

KT ucloud storage service

S3 API 규격서

v 1.0

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The logo consists of the word "olleh" in a red, lowercase, sans-serif font, followed by "kt" in a black, lowercase, sans-serif font. A red horizontal line is positioned above the "t" in "kt", extending from the "h" in "olleh".

클라우드추진본부

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제 1 장 개요

본 문서는 KT ucloud storage service S3 API 규격을 제시한다.

모든 Amazon S3 REST API 를 대상으로 한 것은 아니며 KT ucloud storage 에서 사용할 수 있는 Amazon S3 REST API 에 대한 문서이다.

1.1 ucloud storage service S3 API 기능 개요

- Operations on the service

기능	URI	설명
GET	<i>스토리지 서비스 서버</i>	bucket 리스트 조회

- Operations on Buckets

기능	URI	설명
GET	<i>bucket.스토리지 서비스 서버</i>	object 리스트 조회
PUT		bucket 생성
DELETE		bucket 삭제

- Operations on Objects

기능	URI	설명
GET	<i>bucket.스토리지 서비스 서버/object</i>	object 다운로드
HEAD		object metadata 조회
PUT		object 업로드, object 복사
DELETE		object 삭제

제 2 장 Operations on the service

2.1 GET Service

- **API 설명**

bucket 리스트를 조회한다.

전체 bucket에 대한 리스트를 조회한다.

- **Request Syntax**

```
GET / HTTP/1.1
```

```
Host : 스토리지 서비스 서버
```

```
Date: date
```

```
Authorization: signatureValue
```

```
Content-Type: application/x-www-form-urlencoded; charset=utf-8
```

- **Response**

Response Headers

Header Name	Description	비고
Content-type	response body의 형식	
Content-Length	response body의 길이	

Response Body

XML

- **HTTP Status Codes**

Description	HTTP Status code
처리 완료	200
잘못된 요청	400
권한 없음	401

- **Example**

Sample Request

```
GET / HTTP/1.1
```

```
Host: ssproxy.ucloudbiz.olleh.com
```

```
Authorization: AWS test@test.com:6edfdDtNfIBUmamh0XNI/IHdr68=
```

```
Date: Thu, 03 May 2012 21:04:36 GMT
```

```
Content-Type: application/x-www-form-urlencoded; charset=utf-8
```

```
Connection: Keep-Alive
```

Sample Response

HTTP/1.1 200 OK

Content-Type: application/xml; charset=UTF-8

Content-Length: 326

X-Trans-Id: tx72d9a430fab54e438b9067c8b0c44127

Date: Thu, 03 May 2012 21:04:34 GMT

Connection: keep-alive

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<ListAllMyBucketsResult xmlns="http://doc.s3.amazonaws.com/2006-03-01">
```

```
<Buckets><Bucket><Name>test</Name><CreationDate>2009-02-
```

```
03T16:45:09.000Z</CreationDate></Bucket>
```

```
<Bucket><Name>ttt</Name><CreationDate>2009-02-
```

```
03T16:45:09.000Z</CreationDate></Bucket></Buckets>
```

```
</ListAllMyBucketsResult>
```

제 3 장 Operations on Buckets

3.1 GET Bucket

- **API 설명**

bucket에 저장된 object 리스트를 조회한다.

특정 bucket에 저장되어 있는 object의 리스트를 조회한다.

- **Request Syntax**

GET / HTTP/1.1
Host : bucketname.스토리지 서비스 서버
Date: date
Authorization: signatureValue
Content-Type: application/x-www-form-urlencoded; charset=utf-8

Request Parameter

Parameter	Description	Required
max-keys	bucket조회 결과에 최대 출력개수 지정 Type : 정수값	No
marker	주어진 string값보다 큰 name을 가진 bucket 출력 Type : string	
prefix	주어진 string값으로 시작하는 object를 출력 Type : string	
delimiter	object를 그룹핑 하기 위해 사용하는 문자 Type : string	

- **Response**

Response Headers

Header Name	Description	비 고
Content-type	response body의 형식	
Content-Length	response body의 길이	

Response Body

XML

- **HTTP Status Codes**

Description	HTTP Status code
처리 완료	200
잘못된 요청	400
권한 없음	401
bucket 없음	404

- **Example**

Sample Request

```
GET / HTTP/1.1
Host: test.ssproxy.ucloudbiz.olleh.com
Authorization: AWS test@test.com:6edfdDtNfIBUmamh0XNI/IHDr68=
Date: Thu, 03 May 2012 21:04:36 GMT
Content-Type: application/x-www-form-urlencoded; charset=utf-8
Connection: Keep-Alive
```

Sample Response

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8
Content-Length: 355
X-Trans-Id: tx72d9a430fab54e438b9067c8b0c44127
Date: Thu, 03 May 2012 21:04:34 GMT
Connection: keep-alive

<?xml version="1.0" encoding="UTF-8"?>
<ListBucketResultxmlns="http://doc.s3.amazonaws.com/2006-03-01">
  <Prefix> </Prefix>
  <Marker> </Marker>
  <Delimiter> </Delimiter>
  <IsTruncated> </IsTruncated>
  <MaxKeys> </MaxKeys>
  <Name>myobject </Name>
  <LastModified>2009-10-12T17:50:30.000Z</LastModified>
  <ETag>fba9dede5f27731c9771645a39863328 </ETag>
  <Size>434234 </Size>
  <StorageClass>STANDARD </StorageClass> </Contents>
</ListBucketResult>
```

3.2 PUT Bucket

- **API 설명**

bucket을 생성한다.

