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Scenario #3

- User sees agent being off-line on TEP console.

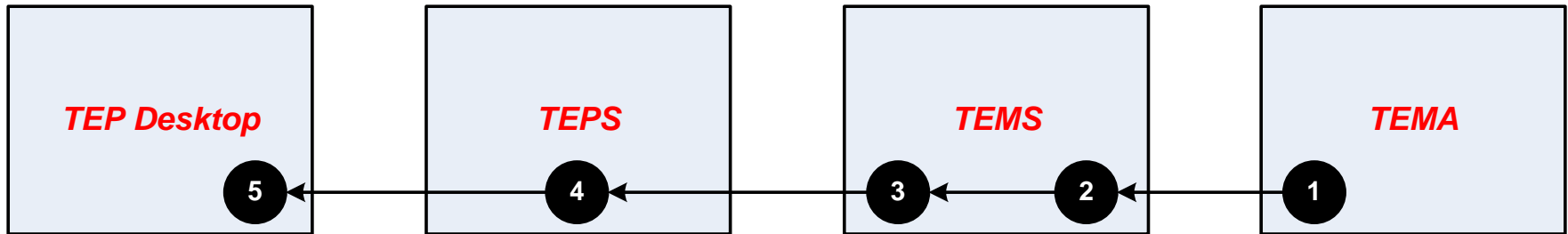


Requirements

- **Increase trace level of TEPS to ERROR** (UNIT:kv4 INPUT,ERROR)
(UNIT:ctcmw INPUT,ERROR) .
- **Increase trace level of TEMS to ERROR** (UNIT:kfastinh ALL)
(UNIT:kfaprpst ALL) (UNIT:kfastupd ALL)
(UNIT:kfansins ALL) (UNIT:kfanodei ALL)
(UNIT:kfasndns ALL) (UNIT:kpxreqhb ALL) .
- **Increase trace level of TEMA to ERROR** (UNIT:kra ALL) .
- **Simulate the problem and collect RAS1 log files from all components.**
- **All log files' timestamp must be synchronized in time.**



Diagram and flow description



- 1 TEMA sends a heartbeat signal to TEMS (unit:*kraafira*).
- 2 TEMS receives the heartbeat signal from TEMA (unit:*kpxreqhb*).
- 3 TEMS updates node status table (unit:*kfanodei*)
- 4 TEPS gets notified by TEMS about the node status change (unit:*ctcmwmanagedsystemsmanager*).
- 5 Node status change is displayed on TEP console.

Example (TEMA)

- TEMA sends a heartbeat signal to TEMS (unit: *kraafira*).

```
(4C7E2EC0.0215-24D8:kraarreg.cpp,1270,"finishExtRegistration") Self-starting agent heartbeat for
Primary:ITMDVD26:NT.
(4C7E2EC0.0218-24D8:kraafmgr.cpp,619,"Start") Start received HEARTBEAT <2138046465,0> on *.RNODESTS
(4C7E2EC0.022D-24D8:kraafira.cpp,308,"ctira") Creating request @0xe7daf8 <2138046465,4195354489> KPX.RNODESTS,
HEARTBEAT
(4C7E2EC0.0256-2498:kraafira.cpp,767,"DriveDataCollection") KPX.RNODESTS, <2138046465,4195354489> HEARTBEAT
expired.
(4C7E2EC0.02DE-2498:krarandb.cpp,273,"PrintSelf") kpx_rnodests_base @E7DAF8 <2138046465,4195354489>
(4C7E2EC0.02DF-2498:krarandb.cpp,275,"PrintSelf")      ::appl=KPX,table=RNODESTS,interval=600000,samptype=2
(4C7E2EC0.02E0-2498:krarandb.cpp,281,"PrintSelf")      _data {
(4C7E2EC0.02E1-2498:krarandb.cpp,282,"PrintSelf")          count=1, allocated=1, allocSize=1
(4C7E2EC0.02E2-2498:krarandb.cpp,287,"PrintSelf")          {
(4C7E2EC0.02E3-2498:krarandb.cpp,288,"PrintSelf")              sampleno=1
(4C7E2EC0.02E4-2498:krarandb.cpp,289,"PrintSelf")              node="Primary:ITMDVD26:NT"
(4C7E2EC0.02E5-2498:krarandb.cpp,290,"PrintSelf")              nodetype="V"
(4C7E2EC0.02E6-2498:krarandb.cpp,291,"PrintSelf")              online="  "
(4C7E2EC0.02E7-2498:krarandb.cpp,292,"PrintSelf")              o4online="Y"
(4C7E2EC0.02E8-2498:krarandb.cpp,293,"PrintSelf")              product="NT"
(4C7E2EC0.02E9-2498:krarandb.cpp,294,"PrintSelf")              version="06.22.01"
(4C7E2EC0.02EA-2498:krarandb.cpp,295,"PrintSelf")              expirytime="9          "
(4C7E2EC0.02EB-2498:krarandb.cpp,296,"PrintSelf")              affinities="%IBM.STATIC021
000000000A00000u0a4"
(4C7E2EC0.02EC-2498:krarandb.cpp,297,"PrintSelf")              timestamp="1100901104521000"
(4C7E2EC0.02ED-2498:krarandb.cpp,298,"PrintSelf")              hostinfo="Win2003~5.2-SP2"
(4C7E2EC0.02EE-2498:krarandb.cpp,299,"PrintSelf")              hostloc=""
(4C7E2EC0.02EF-2498:krarandb.cpp,300,"PrintSelf")              sysname="ITMDVD26"
(4C7E2EC0.02F0-2498:krarandb.cpp,301,"PrintSelf")          }
(4C7E2EC0.02F1-2498:krarandb.cpp,305,"PrintSelf") }
(4C7E2EC0.02F6-2498:kraadspt.cpp,706,"sendDataToProxy") Sending 1 rows for HEARTBEAT KPX.RNODESTS,
<2138046465,4195354489>.
(4C7E2EC0.0300-2498:kraatblm.cpp,605,"checkForExpiredRequests") Situation HEARTBEAT <2138046465,4195354489>
expired at 1283337920 and will next expire at 1283338520 : timeTaken = 0
```

