# **Wasabi Account Control API**

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# **Preface**

#### **About This Manual**

This Guide is intended to describe Wasabi Account Control API (formerly known as the Wasabi Partner API or Wasabi Account Management API), which is a set of RESTful JSON methods that are a companion set of endpoints to the AWS IAM/S3 compatible endpoints. The Wasabi Account Control API is not part of Wasabi AWS API compliance and will not be compatible with any API provided by AWS which may have similar functionality.

# Related Documentation

Additional Wasabi documentation includes:

- Wasabi Getting Started—Provides a quick overview of basic Wasabi features with procedures for new and prospective users. This does not replace the Wasabi Management Console User Guide.
- Wasabi Management Console User Guide—Provides details about Wasabi Management Console features with procedures for new and experienced users. It introduces you to basic Wasabi features to sign up to use Wasabi, sign into Wasabi, create a bucket, store objects (folders and files) in the bucket, create a user account, create groups, create policies, create roles, and add an access key to an account.
- Wasabi API Guide—Describes variations in functionality as they pertain to using the Wasabi API relative to Amazon Web Services' Simple Storage Service (AWS S3) and Identity and Access Management (AWS IAM) APIs. Wasabi's object storage service is built to be 100% bit-compatible with the relevant portions

of the AWS S3 and IAM APIs. In certain cases, Wasabi provides additional functionality relative to AWS S3 (or implements functionality in a different manner than AWS S3)

#### Conventions

This document uses the following typographical conventions:

Convention	Description
IMPORTANT	Stresses the importance of the information presented.
Note	Calls attention to additional information or an explanation.
Bold Text	Used to indicate specific text that you need to enter (key in) or a button that you need to click.
Italics Text	Used to indicate titles of books or sections within this document, and for general emphasis.

#### **Technical Support**

The Wasabi web site has the latest product information. Use this resource to review product information, download software updates, contact technical support, access the Wasabi knowledge base, or provide feedback on Wasabi documentation and online help:

www.wasabi.com

Use this email address to contact a Wasabi Customer Support representative:

support@wasabi.com

# 1 Overview

The Wasabi Account Control API is a set of RESTful JSON methods that are a companion set of endpoints to the AWS IAM/S3 compatible endpoints. The Wasabi Account Control API is not part of Wasabi AWS API compliance and will not be compatible with any API provided by AWS which may have similar functionality.

NOTE:

This manual uses the term "Wasabi Control Account" to replace the term "Wasabi Master Account" that was used in previous versions of this manual.

At a high level, the Wasabi Account Control API allows for the following functions:

- Create a new "sub-account" that is linked to the Wasabi Control Account.
- Generate AWS key sets for sub-accounts.
- Manage sub-account trial parameters, such as to extend the sub-account trial period and change sub-account trial quotas.
- Convert a sub-account trial period into a full (paying) account.
- Query utilization of sub-accounts both at summary account level and bucket level.
- Query invoices of sub-accounts.
- Delete sub-accounts.
- Manage account "profile" information, such as email address.

The Wasabi Control Account holder will be responsible for all actions that are taken via the Wasabi Account Control API, including corresponding service charges as well as security measures. Wasabi reserves the right to block and/or terminate a developer's use of the API.

# **FAQs**

Review the FAQs available here for information about Wasabi Account Control API integration:

https://wasabi-support.zendesk.com/hc/en-us/articles/360035901031-Wasabi-Account-Control-API-FAQs

# Setup, Limits, and Policies

In order to use the Wasabi Account Control API, you must contact a representative from Wasabi to request access to the Wasabi Account Control API program. To be eligible for access to the API, you must:

- Have an established Wasabi account (hereafter referred to as a Control Account) that is tied to a payment method (that is, no longer in a trial period), such as a credit card or manual invoicing (if approved by your Wasabi Sales Representative).
- Meet any requirements as established by your Wasabi Sales Representative.

It is important to note that while using the Wasabi Account Control API, you may not delete the Control Account. Transferring sub-accounts between different Control Accounts will not be supported. Your Wasabi Sales Representative will work with you to determine what limits will be applied to your Wasabi Account Control API participation, in particular:

- Maximum number of sub-accounts you will be allowed to create.
- The default and maximum length of sub-account trial period.
- The default and maximum trial period storage quota (in GB).

#### **Emails**

Wasabi typically sends Wasabi branded emails during the lifetime of an account, such as:

- A warning email when an account is nearing trial storage quota limit.
- ♦ An email when a trial storage quota limit is surpassed and the account can no longer upload new objects.
- Warning emails when an account is reaching the end of a trial period.
- Notifications when account trials have expired (and at various points during the "offboarding" process until the account is deleted).

All emails are Wasabi branded and there is no option to co-brand or white label emails for API developers at this time. Therefore, as a user of the Wasabi Account Control API, you (Control Account holder) will receive notification emails on behalf of any sub-accounts. The body of the email will sufficiently indicate which sub-account on which the email notification is occurring.

Since Wasabi does not send notification emails to end users, Wasabi Control Account holders will be required to adequately notify end users of the above conditions. There is enough information in the Wasabi Account Control API to determine when the above thresholds are reached to properly communicate via your own UI or email notification system.

# **Billing**

All sub-accounts will be considered within the same billing scope of the Control Account, namely:

- Sub-accounts will be invoiced on the same periodicity as the Control Account.
- Sub-accounts, once out of trial, will be subject to the same minimums applied to all Wasabi accounts (for example, a 1 TB minimum storage charge).
- Sub-account invoices will be "rolled-up" into a single control invoice that is charged to the Control Account.

- Sub-accounts will follow any restrictions that are incurred by the billing status of the control account invoice. For example, object uploads will be disallowed once the control account invoice remains unpaid past a grace period.
- ◆ Trial sub-accounts will be automatically converted to paying accounts at the end of the sub-account trial period. It is possible (via this API) to extend a sub-account trial period, but there will be a maximum allowed trial duration that will be set by a Wasabi Sales Representative.
- ◆ At this point in time, once a trial sub-account converts to a paying account, it is not possible to put the sub-account back into trial. Therefore, it is the responsibility of the user of the Wasabi Account Control API to either:
  - Delete an unwanted trial sub-account before the trial period ends, or
  - Extend out the trial period for the sub-account before the auto-conversion happens.

