

IBM Tivoli Monitoring and Tivoli Netcool/OMNIBus

Troubleshooting the situation update forwarder



 Tivoli software

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In this training module, you learn how to check logs and troubleshoot issues that can arise when using the situation update forwarder on Tivoli® Monitoring and Tivoli Netcool®/OMNIBus.

Debugging the situation update forwarder

Set Loglevel to Verbose

```
ROOT@TORPEDO /opt/IBM/Netcool/omnibus/SitForwarder/etc->  
vi situpdate.conf  
fileSize=50000  
fileNumber=10  
fileLocation="/opt/IBM/Netcool/omnibus/SitForwarder/persistence"  
pollingInterval=3  
crcBytecount=50  
cmsSoapUrl=cms/soap  
bufferFlushRate=10  
logLevel=verbose
```

If you encounter a problem while using the situation update forwarder, open the system logs, which are synched with Tivoli Monitoring and are in the **/tmp** folder. The most useful log is the trace log, which shows how the situation update forwarder handles an event. Be sure the Log Level is set to **verbose**.

If you think the situation update forwarder is not running when you examine the logs, open the **persistence** directory. If a running file is present, the situation update forwarder is running.

SitUser.conf

- ROOT@TORPEDO /opt/IBM/Netcool/omnibus/SitForwarder/etc->
- vi situser.conf

```
serverid=itm-vm100.tivlab.austin.ibm.com
```

```
userid=root
```

```
passwordfile=/opt/IBM/Netcool/omnibus/SitForwarder/etc/itm-vm100.tivlab.austin.ibm.com.pwd
```

```
serverid=sles10.tivlab.austin.ibm.com
```

```
userid=root
```

```
passwordfile="/opt/IBM/Netcool/omnibus/SitForwarder/etc/sles10.tivlab.austin.ibm.com.pwd"
```

Situser.conf is a file that is sent to the two Tivoli Enterprise Monitoring Servers whose information is displayed. The situpdate.conf file is in SitForwarder/etc.

Situation update forwarder executables

```
ROOT@TORPEDO /opt/IBM/Netcool/omnibus/SitForwarder/bin-> ls
```

launch.sh	sitconfigsvruser.log	startSUF.sh
nohup.out	stopSUF.sh	
query_state.sh	sitconf.sh	
sitconfig.log	sitconfuser.sh	test.sh
sitconfig.log.lck	situpdate.sh	

These executables are the situation update forwarder executables. To change passwords, set up another server ID, location, or user. Then, use **sitconfuser.sh** or **sitconf.sh**.

/tmp/itmsynch/logs/synch_tracelogs

synch_trace.log

- 2009.11.19 16:48:12.611-06:00 com.tivoli.candlenet.SituationUpdateForwarder formatEvent IBM Tivoli Monitoring TEC Synchronization torpedo.tivlab.austin.ibm.com IP SOAP string: <?xml version="1.0" encoding="UTF-8"?><SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/"><SOAP-ENV:Body><CT_Acknowledge><userid>root</userid><password>xxxx</password><name>logins</name><source>sles10:LZ</source></CT_Acknowledge></SOAP-ENV:Body></SOAP-ENV:Envelope>
- 2009.11.19 16:48:12.611-06:00 com.tivoli.candlenet.SituationUpdateForwarder getServerUrlConnection IBM Tivoli Monitoring TEC Synchronization torpedo.tivlab.austin.ibm.com IP Entry, parm 1 = op=a,sn=logins,sh=sles10:LZ,sv=sles10.tivlab.austin.ibm.com:3661,et=,di=
- 2009.11.19 16:48:12.612-06:00 com.tivoli.candlenet.SOAPConnection sendRequest IBM Tivoli Monitoring TEC Synchronization torpedo.tivlab.austin.ibm.com IP SOAP URL is: https://sles10.tivlab.austin.ibm.com:3661///cms/soap/kshhsoap.htm
- 2009.11.19 16:48:12.612-06:00 com.tivoli.candlenet.SOAPConnection sendRequest IBM Tivoli Monitoring TEC Synchronization torpedo.tivlab.austin.ibm.com IP Method name is: CT_Acknowledge
- 2009.11.19 16:48:12.663-06:00 com.tivoli.candlenet.SOAPConnection getResponseCode IBM Tivoli Monitoring TEC Synchronization torpedo.tivlab.austin.ibm.com IP Response code is: 200

In this example, you see a synch_trace.log. Find the dialog CT_Acknowledge near sles10 Tivoli Austin IBM, on port connection 3661. Now, find **code is: 200** at the bottom of the trace log. This code confirms that the event was sent to Tivoli Enterprise Monitoring Server.

