



Product Bulletin 75

Product	All StorNext® versions
Summary	StorNext file system CIFS Server may leak memory
Date	January 2012

Overview

A StorNext Windows Client running as a CIFS Server may experience a memory leak if two CIFS clients access the same file simultaneously.

Symptoms

When two CIFS clients both try to access the exact same StorNext File System file at the same time, the I/O Request Packets (IRPs) used to communicate CIFS cache coherency across the clients may result in a memory leak on the Client acting as the CIFS Server. The memory leak can be detected in the following ways:

The cvlogs "FSM memory SUMMARY resident size" message shows ever-increasing memory usage when viewed over a long time frame.

```
./cvlog:[1101 20:00:00.459338] 0xb51abbb0 (
Debug) FSM memory SUMMARY resident size 159MB.
```

```
(Debug) FSM memory SUMMARY resident size 161MB.
./cvlog:[1103 23:00:00.425351] 0xb56b5bb0
```

```
(Debug) FSM memory SUMMARY resident size 163MB.
./cvlog:[1105 02:00:01.030228] 0xb5634bb0 (
```

```
Debug) FSM memory SUMMARY resident size 165MB.
./cvlog:[1106 10:00:01.689374] 0xb5838bb0
```

```
(Debug) FSM memory SUMMARY resident size 166MB.
./cvlog:[1107 10:00:00.512963] 0xb55b3bb0
```

The raslog file will contain the following message:

```
12/14/10 09:43:39.814 SL_EVT_SYS_RES_FAIL XXXXX (kernel): Memory
allocation of 32768 bytes failed zone type 29 flags 0x1. Further
memory failures for this client will not be reported for one hour.
```

```
12/14/10 10:43:40.274 SL_EVT_SYS_RES_FAIL XXXXX (kernel): Memory
allocation of 8272 bytes failed zone type 29 flags 0x0. Further
memory failures for this client will not be reported for one hour.
```

The Windows Event log may contain any of the following events:

```
Source: Srv
Category: None
Event ID: 2019
User: N/A
Description: The Server was unable to allocate from the system
nonpaged pool because the pool was empty.
```

```
Source: NETLOGON
Category: None
Event ID: 5719
User: N/A
Description: No Domain Controller is available for domain XXXX due to
the following: Not enough storage is available to process this
command. Make sure storage is available to process this command. Make
sure that this computer is connected to the network and try again. If
the problem, persists, please contact your domain administrator.
```

```
Source: Cvfs
Category: Devices
Event ID: 4
User: N/A
Description: (Error) I/O error on cookie xxx cvfs error 'No memory'
(0x14) os status cocd 0x14 blkno xxx offset xxx count xxx resid xxx
```

```
Source: Cvfs
Category: Devices
Event ID: 2
User: N/A
Description: Could not mount filesystem xxx, cvfs error 'No memory'
(20)
```

The Windows pooltag utility can be used to show the non-paged memory pool with the label "Irp" increase over time:

PTAG	PAG/NON	#Allocs	#Frees	Alloc-Free	Used
IRP	NON	5726560	5319684	406876	186012352

If the memory leak is allowed to grow unchecked on the StorNext CIFS Server, a Windows system core dump may occur because the Operating System is out of non-paged pool memory.

Solution

This issue is fixed in StorNext releases 4.2.1, 4.3 and later. Users of previous StorNext releases should avoid simultaneously accessing the same file from multiple clients at the same time.

Periodically rebooting the StorNext File System CIFS server will keep the memory leak from becoming critical to the Windows operating system and its applications.

For more information, contact Quantum Technical Assistance Center and reference CR33947.

Bulletin and Alert Automatic Notification

To automatically receive future bulletins and/or alerts for Quantum StorNext via email, go to the location below and enter basic information about yourself, your company, and your StorNext product. You will need to provide your StorNext serial number when you sign up.

Go to this location to sign up for automatic notification:

www.quantum.com/stornextbulletins.

Contacting Quantum

More information about StorNext is available on the Quantum Service and Support website at www.quantum.com/ServiceandSupport. The Quantum Service and Support website contains a collection of information, including answers to frequently asked questions (FAQs). You can also access software, firmware, and drivers through this site.

For further assistance, contact the Quantum Technical Assistance Center:

North America	+1 800-284-5101 Option 1
EMEA	00800 9999 3822
Online Service and Support	www.quantum.com/OSR
World Wide Web	www.quantum.com/ServiceandSupport

(Local numbers for specific countries are listed on the Quantum Service and Support Website.)