# **Authentication and Security**

For security reasons, the Wasabi Account Control API caller must use HTTPS, as any non-HTTPS calls will be redirected to HTTPS endpoints.

Authentication of Wasabi Account Control API calls will be through the Authorization HTTP header. The caller must use the secret API key provided by Wasabi as the Authorization header value.

The user of the Wasabi Account Control API must keep the API key safe and protected. It is only to be used in trusted server-to-server communications and MUST NOT be put in any untrusted environments (such as browser-side JavaScript) or otherwise exposed to users or personnel that are not authorized to use that key.

If security of an API key has been breached, it is the Wasabi Control Account holder's responsibility to immediately contact Wasabi and have the old API key invalidated and a new API key generated.

The Wasabi Account Control API key will support rolling-key management where two sets of API keys are supported for an overlapping time period. Callers into the API can use either keys when making calls into the API. This allows for the expiration of one key while the other key remains valid during a transition period.

#### **Test Environments**

Wasabi will have a test environment for the Wasabi Account Control API available for development and testing purposes. The test environment will have API keys generated that are distinct from the live API keys.

The test environment, while generally stable, will not offer the same Service Level and Quality of Service as the Wasabi production environment. Therefore, users of the Wasabi Account Control API should expect some service disruptions of the test environment from time to time.

#### **IMPORTANT:**

Given that the Wasabi production environment places limits (and billing responsibility) on the Control Account, please do not create test accounts on the production environment. Given the billing rules described above, all sub-accounts ultimately become paying accounts and the Wasabi Account Control API user will be charged for \*all\* accounts in the production environment. Therefore, only use the test environments for development and testing of the integration with the Wasabi Account Control API.

# **Rate Limiting**

For security and performance reasons, the Wasabi Account Control API will rate limit the number of requests on a per Wasabi Control Account holder basis against the API methods listed below. These limits are currently:

- ◆ 1000 GET operations/min
- ♦ 100 PUT operations/min
- ◆ 100 POST operations/min
- ◆ 10 DELETE operations/min

Any call rates that exceed these limits will be responded with a standard "HTTP 429 Too Many Requests" response.

#### **Utilization Metrics**

Wasabi calculates usage metrics once per day at both a per-bucket and per-account level. These records are stored indefinitely in our systems and can be retrieved on demand. The metrics captured are:

```
"NumBillableObjects": 1,
"NumBillableDeletedObjects": 1,
"RawStorageSizeBytes": 1000000000,
"PaddedStorageSizeBytes": 1000000000,
"MetadataStorageSizeBytes": 87,
"DeletedStorageSizeBytes": 1000000000,
"OrphanedStorageSizeBytes": 0,
"MinStorageChargeBytes": 106374182313,
"NumAPICalls": 18,
"UploadBytes": 89349,
"DownloadBytes": 36784,
"StorageWroteBytes": 62325,
"StorageReadBytes": 0,
"NumGETCalls": 0,
"NumPUTCalls": 2,
"NumDELETECalls": 0,
"NumLISTCalls": 3,
"NumHEADCalls": 0,
"DeleteBytes": 0
```

NumBillableObjects is the number of objects that are active (that is, not deleted) associated in the account/bucket as of midnight UTC at the time the calculation was made. This number is the total objects under storage and *NOT* new objects uploaded that day.

NumBillableDeletedObjects is the number of objects that have been deleted, but — due to any minimum object lifetime requirements (typically 90 days) associated with the API developer's billing plan — these objects are still calculated as part of the API developer's monthly invoice and will be charged at the same rate as non-deleted objects. This number is the total deleted objects under storage and *NOT* new objects deleted that day.

RawStorageSizeBytes is the number of bytes for all non-deleted objects in the account/bucket. This number is the total objects bytes under storage and *NOT* new objects uploaded that day.

**PaddedStorageSizeBytes** is the number of bytes for all non-deleted objects in the account/bucket but with the minimum object size restriction enforced, based on the API developer's billing plan (typically, minimum 4k object size). If you are working with objects all larger than 4k, then PaddedStorageSizeBytes will be the same as RawStorageSizeBytes. This number is the total objects bytes under storage and **NOT** new objects uploaded that day.

**MetadataStorageSizeBytes** is the number of bytes associated with any metadata about the object that is stored in our databases. This number is normally a very small percentage of total storage and will likely be sub-penny in terms of billable amounts.

**DeletedStorageSizeBytes** is the number of padded bytes for all deleted objects in the account/bucket. This number is the total objects bytes under storage and NOT new objects uploaded that day.

NumAPICalls, UploadBytes, DownloadBytes, StorageWroteBytes, and StorageReadBytes are all API activity related and reflect activity done between the specified time period on that day. That is to say, they are not cumulative across days, like storage metrics are.

**MinimumBytesSize** is the number of bytes that a user should be charged because they are under the 1 TB minimum storage requirement.

**DeletedBytes** is the sum of the number of all deleted bytes per account/bucket over the day. This is used to track general delete activity and is not used for any billable events.

# **Converting Metrics to Charges**

The Wasabi Account Control API provides for retrieving sub-invoices for the sub-accounts. Sub-invoices are generated at the same time the control account invoice is computed (every 30 days) and accounts for all of the business rules outlined above (minimum object lifetime, minimum object size, minimum storage requirements, etc.). Therefore it is easiest for API developers to simply use this feature when creating chargeable events for the API developer's customers.

However, if API developers wish to implement their own billing mechanism, the following indicates how to compute costs on a per-account basis:

The MAX(..., 1024) in the Active Storage Charge is to reflect the minimum required storage business logic (in this case, 1 TB = 1024 GB). A future version of this API will include an additional metric in the Utilization to better reflect the minimum storage requirements.

To reiterate, the algorithms above will not be needed by API developers if they use the existing sub-invoice API endpoints described in Chapter 2, API Methods. We highly recommend using the existing endpoints so as to not have to duplicate business logic in the API developer client code.

