Product Bulletin 100

Product	StorNext® Object Store Archive Tiers
Summary	Multi-Part uploads are not handling all error conditions.
Date	November 2017

Overview

Large files archived to an S3 storage tier that require multi-part uploads may have failed to be archived. This is a silent failure and does not provide an indication that the file was not stored from StorNext.

This is due to an **HTTP 200 OK** status being sent for each part of the file and the final response containing an error that the device was not able to construct the object.

Caution: All S3 Servers that use **HTTP 200 OK** status with an extended error message in the response message to report an error on the **Complete Multipart Operation Request**, are at risk.

Note: For more information, contact the Quantum Technical Assistance Center and reference CR 70078.

Symptoms

When attempting to retrieve a truncated file from the object store tier, the operation will fail with **HTTP 404 Not Found**. This may result in data loss if there are no other archived copies and the original file has been truncated.

Cause

A **Multiple Part** operation consists of the following steps:

1 Initiate Multi Part Upload – 1 HTTP request

2 A series of single part upload operations – 1 HTTP request per part

3 Complete Multipart Operation – 1 HTTP request

There are no issues with the first or second steps for a multi-part upload process. The issue is with the third step. This step only occurs if the first two are successful.

This process as defined by Amazon Web Services (AWS), allows the Server to send a response with **HTTP 200 OK** status with an extended error message in the body of the response. This is an alternate response method defined by AWS. Therefore, a good HTTP status does not mean the operation is successful.

Note: Additional checks for the extended error message are required for step 3.

This response style is an abnormality from all other AWS S3 API.

StorNext failed to check the extended error message in the body of the response for step 3 when receiving an HTTP good status of 200. In our code base, checks are only made for extended error messages in the body of the response if a bad status is returned.

Solution

This issue will be addressed in a future StorNext release as well as an LCR made available for the 5.4 and 6.0 release lines.

Workaround

There is no workaround for this issue.

- A script will be provided to identify if there are any objects within the S3 storage tier that are expected to be stored and are not present within the S3 storage system.
- This script will be made available with the LCR.

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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:

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