

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
username cisco privilege 15 secret 5 $1$9Nn9$aG36d3Fr/EXie1CdphZwO/
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, 20:37:10, Serial0/1/0.402
O E2 200.2.0.0/24 [110/20] via 10.30.0.13, 20:37:10, Serial0/1/0.402
O E2 200.3.0.0/24 [110/20] via 10.30.0.13, 20:37:10, 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, 21:07:53
190.30.0.0/24 is subnetted, 1 subnets
B 190.30.0.0 [200/0] via 8.1.1.1, 21:07:53
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, 21:08:06, Serial0/1/0.402
8.0.0.0/32 is subnetted, 1 subnets
0 8.1.1.1 [110/129] via 10.30.0.13, 20:37:11, 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, 21:08:06, 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, 21:08:06, Serial0/1/0.402
O 10.30.0.0 [110/128] via 10.30.0.13, 21:08:06, 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, 21:08:06, 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
0 28.1.1.1 [110/129] via 10.30.0.13, 21:08:06, 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, 21:07:54
B* 0.0.0.0/0 [200/0] via 180.30.0.254, 20:45:51
```



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
0 2001:1::/64 [110/128]
via FE80::21A:E2FF:FEAB:49DE, Serial0/1/0.402
0 2001:2::/64 [110/128]
via FE80::21A:E2FF:FEAB:49DE, Serial0/1/0.402
0 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
0 2001:8::1/128 [110/128]
via FE80::21A:E2FF:FEAB:49DE, Serial0/1/0.402
0 2001:9::1/128 [110/64]
via FE80::21A:E2FF:FEAB:49DE, Serial0/1/0.402
0 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
0 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] ${\tt unassigned}$ 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 0/2/0 132 R S I 2811 Ser 0/2/0 R2-9_ISPC-B2 Ser 0/1/0.402 135 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 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 2
SPF algorithm executed 3 times
Number of LSA 12. Checksum Sum 0x067C4C

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/ - 00:00:38 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
7/2 BGP path/bestpath attribute entries using 504 bytes of memory
8 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
8 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 1276 1262 5 0 0 21:08:01 4



show version

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

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

R2-23_ISPC-B6 uptime is 21 hours, 25 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

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