

show route protocol

Syntax	show route protocol <i>protocol</i> <brief detail extensive terse> <logical-system (all <i>logical-system-name</i>)>
Release Information	Command introduced before JUNOS Release 7.4. ospf2 and ospf3 options introduced in JUNOS Release 9.2.
Description	Display the route entries in the routing table that were learned from a particular protocol.
Options	<i>protocol</i> —Protocol from which the route was learned: <ul style="list-style-type: none">■ access—Access route for use by DHCP application■ access-internal—Access-internal route for use by DHCP application■ aggregate—Locally generated aggregate route■ atmvpn—Asynchronous Transfer Mode virtual private network■ bgp—Border Gateway Protocol■ ccc—Circuit cross-connect■ direct—Directly connected route■ dvmrp—Distance Vector Multicast Routing Protocol■ esis—End System-to-Intermediate System■ isis—Intermediate System-to-Intermediate System■ ldp—Label Distribution Protocol■ l2circuit—Layer 2 circuit■ l2vpn—Layer 2 virtual private network■ local—Local address■ mpls—Multiprotocol Label Switching■ msdp—Multicast Source Discovery Protocol■ ospf—Open Shortest Path First versions 2 and 3■ ospf2—Open Shortest Path First versions 2 only■ ospf3—Open Shortest Path First version 3 only■ pim—Protocol Independent Multicast■ rip—Routing Information Protocol■ ripng—Routing Information Protocol next generation■ rsvp—Resource Reservation Protocol■ rtarget—Local route target virtual private network■ static—Statically defined route

- tunnel—Dynamic tunnel
- vpn—Virtual private network

brief | detail | extensive | terse—(Optional) Display the specified level of output. If you do not specify a level of output, the system defaults to brief.

logical-system (all | *logical-system-name*)—(Optional) Perform this operation on all logical systems or on a particular logical system.

Required Privilege Level view

List of Sample Output

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Output Fields For information about output fields, see the show route command ([\[Unresolved xref\]](#)), the show route detail command ([\[Unresolved xref\]](#)), the show route extensive command ([\[Unresolved xref\]](#)), or the show route terse command ([\[Unresolved xref\]](#)).

show route protocol access

```
user@host> show route protocol access

inet.0: 30380 destinations, 30382 routes (30379 active, 0 holddown, 1 hidden)
+ = Active Route, - = Last Active, * = Both

13.160.0.3/32      *[Access/13] 00:00:09
                  > to 13.160.0.2 via fe-0/0/0.0
13.160.0.4/32      *[Access/13] 00:00:09
                  > to 13.160.0.2 via fe-0/0/0.0
13.160.0.5/32      *[Access/13] 00:00:09
                  > to 13.160.0.2 via fe-0/0/0.0
```

show route protocol access-internal extensive

```
user@host> show route protocol access-internal 13.160.0.19 extensive

inet.0: 100020 destinations, 100022 routes (100019 active, 0 holddown, 1 hidden)
13.160.0.19/32 (1 entry, 1 announced)
TSI:
KRT in-kernel 13.160.0.19/32 -> {13.160.0.2}
    *Access-internal Preference: 12
        Next-hop reference count: 200000
        Next hop: 13.160.0.2 via fe-0/0/0.0, selected
        State: <Active Int>
    Age: 36
    Task: RPD Unix Domain Server./var/run/rpd_serv.local
```

Announcement bits (1): 0-KRT
AS path: I

show route protocol bgp user@host> **show route protocol bgp 192.168.64.0/21**

inet.0: 24 destinations, 32 routes (23 active, 0 holddown, 1 hidden)
+ = Active Route, - = Last Active, * = Both

192.168.64.0/21 [BGP/170] 00:04:33, localpref 100
AS path: 10023 21 I
> to 100.1.3.2 via ge-5/0/3.0, Push 100080

show route protocol bgp detail **show route protocol bgp 66.117.63.0/24 exact detail**

inet.0: 227318 destinations, 227319 routes (227305 active, 0 holddown, 13 hidden)
66.117.63.0/24 (1 entry, 1 announced)

*BGP Preference: 170/-101
Next hop type: Indirect
Next-hop reference count: 681816
Source: 207.17.136.192
Next hop type: Router, Next hop index: 324
Next hop: 192.168.167.254 via fxp0.0, selected
Protocol next hop: 207.17.136.29
Indirect next hop: 8c7b09c 342
State: <Active Int Ext
Local AS: 200 Peer AS: 10458
Age: 20:31:24 Metric2: 0
Task: BGP_10458_10458.207.17.136.192+179
Announcement bits (2): 0-KRT 3-Resolve tree 2
AS path: AS2 PA[6]: 14203 2914 3356 29748 33437 AS_TRANS
AS path: AS4 PA[2]: 33437 393219
AS path: Merged[6]: 14203 2914 3356 29748 33437 393219 I
Communities: 2914:420
Localpref: 100
Router ID: 207.17.136.192

show route protocol bgp extensive user@host> **show route protocol bgp 192.168.64.0/21 extensive**

inet.0: 24 destinations, 32 routes (23 active, 0 holddown, 1 hidden)
192.168.64.0/21 (2 entries, 1 announced)