# 2 API Methods

The following methods are the entirety of the Wasabi Account Control API v1 specification. Authentication is done via the standard Authorization HTTP Request Header. Callers should pass in the Wasabi Account Control API key for the value.

All methods will return a HTTP status code of 200 on success and a non-200 value for failure. For failures, a failure description will be returned in the JSON response.

For each method, sample request and response headers and bodies are included. Note that sensitive (or variable) information has been reducted from the samples with a [DELETED] tag.

**Note:** The Wasabi Account Control API supports "Accept-Encoding: gzip" in the HTTP request header.

# **Endpoints**

Production: https://partner.wasabisys.com

**Production Systems** Wasabi Account Control API requests: https://partner.wasabisys.com

Wasabi Console requests: https://console.wasabisys.com

STS API requests: https://sts.wasabisys.com

IAM API requests: https://iam.wasabisys.com

S3 API requests: See region specific URLs described at https://wasabi-support.zendesk.com/hc/en-us/arti-

cles/360015106031-What-are-the-service-URLs-for-Wasabi-s-different-regions

**Note:** Refer to information in the "FAQs" about how-to engage Wasabi to test your implementation.

#### **GET /v1/accounts**

List all sub-accounts (with summary profile information) that are associated with the Control Account (as authenticated via the API Key).

GET /v1/accounts

```
Request: GET /v1/accounts
Authorization: 40d8404ee22440513dcf0288345c8939
Response: 200 OK
 Content-Length: 1581
Content-Type: application/json
 Date: Wed, 17 Jun 2020 11:31:15 GMT
 Vary: Accept-Encoding
 X-Wasabi-Build-Version: 6.6.216-2020-06-16-544c7bf
 X-Wasabi-Cluster-Id: us-east-1
 X-Wasabi-Partner-Api-Version: 1.1
X-Wasabi-Request-Id: b27222db675fbdc3d2aa213007d7600604ad7734289822dd
X-Wasabi-Service: partner api
X-Wasabi-Service-Runtime-Id: 5a24939f8f6b
Response-JSON:
        "AcctNum": 30059,
        "AcctName": "jk@wasabi.com",
        "CreateTime": "2020-06-08T12:12:10Z",
        "IsTrial": false,
        "Inactive": false,
        "SendPasswordResetToSubAccountEmail": true
    } ,
        "AcctNum": 30060,
```

```
"AcctName": "jkc@wasabi.com",

"CreateTime": "2020-06-08T12:18:47Z",

"IsTrial": true,

"TrialExpiry": "2020-07-08T00:00:00Z",

"QuotaGB": 1000,

"Inactive": false,

"SendPasswordResetToSubAccountEmail": false
```

NOTE:

Response of various endpoints will show the Wasabi Account Control API version using the "X-Wasabi-Partner-Api-Version" header.

# PUT /v1/accounts

Create a new sub-account that is linked to the Control Account (as authenticated via the API Key). Additionally, a new root user for the account will be created.

```
PUT /v1/accounts
```

The AcctName parameter must be an email address for the root user and must be unique as well as not currently in use. IsTrial will indicate if the sub-account should be created as a trial account. Password specifies the password for the new root user for the account and must pass the password complexity rules.

NumTrialDays specifies the number of days for which the trial should be valid before automatically being converted to a paying account. If NumTrialDays is omitted, the default that is established for the Control Account will be used.

QuotaGB will specify the quota (in GB) to which the new sub-account will be limited during the trial phase and, if omitted, will be the default associated with the Control Account.

PasswordResetRequired will mark a newly provisioned sub-account password as temporary. The user will be prompted to change the password during the first login.

EnableFTP will enable FTP/FTPS access to a sub-account.

Inactive will set the sub-account as inactive. If Inactive is set to "false," the sub-account will be updated as active.

SendPasswordResetToSubAccountEmail, if set to "true," will send an email of password reset, password changed, password expiring, or password has expired to the sub-account. Otherwise, the Control Account receives the email.

**Note:** After setting the above parameter to "true," the sub-account must use the "Forgot password" link on the Console to get the reset password email.

**Note:** The trial parameters are subject to limits that are associated with the Control Account and those limits cannot be changed by users of the Wasabi Account Control API.

**Note:** Quotas are removed when an account is converted into a full (paying) account. There is no support for a paid account with a storage quota.

The result will include a generated AWS S3/IAM compatible key set that can be used for subsequent AWS compatible calls into Wasabi.

```
Request: PUT /v1/accounts
   Authorization: ca06b849e1bdc1c493393c2c8d21792c
   Content-Type: application/json
   X-Wasabi-Service: partner
Request-JSON:
{
     "AcctName": "9d0a2872855afca3c11fe46e9a4018e2@wasabi.com",
     "IsTrial": true,
     "Password": "mypassword123$"
     "EnableFTP": true
}
Response: 200 OK
   Content-Length: 229
   Content-Type: application/json
   Date: Wed, 07 Feb 2018 15:36:12 GMT
Response-JSON:
{
```

```
"AcctName": "9d0a2872855afca3c11fe46e9a4018e2@wasabi.com",
   "AcctNum": 124,
   "AccessKey": "Z1JI270Q75B000LDLYMP",
   "SecretKey": "z69QahHLjvrSnuHKJOqVufzazv1VcVJpAITvJWjN",
   "IsTrial": true,
   "TrialExpiry": "2018-03-09T00:00:00Z",
   "QuotaGB": 1024
   "FTPEnabled": true
   "Inactive": False
}
```

# GET /v1/accounts/<AcctNum>

Return summary information about the specified sub-account.

