

AOM Self-Service API

Developers Guide

Version 2

March 13, 2024



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Overview

Audience	This document introduces the application programming interfaces (APIs) to programmatically interact and manage your configured services on the Level 3 CDN.																			
What is the AOM API?	<p>AOM is the portal interface extended to customers who purchase Level 3 AOS or DCP services.</p> <p>With the addition of an API interface, Level3 customers will now be able to leverage some of those key capabilities (such as creating and manage publishing points) via a RESTful API.</p>																			
Service Overview	<p>Currently supported services for AOM include:</p> <table border="1" data-bbox="427 569 1511 1033"> <thead> <tr> <th data-bbox="427 569 683 617">Service</th> <th data-bbox="683 569 902 617">Method</th> <th data-bbox="902 569 1511 617">Function</th> </tr> </thead> <tbody> <tr> <td data-bbox="427 617 683 669">Server Groups</td> <td data-bbox="683 617 902 669">GET</td> <td data-bbox="902 617 1511 669">Retrieve server groups</td> </tr> <tr> <td data-bbox="427 669 683 722">Folders</td> <td data-bbox="683 669 902 722">GET</td> <td data-bbox="902 669 1511 722">Retrieve folders for server groups</td> </tr> <tr> <td data-bbox="427 722 683 873">Publishing Points</td> <td data-bbox="683 722 902 873">POST, PUT, GET, DELETE</td> <td data-bbox="902 722 1511 873">Manage full life cycle of a publishing point for smooth, hls, and rtmp ingest format. This include create, update, retrieve, and remove operations.</td> </tr> <tr> <td data-bbox="427 873 683 957">Archives/Archive Jobs</td> <td data-bbox="683 873 902 957">POST, GET</td> <td data-bbox="902 873 1511 957">Retrieve content archive information. Launch and monitor new archive jobs.</td> </tr> <tr> <td data-bbox="427 957 683 1033">DCP Service</td> <td data-bbox="683 957 902 1033">POST, PUT, GET, DELETE</td> <td data-bbox="902 957 1511 1033">Configure DCP services</td> </tr> </tbody> </table>		Service	Method	Function	Server Groups	GET	Retrieve server groups	Folders	GET	Retrieve folders for server groups	Publishing Points	POST, PUT, GET, DELETE	Manage full life cycle of a publishing point for smooth, hls, and rtmp ingest format. This include create, update, retrieve, and remove operations.	Archives/Archive Jobs	POST, GET	Retrieve content archive information. Launch and monitor new archive jobs.	DCP Service	POST, PUT, GET, DELETE	Configure DCP services
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API Security Framework

Audience	This page is intended for developers who use API keys to create the API signature. This document provides the details to help you understand the key's components.
What is the API Key?	In the Media Portal, an API key is a 5-digit numeric ID plus an alphanumeric Secret. These two parts are used to construct a request signature that is used to authenticate all Media Portal API requests. The Secret element of the API key is used to construct a hash-based message authentication code from unique elements of the request, using a RFC2104 HMAC-SHA1 hash.

API Key Characteristics

An API key has these characteristics:

- Every API Key is assigned a unique numerical ID by the Media Portal. This key is public and does not need to be kept secret.
- The secret is assigned by the Media Portal and can be regenerated if necessary. The secret is 160 bits in length and conforms to the requirements of constructing a RFC2104 HMAC-SHA1 digest.

Note: If the secret becomes compromised, you may want to generate a new one.

- The API key name is optional and can be updated by the administrator. Use this feature to simplify managing your keys. For example, assign the key the name of the application that will use it.
- An API Key is associated to a single Access Group.
- An API Key is authorized to access specific APIs based on the role assigned to the key.

API Key Limitations

The number of API keys is limited. Authorized users can generate up to 5 API keys per access group.

- If necessary, a user with the correct role and permissions can disable or re-enable an API key.
- If one user disables a key, another user can re-enable it if he has been assigned the API Key permission at the same level access group or higher.

Key Statuses

API keys can have one of four statuses:

Status	Reason
Active	Initial state upon creation and while it still has call credits. Key is valid and can be used.
Depleted	All of the call credits for the month have been used. Further requests from this key are rejected. This state is returned to Active when credits are added as the next month starts.
Disabled	Assigned to this key on the Edit screen by customer, or by Level 3 due to some other important reason. Key is still valid, but requests from this key are rejected. If the key has been disabled by an admin in a parent access group, the enable key is not active in child access groups.

Suspended	<p>Assigned to all keys within the access group, which stops all API request processing from requests within the access group and any child access groups. Key is still valid, but requests from this key are rejected.</p> <p>In addition, no new keys can be created by any user in the access group or any of its child access groups.</p>
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- The API key name is optional and can be updated by the administrator. Use this feature to simplify managing your keys. For example, assign the key the name of the application that will use it.
- An API Key is associated to a single Access Group.
- An API Key is authorized to access specific APIs based on the role assigned to the key.

API keys can be disabled If necessary, a single API key can be disabled. All requests using a key with disabled status are rejected.

Disabled API keys can be enabled by the same administrator, by a peer administrator, or by one associated with a parent access group.

- Enabling an API key returns the key to its active/depleted status held before the suspension, except when a depleted key has had call credits added at the monthly reset.

API keys can be suspended If necessary, all API privileges can be suspended for an access group and all its child access groups. No changes can be made to any API key in the access group during the suspension.

- Suspended access groups can be resumed by the same administrator, by a peer administrator, or by an administrator associated with a parent access group. Similarly, suspended access groups can be resumed by an administrator with the same or higher-level permissions.
 - Removing a suspension returns any key in the access group to its enabled, disabled, or depleted status before the suspension, except when a depleted key has had call credits added at the monthly reset.
-

<p>API request acceptance</p>	<p>Each time the Media Portal receives an API request, it goes through these steps:</p> <ol style="list-style-type: none"> 1. Authentication: <ul style="list-style-type: none"> ▪ <i>Is the API Key ID</i> recognized? If not, reject the request. ▪ <i>Is the request signature valid?</i> If not, reject the request. 2. Enabled status: Is the API Key ID currently disabled? If so, reject the request. 3. Request rate: Is the rate of requests from this API Key ID higher than the specified threshold? If so, reject the request. The rate is 20 requests per minute. <p>The Media Portal returns a HTTP status code if the request is rejected for one of these reasons. This table lists the codes:</p> <table border="1" data-bbox="462 556 1515 1157"> <thead> <tr> <th>Description</th> <th>Response Code</th> <th>Entity Body returned to client</th> </tr> </thead> <tbody> <tr> <td>Authentication failure</td> <td>403</td> <td>None. No entity body is returned to the caller to limit exposing data to a potentially malicious request.</td> </tr> <tr> <td>Request timestamp is too old</td> <td>403</td> <td>mpeRequestTooOld</td> </tr> <tr> <td>Credit check failure</td> <td>403</td> <td>mpeAPIKeyCreditsExhausted</td> </tr> <tr> <td>API Key is disabled</td> <td>403</td> <td>mpeAPIKeyDisabled</td> </tr> <tr> <td>Access Group API privileges suspended</td> <td>403</td> <td>mpeAPIPrivilegesSuspended</td> </tr> <tr> <td>API Key request rate too high</td> <td>503</td> <td>mpeRequestRateTooHigh</td> </tr> </tbody> </table>	Description	Response Code	Entity Body returned to client	Authentication failure	403	None. No entity body is returned to the caller to limit exposing data to a potentially malicious request.	Request timestamp is too old	403	mpeRequestTooOld	Credit check failure	403	mpeAPIKeyCreditsExhausted	API Key is disabled	403	mpeAPIKeyDisabled	Access Group API privileges suspended	403	mpeAPIPrivilegesSuspended	API Key request rate too high	503	mpeRequestRateTooHigh
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<p>API authentication overview</p>	<p>API authentication is bi-directional between Level 3 and the requestor.</p> <ul style="list-style-type: none"> ▪ Level 3's authentication is established by using a signed SSL certificate, allowing the caller to establish communications with the web services via HTTPS. The traffic exchanged is encrypted, preventing snooping of both CDN service-related data and the parameters required to construct the request signature. ▪ The requester is authenticated by providing a signed HTTPS request to a specific URI/API, using the secret to generate a request signature. <p>Once the request is authenticated, the API key's authorization level is evaluated using the assigned role, and rate limits, at least.</p>																					
<p>Request signature form</p>	<p>The Authorization HTTP request header field expected from clients is: MPA [API Key ID]:[signature]</p> <p>where MPA (Media Portal Authentication) is the authentication scheme and signature is a value that is properly constructed as described below.</p> <p>This signature is constructed in the form of a RFC2104 HMAC-SHA1 digest. Create a string formed as follows:</p> <pre>[Date] + "\n" + [RelativePath] + "\n" + [Content-Type] + "\n" + [HTTP-Verb] + "\n" + [Content-MD5]</pre> <p>“\n” is a line feed</p>																					

	<ul style="list-style-type: none"> ▪ [Date] is the value of the Date request header field formatted as “DDD, D MMM YYYY HH:NN:SS +0000”, using the current UTC time. ▪ [URI or RelativePath] is the path of the request including request scope if applicable (access group, service, network IDs). The RelativePath should include the first forward slash (/) but should not include query string parameters. For example: /key/v1.0/usage/v1.0/1234/BBB1234/my.property.com ▪ [Content-Type] is the value of the Content-Type request header field. For example: text/xml ▪ [HTTP-Verb] is the HTTP method used for the request, e.g. “GET”, “PUT”, “POST”, “DELETE” ▪ [Content-MD5] is the value of the Content-MD5 request header field, an MD5 digest of the request body. <p>Encode this string as UTF8, construct an HMAC-SHA1 digest (using the secret) and then Base64 encode the result. The output of these steps is the signature.</p>
<p>Unauthenticated requests</p>	<p>Unauthenticated requests are rejected and a HTTP status is sent. These include:</p> <ul style="list-style-type: none"> ▪ un-signed requests ▪ requests not made over HTTPS ▪ requests where the Date header value is older than 15 minutes <p>The Media Portal logs un-authenticated requests (IP address, requested URI, key ID, date/time).</p>
<p>Authorization Roles and Permissions</p>	<p>Each API key is assigned a role. Roles contain permissions that determine access to features within the Media Portal. Roles are assigned when the key is created.</p> <p>For example, if you want to use an API key for invalidations, assign the key the default Configuration role because it includes Invalidation, or assign a custom role that includes at least the Invalidation permission.</p> <p>Keys can only be assigned a single role. The permissions in the role define which APIs the key is authorized to use.</p> <p>As with users, API keys inherit authorizations from parent to child access groups down the hierarchy. However, keys created in a child access group do not have authorization for actions in any higher-level, parent access group.</p> <p>If a request fails authorization, the Media Portal will send a response code to the requester and log the request (IP address, requested URI, key ID, date and time).</p>

AOM API Services

<p>Conventions</p>	<p>Content Negotiation</p> <p>The AOM API supports both XML and JSON format. Use the Accept header to negotiate the desired format. Recommended values are:</p> <ul style="list-style-type: none"> ▪ <i>application/json</i> ▪ <i>application/xml</i> or <i>text/xml</i> <p>Note that the API documentation will only use the JSON format for syntax description, sample request and responses.</p> <p>Naming</p> <ul style="list-style-type: none"> ▪ All property names and element names will be in camelCase (both JSON and XML) ▪ All properties names will include measure, for example durationSec, fileSizeBytes, bitrateKbps <p>Format Conventions</p> <ul style="list-style-type: none"> ▪ XML will use elements (as opposed to attributes) to represent object properties ▪ XML will not include namespaces ▪ Dates will be represented as string in the format “YYYY-MM-DDTHH:mm:ss” in both JSON and XML ▪ All dates will be UTC <p>Error handling</p> <p>The AOM API will return appropriate http response codes:</p> <ul style="list-style-type: none"> ▪ 400 – Bad Request ▪ 401 – Unauthorized ▪ 404 – Not Found, etc. <p>The API will also return a set of pre-defined error codes and messages. AOM error codes will be in the range from 14000 to 14999. See Appendix A for a list of possible error messages.</p> <p>The following are examples of error messages in JSON and XML format:</p> <p>JSON generic error response</p> <pre>{ "error": { "errorCode": 14011, "message": "Item at path '/aom/pubPoints/...' was not found.", "httpStatus": 404, "apiCorrelationId": "UI-2015-01-14-15:01:38-4" } }</pre> <p>JSON error response containing validation errors</p> <pre>{ "error": { "errorCode": 14040, "message": "'pubPoint.name': Required value is missing. 'pubPoint.config':Required value is missing. ", "httpStatus": 400, "apiCorrelationId": "UI-2015-01-14-15:01:17-1", "validationErrors": [{ "property": "pubPoint.name",</pre>
---------------------------	---

```

        "message": "Required value is missing."
    },
    {
        "property": "pubPoint.config",
        "message": "Required value is missing."
    }
]
}
}

```

XML generic error response

```

<?xml version="1.0"?>
<error>
  <errorCode>14011</errorCode>
  <message>Item at path '/aom/pubPoints/...' was not found.</message>
  <httpStatus>404</httpStatus>
  <apiCorrelationId>UI-2015-01-14-15:01:39-3</apiCorrelationId>
</error>

```

XML error response containing validation errors

```

<?xml version="1.0"?>
<error>
  <errorCode>14040</errorCode>
  <message>
    'pubPoint.name':Required value is missing.
    'pubPoint.config':Required value is missing.
  </message>
  <httpStatus>400</httpStatus>
  <apiCorrelationId>UI-2015-01-14-15:01:16-2</apiCorrelationId>
  <validationErrors>
    <validationError>
      <property>pubPoint.name</property>
      <message>Required value is missing.</message>
    </validationError>
    <validationError>
      <property>pubPoint.config</property>
      <message>Required value is missing.</message>
    </validationError>
  </validationErrors>
</error>

```

Part 1: Live Services

Live services section covers management of Live media streams and related objects.

To use Live services methods of API Live Services must be enabled for you Customer Account.

Service Categories	The API can be categorized by the following objects it operates on:	
	Category	Description
	Server Groups	Server Group consists of primary and secondary Adaptive Origin Servers (AOS). An AOM Customer may have one or more dedicated Server Groups. Access to a Server Group gives a customer full control over all other objects that exist on the group (Folders, Publishing Points, Publishing Point Archives, etc.).
	Regions	Each Server Group belongs to a region.
	Folders	Folders are a way to group Publishing Points. Currently, only one level of folders is supported, i.e. nested folders are not allowed. Folder names must be unique by Server Group and Media format, i.e. it is possible to have 2 folders called ABC on a single Server Group, one in HLS format and one in RTMP format
	Publishing Points	Publishing Points can be created within a Folder. The Media Format of a Publishing Point must match the Media Format of its parent Folder. Publishing Point names must be unique within a folder. Publishing Points accepts commands to manage their state. Available commands depend on Media Format and its current state.
	Ingest Credentials	For Smooth and RTMP Publishing Points users can specify ingest credentials that will allow encoders to use Basic Authentication when connecting to AOS. Smooth supports Basic Authentication scheme. RTMP supports Adobe Authentication scheme.
	Archives	Publishing Points Archives contain information on video archives created on AOS. Depending on Media Format, an archive may contain information about video archive size, duration, bitrate, etc. Publishing Point Archives exist independently on primary and secondary AOS. Currently, there is only a single level of Publishing Point Archives, i.e. nested archives are not supported.
	Clips	The API supports creating an archived clip out of content sent to a publishing point. To create a clip, publishing point must be in a <i>Started</i> or <i>Stopped</i> state. The API supports uploading content to Level 3 OSP as part of clip generation process. Alternatively a clip can be uploaded from AOS local storage to Level 3 OSP at a later stage.
	OSP Locations	To upload content to Level 3 OSP a customer account is configured with one or more OSP locations. To create / update OSP locations please contact Level 3 Support.
Archive Jobs	Archive Job allow to upload a Publishing Point Archive or a Clip to the Level3 OSP. It is possible to review the archive job status. It is also possible to cancel, pause and resume an Archive Job via the AOM UI.	

		To create an Archive Job, it is necessary to specify an OSP location. This location includes both ingest URL and ftp credentials that allow to upload archived content to OSP.
	Options	Allows to retrieve various configuration options.

Regions

API Services on region is limited to the Get operation to obtain current settings and status.

Retrieve all Regions

Description	Retrieves a list of available regions that configured for the customer account.					
Method	GET					
Base URI	https://ws.level3.com					
Schema Location	TBD					
URI Syntax	/aom/regions/(version)/(scope) <i>version</i> [CDATA[]] Values: "v1.0" (required) <i>scope</i> [CDATA[]] (AG) AG = Access Group ID (required)					
Sample Request	https://ws.level3.com/aom/regions/v1.0/1234					
Sample Response	<pre>{ "regions": [{ "id": "NA", "name": "North America" }] }</pre>					
Attributes	<table border="1"> <tr> <td>id</td> <td>Region ID</td> </tr> <tr> <td>name</td> <td>Region Name</td> </tr> </table>	id	Region ID	name	Region Name	
id	Region ID					
name	Region Name					
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.					

Server Groups

API Services on server groups is limited to the Get operation to obtain current settings and status

Retrieve all Server Groups

Description	Retrieves a list of available server groups for the specified access group. For a given server group, the mediaFormats array specifies which formats are supported. Allowed values are: smooth, hls, and rtmp. A region ID can be specified in the URI to further filter by the given region.	
Method	GET	
Base URI	https://ws.level3.com	
Schema Location	TBD	
URI Syntax	/aom/serverGroups/(version)/(scope) <i>version</i> [CDATA[]] Values: "v1.0" (required) <i>scope</i> [CDATA[]] (AG) AG = Access Group ID (required)	
Sample Request	<p>https://ws.level3.com/aom/serverGroups/v1.0/1234 - all Server Groups for this customer</p> <p>https://ws.level3.com/aom/serverGroups/v1.0/1234?regionId=NA – all Server Groups in "NA" region</p>	
Sample Response	<pre> { "serverGroups": [{ "id": "NA-L-kgjbpzwn", "name": "AOS V3 001", "mediaFormats": ["hls", "rtmp"], "primaryServer": { "dns": "adaptive4a-aosv3.adaptive.level3.net" }, "secondaryServer": { "dns": "adaptive4b-aosv3.adaptive.level3.net" }, "regionId": "NA", "hostname": "v3pair.test.aos.level3.net" }, { "id": "NA-L-selwdksu", "name": "AOS V4 001", "mediaFormats": ["smooth"], "primaryServer": { "dns": "adaptive3a-aosv4.adaptive.level3.net" }, "secondaryServer": { "dns": "adaptive3b-aosv4.adaptive.level3.net" }, "regionId": "NA", "hostname": "pair4.test.aos.level3.net" }] } </pre>	
Attributes	id	Server Group ID

name	Server Group Name
mediaFormats	Array of Media Formats supported by this Server Group. Possible values: <i>smooth, hls, rtmp</i> .
primaryServer.dns	DNS of the primary server
secondaryServer.dns	DNS of the secondary server
regionId	ID of the Region this Server Group belongs to
hostname	Hostname assigned to the Server Group. Unless this hostname is overridden on Folder or Publishing point level, it is used to generate ingest URLs.