Check NCO_PA.log if event is not in /persistence

- ROOT@TORPEDO /opt/IBM/Netcool/omnibus/log->
- cat NCO_PA.log
- Two procedures are running to check the situation update forwarder status; one is running the wrong syntax
- The correct version has the full path; the incorrect version is missing /omnibus/send_event_cmd in the path
 - Correct
"usr/local/app2/opt/IBM/SitForwarder/omnibus/send_event_cmd
/usr/local/app2/opt/IBM/SitForwarder Check_SUF_Status Check_SUF_Status"
 - Incorrect
/usr/local/app2/opt/IBM/SitForwarder Check_SUF_Status Check_SUF_Status"

Check the persistence directory for your event. Check the NCO_PA log for your event. You should always check the NCO_PA log, even if your event did not register in the persistence directory.

The NCO_PA log is shown. Find the **send_event** command. In this example, the send_event command is present, but the path is incorrect. If you receive an error stating that an event did not arrive, ensure that the path is correct.

opt/IBM/Netcool/omnibus/SitForwarder/persistence

```
drwxr-xr-x  2 root  system    256 19 Nov 16:51 .  
drwxr-xr-x 13 root  system   4096 04 Nov 18:13 ..  
-rw-r--r--  1 root  ncoadmin   26 19 Nov 16:51 lastwritten  
-rw-r--r--  1 root  system     0 03 Dec 12:43 running  
-rw-r--r--  1 root  ncoadmin 1444 19 Nov 16:51 situpdate_1257380230
```

This is the persistence directory. If a situpdate file is not present in the persistence directory, then the situation update forwarder is not running. The situpdate example displayed is an event that has arrived.

Open the file and check the event name. If the file name has been shortened or truncated in the situation update forwarder file, you must replace the shortened name with the original name. A truncated file name causes an error that prevents the event from being delivered.

```
08/25/09 11:00:21: Debug: D-OBJ-105-010: Client language command  
[probe][PROBE][tivoli_eif][pokdevlab75] [insert into alerts.status values (  
'MS_Offline','usrdtep01i9012b:UA::ITM_ManagedSystem',0,'usrdtep01i9012b:UA','usrdtep01i9  
012b:UA','EIF Probe on pokdevlab75','EIF Probe on  
pokdevlab75','ITM_ManagedSystem','MS_Offline',4,'MS_Offline',1251216021,1251216021,12  
51216021,1251216021,0,20,0,6601,1," ,65534,0,0,0"," ,0,0,0"," ,0,0,0"," ,0,0,0"," ,0,0,0"," ,0,  
0"," ,',"USPK0P0ALLD',0," , " , "'08/25/2009',0,'N' ," , "'08/25/2009  
12:00:21.000','usrdham01i901xa.raleigh.ibm.com','3661','U'," , 'S','HUB_usrdham01i901xa'," , "  
" , " ','MS_Offline'," , " ',0"," ,0"," ,"'usrdtep01i9012b:UA'," , " ','LAB'," , " ',0"," ,0,1251216021,12  
51216021,0," , " ',0"," ,0,1251216021"," ,0"," ,1251216021,0,0,0"," ,0,1251216021,0,0,1251216021,0," ,  
" , " ',0,0,0,0,0,1251216021,0," , " ',0) updating  
(ITMStatus,ITMTime,ITMHostname,ITMResetFlag);].
```

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Test SOAP connection

1. Stop the situation update forwarder
2. Delete all situation update forwarder cache files and file called lastwritten (in \$NCHOME/ITM/SitForwarder/persistence/)
3. Make sure you are logged in as the same user used to install the situation update forwarder (typically, this is Netcool)
4. Restart the situation update forwarder with StartSUF.sh
5. Run test.sh to test SOAP connection to Tivoli Monitoring
6. Acknowledge events in OMNIBus and confirm that they are modified in Tivoli Monitoring

If you have not found the source of an error, test the SOAP connection. Stop the situation update forwarder. Delete all the situation update forwarder cache files called **lastwritten**. Make sure you are logged in as the same user that installed the situation update forwarder. Typically, this user is **netcool**.

