



## **Instant Chime for IBM Sametime High Availability Server Guide**

Fall 2014

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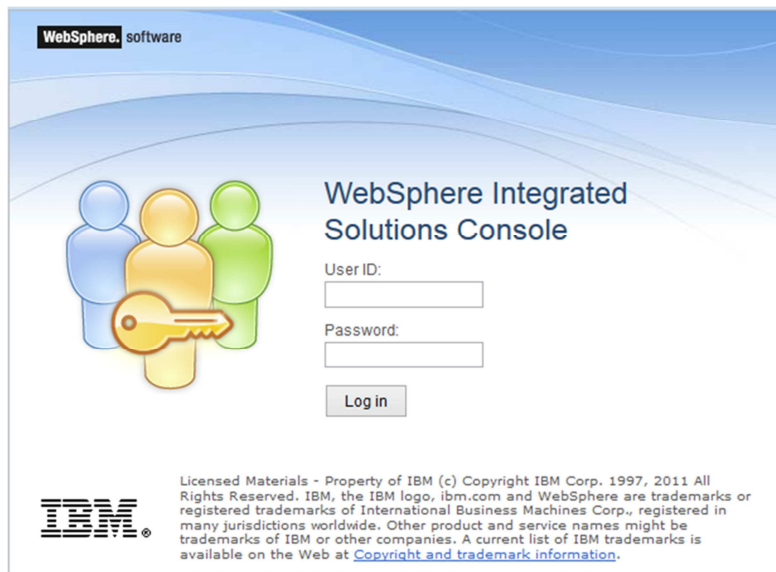
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# WebSphere Deployment Manager

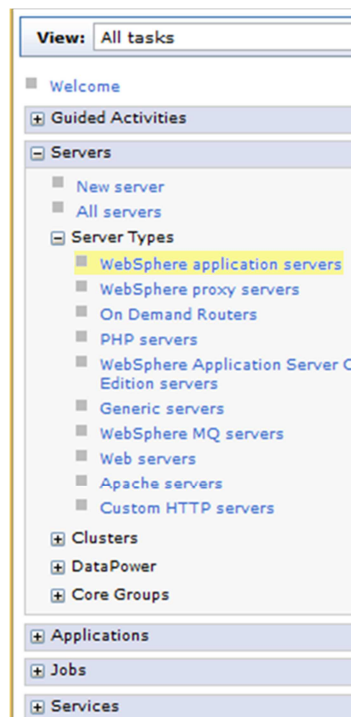
## Disable the auto-start of the application server

1. Login in the WebSphere Console

*<https://<servername>:9043/ibm/console>*



2. Click on Servers, then expand Server Types and click on WebSphere application servers





- Click on the server you want to change

**Application servers**

Use this page to view a list of the application servers in your environment and the status of each of these servers. You can also use this page to change the status of a specific application server.

**Preferences**

New... Delete Templates... Start Stop Restart ImmediateStop Terminate

| Select                                      | Name                         | Node        | Host Name                          | Version    | Cluster Name  | Status |
|---|------------------------------|-------------|------------------------------------|------------|---------------|--------|
| You can administer the following resources: |                              |             |                                    |            |               |        |
| <input type="checkbox"/>                    | <a href="#">ChimeServer1</a> | ChimeNode01 | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2 | ChimeCluster1 |        |
| <input type="checkbox"/>                    | <a href="#">ChimeServer2</a> | chimeNode02 | vWebSphereApp02.INSTANT-TECH.local | ND 8.5.0.2 | ChimeCluster1 |        |
| <input type="checkbox"/>                    | <a href="#">server1</a>      | ChimeNode01 | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2 |               |        |
| Total 3                                     |                              |             |                                    |            |               |        |

- On the right hand side, Find Server Infrastructure and expand the “Java and Process Management”, and click on “Monitoring policy”.

**Server messaging**

- [Messaging engines](#)
- [Messaging engine inbound transports](#)
- [WebSphere MQ link inbound transports](#)
- [SIB service](#)

**Server Infrastructure**

- Java and Process Management
  - [Class loader](#)
  - [Process definition](#)
  - [Process execution](#)
  - [Monitoring policy](#)
- Administration
  - [Java SDKs](#)

**Communications**

- [Ports](#)
- [Messaging](#)

5. Verify that the Application server is set to stopped, as required by Chime due to Sametime account restrictions. *Stopped is the default setting.*

The screenshot shows the 'Configuration' dialog box with the 'General Properties' tab selected. The 'Node restart state' dropdown is highlighted in yellow and set to 'STOPPED'. Other settings include 'Maximum startup attempts' at 3, 'Ping interval' at 60 seconds, and 'Ping timeout' at 300 seconds. The 'Automatic restart' checkbox is checked. At the bottom are buttons for 'Apply', 'OK', 'Reset', and 'Cancel'.

