

Cisco Router Files and Licensing



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NETWORK ENGINEER
[@bagurdes](https://twitter.com/bagurdes)

Module Goals



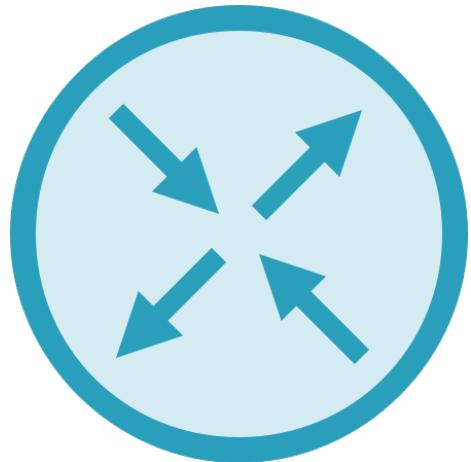
Describe router memory

List important router files

Examine IOS file naming convention

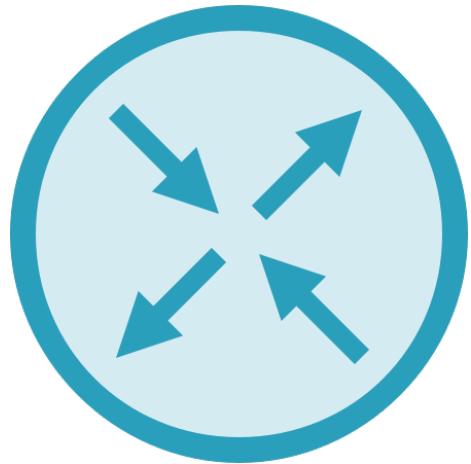
Router Memory

Bootstrap



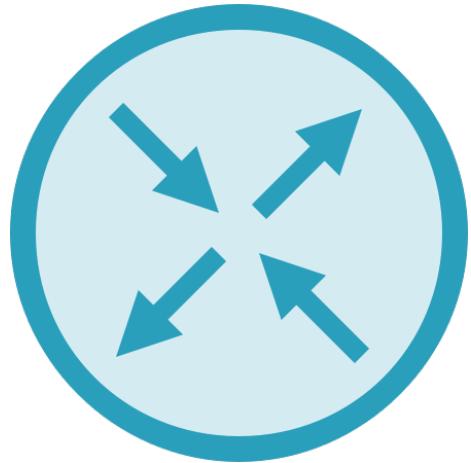
Router Memory

Bootstrap



Router Memory

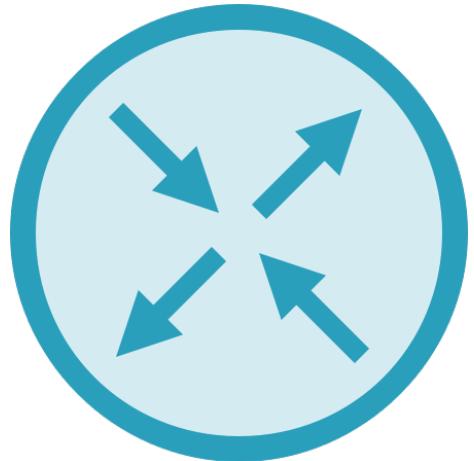
Bootstrap



EEPROM



Router Memory

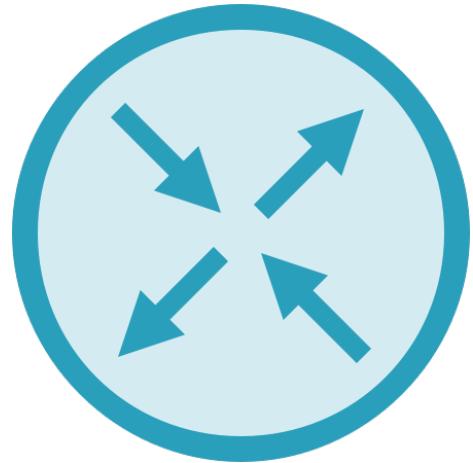


EEPROM



Bootstrap

Router Memory



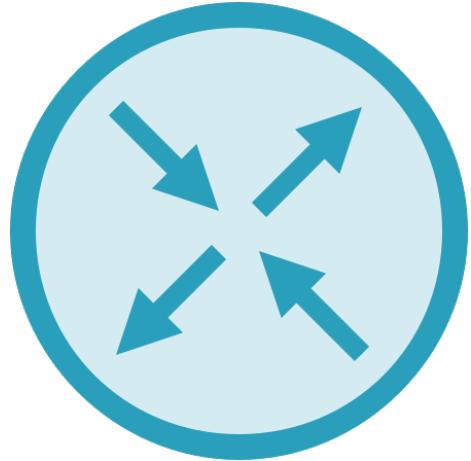
