

# Optional Services Service Description

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## UDN Service Description

### Introduction

This document is an overview of Ericsson's Unified Delivery Network's (UDN) Optional Service.

### Optional Services

The Media Delivery Service can be enhanced with value added capabilities specifically designed to support advanced delivery functionality. The features in the Optional Features section must be ordered separately from the Media Delivery Service and do not automatically come with the Ericsson Media Delivery Service.

#### 1. Secure Delivery

The Secure Delivery service allows customers to use either the Unified Delivery Network's shared SSL wildcard certificate or use a vanity SSL certificate. The Secure Delivery option supports Fully Qualified Domain Name (FQDN), Wildcard, Subject Alternative Name (SAN), and Extended Validation (EV) certificates. Customers are free to bring their own SSL certificates to the UDN platform; however, customers are charged a fee based on the number of SSL certificates, aka SSL slots, the Secure Delivery service needs to manage. The Secure Delivery platform uses Server Name Indication (SNI).

#### 2. Token Authentication

Customers can restrict the hyper distribution of content by using the Media Delivery's Token Authentication option. With this value-added service, customers provide the UDN with a secret value that is only known to the customer and the UDN platform. This secret, sometimes known as a salt value, is used to create a special token value against the URL and is passed to the end user via a query string parameter. With this feature invoked, the UDN platform will interrogate the token value against the object that the end user is requesting by decrypting the token parameterized value using the shared secret value. If the value is true, the object is released by the UDN platform to the end user. If the token value is rejected, the end user is handed an error. Optionally, the UDN platform can redirect the end user to an alternate location, e.g. login page or sorry page. The Token Authentication functionality also supports an optional start and/or end time value. The start/end time is applied to the URL by the customer at the time when the asset URL is handed back to the end user.

#### 3. Content Targeting

The Content Targeting functionality enhances the Media Delivery Service by allowing a customer to target the delivery based on network and/or geographic attributes of the end user request. Delivery rules can be structured as a white list (allow) or a black list (deny) for maximum flexibility. The following geo-data attributes can be utilized to target the request:

- County
- State
- City
- Designated Marketing Area (DMA)
- Time Zone



- Autonomous System Number (ASN)
- Connection Type
- Connection Speed
- Proxy Type

Policy rules can be constructed such that multiple data attributes could be used to create comprehensive content targeting policies, e.g. if the end user is located in the United States, but not in New York City to create a blackout list for a sporting event. The IP address uses the x-forwarded-for value, but can be adjusted to use to interrogate any subsequent connection values for enhanced coverage to ensure end user compliance to the customer's Content Targeting policies.

#### **4. Global Traffic Manager (GTM) - CDN Selector**

UDN's Global Traffic Manager (GTM) CDN Selector allows customers to define rules that control how traffic is split between UDN and another CDN provider. This optional feature allows customers to define matching criteria based on IP address, ASN, Country and Continent per hostname, group or account. Based on matching criteria, customers can define the traffic splitting policy in increments of 10% between UDN and another CDN provider defined by a CNAME used to access their services.

#### **5. Video On Demand Streaming**

The UDN Video On Demand Streaming service provides customers with the ability to upload video content and have their video content transcoded into multiple bitrates and resolutions. The UDN Video On Demand Streaming service also provides customers with the ability to create unique streaming profiles and formats that will allow them to stream to any device. The simplified workflow allows customers to upload a single video bitrate file and easily produce adaptive bitrate streaming format URLs to HLS, DASH, MSS, and HDS formats all over UDN's world class CDN network.

In case Customer's is billed using the monthly GB transfer billing model, Ericsson reserves the right to limit Customer's use of the Live Streaming in excess of three times Customer's Minimum Usage Commitment. For all Services billed based in Mbps, Gbps or any other bit per second methodology, an additional charge as stated in the Order Form, will be applied to the sum of MBs in excess of two times the Minimum Usage Commitment, to the extent such usage is in the top 5% of 5 minute intervals.

As per Section 6.3 of the Terms, Ericsson reserves the right to require that Customer make certain technical configuration changes, which may impact links or URLs of which content may be downloaded or streamed. The changing of these URLs might also require a Customer to make changes to their SDK, Player, Web Page, App or other devices that might try to download or stream the content.

DRM is designed to protect encoded content by applying market leading DRM technologies such as PlayReady® and Widevine as part of Ericsson's VOD Transcoding and Packaging and content preparation workflow. Once DRM has been applied to the content, Ericsson registers content information and key information with the Customer's DRM provider, who is responsible for issuing and managing DRM licenses. This Optional Service does not support all formats of content. Content must be provided in a compatible format. As per Section 6.3 of the Terms, Customer grants Ericsson permission and license to copy, alter, modify, resize, reformat, resave, compress, decompress, rewrite, transmit, cache, strip metadata and otherwise manipulate and make derivative versions of content for which DRM is activated and indemnifies Ericsson from any losses associated with performing these licensed actions on behalf of Customer. DRM requires the use of VOD Transcoding and Packaging.

#### **6. Origin Storage**

The UDN Origin Storage service allows customers to utilize the UDN's world class object storage. The UDN Origin Storage service provides customers with a wide range of ingest capabilities to onboard content, giving customers the ability to define replication schemes for where they would like their content to be replicated throughout the world. This is provided with an interface that allows customers to easily manage their content from the UDN Portal. UDN Origin Storage service also provides customers with a full REST API to allow them to fully automate their storage needs. The Customer shall not use UDN Origin Storage in a manner which is materially above its usual typical ingest amount, otherwise Customer accepts to either be charged or suspended until mutual agreement is reached.



## 7. Live Streaming

The UDN Live Streaming service provides customers with an easy to implement workflow that allows a customer to send a single high bitrate Live video stream to the UDN Live cloud based ingest server. From such server, a customer can deliver their Live streams to end customers around the world with adaptive bitrate streaming over HLS, DASH, MSS, and HDS. The options and configurations available on UDN Live give Content Producers the ability to deliver the right Live solution to meet their viewing audience's needs.

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## 8. IPv6

Includes HTTP delivery (and HTTPS delivery for products with Secure Delivery) of content and applications on a dual-stack hostname ("dual-stack digital property" such as "[www.customerexample.com](http://www.customerexample.com)") for which UDN DNS name servers respond to both A and AAAA requests with corresponding UDN edge servers capable of serving both IPv4 and IPv6 HTTP(S) requests, and access to the UDN Customer portal to set up dual-stack hostnames and provide applicable IPv6 visitor and traffic reporting.

IPv6 Feature Limitations:

1. IPv6 may not be available for all UDN Services.
2. IPv6 content may be delivered from a subset of UDN locations. Ericsson will not provide any SLA for Customer's users who request AAAA records. This should not have an adverse impact on Customer's users who are requesting content over only IPv4.