Configuration

**General Properties**

\* Maximum startup attempts  
3 attempts

Ping interval  
60 seconds

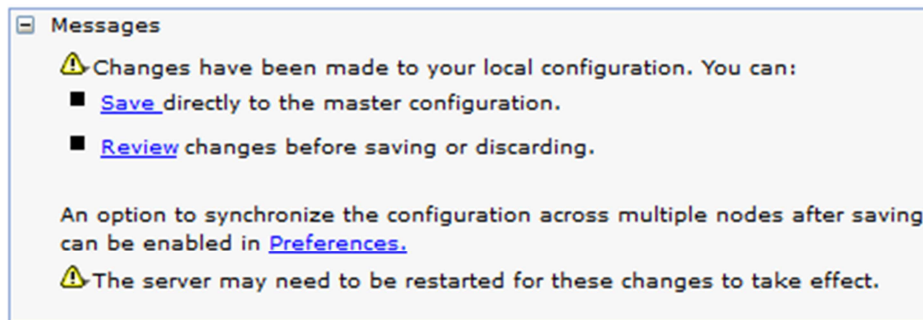
\* Ping timeout  
300 seconds

☒ Automatic restart

\* Node restart state  
STOPPED

Apply OK Reset Cancel

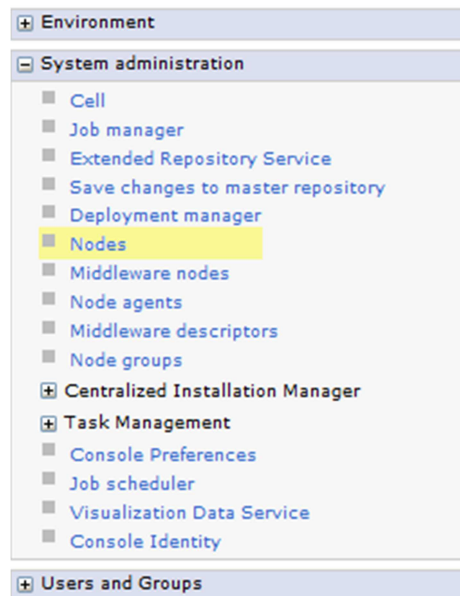
6. Press OK.
7. You will be prompted that “Changes have been made to your local configuration”



8. Verify that all other Application Servers' “Node restart state” are set to “Stopped”, then save the configuration.

## Sync the changes

- Expand System administration and click on nodes



- Select the nodes you want to synchronize, and press Full Resynchronize (DO NOT use Synchronize). This will write the settings to all the nodes.

**Nodes**

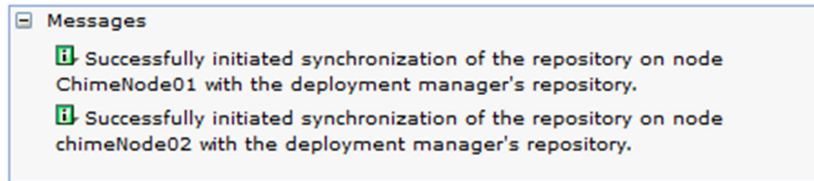
Use this page to manage nodes in the application server environment. A node corresponds to a physical computer system with a distinct IP host address. The following table lists the managed and unmanaged nodes in this cell. The first node is the deployment manager. Add new nodes to the cell and to this list by clicking Add Node.

**Preferences**

Buttons: Add Node, Remove Node, Force Delete, Synchronize, **Full Resynchronize**, Stop

| Select                                      | Name                          | Host Name                          | Version        | Discovery Protocol | Status |
|---|-------------------------------|------------------------------------|----------------|--------------------|--------|
| You can administer the following resources: |                               |                                    |                |                    |        |
|   | <a href="#">CellManager01</a> | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2     | TCP                |        |
| <input checked="" type="checkbox"/>         | <a href="#">ChimeNode01</a>   | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2     | TCP                |        |
| <input type="checkbox"/>                    | <a href="#">HTTP01</a>        | vWebSphereApp01.INSTANT-TECH.local | Not applicable | TCP                |        |
| <input type="checkbox"/>                    | <a href="#">HTTP02</a>        | vWebSphereApp02.INSTANT-TECH.local | Not applicable | TCP                |        |
| <input checked="" type="checkbox"/>         | <a href="#">chimeNode02</a>   | vWebSphereApp02.INSTANT-TECH.local | ND 8.5.0.2     | TCP                |        |
| Total 5                                     |                               |                                    |                |                    |        |