Example (TEMS)

- TEMS receives the heartbeat signal from TEMA (unit: *kpxreqhb*)

```
(4C7E2EC1.0004-F04:kpxreqhb.cpp,542,"HeartbeatInserter") Entry
(4C7E2EC1.0005-F04:kpxreqhb.cpp,579,"HeartbeatInserter") <0x6975DA0,0xDC> found row (1) for
target 'Primary:ITMDVD26:NT':
+4C7E2EC1.0005      00000000      01000000 5072696D 6172793A 49544D44      ....Primary:ITMD
+4C7E2EC1.0005      00000010      56443236 3A4E5400 65642C20 5061636B      VD26:NT.ed,.Pack
+4C7E2EC1.0005      00000020      65747320 56006365 20200064 59007272      ets.V.ce...dY.rr
+4C7E2EC1.0005      00000030      4E54002C 30362E32 322E3031 00526563      NT.,06.22.01.Rec
+4C7E2EC1.0005      00000040      39202020 20202020 20202020 20202020      9.....
+4C7E2EC1.0005      00000050      2549424D 2E535441 54494330 32312020      %IBM.STATIC021..
+4C7E2EC1.0005      00000060      20202020 20202020 30303030 30303030      .....00000000
+4C7E2EC1.0005      00000070      30413030 30303075 30613400 20526563      0A000000u0a4..Rec
+4C7E2EC1.0005      00000080      31313030 39303131 30343532 31303030      1100901104521000
+4C7E2EC1.0005      00000090      57696E32 3030337E 352E322D 53503200      Win2003~5.2-SP2.
+4C7E2EC1.0005      000000A0      20506163 00657473 2053656E 74204E6F      .Pac.ets.Sent.No
+4C7E2EC1.0005      000000B0      6E2D556E 69636173 49544D44 56443236      n-UnicasITMDVD26
+4C7E2EC1.0005      000000C0      00636B65 74732053 656E7420 556E6963      .ckets.Sent.Unic
+4C7E2EC1.0005      000000D0      6173742F 73656320 29000000      ast/sec.)...
(4C7E2EC1.0006-F04:kpxreqhb.cpp,611,"HeartbeatInserter") read 1 heartbeat entries, list has 1
entries, node 'Primary:ITMDVD26:NT'
(4C7E2EC1.0007-F04:kpxreqhb.cpp,662,"HeartbeatInserter") Using RESERVED column value of
"A=00:WINNT;C=06.22.01.00:WINNT;G=06.22.01.00:WINNT;"
```

