Debug Commands for CWMP Technology

This chapter describes the command line interface (CLI) commands that you can use to debug the CWMP technology on the Cisco Broadband Access Center (Cisco BAC) Device Provisioning Engine (DPE).

Note Before using any debug command, ensure that DPE debugging is enabled by running the **debug on** command. See debug on, page 8-5, for more information.

The commands described in this chapter are:

debug service *type*

This is the global syntax of the commands that you use to debug the CWMP service and the HTTP file service that run on the DPE.

Syntax Description   `debug service` *type num*

- **•** *type*—Specifies the service, which could be CWMP or HTTP.
  - **–** CWMP—Enables debugging of the CWMP service on the DPE.
  - **–** HTTP—Enables debugging of the HTTP file service on the DPE.
- **•** *num*—Specifies the instance of the service, which could be 1 or 2.

For a list of commands used to debug the CWMP service, see debug service cwmp, page 9-2.

For a list of commands used to debug the HTTP file service, see debug service http, page 9-9.

debug service cwmp

This section describes the commands that you use to debug the CWMP service that runs on the DPE.

Note   Prior to using any debug commands that follow, ensure that DPE debugging is enabled. Run the **debug on** command to enable this function. See debug on, page 8-5, for more information.

Syntax Description   `debug service cwmp` *num*

num—Specifies the instance of the service, which could be 1 or 2.

Table 9-1 describes the commands that you can use to debug the CWMP service.

Table 9-1   List of debug service cwmp Commands

Command Usage	Example
debug service cwmp *num* **client-auth-all** **no debug service cwmp** *num* **client-auth-all**	
Enables detailed debugging of successful and failed client authentication, for the CWMP service. To disable detailed debugging of successful and failed authentication for the CWMP service, use the **no** form of this command.	dpe# **debug service cwmp 1 client-auth-all** % OK
debug service cwmp *num* **client-auth-failures** **no debug service cwmp** *num* **client-auth-failures**	
Enables detailed debugging of failed client authentication for the CWMP service. To disable detailed debugging of failed client authentication for the CWMP service, use the **no** form of this command.	dpe# **debug service cwmp 1 client-auth-failures** % OK
debug service cwmp connection-request-service **no debug service cwmp connection-request-service**	
Enables debugging of the CWMP connection request service, involving requests from the DPE to the CPE device. To disable debugging of the CWMP connection request service, use the **no** form of this command. **Note** You need not mention the CWMP instance for this command.	dpe# **no debug service cwmp connection-request-service** % OK
debug service cwmp *num* **cpe-config-sync** **no debug service cwmp** *num* **cpe-config-sync**	
Enables detailed debugging of the device configuration synchronization, involving DPE interactions with the CPE device, for the CWMP service. To disable detailed debugging of the CWMP device configuration synchronization service, use the **no** form of this command.	dpe# **debug service cwmp 1 cpe-config-sync** % OK

Table 9-1   List of debug service cwmp Commands (continued)

Command Usage	Example
debug service cwmp *num* cpe-signed-config-sync	
no debug service cwmp *num* cpe-signed-config-sync	
Enables detailed debugging of the device signed configuration synchronization for the CWMP service. To disable detailed debugging of the device signed configuration synchronization service, use the **no** form of this command.	```dpe# debug service cwmp 1 cpe-signed-config-sync % OK```
debug service cwmp *num* data-sync	
no debug service cwmp *num* data-sync	
Enables detailed debugging of data synchronization in interactions between the RDU and the CPE. This data relates to device discovery and device updates that are forwarded to the RDU. To disable detailed debugging of the data synchronization service, use the **no** form of this command.	```dpe# debug service cwmp 1 data-sync % OK```
debug service cwmp *num* device-operations	
no debug service cwmp *num* device-operations	
Enables debugging the execution of device operations on the DPE. To disable debugging the execution of device operations on the DPE, use the **no** form of this command.	```dpe# debug service cwmp 1 device-operations % OK```
debug service cwmp device-operations-cache	
no debug service cwmp device-operations-cache	
Enables debugging of the immediate-mode device operation cache that all CWMP services use. To disable debugging of the immediate-mode device operation cache that all CWMP services use, use the **no** form of this command. **Note** You need not mention the CWMP instance for this command.	```dpe# debug service cwmp device-operations-cache % OK```

Table 9-1   List of debug service cwmp Commands (continued)

