show running-config

```
Current configuration : 3293 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$3ABQ$y.oB57tM6sF9PFFV0A8Zp1

no aaa new-model

resource policy

ip cef

no ip domain lookup
ipv6 unicast-routing

voice-card 0

username cisco privilege 15 secret 5 $1$tJ17$DCCqS4rnFDuTV1GcD79WG/

!

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

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
no synchronization
bgp log-neighbor-changes
network 180.30.0.0 mask 255.255.255.0
neighbor 8.1.1.1 remote-as 300
neighbor 8.1.1.1 update-source Loopback0
neighbor 8.1.1.1 route-reflector-client
neighbor 22.1.1.1 remote-as 300
neighbor 22.1.1.1 update-source Loopback0
neighbor 22.1.1.1 route-reflector-client
neighbor 23.1.1.1 remote-as 300
neighbor 23.1.1.1 update-source Loopback0
neighbor 23.1.1.1 route-reflector-client
neighbor 28.1.1.1 remote-as 300
neighbor 28.1.1.1 update-source Loopback0
neighbor 28.1.1.1 route-reflector-client
neighbor 180.30.0.254 remote-as 100
neighbor 180.30.0.254 ebgp-multihop 255
neighbor 180.30.0.254 update-source FastEthernet0/0
neighbor 180.30.0.254 next-hop-self
no auto-summary

ip http server
no ip http secure-server

ipv6 router ospf 10
router-id 1.1.1.1
log-adjacency-changes

control-plane

banner motd ^CKLAS WAR HIER!!!^C

line con 0
exec-timeout 0 0
password 7 01100F175804
logging synchronous
login local
line aux 0
line vty 0 4
exec-timeout 0 0
password 7 060506324F41
logging synchronous
login local
transport input telnet
line vty 5 15
exec-timeout 0 0
password 7 060506324F41
logging synchronous
login local
transport input telnet
```

```
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 180.30.0.254 to network 0.0.0.0

O E2 200.1.0.0/24 [110/20] via 10.30.0.2, 18:42:49, Serial0/1/0.100
O E2 200.2.0.0/24 [110/20] via 10.30.0.2, 18:42:49, Serial0/1/0.100
O E2 200.3.0.0/24 [110/20] via 10.30.0.2, 18:42:49, Serial0/1/0.100
190.20.0.0/24 is subnetted, 1 subnets
B 190.20.0.0 [200/0] via 28.1.1.1, 19:21:58
190.30.0.0/24 is subnetted, 1 subnets
B 190.30.0.0 [200/0] via 8.1.1.1, 19:25:08
23.0.0.0/32 is subnetted, 1 subnets
O 23.1.1.1 [110/65] via 10.30.0.14, 18:42:49, Serial0/1/0.400
22.0.0.0/32 is subnetted, 1 subnets
O 22.1.1.1 [110/65] via 10.30.0.6, 18:42:49, Serial0/1/0.200
8.0.0.0/32 is subnetted, 1 subnets
O 8.1.1.1 [110/65] via 10.30.0.2, 18:42:49, Serial0/1/0.100
9.0.0.0/24 is subnetted, 1 subnets
C 9.1.1.0 is directly connected, Loopback0
10.0.0.0/30 is subnetted, 4 subnets
C 10.30.0.4 is directly connected, Serial0/1/0.200
C 10.30.0.0 is directly connected, Serial0/1/0.100
C 10.30.0.12 is directly connected, Serial0/1/0.400
C 10.30.0.8 is directly connected, Serial0/1/0.300
28.0.0.0/32 is subnetted, 1 subnets
O 28.1.1.1 [110/65] via 10.30.0.10, 18:42:49, Serial0/1/0.300
180.30.0.0/24 is subnetted, 1 subnets
C 180.30.0.0 is directly connected, FastEthernet0/0
B* 0.0.0.0/0 [20/0] via 180.30.0.254, 18:51:27
```