EEPROM



Bootstrap

Router Memory

IOS



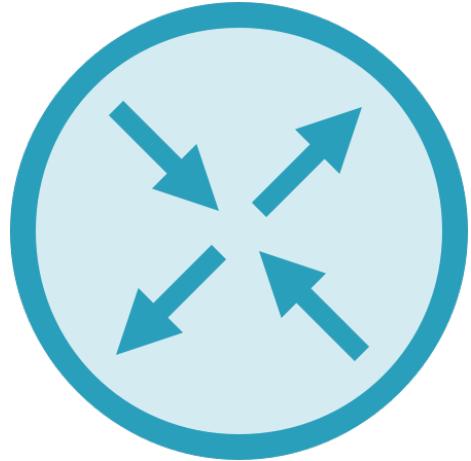
EEPROM



Bootstrap

Router Memory

IOS



EEPROM

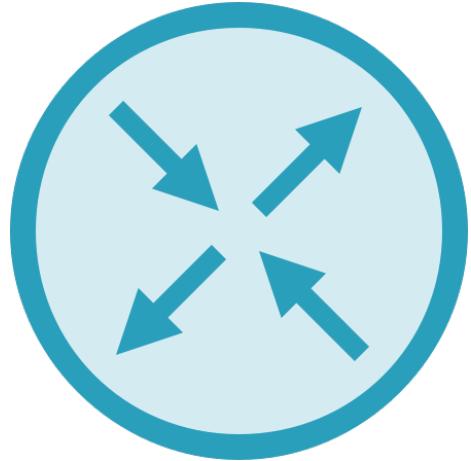


Bootstrap

Flash



Router Memory



EEPROM



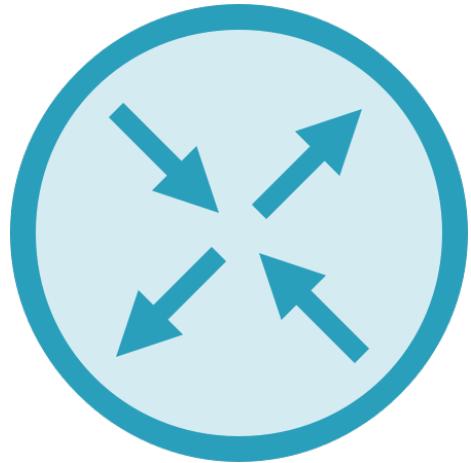
Bootstrap

Flash



IOS

Router Memory



EEPROM



Bootstrap

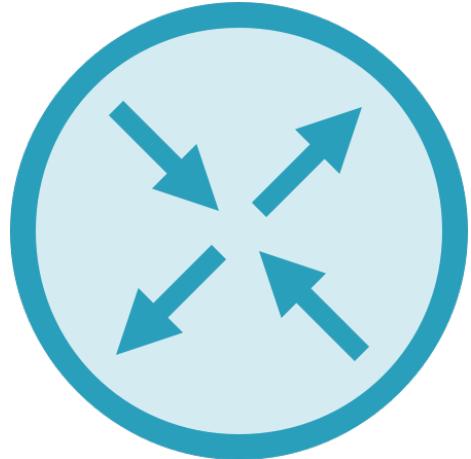
Flash



IOS

Router Memory

startup-config



EEPROM



Bootstrap

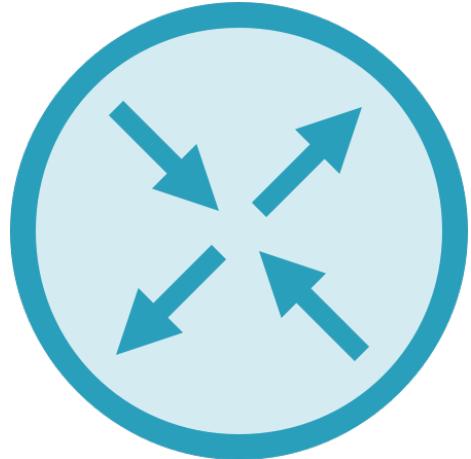
Flash



IOS

Router Memory

startup-config



EEPROM



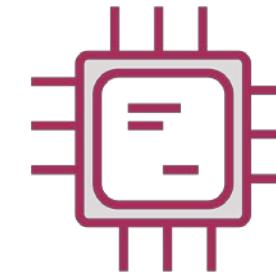
Bootstrap

Flash

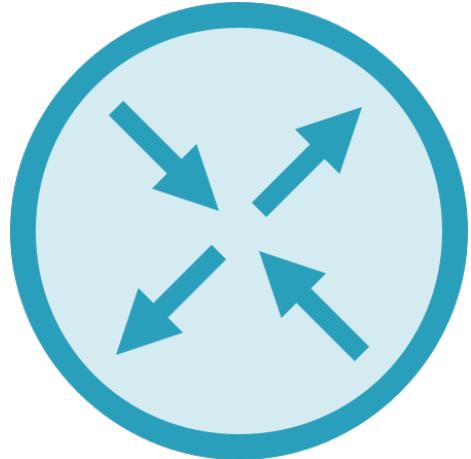