11. You should be prompted that the synchronization was successful.

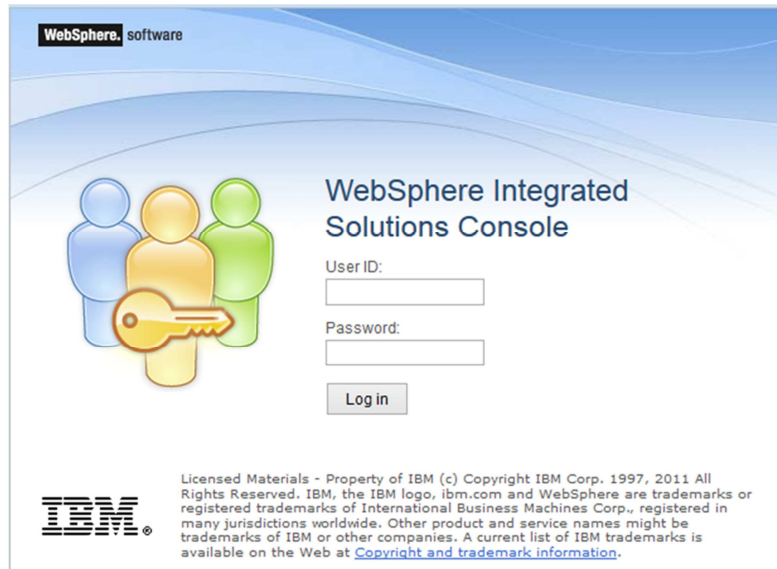


## Enable/Disable application security

*Application security is not required to run Chime*

1. Login in the WebSphere Console

`https://<servername>:9043/ibm/console`



1. Click on Security, then Global Security



3. To enable application security, check the “Enable application security” checkbox  
To disable application security, uncheck the “Enable application security” checkbox

**Administrative security**

- ☒ **Enable administrative security**
  - [Administrative user roles](#)
  - [Administrative group roles](#)
  - [Administrative authentication](#)

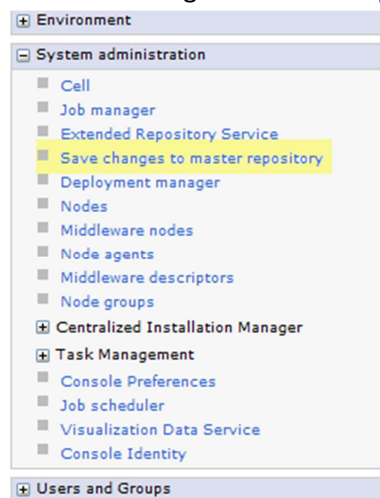
**Application security**

- ☒ **Enable application security**

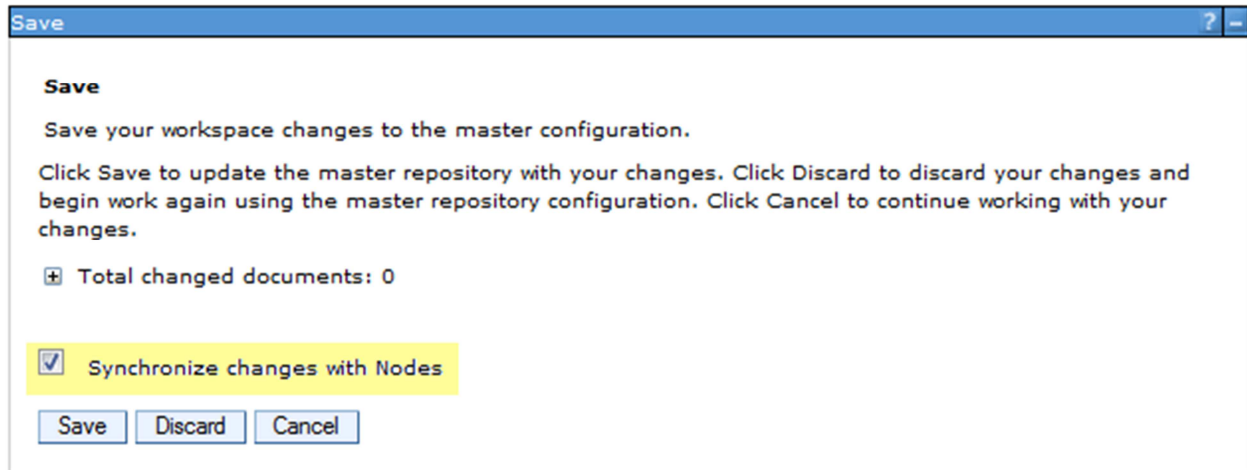
**Java 2 security**

- ☐ **Use Java 2 security to restrict application access to local resources**
  - ☐ Warn if applications are granted custom permissions
  - ☐ Restrict access to resource authentication data

