ACS x-Header Format Configuration Mode Commands

The ACS x-header Format Configuration Mode is used to create and configure extension-header (x-header) formats.

Important This feature is license dependent. Please contact your Cisco sales representative for more information.

Command Modes

Exec > ACS Configuration > ACS xheader Format Configuration

active-charging service *service_name* **> xheader-format** *format_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-acs-xheader)#
```

Important The commands or keywords/variables that are available are dependent on platform type, product version, and installed license(s).

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- exit, on page 2
- insert, on page 2

end

Exits the current configuration mode and returns to the Exec mode.

Product

All

Privilege

Security Administrator, Administrator

Syntax Description

end

Usage Guidelines

Use this command to return to the Exec mode.

exit

Exits the current mode and returns to the parent configuration mode.

Product All

Privilege Security Administrator, Administrator

Syntax Description

```
exit
```

Usage Guidelines Use this command to return to the parent configuration mode.

insert

This command allows you to configure the x-header fields to be inserted in HTTP/WSP GET and POST request packets.

Important This command is license dependent. Please contact your Cisco accounts representative for more information.

Product ACS

Privilege Security Administrator, Administrator

Command Modes Exec > ACS Configuration > ACS xheader Format Configuration

active-charging service *service_name* **> xheader-format** *format_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-acs-xheader)#
```

Syntax Description In StarOS 8.1, StarOS 9.0, and later releases:

```
insert xheader_field_name { string-constant xheader_field_value | variable {
bearer { 3gpp { apn | charging-characteristics | charging-id | imei |
imsi | qos | rat-type | s-mcc-mnc | sgsn-address } | acr | congestion-level
 | customer-id  | dest-server-ip-address-port  | ggsn-address | mdn  |
msisdn-no-cc  radius-string  | radius-calling-station-id  | session-id
 | sn-rulebase | subscriber-ip-address | time-of-day | uidh-value [
delete-existing ] | username } [ encrypt ] gx hash-value [ delete-existing
 | encrypt [ delete-existing ] ]| http { host | url } } [ delete-existing
 ] }
no insert xheader_field_name
```

In StarOS 8.0:

```
insert xheader_field_name { string-constant xheader_field_value | variable {
bearer { 3gpp charging-id | ggsn-address | imsi | radius-string |
radius-calling-station-id | sgsn-address | sn-rulebase |
```

subscriber-ip-address } | http { host | url } }
no insert *xheader_field_name*

no

If previously configured, removes the specified x-header field configuration.

xheader_field_name

Specifies the x-header field name to be inserted in the packets.

xheader_field_name must be an alphanumeric string of 1 through 31 characters.

Up to ten fields can be inserted in each x-header format.

string-constant *xheader_field_value*

Specifies constant a string value for x-header field to be inserted in the packets.

xheader_field_value must be the x-header field value, and must be an alphanumeric string of 1 through 63 characters.

variable

Specifies name of the x-header field whose value must be inserted in the packets.

bearer { 3gpp { apn | charging-characteristics | charging-id | imei | imsi | qos | rat-type | s-mcc-mnc | sgsn-address } | acr | congestion-level | customer-id | dest-server-ip-address-port | ggsn-address | mdn | msisdn-no-cc | radius-string | radius-calling-station-id | session-id | sn-rulebase | subscriber-ip-address | time-of-day | username } [encrypt]

bearer { 3gpp { apn | charging-characteristics | charging-id | imei | imsi | qos | rat-type | s-mcc-mnc | sgsn-address } | acr | congestion-level | customer-id | dest-server-ip-address-port | ggsn-address | mdn | msisdn-no-cc | radius-string | radius-calling-station-id | session-id | sn-rulebase | subscriber-ip-address | uidh-value [delete-existing]| time-of-day | username } [encrypt]

Specifies value of x-header field to be inserted:

- **3gpp**: 3GPP service.
  - **apn**: APN of the bearer flow. This field is deprecated from under **bearer apn** and has been added within **bearer 3gpp apn**.The APN added via **bearer 3gpp apn**
  - **charging-characteristics**: Charging characteristics of the bearer flow.
  - **charging-id**: Charging ID of the bearer flow.
  - **imei**: IMEI or IMEISV (depending on the case) associated with the bearer flow.
  - **imsi**: Specific Mobile Station Identification number.
  - **qos**: EPC QoS associated with the bearer flow.