show ipv6 route

```
IPv6 Routing Table - 16 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 2001:1::/64 [0/0]
via ::, Serial0/1/0.100
L 2001:1::1/128 [0/0]
via ::, Serial0/1/0.100
C 2001:2::/64 [0/0]
via ::, Serial0/1/0.200
L 2001:2::1/128 [0/0]
via ::, Serial0/1/0.200
C 2001:3::/64 [0/0]
via ::, Serial0/1/0.300
L 2001:3::1/128 [0/0]
via ::, Serial0/1/0.300
C 2001:4::/64 [0/0]
via ::, Serial0/1/0.400
L 2001:4::1/128 [0/0]
via ::, Serial0/1/0.400
O 2001:8::1/128 [110/64]
via FE80::21A:E2FF:FEAB:4B32, Serial0/1/0.100
C 2001:9::/64 [0/0]
via ::, Loopback0
L 2001:9::1/128 [0/0]
via ::, Loopback0
O 2001:22::1/128 [110/64]
via FE80::2A93:FEFF:FE7B:12F8, Serial0/1/0.200
O 2001:23::1/128 [110/64]
via FE80::223:5EFF:FE06:63A0, Serial0/1/0.400
O 2001:28::1/128 [110/64]
via FE80::20A:F4FF:FE34:DCC0, Serial0/1/0.300
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 up
FastEthernet0/1 unassigned YES unset administratively down down
Serial0/1/0 unassigned YES unset up up
Serial0/1/0.100 10.30.0.1 YES manual up up
Serial0/1/0.200 10.30.0.5 YES manual up up
Serial0/1/0.300 10.30.0.9 YES manual up up
Serial0/1/0.400 10.30.0.13 YES manual up up
Serial0/1/1 unassigned YES unset administratively down down
Loopback0 9.1.1.1 YES manual up up
```

show ipv6 int brief

```
FastEthernet0/0 [up/up]
unassigned
FastEthernet0/1 [administratively down/down]
unassigned
Serial0/1/0 [up/up]
unassigned
Serial0/1/0.100 [up/up]
FE80::21A:E2FF:FEAB:49DE
2001:1::1
Serial0/1/0.200 [up/up]
FE80::21A:E2FF:FEAB:49DE
2001:2::1
Serial0/1/0.300 [up/up]
FE80::21A:E2FF:FEAB:49DE
2001:3::1
Serial0/1/0.400 [up/up]
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
R2-22_ISPC-B5 Ser 0/1/0.200 148 R S I 2811 Ser 0/2/0.202
R2-23_ISPC-B6 Ser 0/1/0.400 130 R S I 2811 Ser 0/1/0.402
R2-4_ISPC-B3 Ser 0/1/0.300 147 R S I 2621XM Ser 0/1.301
R3-8_CIX Fas 0/0 134 R S I CISCO2901 Gig 0/0/3
R2-8_ISPC-B1 Ser 0/1/0.100 149 R S I 2801 Ser 0/1/0.102
```

show ipv6 ospf 10

```
Routing Process "ospfv3 10" with ID 1.1.1.1
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 9 times
Number of LSA 18. Checksum Sum 0x086145
Number of DCbitless LSA 0
Number of indication LSA 0
Number of DoNotAge LSA 0
Flood list length 0
```

show ipv6 ospf 10 neighbor

```
Neighbor ID Pri State Dead Time Interface ID Interface
23.1.1.1 1 FULL/ - 00:00:35 17 Serial0/1/0.400
28.1.1.1 1 FULL/ - 00:00:38 15 Serial0/1/0.300
22.1.1.1 1 FULL/ - 00:00:39 13 Serial0/1/0.200
8.1.1.1 1 FULL/ - 00:00:38 15 Serial0/1/0.100
```

show ip bgp summary

```
BGP router identifier 9.1.1.1, local AS number 300
BGP table version is 9, main routing table version 9
4 network entries using 516 bytes of memory
4 path entries using 208 bytes of memory
4/3 BGP path/bestpath attribute entries using 496 bytes of memory
1 BGP AS-PATH entries using 24 bytes of memory
0 BGP route-map cache entries using 0 bytes of memory
0 BGP filter-list cache entries using 0 bytes of memory
BGP using 1244 total bytes of memory
BGP activity 6/2 prefixes, 7/3 paths, scan interval 60 secs

Neighbor V AS MsgRcvd MsgSent TblVer InQ OutQ Up/Down State/PfxRcd
8.1.1.1 4 300 1176 1181 9 0 0 19:30:05 1
22.1.1.1 4 300 1162 1179 9 0 0 19:27:51 0
23.1.1.1 4 300 1148 1161 9 0 0 19:13:42 0
28.1.1.1 4 300 1176 1181 9 0 0 19:29:16 1
180.30.0.254 4 100 1253 1143 9 0 0 18:55:57 1
```

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
Copyright (c) 1986-2007 by Cisco Systems, Inc.
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 19 hours, 38 minutes
System returned to ROM by reload at 14:16:07 UTC Thu Feb 23 2017
System image file is "flash:c2801-adventerprisek9-mz.124-9.T3.bin"


This product contains cryptographic features and is subject to United
States and local country laws governing import, export, transfer and
use. Delivery of Cisco cryptographic products does not imply
third-party authority to import, export, distribute or use encryption.
Importers, exporters, distributors and users are responsible for
compliance with U.S. and local country laws. By using this product you
agree to comply with applicable laws and regulations. If you are unable
to comply with U.S. and local laws, return this product immediately.

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
```