4. Press Apply
5. Expand System administration, and click on “Save changes to master repository”.



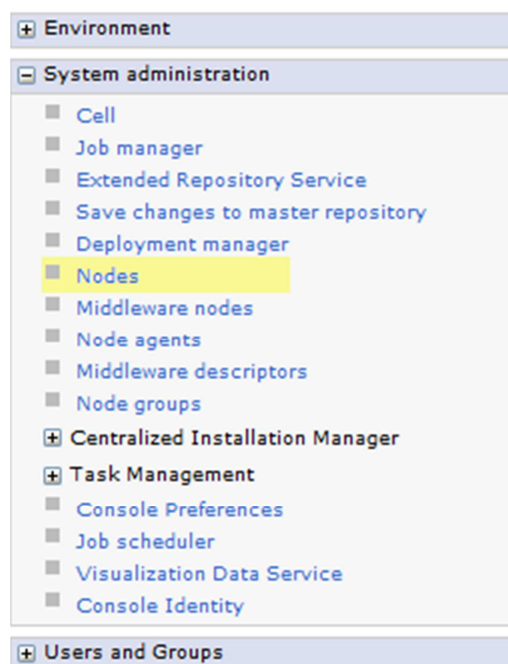
- Click "Synchronize changes with Nodes"



- Press Save
- You should receive a message that you settings have been applied.

### Sync the changes

- Expand System administration and click on nodes




10. Select the nodes you want to synchronize, and press Full Resynchronize (DO NOT use Synchronize). This will write the settings to all the nodes.





**Nodes** ?




**Nodes**

Use this page to manage nodes in the application server environment. A node corresponds to a physical computer system with a distinct IP host address. The following table lists the managed and unmanaged nodes in this cell. The first node is the deployment manager. Add new nodes to the cell and to this list by clicking Add Node.

 Preferences


Add NodeRemove NodeForce DeleteSynchronizeFull ResynchronizeStop





| Select                                      | Name                          | Host Name                          | Version        | Discovery Protocol | Status   |
|---|-------------------------------|------------------------------------|----------------|--------------------|--|
| You can administer the following resources: |                               |                                    |                |                    |  |
|   | <a href="#">CellManager01</a> | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2     | TCP                |   |
| <input checked="" type="checkbox"/>         | <a href="#">ChimeNode01</a>   | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2     | TCP                |   |
| <input type="checkbox"/>                    | <a href="#">HTTP01</a>        | vWebSphereApp01.INSTANT-TECH.local | Not applicable | TCP                |  |
| <input type="checkbox"/>                    | <a href="#">HTTP02</a>        | vWebSphereApp02.INSTANT-TECH.local | Not applicable | TCP                |  |
| <input checked="" type="checkbox"/>         | <a href="#">chimeNode02</a>   | vWebSphereApp02.INSTANT-TECH.local | ND 8.5.0.2     | TCP                |  |

Total 5

11. You should be prompted that the synchronization was successful.

 Messages

 Successfully initiated synchronization of the repository on node ChimeNode01 with the deployment manager's repository.

 Successfully initiated synchronization of the repository on node chimeNode02 with the deployment manager's repository.



## Application server unable to start

If the application server is showing a question mark instead of a red X or green arrow, you will want to verify and turn on the application server

Application servers

Application servers

Use this page to view a list of the application servers in your environment and the status of each of these servers. You can also use this page to change the status of a specific application server.

+

 Preferences

New...DeleteTemplates...StartStopRestartImmediateStopTerminate

Select

Name

Node

Host Name

Version

Cluster Name

Status

You can administer the following resources:

|                          |                              |             |                                    |            |               |  |
|--------------------------|------------------------------|-------------|------------------------------------|------------|---------------|--|
| <input type="checkbox"/> | <a href="#">ChimeServer1</a> | ChimeNode01 | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2 | ChimeCluster1 |  |
| <input type="checkbox"/> | <a href="#">ChimeServer2</a> | chimeNode02 | vWebSphereApp02.INSTANT-TECH.local | ND 8.5.0.2 | ChimeCluster1 |  |
| <input type="checkbox"/> | <a href="#">server1</a>      | ChimeNode01 | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2 |               |  |