TSI:

Page 0 idx 0 Type 1 val 86f50a8

BGP Preference: 170/-101
Next-hop reference count: 3
Source: 100.1.3.2
Next hop: 100.1.3.2 via ge-5/0/3.0, selected
Label operation: Push 100080
State: <Ext>
Inactive reason: Route Preference
Local AS: 21 Peer AS: 10023
Age: 4:43
Task: BGP_10023.100.1.3.2+4282
AS path: 10023 21 I
Route Label: 100080
Localpref: 100
Router ID: 100.1.3.2

show route protocol bgp terse user@host> **show route protocol bgp 192.168.64.0/21 terse**

inet.0: 24 destinations, 32 routes (23 active, 0 holddown, 1 hidden)
+ = Active Route, - = Last Active, * = Both

A Destination	P Prf	Metric 1	Metric 2	Next hop	AS path
192.168.64.0/21	B 170	100		>100.1.3.2	10023 21 I

show route protocol direct

user@host> show route protocol direct

inet.0: 35 destinations, 35 routes (34 active, 0 holddown, 1 hidden)
+ = Active Route, - = Last Active, * = Both

```
127.0.0.1/32      [Direct/0] 14:36:24
                  > via lo0.0
111.222.5.0/24    *[Direct/0] 14:36:24
                  > via fxp0.0
111.222.8.16/28   *[Direct/0] 14:36:24
                  > via at-5/3/0.0
111.222.8.100/30  *[Direct/0] 14:36:24
                  > via at-5/3/0.129
111.222.8.104/30  *[Direct/0] 14:36:24
                  > via at-5/3/0.128
111.222.8.161/32  *[Direct/0] 14:36:24
                  > via t3-5/2/0.0
111.222.8.163/32  *[Direct/0] 14:36:24
                  > via t3-5/2/1.0
...
```

iso.0: 1 destinations, 1 routes (1 active, 0 holddown, 0 hidden)
+ = Active Route, - = Last Active, * = Both

```
47.0005.80ff.f800.0000.0108.0001.1921.6800.5081.00/160
                  *[Direct/0] 14:36:24
                  > via lo0.0
```

show route protocol l2circuit detail

user@router> show route protocol l2circuit detail

mpls.0: 5 destinations, 5 routes (5 active, 0 holddown, 0 hidden)
100000 (1 entry, 1 announced)

```
*L2CKT Preference: 7
  Next hop: via ge-2/0/0.0, selected
  Label operation: Pop      Offset: 4
  State: <Active Int>
  Local AS: 99
  Age: 9:52
  Task: Common L2 VC
  Announcement bits (1): 0-KRT
  AS path: I
```

ge-2/0/0.0 (1 entry, 1 announced)

```
*L2CKT Preference: 7
  Next hop: via so-1/1/2.0 weight 1, selected
  Label-switched-path my-lsp
  Label operation: Push 100000, Push 100000(top)[0] Offset: -4
  Protocol next hop: 10.245.255.63
  Push 100000 Offset: -4
  Indirect next hop: 86af0c0 298
  State: <Active Int>
  Local AS: 99
  Age: 9:52
  Task: Common L2 VC
  Announcement bits (2): 0-KRT 1-Common L2 VC
  AS path: I
```

```

l2circuit.0: 2 destinations, 2 routes (2 active, 0 holddown, 0 hidden)

10.245.255.63:CtrlWord:4:3:Local/96 (1 entry, 1 announced)
  *L2CKT Preference: 7
    Next hop: via so-1/1/2.0 weight 1, selected
    Label-switched-path my-lsp
    Label operation: Push 100000[0]
    Protocol next hop: 10.245.255.63 Indirect next hop: 86af000 296
    State: <Active Int>
    Local AS: 99
    Age: 10:21
    Task: l2 circuit
    Announcement bits (1): 0-LDP
    AS path: I
    VC Label 100000, MTU 1500, VLAN ID 512