    The inserted x-header is seen as:

    x-bearer-qos: 020400000100000002000000010000000200\r\n
  - **rat-type**: This field is deprecated from under **bearer rat-type** and has been added within **bearer 3gpp rat-type**.The RAT type as added via **bearer 3gpp rat-type**.

- **s-mcc-mnc**: 3GPP serving node MCC + MNC associated with the bearer.

  The inserted x-header is seen as: x-s-mcc-mnc: 123765\r\n

- **sgsn-address**: SGSN associated with the bearer flow.

- **acr**: Anonymous Customer Reference. Only MSISDN part of this is encrypted, if encrypt flag is set.
- **congestion-level**: Cell level congestion currently experienced by the subscriber.
- **customer-id**: Customer ID of the bearer.
- **dest-server-ip-address-port**: The IPv4 or IPv6 address of the Origin Server, and the TCP port of the HTTP request to the Origin Server.
- **ggsn-address**: GGSN IP address field.
- **imsi**: This field is deprecated from within **bearer imsi** and has been moved within **bearer 3gpp imsi**. The IMSI as added via **bearer 3gpp imsi**.
- **mdn**: MDN of the bearer flow.
- **msisdn-no-cc**: MSISDN of the mobile handling the flow without the country code.
- **radius-string**: SN-Transparent-Data Attribute received in RADIUS ACCESS ACCEPT message.
- **radius-calling-station-id**: Calling Station ID of the mobile handling the flow. Use this for MSISDN of the mobile handling the flow with the country code.
- **session-id**: Accounting session ID of the bearer flow.
- **sn-rulebase**: Name of the ACS rulebase.
- **sgsn-address**: This field is deprecated from under **bearer sgsn-address** and has been moved within **bearer 3gpp sgsn-address**.The SGSN address as added via **bearer 3gpp sgsn-address**.
- **subscriber-ip-address**: Subscriber IP address.
- **uidh-value [delete-existing]**: Specifies the UIDH hash value received from the UIDH server. **delete-existing** enables detection of spoofing in X-header file.
- **time-of-day**: The current date, time, and time zone offset of the subscriber.
- **username**: User name of the bearer flow.

encrypt: Specifies encryption of x-header field configuration. This option must only be configured when x-header encryption is enabled.

gx hash-value

Receives hash value strings over the Gx interface. The **hash-value** command specifies the hashed value string received in the Hash-Value AVP.

http { host | url }

Specifies value of the x-header field to be inserted:

- **host**: Host

- **url**: Uniform Resource Locator

delete-existing

Specifies enabling detection of spoofing in x-header fields. The x-header field configured with this keyword will be removed from the HTTP header if it already exists, and only the gateway inserted field will remain. By default, anti spoofing is disabled, and if required, should be enabled at a field level.

Usage Guidelines

Use this command to configure the x-header fields to be inserted in HTTP/WSP GET and POST request packets. The x-headers would be inserted at the end of the HTTP/WSP header. This CLI command may be used up to 10 times. There is no control over the order of the fields that are to be inserted. Any of the indicated ruledef variables may be inserted using the variable option, or a static string may be inserted using the string-constant option.

Operators may insert x-headers in some HTTP/WSP packets, for which some rules will be configured. The charging-action associated with these rules will contain the list of x-headers to be inserted in the packets.

Example

The following command configures an x-header field named *test12* with a constant string value of *testing* to be inserted in HTTP/WSP GET and POST request packets:

```
insert test12 string-constant testing
```

The following command receives hash value strings over the Gx interface for a x-header field named *TEST*:

```
insert TEST variable gx hash-value
```