

SmartSTREAM

Video Platform Service Specifications

Version 6.0

February 3, 2025

NTT SmartConnect Corporation

Revision History

Version	Date	Description of Changes
1.0	2018/07/12	Initial release
2.0	2019/02/01	Added Select Plan
2.1	2019/02/25	Changed document structure
3.0	2019/05/22	Added FTP, DRM, SDK, and playlist functions
4.0	2021/01/26	Updated specifications for One-Time URL function (optional)
5.0	2021/05/10	Updated resolution and video bitrate specifications; added maintenance information
5.1	2022/06/16	Added description of Encoding Function (Section 4.1); minor revisions throughout
5.2	2023/10/05	Discontinued SNS sharing button in Player; partial changes to SDK specifications (Section 4.10)
6.0	2025/02/03	Added new plan

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1. Notation Used in This Specification

The notation used in this specification is defined as follows:

Term	Description
OVP	Online Video Platform service
CMS	Abbreviation for Content Management System; a media (content) management system

Content	Video files and live sources uploaded to this service
Media	Content files generated after video files and live sources are encoded by this service

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2. Service Overview

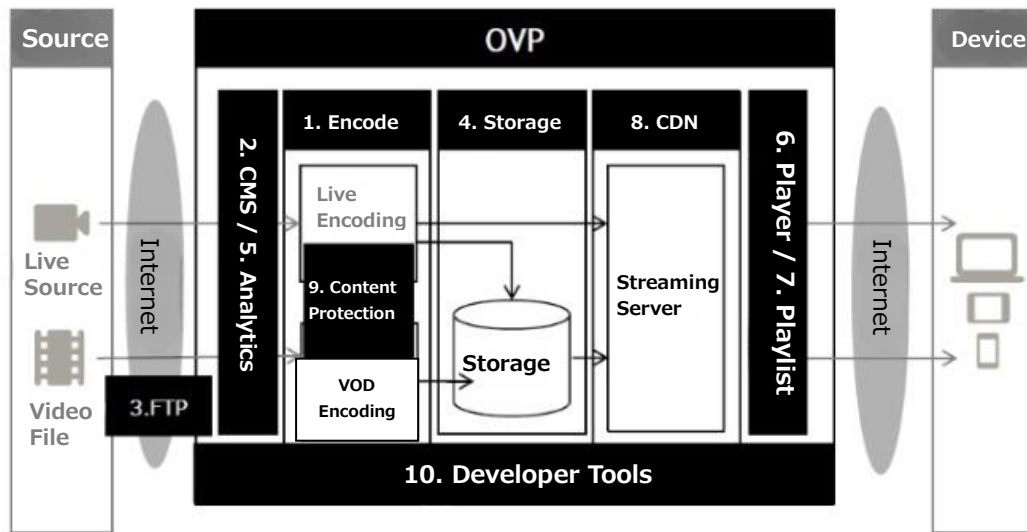
Service Definition

The SmartSTREAM Video Platform Service (hereinafter referred to as "the Service") is an online video platform service (OVP) provided by NTT SmartConnect Corporation (hereinafter referred to as "the Company").

The Service provides a one-stop solution for video distribution, including video encoding, media management and storage, player functionality, multi-device delivery, and analytics.

System Overview

An overview of the Service is as follows:



Scope of Responsibility

For details regarding SLA and security policies, please refer to the Terms of Service.

3. Plans

Plan Comparison Table

Plan Name	Storage Capacity	Data Transfer	Minimum Contract Period
Basic	500 GB	3 TB	1 month
Premium	2 TB	Unlimited	1 month

The following plans were discontinued for new applications as of February 2, 2025:

Plan Name	Storage Capacity	Data Transfer	Minimum Contract Period
Simple Plan	100 GB– (shared bandwidth up to 2 Gbps)	Unlimited	1 month
Select Plan	10 GB–	Unlimited	1 month

