



FLARES HTTP(S) Pull Protocol

FLARES 1.2.0

Document Version 1.0.0



Contents

| Cont | tents | . 2 |
|------|-------------------------|-----|
| 1 | Introduction | . 4 |
| 2 | FLARES HTTP(S) Protocol | . 5 |



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1 Introduction

FLARES – Framework for Launching Applications enabling Rapid Evolution of Services, a Service Creation Environment is targeted to have a single platform for managing all the internal and external applications that provides services to the end user. The primary goals of FLARES are to enable service creation in a very less time thereby enabling rapid launch of the service, provide a single platform for operators and their content providers to have easy interface for service creation and management.



2 FLARES HTTP(S) Protocol

FLARES HTTP(S) interface format:

This document describes request and response flow between the FLARES http adapter and the internal/external applications which are running over HTTP/HTTPS.

All the request parameters or response headers are configurable and the below tables are showing the parameters which FLARES can send/receive towards the applications.

Call flow of the HTTP interface:

- > FLARES Http adapter will initiate the connect request to application.
- ➤ HTTP request method is **POST**
- > All the request parameters are passed as part of query string along with the URL.
- ➤ The request parameter keys and response header keys are as part of FLARES configurations which are available for modification through GUI.
- For the Success responses, response code should be HTTP Success (200) and the response content is as part of the HTTP body and the response parameters are as part of HTTP headers.
- For failure responses, the configured message at FLARES will be dispatched to the subscriber as a response.

Following are the parameters which can be configured as request parameters.

| SNO | Parameter | Value | | | |
|-----------------------|--------------------------|--|--|--|--|
| 1 | ISISDN Subscriber MSISDN | | | | |
| 2 | MSC | Subscriber MSC | | | |
| 3 | IMSI | Subscriber IMSI | | | |
| 4 | HLR | ILR Subscriber HLR | | | |
| 5 | Connection Type | Subscriber connection type information 0 – All 1 – Prepaid 2 – Postpaid | | | |
| 6 Subscriber Location | | Subscriber location information 0 – All 1 – Home 2 – Roam | | | |
| 7 | Cell Id | Cell id from where request landed on FLARES | | | |



| 8 | Language | Subscriber language code | |
|----|-------------------------------------|---|--|
| 9 | Region | Subscriber region name | |
| 10 | Subscriber Input | Current input of the subscriber | |
| 11 | Session Id | Subscriber session id | |
| 12 | Unique Identifier | Node Unique identifier | |
| 13 | Multi access code | Configured multi access code for the node | |
| 14 | Status Code | Status code for the cleanup | |
| 15 | Date Format | Processed time at FLARES engine in a specific date format | |
| 16 | New Request | Identifying whether the request is new free flow request or continuous request | |
| 17 | Input parameters (Questionnaire) | Answers of the questions. Id's are starting from 201 and the order with respect to questionnaire order configuration at node level. | |
| 18 | Static Content | Static contents which are configured at node level and the order with respect to the configuration at node level. | |
| 19 | Free flow Parameters | Free flow parameters, which are transferring between the FLARES and application. | |
| 20 | User tag | Tag name of the user id for authenticating the request | |
| 21 | Password tag | Tag name of the password for authenticating the request | |
| 22 | User Id | User name for authenticating the request | |
| 23 | Password | Password for authenticating the request | |
| 24 | Cleaner Tag | Tag name for identifying the request is cleanup request. | |
| 25 | Cleaner Message | Message to be passed while doing the session cleanup at flares end. | |
| 26 | Error Tag | Tag to denote the status code for cleaning the subscriber session. | |
| 27 | MSISDN Tag | MSISDN of the subscriber to send the cleanup request towards application | |
| | | | |

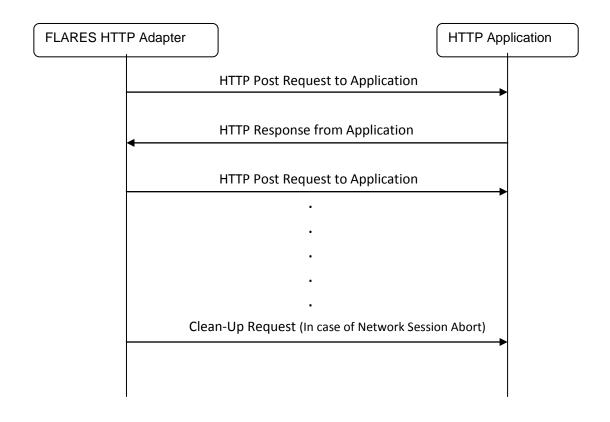


Following are the parameters which applications can send as response headers

| SNO Parameter | | Value | |
|---------------|-----------------|-------------------------------------|--|
| 1 | Charging Tag | Denotes charging is required or not | |
| 2 | Amount Tag | Denotes how much amount to charge | |
| 3 | Short code tag | Future purpose | |
| 4 | Free flow state | Free flow state | |
| | | FC - Free flow Continue | |
| | | FB – Free flow Break. | |
| 5 | Menu code | Menu code to process | |