IOS

NVRAM



Router Memory



EEPROM



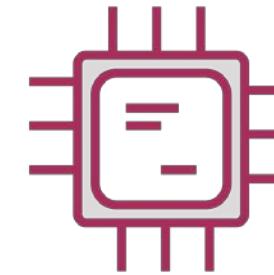
Bootstrap

Flash



IOS

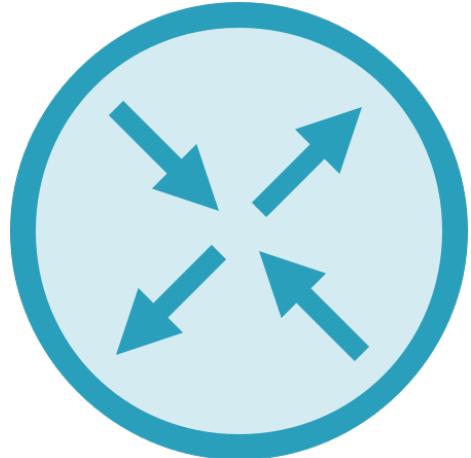
NVRAM



startup-config

Router Memory

running-config



EEPROM



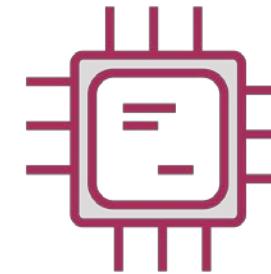
Bootstrap

Flash



IOS

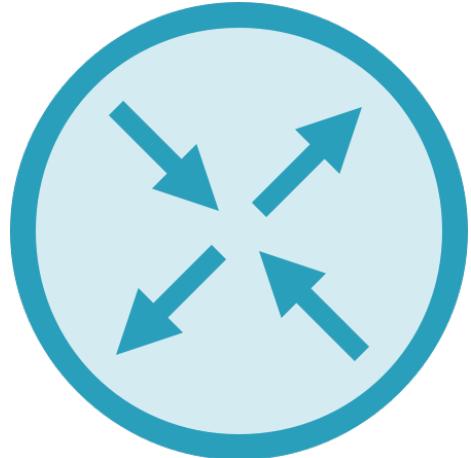
NVRAM



startup-config

Router Memory

running-config



EEPROM



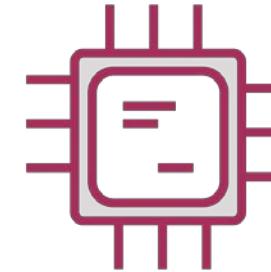
Bootstrap

Flash



IOS

NVRAM

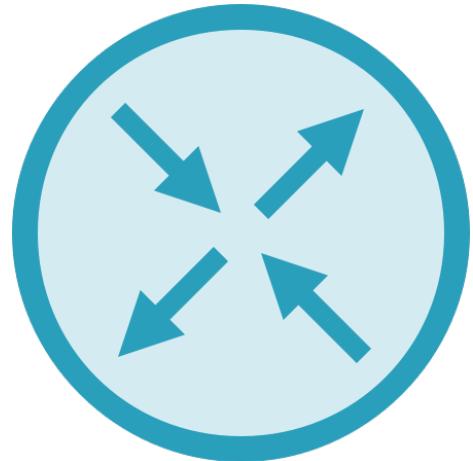


startup-config

RAM



Router Memory



EEPROM



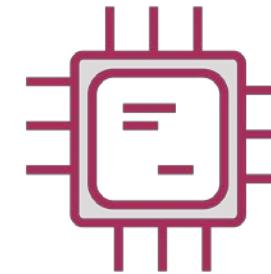
Bootstrap

Flash