Example (TEMS)

- TEMS updates node status table (unit:*kfanodei*)

```
(4C7E2EC1.000E-F04:kfaprpst.c,2310,"UpdateNodeStatus")
Entry
(4C7E2EC1.000F-F04:kfaprpst.c,2395,"UpdateNodeStatus")
Node: 'Primary:ITMDVD26:NT', thrunode:
'HUB_ITMDVD26', flags: '0x00000002',
curOnline: 'N', newOnline: '1', expiryInterval: '10'
(4C7E2EC1.0010-F04:kfaprpst.c,2895,"UpdateNodeStatus")
Setting 'Primary:ITMDVD26:NT' online
(4C7E2EC1.001C-F04:kpxreqhb.cpp,777,"HeartbeatInserter")
InsertNodeStatus completed with status 0, node
<Primary:ITMDVD26:NT>
(4C7E2EC1.001D-F04:kpxreqhb.cpp,789,"HeartbeatInserter")
Remote node <Primary:ITMDVD26:NT> is ON-LINE.
```



Example (TEPS)

- TEPS gets notified by TEMS about the node status change
(unit:*ctcmwmanagedsystemsmanager*)

```
(4C7E2EC0.0000-2188:ctcmwmanagedsystemsmanager.cpp,189,"::NodeStatusListenThread::run") Node
Status event received (Primary:ITMDVD26:NT):
(4C7E2EC0.0001-2188:ctcmwmanagedsystemsmanager.cpp,190,"::NodeStatusListenThread::run") --
GBLTMTMP '1100901064521000'
(4C7E2EC0.0002-2188:ctcmwmanagedsystemsmanager.cpp,191,"::NodeStatusListenThread::run") --
NODE 'Primary:ITMDVD26:NT'
(4C7E2EC0.0003-2188:ctcmwmanagedsystemsmanager.cpp,192,"::NodeStatusListenThread::run") --
THRUNODE 'HUB_ITMDVD26'
(4C7E2EC0.0004-2188:ctcmwmanagedsystemsmanager.cpp,193,"::NodeStatusListenThread::run") --
O4ONLINE 'Y'
(4C7E2EC0.0005-2188:ctcmwmanagedsystemsmanager.cpp,194,"::NodeStatusListenThread::run") --
PRODUCT 'NT'
(4C7E2EC0.0006-2188:ctcmwmanagedsystemsmanager.cpp,195,"::NodeStatusListenThread::run") --
VERSION '06.22.01'
(4C7E2EC0.0007-2188:ctcmwmanagedsystemsmanager.cpp,196,"::NodeStatusListenThread::run") --
AFFINITIES '%IBM.STATIC021 000000000A0000yw0a7'
(4C7E2EC0.0008-2188:ctcmwmanagedsystemsmanager.cpp,197,"::NodeStatusListenThread::run") --
HOSTADDR 'ip:#10.100.100.89[38216]<NM>ITMDVD26</NM>'
(4C7E2EC0.0009-2188:ctcmwmanagedsystemsmanager.cpp,198,"::NodeStatusListenThread::run") --
HOSTINFO 'Win2003~5.2-SP2'
(4C7E2EC0.000A-2188:ctcmwmanagedsystemsmanager.cpp,199,"::NodeStatusListenThread::run") --
RESERVED 'A=00:WINNT;C=06.22.01.00:WINNT;G=06.22.01.00:WINNT;'
(4C7E2EC0.000B-
2184:ctcmwmanagedsystemsmanager.cpp,2099,"CTCMWManagedSystemsManager::statusUpdate")
Update for node 'Primary:ITMDVD26:NT' -- begin 06:45:20
(4C7E2EC0.000C-
2184:ctcmwmanagedsystemsmanager.cpp,2421,"CTCMWManagedSystemsManager::statusUpdate")
Update for node 'Primary:ITMDVD26:NT' -- completed 06:45:20 elapsed: 0.032
```



More analysis

- TEMA creates its own request handle for HEARTBEAT. The request handle number is **2138046465**.
- Once TEMA finishes with HEARTBEAT Situation, TEMA sets its expiry time to 10 minutes ($1283338520 - 1283337920 = 600$ sec).
- TEMS receives the heartbeat packet from TEMA, changes its status to **ON-LINE** and sets the expiry time to 10 minutes.
- TEPS receives the notification from TEMS and update the agent's status on TEP console.