GET /v1/accounts/<AcctNum>

```
Request: GET /v1/accounts/30059
Authorization: ca06b849elbdc1c493393c2c8d21792c

Response: 200 OK
Content-Length: 1581
Content-Type: application/json
Date: Wed, 17 Jun 2020 11:31:15 GMT
Vary: Accept-Encoding
X-Wasabi-Build-Version: 6.6.216-2020-06-16-544c7bf
X-Wasabi-Cluster-Id: us-east-1
X-Wasabi-Partner-Api-Version: 1.1
X-Wasabi-Request-Id: b27222db675fbdc3d2aa213007d7600604ad7734289822dd
X-Wasabi-Service: partner_api
X-Wasabi-Service-Runtime-Id: 5a24939f8f6b
```

```
Response-JSON:
{
    "AcctNum": 30059,
    "AcctName": "jk@wasabi.com",
    "CreateTime": "2020-06-08T12:12:10Z",
    "IsTrial": false,
    "Inactive": false,
    "SendPasswordResetToSubAccountEmail": true
}
```

# POST /v1/accounts/<AcctNum>

Update the sub-account information.

```
POST /v1/accounts/<AcctNum>
```

If AcctName is specified, this will change the root user's email address. If AcctName is already in use, the method will fail.

If Password is specified, this will change the root user's password provided that it passes the password complexity policies.

If NumTrialDays is specified, this will change the number of days associated with the trial period, up to a limit set on the Control Account.

#### **IMPORTANT:**

It will not be possible to transition a full (paid) account back into trial mode.

If QuotaGB is specified, this will change the trial period storage quota, up to a limit set on the Control Account. QuotaGB will be ignored when applied to a full (paid) account as there is no support for a quota limited full account.

If ConvertToPaid is set to "true," this will transition the sub-account to a full (paid) account.

If ResetAccessKeys is set to "true," all previous access keys on the sub-account are invalidated and a new Access Key to the root user account on the sub-account is generated.

If PasswordResetRequired is set to "true," a newly provisioned sub-account password is temporary. The user will be prompted to change the password during the first login.

If EnableFTP is set to "true," FTP/FTPS access to a sub-account will be enabled. If EnableFTP is set to "false," FTP/FTPS access will be disabled.

If Inactive is set to "true," the account will be set as inactive. This will change the corresponding inactive field in the AccountData row. If Inactive is set to "false," the account will be updated as active.

SendPasswordResetToSubAccountEmail, if set to "true," will send an email of password reset, password changed, password expiring, or password has expired to the sub-account. Otherwise, the Control Account receives the email.

**Note:** After setting the above parameter to "true," the sub-account must use the "Forgot password" link on the Console to get the reset password email.

```
Request: POST /v1/accounts/134
  Authorization: 3a6e2967305e6475fcb895b1842b59de
  Content-Type: application/json
  X-Wasabi-Service: partner
Request-JSON:
     "AcctName": "second-f68241f15bfcf08c1e11877d617a7f93@wasabi.com",
     "NumTrialDays": 45,
     "Password": "xyzzy123$$$",
     "QuotaGB": 512,
     "ResetAccessKeys": true,
     "EnableFTP": true
Response: 200 OK
  Content-Length: 181
  Content-Type: application/json
  Date: Wed, 07 Feb 2018 19:49:49 GMT
Response-JSON:
    "AcctNum": 134,
    "AcctName": "second-f68241f15bfcf08c1e11877d617a7f93@wasabi.com",
    "AccessKey": "Z1JI270Q75B000LDLYMP",
    "SecretKey": "z69QahHLjvrSnuHKJOqVufzazv1VcVJpAITvJWjN",
    "CreateTime": "2018-02-07T19:49:49Z",
    "IsTrial": true,
    "TrialExpiry": "2018-03-20T00:00:00Z",
    "QuotaGB": 512,
    "FTPEnabled": true,
    "Inactive": false
```

# Example Converting to Paid Account

```
Request: POST /v1/accounts/134
  Authorization: 3a6e2967305e6475fcb895b1842b59de
 Content-Type: application/json
 X-Wasabi-Service: partner
Request-JSON:
    "ConvertToPaid": true
Response: 200 OK
 Content-Length: 131
 Content-Type: application/json
 Date: Wed, 07 Feb 2018 19:49:49 GMT
Response-JSON:
   "AcctNum": 134,
    "AcctName": "second-f68241f15bfcf08c1e11877d617a7f93@wasabi.com",
    "CreateTime": "2018-02-07T19:49:49Z",
    "IsTrial": false,
    "Inactive": false
```

#### DELETE /v1/accounts/<AcctNum>

Mark the specified account as deleted and generate any necessary final invoices for the account. Deleted accounts can be purged from Wasabi's systems at any time to clean up storage space and it should be assumed that deleted accounts will not be recoverable in any fashion.

DELETE /v1/accounts/<AcctNum>

**IMPORTANT:** As it is not possible to undelete an account at this point in time, so use this method with caution.

**Note:** You can use a list of API calls against a deleted account.

```
Request: DEL /v1/accounts/132
  Authorization: 3a6e2967305e6475fcb895b1842b59de
  X-Wasabi-Service: partner
Response: 200 OK
  Content-Length: 12
  Content-Type: application/json
  Date: Wed, 07 Feb 2018 19:49:49 GMT
Response-JSON:
{
    "Msg": "OK"
}
```

# GET /v1/accounts/<AcctNum>/utilizations

Return the daily storage and data transfer associated with the sub-account, across all buckets in the sub-account. Using from and to query string parameters (in the format YYYY-MM-DD) will apply date filters to the result set.

GET /v1/accounts/<AcctNum>/utilizations

#### **OPTIONAL:**

If a latest=true is passed via the query string parameter on the URL path, then only the most recent calculated utilization is returned.

```
Request: GET /v1/accounts/100000042/utilizations
    X-Wasabi-Service: partner
    Authorization: 9ef5b1468a52943b3cafb9385d76405b
Response: 200 OK
     Content-Type: application/json
     Date: Thu, 09 May 2019 15:23:45 GMT
     Content-Length: 18524
Response-JSON:
        "UtilizationNum": 280305,
        "AcctNum": 100000042,
        "AcctPlanNum": 14083,
        "StartTime": "2019-12-29T00:00:00Z",
        "EndTime": "2019-12-30T00:00:00Z",
        "CreateTime": "2019-12-30T07:10:46Z",
        "NumBillableObjects": 1,
        "NumBillableDeletedObjects": 2,
        "RawStorageSizeBytes": 10485760,
        "PaddedStorageSizeBytes": 10485760,
```

```
"MetadataStorageSizeBytes": 48,
    "DeletedStorageSizeBytes": 20971520,
    "OrphanedStorageSizeBytes": 0,
    "MinStorageChargeBytes": 0,
    "NumAPICalls": 19,
    "UploadBytes": 31520247,
    "DownloadBytes": 21010048,
    "StorageWroteBytes": 31457280,
    "StorageReadBytes": 20971520,
    "NumGETCalls": 2,
    "NumPUTCalls": 4,
    "NumDELETECalls": 0,
    "NumLISTCalls": 1,
    "NumHEADCalls": 1,
    "DeleteBytes": 0
}
```

# GET /v1/accounts/<AcctNum>/utilizations?includeRegionalUtilizations=true

Return the daily storage and data transfer associated with the sub-account, across all buckets in the sub-account along with regional utilizations.