IOS

NVRAM



startup-config

RAM



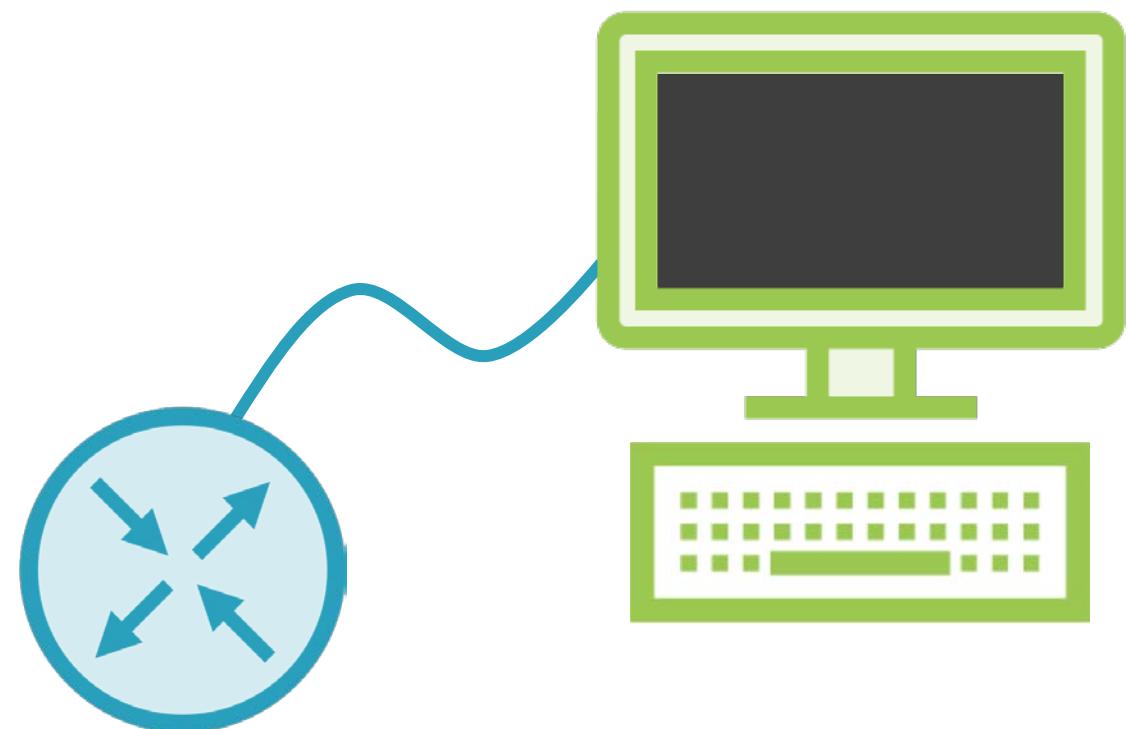
running-config

Configuring the Router

RAM



running-config

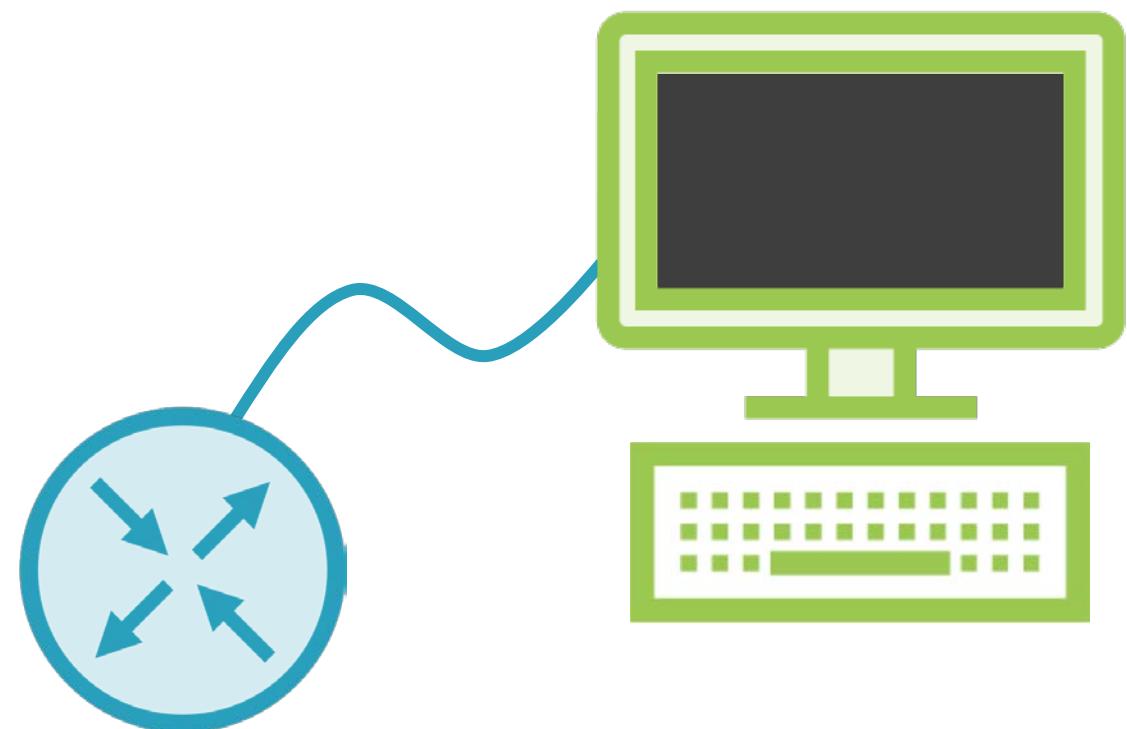


Configuring the Router

RAM



running-config

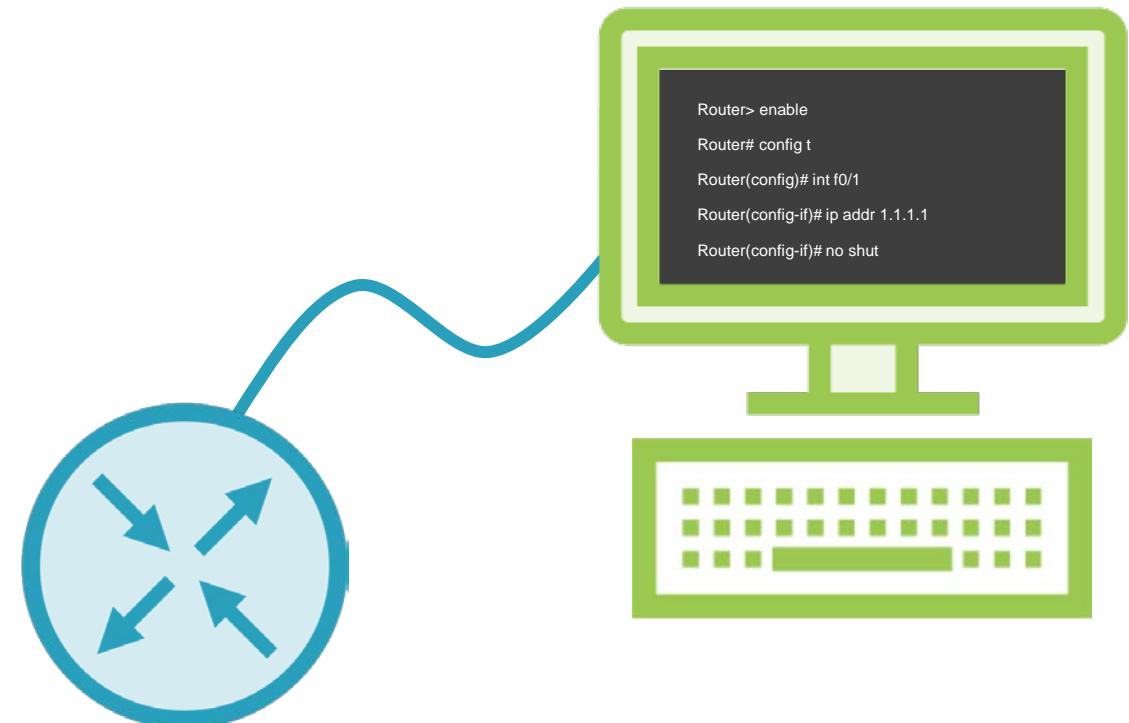


Configuring the Router

RAM

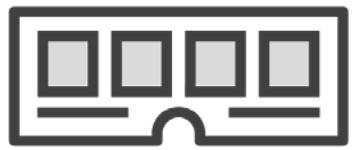


running-config

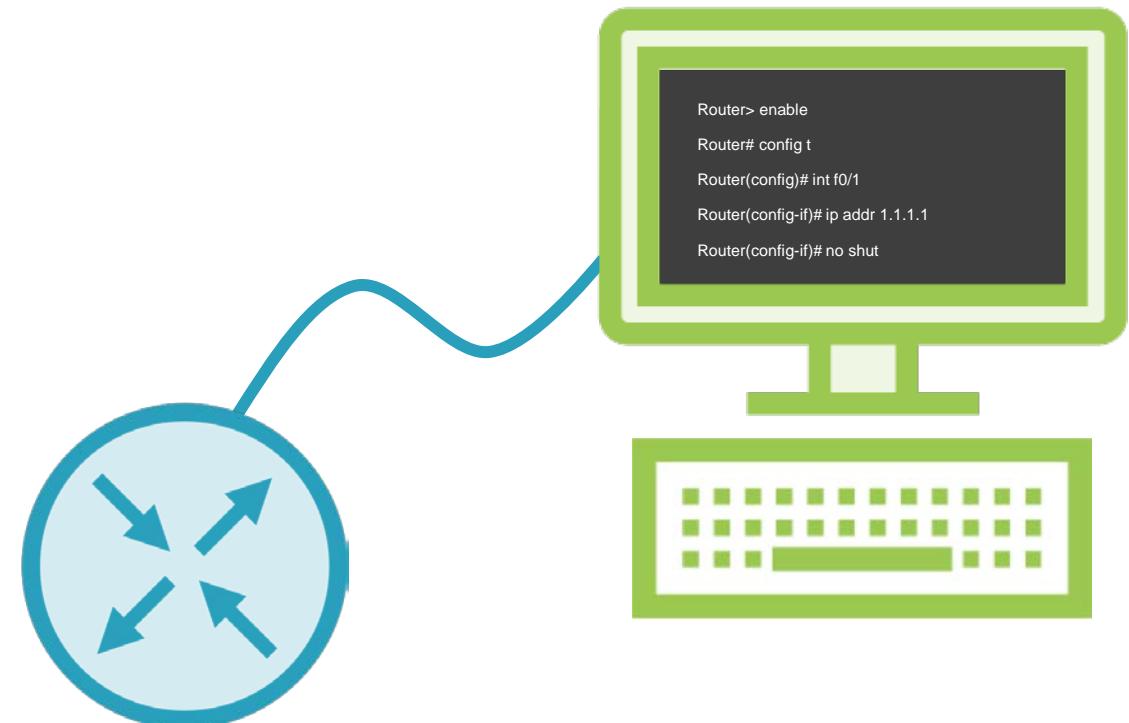


Configuring the Router

RAM



running-config

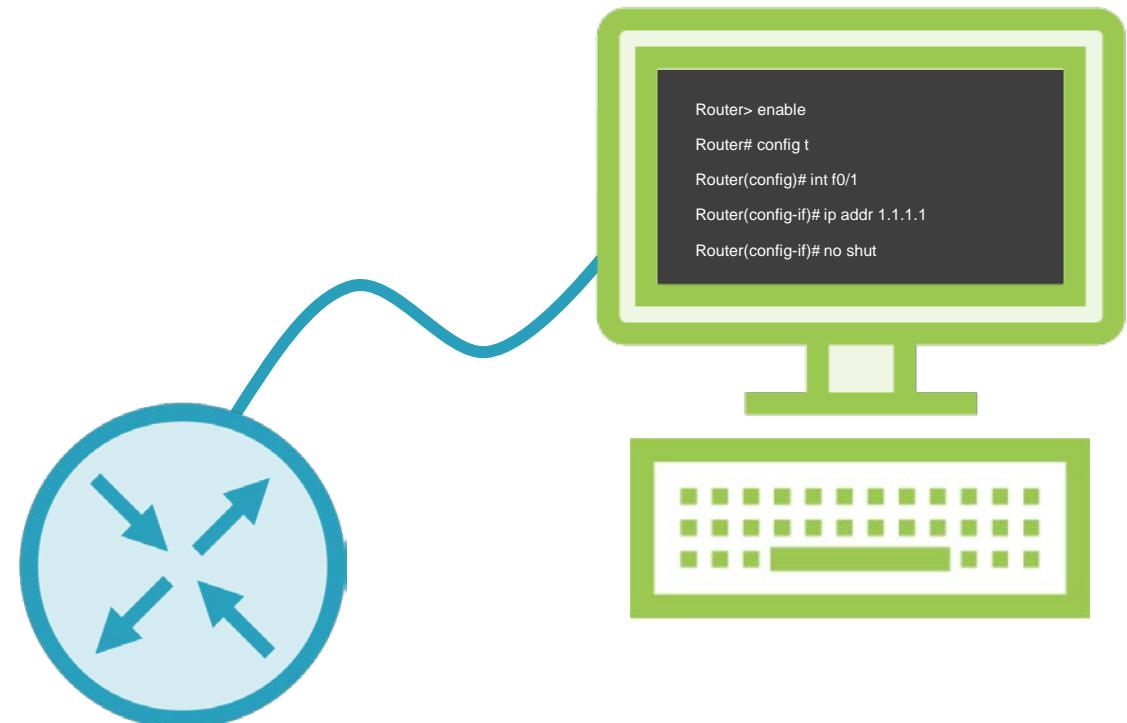


Configuring the Router

RAM



running-config

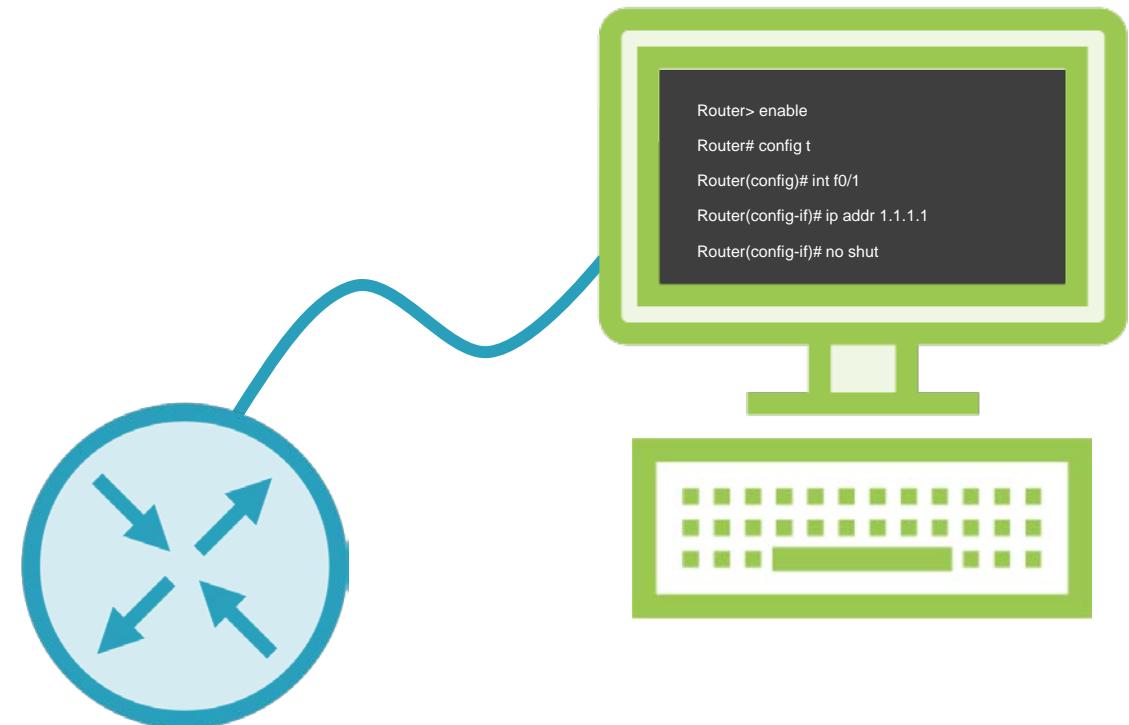


Configuring the Router

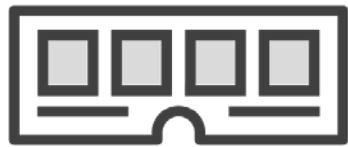
