

Basic

hostname [hostname]

no ip domain-lookup

ip domain name [domain]

security passwords min-length [length]

line [console 0 / vty 0 4]

password [password]

exec-timeout [inactivity-min] 0

login

logging synchronous

service password-encryption

enable secret [password]

banner motd #[message]#

copy run start

ipv6 unicast-routing

ipv6 address [ipv6-address / link-local-address] [- / link-local]

Static Route

show [ip / ipv6] route [static / network]

Default Static Route

ip route 0.0.0.0 0.0.0.0 [next-hop address / exit interface (ISP)]

Floating Router

ip route [network address] [subnet address] [next-hop address / exit interface] [AD]

ACL

show access-lists

show ip interface [interface] | include access list

```
transport input telnet/ssh/all
```

Standard

```
ip access-list [1 - 99] [permit / deny] [destination / any]
```

```
ip access-list standard [name]
```

```
[permit / deny] [destination wildcard / any]
```

Extended

```
ip access-list [100 - 199] [permit / deny] [protocol] [source] [destination] [eq] [port  
number / keyword]
```

```
ip access-list extended [name]
```

```
[permit / deny] [protocol] [source wildcard-mask] [destination wildcard-mask] [eq] [port  
number / keyword]
```

```
Odd .1 0.0.0.254
```

```
Even .0 0.0.0.254
```

```
interface [interface]
```

```
ip access-group [ACL number / name] [in / out]
```

```
line vty 0 4
```

```
access-class [ACL number / name] in
```

OSPF

```
show ip ospf [interface]
```

```
show ip ospf neighbor
```

```
show ip ospf database
```

```
router ospf [process-id]
```

```
router-id [router-id]
```

```
network [network address] [wildcard mask] area 0
```

```
default-information originate
passive-interface [interface]
auto-cost reference-bandwidth [100/1000/100000]
```

```
interface [exit interface (ospf router)]
ip ospf network point-to-point
ip ospf hello-interval [seconds]
ip ospf dead-interval [seconds]
ip ospf priority [priority (multi access)]
```

GRE Tunnel

```
interface tunnel[number]
ip address [ip address(tunnel interface)]
tunnel source [exit interface]
tunnel destination [destination ip address]
ip route [destination network address] [subnet mask] [next-hop address]
```

DHCP

```
show ip dhcp binding
show ip dhcp server statistics
```

```
[no] service dhcp
```

```
ipconfig/all
```

- ☒ DHCP
- ☐ Static

```
ip dhcp excluded-address [start IP] [end IP]
```

```
ip dhcp pool [name]
network [public network address] [subnet mask]
default-router [ip address (default gateway)]
```

dns-server [server ip address]

interface [interface (in)]

ip helper-address [next-hop address (opp)]

NAT

show ip nat translation

show ip nat statistics

Static NAT

ip nat inside source static [inside local address] [inside global address]

Dynamic NAT

ip nat pool [pool name] [start inside global IP address] [end inside global IP address]

netmask [subnet mask]

<ACL>

ip nat inside source list [ACL list number / name] pool [pool name] [overload]

interface [interface]

ip nat [inside / outside]

Network Management

show cdp

show cdp interface

show cdp neighbors [detail]

show lldp neighbors [detail]

Global

[no] cdp run

[no] lldp run

Specific

interface [interface]

[no] lldp transmit

[no] lldp receive

[no] lldp enable

[no] cdp transmit

[no] cdp receive

[no] cdp enable

Backup IOS

show file system

show flash

copy flash: tftp

<flash file name>

[server IP address]

Timestamp

show clock detail

show ntp associations

show ntp status

ntp server [server IP address]

service timestamps log datetime msec