Possible Status & Error Messages Returned

200: Request Successful.
See **Appendix A – Status Codes & Error Messages** for additional return codes and messages.

Folders

Folders are a way to group Publishing Points. Currently, only one level of folders is supported, i.e. nested folders are not allowed. Folder names must be unique by Server Group and Media format, i.e. it is possible to have 2 folders called ABC on a single Server Group, one in HLS format and one in RTMP format.

Retrieve all Folders for a Server Group

Description	Retrieves a list of folders for a given server group. A media format type can be specified in the URI to further filter by the given type. The status refers to the primary and secondary AOS servers for the server group and includes either "OK" or "Missing".
Method	GET
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/folders/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (optional)</p>
Sample Requests	<p>https://ws.level3.com/aom/folders/v1.0/1234/NA-L-8pl3ubiv</p> <p>https://ws.level3.com/aom/folders/v1.0/1234/NA-L-8pl3ubiv/rtmp</p>
Sample Response	<pre>{ "folders": [{ "id": "NA-L-selwdksu/smooth/test1", "serverGroupID": "NA-L-selwdksu", "mediaFormat": "smooth", "name": "test1", "status": { "primary": "Ok", "secondary": "Ok" } }, { "id": "NA-L-selwdksu/smooth/test2", "serverGroupID": "NA-L-selwdksu", "mediaFormat": "smooth", "name": "test2", "status": { "primary": "Ok", "secondary": "Missing" } }] }</pre>

Attributes	id	Folder ID. Uniquely identifies a folder.
	name	Folder name
	mediaFormat	Media Format of this folder. Possible values: <i>smooth, hls, rtmp</i> .
	status.primary status.secondary	Status of the folder on the primary/secondary server. Possible values: <i>OK, Missing</i>
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.	

Create Folders

New folders can be created either using a minimal basic specification or a full set of parameters. The documentation below breaks down the create operations by media format to provide the detail on attribution, combining the basic and full request for each. The full configuration data contains general attribution, applicable to all media formats, and a *config* object, which is specific to the chosen media format. The resulting Folder data will contain additional attribution based on derived data and default settings. The following list provides an overview of common attributes, calling out those that can be set as part of the create request. Attribution of the config object, specific to the media format, will be provided with the specific operations below.

Common Attributes	Name	Description	Input
	id	Folder ID. Uniquely identifies a folder.	
serverGroupID	Server Group ID		
mediaFormat	Media Format		
name	Folder Name		✓
status.primary status.secondary	Status of the folder on the primary/secondary server. Possible values: <i>Ok, Missing</i>		
cachingProperty	Level3 CDN property used in generating playback links. Optional. Note: The caching property must be a valid property for a given access group. Use Media Portal API “/services/cdn/v1.0” call to retrieve the list of available properties.		✓
hostname	Hostname assigned to the Folder. Unless this hostname is overridden on Publishing Point level, it is used to generate ingest URLs.		

Create Smooth Folder

Description	Create a new folder for smooth streaming media format. Allows a minimal Basic and a Full configuration to be submitted.		
Method	POST		
Base URI	https://ws.level3.com		
Schema Location	TBD		
URI Syntax	<p>/aom/folders/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format: smooth (required)</p>		
Body Syntax	<p>Attribution required for Basic request in bold:</p> <pre>{ "name": "<String max. 50 characters, format: '[a-zA-Z0-9_]{1,}'>", "config": { "type": "smooth" }, "cachingProperty": "<property>" // optional }</pre>		
Sample Requests	<p>https://ws.level3.com/aom/folders/v1.0/1234/NA-L-8pl3ubiv/smooth</p> <p>Basic:</p> <pre>{ "name": "test4" }</pre> <p>Full:</p> <pre>{ "name": "test5", "cachingProperty": "www.level3cdn.com", "config": { "type": "smooth" } }</pre>		
Sample Response	<pre>{ "id": "NA-L-selwdksu/smooth/test5", "serverGroupID": "NA-L-selwdksu", "mediaFormat": "smooth", "name": "test5", "status": { "primary": "Ok", "secondary": "Ok" }, "cachingProperty": "www.level3cdn.com", "config": { "type": "smooth" } }</pre>		
Attributes	Name	Description	Input
	type	Required. Must be always set to smooth.	✓

Possible Status & Error Messages Returned	201: Created. See Appendix A – Status Codes & Error Messages for additional return codes and messages.
--	--

Create HLS Folder

Description	Create a new folder for HLS streaming media format. Allows a minimal Basic and a Full configuration to be submitted.
Method	POST
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/folders/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: “v1.0” (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format: hls (required)</p>
Body Syntax	<p>Attribution required for Basic request in bold:</p> <pre>{ "name": "<String max. 50 characters, format: `^[a-zA-Z0-9_]{1,}>", "config": { "type": "hls", "webDavConfig": { "ingestPassword": "<String, Format: `^[a-zA-Z0-9_-]{1,20}>", }, "cleanup": { "dvrSec": 60..21600, // DVR Content Length in seconds, default: 60 "presetType": ("custom" "inherited" default "encrypted" "inlet") "presetConfig": { // for presetType = "custom" "useRegexSyntax": (true false), // default: false "rules": [{ "ruleType": ("neverDelete" "deleteEveryX" deleteAtX), "timesMin": [<integer>, ...], // See attribution section below "maxAgeSec": 1-144000, // seconds "matches": ["<string or regex>". ...] }, ...] }, ... } }, "cachingProperty": ""<property>" // optional }</pre>
Sample Requests	<p>https://ws.level3.com/aom/folders/v1.0/1234/NA-L-8pl3ubiv/hls</p> <p>Basic:</p> <pre>{ "name": "test1" }</pre> <p>Full:</p> <pre>{</pre>

	rules.ruleType	<i>neverDelete, deleteEveryX, deleteAtX.</i>	
	cleanup.presetConfig.rules.timesMin	Collection of integer. Allows to specify the times (in minutes) when the clean-up process will run. Values depend on ruleType specified: <ul style="list-style-type: none"> ▪ neverDelete: ignored ▪ deleteEveryX: one and only one value must be specified. Value range between 4 and 240 ▪ deleteAtX: at least one value must be specified. Value range between 0 and 1440. 0 = UTC midnight. 	✓
	cleanup.presetConfig.rules.maxAgeSec	Maximum file age (in seconds) before it is deleted. Value range between 1 and 14400. If omitted or <= 0, cleanup.dvrSec value is used.	✓
	cleanup.presetConfig.rules.matches	Collection of strings. Required. At least one match must be specified. If cleanup.presetConfig.useRegexSyntax = true, values supplied must be valid regular expressions.	✓
Possible Status & Error Messages Returned	201: Created. See Appendix A – Status Codes & Error Messages for additional return codes and messages.		

Create RTMP Folder

Description	Create a new folder for RTMP streaming media format. Allows a minimal Basic and a Full configuration to be submitted.		
Method	POST		
Base URI	https://ws.level3.com		
Schema Location	TBD		
URI Syntax	<p>/aom/folders/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format: rtmp (required)</p>		
Body Syntax	<p>Attribution required for Basic request in bold:</p> <pre>{ "name": "<String max. 50 characters, format: '[a-zA-Z0-9_]{1,}'>", "config": { "type": "rtmp" }, "cachingProperty": ""<property>" // optional }</pre>		
Sample Requests	<p>https://ws.level3.com/aom/folders/v1.0/1234/NA-L-8pl3ubiv/rtmp</p> <p>Basic:</p> <pre>{ "name": "test2" }</pre> <p>Full:</p> <pre>{ "name": "test2", "cachingProperty": "www.level3cdn.com", "config": { "type": "rtmp" } }</pre>		
Sample Response	<pre>{ "id": "NA-L-kgjbpzpw/rtmp/test2", "serverGroupID": "NA-L-kgjbpzpw", "mediaFormat": "rtmp", "name": "test2", "status": { "primary": "Ok", "secondary": "Ok" }, "cachingProperty": "www.level3cdn.com", "config": { "type": "rtmp" } }</pre>		
Attributes	Name	Description	Input
	type	Required. Must be always set to rtmp.	✓

Possible Status & Error Messages Returned	201: Created. See Appendix A – Status Codes & Error Messages for additional return codes and messages.
--	--

Retrieve Folder Detail

Description	Retrieves all detail of a folder. This is the same response that will also be returned by the Post and Put commands for a folder. See the corresponding Create (Post) operations for more detail on the attribution of a folder by media format.
Method	GET
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/folders/{version}/{scope}</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (required)</p> <p>FN = Folder Name (required)</p>
Sample Requests	https://ws.level3.com/aom/folders/v1.0/1234/NA-L-8pl3ubiv/smooth/test1
Sample Response	<pre>{ "id": "NA-L-selwdksu/smooth/test1", "serverGroupID": "NA-L-selwdksu", "mediaFormat": "smooth", "name": "test1", "status": { "primary": "Ok", "secondary": "Ok" }, "cachingProperty": "eueng.smooth.adaptive.level3.net", "config": { "type": "smooth" } }</pre>
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.

Update Folder Detail

Description	Updates the detail of a folder. This operation has largely the same input format and identical response format as the corresponding Create (Post) operation for the given media format. See the Create (Post) operations for more detail on the attribution of a folder by media format.
Method	PUT
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/folders/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (required)</p> <p>FN = Folder Name (required)</p>
Sample Requests	<pre>https://ws.level3.com/aom/folders/v1.0/1234/NA-L-8pl3ubiv/rtmp/test2 { "cachingProperty": "www.level3cdn.com", "config": { "type": "rtmp" } }</pre>
Sample Response	<pre>{ "id": "NA-L-kgjbpnw/rtmp/test2", "serverGroupID": "NA-L-kgjbpnw", "mediaFormat": "rtmp", "name": "test2", "status": { "primary": "Ok", "secondary": "Ok" }, "cachingProperty": "www.level3cdn.com", "config": { "type": "rtmp" } }</pre>
Possible Status & Error Messages Returned	<p>200: Request Successful.</p> <p>See Appendix A – Status Codes & Error Messages for additional return codes and messages.</p>

Remove Folder

Description	Deletes a folder. A Folder must be empty (no publishing points) for it to be deleted.
Method	DELETE
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/folders/{version}/{scope}</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (required)</p> <p>FN = Folder Name (required)</p>
Sample Requests	https://ws.level3.com/aom/folders/v1.0/1234/NA-L-8pl3ubiv/rtmp/test2
Sample Response	N/A
Possible Status & Error Messages Returned	<p>200: Request Successful.</p> <p>See Appendix A – Status Codes & Error Messages for additional return codes and messages.</p>

Publishing Points

Operations on publishing points support the retrieval (Get) of existing and creation (Post) of new publishing points. Publishing points are categorized by the media format, supporting *rtmp*, *hls*, and *smooth* formats.

Retrieve all Publishing Points for a Server Group

Description	Retrieves a list of publishing points for a given server group. The response can be further filtered by adding Media Format and Folder Name to the URI. The status refers to the primary and secondary AOS servers for the server group and includes either "OK" or "Missing".
Method	GET
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/pubPoints/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/[(MF)]/[(FN)]</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (optional)</p> <p>FN = Folder Name (optional)</p>
Sample Requests	<p>https://ws.level3.com/aom/pubPoints/v1.0/1234/NA-L-8pl3ubiv</p> <p>https://ws.level3.com/aom/pubPoints/v1.0/1234/NA-L-8pl3ubiv/rtmp</p> <p>https://ws.level3.com/aom/pubPoints/v1.0/1234/NA-L-8pl3ubiv/rtmp/folder1</p>
Sample Response	<pre>{ "pubPoints": [{ "id": "NA-L-selwdksu/smooth/test/abcdefghi", "serverGroupID": "NA-L-selwdksu", "mediaFormat": "smooth", "folder": "test", "name": "abcdefghi", "status": { "primary": "Idle", "secondary": "Idle" } }, { "id": "NA-L-selwdksu/smooth/test/dan", "serverGroupID": "NA-L-selwdksu", "mediaFormat": "smooth", "folder": "test", "name": "dan", "status": { "primary": "Started", "secondary": "Idle" } }] }</pre>

Attributes	id	Publishing Point ID. Uniquely identifies a publishing point.
	name	Publishing Point name
	serverGroupID	ID of the Server Group publishing point belongs to
	mediaFormat	Media Format of this publishing point. Possible values: <i>smooth, hls, rtmp</i> .
	folder	Name of the folder publishing point belongs to
	status.primary status.secondary	Status of the publishing point on the primary/secondary server. Possible values: <i>Idle, Starting, Started, Stopping, Stopped, Shuttingdown, Error, Missing</i>
	Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.

Create Publishing Points

New publishing points can be created either using a minimal basic specification or a full set of parameters. The documentation below breaks down the create operations by media format to provide the detail on attribution, combining the basic and full request for each. The full configuration data contains general attribution, applicable to all media formats, and a *config* object, which is specific to the chosen media format. The resulting Publishing Point data will contain additional attribution based on derived data and default settings. The following list provides an overview of common attributes, calling out those that can be set as part of the create request. Attribution of the config object, specific to the media format, will be provided with the specific operations below.

Note: A combination of folder name and publishing point name must be unique within entire customer account. In other words, if a customer has created a Smooth publishing point **pubPointA** in a folder **fldB** on a Server Group A, they will not be able to create an HLS publishing point **pubPointA** in a folder **fldB** on a Server Group B.

Note: This validation rule is case-insensitive, in other words, **pubPointA** and **PUBpOINTa** are considered equivalent.

Common Attributes	Name	Description	Input
	id	Publishing Point ID. Uniquely identifies a publishing point.	
	name	Publishing Point name.	✓
	serverGroupID	ID of the Server Group publishing point belongs to.	
	mediaFormat	Media Format of this publishing point. Possible values: <i>smooth, hls, rtmp</i> .	
	folder	Name of the folder publishing point belongs to.	
	status.primary	Status of the publishing point on the	

status.secondary	primary/secondary server. Possible values: <i>Idle, Starting, Started, Stopping, Stopped, Shuttingdown, Error, Missing</i>	
invalidationPath	Path to use when issuing CDN invalidation command. Optional. If omitted, the path is auto-generated based on folder and pub point name. We recommend using auto-generated path unless absolutely required.	✓
cachingPropertyOverride	Level3 CDN property used in generating playback links. Optional. If omitted, the value set on the Folder level is used. <div style="border: 1px solid black; padding: 5px; background-color: #e6f2e6;"> <p>Note: The caching property must be a valid property for a given access group. Use Media Portal API “/services/cdn/v 1.0” call to retrieve the list of available properties.</p> </div>	✓
hostname	Hostname assigned to the Publishing Point and used to generate ingest links. By default this field is empty and hostname value is inherited from the parent Folder.	
playbackLinks	Array of playback links for the publishing point.	
playbackLinks.location	Which location the link will be played from. Possible values are: <i>cdn</i> .	
playbackLinks.mediaFormat	Media format of the playback link. Possible values: <i>smooth, hls, rtmp</i> . Error! Reference source not found.	
playbackLinks.linkType	Type of the playback link. Possible values: <i>manifest, stream</i> .	
playbackLinks.url	URL to playback.	

Create Smooth Publishing Point

Description	Create a new publishing point for smooth streaming media format. Allows a minimal Basic and a Full configuration to be submitted.
Method	POST
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/pubPoints/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format: smooth (required)</p> <p>FN = Folder Name (required)</p>
Body Syntax	<p>Attribution required for Basic request in bold:</p> <pre> { "name": "<String max. 50 characters, format: `[a-zA-Z0-9_]{1,}\$`>", "config": { "type": "smooth", "dvrSec": 60...14400, // DVR Content Length in seconds, default: 60 "archive": (true false), // default: false "archiveLengthSec": 60...14400, // Archive length in seconds, default: 60 "autoRestartOnEncoderSignal": (true false), // default: false "restartIfStartedIssuesThresholdSec": 60...3600, // default: null "restartIfStoppedThresholdSec": 60...3600, // default: null "invalidateOnRestart": (true false), // default: false "smoothPlayout": { "enable": (true false), // default: true "fragmentLengthSec": 2...10, // default: 4 "manifestVersion": ("20" "22"), // default: "20" "cdnProperty": "<property>" // optional }, "hlsPlayout": { "enable": (true false), // default: true "fragmentLengthSec": 2...10, // default: 484 "manifestVersion": ("1" "2" "3" "4" "5"), // default: "4" "noDiscontinuities": (true false), // default: false "cdnProperty": "<property>", // optional "encryption": { "enable": (true false), // default: true "encryptionType": ("aes128" "sampleAes"), "externallicenseServer": (true false), // default: false "licenseServerUrl": "<url>", "key": "<hex string representing 16-byte key>", "keyIV": ""<hex string representing 16-byte key IV>" } }, "hdsPlayout": { "enable": (true false), // default: true "fragmentLengthSec": 2...10, // default: 4 "manifestVersion": ("1" "2"), // default: "1" } } } </pre>

```

        "cdnProperty": "<property>", // optional
    },
    "dashPayout": {
        "enable": (true|false), // default: true
        "minBufferTimeSec": 0..60, // default: 8
        "mpdMinUpdatePeriodSec": 1..10, // default: 2
        "cdnProperty": "<property>", // optional
    },
    "authentication": {
        "enable": (true|false), // default: true
        "basic": {
            "username": "<existing credential user name>",
            "password": "<new credential password>",
            "description": "<new credential password>"
        }
    },
    "advancedOptions": [ // array of options
    {
        "code": "<property name>",
        "value": ( string | number | null),
        "enable": ( true | false ) // default: true
    }
    ]
},
"invalidationPath": "<path>", // optional
"cachingPropertyOverride": "<property>" // optional
}

```

Sample Requests <https://ws.level3.com/aom/pubPoints /v1.0/1234/NA-L-8pl3ubiv/smooth/folder1>

Basic:

```

{
  "name": "test4",
  "config": {
    "type": "smooth",
    "smoothPayout": { }
  }
}

```

Full (all media formats):

```

{
  "name": "test7",
  "config": {
    "type": "smooth",
    "dvrSec": 600,
    "archive": true,
    "archiveLengthSec": 3600,
    "autoRestartOnEncoderSignal": true,
    "restartIfStartedIssuesThresholdSec": 180,
    "restartIfStoppedThresholdSec": 300,
    "invalidateOnRestart": false,
    "smoothPayout": {
      "enable": true,
      "fragmentLengthSec": 2,
      "manifestVersion": "20",
      "cdnProperty": "www.level3cdn.com"
    },
    "hlsPayout": {
      "enable": true,
      "fragmentLengthSec": 8,
      "manifestVersion": "4",
      "noDiscontinuities": true,
      "cdnProperty": "img.level3cdn.com"
    }
  },
}

