

IBM Tivoli Software



## Introduction to IBM Tivoli Directory Server 6.0 – Debugging

Excerpt taken from presentation given on April 10, 2007  
Explore methods to debug a failure in the Web Administration Tool (WAT)

**Support Technical Exchange Web site**  
[http://www-306.ibm.com/software/sysmgmt/products/support/supp\\_tech\\_exch.html](http://www-306.ibm.com/software/sysmgmt/products/support/supp_tech_exch.html)

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## Failures Starting the Web Admin on AIX

**Common issues associated with the initial installation and configuration of the Web Admin include:**

- **Failed Installation attempt**
- **War file deployment problems**
- **Application server port conflicts**

**The best way to approach these issues is to review the log files and refer to the Problem Determination Guide. Additionally search the support site for available technotes.**

Note: If you do not modify the webadmin port 9090 then server1 process cannot start on AIX.



## Failures Starting the Web Admin on AIX

One of the most common failures encountered with the Web Admin on AIX involves the initial starting of the application server.

```
# cd /opt/IBM/ldap/V6.0/appsrv/bin
```

```
#!/startServer.sh server1
```

The output to the screen will be:

```
ADMU0116I: Tool information is being logged in file
```

```
    /opt/IBM/ldap/V6.0/appsrv/logs/server1/startServer.log
```

```
ADMU3100I: Reading configuration for server: server1
```

```
ADMU3200I: Server launched. Waiting for initialization status.
```

```
ADMU3011E: Server launched but failed initialization. Server log files should  
    contain failure information.
```

- **The webadmin failed to start – why?**

Note: If you do not modify the webadmin port 9090 then server1 process cannot start on AIX.



## Failing start up of the webadmin on AIX.

This is a long standing issue with the webadmin running on AIX systems. This is discussed in detail in the [Error when starting the embedded version of WebSphere Application Server - Express on AIX](#)

Basically port 9090 is used by AIX's `/etc/inetd.conf` for a process called:  
wsmserver stream tcp nowait root /usr/websm/bin/wsmserver wsmserver – start

You can see this in the log files mentioned in the previous slide:

```
[3/28/07 12:49:24:877 CST] 3839a6a5 WebContainer E SRVE0146E: Failed to Start
Transport on host , port 9090. The most likely cause is that the port is already in use.
Please ensure that no other applications are using this port and restart the server.
com.ibm.ws.webcontainer.exception.TransportException: Failed to start transport http:
java.net.BindException: The socket name is already in use.
```

This can be seen by running:

```
#netstat -an |grep 9090
```

```
tcp4    0    0  *.9090          *.*              LISTEN
```



## How to resolve port conflict of 9090 on AIX

**We have two choices for resolving this issue:**

- 1. We can comment the wsmserver process from the /etc/inetd.conf and restart inetd (not recommended)**
- 2. Or the recommended method of modifying the IDWebApp configuration such that it will use port 9091 (for example) instead of 9090. I will give details on how to accomplish this in the next slide.**

You must change from port 9090 or server1 will not be able to start.

## How to resolve port conflict of 9090 on AIX continued...

- There are two files where we set the port numbers used by the webadmin tool (virtualhosts.xml and server.xml):
- `#vi /opt/IBM/ldap/V6.0/appsrv/config/cells/DefaultNode/virtualhosts.xml`
- Change:  
`<aliases xmi:id="HostAlias_4" hostname="" port="9090"/>`  
to  
`<aliases xmi:id="HostAlias_4" hostname="" port="9091"/>`
- And we also need to change:
- `#vi /opt/IBM/ldap/V6.0/appsrv/config/cells/DefaultNode/nodes/DefaultNode/servers/server1/server.xml`
- Change  
`<address xmi:id="EndPoint_3" host="" port="9090"/>`  
to  
`<address xmi:id="EndPoint_3" host="" port="9091"/>`
- Save both files

You do not have to use 9091, simply check `/etc/services` and `netstat -an` to make sure the port you want to use is not designed for another application or is currently in use.



## Now we can start the server1 process:

- Once we have the port conflict resolved we can start the webadmin tool:
- `#cd /opt/IBM/ldap/V6.0/appsrv/bin`
- **Output you will see:**  
`#!/startServer.sh server1`  
ADMU0116I: Tool information is being logged in file  
    /opt/IBM/ldap/V6.0/appsrv/logs/server1/startServer.log  
ADMU3100I: Reading configuration for server: server1  
ADMU3200I: Server launched. Waiting for initialization status.  
ADMU3000I: Server server1 **open for e-business**; process id is  
    344128



## Basic Installation and Configuration Debugging

**You should now understand the following:**

- **What resources are available to help you debug an issue.**
- **Where the most useful log files are.**
- **How to trace a failed instance creation.**
- **How to trace a failed database creation.**
- **How to trace a failed server start up.**
- **How to investigate Web Admin failures.**



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