Feature Comparison Table

●: Standard Feature

○: Available upon separate quotation

Feature		Basic	Premium	Feature		Basic	Premium	
Encoding	VOD Encoding	●	●	Player Password Authentication Playlist Function	Player Customization	●	●	
	Live Encoding	-	○		Playback Speed Control	●	●	
	Encoding Profile Selection	●	●		Viewing Restrictions	●	●	
CMS	Content Uploa	Browser	●	●	CDN	Password Authentication	●	●
		FTP	●	●		Playlist Function	●	●
	Media Management	●	●	Logo Settings		●	●	
	Multi-user Management	●	●	Thumbnail/Poster Generation & Settings		●	●	
	CMS Operation Logs	●	●	VOD Delivery		●	●	
	QR Code Generation	●	●	Live Streaming			○	
	Analytics	●	●	One-Time URL			●	
Storage	Content Storage	●	●	Content Protection	HLS AES Key Authentication		●	
	Media Storage	●	●		DRM		○	
	Live Recording	Live-to-File		○	Developer Tools	API		●
		Video Clip		○		SDK		●

The following plans were discontinued for new applications as of February 2, 2025.

●: Standard Feature

○: Optional Feature

Function		Simple	Select	Feature		シ ン プ ル	セ レ ク ト
Encoding	VOD Encoding Function	●	●	Player	Player Customization	●	●

	Live Encoding Function							Playback Speed Control	●	●
	Encoding Profile Selection							Viewing Restrictions	●	●
CMS	Content Upload	Browser	●	●				Password Authentication	●	●
		FTP	○	○				Playlist Function	●	●
	Media Management		●	●			Logo Settings	●	●	
	Multi-user Management		●	●			Thumbnail/Poster Generation and Settings	●	●	
	CMS Operation Logs		●	●	CDN		VOD Delivery	●	●	
	QR Code Generation		●	●			Live Streaming		○	
	Analytics Function		●	●	Content Protection		One-Time URL Function		○	
Storage	Content Storage		●	●			HLS AES Key Authentication		○	
	Media Storage		●	●		DRM		○		
	Live Recording	Live-to-File			○	Developer Tools	API		○	
Video Clip				○	SDK			○		

4. Functions

The details of the functions provided by the Service are as follows:

4.1. Encoding Function

Converts video files or live sources into formats suitable for delivery.

- VOD Encoding Function: Encodes uploaded video files into deliverable formats using specified encoding profiles.
- Live Encoding Function: Performs real-time encoding of input live sources into deliverable formats using specified encoding profiles.

- Live Recording Function (DVR): Records live streaming programs or specified time ranges (up to 12 hours) and enables VOD delivery. This function also supports catch-up playback, allowing playback from the beginning while the live stream is still in progress.
- Live-to-File Function: Records entire live streaming programs and makes them available for VOD delivery.
- Video Clipping Function: Records pre-specified segments of a live streaming program and makes them available for VOD delivery.

Configurable encoding settings (profiles) are as follows:

Item	Specification
Delivery Protocol	HLS, MPEG-DASH
Resolution	Up to 1920 × 1080 px
Video Bitrate	Up to 15 Mbps
Audio Bitrate	Up to 576 Kbps
Video Bitrate Mode	CBR, VBR

For the Simple Plan, only the default profile can be selected.

For the Select Plan, users can configure settings within the following ranges.

The following plans were discontinued for new applications as of February 2, 2025.

Plan Name	Simple Plan	Select Plan
Delivery Protocol	HLS	HLS, MPEG-DASH
Resolution	1280 × 720 px	Up to 1920 × 1080 px
Video Bitrate	1 Mbps	Up to 15 Mbps
Audio Bitrate	96 Kbps	Up to 576 Kbps
Video Bitrate Mode	VBR	CBR, VBR
Audio Sampling Rate	48 kHz	Up to 96 kHz

4.2. CMS Function

The Service provides one ID and password per contract.

Using the assigned account, users log in to the management interface (CMS) to configure upload and delivery settings.

4.3. FTP Function

Enables batch upload of multiple Content items to the OVP.

Uploaded Content can be batch encoded via the CMS.

4.4. Storage Function

¹ These settings can be configured by the customer. Recommended values are as follows.

- Video Bitrate: 5 Mbps or less
- Audio Bitrate: 128 Kbps or less
- Audio Sampling Rate: 44.1 kHz or 48 kHz

² These settings can be configured by the customer. Recommended values are as follows.