```

```

    "hdsPayout": {
      "enable": true,
      "fragmentLengthSec": 4,
      "manifestVersion": "1",
      "cdnProperty": "www.level3cdn.com"
    },
    "dashPayout": {
      "enable": true,
      "minBufferTimeSec": 8,
      "mpdMinUpdatePeriodSec": 2,
      "cdnProperty": "img.level3cdn.com"
    },
    "authentication": {
      "enable": true,
      "basic": {
        "password": "password",
        "description": "credential description"
      }
    }
  },
  "invalidationPath": "/abc",
  "cachingPropertyOverride": "www.level3cdn.com"
}

```

Full (with HLS encryption):

```

{
  "name": "test8",
  "config": {
    "type": "smooth",
    "dvrSec": 600,
    "archive": true,
    "archiveLengthSec": 3600,
    "autoRestartOnEncoderSignal": true,
    "restartIfStartedIssuesThresholdSec": 180,
    "restartIfStoppedThresholdSec": 300,
    "invalidateOnRestart": false,
    "hlsPayout": {
      "enable": true,
      "fragmentLengthSec": 8,
      "manifestVersion": "4",
      "noDiscontinuities": true,
      "cdnProperty": "img.level3cdn.com",
      "encryption": {
        "enable": true,
        "encryptionType": "sampleAes",
        "externalLicenseServer": true,
        "licenseServerUrl": "https://www.mycompany.com",
        "key": "6b3c275cbf9345a1be0182abae1b6179",
        "keyIV": "42dbc0564f504376a4ee74e1043451da"
      }
    }
  },
  "authentication": {
    "enable": true,
    "basic": {
      "username": "u_202_fb6GxhIY"
    }
  }
},
"invalidationPath": "/abc",
"cachingPropertyOverride": "www.level3cdn.com"
}

```

Sample Response

```

{
  "id": "NA-L-selwdksu/smooth/test/test7",

```

```

"serverGroupID": "NA-L-selwdksu",
"mediaFormat": "smooth",
"folder": "test",
"name": "test7",
"status": {
  "primary": "Idle",
  "secondary": "Idle"
},
"config": {
  "type": "smooth",
  "dvrSec": 600,
  "archive": true,
  "archiveLengthSec": 3600,
  "autoRestartOnEncoderSignal": true,
  "restartIfStartedIssuesThresholdSec": 180,
  "restartIfStoppedThresholdSec": 300,
  "invalidateOnRestart": false,
  "backwardCompatible": false,
  "smoothPayout": {
    "enable": true,
    "fragmentLengthSec": 2,
    "manifestVersion": "20",
    "cdnProperty": "www.level3cdn.com"
  },
  "hlsPayout": {
    "enable": true,
    "fragmentLengthSec": 8,
    "manifestVersion": "4",
    "noDiscontinuities": true,
    "cdnProperty": "img.level3cdn.com"
  },
  "hdsPayout": {
    "enable": true,
    "fragmentLengthSec": 4,
    "manifestVersion": "1",
    "cdnProperty": "www.level3cdn.com"
  },
  "dashPayout": {
    "enable": true,
    "minBufferTimeSec": 8,
    "mpdMinUpdatePeriodSec": 2,
    "cdnProperty": "img.level3cdn.com"
  },
  "authentication": {
    "enable": true,
    "basic": {
      "username": "u_202_fb6GXhIY",
      "password": "passw0rd",
      "description": "credential description"
    }
  },
  "ingestLinks": [
    {
      "location": "primary",
      "url":
"http://prim.pair4.test.aos.level3.net/ingest/ahandler/test/test7/test7.ism
1"
    },
    {
      "location": "secondary",
      "url":
"http://sec.pair4.test.aos.level3.net/ingest/ahandler/test/test7/test7.isml"
    }
  ]
},

```

```

"invalidationPath": "/abc",
"cachingPropertyOverride": "www.level3cdn.com",
"playbackLinks": [
  {
    "location": "cdn",
    "mediaFormat": "smooth",
    "linkType": "manifest",
    "url":
"http://www.level3cdn.com/egress/ahandler/test/test7/test7.isml/Manifest"
  },
  {
    "location": "cdn",
    "mediaFormat": "hls",
    "linkType": "manifest",
    "url":
"http://img.level3cdn.com/egress/ahandler/test/test7/test7.isml/test7.m3u8"
  },
  {
    "location": "cdn",
    "mediaFormat": "hds",
    "linkType": "manifest",
    "url":
"http://www.level3cdn.com/egress/ahandler/test/test7/test7.isml/test7.f4m"
  },
  {
    "location": "cdn",
    "mediaFormat": "dash",
    "linkType": "manifest",
    "url":
"http://img.level3cdn.com/egress/ahandler/test/test7/test7.isml/test7.mpd"
  }
]
}

```

Attributes	Name	Description	Input
	type	Required. Must be always set to <i>smooth</i> .	✓
	dvrSec	DVR content length in seconds. Optional, if omitted defaults to 60 seconds DVR. Maximum value supported is dependent on Server Group configuration.	✓
	archive	If content archiving is enabled. Default is false.	✓
	archiveLengthSec	Length of content stored on the hard drive in seconds. Optional, if omitted defaults to 60 seconds. Maximum value supported is dependent on Server Group configuration.	✓
	autoRestartOnEncoderSignal	Auto re-start on encoder signal. Optional. Default is false.	✓
	restartIfStartedIssuesThresholdSec	Shut down publishing point if pub point or streams are in the error state for longer than X seconds. Optional. If omitted or <= 0 the functionality is disabled. Value range between 60 and 3600 seconds.	✓
	restartIfStoppedThresholdSec	Shut down publishing point if pub point is in Stopped state for longer than X	✓

		seconds. Optional. If omitted or ≤ 0 the functionality is disabled. Value range between 60 and 3600 seconds.	
invalidateOnRestart		Automatically send CDN invalidation command when publishing point is restarted. Optional. Default is false.	✓
backwardCompatible		If publishing point supports legacy ingest and playout URLs. Default is false. To enable legacy mode please contact Level3 operations.	
smoothPlayout		Smooth playout configuration. If omitted, Smooth playout is disabled. Note: At least one playout format must be enabled for a publishing point.	✓
smoothPlayout. enable		Enables / disabled smooth playout.	✓
smoothPlayout. fragmentLengthSec		Smooth chunk duration, seconds. Range between 2 and 10, default is 4.	✓
smoothPlayout. manifestVersion		Smooth manifest version. Defaults to "20".	✓
smoothPlayout. cdnProperty		CDN caching property to use for smooth playout. Default is null. If specified, overrides cachingPropertyOverride value.	✓
hlsPlayout		HLS playout configuration. If omitted, HLS playout is disabled. Note: At least one playout format must be enabled for a publishing point.	✓
hlsPlayout. enable		Enables / disabled HLS playout.	✓
hlsPlayout. fragmentLengthSec		TS media file duration, seconds. Range between 2 and 10, default is 8.	✓
hlsPlayout. manifestVersion		HLS manifest version. Defaults to "4". Note: AES-128 encryption requires HLS manifest version "2" or higher. Sample-AES encryption requires HLS	✓

		manifest version “5” or higher.	
hlsPlayout. cdnProperty		CDN caching property to use for HLS playout. Default is null. If specified, overrides cachingPropertyOverride value.	✓
hlsPlayout. encryption		HLS encryption configuration. If omitted, HLS encryption is disabled. Note: If HLS encryption is enabled, no other playouts are supported.	✓
hlsPlayout. encryption. enable		Enables / disabled HLS encryption.	✓
hlsPlayout. encryption. encryptionType		“aes128” or “sampleAes”. Note: AES-128 encryption requires HLS manifest version “2” or higher. Sample-AES encryption requires HLS manifest version “5” or higher.	✓
hlsPlayout. encryption. externalLicenseServer		Enable external key delivery. If set to false (default) the key will be served via Level 3 CDN.	✓
hlsPlayout. encryption. licenseServerUrl		License server URL. Mandatory when hlsPlayout. encryption. externalLicenseServer is set to true.	✓
hlsPlayout. encryption. key		Hex string representing 128 bit (16 byte) encryption key.	✓
hlsPlayout. encryption. keyIV		Hex string representing 128 bit (16 byte) encryption key IV. Only applies to Sample-AES.	✓
hdsPlayout		HDS playout configuration. If omitted, HDS playout is disabled. Note: At least one playout format must be enabled for a publishing point.	✓
hdsPlayout. enable		Enables / disabled HDS playout.	✓

hdsPayout. fragmentLengthSec	HDS fragment duration, seconds. Range between 2 and 10, default is 4.	✓
hdsPayout. manifestVersion	HDS manifest version. Defaults to “1”.	✓
hdsPayout. cdnProperty	CDN caching property to use for HDS payout. Default is null. If specified, overrides catchingPropertyOverride value.	✓
dashPayout	MPEG-DASH payout configuration. If omitted, MPEG-DASH payout is disabled. Note: At least one payout format must be enabled for a publishing point.	✓
dashPayout. enable	Enables / disabled MPEG-DASH payout.	✓
dashPayout. minBufferTimeSec	Minimum buffer time, seconds. Range between 0 and 60, default is 8.	✓
dashPayout. mpdMinUpdatePeriodSec	MPD Minimum Update Period, seconds. Range between 1 and 10, default is 2.	✓
dashPayout. cdnProperty	CDN caching property to use for MPEG-DASH payout. Default is null. If specified, overrides catchingPropertyOverride value.	✓
authentication	Enable ingest authentication. If omitted, ingest authentication is disabled.	✓
authentication. enable	Enable / disable ingest authentication.	✓
authentication. basic	If omitted, new set of ingest credentials is generated.	✓
authentication. basic. username	If specified, an existing credential with this username is used. Mutually exclusive with authentication. basic. password and authentication. basic. Description .	✓
authentication. basic. password	If specified, a new credential with this password is created. Mutually exclusive with authentication. basic. Username .	✓
authentication. basic. description	If specified, an new credential with this description is created. Mutually exclusive with authentication. basic. Username .	✓
advancedOptions	Array of additional (advanced) options configured for pub point. Advanced Options (Publishing Point configuration) method can be used to retrieve full list of properties available for Smooth ingest.	✓

advancedOptions. enable	Boolean, default is true. Enable / disable a particular advanced property.	✓
advancedOptions. code	String, required. Code of advanced option, as returned by Advanced Options (Publishing Point configuration).	✓
advancedOptions. value	String, number or NULL. Value of advanced option. Should satisfy validation rules specified for this option by Advanced Options (Publishing Point configuration).	✓
acl	Access control list. When specified, limits ingest to the ip addresses listed in acl. ipRanges property. Please contact Level3 operations to configure if required.	
acl. enable	Enable / disable IP range ACL.	
acl. ipRanges	Array of strings defining IP ranges.	
ingestLinks	Array of ingest links.	
ingestLinks. location	Location of ingest link (<i>primary</i> or <i>secondary</i>).	
ingestLinks. url	URL to use for content ingest.	

Possible Status & Error Messages Returned 201: Created.
See **Appendix A – Status Codes & Error Messages** for additional return codes and messages.

Create HLS Publishing Point

Description	Create a new publishing point for HLS streaming media format. Allows a minimal Basic and a Full configuration to be submitted.
Method	POST
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/pubPoints/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: “v1.0” (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format: hls (required)</p> <p>FN = Folder Name (required)</p>
Body Syntax	<p>Attribution required for Basic request in bold:</p> <pre>{ "name": "<String max. 50 characters, format: `^[a-zA-Z0-9_]{1,}\$>", "config": { "type": "hls", "ingestMethod": ("webDav", "basic", "advanced"), "manifestName": "<String. max 100 ch, Format: `^[a-zA-Z0-9_-]{1,}.m3u8\$>" } }</pre>

	<pre> "archive": (true false), // for ingestMethod=basic advanced, see Smooth "webDavConfig": { // for ingestMethod=webDav "diskQuotaMB": <integer> }, "cleanup": { // for ingestMethod=webDav basic "enable": (true false), // default: true "defaultMaxAgeSec": 60..21600, // Default file age in seconds, default: 60 "presetType": ("custom" "inherited" default "encrypted" "inlet") "presetConfig": { // for presetType = "custom" "useRegexSyntax": (true false), // default: false "rules": [{ "ruleType": ("neverDelete" "deleteEveryX" "deleteAtX"), "timesMin": [<integer>, ...], // See attribution section below "maxAgeSec": 60..21600, // seconds "matches": ["<string or regex>". ...] }, ...] } } }, "invalidationPath": <path>, // optional "cachingPropertyOverride": "" <property>" // optional } </pre>
<p>Sample Requests</p>	<p>https://ws.level3.com/aom/pubPoints /v1.0/1234/NA-L-8pl3ubiv/hls/folder1</p> <p>Basic:</p> <pre> { "name": "test21", "config": { "type": "hls", "manifestName": "index.m3u8", "ingestMethod": "basic" } } </pre> <p>Full:</p> <pre> { "mediaFormat": "hls", "config": { "type": "hls", "ingestMethod": "basic", "webDavConfig": { "diskQuotaMB": 0 }, "isInheritFromParent": false, "cleanup": { "dvrSec": 3600, "presetType": "default", "presetConfig": { "useRegexSyntax": false, "rules": [{ "ruleType": "neverDelete", "matches": ["*appleman.m3u8"] }, { "ruleType": "deleteEveryX", "timesMin": [5], "matches": ["*"] }] } } }, "manifestName": "index.m3u8" } </pre>

	<pre> }, "name": "hls_pp2", "cacheingPropertyOverride": "ad24-live.hls.adaptive.level3.net" } </pre>		
Sample Response	<pre> { "id": "EU-L-zof30guo/hls/test1/hls_pp2", "serverGroupID": "EU-L-zof30guo", "mediaFormat": "hls", "folder": "test1", "name": "hls_pp2", "status": { "primary": "Idle", "secondary": "Missing" }, "config": { "type": "hls", "manifestName": "index.m3u8", "ingestMethod": "basic", "cleanup": { "dvrSec": 3600, "presetType": "default", "presetConfig": { "useRegexSyntax": false, "rules": [{ "ruleType": "neverDelete", "matches": ["*appleman.m3u8"] }, { "ruleType": "deleteEveryX", "timesMin": [5], "matches": ["*"] }] } } }, "ingestLinks": [{ "location": "primary", "url": "http://prim.test-1234.level3internal.adaptive.level3.net:1755/feed/applefeed/test1/hls_pp2" }], "cacheingPropertyOverride": "ad24-live.hls.adaptive.level3.net", "playbackLinks": [{ "location": "primary", "mediaFormat": "hls", "linkType": "manifest", "url": "http://test-1234.level3internal.adaptive.level3.net/test1/hls_pp2/index.m3u8" }, { "location": "cdn", "mediaFormat": "hls", "linkType": "manifest", "url": "http://ad24-live.hls.adaptive.level3.net/test1/hls_pp2/index.m3u8" }] } </pre>		
Attributes	Name	Description	Input
	type	Required. Must be always set to <i>hls</i> .	<input checked="" type="checkbox"/>

ingestMethod	Ingest method. Required. Possible values: <i>basic, webDav</i>	✓
invalidateOnRestart	Automatically send CDN invalidation command when publishing point is restarted. Optional. Default is false.	✓
manifestName	Main manifest name. Required. Validation: <code>^[a-zA-Z0-9_-]{1,}.m3u8</code>	✓
webDavConfig	Web Dav config. Required if <code>ingestMethod=webDav</code> .	✓
webDavConfig.diskQuotaMB	Maximum size of publishing point archive in MB. Required.	✓
webDavConfig.ingestUser	Username to connect to pub point using Web Dav. This is the same as folder name.	
webDavConfig.ingestPassword	Username to connect to pub point using Web Dav. This is the same as folder name.	
cleanup	Automated clean-up configuration. If omitted, clean-up is disabled.	✓
cleanup.defaultMaxAgeSec	Length of DVR window, seconds. Range between 60 and 21600. Default is 60 seconds.	✓
cleanup.presetType	Type of preset. Required. Possible values: <i>inherited, default, custom, etc.</i>	✓
cleanup.presetConfig	Required if <code>cleanup.presetType=custom</code> , otherwise is ignored.	✓
cleanup.presetConfig.useRegexSyntax	If <code>cleanup.presetConfig.rules.matches</code> should use regex syntax then searching for files. Default: <i>false</i> .	✓
cleanup.presetConfig.rules	Collection of clean-up rules. Required. At least one rule must be specified.	✓
cleanup.presetConfig.rules.ruleType	Rule type. Required. Possible values: <i>neverDelete, deleteEveryX, deleteAtX</i> .	✓
cleanup.presetConfig.rules.timesMin	Collection of integer. Allows to specify the times (in minutes) when the clean-up process will run. Values depend on ruleType specified: <i>neverDelete</i> : ignored <i>deleteEveryX</i> : one and only one value must be specified. Value range between 4 and 240 <i>deleteAtX</i> : at least one value must be specified. Value range between 0 and 1440. 0 = UTC midnight.	✓
cleanup.presetConfig.rules.maxAgeSec	Maximum file age (in seconds) before it is deleted. Value range between 60 and 21600. If omitted or <code><= 0</code> , <code>cleanup.defaultMaxAgeSec</code>	✓

		value is used.	
	cleanup.presetConfig.rules.matches	Collection of strings. Required. At least one match must be specified. If <code>cleanup.presetConfig.useRegexSyntax = true</code> , values supplied must be valid regular expressions.	✓
	ingestLinks	Collection of ingest links.	
	ingestLinks.location	Specifies ingest target. Values: <i>primary</i> , <i>secondary</i> .	
	ingestLinks.url	Ingest URL	
Possible Status & Error Messages Returned	201: Created. See Appendix A – Status Codes & Error Messages for additional return codes and messages.		

