



Audit message categories

StorageGRID

NetApp
May 17, 2022

Table of Contents

- Audit message categories 1
 - System audit messages 1
 - Object storage audit messages 3
 - Client read audit messages 4
 - Client write audit messages 5
 - Management audit message 6

Audit message categories

You should be familiar with the various categories within which audit messages are grouped. These groups are organized based on the class of activity that the message represents.

System audit messages

You should be familiar with audit messages belonging to the system audit category. These are events related to the auditing system itself, grid node states, system-wide task activity (grid tasks), and service backup operations, so that you can address potential issues.

Code	Message title and description	See
ECMC	Missing Erasure Coded Data Fragment: Indicates that a missing erasure coded data fragment has been detected.	ECMC: Missing Erasure Coded Data Fragment
ECOC	Corrupt Erasure Coded Data Fragment: Indicates that a corrupt erasure coded data fragment has been detected.	ECOC: Corrupt Erasure Coded Data Fragment
ETAF	Security Authentication Failed: A connection attempt using Transport Layer Security (TLS) failed.	ETAF: Security Authentication Failed
GNRG	GNDS Registration: A service updated or registered information about itself in the StorageGRID system.	GNRG: GNDS Registration
GNUR	GNDS Unregistration: A service has unregistered itself from the StorageGRID system.	GNUR: GNDS Unregistration
GTED	Grid Task Ended: The CMN service finished processing the grid task.	GTED: Grid Task Ended
GTST	Grid Task Started: The CMN service started to process the grid task.	GTST: Grid Task Started
GTSU	Grid Task Submitted: A grid task was submitted to the CMN service.	GTSU: Grid Task Submitted

Code	Message title and description	See
IDEL	ILM Initiated Delete: This audit message is generated when ILM starts the process of deleting an object.	IDEL: ILM Initiated Delete
LKCU	Overwritten Object Cleanup. This audit message is generated when an overwritten object is automatically removed to free up storage space.	LKCU: Overwritten Object Cleanup
LLST	Location Lost: This audit message is generated when a location is lost.	LLST: Location Lost
OLST	Object Lost: A requested object cannot be located within the StorageGRID system.	OLST: System Detected Lost Object
ORLM	Object Rules Met: Object data is stored as specified by the ILM rules.	ORLM: Object Rules Met
SADD	Security Audit Disable: Audit message logging was turned off.	SADD: Security Audit Disable
SADE	Security Audit Enable: Audit message logging has been restored.	SADE: Security Audit Enable
SVRF	Object Store Verify Fail: A content block failed verification checks.	SVRF: Object Store Verify Fail
SVRU	Object Store Verify Unknown: Unexpected object data detected in the object store.	SVRU: Object Store Verify Unknown
SYSD	Node Stop: A shutdown was requested.	SYSD: Node Stop
SYST	Node Stopping: A service initiated a graceful stop.	SYST: Node Stopping
SYSU	Node Start: A service started; the nature of the previous shutdown is indicated in the message.	SYSU: Node Start

Code	Message title and description	See
VLST	User Initiated Volume Lost: The <code>/proc/CMSI/Volume_Lost</code> command was run.	VLST: User Initiated Volume Lost

Related information

[LKCU: Overwritten Object Cleanup](#)

Object storage audit messages

You should be familiar with audit messages belonging to the object storage audit category. These are events related to the storage and management of objects within the StorageGRID system. These include object storage and retrievals, grid-node to grid-node transfers, and verifications.