RAM



running-config

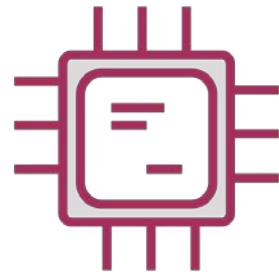


RAM

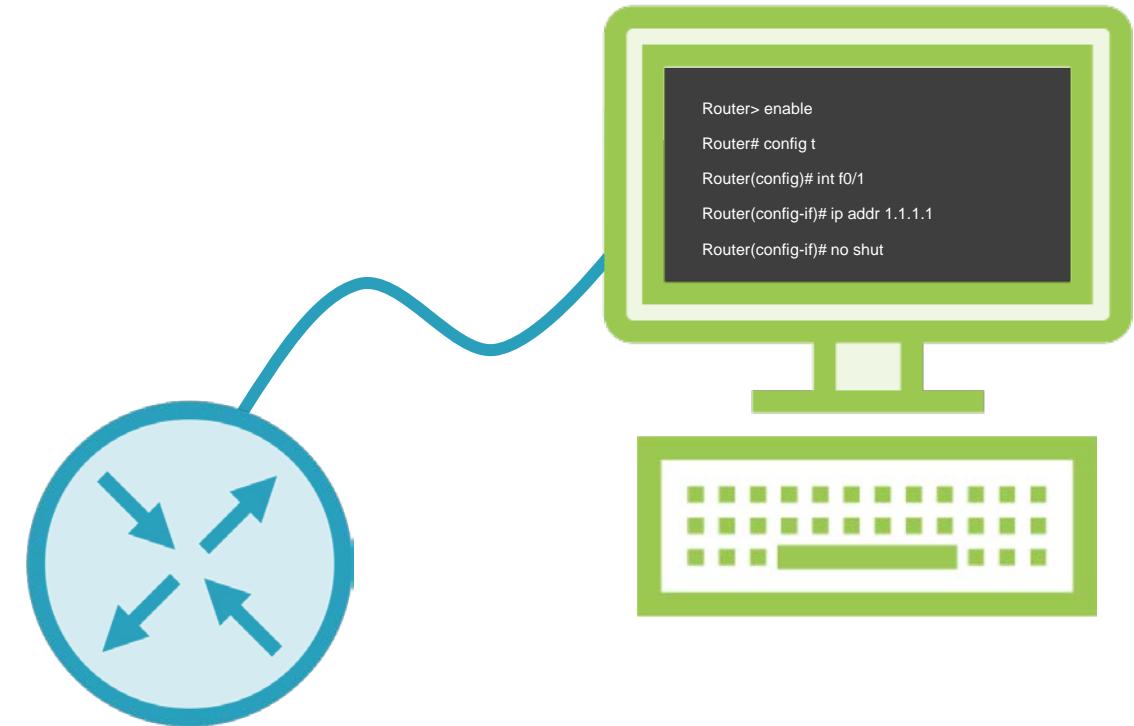


running-config

NVRAM



Configuring the Router

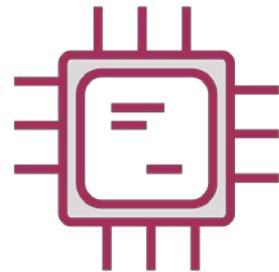


RAM

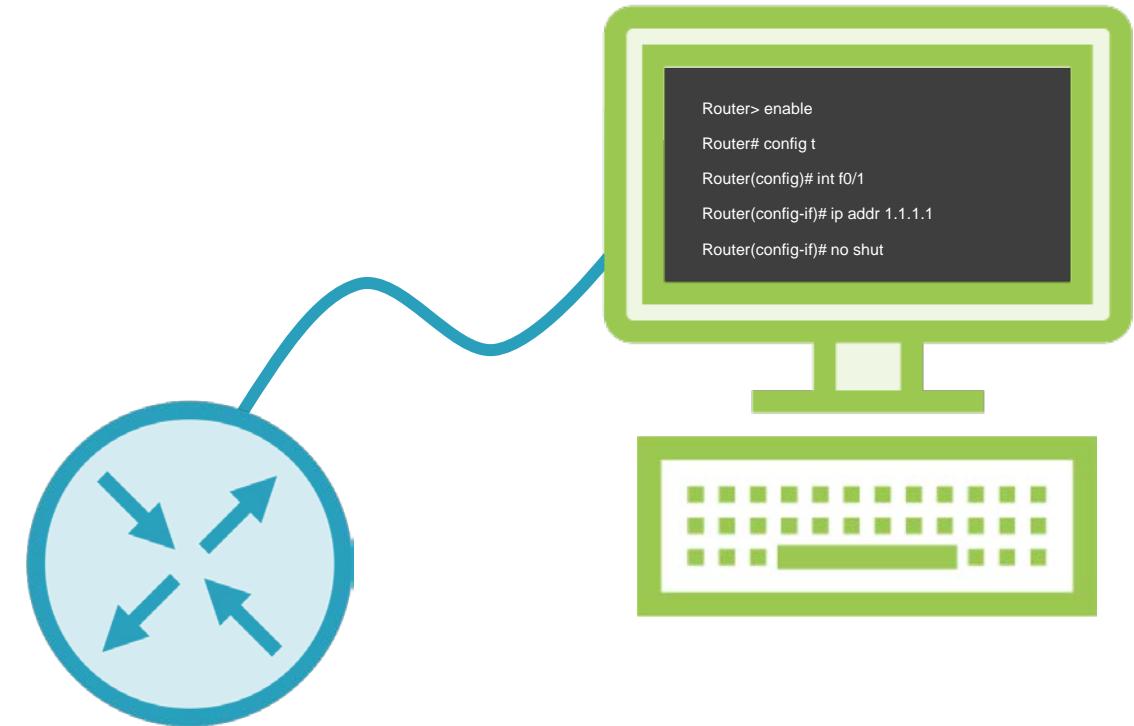


running-config

NVRAM



Configuring the Router

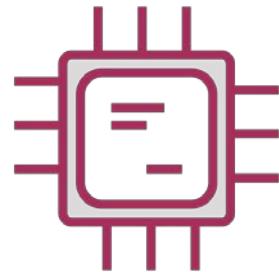


RAM



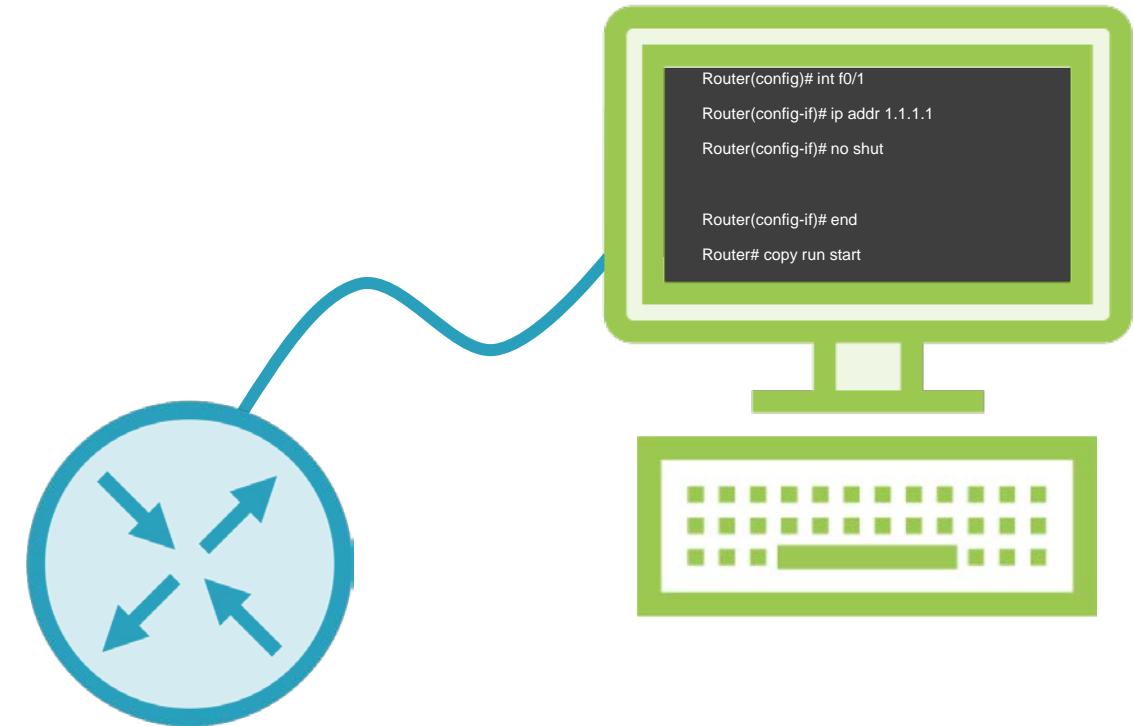
running-config

NVRAM

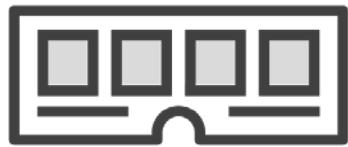


running-config

Configuring the Router

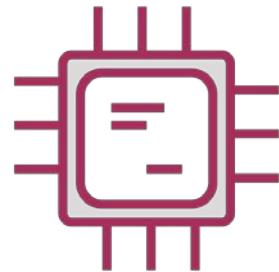


RAM



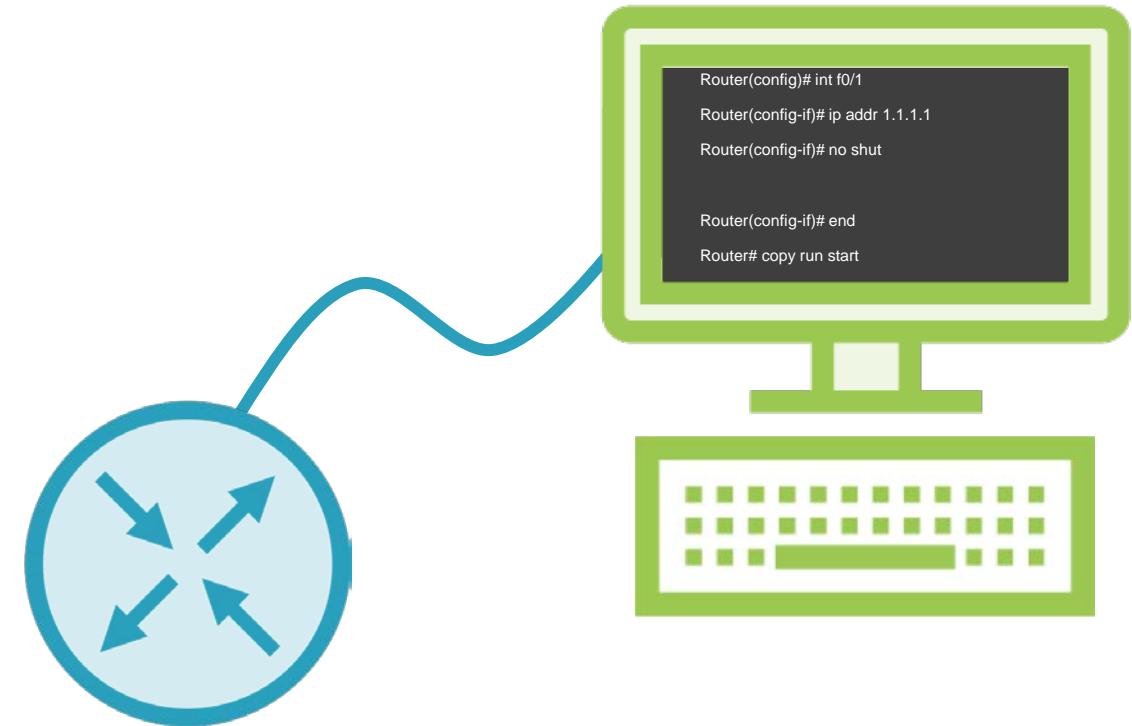
running-config

NVRAM



