



Bulk Content Downloader Commands

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show bcdl

To display Bulk Content Downloader (BCDL) information, use the **show bcdl** command in EXEC mode.

```
show bcdl [group_name]
```

| | |
|---------------------------|--|
| Syntax Description | <i>group_name</i> (Optional) Displays information for a specific BCDL group. |
|---------------------------|--|

| | |
|------------------------|-------------------------------|
| Command Default | No default behavior or values |
|------------------------|-------------------------------|

| | |
|----------------------|---------|
| Command Modes | XR EXEC |
|----------------------|---------|

| Command History | Release | Modification |
|------------------------|----------------|------------------------------|
| | Release 7.0.12 | This command was introduced. |

| | |
|-------------------------|--|
| Usage Guidelines | No specific guidelines impact the use of this command. |
|-------------------------|--|

| Task ID | Task ID | Operations |
|----------------|----------------|-------------------|
| | sysmgr | read |

The following example shows sample output from the **show bcdl** command:

```
RP/0/RSP0/CPU0:router# show bcdl ipv4_rib

Sun May 31 06:56:12.093 PST
grp ipv4_rib, gid 2040, sg cnt 1, agent jid 124, node 0/RSP0/CPU0, pulse 105,
new mbr 0
sg  lwg  fd  csmr  hdlr-act  dnld-act  susp  wait-lck  seq  pulse-tot  pulse-out
  0 2043 11   4          no         no   no         0 113         103         0
```

Table 1: show bcdl Field Descriptions

| Field | Description |
|-----------|--|
| group | Type of download and the Group Services Protocol (GSP) group name. |
| gid | Heavyweight group (HWG) in the GSP. This is the group that a consumer initially joins. It is used by the BCDL agent to send control updates. |
| sg count | Number of subgroups for this particular download type. |
| agent jid | Job identifier of the BCDL agent. The JID is numerical identifier for a particular process and remains the same across process restarts. |
| node | Node, expressed in the <i>rackslotmodule</i> notation, in which the agent is running. |

| Field | Description |
|-----------|--|
| pulse | Pulse code used by the producer to pulse the BCDL agent. |
| new mbr | Number of new consumers that have not yet been assigned a subgroup. |
| sg | Subgroups number. |
| lwg | Lightweight group in GSP. This is a type of child group of the HWG. The BCDL agent tells the consumers to join this group to receive data. |
| fd | The connection handle between the producer and the BCDL agent. |
| csmr | Number of consumers. |
| hdlr-act | Specifies if there is a download in progress. |
| dnld-act | Indicates whether the convergence flag has been sent or not. |
| susp | Indicates whether the download is suspended due to the queue filling up. |
| wait-lck | If nonzero, some thread is waiting for other thread to take control of this subgroup. |
| seq | Sequence number of the last message sent on this subgroup. |
| pulse-tot | Total number of pulses sent by the producer to the BCDL agent. |
| pulse-out | Total number of outstanding pulses that have not yet been processed by the BCDL agent. |

show bcdl consumers

To display Bulk Content Downloader (BCDL) consumer information, use the **show bcdl consumers** command in

EXEC

mode

show bcdl consumers [*group_name*]

| | |
|---------------------------|--|
| Syntax Description | <i>group_name</i> (Optional) Displays information for a specific BCDL group. |
|---------------------------|--|

| | |
|------------------------|-------------------------------|
| Command Default | No default behavior or values |
|------------------------|-------------------------------|

| | |
|----------------------|------|
| Command Modes | EXEC |
|----------------------|------|

| Command History | Release | Modification |
|------------------------|----------------|------------------------------|
| | Release 7.0.12 | This command was introduced. |

| | |
|-------------------------|--|
| Usage Guidelines | No specific guidelines impact the use of this command. |
|-------------------------|--|

| Task ID | Task Operations ID |
|----------------|---------------------------|
| | sysmgr read |

The following example shows sample output using the **show bcdl consumers** command:

```
RP/0/RSP0/CPU0:router# show bcdl consumers ipv4_rib

Sun May 31 06:17:38.209 PST
group ipv4_rib, gsp gid 2040, 4 consumers, agent jid 124, node 0/RSP0/CPU0
(expected 4 consumers to reply, received 4 replies)
  pid      node asg csg  lwg sus  messages    bytes  errs name
  323727  0/RSP0/CPU0  0  0 2043  N      113      54196    0 fib_mgr
  110686  0/6/CPU0    0  0 2043  N      111      54140    0 fib_mgr
  110686  0/4/CPU0    0  0 2043  N      112      54168    0 fib_mgr
  110686  0/1/CPU0    0  0 2043  N      111      54140    0 fib_mgr
```

This table describes the significant fields shown in the display that are not described in [Table 1: show bcdl Field Descriptions, on page 2](#).