```

**show route protocol
l2vpn extensive**

```

user@host> show route protocol l2vpn extensive

inet.0: 14 destinations, 15 routes (13 active, 0 holddown, 1 hidden)

inet.3: 1 destinations, 1 routes (1 active, 0 holddown, 0 hidden)

iso.0: 1 destinations, 1 routes (1 active, 0 holddown, 0 hidden)

mpls.0: 7 destinations, 7 routes (7 active, 0 holddown, 0 hidden)
800001 (1 entry, 1 announced)
TSI:
KRT in-kernel 800001 /36 -> {so-0/0/0.0}
  *L2VPN Preference: 7
    Next hop: via so-0/0/0.0 weight 49087 balance 97%, selected
    Label operation: Pop Offset: 4
    State: <Active Int>
    Local AS: 69
    Age: 7:48
    Task: Common L2 VC
    Announcement bits (1): 0-KRT
    AS path: I

so-0/0/0.0 (1 entry, 1 announced)
TSI:
KRT in-kernel so-0/0/0.0.0 /16 -> {indirect(288)}
  *L2VPN Preference: 7
    Next hop: via so-0/0/1.0, selected
    Label operation: Push 800000 Offset: -4
    Protocol next hop: 10.255.14.220
    Push 800000 Offset: -4
    Indirect next hop: 85142a0 288
    State: <Active Int>
    Local AS: 69
    Age: 7:48
    Task: Common L2 VC
    Announcement bits (2): 0-KRT 1-Common L2 VC
    AS path: I
    Communities: target:69:1 Layer2-info: encaps:PPP,
    control flags:2, mtu: 0

```

show route protocol ldp

```

user@host> show route protocol ldp

inet.0: 12 destinations, 13 routes (12 active, 0 holddown, 0 hidden)

inet.3: 2 destinations, 2 routes (2 active, 0 holddown, 0 hidden)
+ = Active Route, - = Last Active, * = Both

```

```

192.168.16.1/32    *[LDP/9] 1d 23:03:35, metric 1
                  > via t1-4/0/0.0, Push 100000
192.168.17.1/32    *[LDP/9] 1d 23:03:35, metric 1
                  > via t1-4/0/0.0

private1___.inet.0: 2 destinations, 2 routes (2 active, 0 holddown, 0 hidden)

mpls.0: 6 destinations, 6 routes (6 active, 0 holddown, 0 hidden)
+ = Active Route, - = Last Active, * = Both

100064            *[LDP/9] 1d 23:03:35, metric 1
                  > via t1-4/0/0.0, Pop
100064(S=0)        *[LDP/9] 1d 23:03:35, metric 1
                  > via t1-4/0/0.0, Pop
100080            *[LDP/9] 1d 23:03:35, metric 1
                  > via t1-4/0/0.0, Swap 100000

```

**show route protocol ldp
extensive**

```

user@host> show route protocol ldp extensive
192.168.16.1/32 (1 entry, 1 announced)
  State: <FlashAll>
  *LDP   Preference: 9
         Next-hop reference count: 3
         Next hop: via t1-4/0/0.0, selected
         Label operation: Push 100000
         State: <Active Int>
         Local AS: 65500
         Age: 1d 23:03:58      Metric: 1
         Task: LDP
         Announcement bits (2): 0-Resolve tree 1 2-Resolve tree 2
         AS path: I

192.168.17.1/32 (1 entry, 1 announced)
  State: <FlashAll>
  *LDP   Preference: 9
         Next-hop reference count: 3
         Next hop: via t1-4/0/0.0, selected
         State: <Active Int>
         Local AS: 65500
         Age: 1d 23:03:58      Metric: 1
         Task: LDP
         Announcement bits (2): 0-Resolve tree 1 2-Resolve tree 2
         AS path: I

private1___.inet.0: 2 destinations, 2 routes (2 active, 0 holddown, 0 hidden)

mpls.0: 6 destinations, 6 routes (6 active, 0 holddown, 0 hidden)

100064 (1 entry, 1 announced)
TSI:
KRT in-kernel 100064 /36 -> {t1-4/0/0.0}
  *LDP   Preference: 9
         Next-hop reference count: 2
         Next hop: via t1-4/0/0.0, selected
         State: <Active Int>
         Local AS: 65500
         Age: 1d 23:03:58      Metric: 1
         Task: LDP
         Announcement bits (1): 0-KRT
         AS path: I
         Prefixes bound to route: 192.168.17.1/32

```

```

100064(S=0) (1 entry, 1 announced)
TSI:
KRT in-kernel 100064 /40 -> {t1-4/0/0.0}
    *LDP      Preference: 9
              Next-hop reference count: 2
              Next hop: via t1-4/0/0.0, selected
              Label operation: Pop
              State: <Active Int>
              Local AS: 65500
              Age: 1d 23:03:58      Metric: 1
              Task: LDP
              Announcement bits (1): 0-KRT
              AS path: I

100080 (1 entry, 1 announced)
TSI:
KRT in-kernel 100080 /36 -> {t1-4/0/0.0}
    *LDP      Preference: 9
              Next-hop reference count: 2
              Next hop: via t1-4/0/0.0, selected
              Label operation: Swap 100000
              State: <Active Int>
              Local AS: 65500
              Age: 1d 23:03:58      Metric: 1
              Task: LDP
              Announcement bits (1): 0-KRT
              AS path: I
              Prefixes bound to route: 192.168.16.1/32