GET /v1/accounts/<AcctNum>/utilizations?includeRegionalUtilizations=true

```
GET /v1/accounts/101430/utilizations?includeRegionalUtilizations=true
        "UtilizationNum": 1063777,
        "AcctNum": 101430,
        "AcctPlanNum": 20499,
        "StartTime": "2019-12-26T00:00:00Z",
        "EndTime": "2019-12-27T00:00:00Z",
        "CreateTime": "2019-12-27T08:11:14Z",
        "NumBillableObjects": 2,
        "NumBillableDeletedObjects": 0,
        "RawStorageSizeBytes": 2147483648,
        "PaddedStorageSizeBytes": 2147483648,
        "MetadataStorageSizeBytes": 96,
        "DeletedStorageSizeBytes": 0,
        "OrphanedStorageSizeBytes": 0,
        "MinStorageChargeBytes": 1097364144032,
        "NumAPICalls": 223,
        "UploadBytes": 1794628020,
        "DownloadBytes": 191771,
        "StorageWroteBytes": 1788095943,
        "StorageReadBytes": 0,
        "NumGETCalls": 0,
        "NumPUTCalls": 213,
        "NumDELETECalls": 0,
```

```
"NumLISTCalls": 4,
"NumHEADCalls": 0,
"DeleteBytes": 0,
"RegionalUtilizations": {
    "us-east-1": {
        "NumBillableObjects": 1,
        "NumBillableDeletedObjects": 0,
        "RawStorageSizeBytes": 1073741824,
        "PaddedStorageSizeBytes": 1073741824,
        "MetadataStorageSizeBytes": 48,
        "DeletedStorageSizeBytes": 0,
        "OrphanedStorageSizeBytes": 0,
        "NumAPICalls": 132,
        "UploadBytes": 1077661331,
        "DownloadBytes": 106958,
        "StorageWroteBytes": 1073741824,
        "StorageReadBytes": 0,
        "NumGETCalls": 0,
        "NumPUTCalls": 128,
        "NumDELETECalls": 0,
        "NumLISTCalls": 2,
        "NumHEADCalls": 0,
        "DeleteBytes": 0
    },
    "us-west-1": {
        "NumBillableObjects": 1,
        "NumBillableDeletedObjects": 0,
        "RawStorageSizeBytes": 1073741824,
        "PaddedStorageSizeBytes": 1073741824,
        "MetadataStorageSizeBytes": 48,
        "DeletedStorageSizeBytes": 0,
        "OrphanedStorageSizeBytes": 0,
        "NumAPICalls": 88,
```

```
"UploadBytes": 716963101,

"DownloadBytes": 76027,

"StorageWroteBytes": 714354119,

"StorageReadBytes": 0,

"NumGETCalls": 0,

"NumPUTCalls": 85,

"NumDELETECalls": 0,

"NumLISTCalls": 1,

"NumHEADCalls": 0,

"DeleteBytes": 0

}

}
```

# **GET /v1/utilizations/buckets**

Return all daily utilizations of both Control and sub-account which is broken down into per-bucket components.

```
"NumBillableObjects": 1,
    "NumBillableDeletedObjects": 0,
    "RawStorageSizeBytes": 1073741824,
    "PaddedStorageSizeBytes": 1073741824,
    "MetadataStorageSizeBytes": 48,
    "DeletedStorageSizeBytes": 0,
    "OrphanedStorageSizeBytes": 0,
    "NumAPICalls": 132,
    "UploadBytes": 1077661331,
    "DownloadBytes": 106958,
    "StorageWroteBytes": 1073741824,
    "StorageReadBytes": 0,
    "NumGETCalls": 0,
    "NumPUTCalls": 0,
    "NumDELETECalls": 0,
    "NumLISTCalls": 0,
    "NumHEADCalls": 0,
    "DeleteBytes": 0,
    "Bucket": "1.bug2189",
    "Region": "us-east-1"
} ,
    "BucketUtilizationNum": 6947981,
    "AcctNum": 101430,
    "AcctPlanNum": 0,
    "BucketNum": 1011096,
    "StartTime": "2019-12-26T00:00:00Z",
    "EndTime": "2019-12-27T00:00:00Z",
    "CreateTime": "2019-12-27T08:11:14Z",
    "NumBillableObjects": 1,
    "NumBillableDeletedObjects": 0,
    "RawStorageSizeBytes": 1073741824,
    "PaddedStorageSizeBytes": 1073741824,
```

```
"MetadataStorageSizeBytes": 48,
    "DeletedStorageSizeBytes": 0,
    "OrphanedStorageSizeBytes": 0,
    "NumAPICalls": 88,
    "UploadBytes": 716963101,
    "DownloadBytes": 76027,
    "StorageWroteBytes": 714354119,
    "StorageReadBytes": 0,
    "NumGETCalls": 0,
    "NumPUTCalls": 0,
    "NumDELETECalls": 0,
    "NumLISTCalls": 0,
    "NumHEADCalls": 0,
    "DeleteBytes": 0,
    "Bucket": "2.bug2189",
    "Region": "us-west-1"
},
```

# GET /v1/accounts/<AcctNum>/utilizations/buckets

Return all daily utilizations broken down into per-bucket components. Using from and to query string parameters (in the format YYYY-MM-DD) will apply date filters to the result set.

