

[LAT/SERVER] How To Troubleshoot A Paused Print Queue

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PRODUCTS: OpenVMS VAX, All Versions
OpenVMS Alpha, All Versions

COMPONENT: LAT Symbiont (LATSYSM)
LAT Queues (LATQUE)
Print Queue

SOURCE: Digital Equipment Corporation

SUBJECT:

This article describes how to troubleshoot a 'paused' print queue on a terminal server using the Local Area Transport (LAT) symbiont (LATSYSM).

A 'paused' print queue generally indicates a communication problem between the server and the system. When the print command is entered, a connection request is sent over the network. If the connection request is ignored or rejected, the queue goes into a 'paused' state.

DISCUSSION:

To troubleshooting a 'paused' print queue the following techniques may be used:

1. The quickest way to determine the potential cause of a 'paused' print queue, is to set the queue to retain a job that receives an error. To do this, issue the command:

```
$ SET QUEUE/RETAIN=ERROR <queue_name>
```

With this characteristic on the queue, when a job is submitted to the queue and an error occurs, the job will be retained in the queue, with the error message of the failure.

To view the error message on the retained job, enter the command:

```
$ SHOW QUEUE/FULL/ALL <queue_name>
```

Occasionally, the error message will be a message number containing no text, like:

```
-LAT-F-NOMSG, Message number 01769FCC
```

To find the error text in this case, use the following commands:

```
$ SET MESSAGE SYS$MESSAGE:NETWRKMSG  
$ SHOW QUEUE/FULL/ALL <queue_name>
```

This error message may give enough information to resolve the problem.

2. A 'COPY' of a file to the LTA port may isolate prt problems. The following commands will determine the port, free up the port and copy a file:

a. Get the LTA port from the "/ON=LTAnn:" string in the output from the command:

```
$ SHOW QUEUE/FULL <queue_name>
```

b. Stop the queue with the command:

```
$ STOP/QUEUE/RESET <queue_name>
```

c. Despool the device with the command:

```
$ SET DEVICE/NOSPOOL LTAnn:
```

d. Copy a file to the LTA port with the command:

```
$ COPY/LOG <file_name> LTAnn:
```

NOTES: If copying to a PostScript[R] printer, you must use a PostScript file. If copying to a laser printer, you must press the 'Form Feed' or the 'Offline/Online' switch on the printer to force a page to eject before and after the print job.

There are 5 possible results of the COPY command:

1. The COPY command hangs.
2. The COPY command returns successfully to the DCL prompt, but no output is generated on the printer.
3. The COPY command returns successfully to the DCL prompt and the file is output to the print device.
4. The COPY command fails immediately with a "DATASET HANGUP" error.
5. The COPY command fails after several (5-6) seconds with some other error.

The rest of this article discusses the further actions to be taken with each of the above symptoms.

SYMPTOM 1:

If the COPY command hangs, then the troubleshooting should continue as if this is a 'stalled' print queue. A detailed article describing this process is available in the LAT-DECSEVER database. To view this article, open the database and perform a query using the search:

Troubleshooting Stalled LATSVM Print Queue

SYMPTOM 2:

If the COPY command returns with no error to the DCL prompt, but no output is on the printer, it is likely that there is a device or cable problem. To troubleshoot this, connect a known working terminal and cable to the server port. Verify that the speed, parity and character size on the terminal match those on the server port. Then try the COPY command again. If the data scrolls on the terminal screen then either the cable, the device settings, or the device is the problem.

SYMPTOM 3:

If the COPY command is successful and produces output, but a 'print' to the print queue fails, then the problem is in the queue characteristics.

To test for problems with the print queue setup, create a basic test queue. This test queue should have the minimum queue characteristics and the "/RETAIN=ERROR" characteristic to capture more information about the reason for the failure. For example:

```
$ INITIALIZE/QUEUE/START/PROCESSOR=LATSYSM/RETAIN=ERROR-  
_ $ /ON=LTAnn: <queue_name>
```

NOTE: The original queue must be stopped before creating and testing with a test queue to the same port.

If the PRINT command is successful, add additional queue characteristics one at a time with the SET QUEUE command, until you can determine which one is causing the problem. For example:

```
$ SET QUEUE/SEPARATE=RESET=RESET <queue_name>
```

NOTE: There are some queue characteristics that cannot be added or changed with the SET QUEUE command, such as the "/LIBRARY=" characteristic. To introduce one of these characteristics to the test queue environment, stop the queue, delete the queue and initialize it with the new characteristic.

