

show running-config

```
Current configuration : 2414 bytes

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

hostname R2-23_ISPC-B6

boot-start-marker
boot-end-marker

logging message-counter syslog
no logging buffered
no logging console
no logging monitor
enable secret 5 $1$m9ot$d5CTZC9GwgJGFqD1F116B/

no aaa new-model

dot11 syslog
ip source-route

ip cef

no ip domain lookup
ipv6 unicast-routing
ipv6 cef

multilink bundle-name authenticated

voice-card 0

username cisco privilege 15 secret 5 $1$9Nn9$aG36d3Fr/EXielCdphZwO/
archive
log config
hidekeys
!

interface Loopback0
ip address 23.1.1.1 255.255.255.0
ipv6 address 2001:23::1/64
ipv6 enable
ipv6 ospf 10 area 1

interface FastEthernet0/0
ip address 200.6.0.1 255.255.255.0
duplex auto
speed auto

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

interface Serial0/1/0
description ToR2-20_ISPC
no ip address
encapsulation frame-relay
no keepalive
no fair-queue

interface Serial0/1/0.402 point-to-point
description ToR2-20_ISPC
ip address 10.30.0.14 255.255.255.252
ipv6 address 2001:4::2/64
ipv6 enable
ipv6 ospf 10 area 1
frame-relay interface-dlci 402

interface Serial0/1/1
no ip address
```

```
shutdown
clock rate 2000000

interface Serial0/2/0
ip address 200.4.30.1 255.255.255.0

interface Serial0/2/1
ip address 200.4.31.1 255.255.255.0
clock rate 2000000

router ospf 1
log-adjacency-changes
network 10.30.0.12 0.0.0.3 area 1
network 23.1.1.0 0.0.0.255 area 1

router bgp 300
no synchronization
bgp log-neighbor-changes
network 200.6.0.0
neighbor 9.1.1.1 remote-as 300
neighbor 9.1.1.1 update-source Loopback0
neighbor 9.1.1.1 next-hop-self
no auto-summary

ip forward-protocol nd
ip route 2.2.2.0 255.255.255.0 190.20.0.1
no ip http server
no ip http secure-server

ipv6 router ospf 10
router-id 23.1.1.1
log-adjacency-changes

control-plane

banner motd ^CNot Authorized!^C

line con 0
exec-timeout 0 0
password 7 094F471A1A0A
logging synchronous
login local
line aux 0
line vty 0 4
exec-timeout 0 0
password 7 045802150C2E
logging synchronous
login local
transport input telnet
line vty 5 15
exec-timeout 0 0
password 7 045802150C2E
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

```
2.0.0.0/24 is subnetted, 1 subnets
S 2.2.2.0 [1/0] via 190.20.0.1
O E2 200.1.0.0/24 [110/20] via 10.30.0.13, 21:25:47, Serial0/1/0.402
O E2 200.2.0.0/24 [110/20] via 10.30.0.13, 21:25:47, Serial0/1/0.402
O E2 200.3.0.0/24 [110/20] via 10.30.0.13, 21:25:47, Serial0/1/0.402
190.20.0.0/24 is subnetted, 1 subnets
B 190.20.0.0 [200/0] via 28.1.1.1, 21:56:30
190.30.0.0/24 is subnetted, 1 subnets
B 190.30.0.0 [200/0] via 8.1.1.1, 21:56:30
23.0.0.0/24 is subnetted, 1 subnets
C 23.1.1.0 is directly connected, Loopback0
22.0.0.0/32 is subnetted, 1 subnets
O 22.1.1.1 [110/129] via 10.30.0.13, 21:56:43, Serial0/1/0.402
8.0.0.0/32 is subnetted, 1 subnets
O 8.1.1.1 [110/129] via 10.30.0.13, 21:25:48, Serial0/1/0.402
9.0.0.0/32 is subnetted, 1 subnets
O 9.1.1.1 [110/65] via 10.30.0.13, 21:56:43, Serial0/1/0.402
10.0.0.0/30 is subnetted, 4 subnets
O 10.30.0.4 [110/128] via 10.30.0.13, 21:56:43, Serial0/1/0.402
O 10.30.0.0 [110/128] via 10.30.0.13, 21:56:43, Serial0/1/0.402
C 10.30.0.12 is directly connected, Serial0/1/0.402
O 10.30.0.8 [110/128] via 10.30.0.13, 21:56:43, Serial0/1/0.402
C 200.4.30.0/24 is directly connected, Serial0/2/0
28.0.0.0/32 is subnetted, 1 subnets
O 28.1.1.1 [110/129] via 10.30.0.13, 21:56:43, Serial0/1/0.402
180.30.0.0/24 is subnetted, 1 subnets
B 180.30.0.0 [200/0] via 9.1.1.1, 21:56:31
B* 0.0.0.0/0 [200/0] via 180.30.0.254, 21:34:28
```

show ipv6 route

