

节点管理器

节点管理器是指在物理的机器上运行的一个守护进程，通过它，管理服务器可以获得诸如在控制台中强制重启远程机器上的 server 等功能（没有节点管理器的情况下也是可以强制关闭远程服务器的，但是不能重启）。

在 weblogic 中启动节点管理器的好处：

- 1、当被管服务器的 java 进程异常终止时 NodeManager 可以检测到并重启服务；
- 2、可以通过 console 远程启动或停止被管服务器；

配置 nodemanager

一、如果在创建 Cluster Domain 时没有配置 Machines 则需通过以下步骤配置，否则略过：

- 1、登录 weblogic console ,<http://192.168.0.1:8001/console> ,依次点击左边的“环境”——“计算机”，然后点击“锁定并编辑”——“新建”：



2、输入“名称”和“计算机操作系统”：



3、按照 2 步骤新建 Machine2，建好后如下：



4、进入 Machine1 的配置页面，点击红框内的按钮，添加被管服务器：



5、选择“server1”添加到 Machine1 中：



6、添加完成后的页面：



7、同样将 server2 和 Machine2 关联起来，最后点击“激活更改”：



二、启动 NodeManager，并通过 console 远程启动被管服务器：

1、通过如下命令启动 Machine1 上的 NodeManager：

```
startNodeManager.cmd 127.0.0.1 5556
```

2、重新登录 console，依次点击左边的“环境”——“服务器”，可以看到管理服务器和被管服务器的状态：



3、远程启动被管服务器，点击第 2 步中的 server1 连接，进入如下页面：



4、将页面下拉，选中 server1，单击“启动”按钮：



5、点击“是”按钮：



6、被管服务器 server1 开始启动：



7、被管服务器 server2 由于在另外一个域里，默认情况下启动 server2 时管理服务器的后台日志会报如下错误：

```
<2009-3-26 凌晨02:33:24 GMT+08:00> <Error> <NodeManager> <BEA-300033> <Could not execute command "getVersion" on the node manager. Reason: "I/O error while reading domain directory: java.io.FileNotFoundException: Domain directory '/u01/home/weblogic/bsa/vsblogic92/common/nodemanager' invalid (domain salt file not found)".>
```

通过 console 查看 NodeManager 的状态也为未知：



需要通过如下命令把 Machine2 中的 NodeManager 注册到集群的 Administrator Server 中去：

```
$ cd $WL_HOME/server/bin
$ ls
ant                antRun.pl          international      runant.py          startNodeManager.sh  startWLS.sh
antRun             complete-ant-cmd.pl  runant.pl         setWLSEnv.sh       startVLSBuilder.sh
$ ./setWLSEnv.sh
CLASSPATH=/u01/home/weblogic/bean/patch_weblogic922/profiles/default/sys_manifest_classpath/weblogic_patch.jar:/u01/home/weblogic/bean/jdk150_07/lib/tools.jar:/u01/home/weblogic/bean/weblogic92/server/lib/weblogic_sp.jar:/u01/home/weblogic/bean/weblogic92/server/lib/weblogic.jar:/u01/home/weblogic/bean/weblogic92/server/lib/weblogic.jar:/u01/home/weblogic/bean/weblogic92/server/lib/weblogic.jar
PATH=/u01/home/weblogic/bean/weblogic92/server/bin:/u01/home/weblogic/bean/jdk150_07/jre/bin:/u01/home/weblogic/bean/jdk150_07/bin:/u01/home/weblogic/bean/weblogic92/server/bin:/u01/home/weblogic/bean/jdk150_07/bin:/usr/bin:/opt/ansic/bin:/usr/ccs/bin:/usr/contrib/bin:/usr/contrib/Q4/bin:/opt/perl/bin:/opt/ipf/bin:/opt/hparray/bin:/opt/nettladm/bin:/opt/fcns/bin:/opt/wbem/bin:/opt/wbem/sbin:/usr/bin:/usr/X11:/opt/resmon/bin:/opt/perf/bin:/usr/contrib/kwdb/bin:/opt/graphics/common/bin:/opt/prm/bin:/usr/sbin:/diag/contrib:/opt/sfm/bin:/opt/hpsmh/bin:/opt/upgrade/bin:/opt/sec_mgmt/bastille/bin:/opt/drd/bin:/opt/dsau/bin:/opt/dsau/sbin:/opt/firefox:/opt/gnome/bin:/opt/t/mozilla:/opt/perl_32/bin:/opt/perl_64/bin:/opt/sec_mgmt/spc/bin:/opt/ssh/bin:/opt/swa/bin:/opt/thunderbird:/opt/gwlm/bin:/usr/contrib/bin:/usr/X11:/opt/ignite/bin:/opt/cadvice/bin:/opt/langtools/bin:/opt/imake/bin:.

Your environment has been set.
$ java weblogic.WLST

Initializing WebLogic Scripting Tool (WLST) ...

Welcome to WebLogic Server Administration Scripting Shell

Type help() for help on available commands

wls:/offline> connect()
Please enter your username [weblogic] :
Please enter your password [weblogic] :
Please enter your server URL [t3://localhost:7001] :t3://:8001
Connecting to t3://:8001 with userid weblogic ...
Successfully connected to Admin Server 'AdminServer' that belongs to domain ' '.

Warning: An insecure protocol was used to connect to the
server. To ensure on-the-wire security, the SSL port or
Admin port should be used instead.

wls:/AdminServer/serverConfig> runEnroll('/u01/home/weblogic/bean/weblogic92/common/nodemanager')
Enrolling this machine with the domain directory at /u01/home/weblogic/bean/weblogic92/common/nodemanager ...
Successfully enrolled this machine with the domain directory at /u01/home/weblogic/bean/weblogic92/common/nodemanager.
wls:/AdminServer/serverConfig>
```