- **Request Syntax**

```
PUT / HTTP/1.1
```

```
Host : bucketname.스토리지 서비스 서버
```

```
Date: date
```

```
Authorization: signatureValue
```

```
Content-Type: application/x-www-form-urlencoded; charset=utf-8
```

- **Response**

Response Headers

Header Name	Description	비고
Content-type	response body의 형식	
Content-Length	response body의 길이	

- **HTTP Status Codes**

Description	HTTP Status code
처리 완료	201
요청 bucket 존재	202
잘못된 요청	400
권한 없음	401

- **Example**

Sample Request

```
PUT / HTTP/1.1
```

```
Host: test.ssexpoxu.ucloudbiz.olleh.com
```

```
Authorization: AWS test@test.com:6edfdDtNfIBUmamh0XNI/IHdr68=
```

```
Date: Thu, 03 May 2012 21:04:36 GMT
```

```
Content-Type: application/x-www-form-urlencoded; charset=utf-8
```

```
Connection: Keep-Alive
```

Sample Response

```
HTTP/1.1 201 Created
```

```
Content-Type: application/xml; charset=UTF-8
```

```
X-Trans-Id: tx72d9a430fab54e438b9067c8b0c44127
```


Date: Thu, 03 May 2012 21:04:34 GMT
Connection: keep-alive

3.3 DELETE Bucket

- **API 설명**
bucket을 삭제한다.

- **Request Syntax**

```
DELETE / HTTP/1.1  
Host : bucketname.스토리지 서비스 서버  
Date: date  
Authorization: signatureValue  
Content-Type: application/x-www-form-urlencoded; charset=utf-8
```

- **Response**

Response Headers

Header Name	Description	비고
Content-type	response body의 형식	
Content-Length	response body의 길이	

Response Body

XML

- **HTTP Status Codes**

Description	HTTP Status code
삭제 완료	204
잘못된 요청	400
권한 없음	401
bucket 없음	404

- **Example**

Sample Request

```
DELETE / HTTP/1.1  
Host: test.ssproxy.ucloudbiz.olleh.com  
Authorization: AWS test@test.com:6edfdDtNfIBUmamh0XNI/IHdr68=
```

Date: Thu, 03 May 2012 21:04:36 GMT
Content-Type: application/x-www-form-urlencoded; charset=utf-8
Connection: Keep-Alive

Sample Response

HTTP/1.1 204 No Content
Content-Type: application/xml; charset=UTF-8
X-Trans-Id: tx72d9a430fab54e438b9067c8b0c44127
Date: Thu, 03 May 2012 21:04:34 GMT
Connection: keep-alive

제 4 장 Operations on Objects

4.1 GET Object

- **API 설명**
object를 다운로드 한다.

- **Request Syntax**

```
GET /objectname HTTP/1.1
Host : bucketname.스토리지 서비스 서버
Date: date
Authorization: signatureValue
Content-Type: application/x-www-form-urlencoded; charset=utf-8
```

- **Response**

Response Headers

Header Name	Description	비 고
Content-type	response body의 형식	
Content-Length	response body의 길이	

Response Body

XML

- **HTTP Status Codes**

Description	HTTP Status code
처리 완료	200
잘못된 요청	400
권한 없음	401
object 없음	404

- **Example**

Sample Request

```
GET /myobject HTTP/1.1
Host: test.sproxy.ucloudbiz.olleh.com
Authorization: AWS test@test.com:6edfdDtNfIBUmamh0XNI/IHdr68=
Date: Thu, 03 May 2012 21:04:36 GMT
Content-Type: application/x-www-form-urlencoded; charset=utf-8
Connection: Keep-Alive
```

Sample Response

```
HTTP/1.1 200 OK
Content-Type: application/xml; charset=UTF-8
Content-Length: 355
X-Trans-Id: tx72d9a430fab54e438b9067c8b0c44127
Date: Thu, 03 May 2012 21:04:34 GMT
Connection: keep-alive
```

4.2 HEAD Object

- API 설명

object의 metadata를 조회한다.