GET /v1/accounts/<AcctNum>/utilizations/buckets

#### **OPTIONAL:**

If a latest=true is passed via the query string parameter on the URL path, then only the most recent calculated utilization is returned.

```
Request: GET /v1/accounts/100000042/utilizations/buckets
     X-Wasabi-Service: partner
     Authorization: 9ef5b1468a52943b3cafb9385d76405b
Response: 200 OK
    Content-Type: application/json
     Date: Thu, 09 May 2019 15:23:45 GMT
     Content-Length: 18524
Response-JSON:
        "BucketUtilizationNum": 6947980,
        "AcctNum": 100000042,
        "AcctPlanNum": 0,
        "BucketNum": 1011082,
        "StartTime": "2019-12-26T00:00:00Z",
        "EndTime": "2019-12-27T00:00:00Z",
        "CreateTime": "2019-12-27T08:11:13Z",
        "NumBillableObjects": 1,
        "NumBillableDeletedObjects": 0,
        "RawStorageSizeBytes": 1073741824,
        "PaddedStorageSizeBytes": 1073741824,
```

```
"MetadataStorageSizeBytes": 48,
   "DeletedStorageSizeBytes": 0,
   "OrphanedStorageSizeBytes": 0,
   "NumAPICalls": 0,
   "UploadBytes": 1077661331,
   "DownloadBytes": 106958,
   "StorageWroteBytes": 1073741824,
   "StorageReadBytes": 0,
   "NumGETCalls": 0,
   "NumPUTCalls": 128,
   "NumDELETECalls": 0,
   "NumLISTCalls": 2,
   "NumHEADCalls": 0,
   "DeleteBytes": 0,
  "Bucket": "jk",
  "Region": "us-east-1"
},
   "BucketUtilizationNum": 6947981,
   "AcctNum": 100000042,
   "AcctPlanNum": 0,
   "BucketNum": 1011096,
   "StartTime": "2019-12-26T00:00:00Z",
   "EndTime": "2019-12-27T00:00:00Z",
   "CreateTime": "2019-12-27T08:11:14Z",
   "NumBillableObjects": 1,
   "NumBillableDeletedObjects": 0,
   "RawStorageSizeBytes": 1073741824,
   "PaddedStorageSizeBytes": 1073741824,
   "MetadataStorageSizeBytes": 48,
   "DeletedStorageSizeBytes": 0,
   "OrphanedStorageSizeBytes": 0,
   "NumAPICalls": 0,
```

```
"UploadBytes": 716963101,
        "DownloadBytes": 76027,
        "StorageWroteBytes": 714354119,
        "StorageReadBytes": 0,
        "NumGETCalls": 0,
        "NumPUTCalls": 85,
        "NumDELETECalls": 0,
        "NumLISTCalls": 1,
        "NumHEADCalls": 0,
        "DeleteBytes": 0,
        "Bucket": "jkc",
        "Region": "us-west-1"
Request: GET /v1/accounts/7363/utilizations/buckets?from=2019-12-25&to=2019-12-26
     X-Wasabi-Service: partner
    Authorization: 9ef5b1468a52943b3cafb9385d76405b
Response: 200 OK
    Content-Type: application/json
     Date: Thu, 09 May 2019 15:23:45 GMT
     Content-Length: 18524
Response-JSON:
        "BucketUtilizationNum": 494912,
        "AcctNum": 7363,
        "AcctPlanNum": 0,
```

"BucketNum": 18227,

"StartTime": "2019-12-25T00:00:00Z",
"EndTime": "2019-12-26T00:00:00Z",
"CreateTime": "2019-12-26T10:00:53Z",

**Example With** 

**Optional Date** 

Ranges

```
"NumBillableObjects": 1,
    "NumBillableDeletedObjects": 0,
    "RawStorageSizeBytes": 1073741824,
    "PaddedStorageSizeBytes": 1073741824,
    "MetadataStorageSizeBytes": 48,
    "DeletedStorageSizeBytes": 0,
    "OrphanedStorageSizeBytes": 0,
    "NumAPICalls": 0,
    "UploadBytes": 639151673,
    "DownloadBytes": 72016,
    "StorageWroteBytes": 636826739,
    "StorageReadBytes": 0,
    "NumGETCalls": 0,
    "NumPUTCalls": 75,
    "NumDELETECalls": 0,
    "NumLISTCalls": 1,
    "NumHEADCalls": 0,
    "DeleteBytes": 0,
    "Bucket": "1.bug2189",
    "Region": "us-east-1"
} ,
    "BucketUtilizationNum": 494914,
    "AcctNum": 7363,
    "AcctPlanNum": 0,
    "BucketNum": 18232,
    "StartTime": "2019-12-25T00:00:00Z",
    "EndTime": "2019-12-26T00:00:00Z",
    "CreateTime": "2019-12-26T10:00:53Z",
    "NumBillableObjects": 1,
    "NumBillableDeletedObjects": 0,
    "RawStorageSizeBytes": 1073741824,
    "PaddedStorageSizeBytes": 1073741824,
```

```
"MetadataStorageSizeBytes": 48,
"DeletedStorageSizeBytes": 0,
"OrphanedStorageSizeBytes": 0,
"NumAPICalls": 0,
"UploadBytes": 639151673,
"DownloadBytes": 72016,
"StorageWroteBytes": 636826739,
"StorageReadBytes": 0,
"NumGETCalls": 0,
"NumPUTCalls": 75,
"NumDELETECalls": 0,
"NumLISTCalls": 1,
"NumHEADCalls": 0,
"DeleteBytes": 0,
"Bucket": "2.bug2189",
"Region": "us-east-1"
```

# GET /v1/accounts/<AcctNum>/utilizations/buckets/<bucket>

Return all daily utilizations for the specified bucket. Using from and to query string parameters (in the format YYYY-MM-DD) will apply date filters to the result set.