Code	Description	See
APCT	Archive Purge from Cloud-Tier: Archived object data is deleted from an external archival storage system, which connects to the StorageGRID through the S3 API.	APCT: Archive Purge from Cloud-Tier
ARCB	Archive Object Retrieve Begin: The ARC service begins the retrieval of object data from the external archival storage system.	ARCB: Archive Object Retrieve Begin
ARCE	Archive Object Retrieve End: Object data has been retrieved from an external archival storage system, and the ARC service reports the status of the retrieval operation.	ARCE: Archive Object Retrieve End
ARCT	Archive Retrieve from Cloud-Tier: Archived object data is retrieved from an external archival storage system, which connects to the StorageGRID through the S3 API.	ARCT: Archive Retrieve from Cloud-Tier
AREM	Archive Object Remove: A content block was successfully or unsuccessfully deleted from the external archival storage system.	AREM: Archive Object Remove

Code	Description	See
ASCE	Archive Object Store End: A content block has been written to the external archival storage system, and the ARC service reports the status of the write operation.	ASCE: Archive Object Store End
ASCT	Archive Store Cloud-Tier: Object data is stored to an external archival storage system, which connects to the StorageGRID through the S3 API.	ASCT: Archive Store Cloud-Tier
ATCE	Archive Object Store Begin: Writing a content block to an external archival storage has started.	ATCE: Archive Object Store Begin
AVCC	Archive Validate Cloud-Tier Configuration: The account and bucket settings provided were successfully or unsuccessfully validated.	AVCC: Archive Validate Cloud-Tier Configuration
CBSE	Object Send End: The source entity completed a grid-node to grid-node data transfer operation.	CBSE: Object Send End
CBRE	Object Receive End: The destination entity completed a grid-node to grid-node data transfer operation.	CBRE: Object Receive End
SCMT	Object Store Commit: A content block was completely stored and verified, and can now be requested.	SCMT: Object Store Commit
SREM	Object Store Remove: A content block was deleted from a grid node, and can no longer be requested directly.	SREM: Object Store Remove

Client read audit messages

Client read audit messages are logged when an S3 or Swift client application makes a request to retrieve an object.

Code	Description	Used by	See
SGET	<p>S3 GET: Logs a successful transaction to retrieve an object or list the objects in a bucket.</p> <p>Note: If the transaction operates on a subresource, the audit message will include the field S3SR.</p>	S3 client	SGET: S3 GET
SHEA	S3 HEAD: Logs a successful transaction to check for the existence of an object or bucket.	S3 client	SHEA: S3 HEAD
WGET	Swift GET: Logs a successful transaction to retrieve an object or list the objects in a container.	Swift client	WGET: Swift GET
WHEA	Swift HEAD: Logs a successful transaction to check for the existence of an object or container.	Swift client	WHEA: Swift HEAD

Client write audit messages

Client write audit messages are logged when an S3 or Swift client application makes a request to create or modify an object.

Code	Description	Used by	See
OVWR	Object Overwrite: Logs a transaction to overwrite one object with another object.	<p>S3 clients</p> <p>Swift clients</p>	OVWR: Object Overwrite
SDEL	<p>S3 DELETE: Logs a successful transaction to delete an object or bucket.</p> <p>Note: If the transaction operates on a subresource, the audit message will include the field S3SR.</p>	S3 client	SDEL: S3 DELETE

Code	Description	Used by	See
SPOS	S3 POST: Logs a successful transaction to restore an object from AWS Glacier storage to a Cloud Storage Pool.	S3 client	SPOS: S3 POST
SPUT	<p>S3 PUT: Logs a successful transaction to create a new object or bucket.</p> <p>Note: If the transaction operates on a subresource, the audit message will include the field S3SR.</p>	S3 client	SPUT: S3 PUT
SUPD	S3 Metadata Updated: Logs a successful transaction to update the metadata for an existing object or bucket.	S3 client	SUPD: S3 Metadata Updated
WDEL	Swift DELETE: Logs a successful transaction to delete an object or container.	Swift client	WDEL: Swift DELETE
WPUT	Swift PUT: Logs a successful transaction to create a new object or container.	Swift client	WPUT: Swift PUT

Management audit message

The Management category logs user requests to the Management API.

Code	Message title and description	See
MGAU	Management API audit message: A log of user requests.	MGAU: Management audit message

Copyright Information

Copyright © 2022 NetApp, Inc. All rights reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means-graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system- without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

Trademark Information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.