# show running-config

```
Current configuration : 3291 bytes

version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
service password-encryption

hostname R2-9_ISPC-B2

boot-start-marker
boot-end-marker

enable secret 5 $1$LhmH$AKqZK.m5mDeFMizt2Hbdm0

no aaa new-model

resource policy

ip cef

no ip domain lookup
ipv6 unicast-routing

voice-card 0

username cisco privilege 15 secret 5 $1$OBkD$JLZFB29W9o2.3/x1iZSdP0

!

interface Loopback0
ip address 9.1.1.1 255.255.255.0
ipv6 address 2001:9::1/64
ipv6 enable
ipv6 ospf 10 area 1

interface FastEthernet0/0
ip address 180.30.0.1 255.255.255.0
duplex auto
speed auto

interface FastEthernet0/1
no ip address
shutdown
duplex auto
speed auto

interface Serial0/1/0
description to_R2_3
no ip address
encapsulation frame-relay
no keepalive
no fair-queue
clock rate 2000000

interface Serial0/1/0.100 point-to-point
description to_R2_8_ISPC-B1
ip address 10.30.0.1 255.255.255.252
ipv6 address 2001:1::1/64
ipv6 enable
ipv6 ospf 10 area 1
frame-relay interface-dlci 100

interface Serial0/1/0.200 point-to-point
description to_R2_22_ISPC-B5
ip address 10.30.0.5 255.255.255.252
ipv6 address 2001:2::1/64
ipv6 enable
ipv6 ospf 10 area 1
frame-relay interface-dlci 200

interface Serial0/1/0.300 point-to-point
description to_R2_28_ISPC-B2
ip address 10.30.0.9 255.255.255.252
ipv6 address 2001:3::1/64
```

```
ipv6 enable
ipv6 ospf 10 area 1
frame-relay interface-dlci 300

interface Serial0/1/0.400 point-to-point
description to_R2_23_ISPC-B2
ip address 10.30.0.13 255.255.255.252
ipv6 address 2001:4::1/64
ipv6 enable
ipv6 ospf 10 area 1
frame-relay interface-dlci 400

interface Serial0/1/1
no ip address
shutdown
clock rate 2000000

router ospf 1
router-id 30.1.1.1
log-adjacency-changes
network 9.1.1.1 0.0.0.0 area 1
network 10.30.0.0 0.0.0.3 area 1
network 10.30.0.4 0.0.0.3 area 1
network 10.30.0.8 0.0.0.3 area 1
network 10.30.0.12 0.0.0.3 area 1

router bgp 300
bgp router-id 9.1.1.1
no bgp default ipv4-unicast
bgp log-neighbor-changes
neighbor 28.1.1.1 remote-as 301
neighbor 28.1.1.1 local-as 301 no-prepend replace-as dual-as
neighbor 28.1.1.1 ebgp-multihop 255
neighbor 28.1.1.1 update-source Loopback0
neighbor 2001:8::1 remote-as 300
neighbor 2001:8::1 update-source Loopback0
neighbor 2001:22::1 remote-as 300
neighbor 2001:22::1 update-source Loopback0
neighbor 2001:23::1 remote-as 300
neighbor 2001:23::1 update-source Loopback0
neighbor 2001:28::1 remote-as 300
neighbor 2001:28::1 update-source Loopback0
!
address-family ipv4
neighbor 28.1.1.1 activate
neighbor 28.1.1.1 next-hop-self
no auto-summary
no synchronization
exit-address-family
!
address-family ipv6
neighbor 2001:8::1 activate
neighbor 2001:8::1 route-reflector-client
neighbor 2001:22::1 activate
neighbor 2001:22::1 route-reflector-client
neighbor 2001:23::1 activate
neighbor 2001:23::1 route-reflector-client
neighbor 2001:28::1 activate
neighbor 2001:28::1 route-reflector-client
exit-address-family

ip http server
no ip http secure-server

ipv6 router ospf 10
log-adjacency-changes

control-plane

line con 0
line aux 0
line vty 0 4
login

scheduler allocate 20000 1000
end
```

# show ip route

```
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

9.0.0.0/24 is subnetted, 1 subnets
C 9.1.1.0 is directly connected, Loopback0
```

