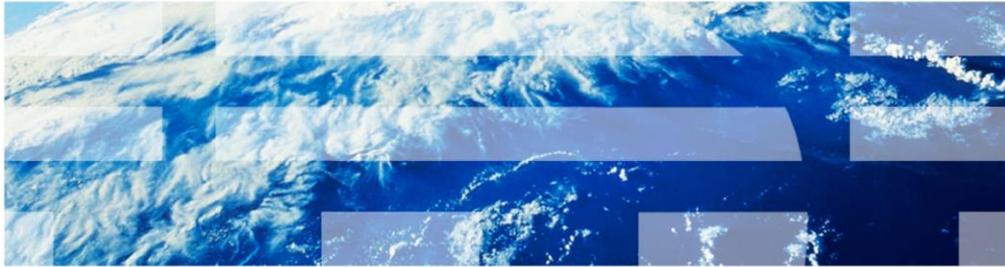


## IBM Tivoli Netcool Configuration Manager V6.3

Investigative procedures to resolve intermittent performance or freezing of Intelliden Device Terminal and IBM Tivoli Netcool Configuration Manager console



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IBM Tivoli® Netcool® Configuration Manager V6.3 investigative procedures to resolve intermittent performance or freezing of Intelliden® Device Terminal (IDT) and IBM Tivoli Netcool Configuration Manager console.

## Assumptions

This module assumes that you have this knowledge of IBM Tivoli Netcool Configuration Manager:

- Basic administration functions
- Network architecture

The module designer assumes that you know the basic administration functions and network architecture in *IBM Tivoli Netcool Configuration Manager* software.

## Objectives

After you complete this module, you can perform these tasks:

- Investigate, at a high level, the factors that contribute to Intelliden Device Terminal (IDT) performance issues
- Implement changes to alleviate performance issues that you notice within the Intelliden Device Terminal (IDT) and IBM Tivoli Netcool Configuration Manager Console front end console

After you complete this module, you can perform these tasks. Investigate, at a high level, the factors that contribute to IDT performance issues. Implement changes to alleviate performance issues that you notice within the IDT terminal and IBM Tivoli Netcool Configuration Manager Console front end console.

## Overview

- Problem scenario: Hanging or freezing of GUI
- Overview of investigative procedures and resolution suggestions

This module describes the problem scenario of an intermittent performance or freezing of the IDT component or the front end GUI. You might face this scenario in a live environment. The module provides an overview of the investigative procedures and resolution suggestions. This example is for IBM Tivoli Netcool Configuration Manager V6.3.

## Problem scenario

- Users might, at times, experience intermittent issues with the Intelliden Device Terminal (IDT) or IBM Tivoli Netcool Configuration Manager front end GUI/console
- The consoles freeze and do not respond to any input requests
- Freezing can occur for up to 30 seconds before the console responds to inputs
- There can be scenarios where the console times out completely

In this problem scenario, users might, at times, experience intermittent issues with the IDT or IBM Tivoli Netcool Configuration Manager front end GUI or console. The consoles freeze and do not respond to any input requests. This freeze can occur for up to 30 seconds before the console responds. There can also be scenarios when the console times out completely.

## (1 of 7) Investigative procedures and solutions: Check for known issues and fixes

1. Determine the specific version of Tivoli Netcool Configuration Manager on which the system is installed
2. Determine the exact version and patch of specific devices  
Go to IBM's Fix Central for latest patches and fixes  
<http://www-933.ibm.com/support/fixcentral/>
3. Determine if you have the latest versions

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There can be many reasons that can lead to the problem scenario described on the previous slide. Look at an overview on how you can investigate this issue and resolve it.

The first step is to perform two simple checks.

1. Find out the specific version of Tivoli Netcool Configuration Manager on which the system installed. You must know the exact version and patch of Tivoli Netcool Configuration Manager to find a solution. The most recent patches for your version of the software might have fixes to overcome performance or slowness issues.
2. Second, when the IDT component exhibits slowness, determine if it is related to any specific devices, for example, Juniper or Cisco. It is helpful to figure out whether the performance or slowness issue is due to a device failure or connectivity, or to the Tivoli Netcool Configuration Manager application as a whole.
3. After you determine the exact version of the software or the particular device, you can visit the IBM Fix Central website. On this website, you can find out if your Tivoli Netcool Configuration Manager has the latest version and if there are known defects for the particular device model that is causing the problem.

## (2 of 7) Investigative procedures and solutions: Two simple connectivity tests

4. Run a simple test: from Tivoli Netcool Configuration Manager server command line, telnet or SSH to the device
5. Run another simple test: run commands with Intelliden Device Terminal (IDT) instead of direct connection with a UNIX® console or terminal

Step 4 is to run a simple test. Attempt to Telnet or SSH to the device to confirm whether the connection is instant or slow. If a direct connection from a server command line is slow or has other problems, then you must first review the connection to rule out access issues.

Step 5 is another simple test. Try to run commands with IDT to a device where such slowness can be noticed with IDT, and note how long it takes the commands to run. At the same time, confirm the connection from a UNIX server or a console to the same device and determine if this method is faster. This step rules out any configuration connectivity issues.