Total 3

## Windows

Open Services and verify that IBM WebSphere Application Server V8.5 has been started

|  |   |                |          |               |
|--|---|----------------|----------|---------------|
|  | Human Interface Device Access                                 | Enables ge...  | Manual   | Local System  |
|  | Hyper-V Data Exchange Service                                 | Provides a ... | Started  | Automatic     |
|  | Hyper-V Guest Shutdown Service                                | Provides a ... | Started  | Automatic     |
|  | Hyper-V Heartbeat Service                                     | Monitors th... | Started  | Automatic     |
|  | Hyper-V Time Synchronization Service                          | Synchroniz...  | Started  | Automatic     |
|  | Hyper-V Volume Shadow Copy Requestor                          | Coordinate...  | Started  | Automatic     |
|  | IBM HTTP Administration for WebSphere Application Server V8.0 | IBM_HTTP...    | Started  | Automatic     |
|  | IBM HTTP Server V8.5  | IBM_HTTP...    | Started  | Automatic     |
|  | IBM WebSphere Application Server V8.5 - chimeNode02           | Controls th... | Manual   | Local System  |
|  | IKE and AuthIP IPsec Keying Modules                           | The IKEEX...   | Started  | Automatic     |
|  | Interactive Services Detection                                | Enables us...  | Manual   | Local System  |
|  | Internet Connection Sharing (ICS)                             | Provides n...  | Disabled | Local System  |
|  | Internet Explorer ETW Collector Service                       | ETW Collec...  | Manual   | Local System  |
|  | IP Helper   | Provides tu... | Started  | Automatic     |
|  | IPsec Policy Agent  | Internet Pr... | Started  | Manual        |
|  | KtmRm for Distributed Transaction Coordinator                 | Coordinate...  | Manual   | Network S...  |
|  | Link-Layer Topology Discovery Mapper                          | Creates a ...  | Manual   | Local Service |
|  | Microsoft .NET Framework NGEN v2.0.50727 X64                  | Microsoft ...  | Disabled | Local System  |

If it isn't started, right click on IBM WebSphere Application Server V8.5 and choose Start. Verify that the service has started in Windows services.

|   |                |          |               |
|---|----------------|----------|---------------|
| Human Interface Device Access                                 | Enables ge...  | Manual   | Local System  |
| Hyper-V Data Exchange Service                                 | Provides a ... | Started  | Automatic     |
| Hyper-V Guest Shutdown Service                                | Provides a ... | Started  | Automatic     |
| Hyper-V Heartbeat Service                                     | Monitors th... | Started  | Automatic     |
| Hyper-V Time Synchronization Service                          | Synchroniz...  | Started  | Automatic     |
| Hyper-V Volume Shadow Copy Requestor                          | Coordinate...  | Started  | Automatic     |
| IBM HTTP Administration for WebSphere Application Server V8.0 | IBM_HTTP...    | Started  | Automatic     |
| IBM HTTP Server V8.5  | IBM_HTTP...    | Started  | Automatic     |
| IBM WebSphere Application Server V8.5 - chimeNode02           | Controls th... | Started  | Manual        |
| IKE and AuthIP IPsec Keying Modules                           | The IKEEX...   | Started  | Automatic     |
| Interactive Services Detection                                | Enables us...  | Manual   | Local System  |
| Internet Connection Sharing (ICS)                             | Provides n...  | Disabled | Local System  |
| Internet Explorer ETW Collector Service                       | ETW Collec...  | Manual   | Local System  |
| IP Helper   | Provides tu... | Started  | Automatic     |
| IPsec Policy Agent  | Internet Pr... | Started  | Manual        |
| KtmRm for Distributed Transaction Coordinator                 | Coordinate...  | Manual   | Network S...  |
| Link-Layer Topology Discovery Mapper                          | Creates a ...  | Manual   | Local Service |
| Microsoft .NET Framework NGEN v2.0.50727 X64                  | Microsoft .... | Disabled | Local System  |

Verify that the app server is now accessible

Application servers

### Application servers

Use this page to view a list of the application servers in your environment and the status of each of these servers. You can also use this page to change the status of a specific application server.

