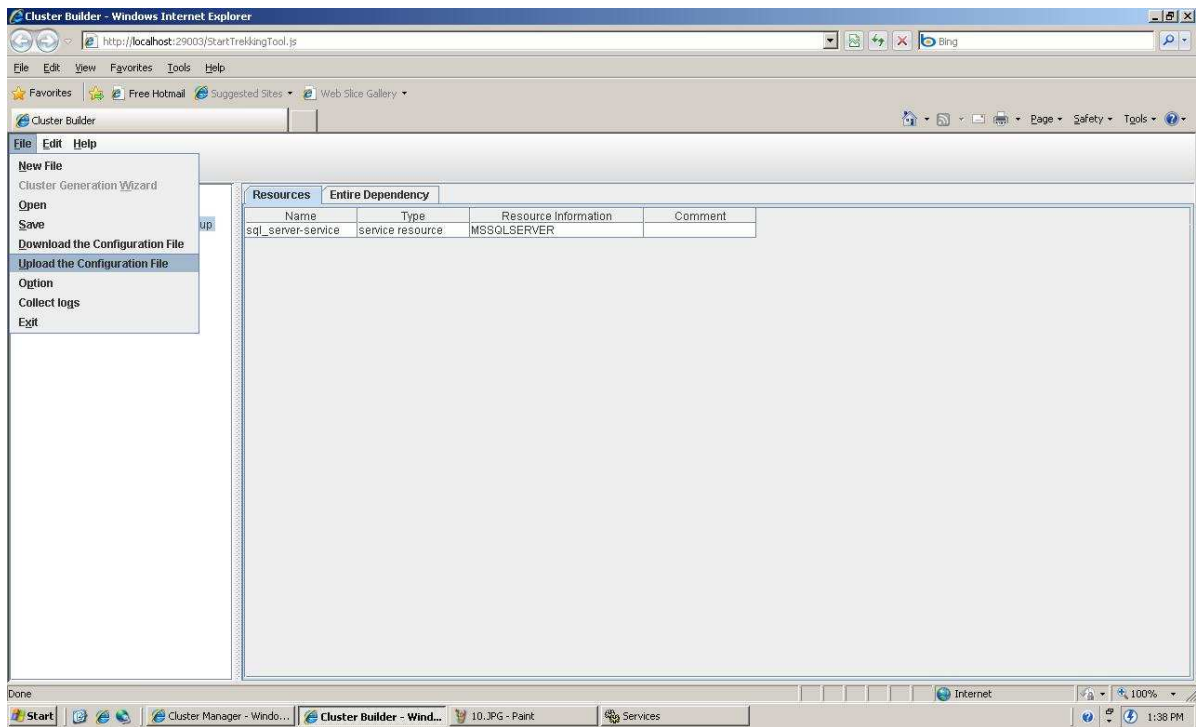
**Step 13:** Now cluster is built, we just need to save the configuration and then upload it. To save the configuration on disk, click "File" menu and then click "Save", as shown in below image.



**Step 14:** Before uploading the configuration, stop the cluster as shown in below image. To stop the cluster, go to WebManager window. Click “Service” button and then click “Stop Cluster”. Once cluster is stopped, an information message will be displayed.



**Step 15:** To upload the configuration and bring the configuration to effect, click “File” menu and then click “Upload the Configuration File”, as shown in below image. On successful upload, a window with success message will be shown.



**Step 16:** To start the cluster, go to Cluster WebManger window. Click “Service” button and then click “Start Cluster”, as shown in below image.

Cluster Manager - Windows Internet Explorer

http://localhost:29003/

Cluster Manager

EXPRESSCLUSTER X

Filter Alerts Collect Logs Reload Start Builder Service Option

Stopped

Suspend Cluster  
Resume Cluster  
Start Cluster  
Stop Cluster  
Restart Manager

Type	Received Time	Time	Server Name	Module Name	Event ID	Message
U	2009/12/11 13:49:53.781	2009/12/11 13:49:53.785	ecsql1	pm	502	Cluster service is shutting down.
U	2009/12/11 13:49:48.046	2009/12/11 13:49:48.046	ecsql1	rm	1502	Monitor disklocal has been stopped.
U	2009/12/11 13:49:44.203	2009/12/11 13:49:44.203	ecsql1	pm	531	There was a request to stop cluster service from the internal.
U	2009/12/11 13:49:41.109	2009/12/11 13:49:41.109	ecsql1	rc	1090	Shutting down the cluster.
U	2009/12/11 13:44:19.000	2009/12/11 13:44:19.984	ecsql1	rm	1501	Monitor disklocal has been started.
U	2009/12/11 13:44:15.015	2009/12/11 13:44:15.015	ecsql1	lcns	3551	The trial version is valid till 2010/12/31. Product name: EXPRESSCLUSTER X SingleServerSafe.

Done

Start Cluster Manager - Wi... Cluster Builder - Window... 12.JPG - Paint Services Internet 100% 1:50 PM