Create RTMP Publishing Point

Description	Create a new publishing point for RTMP ingest format. Allows a minimal Basic and a Full configuration to be submitted.
Method	POST
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	/aom/pubPoints/(version)/(scope) <i>version</i> [CDATA[]] Values: " v1.0 " (required) <i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN) AG = Access Group ID (required) SG = Server Group ID (required) MF = Media Format: rtmp (required) FN = Folder Name (required)
Body Syntax	Attribution required for Basic request in bold: <pre> { "name": "<String max. 20 characters, format: '[a-zA-Z0-9_]{1,}'>", "config": { "type": "rtmp", "dvrSec": 60...14400, // DVR Content Length in seconds, default: 60 "archive": (true false), // default: false "archiveLengthSec": 60...14400, // Archive length in seconds, default: 60 "autoRestartOnEncoderSignal": (true false), // default: false "restartIfStoppedThresholdSec": 60...3600, // default: null "invalidateOnRestart": (true false), // default: false "fragmentLengthSec": 2..10, // Seconds. Default is 8 "hdsPayout": { "enable": (true false), // Default: true "cdnProperty": "<property>" // optional }, "hlsPayout": { </pre>

```

"enable": ( true | false ),           // Default: true
"noDiscontinuities": ( true | false ), // Optional, default is false
"manifestVersion": 2..7,              // Optional, default is 4
"cdnProperty": "<property>"           // optional
"encryption": {
  "enable": (true|false),             // default: true
  "encryptionType": ("aes128|"sampleAes"),
  "externalLicenseServer": (true|false), // default: false
  "licenseServerUrl": "<url>",
  "key": "<hex string representing 16-byte key>",
  "keyIV": ""<hex string representing 16-byte key IV>"
}
},
"dashPayout": {
  "enable": ( true | false ),         // Default: true
  "minBufferTimeSec": 0..60,          // Optional, default is 6
  "cdnProperty": "<property>"           // optional
}
"authentication": {
  "enable": (true|false),             // default: true
  "basic": {
    "username": "<existing credential user name>",
    "password": "<new credential password>",
    "description": "<new credential password>"
  }
}
},
"advancedOptions": [                  // array of options
{
  "code": "<property name>",
  "value": ( string | number | null),
  "enable": ( true | false )         // default: true
}
]
},
"invalidationPath": <path>,           // optional
"cachingPropertyOverride": ""<property>" // optional
}

```

Sample Requests <https://ws.level3.com/aom/pubPoints /v1.0/1234/NA-L-8pl3ubiv/rtmp/folder1>

Basic:

```

{
  "name": "tst1",
  "config": {
    "type": "rtmp",
    "hlsPayout": {
      "enable": true
    }
  }
}

```

Full (all media formats):

```

{
  "config": {
    "type": "rtmp",
    "dvrSec": 600,
    "archive": true,
    "archiveLengthSec": 3600,
    "autoRestartOnEncoderSignal": true,
    "restartIfStoppedThresholdSec": 300,
    "invalidateOnRestart": false,
    "fragmentLengthSec": 8,
    "hlsPayout": {
      "enable": true,

```

```

    "noDiscontinuities": true,
    "manifestVersion": 3,
    "cdnProperty": "ad24-live.hls.adaptive.level3.net"
  },
  "hdsPlayout": {
    "enable": true,
    "cdnProperty": "level3intphds1.hds.adaptive.level3.net"
  },
  "dashPlayout": {
    "enable": true,
    "minBufferTimeSec": 8,
    "cdnProperty": "harmonic-live.dash.adaptive.level3.net"
  },
  "authentication": {
    "enable": true,
    "basic": { "username": "u_202_xgtnNtTq" }
  },
  "fragmentLengthSec": 8,
  "backwardCompatible": false,
  "advancedOptions": [
    {
      "code": "rtmp:dvr-mode",
      "value": "live-and-dvr",
      "enable": true
    }
  ]
},
"name": "rtmp01",
"cacheingPropertyOverride": "level3intphds1.hds.adaptive.level3.net"
}

```

HLS encryption:

```

{
  "config": {
    "type": "rtmp",
    "hlsPlayout": {
      "enable": true,
      "encryption": {
        "enable": true,
        "encryptionType": "sampleAes",
        "externalLicenseServer": true,
        "licenseServerUrl": "https://mycompany.com/path/to/key.file",
        "key": "447888f92dbe1ea3e5a5d341be17255a",
        "keyIV": "5d153166c7d279842af08b8c852f4825"
      }
    },
    "manifestVersion": "5"
  }
},
"name": "hls_enc"
}

```

Sample Response

```

{
  "id": "EU-L-pzzmchuh/rtmp/abc/rtmp01",
  "serverGroupID": "EU-L-pzzmchuh",
  "mediaFormat": "rtmp",
  "folder": "abc",
  "name": "rtmp01",
  "status": {
    "primary": "Idle",
    "secondary": "Missing"
  },
  "config": {
    "type": "rtmp",
    "dvrSec": 600,
    "archive": true,
    "archiveLengthSec": 3600,

```

```

"autoRestartOnEncoderSignal": true,
"restartIfStoppedThresholdSec": 300,
"invalidateOnRestart": false,
"fragmentLengthSec": 8,
"hlsPlayout": {
  "enable": true,
  "manifestVersion": "3",
  "noDiscontinuities": true,
  "cdnProperty": "ad24-live.hls.adaptive.level3.net"
},
"hdsPlayout": {
  "enable": true,
  "cdnProperty": "level3intphds1.hds.adaptive.level3.net"
},
"dashPlayout": {
  "enable": true,
  "minBufferTimeSec": 8,
  "cdnProperty": "harmonic-live.dash.adaptive.level3.net"
},
"archive": false,
"backwardCompatible": false,
"authentication": {
  "enable": true,
  "basic": {
    "username": "u_202_xgtmNtTq",
    "password": "password goes here",
    "description": "abc"
  }
},
"advancedOptions": [
  {
    "code": "rtmp:dvr-mode",
    "value": "live-and-dvr",
    "enable": true
  }
],
"ingestLinks": [
  {
    "location": "primary",
    "url":
"rtmp://prim.vk101.customer2.adaptive.level3.net/ingest/bhandler/abc/rtmp01
/<stream-name>"
  }
],
"cachingPropertyOverride": "level3intphds1.hds.adaptive.level3.net",
"playbackLinks": [
  {
    "location": "primary",
    "mediaFormat": "rtmp",
    "linkType": "stream",
    "url": "rtmp://vk101.customer2.adaptive.level3.net/202-abc-
rtmp01/<stream-name-from-encoder>"
  },
  {
    "location": "primary",
    "mediaFormat": "hls",
    "linkType": "manifest",
    "url":
"http://vk101.customer2.adaptive.level3.net/egress/bhandler/abc/rtmp01/mani
fest.m3u8"
  },
  {
    "location": "primary",
    "mediaFormat": "hds",

```

```

        "linkType": "manifest",
        "url":
"http://vk101.customer2.adaptive.level3.net/egress/bhandler/abc/rtmp01/manifest.f4m"
    },
    {
        "location": "primary",
        "mediaFormat": "dash",
        "linkType": "manifest",
        "url":
"http://vk101.customer2.adaptive.level3.net/egress/bhandler/abc/rtmp01/manifest.mpd"
    },
    {
        "location": "cdn",
        "mediaFormat": "hls",
        "linkType": "manifest",
        "url": "http://ad24-
live.hls.adaptive.level3.net/egress/bhandler/abc/rtmp01/manifest.m3u8"
    },
    {
        "location": "cdn",
        "mediaFormat": "hds",
        "linkType": "manifest",
        "url":
"http://level3intphds1.hds.adaptive.level3.net/egress/bhandler/abc/rtmp01/manifest.f4m"
    },
    {
        "location": "cdn",
        "mediaFormat": "dash",
        "linkType": "manifest",
        "url": "http://harmonic-
live.dash.adaptive.level3.net/egress/bhandler/abc/rtmp01/manifest.mpd"
    }
}
]
}

```

Attributes	Name	Description	Input
	type	Required. Must be always set to <i>rtmp</i> .	✓
	dvrSec	DVR content length in seconds. Optional, if omitted defaults to 60 seconds DVR. Maximum value supported is dependent on Server Group configuration.	✓
	archive	If content archiving is enabled. Default is false.	✓
	archiveLengthSec	Length of content stored on the hard drive in seconds. Optional, if omitted defaults to 60 seconds. Maximum value supported is dependent on Server Group configuration.	✓
	autoRestartOnEncoderSignal	Auto re-start on encoder signal. Optional. Default is false. Only applicable when archive=true .	✓
	restartIfStoppedThresholdSec	Shut down publishing point if pub point is in Stopped state for longer than X seconds. Optional. If omitted or <= 0 the functionality	✓

	is disabled. Value range between 60 and 3600 seconds.	
invalidateOnRestart	Automatically send CDN invalidation command when publishing point is restarted. Optional. Default is false.	✓
fragmentLengthSec	Fragment duration, seconds. Range between 2 and 10, default is 8.	✓
	Note: This value applies across all media formats enabled for the publishing point.	
backwardCompatible	If publishing point supports legacy ingest and playout URLs. Default is false. To enable legacy mode please contact Level3 operations.	
hlsPlayout	HLS playout configuration. If omitted, HLS playout is disabled.	✓
	Note: At least one playout format must be enabled for a publishing point	
hlsPlayout.enable	Enables / disabled HLS playout.	✓
hlsPlayout.manifestVersion	HLS manifest version. Defaults to "4" .	✓
	Note: AES-128 encryption requires HLS manifest version "2" or higher. Sample-AES encryption requires HLS manifest version "5" or higher.	
hlsPlayout.noDiscontinuities	Boolean, default is false, i.e. discontinuities are enabled by default. Discontinuities are inserted when a change requires the decoder to reset. In live, it could be a codec or frame size change and in DVR, it could be a chunk from an alternative rendition.	✓
hlsPlayout.cdnProperty	CDN caching property to use for HLS playout. Default is null. If specified, overrides cachingPropertyOverride value.	✓
hlsPlayout.encryption	HLS encryption configuration. If omitted, HLS encryption is disabled.	✓

		<p>Note: If HLS encryption is enabled, no other playouts are supported.</p>	
hlsPayout. encryption. enable	Enables / disabled HLS encryption.		✓
hlsPayout. encryption. encryptionType	“aes128” or “sampleAes”.	<p>Note: AES-128 encryption requires HLS manifest version “2” or higher. Sample-AES encryption requires HLS manifest version “5” or higher.</p>	✓
hlsPayout. encryption. externalLicenseServer	Enable external key delivery. If set to false (default) the key will be served via Level 3 CDN.		✓
hlsPayout. encryption. licenseServerUrl	License server URL. Mandatory when hlsPayout. encryption. externalLicenseServer is set to true.		✓
hlsPayout. encryption. key	Hex string representing 128 bit (16 byte) encryption key.		✓
hlsPayout. encryption. keyIV	Hex string representing 128 bit (16 byte) encryption key IV.		✓
hdsPayout	HDS payout configuration. If omitted, HDS payout is disabled.	<p>Note: At least one payout format must be enabled for a publishing point</p>	✓
hdsPayout. enable	Enables / disabled HDS payout.		✓
hdsPayout. cdnProperty	CDN caching property to use for HDS payout. Default is null. If specified, overrides cachingPropertyOverride value.		✓
dashPayout	MPEG-DASH payout configuration. If omitted, MPEG-DASH payout is disabled.	<p>Note: At least one payout format must be</p>	✓

		enabled for a publishing point
dashPlayout. enable	Enables / disabled MPEG-DASH playout.	✓
dashPlayout. minBufferTimeSec	Minimum buffer time, seconds. Range between 0 and 60, default is 8.	✓
dashPlayout. cdnProperty	CDN caching property to use for MPEG-DASH playout. Default is null. If specified, overrides cachingPropertyOverride value.	✓
authentication	Enable ingest authentication. If omitted, ingest authentication is disabled.	✓
authentication. enable	Enable / disable ingest authentication.	✓
authentication. basic	If omitted, new set of ingest credentials is generated.	✓
authentication. basic. username	If specified, an existing credential with this username is used. Mutually exclusive with authentication. basic. password and authentication. basic. description	✓
authentication. basic. password	If specified, a new credential with this password is created. Mutually exclusive with authentication. basic. username	✓
authentication. basic. description	If specified, a new credential with this description is created. Mutually exclusive with authentication. basic. username	✓
advancedOptions	Array of additional (advanced) options configured for pub point. Advanced Options (Publishing Point configuration) method can be used to retrieve full list of properties available for Smooth ingest	✓
advancedOptions. enable	Boolean, default is true. Enable / disable a particular advanced property	✓
advancedOptions. code	String, required. Code of advanced option, as returned by Advanced Options (Publishing Point configuration)	✓
advancedOptions. value	String, number or NULL. Value of advanced option. Should satisfy validation rules specified for this option by Advanced Options (Publishing Point configuration)	✓
acl	Access control list. When specified, limits ingest to the ip addresses listed in acl. ipRanges property. Please contact Level3 operations to configure if required.	

acl. enable	Enable / disable IP range ACL
acl. ipRanges	Array of strings defining IP ranges
ingestLinks	Array of ingest links
ingestLinks. location	Location of ingest link (<i>primary</i> or <i>secondary</i>).
ingestLinks. url	URL to use for content ingest
Possible Status & Error Messages Returned	201: Created. See Appendix A – Status Codes & Error Messages for additional return codes and messages.

Retrieve Publishing Point Detail

Description	Retrieves all detail of a publishing point. This is the same response that will also be returned by the Post and Put commands for a publishing point. See the corresponding Create (Post) operations for more detail on the attribution of a publishing point by media format.
Method	GET
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/pubPoints/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (required)</p> <p>FN = Folder Name (required)</p> <p>PP = Publishing Point Name (required)</p>
Sample Requests	<code>https://ws.level3.com/aom/pubPoints/v1.0/1234/NA-L-kgjbpzwn/hls/test4/test22</code>
Sample Response	<pre>{ "id": "NA-L-kgjbpzwn/hls/test4/test22", "serverGroupID": "NA-L-kgjbpzwn", "mediaFormat": "hls", "folder": "test4", "name": "test22", "status": { "primary": "Idle", "secondary": "Idle" }, "config": { "type": "hls", "manifestName": "index.m3u8", "ingestMethod": "webDav", "webDavConfig": {</pre>

```

        "diskQuotaMB": 20,
        "ingestUser": "test4",
        "ingestPassword": "XMu9ym3r"
    },
    "cleanup": {
        "dvrSec": 60,
        "presetType": "custom",
        "presetConfig": {
            "useRegexSyntax": false,
            "rules": [
                {
                    "ruleType": "neverDelete",
                    "matches": [ "*appleman.m3u8" ]
                },
                {
                    "ruleType": "deleteAtX",
                    "timesMin": [ 0, 720 ],
                    "maxAgeSec": 14400,
                    "matches": [ "*.key" ]
                },
                {
                    "ruleType": "deleteEveryX",
                    "timesMin": [ 5 ],
                    "matches": [ "*.aac", "*.ts" ]
                }
            ]
        }
    },
    "ingestLinks": [
        {
            "location": "primary",
            "url": "http://prim.v3pair.test.aos.level3.net/ingest/test4/test22"
        },
        {
            "location": "secondary",
            "url": "http://sec.v3pair.test.aos.level3.net/ingest/test4/test22"
        }
    ],
    "invalidationPath": "/test1/",
    "cachingPropertyOverride": "global.demo.cdn.level3.net",
    "playbackLinks": [
        {
            "location": "cdn",
            "mediaFormat": "hls",
            "linkType": "manifest",
            "url": "http://global.demo.cdn.level3.net/test4/test22/index.m3u8"
        }
    ]
}

```

Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.
--	--

Update Publishing Point Detail

Description	Updates the configuration of a publishing point. This operation has largely the same input format and identical response format as the corresponding Create (Post) operation for the given media format. See the Create (Post) operations for more detail on the attribution of a publishing point by media format.
-------------	---

Method	PUT
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/pubPoints/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (required)</p> <p>FN = Folder Name (required)</p> <p>PP = Publishing Point Name (required)</p>
Sample Requests	<pre>https://ws.level3.com/aom/pubPoints/v1.0/202/NA-L-kgjbzpnw/rtmp/test/rtmp1 { "name": "test123", "config": { "type": "rtmp", "fragmentLengthSec": "4", "hlsPlayout": { "enable": true, "manifestVersion": "3", "noDiscontinuities": true } } }</pre>
Sample Response	<pre>{ "id": "EU-L-pzzmchuh/rtmp/abc/test123", "serverGroupID": "EU-L-pzzmchuh", "mediaFormat": "rtmp", "folder": "abc", "name": "test123", "status": { "primary": "Idle", "secondary": "Missing" }, "config": { "type": "rtmp", "fragmentLengthSec": 4.0, "hlsPlayout": { "enable": true, "manifestVersion": "3", "noDiscontinuities": true } }, "archive": false, "backwardCompatible": false, "ingestLinks": [{ "location": "primary", "url": "rtmp://prim.vk101.customer2.adaptive.level3.net/ingest/bhandler/abc/test123/<stream-name>" }] }, "hostname": "vk101.customer2.adaptive.level3.net",</pre>

```

"playbackLinks": [
  {
    "location": "primary",
    "mediaFormat": "rtmp",
    "linkType": "stream",
    "url": "rtmp://vk101.customer2.adaptive.level3.net/202-abc-
test123/<stream-name-from-encoder>"
  },
  {
    "location": "primary",
    "mediaFormat": "hls",
    "linkType": "manifest",
    "url":
"http://vk101.customer2.adaptive.level3.net/egress/bhandler/abc/test123/man
ifest.m3u8"
  }
]
}
    
```

Possible Status & Error Messages Returned 200: Request Successful.
 See **Appendix A – Status Codes & Error Messages** for additional return codes and messages.

Remove Publishing Point

Description	Deletes a publishing point. A Publishing Point needs to be in state Idle on all servers for it to be deleted.
Method	DELETE
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	/aom/pubPoints/(version)/(scope) <i>version</i> [CDATA[]] Values: "v1.0" (required) <i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP) AG = Access Group ID (required) SG = Server Group ID (required) MF = Media Format (required) FN = Folder Name (required) PP = Publishing Point Name (required)
Sample Requests	https://ws.level3.com/aom/pubPoints/v1.0/1234/NA-L-8pl3ubiv/rtmp/testhls/test123
Sample Response	N/A
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.

Send command to Publishing Point

Description	Allows sending commands to a publishing point. Command parameters in the body specify if the command should be sent to primary publishing point,
-------------	--

secondary publishing point, or both.

Note: Smooth and RTMP publishing points only support the *restart* command.

HLS publishing points support the following commands:

- **start**—moves state from Idle/Stopped via intermediate Starting to Started
- **stop**—moves state from Starting/Started via intermediate Stopping to Stopped
- **shutdown**—moves state from Starting/Started/Stopped via intermediate Shuttingdown to Idle
- **restart**—same as shutdown with subsequent start

Method	PUT						
Base URI	https://ws.level3.com						
Schema Location	TBD						
URI Syntax	<p>/aom/pubPoints/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)/(CMD)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (required)</p> <p>FN = Folder Name (required)</p> <p>PP = Publishing Point Name (required)</p> <p>CMD = Command (required):</p> <p><i>start, stop, shutdown, restart</i></p>						
Sample Requests	<p>https://ws.level3.com/aom/pubPoints/v1.0/1234/NA-L-8pl3ubiv/hls/testhls/test123/start</p> <p>Body (json):</p> <pre>{ "primary": true, "secondary": true }</pre> <p>Body (xml):</p> <pre><command> <primary>true</primary> <secondary>>false</secondary> </command></pre>						
Sample Response	<pre>{ "primary": "Starting", "secondary": "Starting" }</pre>						
Attributes	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Name</th> <th style="width: 60%;">Description</th> <th style="width: 20%;">Input</th> </tr> </thead> <tbody> <tr> <td>primary</td> <td>Boolean, indicates if the command should be applied to the publishing point on primary server. Default is false.</td> <td style="text-align: center;">✓</td> </tr> </tbody> </table>	Name	Description	Input	primary	Boolean, indicates if the command should be applied to the publishing point on primary server. Default is false.	✓
Name	Description	Input					
primary	Boolean, indicates if the command should be applied to the publishing point on primary server. Default is false.	✓					

	secondary	Boolean, indicates if the command should be applied to the publishing point on secondary server. Default is false.	✓
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.		