**Preferences**

New...
Delete
Templates...
Start
Stop
Restart
ImmediateStop
Terminate

| Select                                      | Name                         | Node        | Host Name                          | Version    | Cluster Name  | Status |
|---|------------------------------|-------------|------------------------------------|------------|---------------|--------|
| You can administer the following resources: |                              |             |                                    |            |               |        |
| <input type="checkbox"/>                    | <a href="#">ChimeServer1</a> | ChimeNode01 | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2 | ChimeCluster1 |        |
| <input type="checkbox"/>                    | <a href="#">ChimeServer2</a> | chimeNode02 | vWebSphereApp02.INSTANT-TECH.local | ND 8.5.0.2 | ChimeCluster1 |        |
| <input type="checkbox"/>                    | <a href="#">server1</a>      | ChimeNode01 | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2 |               |        |
| Total 3                                     |                              |             |                                    |            |               |        |

If the service still doesn't start, check the event logs for more details

Instructions found at

[http://publib.boulder.ibm.com/infocenter/wpdoc/v6r0/index.jsp?topic=/com.ibm.wp.exp.doc/wpf/inst\\_startstop.html](http://publib.boulder.ibm.com/infocenter/wpdoc/v6r0/index.jsp?topic=/com.ibm.wp.exp.doc/wpf/inst_startstop.html)

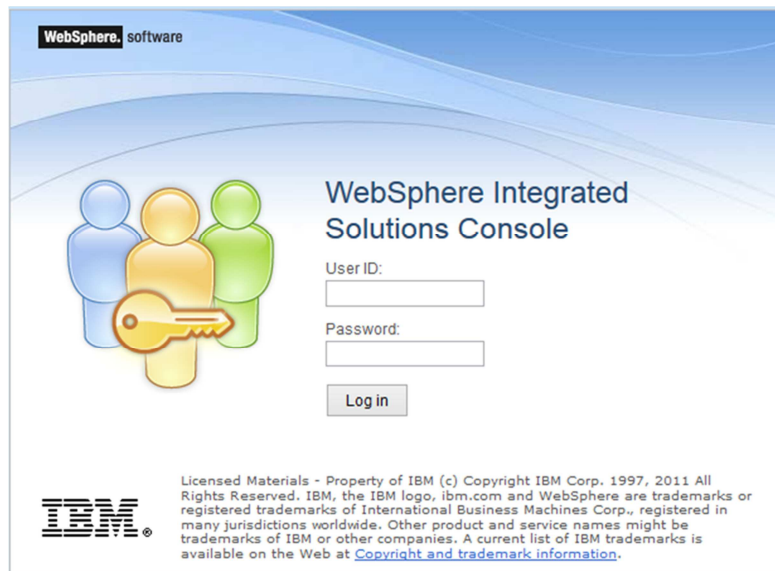
To start the administrative server:

1. Open a command prompt and change to the following directory:
  - **Linux:** was\_profile\_root/bin
  - **Windows:** was\_profile\_root\bin
  - **i5/OS:** app\_server\_root/bin
2. Enter the following command:
  - **Linux:** ./startServer.sh server1
  - **Windows:** startServer.bat server1
  - **i5/OS:** startServer.sh server1 -profileName profile\_root
3. where profile\_root is the name of the WebSphere Application Server profile where WebSphere Portal Express is installed; for example, wp\_profile.  
server1 is the name of your WebSphere Application Server administrative server.
4. To verify that WebSphere Application Server is running, request the following URL from a browser:  
*http://hostname.yourcompany.com:10038/snoop*  
where hostname.yourcompany.com is the fully qualified host name of the machine where WebSphere Application Server is installed and the port number is the WC\_defaulthost found in the serverindex.xml file. The file is located at was\_profile\_root/config/cells/cell\_name/nodes/node\_name/serverindex.xml.
5. If you want to access the Administrative Console for WebSphere Application Server, you can do so with the following URL:  
*http://hostname.yourcompany.com:9060/admin/*  
where the port number is the WC\_adminhost found in the serverindex.xml file. The file is located at was\_profile\_root/config/cells/cell\_name/nodes/node\_name/serverindex.xml.

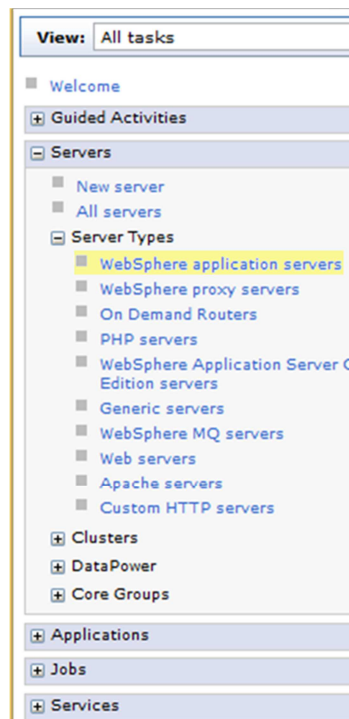
## Manual Failover process

1. Login in the WebSphere Console

*<https://<servername>:9043/ibm/console>*



2. Click on Servers, then expand Server Types and click on WebSphere application servers



1. Check the server you wish to stop , then press the Stop button

**Application servers**

Use this page to view a list of the application servers in your environment and the status of each of these servers. You can also use this page to change the status of a specific application server.

