



Object retrieve transactions

StorageGRID

NetApp
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Object retrieve transactions

You can identify object retrieve transactions in the audit log by locating API-specific (S3 and Swift) audit messages.

Not all audit messages generated during a retrieve transaction are listed in the following tables. Only messages required to trace the retrieve transaction are included.

S3 retrieval audit messages

| Code | Name | Description | Trace | See |
|------|--------|---------------------------------------------------|------------------|------------------------------|
| SGET | S3 GET | Request made to retrieve an object from a bucket. | CBID, S3BK, S3KY | SGET: S3 GET |

Swift retrieval audit messages

| Code | Name | Description | Trace | See |
|------|-----------|------------------------------------------------------|------------------|---------------------------------|
| WGET | Swift GET | Request made to retrieve an object from a container. | CBID, WCON, WOBJ | WGET: Swift GET |

Example: S3 object retrieval

When an S3 client retrieves an object from a Storage Node (LDR service), an audit message is generated and saved to the audit log.

Note that not all audit messages generated during a transaction are listed in the example below. Only those related to the S3 retrieval transaction (SGET) are listed.

SGET: S3 GET

Object retrieval begins when the client sends a GET Object request to an LDR service. The message contains the bucket from which to retrieve the object and the object's S3 Key, which is used to identify the object.

2017-09-20T22:53:08.782605

```
[AUDT:[RSLT(FC32):SUCS][TIME(UI64):47807][SAIP(IPAD):"10.96.112.26"][S3AI(CSTR):"43979298178977966408"][SACC(CSTR):"s3-account-a"][S3AK(CSTR):"SGKHt7GzEcu0yXhFhT_rL5mep4nJtlw75GBh-O_FEW=="][SUSR(CSTR):"urn:sgws:identity::43979298178977966408:root"][SBAI(CSTR):"43979298178977966408"][SBAC(CSTR):"s3-account-a"]  
[S3BK(CSTR):"bucket-anonymous"] [S3KY(CSTR):"Hello.txt"] [CBID(UI64):0x83D70C6F1F662B02] [CSIZ(UI64):12] [AVER(UI32):10] [ATIM(UI64):1505947988782605] [ATYP(FC32):SGET] [ANID(UI32):12272050] [AMID(FC32):S3RQ] [ATID(UI64):17742374343649889669]]
```

If the bucket policy allows, a client can anonymously retrieve objects, or can retrieve objects from a bucket that is owned by a different tenant account. The audit message contains information about the bucket owner's tenant account so that you can track these anonymous and cross-account requests.

In the following example message, the client sends a GET Object request for an object stored in a bucket that they do not own. The values for SBAI and SBAC record the bucket owner's tenant account ID and name, which differs from the tenant account ID and name of the client recorded in S3AI and SACC.

2017-09-20T22:53:15.876415

```
[AUDT:[RSLT(FC32):SUCS][TIME(UI64):53244][SAIP(IPAD):"10.96.112.26"]  
<strong>[S3AI(CSTR):"17915054115450519830"][SACC(CSTR):"s3-account-b"]</strong>[S3AK(CSTR):"SGKHpoblWlP_kBkqSCbTi754Ls8lBUog67I2LlSiUg=="]<strong>  
class="SUSR(CSTR):"urn:sgws:identity::17915054115450519830:root"">[SBAI(CSTR):"43979298178977966408"][SBAC(CSTR):"s3-account-a"]</strong>[S3BK(CSTR):"bucket-anonymous"] [S3KY(CSTR):"Hello.txt"] [CBID(UI64):0x83D70C6F1F662B02] [CSIZ(UI64):12] [AVER(UI32):10] [ATIM(UI64):1505947995876415] [ATYP(FC32):SGET] [ANID(UI32):12272050] [AMID(FC32):S3RQ] [ATID(UI64):6888780247515624902]]
```

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