

Media Delivery Service Description

UDN Service Description

Introduction

This document is the description of the Ericsson's Media Delivery Service and is part of the Order Form signed by the Customer by reference.

1. Ericsson's Media Delivery Service

The Ericsson Media Delivery Service is designed to support static and large object delivery, typically greater than 1MB in file size, including software binaries, documents, and video files. The Media Delivery Service is not optimized for whole site delivery and dynamic content. The Media Delivery Service is based upon a reverse proxy – this implies that the Media Delivery Service will draw content objects from Customer's origin Web server on a just-in-time basis when an end user requests an object. This object is then made available for other end users from the UDN Media Delivery Service's core or edge delivery servers so that subsequent users receive an immediate response.

1.1 Key Features

The features provided by the Media Delivery Service consists of an analytics platform that exposes functionality such as city level reporting and specific network provider reporting data, but also self-service configuration tools to empower Customer with the capabilities to operate the Media Delivery Service as if it were an extension to its own infrastructure.

1.2 Policy Rules Engine

One of the features of the Media Delivery Service is the policy rules engine. Through a web-based interface, Customer can construct its own business rules to instruct the Media Delivery Service to cache their content in the most optimal way. Rules can be triggered based on a wide variety of conditions ranging from hostname, header, directory, extension, file name, query string, and more. By targeting various trigger conditions, Customer can construct the end user behavior be it enriching the request, modifying the request, etc. to ensure functionality and origin cache offload.

1.3 Cache Control

Customer has a variety of ways to control their content cacheability on the Media Delivery Service. Either Customer prefer to use its own cache control values, or prefer to let the Media Delivery Service apply the cache control header values for Customer. The Media Delivery Service is flexible and customizable with respect to the application of cache control rules.

1.4 Origin Cache Control Headers

The Media Delivery Service can be configured to respect origin Web server's cache control headers. Max-age header values can be respected and used as a means of controlling content caching on the Media Delivery Service.

1.5 E-Tag

The Media Delivery Service enables Customer to elect strong, weak, or no e-tag support. When this feature is enabled, any Max-Age cache control header values that are present on the object header are discarded in favor of the e-tag value.

1.6 CDN-based Cache Control Headers

Customer can apply Time-to-Live (TTL) values based on hostname, directory, extension type, as well as file names. With this level of granularity, Customer can ensure that their cacheable content will be effectively managed by the Media Delivery Service. Caching values can be applied as follows: no-store (aka don't cache the content), seconds, minutes, hours, or days.



1.8 Header Manipulation

Headers can be added, modified, or even deleted from content requests. This is important for things like CORS header values that may require modifications to support hostname values that may be different from the origin Web server values. Headers can be enriched in both directions- to the end user client as well as to the origin server.

1.9 Query String Attributes

As with Header Manipulation, query strings can be added, modified, and deleted from the request path. This allows the Media Delivery Service to maximize cache offload from the origin Web server. By default, the entire query string path is used as a component to the cache key of the underlying object.

1.10 Redirection

The Media Delivery Service can perform end user client redirections. 302/301 HTTP redirection can be executed on error conditions or even against specific header, path, extension, or directory matches. This can be helpful in reducing the origin request rate when the specific destination location is already known for a conditional match, e.g. redirecting an end user request to a particular language page when in the presence of a specific language string value in the browser header.

1.11 Reporting

The Media Delivery Service takes the approach to reporting in that content is aggregated together based on clustering properties into segregated groups. Multiple properties can live within a group to enable holistic reporting across multiple properties and service types. Media Delivery Service reporting allows for the option of reporting across disparate service types into a singular report.

1.12 Reporting Types

The Media Delivery Service comes standard with a variety of reports to help Customer understand traffic consumption patterns on the Media Delivery Service. Specifically, the following reports are available:

- *Traffic Overview Reporting*: GB or Mbps delivered to end users
- *Daily Cache Hit Rate Reporting*: illustrates the cache efficiency of the Media Delivery Service
- *Unique Visitor Reporting*: provides a breakout of end user traffic to better understand the traffic profile of end users and where they are coming from
- *Contribution Reporting*: this report illustrates which network providers are employed in the delivery of the Customer's content
- *File Error Reporting*: shows what errors the Web property is triggering as well as what URLs are triggering the error condition so a Customer can take corrective action
- *URL Reporting*: shows a listing of URLs that are popular by traffic volume or by number of hits

1.13 Exporting Reports

All Media Delivery Service reports can be exported into CSV files. The report files can then be imported into other offline reporting tools such as Splunk or Google Analytics for further examination.

1.14 Log Delivery Service

Customer can request to receive its Media Delivery Service log files. Logs are compiled in W3C or extended log format and can be sent in recurring batches or deposited into a Customer's Origin Storage repository for retrieval at their leisure (NOTE: Origin Storage is sold separately as an Optional Service and is not part of the Media Delivery Service offering). Log lines can be enriched with other special attributes such as header and cookie information or even geographic information of the end user request (NOTE: geographic log line enrichment requires the purchase of the Content Targeting Optional Service).

1.15 Purging Content

Sometimes it is necessary to remove a content item held in cache before its max-age value has expired. In such situations, the Media Delivery Service supports a variety of methods to remove content from the Media Delivery Service. Specifically, content removal can be done via a URL, directory, hostname, or the entire group's content. Content can be invalidated, e.g. revalidate the content object on the next subsequent request for the object, or the object can be deleted. When deleting content from the Media Delivery Service, the underlying object is removed from the Media Delivery Service's edge caches. On the next subsequent request for the object, the Media Delivery Service will fetch the content from the origin. Ericsson typically encourages Customer to invalidate its content rather than delete its content, when possible, to prevent a possible denial-of-service situation where multiple edge server are requesting content at the same time from the origin risking a situation where the origin cannot support the flood of edge server requests coming for new content.

2. Account Management

The UDN portal allows Customer to control access to their portal account. From the UDN portal, Customer can view reports, add and configure their properties, purge content, and request support from UDN's support staff. Customer can create their own portal user accounts and subsequently assign them access to specific groups within their account to perform certain activities.



3. Service Level Agreement

The Media Delivery Service comes with a Service Level Agreement (SLA) to ensure the Media Delivery Service is providing the quality of service levels customers expect. For specifics on how the SLA is measured, please consult the applicable Media Delivery SLA.

4. Support

The limited Support described below is available to help Customer using the Media Delivery Service and provided on a commercially reasonable basis. All support is provided in English. No support will be provided for failure due to Customer, its content, products or cases described in Section 3.6 of the Terms.

4.1 Web-based Support

Customer can submit and monitor progress on their support tickets via the Media Delivery Service support Web site, <https://support.ericssonudn.com>. Additionally, documentation and frequently asked questions can be viewed via the UDN support site's forum pages.

4.2 Email Support

The UDN customer care team can be reached 24x7x365 via email, support@ericssonudn.com.