Command Usage	Example
debug service cwmp *num* errors **no debug service cwmp *num* errors**	
Enables debugging of low-level errors generated during interactions involving the CWMP service running on the DPE. These errors are not usually logged. To disable debugging of low-level errors generated during interaction involving the CWMP service, use the **no** form of this command.	dpe# **debug service cwmp 1 errors** % OK
debug service cwmp *num* extension **no debug service cwmp *num* extension**	
Enables debugging of the service extensions for the CWMP service running on the DPE. To disable debugging of the service extensions for the CWMP service, use the **no** form of this command.	dpe# **debug service cwmp 1 extension** % OK
debug service cwmp *num* firmware **no debug service cwmp *num* firmware**	
Enables debugging the execution of firmware rules for the CWMP service. These rules include messages and conditions that detail the state of the device firmware. To disable debugging the execution of firmware rules for the CWMP service, use the **no** form of this command.	dpe# **debug service cwmp 1 firmware** % OK
debug service cwmp *num* http-details **no debug service cwmp *num* http-details**	
Enables debugging of low-level details for the CWMP service running on the DPE. To disable debugging of low-level details for the CWMP service, use the **no** form of this command.	dpe# **debug service cwmp 1 http-details** % OK
debug service cwmp *num* http-faults **no debug service cwmp *num* http-faults**	
Enables debugging of the error responses generated during interactions involving the CWMP service running on the DPE. To disable debugging of the error responses generated during interactions involving the CWMP service, use the **no** form of this command.	dpe# **debug service cwmp 1 http-faults** % OK

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Table 9-1   List of debug service cwmp Commands (continued)

Command Usage	Example
debug service cwmp *num* **http-headers** **no debug service cwmp** *num* **http-headers**	
Enables detailed debugging of the request and response headers for the CWMP service. To disable detailed debugging of the request and response headers for the CWMP service, use the **no** form of this command.	```dpe# debug service cwmp 1 http-headers``` ```% OK```
debug service cwmp *num* **http-requests** **no debug service cwmp** *num* **http-requests**	
Enables detailed debugging of the requests in the payload of a message for the CWMP service. To disable detailed debugging of the requests in the payload of a message for the CWMP service, use the **no** form of this command.	```dpe# debug service cwmp 1 http-requests``` ```% OK```
debug service cwmp *num* **http-responses** **no debug service cwmp** *num* **http-responses**	
Enables detailed debugging of the responses in the payload of a message for the CWMP service. To disable detailed debugging of the responses in the payload of a message for the CWMP service, use the **no** form of this command.	```dpe# debug service cwmp 1 http-responses``` ```% OK```
debug service cwmp *num* **instr-gen-requests** **no debug service cwmp** *num* **instr-gen-requests**	

Enables debugging of the instruction generation requests for the CWMP service involving interactions with the CPE.
 	
To disable debugging of the instruction generation requests, use the **no** form of this command.
	```dpe# debug service cwmp 1```
	```instr-gen-requests```
	```% OK```

debug service cwmp *num* **instruction-details** **no debug service cwmp** *num* **instruction-details**	

Enables detailed debugging of the instruction processing for the CWMP service involving interactions with the CPE.
 	
To disable detailed debugging of the instruction processing for the CWMP service, use the **no** form of this command.
	```dpe# debug service cwmp 1```
	```instruction-details```
	```% OK```

Table 9-1   List of debug service cwmp Commands (continued)

Command Usage	Example
debug service cwmp *num* **instruction-lookup** **no debug service cwmp** *num* **instruction-lookup**	
Enables debugging of the DPE instruction lookup details for the CWMP service involving interactions with the CPE. To disable debugging of the DPE instruction lookup details for the CWMP service, use the **no** form of this command.	dpe# **debug service cwmp 1 instruction-lookup** % OK
debug service cwmp *num* **instruction-rpc** **no debug service cwmp** *num* **instruction-rpc**	
Enables debugging of the RPC instruction processing for the CWMP service involving interactions with the CPE. To disable debugging of the RPC instruction processing for the CWMP service, use the **no** form of this command.	dpe# **debug service cwmp 1 instruction-rpc** % OK
debug service cwmp *num* **instruction-states** **no debug service cwmp** *num* **instruction-states**	
Enables debugging of instruction state transitions during instruction processing for the CWMP service. To disable debugging of instruction state transitions during instruction processing for the CWMP service, use the **no** form of this command.	dpe# **debug service cwmp 1 instruction-states** % OK
debug service cwmp *num* **ipe** **no debug service cwmp** *num* **ipe**	
Enables debugging of the DPE instruction processing engine execution for the CWMP service. To disable debugging of the DPE instruction processing engine execution for the CWMP service, use the **no** form of this command.	dpe# **debug service cwmp 1 ipe** % OK
debug service cwmp *num* **session** **no debug service cwmp** *num* **session**	
Enables debugging the lifecycle of a CWMP session between the DPE and the CPE device. To disable debugging of the CWMP session, use the **no** form of this command.	dpe# **debug service cwmp 1 session** % OK

Table 9-1   List of debug service cwmp Commands (continued)