Restart the situation update forwarder using **StartSUF.sh** and run **test.sh** to test the SOAP connection to Tivoli Monitoring. You are also confirming that events are modified within Tivoli Monitoring. If the test completes, it confirms that the situation update forwarder is communicating with the Tivoli Enterprise Monitoring server.

Iptrace of SOAP

Iptrace on SOAP connections

Start Iptrace on Omnibus server tracing SOAP ports 1920 and 3661

```
– startsrc -s iptrace -a " -a -p 1920,3661 -b /tmp/trace.out"
```

Run an IP trace on SOAP connections. Start on the Tivoli Netcool/OMNibus server tracing SOAP ports 1920 and 3661.

Wireshark output of IP trace

No.	Time	Source	Destination	Protocol	Info
1	0.000000000	9.48.204.238	9.48.204.11	TCP	35942 > can-ferret-ssl [S]
2	0.000280560	9.48.204.11	9.48.204.238	TCP	can-ferret-ssl > 35942 [S]
3	0.000341906	9.48.204.238	9.48.204.11	TCP	35942 > can-ferret-ssl [A]
4	0.017065550	9.48.204.238	9.48.204.11	TCP	35942 > can-ferret-ssl [F]
5	0.017332677	9.48.204.11	9.48.204.238	TCP	can-ferret-ssl > 35942 [F]
6	0.017660191	9.48.204.11	9.48.204.238	TCP	can-ferret-ssl > 35942 [F]
7	0.146903143	9.48.204.238	9.48.204.11	TCP	35942 > can-ferret-ssl [F]
8	0.150872144	9.48.204.11	9.48.204.238	TCP	can-ferret-ssl > 35942 [F]
9	0.155973942	9.48.204.238	9.48.204.11	TCP	35942 > can-ferret-ssl [F]
10	0.156433033	9.48.204.11	9.48.204.238	TCP	can-ferret-ssl > 35942 [F]
11	0.185253617	9.48.204.238	9.48.204.11	TCP	35942 > can-ferret-ssl [F]
12	0.186162899	9.48.204.238	9.48.204.11	TCP	35942 > can-ferret-ssl [F]

Frame 1 (60 bytes on wire (60 bytes captured))

- Ethernet II, Src: Ibm_4f:37:2e (00:02:55:4f:37:2e), Dst: Vmware_b0:4f:47 (00:50:56:b0:4f:47)
- Internet Protocol, Src: 9.48.204.238 (9.48.204.238), Dst: 9.48.204.11 (9.48.204.11)
- Transmission Control Protocol, Src Port: 35942 (35942), Dst Port: can-ferret-ssl (3661), Seq: 0, Len: 0

0000 00 50 56 b0 4f 47 00 02 55 4f 37 2e 08 00 45 00 .PV.OG..UO/...E.
 0010 00 2c 89 08 40 00 3c 06 0a 6a 09 30 cc ee 09 30 ...@.<..j.O...0
 0020 cc 0b 8c 66 0e 4d 8a be 5d 0c 00 00 00 60 02 ...f.M..].....
 0030 40 00 2a 4e 00 00 02 04 05 b4 00 00 @.*N.....

Wireshark is a free downloadable tool that can display the SSL log connection and the can-ferret-ssl connection. You can use this tool to find out what connections you are receiving over the port. Here is the Wireshark output of the IP trace checking connectivity of the Tivoli Netcool/OMNIBus server and the Tivoli Enterprise Monitoring Server.

Summary

In this presentation, you learned how to check logs to troubleshoot issues that might arise in the situation update forwarder

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