startup-config

Configuring the Router

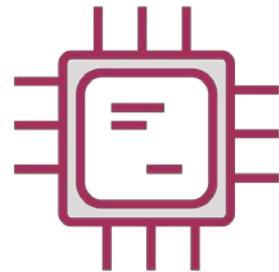


RAM



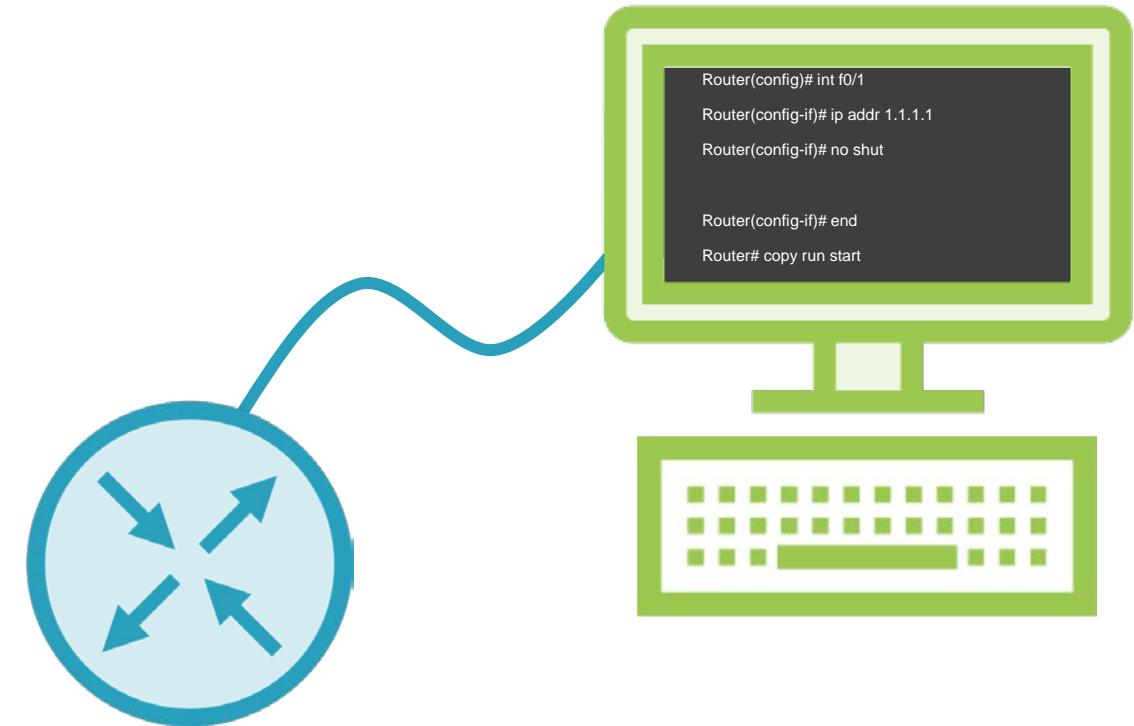
running-config

NVRAM

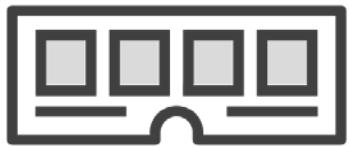


startup-config

Configuring the Router

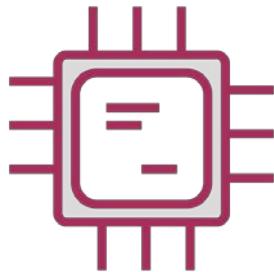


RAM



running-config

NVRAM



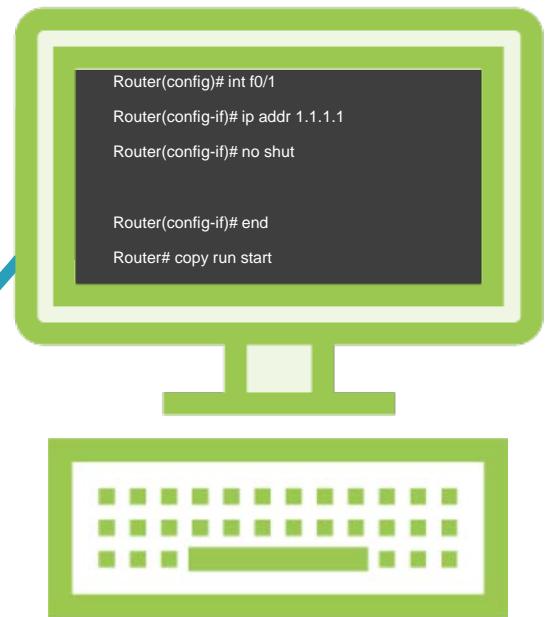
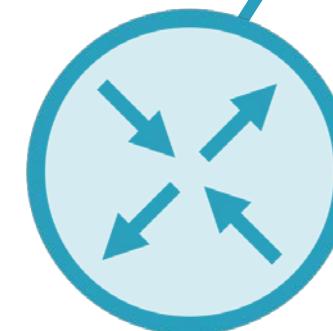
startup-config

Configuring the Router

Flash



IOS



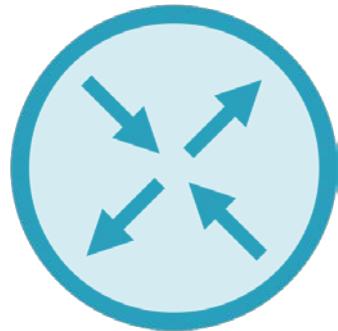
```
Router(config)# int f0/1  
Router(config-if)# ip addr 1.1.1.1  
Router(config-if)# no shut  
  
Router(config-if)# end  
Router# copy run start
```