```
IPv6 Routing Table - Default - 12 entries
Codes: C - Connected, L - Local, S - Static, U - Per-user Static route
B - BGP, M - MIPv6, R - RIP, I1 - ISIS L1
I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary, D - EIGRP
EX - EIGRP external
O - OSPF Intra, OI - OSPF Inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
O 2001:1::/64 [110/128]
via FE80::21A:E2FF:FEAB:49DE, Serial0/1/0.402
O 2001:2::/64 [110/128]
via FE80::21A:E2FF:FEAB:49DE, Serial0/1/0.402
O 2001:3::/64 [110/128]
via FE80::21A:E2FF:FEAB:49DE, Serial0/1/0.402
C 2001:4::/64 [0/0]
via Serial0/1/0.402, directly connected
L 2001:4::2/128 [0/0]
via Serial0/1/0.402, receive
O 2001:8::1/128 [110/128]
via FE80::21A:E2FF:FEAB:49DE, Serial0/1/0.402
O 2001:9::1/128 [110/64]
via FE80::21A:E2FF:FEAB:49DE, Serial0/1/0.402
O 2001:22::1/128 [110/128]
via FE80::21A:E2FF:FEAB:49DE, Serial0/1/0.402
C 2001:23::/64 [0/0]
via Loopback0, directly connected
L 2001:23::1/128 [0/0]
via Loopback0, receive
O 2001:28::1/128 [110/128]
via FE80::21A:E2FF:FEAB:49DE, Serial0/1/0.402
L FF00::/8 [0/0]
via Null0, receive
```

show ip int brief

```
Interface IP-Address OK? Method Status Protocol
FastEthernet0/0 200.6.0.1 YES manual up down
FastEthernet0/1 unassigned YES unset administratively down down
Serial0/1/0 unassigned YES unset up up
Serial0/1/0.402 10.30.0.14 YES manual up up
Serial0/1/1 unassigned YES unset administratively down down
Serial0/2/0 200.4.30.1 YES manual up up
Serial0/2/1 200.4.31.1 YES manual down down
Loopback0 23.1.1.1 YES manual up up
```

show ipv6 int brief

```
FastEthernet0/0 [up/down]
unassigned
FastEthernet0/1 [administratively down/down]
unassigned
Serial0/1/0 [up/up]
unassigned
Serial0/1/0.402 [up/up]
FE80::223:5EFF:FE06:63A0
2001:4::2
Serial0/1/1 [administratively down/down]
unassigned
Serial0/2/0 [up/up]
unassigned
Serial0/2/1 [down/down]
unassigned
Loopback0 [up/up]
FE80::223:5EFF:FE06:63A0
2001:23::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 |
|--------------|---------------|---------|------------|----------|---------------|
| R2-26 | Ser 0/2/0 | 155 | R S I | 2811 | Ser 0/2/0 |
| R2-9_ISPC-B2 | Ser 0/1/0.402 | 158 | R S I | 2801 | Ser 0/1/0.400 |

show ipv6 ospf 10

```
Routing Process "ospfv3 10" with ID 23.1.1.1
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 msec
Retransmission pacing timer 66 msec
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 2
SPF algorithm executed 3 times
Number of LSA 12. Checksum Sum 0x065C5C
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  
1.1.1.1 1 FULL/ - 00:00:31 18 Serial0/1/0.402
```

show ip bgp summary

```
BGP router identifier 23.1.1.1, local AS number 300
BGP table version is 5, main routing table version 5
4 network entries using 528 bytes of memory
4 path entries using 208 bytes of memory
3/2 BGP path/bestpath attribute entries using 504 bytes of memory
2 BGP rrinfo entries using 48 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 1312 total bytes of memory
BGP activity 4/0 prefixes, 4/0 paths, scan interval 60 secs
```

```
Neighbor V AS MsgRcvd MsgSent TblVer InQ OutQ Up/Down State/PfxRcd
9.1.1.1 4 300 1324 1310 5 0 0 21:56:37 4
```

show version

Cisco IOS Software, 2800 Software (C2800NM-ADVENTERPRISEK9-M), Version 12.4(24)T2, RELEASE SOFTWARE (fc2)

Technical Support: <http://www.cisco.com/techsupport>

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ROM: System Bootstrap, Version 12.4(13r)T, RELEASE SOFTWARE (fc1)

R2-23_ISPC-B6 uptime is 22 hours, 14 minutes

System returned to ROM by reload at 23:03:02 UTC Fri Jun 6 2014

System image file is "flash:c2800nm-adventerprisek9-mz.124-24.T2.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 2811 (revision 53.51) with 249856K/12288K bytes of memory.

Processor board ID FCZ124671CY

2 FastEthernet interfaces

4 Serial(sync/async) interfaces

1 Virtual Private Network (VPN) Module

DRAM configuration is 64 bits wide with parity enabled.

239K bytes of non-volatile configuration memory.

62720K bytes of ATA CompactFlash (Read/Write)

Configuration register is 0x2102