Call flow diagram:

Below diagram shows the request/response call flow between the HTTP adapter and application.





3 Samples HTTP(S) Request/Response

Direct Request:

http://127.0.0.1:8080/application_uri?userid=app1&password=app1pwd &MSISDN=919845098450&MSC=919845098000&input=*121#

'userid' denotes the tag to identify the user id of the request 'app1' denotes the name of the user 'password' denotes the tag for the user password 'app1pwd' denoted the password of the user 'MSISDN' denotes the tag name for the subscriber MSISDN '919845098450' denotes the subscriber MSISDN 'MSC' denotes the tag name for the subscriber MSC '919845098000' denotes the subscriber MSC 'input' denotes the subscriber input for the request '*121#' denotes the current subscriber input for the request

Direct Response:

HTTP/1.1 200 OK

Server: Apache-Coyote/1.1 Path=/application_uri

charge: Y amount: 100 Expires: -1

Pragma: no-cache

Cache-Control: max-age=0 Content-Type: UTF-8 Content-Length: 20

Response Message..

'charge' denotes whether charging is required or not. 'amount' denotes how much amount need to be charged 'Response Message..' denotes the application response.



Free flow request:

http://127.0.0.1:8080/application uri?userid=app1&password=app1pwd &MSISDN=919845098450&MSC=919845098000&input=*121#

'userid' denotes the tag to identify the user id of the request 'app1' denotes the name of the user 'password' denotes the tag for the user password 'app1pwd' denoted the password of the user 'MSISDN' denotes the tag name for the subscriber MSISDN '919845098450' denotes the subscriber MSISDN 'MSC' denotes the tag name for the subscriber MSC '919845098000' denotes the subscriber MSC 'input' denotes the subscriber input for the request '*121#' denotes the current subscriber input for the request

Free flow Response:

HTTP/1.1 200 OK

Server: Apache-Coyote/1.1 Path=/application_uri

Freeflow: FC charge: Y amount: 100 Expires: -1

Pragma: no-cache

Cache-Control: max-age=0 Content-Type: UTF-8 Content-Length: 20

Welcome to the live chat rooms..

- 1. Informational
- 2. Whether
- 3. Adults

Note: If application wants to send the menu as a response message menu options should be separated by new line character.

'Freeflow' denotes whether subscriber session has to continue or not

FC – Freeflow continue

FB - Freeflow Break

'charge' denotes whether charging is required or not. 'amount' denotes how much amount need to be charged 'Response Message..' denotes the application response.



Cleanup Request:

http://127.0.0.1:8080/application uri?userid=app1&password=app1pwd &MSIDN=919845098450&clean=clean-session&status=522

'userid' denotes the tag to identify the user id of the request
'app1' denotes the name of the user
'password' denotes the tag for the user password
'app1pwd' denoted the password of the user
'MSISDN' denotes the tag name for the subscriber MSISDN
'919845098450' denotes the subscriber MSISDN
'MSC' denotes the tag name for the subscriber MSC
'919845098000' denotes the subscriber MSC

'clean' denotes the tag to identify the cleaner request

'clean-session' denotes the message to identify the cleaner request

'status' denotes the tag to identify the status tag

'522' denotes the reason for cleaning the subscriber session

Cleanup Response:

HTTP/1.1 200 OK

Server: Apache-Coyote/1.1 Path=/application_uri

Expires: -1

Pragma: no-cache

Cache-Control: max-age=0

HTTP(S) Protocol: USSD FLARES

10



Document Change History

| Table 3: Document Change History | | | | | | |
|----------------------------------|---|------------------|----------|--|--|--|
| Version Number | Description of Changes | Author | Comments | | | |
| 1.1.0 | Initial Document | Nagaraju Amarana | | | | |
| 1.1.1 | Updated with the cleanup and authentication info, sample examples | Nagaraju Amarana | | | | |
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