Invalidate Publishing Point

Description	Allows to invalidate publishing point content cached by Level3 CDN.		
Method	PUT		
Base URI	https://ws.level3.com		
Schema Location	TBD		
URI Syntax	/aom/pubPoints/(version)/(scope) <i>version</i> [CDATA[]] Values: " v1.0 " (required) <i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)/(CMD) AG = Access Group ID (required) SG = Server Group ID (required) MF = Media Format (required) FN = Folder Name (required) PP = Publishing Point Name (required) CMD = Command (required): <i>invalidate</i>		
Sample Requests	https://ws.level3.com/aom/pubPoints /v1.0/1234/NA-L-8pl3ubiv/hls/testhls/test123/invalidate No body contents are required.		
Sample Response	<pre>{ "primary": "Starting", "secondary": "Starting" }</pre>		
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.		

Restart lookback window

Description	Allows to delete part of archived content stored on the disk. The call supports two ways to specify what part of content to be deleted: <ul style="list-style-type: none"> ▪ delete x seconds from the start of archive ▪ delete ALL content except for X seconds from the end of archive 		
	Note: Restart lookback window is currently only supported for Smooth.		

Method	PUT															
Base URI	https://ws.level3.com															
Schema Location	TBD															
URI Syntax	<p>/aom/pubPoints/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)/(CMD)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (required)</p> <p>FN = Folder Name (required)</p> <p>PP = Publishing Point Name (required)</p> <p>CMD = Command (required):</p> <p><i>resetLookbackWindow</i></p>															
Sample Requests	<p>https://ws.level3.com/aom/pubPoints /v1.0/1234/NA-L-8pl3ubiv/smooth/test/test1/resetLookbackWindow</p> <p>Body (trim from start):</p> <pre>{ "primary": true, "secondary": false, "trimStartSec": 20 }</pre> <p>Body (trim from end):</p> <pre>{ "primary": true, "secondary": false, "trimEndSec": 20 }</pre> <p>Body (trim from start, xml):</p> <pre><command> <primary>true</primary> <secondary>true</secondary> <trimStartSec>20</trimStartSec> </command></pre>															
Sample Response	<pre>{ "primary": "Starting", "secondary": "Starting" }</pre>															
Attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> <th>Input</th> </tr> </thead> <tbody> <tr> <td>primary</td> <td>Boolean, indicates if the command should be applied to the publishing point on primary server. Default is false.</td> <td>✓</td> </tr> <tr> <td>secondary</td> <td>Boolean, indicates if the command should be applied to the publishing point on secondary server. Default is false.</td> <td>✓</td> </tr> <tr> <td>trimStartSec</td> <td>Seconds, indicates number of seconds to be trimmed from the beginning of archive. Mutually exclusive with trimEndSec.</td> <td>✓</td> </tr> <tr> <td>trimEndSec</td> <td>Seconds, indicates number of seconds to be left at the end of archive, the rest of archive contents will be deleted.</td> <td>✓</td> </tr> </tbody> </table>	Name	Description	Input	primary	Boolean, indicates if the command should be applied to the publishing point on primary server. Default is false.	✓	secondary	Boolean, indicates if the command should be applied to the publishing point on secondary server. Default is false.	✓	trimStartSec	Seconds, indicates number of seconds to be trimmed from the beginning of archive. Mutually exclusive with trimEndSec .	✓	trimEndSec	Seconds, indicates number of seconds to be left at the end of archive, the rest of archive contents will be deleted.	✓
Name	Description	Input														
primary	Boolean, indicates if the command should be applied to the publishing point on primary server. Default is false.	✓														
secondary	Boolean, indicates if the command should be applied to the publishing point on secondary server. Default is false.	✓														
trimStartSec	Seconds, indicates number of seconds to be trimmed from the beginning of archive. Mutually exclusive with trimEndSec .	✓														
trimEndSec	Seconds, indicates number of seconds to be left at the end of archive, the rest of archive contents will be deleted.	✓														

	Mutually exclusive with trimStartSec .
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.

Get stream information

Description	Allows to retrieve the current streams (tracks) sent to the publishing point along with the current stats. Note: This information is updated every minute.
Method	GET
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/pubPoints/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)/(CMD)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (required)</p> <p>FN = Folder Name (required)</p> <p>PP = Publishing Point Name (required)</p> <p>CMD = Command (required):</p> <p><i>stats</i></p>
Sample Requests	https://ws.level3.com/aom/pubPoints/v1.0/1234/NA-L-8pl3ubiv/smooth/test/test1/stats
Sample Response	<pre>{ "id": "NA-L-selwdksu/smooth/test/test1", "serverGroupID": "NA-L-selwdksu", "mediaFormat": "smooth", "folder": "test", "name": "test1", "status": { "primary": "Stopped", "secondary": "Idle" }, "streamInfo": [{ "location": "primary", "streams": [{ "type": "video", "name": "video", "status": "Stopped", "systemBitrateBps": 2500000, "timestamp": 1452793973 }] }] }</pre>

```

    {
      "type": "audio",
      "name": "audio",
      "status": "Stopped",
      "systemBitrateBps": 64000,
      "timestamp": 1452793973
    }
  ],
},
{
  "location": "secondary",
  "streams": [ ]
}
]
}

```

Attributes	Name	Description
	id	Publishing Point ID. Uniquely identifies a publishing point.
	name	Publishing Point name
	serverGroupID	ID of the Server Group publishing point belongs to
	mediaFormat	Media Format of this publishing point. Possible values: smooth, hls, rtmp.
	folder	Name of the folder publishing point belongs to
	status.primary status.secondary	Status of the publishing point on the primary/secondary server. Possible values: Idle, Starting, Started, Stopping, Stopped, Shuttingdown, Error, Missing
	streamInfo	Array of stream collections for each location.
	streamInfo.location	Which location the stream collection relates to. Possible values are: primary, secondary.
	streamInfo.streams	Array of stream information for each location. Error! Reference source not found.
	streamInfo.streams.type	Type of the stream.
	streamInfo.streams.name	Name of the stream
	streamInfo.streams.name	Status of the stream. Possible values are Started, Stopped, Idle
	streamInfo.streams.systemBitrateBps	Stream bitrate, bps
	streamInfo.streams.timestamp	Timestap (Unix time) when the last content has been received from encoder.

Possible Status & Error Messages Returned 200: Request Successful.
See Appendix A – Status Codes & Error Messages for additional return codes and messages.

View manifest information

Description	Allows to retrieve manifest contents from primary and secondary servers.
Method	GET
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/pubPoints/(version)/(scope)</p> <p>version [CDATA[]] Values: "v1.0" (required)</p> <p>scope [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)/(CMD)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (required)</p> <p>FN = Folder Name (required)</p> <p>PP = Publishing Point Name (required)</p> <p>CMD = Command (required):</p> <p>viewManifests</p>
Sample Requests	https://ws.level3.com/aom/pubPoints /v1.0/1234/NA-L-8pl3ubiv/smooth/test/test1/ viewManifests
Sample Response	<pre>{ "id": "NA-L-selwdksu/smooth/test/test1", "serverGroupID": "NA-L-selwdksu", "mediaFormat": "smooth", "folder": "test", "name": "test1", "status": { "primary": "Started", "secondary": "Started" }, "manifests": [{ "location": "secondary", "mediaFormat": "hls", "httpStatus": 200, "contents": "#EXTM3U\n#EXT-X-VERSION:4\n# AUDIO groups\n ..." }, { "location": "secondary", "mediaFormat": "smooth", "httpStatus": 200, "contents": "<?xml version='1.0' encoding='utf-8'>\n<SmoothStreamingMedia\n ..." }, { "location": "primary", "mediaFormat": "smooth", "httpStatus": 200, "contents": "<?xml version='1.0' encoding='utf-8'>\n<SmoothStreamingMedia\n ..." }, { "location": "secondary", "mediaFormat": "dash", "httpStatus": 200, "contents": "<?xml version='1.0' encoding='utf-8'>\n<MPD\n ..." }] }</pre>

```

        "location": "primary",
        "mediaFormat": "dash",
        "httpStatus": 200,
        "contents": "<?xml version=\"1.0\" encoding=\"utf-8\"?>\n<MPD\n ..."
    },
    {
        "location": "primary",
        "mediaFormat": "hds",
        "httpStatus": 200,
        "contents": "<?xml version=\"1.0\" encoding=\"utf-8\"?>\n<manifest\n ..."
    },
    {
        "location": "primary",
        "mediaFormat": "hls",
        "httpStatus": 200,
        "contents": "#EXTM3U\n#EXT-X-VERSION:4\n# AUDIO groups\n ..."
    },
    {
        "location": "secondary",
        "mediaFormat": "hds",
        "httpStatus": 200,
        "contents": "<?xml version=\"1.0\" encoding=\"utf-8\"?>\n<manifest\n ..."
    }
}
]
}

```

Attributes	Name	Description
	id	Publishing Point ID. Uniquely identifies a publishing point.
	name	Publishing Point name
	serverGroupID	ID of the Server Group publishing point belongs to
	mediaFormat	Media Format of this publishing point. Possible values: smooth, hls, rtmp.
	folder	Name of the folder publishing point belongs to
	status.primary status.secondary	Status of the publishing point on the primary/secondary server. Possible values: Idle, Starting, Started, Stopping, Stopped, Shuttingdown, Error, Missing
	manifests	Array containing manifest information.
	manifests.location	Which location the manifests relates to. Possible values are: primary, secondary.
	manifests.mediaFormat	Media format of manifest Error! Reference source not found.
	manifests.httpStatus	HTTP status code returned for manifest request.
	manifests.contents	Contents of manifest as returned from the server.

Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.
--	---

Ingest Credentials

For Smooth and RTMP Publishing Points users can specify ingest credentials that will allow encoders to use Basic Authentication when connecting to AOS.

Smooth supports Basic Authentication scheme.

RTMP supports Adobe Authentication scheme.

Retrieve Existing Ingest credentials

Description	Retrieves information about existing ingest credentials	
Method	GET	
Base URI	https://ws.level3.com	
Schema Location	TBD	
URI Syntax	/aom/ingestCredentials/(version)/(scope) version [CDATA[]] Values: "v1.0" (required) scope [CDATA[]] (AG) AG = Access Group ID (required)	
Sample Requests	https://ws.level3.com/aom/ingestCredentials/v1.0/1234	
Sample Responses	<pre>[{ "username": "u_202_fb6GXhIY", "password": "passw0rd", "description": "credential description", "pubPointCount": 5, "activePubPointCount": 2 }, { "username": "u_202_HKT5Znuz", "password": "secRet", "description": "this is a special user", "pubPointCount": 1, "activePubPointCount": 0 }]</pre>	
Attributes	username	Username associated with credential. Uniquely identifies this credential.
	password	Password associated with credential.
	description	Description of credential
	pubPointCount	Number of publishing points that use this credential
	activePubPointCount	Number of publishing points that use this credential and are in <i>Started</i> or <i>Stopped</i> state.
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.	

Create Ingest Credential

Description	Create a new Ingest Credential		
Method	POST		
Base URI	https://ws.level3.com		
Schema Location	TBD		
URI Syntax	/aom/ingestCredentials/(version)/(scope) <i>version</i> [CDATA[]] Values: "v1.0" (required) <i>scope</i> [CDATA[]] (AG) AG = Access Group ID (required)		
Body Syntax	Attribution required for Basic request in bold: <pre>{ "password": "<String, max, 20 characters>", "description": "<String, max, 100 characters>" // optional }</pre>		
Sample Requests	https://ws.level3.com/aom/ingestCredentials/v1.0/1234 <pre>{ "description": "abc", "password": "MyPassword00" }</pre>		
Sample Response	<pre>{ "username": "u_202_ixZjrF8m", "password": "MyPassword00", "description": "abc", "pubPointCount": 0, "activePubPointCount": 0 }</pre>		
Attributes	Name	Description	Input
	username	Username associated with credential. Uniquely identifies this credential. Username is automatically generated by AOM.	
	password	Password associated with credential. Maximum length 20 characters.	✓
	description	Description of credential. Optional. Maximum length 100 characters.	✓
	pubPointCount	Number of publishing points that use this credential	
	activePubPointCount	Number of publishing points that use this credential and are in <i>Started</i> or <i>Stopped</i> state.	
Possible Status & Error Messages Returned	201: Created. See Appendix A – Status Codes & Error Messages for additional return codes and messages.		

Update Ingest Credential

Description	Update Ingest Credential details.		
	Note: Ingest Credential password cannot be update while it has active publishing points associated with it.		
Method	PUT		
Base URI	https://ws.level3.com		
Schema Location	TBD		
URI Syntax	/aom/ingestCredentials/(version)/(scope) <i>version</i> [CDATA[]] Values: "v1.0" (required) <i>scope</i> [CDATA[]] (AG)/(UN) AG = Access Group ID (required) UN = Username (required)		
Body Syntax	Attribution required for Basic request in bold: <pre>{ "password": "<String, max, 20 characters>", "description": "<String, max, 100 characters>" // optional }</pre>		
Sample Requests	https://ws.level3.com/aom/ingestCredentials/v1.0/1234/u_202_00f0ppdw <pre>{ "password": "123", "description": "test description" }</pre>		
Sample Response	<pre>{ "username": "u_202_00f0ppdw", "password": "123", "description": "test description", "pubPointCount": 0, "activePubPointCount": 0 }</pre>		
Attributes	Name	Description	Input
	username	Username associated with credential. Uniquely identifies this credential. Username is automatically generated by AOM.	
	password	Password associated with credential. Maximum length 20 characters.	✓
	description	Description of credential. Optional. Maximum length 100 characters.	✓
	pubPointCount	Number of publishing points that use this credential	
	activePubPointCount	Number of publishing points that use this credential and are in <i>Started</i> or <i>Stopped</i> state.	

Possible Status & Error Messages Returned	200: Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.
--	---

Remove Ingest Credential

Description	Deletes the Ingest Credential.
	Note: An Ingest Credential cannot be deleted while it has publishing points associated with it.
Method	DELETE
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	/aom/ingestCredentials/(version)/(scope) version [CDATA[]] Values: “v1.0” (required) scope [CDATA[]] (AG)/(UN) AG = Access Group ID (required) UN = Username (required)
Sample Requests	https://ws.level3.com/aom/ingesetCredentials/v1.0/1234/u_202_0Of0ppdw
Sample Response	N/A
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.

Retrieve Ingest Credential detail

Description	Retrieves details about an existing Ingest Credential. This is the same response that will also be returned by the Post and Put commands for an Ingest Credential. See the corresponding Create (Post) operations for more detail on the attribution.
Method	GET
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	/aom/ingestCredentials/(version)/(scope) version [CDATA[]] Values: “v1.0” (required) scope [CDATA[]] (AG)/(UN) AG = Access Group ID (required) UN = Username (required)

Sample Requests	<code>https://ws.level3.com/aom/ingestCredentials/v1.0/1234/u_202_0Of0ppdw</code>
Sample Responses	<pre>{ "username": "u_202_0Of0ppdw", "password": "123", "description": "test description", "pubPointCount": 0, "activePubPointCount": 0 }</pre>
Possible Status & Error Messages Returned	<p>200: Request Successful.</p> <p>See Appendix A – Status Codes & Error Messages for additional return codes and messages.</p>

Retrieve list of Publishing Points associated with an Ingest Credential

Description	Retrieves all Publishing Points that use a certain Ingest Credential. This call returns the same response as GET pubPoints call. See the GET pubPoints description for more detail on the attribution.
Method	GET
Base URI	<code>https://ws.level3.com</code>
Schema Location	TBD
URI Syntax	<p><code>/aom/ingestCredentials/(version)/(scope)</code></p> <p><code>version</code> [CDATA[]] Values: "v1.0" (required)</p> <p><code>scope</code> [CDATA[]] (AG)/(UN)/(CMD)</p> <p>AG = Access Group ID (required)</p> <p>UN = Username (required)</p> <p>CMD = Command (required):</p> <p><code>pubPoints</code></p>
Sample Requests	<code>https://ws.level3.com/aom/ingestCredentials/v1.0/1234/u_202_0Of0ppdw/pubPoints</code>
Sample Response	<pre>{ "pubPoints": [{ "id": "NA-L-selwdksu/smooth/test/test1", "serverGroupID": "NA-L-selwdksu", "mediaFormat": "smooth", "folder": "test", "name": "test1", "status": { "primary": "Idle", "secondary": "Idle" } }, { "id": "NA-L-selwdksu/smooth/test/test2", "serverGroupID": "NA-L-selwdksu", "mediaFormat": "smooth", "folder": "test", "name": "test2", "status": { "primary": "Idle", </pre>

```
        "secondary": "Idle"
      }
    }
  ]
}
```

Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.
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Publishing Point Archives

The API manages information on video archives created on AOS. Depending on the Media Format, an archive may contain information about video archive size, duration, bitrate, etc.. Publishing Point Archives exist independently on primary and secondary AOS servers.

Note: For Smooth publishing points an archive will be created every time *reset* command is sent. For HLS publishing point archived content exists until *reset* command is sent. Archiving for RTMP publishing points currently not supported.

