

IBM Tivoli Monitoring V6.2.3

OS agent situation debugging



IBM Tivoli® Monitoring V6.2.3, OS agent situation debugging

Objectives

When you complete this module, you can perform this task:

- Debugging problems with situations, whether they appear to be false alerts, or are not triggering as expected

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Process steps

- Debugging problems from all the components at the same time
 - Tivoli Enterprise Portal Server
 - Tivoli Enterprise Monitoring Server
 - The agent
- Verify that the Tivoli Monitoring agent provides valid metrics for attribute fields
 - Time
 - Situation
 - Evaluation
- Concurrent debugging
 - Bad value
 - Invalid data
 - Situation distribution

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When you debug problems with situations, whether they appear to be false alerts or are not triggering as expected, you must debug from all of the components at the same time. All of the components includes Tivoli Enterprise Portal Server, Tivoli Enterprise Monitoring Server, and the agent.

You must verify that the Tivoli Monitoring agent provides valid metrics for attribute fields under three conditions:

1. Metrics are at the time that the situation is being evaluated.
2. The situation is actually running on the agent.
3. The Tivoli Enterprise Portal Server or Tivoli Enterprise Monitoring Server component that evaluates the situation that is based on the attribute data that Tivoli Monitoring agent that is working.

You must use concurrent debugging to determine whether one of these three conditions causes the problem:

1. The agent sends a bad value for the Take Sample for the attribute fields.
2. If the Tivoli Enterprise Monitoring Server is not providing valid data to the Tivoli Enterprise Portal Server when evaluating the situation.
3. If the situation is not being distributed or running on the Tivoli Monitoring agent system.

Determine the system levels and platforms

- Provide Tivoli Monitoring information so you know the levels and platforms that are involved for all systems:
- Gather Tivoli Monitoring environmental information for your environment:
 1. OS platform, host name, and Tivoli Monitoring components
 - Windows: `kincinfo -d`
 - UNIX or Linux: `cinfo -i`
 2. OS platform, host name, and Tivoli Monitoring components that are installed
 - HUB Tivoli Enterprise Monitoring Server
 - Remote Tivoli Enterprise Monitoring Server
 3. Operating system platform, host name, and Tivoli Monitoring components that are installed on the agent system

Provide Tivoli Monitoring information so you know the levels and platforms that are involved for all systems. The systems include Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, and agent systems.

Gather Tivoli Monitoring environmental information for your environment with the commands shown:

1. OS platform, host name, and Tivoli Monitoring components that are installed on the Tivoli Enterprise Portal Server system. Run the command that is shown for your operating system to show the Tivoli Monitoring components and application support levels.
2. OS platform, host name, and Tivoli Monitoring components that are installed on the HUB Tivoli Enterprise Monitoring Server and Remote Tivoli Enterprise Monitoring Server if using them.
3. OS platform, host name, and Tivoli Monitoring components that are installed on the agent system.

Define the situation

- Define the situation
 - Pure or sampled event
 - Sampling interval
 - If the situation uses an **until** clause, verify whether the situation is ever set to **true** or **false** during evaluation
- Run commands:
 - `tacmd login -s <TEMS server> -u <sysadmin> -p <password>`
 - `tacmd viewsit -s <situation name> -e <filename.xml>`
- Provide the **viewSit** output
- Collect the messages file
 - Windows: `%CANDLE_HOME%\CMS\kdsmain.msg`
 - UNIX or Linux: `<InstallDirectory>/logs/<host_name>_ms_<Timestamp>.log`

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For the situations that are involved, you must know the definition for the situation. You must determine this information:

- A. Is it a **pure** or **sampled** event?
- B. What is your **sampling interval**? That is, how often the attribute you are triggering on is being checked?
- C. Does the situation use an **until** clause?
- D. Verify on the Tivoli Enterprise Monitoring Server system whether the situation is ever set to **true** or **false** during evaluation.

To determine the answers to these questions, run the commands that are shown.

Provide the **viewSit** output for the situations that you do not see functioning as expected.

From the Tivoli Enterprise Monitoring Server system, collect the messages file. In the file, you and the support desk can see if and when the situation is evaluated to **true** and if it is ever set back to **false**. The message file is in the directory that is shown for your operating system.

Collect screen captures

- Collect a screen capture from the Tivoli Enterprise Portal for the Situation Event Console that shows the situation alert
- Trace the servers and system
- Situation that fires in error, when the alert happens in the Tivoli Enterprise Portal

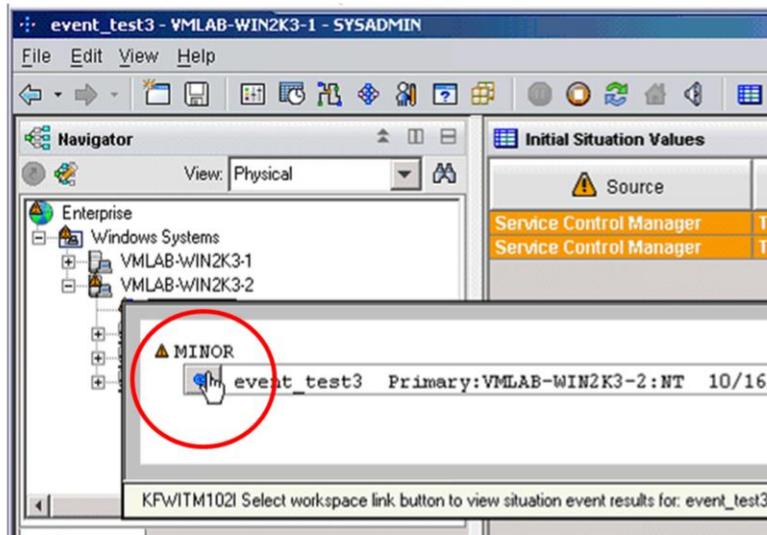
Collect a screen capture from the Tivoli Enterprise Portal for the Situation Event Console that shows the situation alert. This capture shows you when it was generated. Click the blue chain link for the alert to see the details. Collect a screen capture that shows the situation details for the values present when the situation triggered.

