Explore show commands in User EXEC mode.

- Use **?** After the command to know how to use the command.

```
ISPRouter>show ?
  arp            Arp table
  cdp            CDP information
  class-map      Show QoS Class Map
  clock          Display the system clock
  controllers    Interface controllers status
  crypto         Encryption module
  dot11          IEEE 802.11 show information
  flash:         display information about flash: file system
  frame-relay    Frame-Relay information
  history        Display the session command history
  hosts          IP domain-name, lookup style, nameservers, and host table
  interfaces     Interface status and configuration
  ip             IP information
  ipv6           IPv6 information
  lldp           LLDP information
  policy-map     Show QoS Policy Map
  pppoe          PPPoE information
  privilege      Show current privilege level
  protocols      Active network routing protocols
  pt             pt related stuff
  queue          Show queue contents
  queueing       Show queueing configuration
  sessions       Information about Telnet connections
  ssh            Status of SSH server connections
  tcp            Status of TCP connections
  terminal       Display terminal configuration parameters
  users          Display information about terminal lines
  version        System hardware and software status
  vlan-switch    VTP VLAN status
  vtp            Configure VLAN database
ISPRouter>show
```

- **show arp** : record the MAC address and the IP address listed.

```
ISPRouter>show arp
Protocol  Address          Age (min)  Hardware Addr   Type   Interface
Internet  209.165.201.1         -     0001.96CD.2501  ARPA   GigabitEthernet0/0/0
ISPRouter>
```

- **show flash** : Record the IOS image listed

```
ISPRouter>show flash

System flash directory:
File  Length    Name/status
  3   486899872isr4300-universalk9.03.16.05.S.155-3.S5-ext.SPA.bin
  2   28282     sigdef-category.xml
  1   227537    sigdef-default.xml
[487155691 bytes used, 2761893909 available, 3249049600 total]
3.17338e+06K bytes of processor board System flash (Read/Write)


ISPRouter>
```

- **show protocols**

```
ISPRouter>show protocols
Global values:
  Internet Protocol routing is enabled
GigabitEthernet0/0/0 is up, line protocol is up
  Internet address is 209.165.201.1/27
GigabitEthernet0/0/1 is administratively down, line protocol is down
Serial0/1/0 is down, line protocol is down
  Internet address is 209.165.200.226/27
Serial0/1/1 is down, line protocol is down
Vlan1 is administratively down, line protocol is down
ISPRouter>
```

- **show ip route** : display all routes

```
ISPRouter>show ip route
Codes: L - local, 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, E - EGP
       i - IS-IS, 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

     209.165.201.0/24 is variably subnetted, 2 subnets, 2 masks
C       209.165.201.0/27 is directly connected, GigabitEthernet0/0/0
L       209.165.201.1/32 is directly connected, GigabitEthernet0/0/0

ISPRouter>
```

**- show interfaces** : Show all interfaces

```
ISPRouter>show interfaces
GigabitEthernet0/0/0 is up, line protocol is up (connected)
  Hardware is Lance, address is 0001.96cd.2501 (bia 0001.96cd.2501)
  Internet address is 209.165.201.1/27
  MTU 1500 bytes, BW 1000000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Full-duplex, 100Mb/s, media type is RJ45
  ARP type: ARPA, ARP Timeout 04:00:00,
  Last input 00:00:08, output 00:00:05, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0 (size/max/drops); Total output drops: 0
  Queueing strategy: fifo
  Output queue :0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     0 packets input, 0 bytes, 0 no buffer
     Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
     0 input packets with dribble condition detected
     0 packets output, 0 bytes, 0 underruns
     0 output errors, 0 collisions, 1 interface resets
     0 babbles, 0 late collision, 0 deferred
     0 lost carrier, 0 no carrier
     0 output buffer failures, 0 output buffers swapped out
GigabitEthernet0/0/1 is administratively down, line protocol is down (disabled)
  Hardware is Lance, address is 0001.96cd.2502 (bia 0001.96cd.2502)
  MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Full-duplex, 100Mb/s, media type is RJ45
  ARP type: ARPA, ARP Timeout 04:00:00,
  Last input 00:00:08, output 00:00:05, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0 (size/max/drops); Total output drops: 0
  Queueing strategy: fifo
 --More--
```

