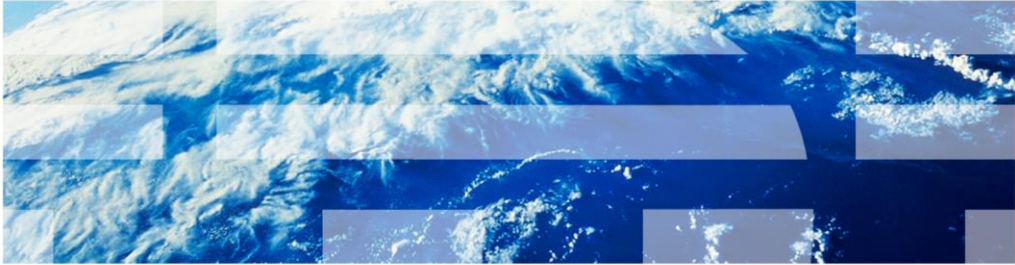


Tivoli NetView for z/OS

Determine what causes HICPU issues within a NetView address space



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Tivoli® NetView® for z/OS®, Determine what causes HICPU issues within a NetView address space. In this module, you learn the steps to use to determine the source of high central processor unit usage. The lesson includes the initial data collection and analysis, and how to run a trace to collect more information if needed.

Objectives

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

- Identify a HICPU condition
- Collect and analyze data from the TASKUTIL command
- Run a NetView internal trace and analyze the data it produces

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HICPU problem determination

- If a HICPU condition is occurs, from the NetView command line, run the command **TASKUTIL**
- The **TASKUTIL** command displays central processing unit (CPU) use and storage use for NetView tasks

Here is a lesson on how you can find what causes a high central processor unit condition within the NetView address space. To collect information for a HICPU condition, use the TASKUTIL command to display central processing unit use and storage use for NetView tasks.

Command results

- Example:

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TASKNAME	TYPE	DPR	CPU-TIME	N-CPU%	S-CPU%	MESSAGEQ	STORAGE-K	CMD
NTV98PPT	PPT	255	3.88	98.68	0.08	0	122	**NONE**
OPER4	OST	251	0.42	31.65	0.05	0	80	**NONE**
NTV98VMT	OPT	250	1.38	8.19	0.01	0	56	N/A

- In this example, the task **NTV98PPT** uses excessive N-CPU (NetView CPU)

After you run the command TASKUTIL, a response similar to this example displays. In this example, the results from the TASKUTIL command indicate that the task NTV98PPT uses excessive NetView CPU.

Failure to diagnose with TASKUTIL command results

- Collect trace data with these steps:
 - To start the NetView Internal Trace (NIT), from the NetView command line, issue the command **TRACE ON,MODE=INT,OPT=(DISP,QUE,STOR,PSS,UEXIT)**
 - From the NetView command line, issue **TASKUTIL**
 - Recreate the problem
 - Collect the NETLOG
 - Collect a NetView console dump
- Link to the [NetView Internal Trace](http://snap.rtp.raleigh.ibm.com/products/hicpumnuNIT.html)
 - <http://snap.rtp.raleigh.ibm.com/products/hicpumnuNIT.html>
 - Log in and password are required

If the TASKUTIL command does not provide sufficient data to diagnose the HICPU symptoms, or you do not know why the task and code cause the problem, you need more data. To get data, you perform these steps which include re-creating the problem and collecting documentation:

1. To start the NetView Internal Trace (NIT) from the NetView command line, issue the command **TRACE ON,MODE=INT,OPT=(DISP,QUE,STOR,PSS,UEXIT)**.
2. From the NetView command line, issue the command **TASKUTIL**.
3. Recreate the problem.
4. Collect the NETLOG.
5. Collect a NetView console dump.

Analyzing collected documentation

- TASKUTIL information
- Analyze the system trace in the dump
- Analyze the NetView internal trace
 - IP VERBX CNMIPCS
 - Select option 11 NetView internal trace
 - Look for repeating addresses, loops, and so on
 - Select option 12
 - Look for the task from the TASKUTIL command output
 - Look for repeating TCB from the option 12 data
- Collect the NETLOG and DUMP

After you collect the documentation, you analyze it for problem determination.

1. Analyze the TASKUTIL command output. Look for the TASKNAME of the excessive CPU. In this example, task NTV98PPT is the task name that is using excessive CPU. Check the message queue count column. Look at the command or clist that is running.
2. Look at the System Trace in the dump. Within the dump from the command line, issue the command **IP SYSTRACE**. Start at the bottom of the output and scroll page up while you look for repeating addresses that might indicate a possible loop.
3. Analyze the NetView Internal trace output. Within the dump, issue the command **IP VERBX CNMIPCS**. From the **NetView Dump formatter panel** select option **11 NetView Internal Trace**. Look for repeating addresses, loops, and so on. You can look for repeating TCB addresses. From the Dump formatter panel select option **12**. Look for the task from the **TASKUTIL** command output and note the TCB address. Then, look for repeating TCB from the option 12 data.
4. Collect the NETLOG and DUMP for the time period when the problem occurs.

If you cannot resolve the problem, send the collected data to the Software Support Center for analysis.

Summary

Now that you completed this module, you can perform these tasks:

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