# show ipv6 route

```
IPv6 Routing Table - 4 entries
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
U - Per-user Static route
I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
D - EIGRP, EX - EIGRP external
C 2001:9::/64 [0/0]
via ::, Loopback0
L 2001:9::1/128 [0/0]
via ::, Loopback0
L FE80::/10 [0/0]
via ::, Null0
L FF00::/8 [0/0]
via ::, Null0
```

# show ip int brief

```
Interface IP-Address OK? Method Status Protocol
FastEthernet0/0 180.30.0.1 YES manual up down
FastEthernet0/1 unassigned YES manual administratively down down
Serial0/1/0 unassigned YES manual down down
Serial0/1/0.100 10.30.0.1 YES manual down down
Serial0/1/0.200 10.30.0.5 YES manual down down
Serial0/1/0.300 10.30.0.9 YES manual down down
Serial0/1/0.400 10.30.0.13 YES manual down down
Serial0/1/1 unassigned YES manual administratively down down
Loopback0 9.1.1.1 YES manual up up
```

# show ipv6 int brief

```
FastEthernet0/0 [up/down]
unassigned
FastEthernet0/1 [administratively down/down]
unassigned
Serial0/1/0 [down/down]
unassigned
Serial0/1/0.100 [down/down]
FE80::21A:E2FF:FEAB:49DE
2001:1::1
Serial0/1/0.200 [down/down]
FE80::21A:E2FF:FEAB:49DE
2001:2::1
Serial0/1/0.300 [down/down]
FE80::21A:E2FF:FEAB:49DE
2001:3::1
Serial0/1/0.400 [down/down]
FE80::21A:E2FF:FEAB:49DE
2001:4::1
Serial0/1/1 [administratively down/down]
unassigned
Loopback0 [up/up]
FE80::21A:E2FF:FEAB:49DE
2001:9::1
```

# show cdp neighbors

```
Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge
S - Switch, H - Host, I - IGMP, r - Repeater

Device ID Local Intrfce Holdtme Capability Platform Port ID
```

# show ipv6 ospf 10

```
Routing Process "ospfv3 10" with ID 9.1.1.1
SPF schedule delay 5 secs, Hold time between two SPFs 10 secs
Minimum LSA interval 5 secs. Minimum LSA arrival 1 secs
LSA group pacing timer 240 secs
Interface flood pacing timer 33 msecs
Retransmission pacing timer 66 msecs
Number of external LSA 0. Checksum Sum 0x000000
Number of areas in this router is 1. 1 normal 0 stub 0 nssa
Reference bandwidth unit is 100 mbps
Area 1
Number of interfaces in this area is 5
SPF algorithm executed 16 times
Number of LSA 2. Checksum Sum 0x010AC8
Number of DCbitless LSA 0
Number of indication LSA 0
Number of DoNotAge LSA 0
Flood list length 0
```

# show ipv6 ospf 10 neighbor

# show ip bgp summary

```
BGP router identifier 9.1.1.1, local AS number 300
BGP table version is 1, main routing table version 1

Neighbor V AS MsgRcvd MsgSent TblVer InQ OutQ Up/Down State/PfxRcd
28.1.1.1 4 301 73 76 0 0 0 1d00h Active
```

# show version

```
Cisco IOS Software, 2801 Software (C2801-ADVENTERPRISEK9-M), Version 12.4(9)T3, RELEASE
SOFTWARE (fc3)
Technical Support: http://www.cisco.com/techsupport
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Compiled Fri 23-Mar-07 19:08 by prod_rel_team

ROM: System Bootstrap, Version 12.3(8r)T9, RELEASE SOFTWARE (fc1)

R2-9_ISPC-B2 uptime is 1 day, 2 hours, 9 minutes
System returned to ROM by reload at 15:30:40 UTC Thu Feb 16 2017
System image file is "flash:c2801-adventerprisek9-mz.124-9.T3.bin"


This product contains cryptographic features and is subject to United
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A summary of U.S. laws governing Cisco cryptographic products may be found at:
http://www.cisco.com/wwl/export/crypto/tool/stqrg.html

If you require further assistance please contact us by sending email to
export@cisco.com.

Cisco 2801 (revision 6.0) with 119808K/11264K bytes of memory.
Processor board ID FCZ110812Q0
2 FastEthernet interfaces
2 Serial(sync/async) interfaces
1 Virtual Private Network (VPN) Module
DRAM configuration is 64 bits wide with parity disabled.
191K bytes of NVRAM.
62720K bytes of ATA CompactFlash (Read/Write)

Configuration register is 0x2102
```