### (3 of 7) Investigative procedures and solutions: Check database performance

6. Determine if the relational database management system (RDBMS) is in a different location than the other Tivoli Netcool Configuration Manager servers
7. Review the database

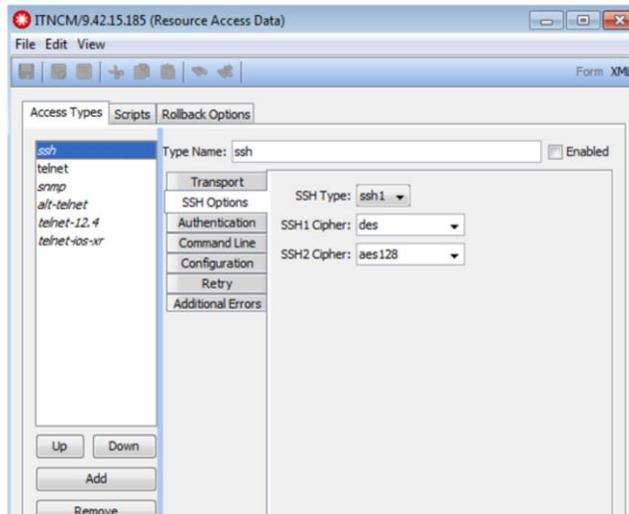
Step 6 is to find out if the RDBMS is in a different location than the other Tivoli Netcool Configuration Manager servers. Perhaps RDBMS is running slowly or incurring performance degradation, thus causing intermittent slowness at the front end. Investigate this possibility with your system DBA.

Step 7. In addition, you should also ensure that your onsite DBA reviews the database to confirm that everything is performing correctly.

Tivoli Netcool Configuration Manager performs numerous background queries. If the back-end database is Oracle, for example, generate an hour-long Automated Workload Repository (AWR) for the same hour that you use the database. Also generate the Automatic Database Diagnostic Monitor (ADDM) for that hour, and review it to see if there are any anomalies.

## (4 of 7) Investigative procedures and solutions: Check device connection methods

8. Determine whether the device connection method is SSH or Telnet



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8. Next, you must review the Resource Access Data (RAD) that is used to communicate with the device that opens the RAD. Select **XML** in the upper-right corner, then review the text in a separate file. This action confirms which connection method the devices use, for example SSH or Telnet.

If you have both Telnet and SSH enabled on the RAD, clear the SSH **Enabled** check box. The reason for clearing the check box is that, if the devices do not support SSH, the application tries all possible methods and usernames and passwords to connect, and causes slowness or timeouts.

If only Telnet is enabled, you can determine whether connectivity speed increases from the IDT console to the end device.

(5 of 7) Investigative procedures and solutions:  
Change the work server update period

9. Review the work server update period

Back up and update these files:

**/opt/IBM/tivoli/netcool/ncm/config/properties/rseries.properties**

Change these values from 30 to 300:

**Core/workerServerUpdatePeriod**

Finally, restart Tivoli Netcool Configuration Manager and reattempt the issue

Another cause for the freezing or slowness might be within the application itself. To test whether the issue is within the application, edit the file

**/opt/IBM/tivoli/netcool/ncm/config/properties/rseries.properties**. Test this file on a test server and back up the properties file before you edit it.

Update this file on all servers. Change the parameter **Core/workerServerUpdatePeriod** from **30** to **300**, save the file, and restart the Tivoli Netcool Configuration Manager. Determine whether this change improves connectivity. Ensure that you have a test period and a set of devices with slowness issues that you can test using IDT after the configuration is updated. You must perform this change on all servers, for example, the Tivoli Netcool Configuration Manager **presentation** server and the **worker** server. Ensure that all of the files have the same values.

This parameter sets the interval, in seconds, at which the **worker** server refreshes its view of the **Resource Browser**, in order for it to determine what work it can pick up. The default value is 30 seconds. You can test and set this value to something less than 300 as initially suggested. The choice is up to you, but the goal is to detect the results of IDT performance improvement.

Similar IDT slowness or timeout issues are typically identified because of configuration issues on the environment.

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(6 of 7) Investigative procedures and solutions:  
Increase maximum client memory

10. If the GUI is having performance issues, you can check the value for Maximum Client Memory in the System properties in the GUI. You can try increasing the memory available to the client to see if that helps .

Next, if the front end GUI is having performance issues, you can check the value of the **Maximum Client Memory** parameter in the System properties within the front end of the Tivoli Netcool Configuration Manager GUI. Increase the memory available to the client to see if that change helps to overcome any performance or slowness issues.

## (7 of 7) Investigative procedures and solutions: Run IDT in its own JVM

11. It is possible to configure Intelliden Device Terminal (IDT) to run in its own JVM. If it is the server side that is struggling, then you can try this to see if it helps. View the online help at **Changing the IDT JVM configuration**:

[http://publib.boulder.ibm.com/infocenter/tivihelp/v8r1/topic/com.ibm.netcool\\_configurationmgr.doc\\_6.3.0/ncm/wip/condev/task/ncm\\_condev\\_changingidjvm.html](http://publib.boulder.ibm.com/infocenter/tivihelp/v8r1/topic/com.ibm.netcool_configurationmgr.doc_6.3.0/ncm/wip/condev/task/ncm_condev_changingidjvm.html)

It is possible to configure IDT to run in its own Java virtual machine (JVM). If it is the server side that is struggling with slowness or performance issues, then you can try this change to determine if this specific suggestion improves connectivity. The website *Changing the IDT JVM configuration*, that is shown, provides the details and steps on how to configure the IDT.

## Summary

Now you completed this module. You can perform these tasks:

- Investigate, at a high level, the factors that contribute to Intelliden Device Terminal (IDT) performance issues
- Implement changes to alleviate performance issues that you notice within the Intelliden Device Terminal (IDT) and IBM Tivoli Netcool Configuration Manager Console front end console

You now have completed this module. You can perform these tasks. Investigate, at a high level, the factors that contribute to IDT performance issues. Implement changes to alleviate performance issues that you notice within the IDT terminal and IBM Tivoli Netcool Configuration Manager Console front end console.

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