Retrieve Archive Information for a Publishing Point

Description	Retrieves information for archived content for a publishing point. Format varies by media format. A sample for each media format is provided below. Optionally, the request can be made for only the primary or secondary server.
Method	GET
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/archives/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)/[(SRV)]</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (required)</p> <p>FN = Folder Name (required)</p> <p>PP = Publishing Point Name (required)</p> <p>SRV = Server (optional): primary or secondary</p>
Sample Requests	<code>https://ws.level3.com/aom/archives/v1.0/1234/NA-L-8pl3ubiv/hls/test/pubPoint1/primary</code>
Sample Responses	<p>SMOOTH Publishing Point:</p> <pre> { "archives": [{ "id": "NA-L-selwdksu/smooth/test/dan/primary/20160127-152755-prim", "location": "primary", "name": "20160127-152755-prim", "content": { "type": "folder", "path": "/20160127-152755-prim", "sizeBytes": 26459192, "durationSec": 101.69 } }, { "id": "NA-L-selwdksu/smooth/test/dan/secondary/20160205-152946-sec", "location": "secondary", "name": "20160205-152946-sec", "content": { "type": "folder", "path": "/20160205-152946-sec", } }] } </pre>

```

        "sizeBytes": 1061
      }
    ]
  }
}
HLS Publishing Point:
{
  "archives": [
    {
      "id": "NA-L-kgjbpnw/hls/test/danr/primary/",
      "location": "primary",
      "name": "",
      "content": {
        "type": "folder",
        "path": "/",
        "sizeBytes": 11256665,
        "fileCount": 22,
        "contents": [
          {
            "type": "file",
            "path": "/segm000040.ts",
            "sizeBytes": 683004
          },
          {
            "type": "file",
            "path": "/segm000047.ts",
            "sizeBytes": 416608
          }
        ]
      }
    }
  ]
}

```

Attributes	id	Archive ID. Required for the other calls. Uniquely identifies this Archive
	location	Location of the archive (primary or secondary server). Possible values: <i>primary</i> , <i>secondary</i> .
	name	Archive name
	content	Describes content of the top-level folder of archive
	content.type	Type of the content item. Possible values: <i>file</i> , <i>folder</i> , <i>stream</i> .
	content.path	Path to the content item. Relative to the publishing point archive root.
	content.sizeBytes	Size of the content item in bytes. For <i>folder</i> and <i>stream</i> type shows the total size of nested files.
	content.fileCount	Total number of files in folder. Omitted if not applicable (for example for <i>file</i> type).
	content.durationSec	Total duration of the content item, seconds. Omitted if not applicable.
	content.audioBitrateB	Audio bitrate, bps. Omitted if not applicable.

ps	
content.videoBitrateBps	Video bitrate, bps. Omitted if not applicable.
content.videoWidth	Width of the video, pixels. Omitted if not applicable.
content.videoHeight	Height of the video, pixels. Omitted if not applicable.
content.contents	Collection of child content items. Allows to represent nested folder structure. Omitted if not applicable (for example for <i>file</i> type).
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.

Remove Publishing Point Archive

Description	Deletes the archived content for a publishing point. The resource URI to the archive should match the id attribute from a Get request for the archive.
Method	DELETE
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/archives/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: “v1.0” (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)/(SRV)/(AR)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (required)</p> <p>FN = Folder Name (required)</p> <p>PP = Publishing Point Name (required)</p> <p>SRV = Server (required): primary or secondary</p> <p>AR = Archive Name (required)</p>
Sample Requests	https://ws.level3.com/aom/archives/v1.0/1234/NA-L-8pl3ubiv/smooth/test_smooth/primary/test123
Sample Response	N/A
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.

Clips

The API supports creating an archived clip out of content sent to a publishing point. To create a clip, publishing point must be in a *Started* or *Stopped* state.

The API supports uploading content to Level 3 OSP as part of clip generation process. Alternatively, a clip can be uploaded from AOS local storage to Level 3 OSP at a later stage.

Note: Clip operations are currently only supported for Smooth publishing points. Total duration of the clip may not exceed 72 hours. For publishing points in Started state it is possible to specify clip start / end times in the future. For each create clip request an Archive Job is created.

Create a Clip

Description	Create a new clip. Allows a minimal Basic and a Full configuration to be submitted. Allows to configure uploading content to Level 3 OSP.
Method	POST
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/clips/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format: smooth (required)</p> <p>FN = Folder Name (required)</p> <p>PP = Publishing Point Name (required)</p>
Body Syntax	<p>Attribution required for Basic request in bold:</p> <pre>{ "name": "<String max. 100 characters, format: '[a-zA-Z0-9_]{1,}'>", "clipType": "(liveEvent stoppedEvent)", "location": "(primary secondary)", "liveStartTime": "YYYY-MM-DDTHH:mm:ss", "liveEndTime": "YYYY-MM-DDTHH:mm:ss", "vodStartTimeSec": <integer>, "vodEndTimeSec": <integer>, "description": "<String max. 500 characters>", "archiveConfig": { "ospLocationId": "<osp location ID>", "ospUploadPath": "<path from OSP root>", "priority": "(low medium high)", "transform": "(none ism mp4)", "notify": ["<email>", "<email>"], "deleteContentAfterUpload": (true false) }, "selectedTracks": [{ "name": "<trak name>",</pre>

	<pre> "systemBitrateBps": <integer> }] } </pre>
Sample Requests	<p>https://ws.level3.com/aom/clips/v1.0/1234/NA-L-8pl3ubiv/smooth/folder1/pubpoint1</p> <p>Basic (for publishing point in <i>Started</i> state):</p> <pre> { "name": "test201", "clipType": "liveEvent", "location": "primary", "liveStartTime": "2016-02-08T15:12:00", "liveEndTime": "2016-02-08T15:13:00" } </pre> <div style="border: 1px solid black; background-color: #e0f0e0; padding: 5px; margin: 10px 0;"> <p>Note: Basic (for publishing point in <i>Stopped</i> state):</p> </div> <pre> { "name": "test102", "clipType": "stoppedEvent", "location": "primary", "vodStartTimeSec": 20, "vodEndTimeSec": 25 } </pre> <p>Full (all media formats):</p> <pre> { "name": "test108", "clipType": "liveEvent", "location": "primary", "liveStartTime": "2016-02-08T15:35:00", "liveEndTime": "2016-02-08T 15:37:00", "description": "abc", "archiveConfig": { "ospLocationId": "greenbananas.ingest.cdn.level3.net", "ospUploadPath": "/published/test1/test8", "priority": "medium", "transform": "mp4", "notify": ["test@test.com", "john@mycompany.com"], "deleteContentAfterUpload": true }, "selectedTracks": [{ "name": "video", "systemBitrateBps": 500000 }, { "name": "video", "systemBitrateBps": 850000 }, { "name": "audio", "systemBitrateBps": 64000 }] } </pre>
Sample Response	<pre> { "id": "NA-L-selwdksu/smooth/test/dan/primary/test108", "location": "primary", </pre>

```

"name": "test108",
"description": "abc",
"clipType": "liveEvent",
"liveStartTime": "2016-02-08T15:35:00",
"liveEndTime": "2016-02-08T15:37:00",
"durationSec": 120,
"totalSizeBytes": 0,
"status": "Queued",
"archiveConfig": {
  "ospLocationId": "greenbananas.ingest.cdn.level3.net",
  "ospUploadPath": "/published/test1/test8",
  "priority": "medium",
  "transform": "mp4",
  "notify": [
    "test@test.com",
    "john@mycompany.com"
  ],
  "deleteContentAfterUpload": true
},
"selectedTracks": [
  {
    "name": "video",
    "systemBitrateBps": 500000
  },
  {
    "name": "video",
    "systemBitrateBps": 850000
  },
  {
    "name": "audio",
    "systemBitrateBps": 64000
  }
]
}

```

Attributes	Name	Description	Input
	id	Clip ID. Uniquely identifies a clip.	
	location	Location of the clip. Mandatory. Expected values are: <i>primary</i> , <i>secondary</i> .	✓
	name	Name of the clip. Mandatory. Maximum length 100 characters. Validation: <code>^[a-zA-Z0-9_]{1,}\$</code>	✓
	description	Description of the clip. Optional. Maximum length 500 characters	✓
	clipType	Mandatory. Possible values: <ul style="list-style-type: none"> ▪ <i>liveEvent</i> – for publishing point in <i>Started</i> state ▪ <i>stoppedEvent</i> – for publishing point in <i>Stopped</i> state 	✓
	liveStartTime	Mandatory when <code>clipType=liveEvent</code> . Valid string representation of UTC date.	✓
	liveEndTime	Mandatory when <code>clipType=liveEvent</code> . Valid string representation of UTC date.	✓

vodStartTimeSec	Mandatory when clipType=stoppedEvent. Offset in seconds from the start of archived content.	✓
vodEndTimeSec	Mandatory when clipType=stoppedEvent. Offset in seconds from the start of archived content.	✓
duration	Clip duration, seconds.	
totalSizeBytes	Size of content stored on the hard drive in bytes.	
status	Status of the clip. Possible values are Ready, Recording, Queued, Failed	
archiveConfig	Configuration of archiving job. This is object is identical to <i>config</i> object of POST archiveJobs call.	✓
	Note: If neither upload to Level 3 OSP nor email notifications are required, this can be omitted.	
archiveConfig.ospLocationId	OSP location ID. Must equal to <i>id</i> property returned by GET ospLocations call. Only supply if upload to OSP is required, otherwise set to an empty string.	✓
archiveConfig.ospUploadPath	Absolute path to the upload folder on the OSP. If <i>ospUploadPath</i> does not exist, the path will be created (including recursive folder creation if necessary).	✓
	Note: If OSP path specified by <i>ospUploadPath</i> exists and is not empty (i.e. contains subfolders or files), the upload job will fail. This is to ensure that OSP content cannot be inadvertently overwritten.	
	If content is to be available via Level 3 CDN, it is usually placed into /published folder. Smooth server groups also allow uploading content to destinations other than /published folder	
	Only supply if upload to OSP is required,	

	otherwise set to an empty string.	
archiveConfig. priority	Job priority. Required. Possible values: <i>low, medium, high</i>	✓
archiveConfig. notify	Collection of email addresses to send notification to when the job status changes. Optional. When specified, must contain valid email addresses. Maximum number of email addresses is 10.	✓
archiveConfig. deleteContentAfterUpload	Boolean. Delete clip from AOS after it has been uploaded to Level 3 OSP. Default is false.	✓
selectedTracks	Collection of track information to be included into the clip. If omitted, all tracks are included.	✓
	Note: Information about available tracks can be retrieved from GET pubPoints/(pub point id)/stats API call	
selectedTracks.name	Mandatory for each track.	✓
selectedTracks. systemBitrateBps	Mandatory for each track. Track bitrate in bps.	✓
playbackLinks	Array of playback links for the clip	
playbackLinks.location	Which location the link will be played from. Possible values are: <i>cdn</i> .	
playbackLinks.mediaFormat	Media format of the playback link. Possible values: <i>smooth, hls, rtmp</i> . Error! Reference source not found.	
playbackLinks.linkType	Type of the playback link. Possible values: <i>manifest, stream</i> .	
playbackLinks.url	URL to playback.	
Possible Status & Error Messages Returned	201: Created. See Appendix A – Status Codes & Error Messages for additional return codes and messages.	

Preview Clip

Description	Allows to preview clip before creating. This could be helpful to fine-tune start/end times of the clip. Allows a minimal Basic and a Full configuration to be submitted.
-------------	--

	See the corresponding Create (Post) operations for more detail on the attribution.
Method	POST
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/clips/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)/(CMD)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format: smooth (required)</p> <p>FN = Folder Name (required)</p> <p>PP = Publishing Point Name (required)</p> <p>CMD = Command (required):</p> <p><i>preview</i></p>
Body Syntax	<p>Attribution required for Basic request in bold:</p> <pre>{ "clipType": "(liveEvent stoppedEvent)", "location": "(primary secondary)", "liveStartTime": "YYYY-MM-DDTHH:mm:ss", "liveEndTime": "YYYY-MM-DDTHH:mm:ss", "vodStartTimeSec": <integer>, "vodEndTimeSec": <integer>, "selectedTracks": [{ "name": "<trak name>", "systemBitrateBps": <integer> }] }</pre>
Sample Requests	<p>https://ws.level3.com/aom/clips/v1.0/1234/NA-L-8pl3ubiv/smooth/folder1/pubpoint1/preview</p> <p>Basic (for publishing point in <i>Started</i> state):</p> <pre>{ "clipType": "liveEvent", "location": "primary", "liveStartTime": "2016-02-08T15:12:00", "liveEndTime": "2016-02-08T15:13:00" }</pre> <p>Basic (for publishing point in <i>Stopped</i> state):</p> <pre>{ "clipType": "stoppedEvent", "location": "primary", "vodStartTimeSec": 20, "vodEndTimeSec": 25 }</pre> <p>Full (all media formats):</p> <pre>{ "clipType": "liveEvent", "location": "primary", "liveStartTime": "2016-02-08T15:35:00", "liveEndTime": "2016-02-08T15:37:00", }</pre>

```

"selectedTracks": [
  {
    "name": "video",
    "systemBitrateBps": 500000
  },
  {
    "name": "video",
    "systemBitrateBps": 850000
  },
  {
    "name": "audio",
    "systemBitrateBps": 64000
  }
]
}

```

Sample Response

```

{
  "location": "primary",
  "name": "preview",
  "clipType": "liveEvent",
  "liveStartTime": "2015-10-23T14:30:15",
  "liveEndTime": "2015-10-23T14:30:25",
  "selectedTracks": [
    {
      "name": "video",
      "systemBitrateBps": 500000
    },
    {
      "name": "video",
      "systemBitrateBps": 850000
    },
    {
      "name": "audio",
      "systemBitrateBps": 64000
    }
  ],
  "playbackLinks": [
    {
      "location": "cdn",
      "mediaFormat": "smooth",
      "linkType": "manifest",
      "url": "<url>"
    },
    {
      "location": "cdn",
      "mediaFormat": "hls",
      "linkType": "manifest",
      "url": "<url>"
    },
    {
      "location": "cdn",
      "mediaFormat": "hds",
      "linkType": "manifest",
      "url": "<url>"
    },
    {
      "location": "cdn",
      "mediaFormat": "dash",
      "linkType": "manifest",
      "url": "<url>"
    }
  ]
}

```

Possible Status & Error Messages Returned	200: Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.
--	---

Retrieve all Clips for a Publishing Point

Description	Retrieves a list of clips for a given publishing point. The response can be further filtered by adding Location to the URI. See the corresponding Create (Post) operations for more detail on the attribution.
Method	GET
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/clips/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)/[(SVR)]</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (optional)</p> <p>FN = Folder Name (optional)</p> <p>PP = Publishing Point Name (required)</p> <p>SRV = Server (optional): primary or secondary</p>
Sample Requests	<p>https://ws.level3.com/aom/clips/v1.0/1234/NA-L-8pl3ubiv/smooth/test/pubPoint</p> <p>https://ws.level3.com/aom/clips/v1.0/1234/NA-L-8pl3ubiv/smooth/test/pubPoint/primary</p>
Sample Response	<pre>[{ "id": "NA-L-selwdksu/smooth/test/dan/primary/test108", "location": "primary", "name": "test108", "description": "abc", "clipType": "liveEvent", "liveStartTime": "2016-02-08T15:35:00", "liveEndTime": "2016-02-08T15:37:00", "durationSec": 120, "totalSizeBytes": 0, "status": "Queued", "archiveConfig": { "ospLocationId": "greenbananas.ingest.cdn.level3.net", "ospUploadPath": "/published/test1/test8", "priority": "medium", "transform": "mp4", "notify": ["test@test.com", "john@mycompany.com"], "deleteContentAfterUpload": true } }]</pre>

	}]
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.

Retrieve Clip information

Description	Retrieves a information about a given clip. See the corresponding Create (Post) operations for more detail on the attribution.
Method	GET
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/clips/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)/(SVR)/(CL)</p> <p>AG = Access Group ID (required)</p> <p>SG = Server Group ID (required)</p> <p>MF = Media Format (optional)</p> <p>FN = Folder Name (optional)</p> <p>PP = Publishing Point Name (required)</p> <p>SRV = Server (required): primary or secondary</p> <p>CL = Clip Name (required)</p>
Sample Requests	<code>https://ws.level3.com/aom/clips/v1.0/1234/NA-L-8pl3ubiv/smooth/test/pubPoint/primary/clip1</code>
Sample Response	<pre>{ "id": "NA-L-selwdksu/smooth/test/dan/secondary/clipBoth", "location": "secondary", "name": "clipBoth", "description": "clip on both primary and secondary servers, and publish to OSP", "clipType": "liveEvent", "liveStartTime": "2016-02-08T17:50:21", "liveEndTime": "2016-02-08T17:51:21", "durationSec": 60, "totalSizeBytes": 240974547, "status": "Ready", "archiveConfig": { "ospLocationId": "test4.origin.cdn.level3.net", "ospUploadPath": "/published/smooth/test/dan/secondary/clipBoth", "priority": "medium", "transform": "mp4" }, "selectedTracks": [{ "name": "video", "systemBitrateBps": 25000000 }] }</pre>

```

    },
    {
      "name": "video",
      "systemBitrateBps": 6000000
    },
    {
      "name": "audio",
      "systemBitrateBps": 64000
    },
    {
      "name": "audio",
      "systemBitrateBps": 64000
    }
  ],
  "playbackLinks": [
    {
      "location": "cdn",
      "mediaFormat": "smooth",
      "linkType": "manifest",
      "url": "http://<path>/clipBoth.ism/Manifest"
    },
    {
      "location": "cdn",
      "mediaFormat": "hls",
      "linkType": "manifest",
      "url": "http://<path>/clipBoth.ism/clipBoth.m3u8"
    },
    {
      "location": "cdn",
      "mediaFormat": "hds",
      "linkType": "manifest",
      "url": "http://<path>/clipBoth.ism/clipBoth.f4m"
    },
    {
      "location": "cdn",
      "mediaFormat": "dash",
      "linkType": "manifest",
      "url": "http://<path>/clipBoth.ism/clipBoth.mpd"
    }
  ]
}

```

Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.
--	---

Remove Clip

Description	Deletes the clip. If clip is in <i>Recording</i> or <i>Queued</i> status, the recording will be cancelled. The resource URI to the clip should match the id attribute from a Get request for the clip.
Method	DELETE
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	/aom/clips/(version)/(scope) <i>version</i> [CDATA[]] Values: "v1.0" (required) <i>scope</i> [CDATA[]] (AG)/(SG)/(MF)/(FN)/(PP)/(SRV)/(CL) AG = Access Group ID (required) SG = Server Group ID (required) MF = Media Format (required) FN = Folder Name (required) PP = Publishing Point Name (required) SRV = Server (required): primary or secondary CL = Clip Name (required)
Sample Requests	https://ws.level3.com/aom/clips/v1.0/1234/NA-L-8pl3ubiv/smooth/test_smooth/primary/test123
Sample Response	N/A
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.

OSP Locations

To upload content to Level 3 OSP a customer account is configured with one or more OSP locations. To create / update OSP locations please contact Level 3 Support.

Retrieve OSP Locations

Description	Returns a list of OSP locations that are configured for a given Access Group. These OSP locations serve as upload target for Archive Jobs.	
Method	GET	
Base URI	https://ws.level3.com	
Schema Location	TBD	
URI Syntax	/aom/ospLocations/(version)/(scope) <i>version</i> [CDATA[]] Values: "v1.0" (required) <i>scope</i> [CDATA[]] (AG) AG = Access Group ID (required)	
Sample Requests	https://ws.level3.com/aom/ospLocations/v1.0/1234	
Sample Responses	<pre>{ "ospLocations": [{ "id": "demo.ingest.cdn.level3.net" }, { "id": "test4.origin.cdn.level3.net" }] }</pre>	
Attribution	id	OSP location ID. Required for Create Archive Job method. Uniquely identifies this OSP Location.
Possible Status & Error Messages Returned	200: Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.	

Archive Jobs

An archive job can be used to upload content from an AOS server to Level3 OSP. An archive job allows to upload an archive or a clip to the Level3 OSP.

