

show running-config

```
Current configuration : 2738 bytes

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

hostname R2-4_ISPC-B3

boot-start-marker
boot-end-marker

enable secret 5 $1$n8M1$UQ7NyyCy4vtqfzzseFwtK1

no aaa new-model
no network-clock-participate slot 1
no network-clock-participate wic 0
ip cef

no ip domain lookup
ip auth-proxy max-nodata-conns 3
ip admission max-nodata-conns 3

ipv6 unicast-routing

username cisco privilege 15 secret 5 $1$NyFD$ypHLwGgQAuHcVDqvLitbR/

!

interface Loopback0
ip address 28.1.1.1 255.255.255.0
ipv6 address 2001:28::1/64
ipv6 enable
ipv6 ospf 10 area 1

interface FastEthernet0/0
ip address 190.20.0.254 255.255.255.0
duplex auto
speed auto

interface Serial0/0
no ip address
shutdown
no fair-queue

interface BRI0/0
no ip address
encapsulation hdlc
shutdown

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

interface Serial0/1
description to_R2-3_ISPC
no ip address
encapsulation frame-relay
no keepalive

interface Serial0/1.301 point-to-point
description to_R2_9_ISPC-B2
ip address 10.30.0.10 255.255.255.252
ipv6 address 2001:3::2/64
ipv6 enable
ipv6 ospf 10 area 1
frame-relay interface-dlci 301

router ospf 1
log-adjacency-changes
network 10.30.0.8 0.0.0.3 area 1
network 28.1.1.0 0.0.0.255 area 1
```

```
router bgp 300
  bgp router-id 28.1.1.1
  no bgp default ipv4-unicast
  bgp log-neighbor-changes
  neighbor 2.2.2.2 remote-as 2
  neighbor 2.2.2.2 local-as 301 no-prepend replace-as dual-as
  neighbor 2.2.2.2 ebgp-multihop 255
  neighbor 2.2.2.2 update-source Loopback0
  neighbor 9.1.1.1 remote-as 301
  neighbor 9.1.1.1 local-as 301 no-prepend replace-as dual-as
  neighbor 9.1.1.1 ebgp-multihop 255
  neighbor 9.1.1.1 update-source Loopback0
  neighbor 2001:9::1 remote-as 300
  neighbor 2001:9::1 update-source Loopback0
  !
  address-family ipv4
    neighbor 2.2.2.2 activate
    neighbor 2.2.2.2 next-hop-self
    neighbor 9.1.1.1 activate
    neighbor 9.1.1.1 next-hop-self
    no auto-summary
    no synchronization
    network 190.20.0.0 mask 255.255.255.0
  exit-address-family
  !
  address-family ipv6
    neighbor 2001:9::1 activate
    neighbor 2001:9::1 next-hop-self
    no synchronization
  exit-address-family

ip forward-protocol nd
ip route 2.2.2.0 255.255.255.0 190.20.0.1

ip http server
no ip http secure-server

ipv6 router ospf 10
  router-id 28.1.1.1
  log-adjacency-changes

control-plane

banner motd ^CCNot Authorized!^C

line con 0
  exec-timeout 0 0
  logging synchronous
  login local
line aux 0
line vty 0 4
  exec-timeout 0 0
  logging synchronous
  login local
line vty 5 15
  exec-timeout 0 0
  logging synchronous
  login local

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

28.0.0.0/24 is subnetted, 1 subnets
C 28.1.1.0 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
C 2001:28::/64 [0/0]
  via ::, Loopback0
L 2001:28::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
FastEthernet0/0 190.20.0.254 YES manual up down
Serial0/0 unassigned YES manual administratively down down
BRI0/0 unassigned YES manual administratively down down
BRI0/0:1 unassigned YES unset administratively down down
BRI0/0:2 unassigned YES unset administratively down down
FastEthernet0/1 unassigned YES manual administratively down down
Serial0/1 unassigned YES manual down down
Serial0/1.301 10.30.0.10 YES manual down down
Loopback0 28.1.1.1 YES manual up up
```

show ipv6 int brief

```
FastEthernet0/0 [up/down]
Serial0/0 [administratively down/down]
BRI0/0 [administratively down/down]
BRI0/0:1 [administratively down/down]
BRI0/0:2 [administratively down/down]
FastEthernet0/1 [administratively down/down]
Serial0/1 [down/down]
Serial0/1.301 [down/down]
FE80::20A:F4FF:FE34:DCC0
2001:3::2
Loopback0 [up/up]
FE80::20A:F4FF:FE34:DCC0
2001:28::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 28.1.1.1
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 14 times
Number of LSA 2. Checksum Sum 0x015039
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 28.1.1.1, 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
2.2.2.2	4	2	0	0	0	0	0	never	Active
9.1.1.1	4	301	68	75	0	0	0	22:41:42	Active

show version

Cisco IOS Software, C2600 Software (C2600-ADVIPSERVICESK9-M), Version 12.4(23), RELEASE SOFTWARE (fc1)

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

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ROM: System Bootstrap, Version 12.2(7r) [cmong 7r], RELEASE SOFTWARE (fc1)

R2-4_ISPC-B3 uptime is 1 day, 4 minutes

System returned to ROM by reload

System image file is "flash:c2600-advipservicesk9-mz124-23.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 2621XM (MPC860P) processor (revision 1.0) with 127308K/3764K bytes of memory.

Processor board ID JAD063500FG

M860 processor: part number 5, mask 2

2 FastEthernet interfaces

2 Serial(sync/async) interfaces

1 ISDN Basic Rate interface

32K bytes of NVRAM.

32768K bytes of processor board System flash (Read/Write)

Configuration register is 0x2102