GET /v1/accounts/<AcctNum>/utilizations/buckets/<bucket>

### Sample

```
Request: GET /v1/accounts/101430/utilizations/buckets/jk
     X-Wasabi-Service: partner
      Authorization: 9ef5b1468a52943b3cafb9385d76405b
Response: 200 OK
     Content-Type: application/json
     Date: Thu, 09 May 2019 15:23:45 GMT
     Content-Length: 18524
Response-JSON:
        "BucketUtilizationNum": 6947981,
        "AcctNum": 101430,
        "AcctPlanNum": 0,
        "BucketNum": 1011096,
        "StartTime": "2019-12-26T00:00:00Z",
        "EndTime": "2019-12-27T00:00:00Z",
        "CreateTime": "2019-12-27T08:11:14Z",
        "NumBillableObjects": 1,
        "NumBillableDeletedObjects": 0,
        "RawStorageSizeBytes": 1073741824,
        "PaddedStorageSizeBytes": 1073741824,
        "MetadataStorageSizeBytes": 48,
        "DeletedStorageSizeBytes": 0,
        "OrphanedStorageSizeBytes": 0,
```

```
"NumAPICalls": 88,

"UploadBytes": 716963101,

"DownloadBytes": 76027,

"StorageWroteBytes": 714354119,

"StorageReadBytes": 0,

"NumGETCalls": 0,

"NumPUTCalls": 0,

"NumDELETECalls": 0,

"NumLISTCalls": 0,

"NumHEADCalls": 0,

"DeleteBytes": 0,

"Bucket": "jk",

"Region": "us-west-1"

}
```

# Example With Optional Date Ranges

```
"StartTime": "2019-12-25T00:00:00Z",
"EndTime": "2019-12-26T00:00:00Z",
"CreateTime": "2019-12-26T10:00:53Z",
"NumBillableObjects": 1,
"NumBillableDeletedObjects": 0,
"RawStorageSizeBytes": 1073741824,
"PaddedStorageSizeBytes": 1073741824,
"MetadataStorageSizeBytes": 48,
"DeletedStorageSizeBytes": 0,
"OrphanedStorageSizeBytes": 0,
"NumAPICalls": 78,
"UploadBytes": 639151673,
"DownloadBytes": 72016,
"StorageWroteBytes": 636826739,
"StorageReadBytes": 0,
"NumGETCalls": 0,
"NumPUTCalls": 0,
"NumDELETECalls": 0,
"NumLISTCalls": 0,
"NumHEADCalls": 0,
"DeleteBytes": 0,
"Bucket": "jk",
"Region": "us-east-1"
```

Example of Rolled Bucket Utilization for a Sub-Account Using the Control Account's Invoices Use the following API to get the rolled bucket utilization of a sub-account using the Control account invoice.

```
GET /v1/accounts/<Sub-AcctNum>/utilizations/buckets?invoice=<Control-account-
InvoiceNum>
Request: GET /v1/accounts/11681/utilizations/buckets?invoice=9826
Response-JSON:
        "AcctNum": 11681,
        "AcctPlanNum": 14020,
        "BucketNum": 18298,
        "StartTime": "2019-11-28T00:00:00Z",
        "EndTime": "2019-12-28T00:00:00Z",
        "RawStorageSizeGBDays": 30,
        "PaddedStorageSizeGBDays": 30,
        "MetadataStorageSizeGBDays": 0.0000013411045,
        "DeletedStorageSizeGBDays": 30,
        "OrphanedStorageSizeGB": 0,
        "NumAPICalls": 6522,
        "UploadGB": 33.391403,
        "DownloadGB": 16.669865,
        "StorageWroteGB": 33.268597,
        "StorageReadGB": 16.634298,
        "NumGETCalls": 2115,
        "NumPUTCalls": 4244,
        "NumDELETECalls": 1,
        "NumLISTCalls": 1,
        "NumHEADCalls": 18,
        "Bucket": "partner.jk",
        "Region": "us-east-1"
    },
        "AcctNum": 11681,
```

```
"AcctPlanNum": 14020,
"BucketNum": 18299,
"StartTime": "2019-11-28T00:00:00Z",
"EndTime": "2019-12-28T00:00:00Z",
"RawStorageSizeGBDays": 30,
"PaddedStorageSizeGBDays": 30,
"MetadataStorageSizeGBDays": 0.0000018440187,
"DeletedStorageSizeGBDays": 0,
"OrphanedStorageSizeGB": 0,
"NumAPICalls": 4343,
"UploadGB": 16.69639,
"DownloadGB": 16.667913,
"StorageWroteGB": 16.634298,
"StorageReadGB": 16.634298,
"NumGETCalls": 2115,
"NumPUTCalls": 2115,
"NumDELETECalls": 0,
"NumLISTCalls": 1,
"NumHEADCalls": 18,
"Bucket": "partner.jkc",
"Region": "us-east-1"
```

Example of Rolled Bucket Utilization of Both Sub-Account and Control Account Using the Control Account's Invoice Use the following API to get the rolled bucket utilization of both a sub-account and Control Account using the Control account's invoice.

```
GET /v1/utilizations/buckets?invoice=<Control-account-InvoiceNum>
Request: GET /v1/utilizations/buckets?invoice=9826
Response-JSON:
        "AcctNum": 11681,
        "AcctPlanNum": 14020,
        "BucketNum": 18298,
        "StartTime": "2019-11-28T00:00:00Z",
        "EndTime": "2019-12-28T00:00:00Z",
        "RawStorageSizeGBDays": 30,
        "PaddedStorageSizeGBDays": 30,
        "MetadataStorageSizeGBDays": 0.0000013411045,
        "DeletedStorageSizeGBDays": 30,
        "OrphanedStorageSizeGB": 0,
        "NumAPICalls": 6522,
        "UploadGB": 33.391403,
        "DownloadGB": 16.669865,
        "StorageWroteGB": 33.268597,
        "StorageReadGB": 16.634298,
        "NumGETCalls": 2115,
        "NumPUTCalls": 4244,
        "NumDELETECalls": 1,
        "NumLISTCalls": 1,
        "NumHEADCalls": 18,
        "Bucket": "partner.jk",
        "Region": "us-east-1"
    },
        "AcctNum": 11681,
```

```
"AcctPlanNum": 14020,
"BucketNum": 18299,
"StartTime": "2019-11-28T00:00:00Z",
"EndTime": "2019-12-28T00:00:00Z",
"RawStorageSizeGBDays": 30,
"PaddedStorageSizeGBDays": 30,
"MetadataStorageSizeGBDays": 0.0000018440187,
"DeletedStorageSizeGBDays": 0,
"OrphanedStorageSizeGB": 0,
"NumAPICalls": 4343,
"UploadGB": 16.69639,
"DownloadGB": 16.667913,
"StorageWroteGB": 16.634298,
"StorageReadGB": 16.634298,
"NumGETCalls": 2115,
"NumPUTCalls": 2115,
"NumDELETECalls": 0,
"NumLISTCalls": 1,
"NumHEADCalls": 18,
"Bucket": "partner.jkc",
"Region": "us-east-1"
```