- Request Syntax

```
HEAD /objectname HTTP/1.1
Host : bucketname.스토리지 서비스 서버
Date: date
Authorization: signatureValue
Content-Type: application/x-www-form-urlencoded; charset=utf-8
```

- Response

Response Headers

Header Name	Description	비고
Content-type	response body의 형식	
Content-Length	response body의 길이	

Response Body

XML

- HTTP Status Codes

Description	HTTP Status code
처리 완료	200
잘못된 요청	400
권한 없음	401
object 없음	404

- **Example**

Sample Request

```
HEAD /myobject HTTP/1.1
Host: test.sproxy.ucloudbiz.olleh.com
Authorization: AWS test@test.com:6edfdDtNfIBUmamh0XNI/IHdr68=
Date: Thu, 03 May 2012 21:04:36 GMT
Content-Type: application/x-www-form-urlencoded; charset=utf-8
Connection: Keep-Alive
```

Sample Response

```
HTTP/1.1 200 OK
x-amz-id-2:
gyB+3jRPnrkN98ZajxHXr3u7EFM67bNgSaxexeEHndCX/7GRnfTXxReKUQF28IfP
Last-Modified: Mon, 05 Mar 2012 17:53:54 GMT
ETag: "dfe4b5a232d391118e1d0c2fe7491fb2"
Date: Tue, 06 Mar 2012 01:57:38 GMT
Accept-Ranges: bytes
Vary: Accept-Charset, Accept-Encoding, Accept-Language, Accept x-amz-request-
id: 1AH0DCE7E066B176
Content-Type: application/octet-stream; charset=UTF-8
Content-Length: 18
```

4.3 PUT Object

- **API 설명**

object를 업로드 한다.

- **Request Syntax**

```
PUT /objectname HTTP/1.1
Host : bucketname.스토리지 서비스 서버
Date: date
Authorization: signatureValue
Content-Type: application/x-www-form-urlencoded; charset=utf-8
```

- **Response**

Response Headers

Header Name	Description	비 고
-------------	-------------	-----

Content-type	response body의 형식	
Content-Length	response body의 길이	

Response Body

XML

- **HTTP Status Codes**

Description	HTTP Status code
처리 완료	201
잘못된 요청	400
권한 없음	401
bucket 없음	404

- **Example**

Sample Request

```
PUT /myobject HTTP/1.1
Host: test.ssexpox.y.ucloudbiz.olleh.com
Authorization: AWS test@test.com:6edfdDtNfIBUmamh0XNI/IHdr68=
Date: Thu, 03 May 2012 21:04:36 GMT
Content-Type: application/x-www-form-urlencoded; charset=utf-8
Connection: Keep-Alive
```

Sample Response

```
HTTP/1.1 201 Created
Content-Type: application/xml; charset=UTF-8
Content-Length: 355
X-Trans-Id: tx72d9a430fab54e438b9067c8b0c44127
Date: Thu, 03 May 2012 21:04:34 GMT
Connection: keep-alive
```

4.4 PUT Object Copy

- **API 설명**

object를 복사한다.

- **Request Syntax**

```
PUT/myobject HTTP/1.1
```

Host : *bucketname*.스토리지 서비스 서버
 x-amz-copy-source: /source_bucket/sourceObject
 Date: date
 Authorization: signatureValue
 Content-Type: application/x-www-form-urlencoded; charset=utf-8

- **Response**

Response Headers

Header Name	Description	비 고
Content-type	response body의 형식	
Content-Length	response body의 길이	

Response Body

XML

- **HTTP Status Codes**

Description	HTTP Status code
복사 성공	201
잘못된 요청	400
권한 없음	401
object 없음	404

- **Example**

Sample Request

```
PUT /myobject2 HTTP/1.1
Host: test2.ssproxy.ucloudbiz.olleh.com
x-amz-copy-source: /test/myobject
Authorization: AWS test@test.com:6edfdDtNfIBUmamh0XNI/IHdr68=
Date: Thu, 03 May 2012 21:04:36 GMT
Content-Type: application/x-www-form-urlencoded; charset=utf-8
Connection: Keep-Alive
```

Sample Response

```
HTTP/1.1 201 Created
Content-Type: application/xml; charset=UTF-8
X-Trans-Id: tx72d9a430fab54e438b9067c8b0c44127
```

Date: Thu, 03 May 2012 21:04:34 GMT
Connection: keep-alive

4.5 DELETE Object

- **API 설명**
object를 삭제한다.

- **Request Syntax**

```
DELETE /myobject HTTP/1.1  
Host : bucketname.스토리지 서비스 서버  
Date: date  
Authorization: signatureValue  
Content-Type: application/x-www-form-urlencoded; charset=utf-8
```

- **Response**

Response Headers

Header Name	Description	비 고
Content-type	response body의 형식	
Content-Length	response body의 길이	

Response Body

XML

- **HTTP Status Codes**

Description	HTTP Status code
삭제 완료	204
잘못된 요청	400
권한 없음	401
object 없음	404

- **Example**

Sample Request

```
DELETE /myobject HTTP/1.1  
Host: test.ssproxy.ucloudbiz.olleh.com  
Authorization: AWS test@test.com:6edfdDtNfIBUmamh0XNI/IHdr68=
```


Date: Thu, 03 May 2012 21:04:36 GMT
Content-Type: application/x-www-form-urlencoded; charset=utf-8
Connection: Keep-Alive

Sample Response

HTTP/1.1 204 No Content
Content-Type: application/xml; charset=UTF-8
X-Trans-Id: tx72d9a430fab54e438b9067c8b0c44127
Date: Thu, 03 May 2012 21:04:34 GMT
Connection: keep-alive