Table 2: show bcdl consumers Field Descriptions

| Field | Description |
|-------|---------------------|
| PID | Process identifier. |

| Field | Description |
|----------|--|
| node | Consumer node, expressed in the <i>rack/slot</i> notation. |
| asg | Subgroup to which the BCDL agent thinks this consumer belongs. |
| csg | Subgroup to which the consumer thinks it belongs. |
| messages | Number of messages processed by this particular consumer. |
| bytes | Bytes processed by this particular consumer. |
| errors | Errors encountered by the consumer. This field indicates the number of times the connection was reset. |
| name | Name of the consumer process. |

show bcdl queues

To display the Bulk Content Downloader (BCDL) queue information, use the **show bcdl queues** command in

EXEC

mode.

show bcdl queues [*group_name*]

| | |
|---------------------------|--|
| Syntax Description | <i>group_name</i> (Optional) Displays information for a specific BCDL group. |
|---------------------------|--|

| | |
|------------------------|-------------------------------|
| Command Default | No default behavior or values |
|------------------------|-------------------------------|

| | |
|----------------------|------|
| Command Modes | EXEC |
|----------------------|------|

| | | |
|------------------------|----------------|------------------------------|
| Command History | Release | Modification |
| | Release 7.0.12 | This command was introduced. |

| | |
|-------------------------|--|
| Usage Guidelines | No specific guidelines impact the use of this command. |
|-------------------------|--|

| | | |
|----------------|----------------|-------------------|
| Task ID | Task ID | Operations |
| | sysmgr | read |

The following example shows sample output from the **show bcdl queues** command:

```
RP/0/RSP0/CPU0:router# show bcdl queues ipv4_rib

Sun May 31 07:13:28.665 PST
group ipv4_rib, gsp gid 2040, 4 consumers, agent jid 124, node 0/RSP0/CPU0
(expected 4 consumers to reply, received 4 replies)
  pid          node asg csg  lwg sus msgs_in_q  bytes_in_q  errs name
  323727 0/RSP0/CPU0  0  0 2043  N      0           0      0 fib_mgr
  110686 0/6/CPU0      0  0 2043  N      0           0      0 fib_mgr
  110686 0/1/CPU0      0  0 2043  N      0           0      0 fib_mgr
  110686 0/4/CPU0      0  0 2043  N      0           0      0 fib_mgr
```

[Table 1: show bcdl Field Descriptions, on page 2](#) and [Table 2: show bcdl consumers Field Descriptions, on page 4](#) describe the significant fields shown in the display.

show bcdl tables

To display Bulk Content Downloader (BCDL) table information, use the **show bcdl tables** command in EXEC mode.

show bcdl tables [*group_name*]

| | |
|---------------------------|---|
| Syntax Description | <i>group_name</i> Displays information for a specific BCDL group. |
|---------------------------|---|

| | |
|------------------------|-------------------------------|
| Command Default | No default behavior or values |
|------------------------|-------------------------------|

| | |
|----------------------|------|
| Command Modes | EXEC |
|----------------------|------|

| Command History | Release | Modification |
|------------------------|----------------|------------------------------|
| | Release 7.0.12 | This command was introduced. |

| | |
|-------------------------|--|
| Usage Guidelines | No specific guidelines impact the use of this command. |
|-------------------------|--|

| Task ID | Task ID | Operations |
|----------------|----------------|-------------------|
| | sysmgr | read |

The following example shows sample output using the **show bcdl tables** command:

```
RP/0/RSP0/CPU0:router# show bcdl tables ipv4_rib

Sun May 31 07:19:29.878 PST
grp ipv4_rib, gid 2040, sg cnt 1, agent jid 124, node 0/RSP0/CPU0, pulse 105, ne
w mbr 0
  sg  lwg fd csmr hdlr-act dnld-act susp wait-lck  seq pulse-tot pulse-out
    0 2043 11  4      no      no  no      0  113      103      0
sgs: 1, table_cnt: 1, table_mid_cnt: 4, buf size: 100
Showing table info for 1 subgroups
sg 0: has 1 tables (messages: 0, bytes: 0)
  table 0xe0000000: 4 members, dnld act: 0, messages: 113, bytes: 54196
  cnsmr 0: pid 323727 on node 0/RSP0/CPU0
  cnsmr 1: pid 110686 on node 0/6/CPU0
  cnsmr 2: pid 110686 on node 0/1/CPU0
  cnsmr 3: pid 110686 on node 0/4/CPU0
```

The significant fields shown in the display that are not described in [show bcdl consumers, on page 4](#) or [show bcdl queues, on page 6](#) are described in this table.

