



Identify and describe the  
commonly used components

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CCIE #4923



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CCIE Routing & Switching



# Video Overview

- Common components – chassis
- Common components - engines
- Common components – linecards, modules

# What IS that?



# Common Components

» **Several components are common across Cisco Router and Switch platforms:**

- Supervisor Engines
- Network Modules
- Port Adapters
- Service Modules
- WAN Interface Cards (WICs)
- Fans

# Chassis



# Fans, Trays and Modules



Cisco 2821 Fan

Nexus 7k Fan  
Module



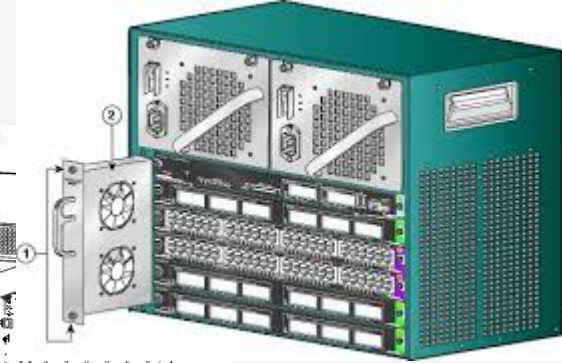
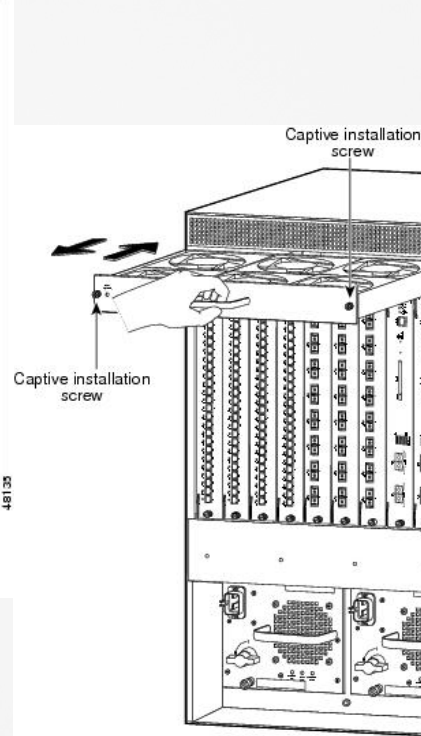
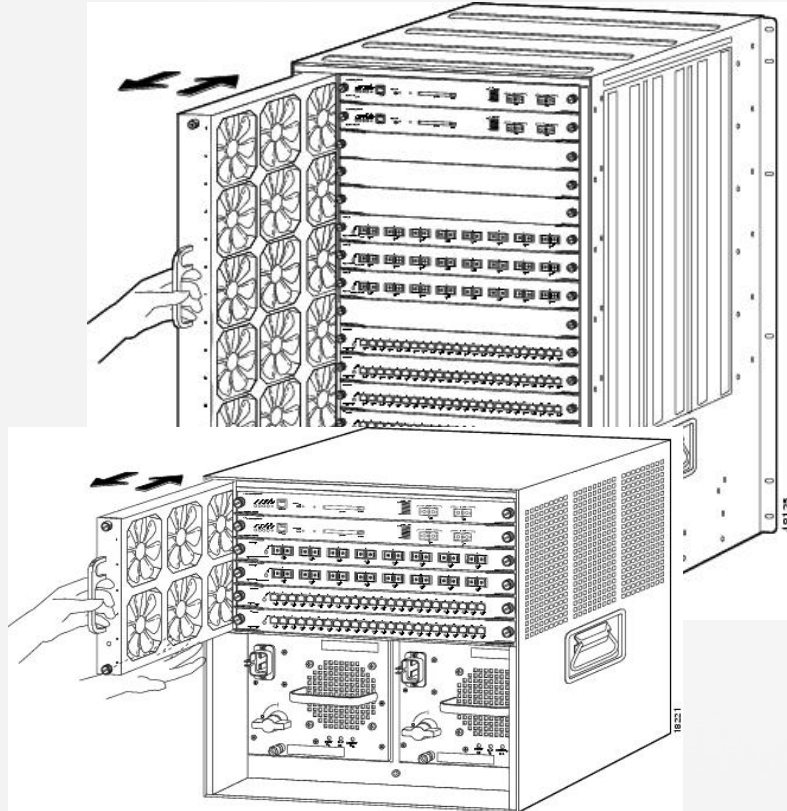
Nexus 2k Single Fan