- **show ip interface**

```
ISPRouter>show ip interface
GigabitEthernet0/0/0 is up, line protocol is up (connected)
  Internet address is 209.165.201.1/27
  Broadcast address is 255.255.255.255
  Address determined by setup command
  MTU is 1500 bytes
  Helper address is not set
  Directed broadcast forwarding is disabled
  Outgoing access list is not set
  Inbound  access list is not set
  Proxy ARP is enabled
  Security level is default
  Split horizon is enabled
  ICMP redirects are always sent
  ICMP unreachables are always sent
  ICMP mask replies are never sent
  IP fast switching is disabled
  IP fast switching on the same interface is disabled
  IP Flow switching is disabled
  IP Fast switching turbo vector
  IP multicast fast switching is disabled
  IP multicast distributed fast switching is disabled
  Router Discovery is disabled
  IP output packet accounting is disabled
  IP access violation accounting is disabled
  TCP/IP header compression is disabled
  RTP/IP header compression is disabled
  Probe proxy name replies are disabled
  Policy routing is disabled
  Network address translation is disabled
  BGP Policy Mapping is disabled
  Input features: MCI Check
  WCCP Redirect outbound is disabled
  WCCP Redirect inbound is disabled
  WCCP Redirect exclude is disabled
 --More--
```

- **show version**

```
ISPRouter>show version
Cisco IOS XE Software, Version 03.16.05.S - Extended Support Release
Cisco IOS Software, ISR Software (X86_64_LINUX_IOSD-UNIVERSALK9-M), Version Version 15.
(3)S5, RELEASE SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2017 by Cisco Systems, Inc.
Compiled Thu 19-Jan-17 11:24 by mcpre

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documentation or "License Notice" file accompanying the IOS-XE software,
or the applicable URL provided on the flyer accompanying the IOS-XE
software.


ROM: IOS-XE ROMMON

Router uptime is 26 minutes, 49 seconds
Uptime for this control processor is 26 minutes, 49 seconds
System returned to ROM by power-on
System image file is "bootflash:/isr4300-universalk9.03.16.05.S.155-3.S5-ext.SPA.bin"
Last reload reason: PowerOn
```

The next page of show version

```
------------------------------------------------------------------
Suite                    Suite Current        Type            Suite Next reboot

------------------------------------------------------------------
FoundationSuiteK9        None                 None            None

securityk9
appxk9

AdvUCSuiteK9             None                 None            None

uck9
cme - srst
cube


Technology Package License Information:

------------------------------------------------------------------
Technology     Technology-package                  Technology-package
               Current              Type           Next reboot
------------------------------------------------------------------
appxk9             None             None               None
uck9               None             None               None
securityk9         securityk9       Permanent          securityk9
ipbase             ipbasek9         Permanent          ipbasek9
security           securityk9       Permanent          securityk9
ipbase             ipbasek9         Permanent          ipbasek9

cisco ISR4321/K9 (1RU) processor with 1687137K/6147K bytes of memory.
Processor board ID FLM2041W2HD
2 Gigabit Ethernet interfaces
2 Serial interfaces
32768K bytes of non-volatile configuration memory.
4194304K bytes of physical memory.
3223551K bytes of flash memory at bootflash:.
```

## Privileged mode

- **enable** : to go to privileged mode

- **show running-config**

```
ISPRouter>enable
ISPRouter#show running-config
Building configuration...

Current configuration : 728 bytes
!
version 15.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname ISPRouter
!
!
!
!
!
!
!
!
ip cef
no ipv6 cef
!
```