SYMPTOM 4:

If the COPY command fails immediately with a "DATASET HANGUP" error then one of the following is occurring:

- A. The server is rejecting the connection request. This is caused by:
 - The port is not set for 'remote access'.

or

- The server group codes not matching the group codes for the node where the PRINT command is issued.

or

- The authorized and current groups specified for the port do not match the group codes for the node where

the Print command is issued.

To determine what the group codes are for the node, enter LATCP and perform the following commands:

```
$ MCR LATCP      ! Enter LATCP program
LATCP> SHOW NODE ! Look for service groups
LATCP> EXIT      ! Exit LATCP program
```

To determine what the group codes are for the server, connect to the server and perform the following command:

```
LOCAL> SHOW SERVER ! Look for service groups and make
                  ! sure they match the service groups
                  ! from the LATCP "SHOW NODE" command.
```

NOTE: The 90L, 90L+ and the 90L++ DECservers do not support group codes.

To determine what the authorized groups are for the server port, perform the following command:

```
LOCAL> SHOW PORT n ! Verify that the authorized and
                  ! current groups match the service
                  ! groups and that access is set to
                  ! remote.
```

where 'n' is the number of the port

NOTES: Check the following port characteristics in the 'SHOW PORT' output. If they are not set correctly, use the following commands to set them:

```
LOCAL> SET PORT n NAME PORTNAME
LOCAL> SET PORT n ACCESS REMOTE
LOCAL> SET PORT n AUTOBAUD DISABLED
LOCAL> SET PORT n AUTOCONNECT DISABLED
LOCAL> SET PORT n BREAK DISABLED
LOCAL> SET PORT n PREFERRED NONE DEDICATED NONE
LOCAL> SET PORT n SPEED nnnn PARITY xxxx CHARACTER SIZE n
```

Be sure to issue the corresponding DEFINE commands to get the information into the permanent database.

The DECserver command examples in this article apply to all DECservers except the 90L, 90L+ and the 90L++ models. Please refer to the documentation specific to your server for correct command syntax.

B. The server name is a duplicate.

To test any problems there may be with duplicate server names, connect to the server and perform the following commands:

```
LOCAL> ZERO COUNTERS ! Sets all counters to zero
LOCAL> SHOW COUNTERS ! 'Solicitations Accepted:' and
                   ! 'Solicitations Rejected:' should
                   ! both be at 0
```

Issue a COPY command to the LTA port and check to see if either the 'Solicitations Accepted:' or the

'Solicitations Rejected:' fields are incremented.
If the 'Solicitations Rejected:' field is incremented,
the server port may not be set to 'ACCESS REMOTE.'
Please refer to section A above.

If neither field increments perform the following:

1. Rename the DECserver using a unique name. For example, the following commands modify the server name after connecting to the server:

```
LOCAL> DEFINE SERVER NAME DSRV01  
(Puts the name in the permanent database.)
```

```
LOCAL> SET SERVER NAME DSRV01  
(Puts the name in the volatile database.)
```

NOTES: When entering the commands to define the port name and server name be sure to use uppercase only.

The volatile database cannot be updated if there are sessions active. If sessions are active, reboot the server when possible.

2. Remap the LTA device to reflect the changed server name.

SYMPTOM 5:

If the COPY command fails after 5 to 6 seconds, usually there is a mapping problem. The connection request is sent, but the request is never answered. After several attempts the connection request is no longer sent and the port times out. Waiting for a response to the connection request accounts for the time delay.

The following is a log of tracing a mapping problem:

```
$ MCR LATCP ! Enter LATCP program  
LATCP> SHOW PORT LTAnn: ! Get the server and port name  
Local Port Name = LTA9000:  
Specified Remote Node Name = DSRV01  
Specified Remote Port Name = PORT_4
```

```
LOCAL> SHOW SERVER
```

If the server name does not match, modify the 'Remote Node' name in LATCP or modify the server name. For example, the following commands modify the server name at the server:

```
LOCAL> DEFINE SERVER NAME DSRV01 ! To get the name in the  
! permanent database.  
LOCAL> SET SERVER NAME DSRV01 ! To get the name in the  
! volatile database.
```

NOTES: The volatile database cannot be updated if there are sessions active. To clear all sessions, reboot the server.

When entering the commands to define the port name

and server name be sure to use uppercase only.