+ Preferences

New... Delete Templates... Start **Stop** Restart ImmediateStop Terminate

Select Name Node Host Name Version Cluster Name Status

You can administer the following resources:

| Select                              | Name                         | Node        | Host Name                          | Version    | Cluster Name  | Status |
|-------------------------------------|------------------------------|-------------|------------------------------------|------------|---------------|--------|
| <input type="checkbox"/>            | <a href="#">ChimeServer1</a> | ChimeNode01 | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2 | ChimeCluster1 | ✖      |
| <input checked="" type="checkbox"/> | <a href="#">ChimeServer2</a> | chimeNode02 | vWebSphereApp02.INSTANT-TECH.local | ND 8.5.0.2 | ChimeCluster1 | ➡      |
| <input type="checkbox"/>            | <a href="#">server1</a>      | ChimeNode01 | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2 |               | ✖      |

Total 3

2. You will then be prompted that the server is attempting to stop and that it has been stopped.

**Server status feedback**

Server status provides information about events that occur while the server stops.

■ ChimeNode01:ChimeServer1

ADMIN1020: An attempt is made to stop the ChimeServer1 server. (User ID = default\WMFileBasedRealm\wasadmin)

OK

**Server status feedback**

Server status provides information about events that occur while the server stops.

■ ChimeNode01:ChimeServer1

Server ChimeNode01/ChimeServer1 stopped successfully. The collection may need to be refreshed to show the current server status. View JVM logs for further details.

OK

3. Press OK

- Check the server you wish to start , then press the Start button

**Application servers**

Use this page to view a list of the application servers in your environment and the status of each of these servers. You can also use this page to change the status of a specific application server.

**Preferences**

New... Delete Templates... **Start** Stop Restart ImmediateStop Terminate

Select Name Node Host Name Version Cluster Name Status

You can administer the following resources:

| Select                              | Name                         | Node        | Host Name                          | Version    | Cluster Name  | Status |
|-------------------------------------|------------------------------|-------------|------------------------------------|------------|---------------|--------|
| <input checked="" type="checkbox"/> | <a href="#">ChimeServer1</a> | ChimeNode01 | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2 | ChimeCluster1 | ✗      |
| <input type="checkbox"/>            | <a href="#">ChimeServer2</a> | chimeNode02 | vWebSphereApp02.INSTANT-TECH.local | ND 8.5.0.2 | ChimeCluster1 | ✗      |
| <input type="checkbox"/>            | <a href="#">server1</a>      | ChimeNode01 | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2 |               | ✗      |

Total 3

- You will be prompted that the app server has started

**Application servers**

**Messages**

Server ChimeNode01/ChimeServer1 started successfully. The collection may need to be refreshed to show the current server status. [View JVM logs](#) for further details.

**Application servers**

Use this page to view a list of the application servers in your environment and the status of each of these servers. You can also use this page to change the status of a specific application server.

**Preferences**

New... Delete Templates... Start Stop Restart ImmediateStop Terminate

Select Name Node Host Name Version Cluster Name Status

You can administer the following resources:

| Select                   | Name                         | Node        | Host Name                          | Version    | Cluster Name  | Status |
|--------------------------|------------------------------|-------------|------------------------------------|------------|---------------|--------|
| <input type="checkbox"/> | <a href="#">ChimeServer1</a> | ChimeNode01 | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2 | ChimeCluster1 | ➡      |
| <input type="checkbox"/> | <a href="#">ChimeServer2</a> | chimeNode02 | vWebSphereApp02.INSTANT-TECH.local | ND 8.5.0.2 | ChimeCluster1 | ✗      |
| <input type="checkbox"/> | <a href="#">server1</a>      | ChimeNode01 | vWebSphereApp01.INSTANT-TECH.local | ND 8.5.0.2 |               | ✗      |

