URL-based Re-addressing

This chapter describes the URL-based re-addressing feature and provides detailed information on the following topics:

- Feature Description, on page 1
- How It Works, on page 1
- Configuring URL-based Re-addressing, on page 3
- Monitoring and Troubleshooting the URL-based Readdressing feature, on page 3

Feature Description

The URL-based re-addressing feature is applied based on L7 rule matching for HTTP URLs in addition to re-addressing charging action based on L3/L4 rule matching. HTTP request with specific token or complete URL must be redirected to a separate server and must be transparent to the UE.

Flow-based re-addressed connection

Flow-based re-addressed connection is the default behavior of this feature. In this type, after a HTTP connection is setup with Original Server, all subsequent requests will be sent to it until the URL-based re-addressing rule matches. This behavior holds true even for multiple concatenated HTTP requests in one packet.

How It Works

This section describes how the URL re-addressing feature works.

Call Flows

The following call flow explains the URL HTTP Request Re-addressing feature.

Figure 1: URL HTTP Request Re-addressing

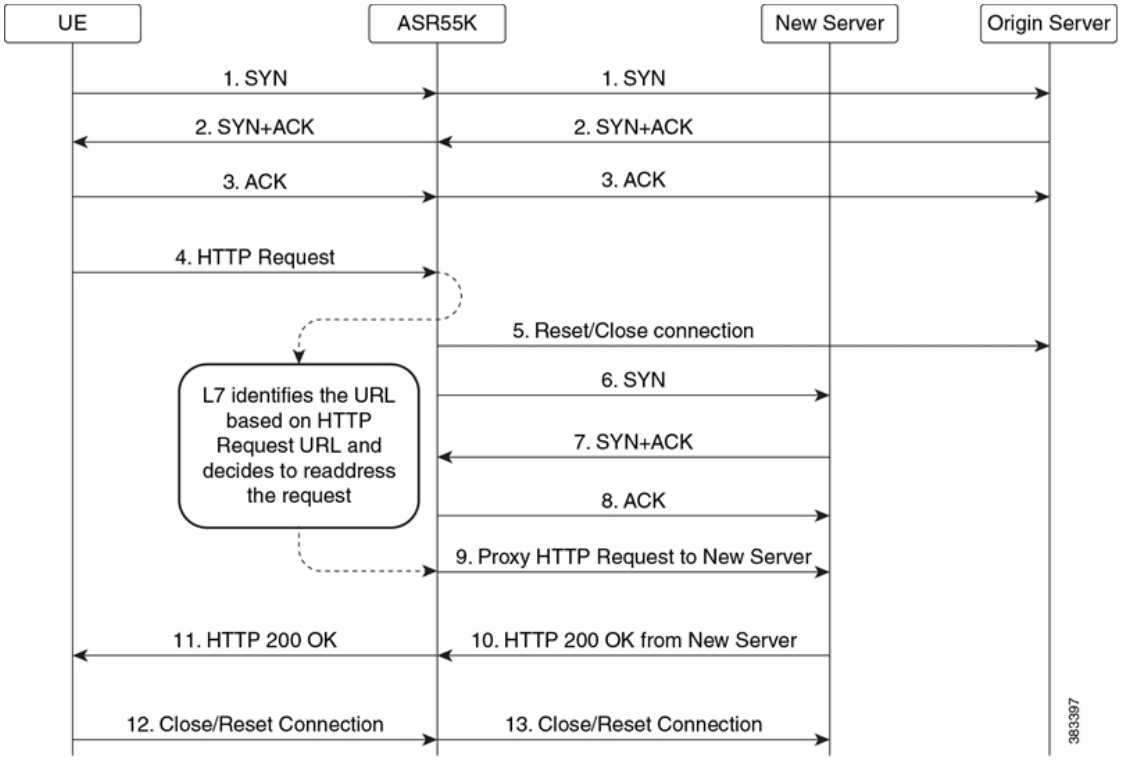

Table 1: URL HTTP Request Re-addressing

Step	Description
1—3	UE sets up a TCP connection with the Origin Server (OS) by sending SYN. The TCP three-way handshake takes place between UE and the Origin Server.
4	UE sends a HTTP request to the OS which passes through the ASR 5500 L7 DPI rule-matching. The URL of the request contains a known token, domain name, or a token configured at ASR 5500 (in a ruledef).
5—8	ASR 5500 using L7 DPI recognizes that the request is for New Server. ASR 5500 breaks/closes the existing TCP connection with OS and establishes a new connection with the New Server. TCP proxy is used to maintain TCP connection between UE and ASR 5500.
9	ASR 5500 sends the HTTP Request destined for Origin Server to New Server.
10	New Server sends back the content in HTTP Response.

Step	Description
11	ASR 5500 proxies the content back to the UE.
12	UE closes the TCP connection.
13	ASR 5500 closes the connection with the New Server.

Configuring URL-based Re-addressing

Use the following configuration in the ACS Charging Action Configuration Mode to configure the URL server to re-address for the specified charging action.

The URL-based re-addressing feature is configured and enabled using the **charging-action** command options within an Active Charging Service.

```
configure
  active-charging service <service_name>
    charging-action <charging_action_name>
      flow action url-readdress server <ipv4_address> [ port <port_number> ]
      no flow action
      end
```

Monitoring and Troubleshooting the URL-based Readdressing feature

This section provides information on the show commands available to support this feature.

show active-charging charging-action statistics name

The output of this command displays the statistics for readdressing failures due to flow without SYN and duplicate key failures. This command also displays the number of packets discarded on readdressing failure if the **discard-on-failure** keyword is enabled else this number will be zero.

- Readdressing Failures Statistics(Packets):
  - Non SYN flow
  - Duplicate Key
  - Dropped Pkts

show active-charging sessions full all

The output of this command displays the statistics for readdressing failures due to flow without SYN and duplicate key failures. This command also displays the number of packets discarded on readdressing failure if the **discard-on-failure** keyword is enabled else this number will be zero.

- Total Readdressing Failure Packets
- Non SYN flow
- Duplicate Key
- Dropped Pkts

show active-charging subsystem all

The output of this command displays the statistics for readdressing failures due to flow without SYN and duplicate key failures. This command also displays the number of packets discarded on readdressing failure if the **discard-on-failure** keyword is enabled else this number will be zero.

- Readdressing Failures Statistics (Packets):
  - Non SYN flow
  - Duplicate Key
  - Dropped Pkts