8、然后通过第 1 步所说的方法启动 Machine2 上的 NodeManager，通过 console 查看 NodeManager 的状态也正常了：



9、最后所有被管服务器的状态如下：



三、关于 NodeManager 的配置：

Element	Value
Node Manager service port for dizzyMachine2	5556
IP Address of AdminServer	127.0.0.1

1、导航到 domain_name → Environment → Servers → AdminServer(admin) → Configuration → Keystores. Lock the console.

If the keystore is not already **Demo Identity and Demo Trust**, select that from the list of keystores. (这里不设置 SSL，所以选择 Demo)

2、修改 keystore 的配置后，需要重启 admin server.

3、在 Machine2 创建 nodemanager.hosts file

路径：<WEBLOGIC_HOME>\common\nodemanager directory. 加上一行 admin server 的 IP 例如：127.0.0.1

这样 admin server 就变成被信任的主机。

3、启动 nodemanager:

Windows: startNodeManager.cmd 127.0.0.1 5556

Unix/Linux: ./startNodeManager.sh 127.0.0.1 5556

- 4、按照第二部分的启动方式去启动远程 server，可以通过 `netstat -an` 命令去检查是否启动成功。

四、weblogic10.3 要注意的地方：

按照原来成功在 weblogic server 10.1 配置 nodemanager 的方法，在 10.3 上进行相应的配置，启动 nodemanager 之后，nodemanager 和 adminserver 都报 hostname 无法通过认证的错误提示，当然更无法通过 nodemanager 来启动 managedserver。

```
<Jun 9, 2009 3:43:18 PM CST> <Warning> <Security> <BEA-090482> <BAD_CERTIFICATE
```

```
alert was received from localhost - 127.0.0.1. Check the peer to determine why i
```

```
t rejected the certificate chain (trusted CA configuration, hostname verificatio
```

```
n). SSL debug tracing may be required to determine the exact reason the certific
```

```
ate was rejected.>
```

```
<Jun 9, 2009 3:43:19 PM> <Warning> <Uncaught exception in server handler: javax.
```

```
net.ssl.SSLKeyException: [Security:090482]BAD_CERTIFICATE alert was received fro
```

```
m localhost - 127.0.0.1. Check the peer to determine why it rejected the certifi
```

```
cate chain (trusted CA configuration, hostname verification). SSL debug tracing
```

```
may be required to determine the exact reason the certificate was rejected.>
```

```
javax.net.ssl.SSLKeyException: [Security:090482]BAD_CERTIFICATE alert was receiv
```

ed from localhost - 127.0.0.1. Check the peer to determine why it rejected the c
ertificate chain (trusted CA configuration, hostname verification). SSL debug tr
acing may be required to determine the exact reason the certificate was rejected

.

at com.certicom.tls.interfaceimpl.TLSConnectionImpl.fireException(Unknow
n Source)

at com.certicom.tls.interfaceimpl.TLSConnectionImpl.fireAlertReceived(Un
known Source)

at com.certicom.tls.record.alert.AlertHandler.handle(Unknown Source)

at com.certicom.tls.record.alert.AlertHandler.handleAlertMessages(Unknow
n Source)

at com.certicom.tls.record.MessageInterpreter.interpretContent(Unknown S
ource)

at com.certicom.tls.record.MessageInterpreter.decryptMessage(Unknown Sou
rce)

at com.certicom.tls.record.ReadHandler.processRecord(Unknown Source)

at com.certicom.tls.record.ReadHandler.readRecord(Unknown Source)

at com.certicom.tls.record.ReadHandler.readUntilHandshakeComplete(Unknow
n Source)

at com.certicom.tls.interfaceimpl.TLSConnectionImpl.completeHandshake(Un
known Source)

```
at com.certicom.tls.record.ReadHandler.read(Unknown Source)

at com.certicom.io.InputSSLIOStreamWrapper.read(Unknown Source)

at sun.nio.cs.StreamDecoder.readBytes(StreamDecoder.java:264)

at sun.nio.cs.StreamDecoder.implRead(StreamDecoder.java:306)

at sun.nio.cs.StreamDecoder.read(StreamDecoder.java:158)

at java.io.InputStreamReader.read(InputStreamReader.java:167)

at java.io.BufferedReader.fill(BufferedReader.java:136)

at java.io.BufferedReader.readLine(BufferedReader.java:299)

at java.io.BufferedReader.readLine(BufferedReader.java:362)

at weblogic.nodemanager.server.Handler.run(Handler.java:66)

at java.lang.Thread.run(Thread.java:619)
```

解决的办法：

修改 adminserver 的 ssl 默认参数 Hostname Verification:None。之后不再提示上述错误。