Table 3: show bcdl tables Field Descriptions

| Field | Description |
|--|---|
| sgs | Number of subgroups. |
| table_cnt | Number of tables in this subgroup. |
| sg | Specific subgroup for which information is provided. |
| has 1 tables | Number of tables in this subgroup. |
| messages | Messages sent that are not associated with a particular table ID. |
| bytes | Bytes sent that are not associated with a particular table ID. |
| table | Specific table ID for which information is provided. |
| members | Number of consumers associated with this table. |
| dnld act | Indicates whether or not the convergence flag has been sent. |
| messages | Number of messages sent for a particular table. |
| bytes | Number of bytes sent for a particular table. |
| cnsmr 0: pid 419725 on node 0/RP0/CPU0 | Process ID and node information for each consumer in the specified table. |

show bcdl trace

To display Bulk Content Downloader (BCDL) trace information, use the **show bcdl trace** command in EXEC mode.

```
show bcdl trace [group_name] [event] [timing] [grpsnd] [wrapping|unique] [hexdump] [last
n] [reverse] [stats] [tailf] [verbose] [file filename original location node-id | location {node-id
| all}]
```

| Syntax Description | |
|---|---|
| <i>group_name</i> | (Optional) Displays information for a specific BCDL group. |
| event | (Optional) Displays event trace entries. |
| timing | (Optional) Displays timing trace entries. |
| grpsnd | (Optional) Displays group send trace entries. |
| wrapping | (Optional) Displays wrapping entries. |
| unique | (Optional) Displays unique entries only, along with the count of the number of times this entry appears. |
| hexdump | (Optional) Displays traces in hexadecimal format. |
| last <i>n</i> | (Optional) Displays the last <i>n</i> number of traces only. |
| reverse | (Optional) Displays the most recent traces first. |
| stats | (Optional) Displays execution path statistics. |
| tailf | (Optional) Displays new traces as they are added. |
| verbose | (Optional) Displays additional internal debugging information. |
| file <i>filename original location node-id</i> | (Optional) Specifies a filename and original location of the file to display. |
| location {<i>node-id</i> all} | Specifies the RP node for which to display the execution path monitoring information. The <i>node-id</i> argument is expressed in the <i>rack/slot</i> notation. The all keyword specifies all RP nodes. |

Command Default None

Command Modes EXEC

| Command History | Release | Modification |
|-----------------|----------------|------------------------------|
| | Release 7.0.12 | This command was introduced. |

Usage Guidelines

No specific guidelines impact the use of this command.

Task ID

| Task ID | Operations |
|---------|------------|
| sysmgr | read |

The following example shows sample output using the **show bcdl trace** command:

```
RP/0/RSP0/CPU0:router# show bcdl trace ipv4_rib location 0/1/cpu0

Sun May 31 08:21:07.933 PST
143 wrapping entries (4096 possible, 0 filtered, 143 total)
May 21 15:14:55.790 bcdl/c/ipv4_rib 0/1/CPU0 t4 LE
  bcdl_join_internal: timer_create ret 0, id is 9
May 21 15:14:56.890 bcdl/c/ipv4_rib 0/1/CPU0 t7 LE
  bcdl_join_internal: group_lookup bcdl_ipv4_rib
  returned gid 2040
May 21 15:14:56.966 bcdl/c/ipv4_rib 0/1/CPU0 t7 LE
  join hwg 2040 returns 0
May 21 15:14:56.978 bcdl/c/ipv4_rib 0/1/CPU0 t7 LE
  bcdl_join_internal: joined group bcdl_ipv4_rib,
  member count 5
May 21 15:14:58.969 bcdl/c/ipv4_rib 0/1/CPU0 t7 LE
  rcv gsp mtype 3: connection init sg 1 cur_seq 0
  lwg_gid 2056 table tag 0x00000000 resend state yes
May 21 15:14:58.969 bcdl/c/ipv4_rib 0/1/CPU0 t7 LE
  pc ring high water 0 -> 1, 0 bytes
May 21 15:14:58.969 bcdl/c/ipv4_rib 0/1/CPU0 t4 LE
  c_h deliver msg_id 7 connection init, table event
  0 table tag 0x00000000
May 21 15:14:58.969 bcdl/c/ipv4_rib 0/1/CPU0 t4 LE
  conn init, seq 64206 -> 0, sg 65534 -> 1, gid 2040,
  lwg gid -1 -> 2056
...
```