To create an archive job, it is necessary to specify an OSP location. This location includes both ingest URL and ftp credentials that allow to upload archived content to OSP.

Once an archive job is submitted, a status can be obtained via the API to track the progress.

Create Archive Job

Description	<p>Launches a new archive upload job for the specified publishing point archive or clip.</p> <p>The status object in the response provides information on the progress of the archive job. Use the Get operation for archiveJobs to obtain status updates.</p> <div style="border: 1px solid black; background-color: #e6f2e6; padding: 5px; margin: 10px 0;"> <p>Note: To upload archive of an HLS publishing point this publishing point must be in state <i>Idle</i>. Archiving or RTMP publishing point currently not supported.</p> </div>
Method	POST
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/archiveJobs/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)</p> <p>AG = Access Group ID (required)</p>
Body Syntax	<p>Attribution required for Basic request in bold:</p> <pre> { "jobType": "uploadArchive uploadClip", "archiveId": "<archive ID>", "clipId": "<clip ID>", "config": { "ospLocationId": "<target OSP location ID>", "ospUploadPath": "<target path>", "priority": "high medium low", "transform": "none mp4 ism", "notify": ["email 1","email 2"], // optional, up to 10 "excludeHlsFiles": true false, // optional, default false "deleteContentAfterUpload": true false // optional, default false } } </pre>
Sample Requests	<p>https://ws.level3.com/aom/archiveJobs/v1.0/1234</p> <p>Basic (archive):</p> <pre> { "jobType": "uploadArchive", "archiveId": "NA-L-selwdksu/smooth/test/dan/primary/20160201-145924-prim", "config": { "ospLocationId": "test4.origin.cdn.level3.net", "ospUploadPath": "/published/test101/102", "priority": "medium", </pre>

```

        "transform": "mp4"
    }
}
Full (archive):
{
  "jobType": "uploadArchive",
  "archiveId": "NA-L-selwdksu/smooth/test/dan/primary/20160204-213851-prim",
  "config": {
    "ospLocationId": "test4.origin.cdn.level3.net",
    "ospUploadPath": "/published/test101/103",
    "priority": "high",
    "transform": "mp4",
    "notify": [
      "test@test.com",
      "john@mycompany.com"
    ],
    "deleteContentAfterUpload": false
  }
}
Full (clip):
{
  "jobType": "uploadClip",
  "clipId": "NA-L-selwdksu/smooth/test/dan/primary/vk3",
  "config": {
    "ospLocationId": "test4.origin.cdn.level3.net",
    "ospUploadPath": "/published/test101/301",
    "priority": "high",
    "transform": "mp4",
    "notify": [
      "test@test.com"
    ],
    "deleteContentAfterUpload": false
  }
}

```

Sample Response

```

{
  "id": "986b4f48-67b3-4b81-80d9-e970adbfe44b",
  "jobType": "uploadArchive",
  "archiveId": "NA-L-selwdksu/smooth/test/dan/primary/20160204-213851-prim",
  "status": {
    "state": "Running",
    "sizeBytes": 7706963774,
    "progress": 0,
    "startTime": "2016-02-08T19:15:31"
  },
  "config": {
    "ospLocationId": "test4.origin.cdn.level3.net",
    "ospUploadPath": "/published/test101/206",
    "priority": "high",
    "transform": "mp4",
    "notify": [
      "test@test.com",
      "john@mycompany.com"
    ]
  },
  "createdBy": "test@test.com"
}

```

Attributes	Name	Description	Input
	id	Archive Job ID. Uniquely identifies this Archive Job	
	jobType	Type of the archive job to create:	✓

	<ul style="list-style-type: none"> uploadArchive – upload a Publishing Point Archive uploadClip – upload a Clip (which has been created by <i>POST clips</i> call) 	
archiveId	Archive ID. Mandatory when jobType=uploadArchive. Must equal to <i>id</i> property returned by <i>GET archives</i> call.	✓
clipID	Clip ID. Mandatory when jobType=uploadClip. Must equal to <i>id</i> property returned by <i>GET clips</i> call.	✓
config	Archive job Configuration.	✓
	<p>Note: This object is identical to <i>archiveConfig</i> object of <i>POST clips</i> call.</p>	
config. ospLocationId	OSP location ID. Must equal to <i>id</i> property returned by <i>GET ospLocations</i> call.	✓
config. ospUploadPath	Absolute path to the upload folder on the OSP. If <i>ospUploadPath</i> does not exist, the path will be created (including recursive folder creation if necessary).	✓
	<p>Note: If OSP path specified by <i>ospUploadPath</i> exists and is not empty (i.e. contains subfolders or files), the upload job will fail. This is to ensure that OSP content cannot be inadvertently overwritten.</p>	
	<p>If content is to be available via Level 3 CDN, it is usually placed into /published folder. Generation 2 server groups also allow uploading content to destinations other than /published folder</p>	
config. priority	Job priority. Required. Possible values: <i>low</i> , <i>medium</i> , <i>high</i>	✓
config. excludeHlsFiles	If set to <i>true</i> HLS content (*.m3u8 and *.ts files) will not be uploaded to OSP. Only applies to <i>smooth</i> Gen1 media format.	✓
config. notify	Collection of email addresses to send notification to when the job status changes. Optional. When specified, must contain valid email addresses. Maximum number of email addresses is 10.	✓
config. deleteContentAfterUpload	Boolean. Delete clip from AOS after it has been uploaded to Level 3 OSP. Default is false.	✓

status	Job status
status.state	Current state of the job. Possible values: <i>Running, Successful, Failed, Pausing, Paused, Cancelling, Cancelled</i> , etc.
status.sizeBytes	Total size of uploaded content, bytes.
status.progress	Job progress. Values between 0 and 100.
status.startTime	Job start time. UTC. Format: YYYY-MM-DDTHH:mm:ss
status.endTime	Job end time. UTC. Format: YYYY-MM-DDTHH:mm:ss. Omitted if the job is still running.
status.currentUploadBitrateBps	If the job is uploading, returns current upload bitrate in bps.
createdBy	User who created the job
Possible Status & Error Messages Returned	201: Created. See Appendix A – Status Codes & Error Messages for additional return codes and messages.

Retrieve Archive Jobs

Description	Returns a list of archive jobs with status for a given access group. This is the same status object returned from the create (Post) archive job operation. Please refer to the <i>Create Archive Job</i> documentation for details on the status object.				
	Note: Only jobs that are still in progress or have completed in the last 7 days will be returned.				
Method	GET				
Base URI	https://ws.level3.com				
Schema Location	TBD				
URI Syntax	/aom/archiveJobs/(version)/(scope) <i>version</i> [CDATA[]] Values: "v1.0" (required) <i>scope</i> [CDATA[]] (AG) AG = Access Group ID (required)				
Query String	The following optional query string parameters can be used to narrow down the selection:				
	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>serverGroupID</td> <td>Server Group ID. Must equal to <i>id</i> property returned by GET</td> </tr> </tbody> </table>	Parameter	Description	serverGroupID	Server Group ID. Must equal to <i>id</i> property returned by GET
Parameter	Description				
serverGroupID	Server Group ID. Must equal to <i>id</i> property returned by GET				

	<i>serverGroups</i> call. Optional.
jobType	Archive Job type. Possible values are <i>uploadArchive</i> , <i>uploadClip</i> , <i>createClip</i> , <i>createAndUploadClip</i> .
pubPointID	Publishing Point ID. Must equal to <i>id</i> property returned by GET pubPoints call. Optional
archiveId	Archive ID. Must equal to <i>id</i> property returned by GET archives call. Optional
clipId	Clip ID. Must equal to <i>id</i> property returned by GET clips call. Optional
status.state	Current state of the job. Possible values: <i>Running</i> , <i>Successful</i> , <i>Failed</i> , <i>Pausing</i> , <i>Paused</i> , <i>Cancelling</i> , <i>Cancelled</i>

Sample Requests <https://ws.level3.com/aom/archiveJobs/v1.0/1234>

Sample Response

```
{
  "archiveJobs": [
    {
      "id": "dddccb34-ac6e-49e2-b9e7-471afe59ce04",
      "jobType": "uploadClip",
      "archiveId": "NA-L-selwdksu/smooth/test/dan/primary/FfMacClip",
      "status": {
        "state": "Successful",
        "sizeBytes": 856765738,
        "currentUploadBitrateBps": 6976256,
        "progress": 100,
        "startTime": "2016-02-08T22:41:19",
        "endTime": "2016-02-08T22:51:54"
      },
      "config": {
        "ospLocationId": "test4.origin.cdn.level3.net",
        "ospUploadPath": "/published/smooth/test/dan/primary/FfMacClip",
        "priority": "medium",
        "transform": "mp4"
      }
    }
  ]
}
```

Possible Status & Error Messages Returned 200: Request Successful.
See **Appendix A – Status Codes & Error Messages** for additional return codes and messages.

Send command to Archive Job

Description	<p>Allows sending commands to a publishing point.</p> <ul style="list-style-type: none"> ▪ pause—Moves the job to <i>Paused</i> state. Not available when job is in <i>Successful</i>, <i>Failed</i> or <i>Cancelled</i> state. ▪ resume—Resumes a job that is in <i>Paused</i> state. ▪ cancel—Moves the job to <i>Cancelled</i> state. Not available when job is in <i>Successful</i>, <i>Failed</i> or <i>Cancelled</i> state.
Method	PUT
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/archiveJobs/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(AJ)/(CMD)</p> <p>AG = Access Group ID (required)</p> <p>AJ = Archive Job ID (required)</p> <p>CMD = Command (required):</p> <p><i>pause, resume, cancel</i></p>
Sample Requests	<p>https://ws.level3.com/aom/pubPoints/v1.0/1234/f7fab246-5125-4530-b1a9-d7be4e8daf3b/pause</p> <p>Body:</p> <p>No body required</p>
Sample Response	<pre>{ "id": "f7fab246-5125-4530-b1a9-d7be4e8daf3b", "jobType": "uploadArchive", "archiveId": "NA-L-selwdksu/smooth/test/dan/primary/20160204-213851-prim", "status": { "state": "Pausing", "sizeBytes": 7706963774, "progress": 0, "startTime": "2016-02-08T15:12:08" }, "config": { "ospLocationId": "test4.origin.cdn.level3.net", "ospUploadPath": "/published/test101/401", "priority": "high", "transform": "mp4", "notify": ["test@test.com", "john@mycompany.com"] }, "createdBy": "test@test.com" }</pre>
Possible Status & Error Messages Returned	<p>200: Request Successful.</p> <p>See Appendix A – Status Codes & Error Messages for additional return codes and messages.</p>

Change Archive Job Priority

Description	Allows to change priority of the running job. Not available when job is in <i>Successful</i> , <i>Failed</i> or <i>Cancelled</i> state.
Method	PUT
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/archiveJobs/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(AJ)/(CMD)</p> <p>AG = Access Group ID (required)</p> <p>AJ = Archive Job ID (required)</p> <p>CMD = Command (required):</p> <p><i>changePriority</i></p>
Sample Requests	<p>https://ws.level3.com/aom/pubPoints/v1.0/1234/f7fab246-5125-4530-b1a9-d7be4e8daf3b/changePriority</p> <p>Body (json):</p> <pre>{ "newPriority": "low" }</pre> <p>Body (xml):</p> <pre><commandConfig> <newPriority>low</newPriority> </commandConfig></pre>
Sample Response	<pre>{ "id": "f7fab246-5125-4530-b1a9-d7be4e8daf3b", "jobType": "uploadArchive", "archiveId": "NA-L-selwdksu/smooth/test/dan/primary/20160204-213851-prim", "status": { "state": "Paused", "progress": 0, "startTime": "2016-02-08T15:12:08" }, "config": { "ospLocationId": "test4.origin.cdn.level3.net", "ospUploadPath": "/published/test101/401", "priority": "low", "transform": "mp4", "notify": ["test@test.com", "john@mycompany.com"] }, "createdBy": "test@test.com" }</pre>
Possible Status & Error Messages Returned	<p>200: Request Successful.</p> <p>See Appendix A – Status Codes & Error Messages for additional return codes and messages.</p>

Options

Allows to retrieve various configuration options.

Advanced Options (Publishing Point configuration)

Description	Retrieves a list of available advanced options for configuring publishing point of a particular ingest format. Currently advanced options are supported for Smooth and RTMP
Method	GET
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/options/(version)/(scope)</p> <p>version [CDATA[]] Values: "v1.0" (required)</p> <p>scope [CDATA[]] (AG)</p> <p>AG = Access Group ID (required)</p> <p>advanced = literal (required)</p> <p>MF = Media Format: smooth (required)</p>
Sample Requests	https://ws.level3.com/aom/options/v1.0/1234/advanced/smooth
Sample Response	<pre>[{ "code": "rtmp:dvr-mode", "name": "DVR Mode", "description": "Enable DVR. Read more: https://www.wowza.com/docs/how-to-set-up-and-run-wowza-ndvr-for-live-streaming.", "group": "DVR", "dataType": "list", "listOptions": [{ "key": "live-only", "value": "Disable DVR (Live streaming only)" }, { "key": "live-and-dvr", "value": "Live and DVR streaming" }, { "key": "dvr-only", "value": "DVR streaming only" }] }, { "code": "rtmp:dvr-stream-timeout", "name": "DVR Stream Timeout, milliseconds", "description": "The amount of time, in milliseconds (ms), that Wowza nDVR will wait for packets until it stops recording. The default value is 300,000 ms (5 minutes). This timeout is meant to account for when encoders disconnect and then restart. The value should be a non-zero value or else your recording will stop whenever there is no data. Read more: .", "group": "DVR", "dataType": "number", "minValue": 100,</pre>

```

        "maxValue": 86400000
    }
}

```

Attributes	Name	Description	Input
	code	Code of advanced option. This code uniquely identifies the option when submitting Create Smooth Publishing Point and Create RTMP Publishing Point	
	name	Display name of the option	
	group	Logical group an option belongs to.	
	dataType	Expected data type: <i>string</i> <i>number</i> <i>boolean</i> list – allowed values are limited listOptions.key	
	listOptions	List of allowed options. Applies to dataType =list only.	
	listOptions.key	Value to be supplied when submitting Create Smooth Publishing Point and Create RTMP Publishing Point	
	listOptions.value	Display name of the list option	
	minValue	Minimum value expected. Applies to dataType =number only.	
	maxValue	Maximum value expected. Applies to dataType =number only.	
	minLength	Minimum string length expected. Applies to dataType =string only.	
	maxLength	Maximum string length expected. Applies to dataType =string only.	
	regex	Regular expression used to validate the string value. Applies to dataType =string only.	
	regex. pattern	Regular expression pattern to be used	
	regex. options	Regular expression modifiers to be used: i – ignore case m – multiline For example “im” signifies that both ignore case and multiline modifiers should be applied to the regular expression pattern.	

Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.
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Part 2: DCP Services

DCP stands for Dynamic Content Payout. DCP is used to transmux on-demand media assets (in .mp4 format) stored on Level3 OSP into adaptive content in various payout formats. Currently DCP supports payout in Microsoft Smooth (HSS), HLS, HDS and MPEG-Dash.

DCP services section covers management of DCP configurations and related objects.

To use DCP services methods of API DCP Services must be enabled for you Customer Account.

Service Categories	The API can be categorized by the following objects it operates on:	
	Category	Description
	DCP Upstreams	DCP Upstreams serve as a source (origin) for DCP services. Please contact your Account Director or CDN Ops for guidance on which DCP Upstreams should be used for your account.
DCP Services	DCP payout settings are grouped into services. DCP service is a group of DCP payout settings that are managed together.	

DCP Upstreams

API Services on server groups is limited to the Get operation to obtain available DCP Upstreams

Retrieve all DCP Upstreams

Description	Retrieves a list of available DCP upstreams for the specified access group.					
Method	GET					
Base URI	https://ws.level3.com					
Schema Location	TBD					
URI Syntax	/aom/dcpUpstreams/(version)/(scope) <i>version</i> [CDATA[]] Values: "v1.0" (required) <i>scope</i> [CDATA[]] (AG) AG = Access Group ID (required)					
Sample Request	https://ws.level3.com/aom/dcpUpstreams/v1.0/1234 - all DCP Upstreams for this customer					
Sample Response	<pre>[{ "name": "na-1-general-upstream", "description": "NA 1 - General purpose upstream - v4" }, { "name": "eu-1-general-upstream", "description": "EU 1 - General purpose upstream" }]</pre>					
Attributes	<table border="1"> <tr> <td>name</td> <td>DCP Upstream name (uniquely identifies the upstream)</td> </tr> <tr> <td>description</td> <td>DCP Upstream description</td> </tr> </table>	name	DCP Upstream name (uniquely identifies the upstream)	description	DCP Upstream description	
name	DCP Upstream name (uniquely identifies the upstream)					
description	DCP Upstream description					
Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.					

DCP Services

DCP playout settings are grouped into services. DCP service is a group of DCP playout settings that are managed together.