Command Usage	Example
debug service cwmp session-manager **no debug service cwmp session-manager**	
Enables debugging of the session manager for the CWMP service that is responsible for managing sessions. To disable debugging of the session manager for the CWMP service, use the **no** form of this command. **Note** You need not mention the CWMP instance for this command.	`dpe# debug service cwmp session-manager` `% OK`
debug service cwmp *num* soap-faults **no debug service cwmp *num* soap-faults**	
Enables the debugging of all SOAP faults, received and sent, for the CWMP service involving interactions with the CPE device. To disable debugging of all SOAP faults for the CWMP service, use the **no** form of this command.	`dpe# debug service cwmp 1 soap-faults` `% OK`
debug service cwmp *num* soap-informs **no debug service cwmp *num* soap-informs**	
Enables debugging of all received Inform messages for the CWMP service in interactions between the DPE and the CPE device. To disable debugging of all received Inform messages for the CWMP service, use the **no** form of this command.	`dpe# debug service cwmp 1 soap-informs` `% OK`
debug service cwmp *num* unknown-devices **no debug service cwmp *num* unknown-devices**	
Enables debugging the processing of device configurations that are not stored in the DPE cache. To disable debugging the processing of device configurations not stored in the DPE cache, use the **no** form of this command.	`dpe# debug service cwmp 1 unknown-devices` `% OK`

Table 9-1   List of debug service cwmp Commands (continued)

Command Usage	Example
debug service cwmp-redirect **no debug service cwmp-redirect**	
Enables the DPE to debug the home provisioning group redirection operations. To disable debugging of the home provisioning group redirection operations, use the **no** form of this command. You need not restart the DPE for this command to take effect.	`dpe#` **`debug service cwmp-redirect`** `% OK`

debug service http

This section describes the commands that you use to debug the HTTP file service that runs on the DPE.

![Note icon]

Note   Before using any debug command, ensure that DPE debugging is enabled. Run the **debug on** command to enable this function. See debug on, page 8-5, for more information.

Syntax Description   **debug service http** *num*

num—Specifies the instance of the service, which could be 1 or 2.

Table 9-2 describes the commands that you can use to debug the HTTP file service.

Table 9-2   List of debug service http Commands

Command Usage	Example
debug service http *num* **client-auth-all** **no debug service http** *num* **client-auth-all**	
Enables debugging of successful and failed client authentication for the HTTP service. To disable debugging of successful and failed client authentication for the HTTP service, use the **no** form of this command.	`dpe#` **`debug service http 1 client-auth-all`** `% OK`

Table 9-2   List of debug service http Commands (continued)

Command Usage	Example
debug service http *num* **client-auth-failures** **no debug service http** *num* **client-auth-failures**	

Enables debugging of client authentication failures for the HTTP service.
 	
To disable debugging of client authentication failures of the HTTP service, use the **no** form of this command.
	```dpe# debug service http 1```
	 ```client-auth-failures```
	 ```% OK```

debug service http *num* **details** **no debug service http** *num* **details**	
Enables debugging the low-level details of the HTTP service running on the DPE. To disable debugging the low-level details of the HTTP service, use the **no** form of this command.	```dpe# debug service http 1 details``` ```% OK```
debug service http *num* **errors** **no debug service http** *num* **errors**	
Enables debugging of request errors for the HTTP service running on the DPE. To disable debugging of request errors for the HTTP service, use the **no** form of this command.	```dpe# debug service http 1 errors``` ```% OK```
debug service http *num* **faults** **no debug service http** *num* **faults**	
Enables debugging of the error responses of the HTTP service running on the DPE. To disable debugging of the error responses of the HTTP service, use the **no** form of this command.	```dpe# debug service http 1 faults``` ```% OK```
debug service http *num* **headers** **no debug service http** *num* **headers**	
Enables debugging of the request and response headers for the HTTP service running on the DPE. To disable debugging of the request and response headers for the HTTP service, use the **no** form of this command.	```dpe# debug service http 1 headers``` ```% OK```

Table 9-2   List of debug service http Commands (continued)

Command Usage	Example
debug service http *num* **request-processing** **no debug service http** *num* **request-processing**	
Enables debugging of successful and failed request processing, for the HTTP service running on the DPE. To disable debugging of successful and failed request processing for the HTTP service, use the **no** form of this command.	```dpe# debug service http 1 request-processing % OK```
debug service http framework **no debug service http framework**	
Enables debugging of the HTTP framework activity that is not associated with a particular service. To disable debugging of the HTTP framework activity, use the **no** form of this command. **Note** You need not specify the HTTP instance for this command.	```dpe# debug service http framework % OK```

debug service ssl

Use this command to enable debugging of the process accepting a SSL/TLS connection in CWMP exchanges between the DPE and the CPE device.

To disable debugging of the process accepting a SSL/TLS connection, use the **no** form of this command.

When using this command, you must restart the DPE for the changes to take effect. To restart the DPE, run the **dpe reload** command. Refer to dpe reload, page 3-6, for more information.

Examples

```
dpe# debug service ssl
% OK (Requires DPE restart "# dpe reload")
```

■ **debug service ssl**