Internetworking Operating System

Flash

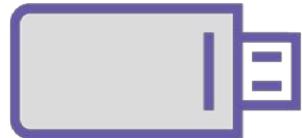


IOS

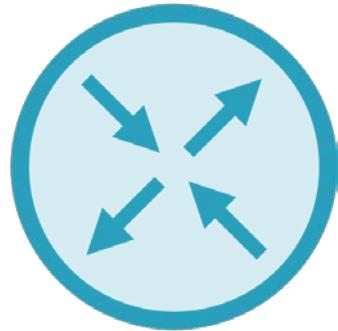


Internetworking Operating System

Flash



IOS



Platform

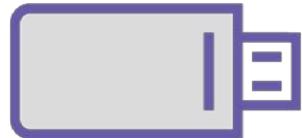
Router

Switch

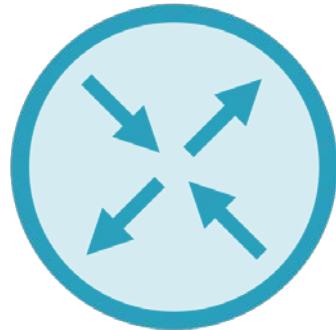
Layer 3 Switch

Internetworking Operating System

Flash



IOS



Platform

Router

Layer 3 Switch

Switch

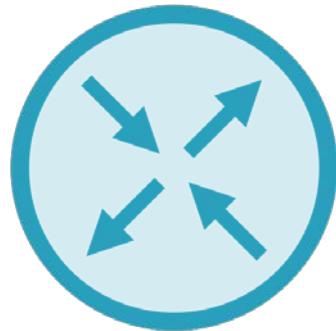
Model Number

Internetworking Operating System

Flash



IOS



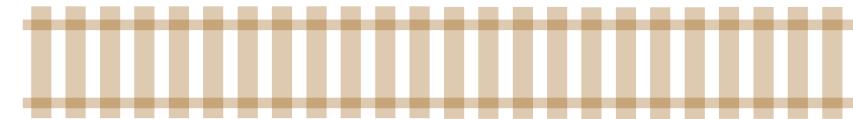
Platform

Router

Layer 3 Switch

Switch

Model Number

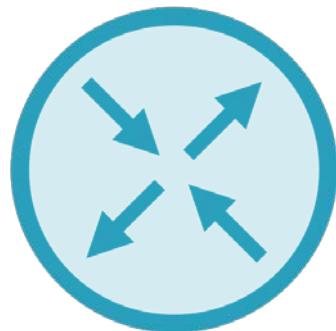


Internetworking Operating System

Flash



IOS



Platform

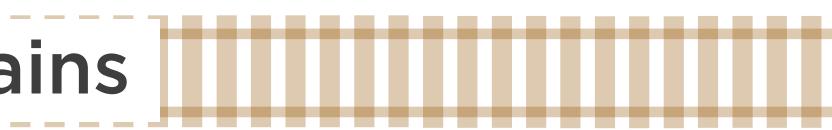
Router

Layer 3 Switch

Switch

Model Number

Trains



Major Releases

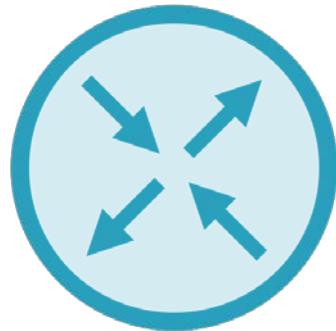
12.2 – 12.4 – 15.0 – 15.1

Internetworking Operating System

Flash



IOS



Platform

Router	Layer 3 Switch	Switch
		Model Number

Trains

Major Releases

12.2 – 12.4 – 15.0 – 15.1

Throttles

Minor Releases

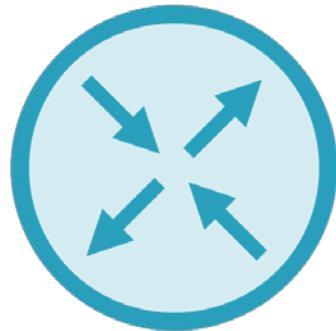
12.2(10) – 12.4(20) – 15.0(1) – 15.1(3)

Internetworking Operating System

Flash



IOS



Platform

Router

Layer 3 Switch

Switch

Model Number

Trains

Major Releases

12.2 – 12.4 – 15.0 – 15.1

Throttles

Minor Releases

12.2(10) – 12.4(20) – 15.0(1) – 15.1(3)

Rebuilds

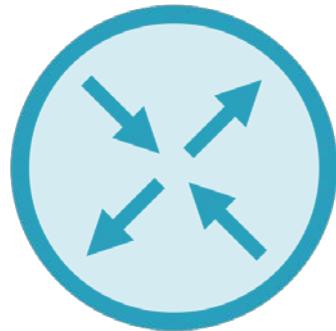
12.2(10b) – 12.4(20)T3 – 15.0(1)M8 – 15.1(3)T2