To debug what is happening for situation processing, you must trace the Tivoli Enterprise Portal Server, the Tivoli Enterprise Monitoring Server, and the agent system.

If you suspect that a situation is firing in error when the alert happens in the Tivoli Enterprise Portal, click the blue chain link for the alert. Collect a screen capture that shows the current values for the situation as shown in the Tivoli Enterprise Portal. There you can see what specific value is triggering the alert.

An image of the blue chain link is shown on the next slide.

Process steps



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This image shows the blue chain link that was described previously.

Confirm the situation that is alerting

- If the situation is not triggering as expected, you must confirm the situation that is alerting
- If the situation is triggering, but you do not see a "take action" being performed AND the action TEMA takes, you must review the <pc>.LG0 file for the specific agent
- If the situation is triggering, but you do not see a "take action" being performed AND the action that the Tivoli Enterprise Monitoring Server takes, you must review the Tivoli Enterprise Monitoring Server messages log and Tivoli Enterprise Monitoring Server tracing

If the situation does not trigger as expected, you must confirm the situation that is alerting. Make a screen capture of the Situation Event Console from the Tivoli Enterprise Portal when you think the situation should be evaluated to **true**.

If the situation triggers, but you do not see a **take action** that is performed AND the **action** TEMA takes, you must review the **<pc>.LG0** file for the specific agent. If this situation is an LZ agent situation, then you look in the LZ.LG0 file to confirm that the situation is running. Also, determine if you see an indication in the log file that the **take action** process was performed.

If the situation is triggering and both of these conditions exist, you must review the Tivoli Enterprise Monitoring Server messages log and Tivoli Enterprise Monitoring Server tracing:

1. You do not see a **take action** being performed.
2. The **action** the Tivoli Enterprise Monitoring Server takes.

Enable RAS1 settings

The RAS1 settings that must be enabled:

- Tivoli Enterprise Portal Server
 - ERROR (UNIT:kv4 IN ER) (UNIT:kv4mtmdl,entry:"MObjTemplate::_dispatchEvent" DETAIL ERROR)
 - (UNIT:ctcmweventsupplier,entry:"CMWEventSupplier::convertPathEvent" DETAIL ERROR)
- Tivoli Enterprise Monitoring Server (both Hub and Remote):
 - ERROR (UNIT:kpxreq all) (kpxrpcrq ALL) (UNIT:kdsruc1 STATE) (UNIT:kpxrpcrq STATE)
 - TEMA
 - 1) Stop the agent.
 - 2) Set the KBB_RAS1=DETAIL (UNIT:kraadspt ST) (UNIT:kraafmgr ST) in to replace default "ERROR" setting

The RAS1 settings that must be enabled are listed:

For the Tivoli Enterprise Portal Server, see the two lines shown.

For the Tivoli Enterprise Monitoring Server, both hub and remote, see the lines that are shown.

Clear logs and set the KBB_RAS1 entries

1. Stop the (Tivoli Monitoring) Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, and TEMA agent
2. Clear the **logs** directories of old log files
3. Set the KBB_RAS1 settings on the various Tivoli Monitoring components that are listed previously
 - Tivoli Enterprise Portal Server on Windows:
Add/Update **KBB_RAS1** entry in *<install dir>*\CNPS\kfwenv
 - Tivoli Enterprise Portal Server on UNIX or Linux:
Add/Update **KBB_RAS1** entry in \$CANDLEHOME/config/cq.ini
 - Tivoli Enterprise Monitoring Server on Windows:
Add or update **KBB_RAS1** entry in *<install dir>*\CMS\KBBENV
 - Tivoli Enterprise Monitoring Server on UNIX or Linux:
Add or update **KBB_RAS1** entry in %CANDLEHOME/config/ms.ini
 - TEMA for agent:
KBB_RAS1=ERROR (UNIT: KRA ALL)

1. Stop the servers and TEMA agent.
2. Clear the logs directories.
3. Set the **KBB_RAS1** settings on the various Tivoli Monitoring components that are listed as indicated on the slide.

Re-create issue and collect data

4. Start Tivoli Monitoring components and re-create issue
5. Collect the files
 - RAS1 log files from each component
 - *.LG0 and *.LG1 files from the TEMA **logs** directory on the agent
 - Tivoli Enterprise Monitoring Server message file from the Tivoli Enterprise Monitoring Server system
 - Screen captures from Tivoli Enterprise Portal GUI that shows the Situation Event Console
 - Screen capture from the Tivoli Enterprise Portal (click the blue chain link to show the situation values for the alert first)
 - `tacmd viewSit` information for the situation formula

Remember to gather all of the documentation for the same occurrence.

4. Start Tivoli Monitoring components and re-create the issue.

5. Collect the files for all of the components after the issue is created again.

Remember to ensure that all of the documentation is for the same occurrence of the issue.

Summary

Now that you completed this module, you can perform this task:

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