# GET /v1/accounts/<AcctNum>/invoices

Return the all sub-invoices associated with a specific sub-account. (See Billing, page 1-3, regarding billing policies associated with the Wasabi Account Control API.)

```
GET /v1/accounts/<AcctNum>/invoices
```

NOTE:

Sub-invoices across all sub-accounts are rolled up into a single invoice that is charged to the Control Account.

#### Sample

```
Request: GET /v1/accounts/7363/invoices
Response-JSON:
        "SubInvoiceNum": 6596,
        "InvoiceNum": 9189,
        "AcctNum": 7363,
        "ParentAcctNum": 7041,
        "AcctPlanNum": 7977,
        "CreateTime": "2019-12-15T05:46:26Z",
        "PeriodStart": "2019-11-14T00:00:00Z",
        "PeriodEnd": "2019-12-14T00:00:00Z",
        "Total": 3.99,
        "Currency": "usd",
        "Status": "sub-invoice"
    };
        "SubInvoiceNum": 6596,
        "InvoiceNum": 9190,
        "AcctNum": 7363,
        "ParentAcctNum": 7041,
        "AcctPlanNum": 7977,
        "CreateTime": "2019-12-15T06:46:26Z",
```

```
"PeriodStart": "2019-11-14T00:00:00Z",
    "PeriodEnd": "2019-12-14T00:00:00Z",
    "Total": 3.99,
    "Currency": "usd",
    "Status": "sub-invoice"
}
```

# GET /v1/accounts/<AcctNum>/invoices/<SubInvoiceNum>

Return the details regarding a specific sub-invoice.

GET /v1/accounts/<AcctNum>/invoices/<SubInvoiceNum>

#### Sample

```
Request:GET/v1/accounts/7363/invoices/6596
Response-JSON:
    "SubInvoice": {
        "SubInvoiceNum": 6596,
        "InvoiceNum": 9189,
        "AcctNum": 7363,
        "ParentAcctNum": 7041,
        "AcctPlanNum": 7977,
        "CreateTime": "2019-12-15T05:46:26Z",
        "PeriodStart": "2019-11-14T00:00:00Z",
        "PeriodEnd": "2019-12-14T00:00:00Z",
        "Total": 3.99,
        "Currency": "usd",
        "Status": "sub-invoice"
    },
    "SubInvoiceItems": [
```

```
"SubInvoiceItemNum": 46166,
            "SubInvoiceNum": 6596,
            "Type": "storage",
            "DisplayName": "Timed Active Storage",
            "Description": "Total storage size: 0.000 GB-days",
            "Qty": 0,
            "UnitCost": 0.00013,
            "Total": 0,
            "Currency": "usd"
            "SubInvoiceItemNum": 46167,
            "SubInvoiceNum": 6596,
            "Type": "deleted-object-storage",
           "DisplayName": "Timed Deleted Storage (applicable for deleted storage <
90 days)",
            "Description": "Total storage size: 0.000 GB-days",
            "Qty": 0,
            "UnitCost": 0.00013,
            "Total": 0,
            "Currency": "usd"
        },
            "SubInvoiceItemNum": 46168,
            "SubInvoiceNum": 6596,
            "Type": "data-ingress",
            "DisplayName": "Data Transfer (in)",
            "Description": "Data Transfer (in)",
            "Qty": 0.0000155605,
            "UnitCost": 0,
            "Total": 0,
            "Currency": "usd"
        },
```

```
"SubInvoiceItemNum": 46169,
            "SubInvoiceNum": 6596,
            "Type": "data-egress",
            "DisplayName": "Data Transfer (out)",
            "Description": "Total data egress: 0.000 GB",
            "Qty": 0.0000300426,
            "UnitCost": 0.04,
            "Total": 0,
            "Currency": "usd"
            "SubInvoiceItemNum": 46170,
            "SubInvoiceNum": 6596,
            "Type": "api-calls",
            "DisplayName": "API Calls (PUT, GET, COPY, POST, LIST & all other
requests)",
            "Description": "API Calls (PUT,GET,COPY,POST,LIST & all other
requests)",
            "Qty": 0.012,
            "UnitCost": 0,
            "Total": 0,
            "Currency": "usd"
        } ,
            "SubInvoiceItemNum": 46171,
            "SubInvoiceNum": 6596,
            "Type": "minimum-storage-charge",
           "DisplayName": "Minimum Active Storage (applicable if Timed Active Stor-
age <1 TB)",
           "Description": "Minimum Active Storage (applicable if Timed Active Stor-
age <1 TB)",
            "Qty": 1,
            "UnitCost": 3.99,
```

```
"Total": 3.99,
    "Currency": "usd"
},
{
    "SubInvoiceItemNum": 46172,
    "SubInvoiceNum": 6596,
    "Type": "support-charge",
    "DisplayName": "Support Charge",
    "Description": "Support Charge",
    "Qty": 30,
    "UnitCost": 0,
    "Total": 0,
    "Currency": "usd"
}
]
```

# **About This Guide**

The *Wasabi Account Control API Guide* describes Wasabi Account Control API, which is a set of RESTful JSON methods that are a companion set of endpoints to the AWS IAM/S3 compatible endpoints. The Wasabi Account Control API is not part of Wasabi AWS API compliance and will not be compatible with any API provided by AWS which may have similar functionality.

#### Content

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## **Technical Support**

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https://wasabi.com/help

Use this email address to contact a Wasabi Customer Support representative:

support@wasabi.com