Internetworking Operating System

Flash



IOS



Model Number

12.2(10b) - 12.4(20)T3 - 15.0(1)M8 - 15.1(3)T2

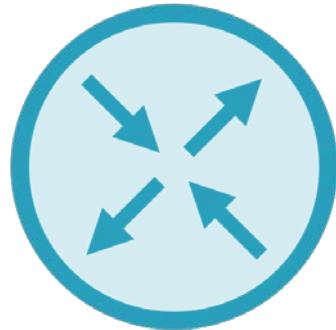
c1841-adventurek9-mz.124-24.T5.bin

Internetworking Operating System

Flash



IOS



Model Number

12.2(10b) - 12.4(20)T3 - 15.0(1)M8 - 15.1(3)T2

c1841-adventerprisek9-mz.124-24.T5.bin



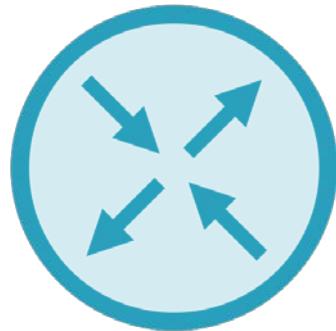
Cisco 1800 Series router model 1841

Internetworking Operating System

Flash



IOS



Model Number

12.2(10b) - 12.4(20)T3 - 15.0(1)M8 - 15.1(3)T2

c1841-adventurek9-mz.124-24.T5.bin



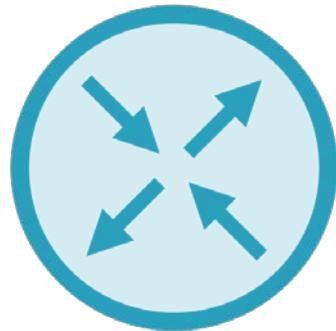
Advanced Enterprise Feature Set

Internetworking Operating System

Flash



IOS



Model Number

12.2(10b) - 12.4(20)T3 - 15.0(1)M8 - 15.1(3)T2

c1841-adventurek9-mz.124-24.T5.bin

Train

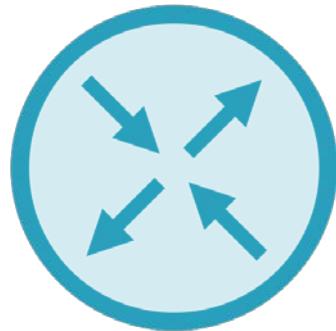


Internetworking Operating System

Flash



IOS



Model Number

12.2(10b) - 12.4(20)T3 - 15.0(1)M8 - 15.1(3)T2

c1841-adventuresek9-mz.124-24.T5.bin

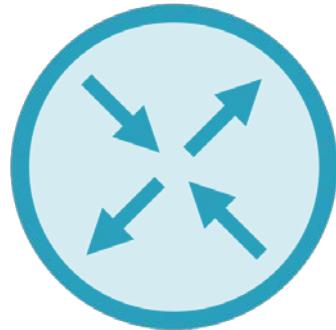


Internetworking Operating System

Flash



IOS



Model Number

12.2(10b) - 12.4(20)T3 - 15.0(1)M8 - 15.1(3)T2

c1841-adventerprisek9-mz.124-24.T5.bin

Rebuild

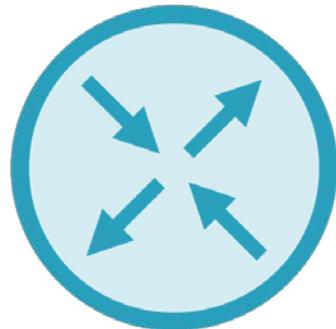


Internetworking Operating System

Flash



IOS



Model Number

12.2(10b) - 12.4(20)T3 - 15.0(1)M8 - 15.1(3)T2

c1841-adventerprisek9-mz.124-24.T5.bin

Binary File System

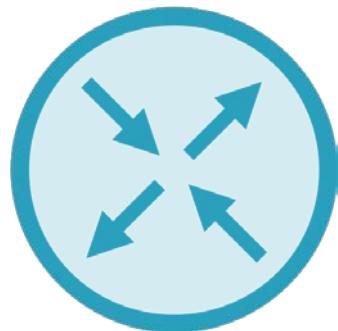


Internetworking Operating System

Flash



IOS



Model Number

12.2(10b) - 12.4(20)T3 - 15.0(1)M8 - 15.1(3)T2

c1900-universalk9-mz.SPA.153-3.M4.bin



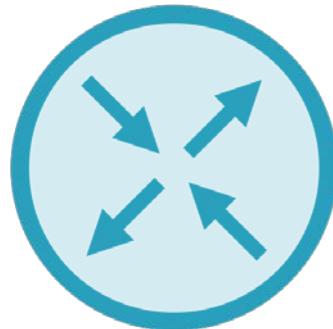
All 1900 Series Routers

Internetworking Operating System

Flash



IOS



Model Number

12.2(10b) - 12.4(20)T3 - 15.0(1)M8 - 15.1(3)T2

c1900-universalk9-mz.SPA.153-3.M4.bin



Universal Feature Set

IOS Licensing

c1900-universalk9-mz.SPA.153-3.M4.bin



Cisco
Value Added Reseller



IOS Licensing

c1900-universalk9-mz.SPA.153-3.M4.bin



Cisco
Value Added Reseller



IOS Licensing

c1900-universalk9-mz.SPA.153-3.M4.bin



Cisco
Value Added Reseller



IOS Licensing

c1900-universalk9-mz.SPA.153-3.M4.bin



Cisco
Value Added Reseller

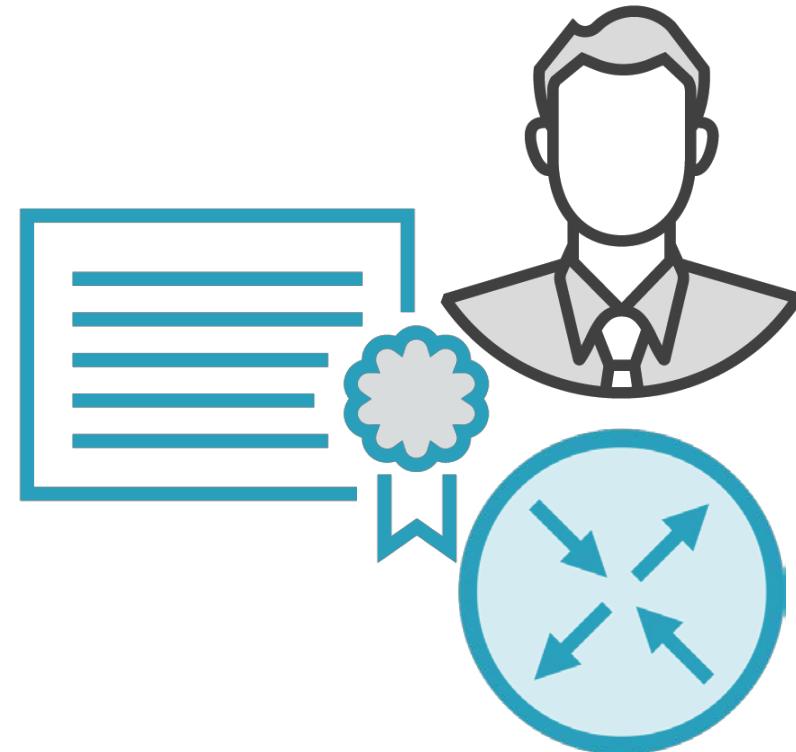


IOS Licensing

c1900-universalk9-mz.SPA.153-3.M4.bin



Cisco
Value Added Reseller

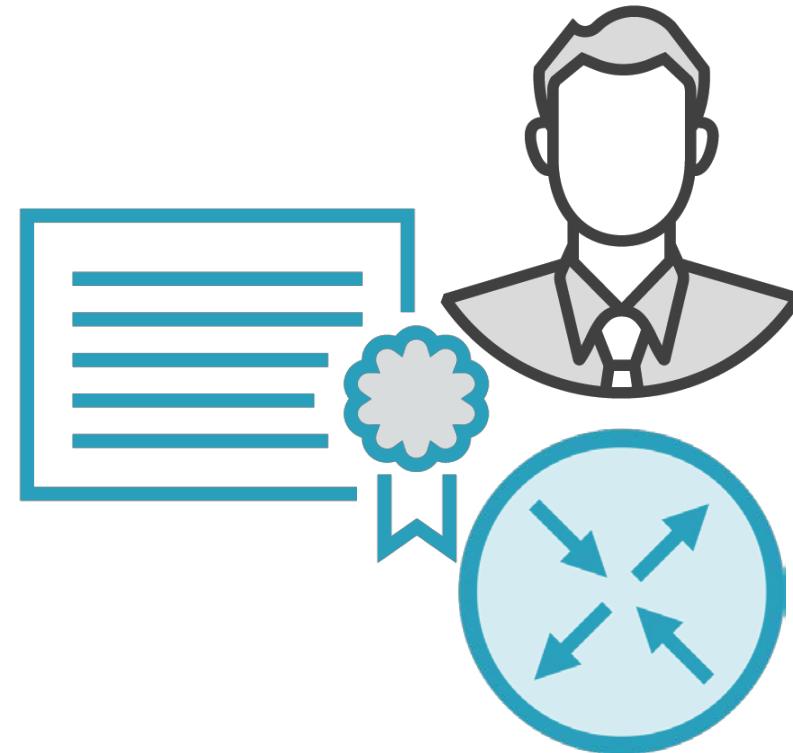


IOS Licensing

c1900-universalk9-mz.SPA.153-3.M4.bin



Cisco
License Server



FTX1138Y245

IOS Licensing

c1900-universalk9-mz.SPA.153-3.M4.bin

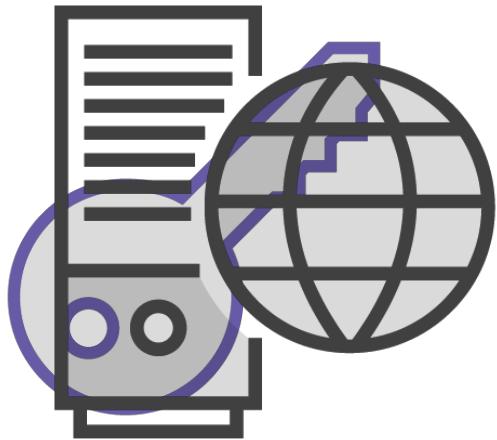


Cisco
License Server



IOS Licensing

c1900-universalk9-mz.SPA.153-3.M4.bin



Cisco
License Server

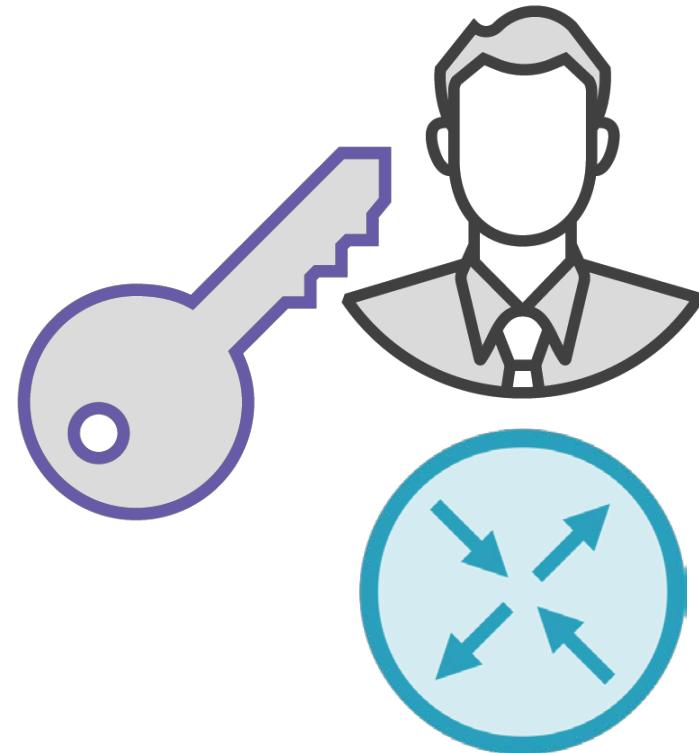


IOS Licensing

c1900-universalk9-mz.SPA.153-3.M4.bin



Cisco
License Server



Module Goals



Describe router memory

List important router files

Examine IOS file naming convention