Retrieve Existing DCP Services

Description	Retrieves information about existing DCP Services	
Method	GET	
Base URI	https://ws.level3.com	
Schema Location	TBD	
URI Syntax	/aom/dcpServices/(version)/(scope) <i>version</i> [CDATA[]] Values: "v1.0" (required) <i>scope</i> [CDATA[]] (AG) AG = Access Group ID (required)	
Sample Requests	https://ws.level3.com/aom/dcpServices/v1.0/1234	
Sample Responses	<pre>[{ "name": "abc1", "hasManualChanges": false, "upstream": { "name": "na-1-general-upstream", "description": "NA 1 - General purpose upstream - v4" } }, { "name": "abc_enc", "description": "description goes here", "hasManualChanges": false, "upstream": { "name": "na-1-general-upstream", "description": "NA 1 - General purpose upstream - v4" } }]</pre>	
Attributes	name	DCP Service name
	description	DCP Service description
	hasManualChanges	Indicates if the service configuration has been manually changed by Level3 CDN Operators
	upstream	Upstream associated with DCP Service
	upstream.name	Name of DCP Upstream
	upstream.description	DCP Upstream description

Possible Status & Error Messages Returned	200: Request Successful. See Appendix A – Status Codes & Error Messages for additional return codes and messages.
--	---

Create DCP Service

Description	Create a new DCP Service
Method	POST
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	/aom/dcpServices/(version)/(scope) <i>version</i> [CDATA[]] Values: "v1.0" (required) <i>scope</i> [CDATA[]] (AG) AG = Access Group ID (required)

Body Syntax	<p>Attribution required for Basic request in bold:</p> <pre> { "name": "<String max. 50 characters, format: /^[a-zA-Z0-9_]{1,}\$ / >", "description": "<String max. length 500 characters>" // optional "upstream": { "name": "<DCP Upstream name>", // retrieved by GET dcpUpstreams "description": "<DCP Upstream description>" }, "config": { "legacyDcpApi": true false, // default is false "hosts": [// at least one entry is required "<String, name of existing Level3 CDN caching property>"], "smoothPayout": { // optional "enable": true false, // default is true "fragmentLengthSec": 2.0 ... 10.0, // default is 4.0 "manifestVersion": ("20" "22"), // default is "20" "encryption": { // optional "enable": true, // default is true "licenseServerUrl": "<url>", "kid": "<hex string representing 16-byte key>", "cek": "<hex string representing 16-byte key>" } }, "hlsPayout": { // optional "enable": true false, // default is true "fragmentLengthSec": 4.0 ... 10.0, // default is 8.0 "manifestVersion": ("1" "2" "3" "4" "5"), // default is "4" "encryption": { // optional "enable": true, // default is true "encryptionType": ("aes128" "sampleAes"), "externalLicenseServer": true false, "licenseServerUrl": "<url>", "internalKeyProtocol": ("http://" "https://"), "internalKeyHost": "<String, name of existing Level3 CDN caching property>", "key": "<hex string representing 16-byte key>", "keyIV": "<hex string representing 16-byte key>" } } } } </pre>
--------------------	--

```

    }
  },
  "hdsPlayout": {
    "enable": true|false, // optional
    "fragmentLengthSec": 4.0 ... 10.0, // default is true
    "manifestVersion": ("1"|"2"), // default is 4.0
  },
  "dashPlayout": {
    "enable": true|false, // optional
    "profile": "<dash profile id>", // default is true
    "fragmentLengthSec": 4.0 ... 10.0 // required
  }
}
}
}

```

Sample Requests <https://ws.level3.com/aom/dcpServices/v1.0/1234>

```

{
  "name": "abc_5",
  "description": "description goes here",
  "upstream": {
    "name": "na-1-general-upstream"
  },
  "config": {
    "legacyDcpApi": false,
    "hosts": [
      "abc-5.level3.com"
    ],
    "smoothPlayout": {
      "enable": true,
      "fragmentLengthSec": 4,
      "manifestVersion": "22",
      "encryption": {
        "enable": true,
        "licenseServerUrl": "http://customer.comain.com/test.key",
        "kid": "8c2874d1564a7e9488963d239136e1d6",
        "cek": "ea4fb0592d4afa30b903d9a25967708f"
      }
    },
    "hlsPlayout": {
      "enable": true,
      "fragmentLengthSec": 4,
      "manifestVersion": "5",
      "encryption": {
        "enable": true,
        "encryptionType": "sampleAes",
        "externalLicenseServer": true,
        "licenseServerUrl": "http://customer.comain.com/test.key",
        "key": "e1dd8e0f8841e9c394da46c6bc0d0919",
        "keyIV": "f9945efe8e68dc13bf07144907f89279"
      }
    },
    "hdsPlayout": {
      "enable": false,
      "fragmentLengthSec": 4,
      "manifestVersion": "2"
    },
    "dashPlayout": {
      "enable": false,
      "profile": "urn:mpeg:dash:profile:mp2t-main:2011",
      "fragmentLengthSec": 4
    }
  }
}
}
}

```

```

Sample Response {
  "name": "abc_5",
  "description": "description goes here",
  "hasManualChanges": false,
  "config": {
    "hosts": [
      "abc-5.level3.com"
    ],
    "smoothPlayout": {
      "enable": true,
      "fragmentLengthSec": 4,
      "manifestVersion": "22",
      "encryption": {
        "enable": true,
        "licenseServerUrl": "http://customer.comain.com/test.key",
        "kid": "8c2874d1564a7e9488963d239136e1d6",
        "cek": "ea4fb0592d4afa30b903d9a25967708f"
      }
    }
  },
  "hlsPlayout": {
    "enable": true,
    "fragmentLengthSec": 4,
    "manifestVersion": "5",
    "encryption": {
      "enable": true,
      "encryptionType": "sampleAes",
      "externalLicenseServer": false,
      "internalKeyProtocol": "https://",
      "internalKeyHost": "abc-5.level3.com",
      "key": "e1dd8e0f8841e9c394da46c6bc0d0919",
      "keyIV": "f9945efe8e68dc13bf07144907f89279"
    }
  },
  "hdsPlayout": {
    "enable": false,
    "fragmentLengthSec": 4,
    "manifestVersion": "2"
  },
  "dashPlayout": {
    "enable": false,
    "profile": "urn:mpeg:dash:profile:mp2t-main:2011",
    "fragmentLengthSec": 4
  }
},
"upstream": {
  "name": "na-1-general-upstream",
  "description": "NA 1 - General purpose upstream - v4"
}
}
    
```

Attributes	Name	Description	Input
	name	DCP Service name. Uniquely identifies this DCP Service. Mandatory. Maximum length 50 characters. Valid characters are: 0-9, a-z, A-Z, underscore (_).DCP service must be unique with one customer. After DCP service has been created, the name cannot be changed.	✓
	description	DCP Service description. Optional. Maximum length 500 characters.	✓
	hasManualChange	Indicates if the service configuration has been	

s	manually changed by Level3 CDN Operators	
upstream	Upstream associated with DCP Service	✓
upstream.name	Name of DCP Upstream as retrieved by GET dcpUpstreams method	✓
upstream.description	DCP Upstream description	
config	DCP service configuration details	✓
config.legacyDcpApi	Enable support of query string format of previous Level3 DCP services. Default is false. When enabled, only HDS and HLS are supported as playout formats.	✓
config.hosts	Array of strings. Mandatory. Must contain at least one entry. Entries must be existing Level3 CDN caching properties. Note: A caching property may be used by one and only one DCP Service.	✓
config.smoothPlayout	Smooth playout configuration. If omitted, Smooth playout is disabled. Note: At least one playout format must be enabled for a DCP Service	✓
config.smoothPlayout.enable	Enables / disabled smooth playout.	✓
config.smoothPlayout.fragmentLengthSec	Float. Smooth chunk duration, seconds. Range between 2 and 10, default is 2.	✓
config.smoothPlayout.manifestVersion	Smooth manifest version. Defaults to "20" .	✓
config.smoothPlayout.manifestVersion.encryption	Enable PlayReady encryption. If omitted, PlayReady encryption is disabled. When enabled, other media formats must be either disabled or have encryption enabled.	✓
config.smoothPlayout.manifestVersion.encryption.enable	Enables / disabled PlayReady encryption.	✓
config.smoothPlayout.	License server URL. Mandatory	✓

<code>manifestVersion. encryption. licenseServerUrl</code>		
<code>config. smoothPlayout. manifestVersion. encryption. kid</code>	<p>Mandatory. Hex string representing 128 bit (16 byte) encryption key.</p> <p>Note: The KID from a PlayReady License server may be formatted as a little-endian GUID. In that case you have to change the endianness as we always use a big-endian UUID representation of the KID.</p>	✓
<code>config. smoothPlayout. manifestVersion. encryption. cek</code>	<p>Mandatory. Hex string representing 128 bit (16 byte) encryption key.</p> <p>Note: This is NOT the PlayReady Key Seed, but the actual content encryption key.</p>	✓
<code>config. hlsPlayout</code>	<p>HLS playout configuration. If omitted, HLS playout is disabled.</p> <p>Note: At least one playout format must be enabled for a DCP Service</p>	✓
<code>config. hlsPlayout. enable</code>	Enables / disabled HLS playout.	✓
<code>config. hlsPlayout. fragmentLengthSe c</code>	<p>Float. TS media file duration, seconds. Range between 4 and 10, default is 8.</p> <p>Note: Manifest version should be 3 or greater to support non-integer fragment duration.</p>	✓
<code>config. hlsPlayout. manifestVersion</code>	<p>HLS manifest version. Defaults to “4” .</p> <p>Note: Float fragment duration requires manifest version “3” or higher”. AES-128 encryption requires HLS manifest version “2” or higher. Sample-AES encryption requires HLS manifest version “5” or higher.</p>	✓

config. hlsPayout. encryption	HLS encryption configuration. If omitted, HLS encryption is disabled. When enabled, other media formats must be either disabled or have encryption enabled.	✓
config. hlsPayout. encryption. enable	Enables / disabled HLS encryption.	✓
config. hlsPayout. encryption. encryptionType	<p>“aes128” or “sampleAes”.</p> <div style="border: 1px solid black; padding: 5px; background-color: #e6f2e6;"> <p>Note: AES-128 encryption requires HLS manifest version “2” or higher. Sample-AES encryption requires HLS manifest version “5” or higher.</p> </div>	✓
config. hlsPayout. encryption. externalLicenseServer	Enable external key delivery. If set to false (default) the key will be served via Level 3 CDN.	✓
config. hlsPayout. encryption. licenseServerUrl	License server URL. Mandatory when config. hlsPayout. encryption. externalLicenseServer is set to true.	✓
config. hlsPayout. encryption. internalKeyProtocol	License delivery protocol. Must be either “http://” or “https://”. Mandatory when config. hlsPayout. encryption. externalLicenseServer is set to false.	✓
config. hlsPayout. encryption. internalKeyHost	Host to use when generating license key URL. Mandatory when config. hlsPayout. encryption. externalLicenseServer is set to false. Must be set to one of the values specified in config.hosts array.	✓
config. hlsPayout. encryption. key	Hex string representing 128 bit (16 byte) encryption key.	✓
config. hlsPayout. encryption. keyIV	Hex string representing 128 bit (16 byte) encryption key IV.	✓
config. hdsPayout	<p>HDS payout configuration. If omitted, HDS payout is disabled.</p> <div style="border: 1px solid black; padding: 5px; background-color: #e6f2e6;"> <p>Note: At least one payout format must be enabled for a DCP Service</p> </div>	✓
config. hdsPayout. enable	Enables / disabled HDS payout.	✓
config.	Float. HDS fragment duration, seconds. Range	✓

hdsPayout. fragmentLengthSe c	between 4 and 10, default is 4.	
config. hdsPayout. manifestVersion	HDS manifest version. Defaults to “1” .	✓
config. dashPayout	MPEG-DASH playout configuration. If omitted, MPEG-DASH playout is disabled. Note: At least one playout format must be enabled for a DCP Service	✓
config. dashPayout. enable	Enables / disabled MPEG-DASH playout.	✓
config. dashPayout. profile	Required. The following profiles are supported: <ul style="list-style-type: none"> ▪ urn:mpeg:dash:profile:mp2t-main:2011 ISO/IEC 23009-1 section 8.4 ▪ urn:mpeg:dash:profile:isoff-live:2011 ISO/IEC 23009-1 section 8.6 ▪ urn:com:dashif:dash264DASH-IF DASH-AVC/264 section 6.3 ▪ urn:dvb:dash:profile:dvb-dash:2014DVB Profile (DVB Document A168 July 2014) 	✓
config. dashPayout. fragmentLengthSe c	Float. MPEG-DASH fragment duration, seconds. Range between 4 and 10, default is 4.	✓

Possible Status & Error Messages Returned 201: Created.
See **Appendix A – Status Codes & Error Messages** for additional return codes and messages.

Update DCP Service

Description	Update DCP Service details. This operation has largely the same input format and identical response format as the corresponding Create (Post) operation. See the Create (Post) operation for more detail on the attribution. Note: DCP Service cannot be updated when it has manual configuration changes implemented by Level3 CDN Operations. This is indicated by hasManualChanges property of DCP Service.
-------------	---

Method	PUT
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/dcpServices/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SN)</p> <p>AG = Access Group ID (required)</p> <p>SN = DCP Service name (required)</p>
Sample Requests	<pre>https://ws.level3.com/aom/dcpServices/v1.0/1234/abc_5 { "name": "abc_5", "description": "description goes here", "upstream": { "name": "na-1-general-upstream" }, "config": { "hosts": ["abc-5.level3.com"], "smoothPayout": { "enable": true, "fragmentLengthSec": 4, "manifestVersion": "22" } } }</pre>
Sample Response	<pre>{ "name": "abc_5", "description": "description goes here", "hasManualChanges": false, "config": { "hosts": ["abc-5.level3.com"], "smoothPayout": { "enable": true, "fragmentLengthSec": 4, "manifestVersion": "22" } }, "upstream": { "name": "na-1-general-upstream", "description": "NA 1 - General purpose upstream - v4" } }</pre>
Possible Status & Error Messages Returned	<p>200: Successful.</p> <p>See Appendix A – Status Codes & Error Messages for additional return codes and messages.</p>

Remove DCP Service

Description	Deletes the DCP Service.
Method	DELETE
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/dcpServices/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SN)</p> <p>AG = Access Group ID (required)</p> <p>SN = DCP Service name (required)</p>
Sample Requests	https://ws.level3.com/aom/dcpServices/v1.0/1234/abc_4
Sample Response	N/A
Possible Status & Error Messages Returned	<p>200: Request Successful.</p> <p>See Appendix A – Status Codes & Error Messages for additional return codes and messages.</p>

Retrieve DCP Service Detail

Description	Retrieves details about an existing DCP Service. This is the same response that will also be returned by the Post and Put commands for a DCP Service. See the corresponding Create (Post) method for more detail on the attribution.
Method	GET
Base URI	https://ws.level3.com
Schema Location	TBD
URI Syntax	<p>/aom/ingestCredentials/(version)/(scope)</p> <p><i>version</i> [CDATA[]] Values: "v1.0" (required)</p> <p><i>scope</i> [CDATA[]] (AG)/(SN)</p> <p>AG = Access Group ID (required)</p> <p>SN = DCP Service name (required)</p>
Sample Requests	<code>https://ws.level3.com/aom/dcpServices/v1.0/1234/abc_5</code>
Sample Responses	<pre>{ "name": "abc_5", "description": "description goes here", "hasManualChanges": false, "config": { "hosts": ["abc-5.level3.com"], "smoothPlayout": { "enable": true, "fragmentLengthSec": 4, "manifestVersion": "22" } }, "upstream": { "name": "na-1-general-upstream", "description": "NA 1 - General purpose upstream - v4" } }</pre>
Possible Status & Error Messages Returned	<p>200: Request Successful.</p> <p>See Appendix A – Status Codes & Error Messages for additional return codes and messages.</p>

Value Sets

Value Sets

The following is a reference to available value sets for AOM configurations.

Media Format	Value	Description
	smooth	Smooth
	hls	HTTP Live Streaming (Apple)
	hds	HTT Dynamic Streaming (Adobe)
Folder Status	Value	Description
	OK	Exists on the server
	Missing	Missing from the server
Publishing Point Status	Value	Description
	Idle	Idle
	Starting	Starting
	Started	Started
	Stopping	Stopping
	Stopped	Stopped
	Shuttingdown	Shutting down
	Error	Error
	Missing	Missing from the server
Stream Status	Value	Description
	Idle	Idle
	Started	Started
	Stopped	Stopped
Location	Value	Description
	primary	Primary Server
	secondary	Secondary Server
	cdn	Level3 CDN
Playback Link Type	Value	Description
	manifest	Multi-bitrate manifest
	stream	Single bitrate stream
Smooth Manifest Version	Value	Description
	20	Manifest version "2.0"
	22	Manifest version "2.2"

HLS Manifest Version	Value	Description
	1	Manifest version "1"
	2	Manifest version "2"
	3	Manifest version "3"
	4	Manifest version "4"
	5	Manifest version "5"
HLS Encryption	Value	Description
	aes128	AES-128
	sampleAes	Sample AES encryption
HDS Manifest Version	Value	Description
	1	Manifest version "1"
	2	Manifest version "2"
LIVE MPEG-DASH profile	Value	Description
	urn:mpeg:dash:profile:mp2t-main:2011	ISO/IEC 23009-1 section 8.4
	urn:mpeg:dash:profile:isoff-live:2011	ISO/IEC 23009-1 section 8.6
	urn:com:dashif:dash264	DASH-IF DASH-AVC/264 section 6.3
	urn:hbbtv:dash:profile:isoff-live:2012	HBB Profile
	urn:dvb:dash:profile:dvb-dash:2014	DVB Profile (DVB Document A168 July 2014)
HLS Ingest Type	Value	Description
	basic	Basic
	webDav	Web Dav
HLS Clean-up Preset Type	Value	Description
	inherit	Inherit from the parent folder.
	custom	Customized preset
	default	Built-in "Default" preset
	encrypted	Built-in "Encrypted" preset
	inlet	Built-in "Inlet" preset
HLS Clean-up Rule Type	Value	Description
	neverDelete	Nether delete files matching this rule
	deleteEveryX	Run the rule and delete every X minutes
	deleteAtX	Run clean-up process at a given time during the day. Allows to specify multiple times, in minutes. 0 = UTC midnight.

Archive Content Item Type	Value	Description
	folder	Folder
	file	File
Clip Type	Value	Description
	liveEvent	Live Event
	stoppedEvent	Stopped Event
Clip Status	Value	Description
	Ready	Clip has been created successfully.
	Recording	Clip is being recorded
	Queued	Clip is queued for recording
	Failed	Clip recording failed
Archive Job Type	Value	Description
	uploadArchive	Upload a Publishing Point archive (created by POST archiveJobs call)
	createClip	Create a new Clip and store it on AOS (created by POST clips call)
	createAndUploadClip	Create a new clip, store it on AOS and upload it to Level 3 OSP (created by POST clips call)
	uploadClip	Upload an existing clip from AOS to Level 3 OSP (created by POST archivJobs call)
Archive Job Priority	Value	Description
	low	Low
	medium	Medium
	high	High
Archive Job Transform	Value	Description
	none	Content is not transformed (not supported for Smooth Gen 2)
	mp4	Content is transformed into mp4 files. A separate file is generated for each stream. Only supported for Smooth publishing points.
	ism	Content is transformed into ism/ismv files. A single ismv file is generated to include all bitrates. Only supported for Smooth publishing points.

Archive Job Transform	Value	Description
	none	Content is not transformed (not supported for Smooth Gen 2)
	mp4	Content is transformed into mp4 files. A separate file is generated for each stream. Only supported for Smooth publishing points.
	ism	Content is transformed into ism/ismv files. A single ismv file is generated to include all bitrates. Only supported for Smooth publishing points.
Archive Job Priority	Value	Description
	low	Low
	medium	Medium
	high	High
Archive Job State	Value	Description
	Pending	Pending
	Queued	Queued, awaiting for resources to become available to start work
	Running	Running initialization / validation
	Recording	Recording the clip
	Processing	Performing content transform
	Uploading	Uploading content to Level3 OSP
	Successful	Successful
	Pausing	Pausing
	Running	Running
	OnHold	Job is on hold awaiting for resources to become available
	Resuming	Resuming the job after a pause
	Cancelling	Cancelling
	Cancelled	Cancelled
Failed	Failed	
DCP MPEG-DASH profile	Value	Description
	urn:mpeg:dash:profile:mp2t-main:2011	ISO/IEC 23009-1 section 8.4
	urn:mpeg:dash:profile:isoff-live:2011	ISO/IEC 23009-1 section 8.6
	urn:com:dashif:dash264	DASH-IF DASH-AVC/264 section 6.3
	urn:dvb:dash:profile:dvb-dash:2014	DVB Profile (DVB Document A168 July 2014)