```

**show route protocol ospf
(Layer 3 VPN)**

```

user@host> show route protocol ospf
inet.0: 40 destinations, 40 routes (39 active, 0 holddown, 1 hidden)
+ = Active Route, - = Last Active, * = Both

10.39.1.4/30      *[OSPF/10] 00:05:18, metric 4
                  > via t3-3/2/0.0
10.39.1.8/30      [OSPF/10] 00:05:18, metric 2
                  > via t3-3/2/0.0
10.255.14.171/32  *[OSPF/10] 00:05:18, metric 4
                  > via t3-3/2/0.0
10.255.14.179/32  *[OSPF/10] 00:05:18, metric 2
                  > via t3-3/2/0.0
224.0.0.5/32      *[OSPF/10] 20:25:55, metric 1

VPN-AB.inet.0: 5 destinations, 5 routes (5 active, 0 holddown, 0 hidden)
+ = Active Route, - = Last Active, * = Both

10.39.1.16/30      [OSPF/10] 00:05:43, metric 1
                  > via so-0/2/2.0
10.255.14.173/32  *[OSPF/10] 00:05:43, metric 1
                  > via so-0/2/2.0
224.0.0.5/32      *[OSPF/10] 20:26:20, metric 1

```

**show route protocol ospf
detail**

```

user@host> show route protocol ospf detail
VPN-AB.inet.0: 5 destinations, 5 routes (5 active, 0 holddown, 0 hidden)
+ = Active Route, - = Last Active, * = Both

10.39.1.16/30 (2 entries, 0 announced)
    OSPF      Preference: 10
              Nexthop: via so-0/2/2.0, selected
              State: <Int>

```

```
Inactive reason: Route Preference
Age: 6:25      Metric: 1
Area: 0.0.0.0
Task: VPN-AB-OSPF
AS path: I
Communities: Route-Type:0.0.0.0:1:0
```

...

```
show route protocol rip user@host> show route protocol rip
inet.0: 26 destinations, 27 routes (25 active, 0 holddown, 1 hidden)
+ = Active Route, - = Last Active, * = Both

VPN-AB.inet.0: 5 destinations, 5 routes (5 active, 0 holddown, 0 hidden)
+ = Active Route, - = Last Active, * = Both
10.255.14.177/32  * [RIP/100] 20:24:34, metric 2
                  > to 10.39.1.22 via t3-0/2/2.0
224.0.0.9/32      * [RIP/100] 00:03:59, metric 1

show route protocol rip detail user@host> show route protocol rip detail
inet.0: 26 destinations, 27 routes (25 active, 0 holddown, 1 hidden)
+ = Active Route, - = Last Active, * = Both

VPN-AB.inet.0: 5 destinations, 5 routes (5 active, 0 holddown, 0 hidden)
+ = Active Route, - = Last Active, * = Both
10.255.14.177/32 (1 entry, 1 announced)
    *RIP      Preference: 100
              Nexthop: 10.39.1.22 via t3-0/2/2.0, selected
              State: <Active Int>
              Age: 20:25:02  Metric: 2
              Task: VPN-AB-RIPv2
              Announcement bits (2): 0-KRT 2-BGP.0.0.0.0+179
              AS path: I
              Route learned from 10.39.1.22 expires in 96 seconds

show route protocol ripng table inet6 user@host> show route protocol ripng table inet6
inet6.0: 4215 destinations, 4215 routes (4214 active, 0 holddown, 1 hidden)
+ = Active Route, - = Last Active, * = Both

1111::1/128      * [RIPng/100] 02:13:33, metric 2
                  > to fe80::2a0:a5ff:fe3d:56 via t3-0/2/0.0
1111::2/128      * [RIPng/100] 02:13:33, metric 2
                  > to fe80::2a0:a5ff:fe3d:56 via t3-0/2/0.0
1111::3/128      * [RIPng/100] 02:13:33, metric 2
                  > to fe80::2a0:a5ff:fe3d:56 via t3-0/2/0.0
1111::4/128      * [RIPng/100] 02:13:33, metric 2
                  > to fe80::2a0:a5ff:fe3d:56 via t3-0/2/0.0
1111::5/128      * [RIPng/100] 02:13:33, metric 2
                  > to fe80::2a0:a5ff:fe3d:56 via t3-0/2/0.0
1111::6/128      * [RIPng/100] 02:13:33, metric 2
                  > to fe80::2a0:a5ff:fe3d:56 via t3-0/2/0.0
```

Published: 2009-07-16