Total 3

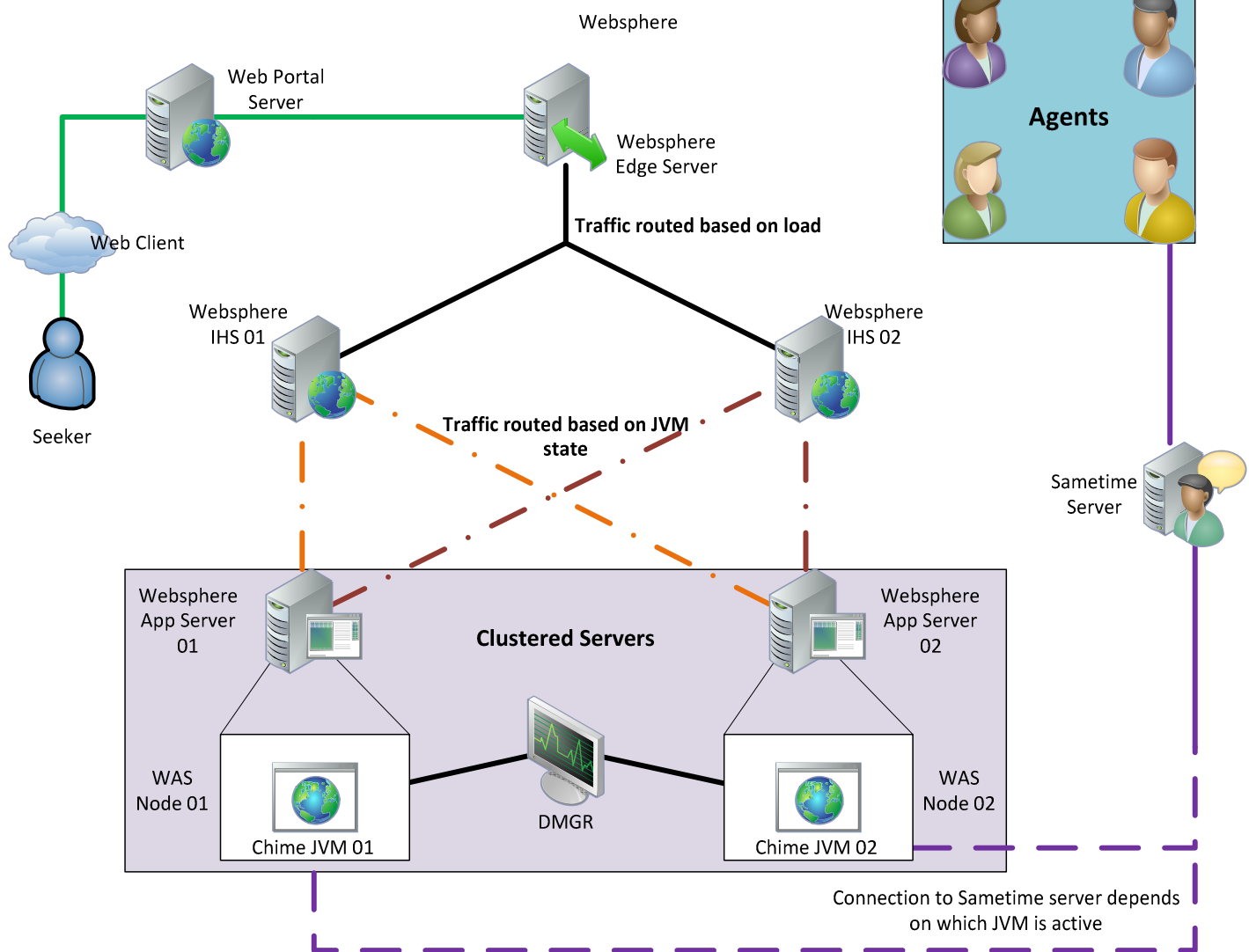
- Verify that the application is access via the webpage



# Clustered Environment

## Sample High Availability diagram

### Chime in a clustered environment



#### WebSphere Edge server

The Edge server will function as a normal load balancer, routing traffic to the IHS servers based on load.

#### WebSphere IHS

WebSphere IHS's will act as a secondary load balancer. They will monitor the state of the Chime JVM's and route traffic to the JVM that is active. The IHS will poll the WebSphere application cluster, to monitor the state of the Chime JVM. The Chime JVM will either be in an activated or deactivated state.

#### WebSphere App Server

WebSphere App Servers need to be in a cluster. Each server should have a node, in which the Chime JVM will be loaded. These nodes will be control by the DMGT.

#### Chime JVM

The Chime JVM will be loaded on to the App server. All Chime JVM should be configured to use the same Sametime accounts as dispatchers for the various queues. Because of this, the JVM should not be set to auto-start, but should be required to manually start when rebooted.

## Revision History

| Date          | User | Remarks  |
|---------------|------|--|
| Sept 30, 2014 | SW   | Initial Draft  |
| Oct 1, 2014   | SW   | Updated the Visio to put the labels next to the correct boxes. |
| Oct 7,2014    | SW   | Added WebSphere Deployment Manager section                     |