- Video Bitrate: 5 Mbps or less
- Audio Bitrate: 128 Kbps or less
- Audio Sampling Rate: 44.1 kHz or 48 kHz

Provides dedicated storage space for each customer to store Content and encoded Media.

Storage usage is billed based on the maximum usage within the current month.

4.5 Analytics Function

Provides a function that allows viewing playback count, number of devices, number of sessions, playback duration, average playback duration per session, player impressions, and DRM license acquisitions from a dashboard, categorized by country, player, website, device, and OS. The analysis results can be displayed as bar charts, line graphs, and pie charts, and the values can be downloaded in CSV format.

4.6 Player Function

Provides a web player for viewing live/VOD delivery on the customer's website. The web player can be freely customized with respect to the presence or absence of a play button, autoplay, loop playback, control panel color, playback speed, logo insertion, and password authentication. For supported browser and mobile OS versions, please refer to the online manual.

4.7 Playlist Function

Multiple Media items can be selected to create a playlist.

4.8 CDN Function

Delivers encoded live/VOD delivery to each viewing device via the Internet. Available connectivity is as follows. However, connectivity is shared, and the following values indicate the maximum available values and do not guarantee performance. Restrictions may be applied during periods of high access (e.g., concurrent viewers exceeding 10,000).

Plan Name	Basic	Premium
Internet Connectivity	3 TB	Unlimited

The following plans were discontinued for new applications as of February 2, 2025.

Plan Name	Simple Plan	Select Plan
Internet Connectivity	Shared 2 Gbps	Unlimited

4.9. Content Protection Function

The Service provides the following functions as Content Protection Functions.

One-Time URL Function

Provides a function that generates a playback URL randomly for each viewer access. The validity period of the URL can be set arbitrarily in seconds, with a minimum of 60 seconds. Since the URL is valid only within the specified time period, playback becomes unavailable after the validity period expires, even if the URL is misused. By combining this function with the HLS AES Key Authentication Function, more secure delivery is possible.

HLS AES Key Authentication Function

Provides a function that encrypts using AES-128 during live encoding and VOD encoding. This makes it possible to protect live delivery and VOD delivery from unauthorized download software and similar threats. By combining this function with the One-Time URL Function, more secure delivery is possible.

DRM (Digital Rights Management) Function

Encrypts video files during live encoding and VOD encoding to prevent unauthorized viewing and duplication. The DRM of the Service supports Microsoft PlayReady, Google Widevine Modular, and Apple FairPlay. For supported browser and mobile OS versions, please refer to the [online manual](#).

4.10. Developer Tools

The Service provides the following functions as Developer Tools.

API Function

Provides a REST API function that allows the Service to be used externally. Player information and Media information can be retrieved.

SDK (Software Development Kit)

Provides a browser-based SDK that enables Player customization. Inquiries regarding SDK integration and coding are not covered by the Service support.

5. Prohibited and Restricted Items

Prohibited Items

Content that violates public order and morals, or content that the Company deems inappropriate, is not permitted for upload or delivery. If such content is found to have been uploaded or delivered, it may be forcibly deleted without prior notice to the customer.

Restricted Items

- Video files with file names containing full-width or half-width spaces cannot be uploaded.
 - Uploaded video files cannot be downloaded from the CMS.
 - When uploading video files via browser, the maximum size per Content item is 4 GB.
 - If usage that continuously affects other users is confirmed, restrictions may be applied to bandwidth or connection counts at the Company's discretion without prior notice to the customer.
 - To delete uploaded video files, it is necessary to delete the job. Deleting Media does not delete the video file.
 - Use of the Player provided by the Service (Section 4.6 Player Function, Section 4.10 Developer Tools SDK) is the principle, and issues arising from the use of third-party players are not covered by support.

6. Miscellaneous

Depending on the viewer's Internet connection environment or PC environment, content may not be played properly. Please be advised in advance. For further details, please refer to the online manual.

If deemed necessary by the Company, emergency maintenance may be performed. When maintenance is performed, notifications will be provided on the following user support site.

<https://www.smartstream.ne.jp/support/ovp/>