Catalyst 6509  
Fan Tray



# Fan Installation





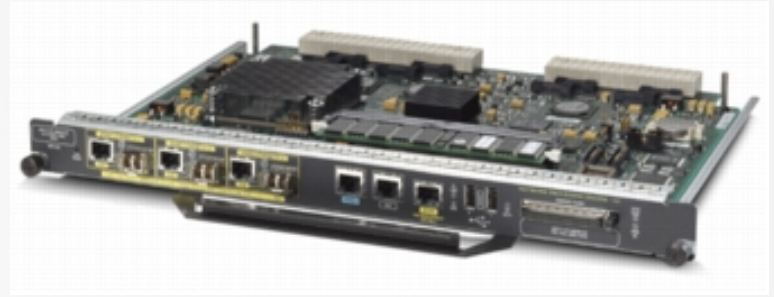
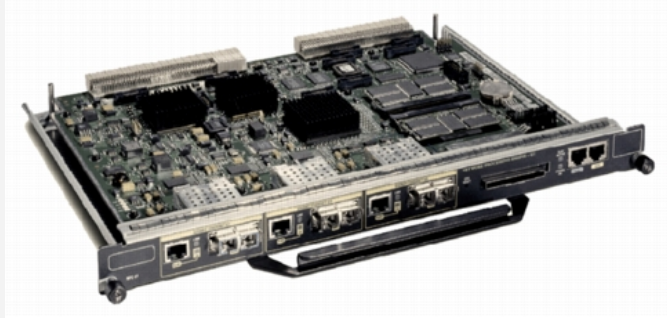
# Start your Engines!

- » Modular chassis typically have one-or-more “engines”.
- » The “engine” is the brains of the device.
- » Many form-factors and names:
  - Supervisor Engine
  - NPE (Network Processing Engine)
  - Service Performance Engine

# Supervisors



# Other “Engines”



# Linecards, Modules and Adapters

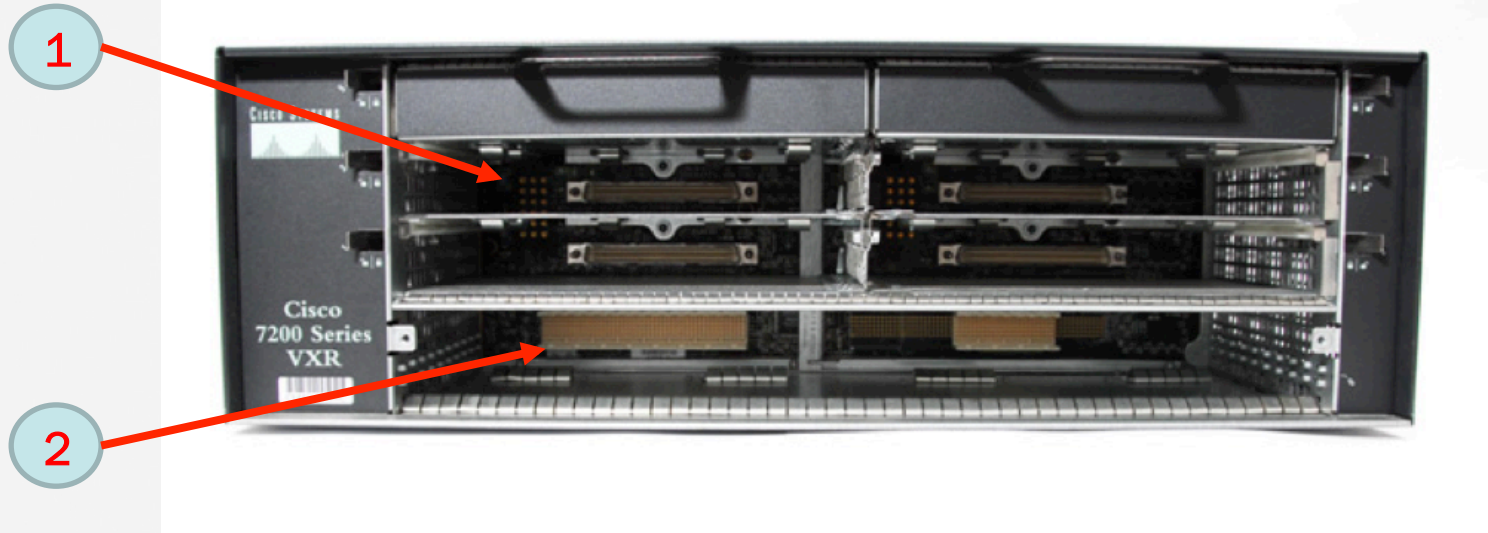
- » Network interfaces are located either on physical chassis...or removable cards.
- » Depending on chassis type, and size of card, these go by different names;
  - Linecard
  - Network Module
  - Port Adapter
  - Service Module

# Linecards

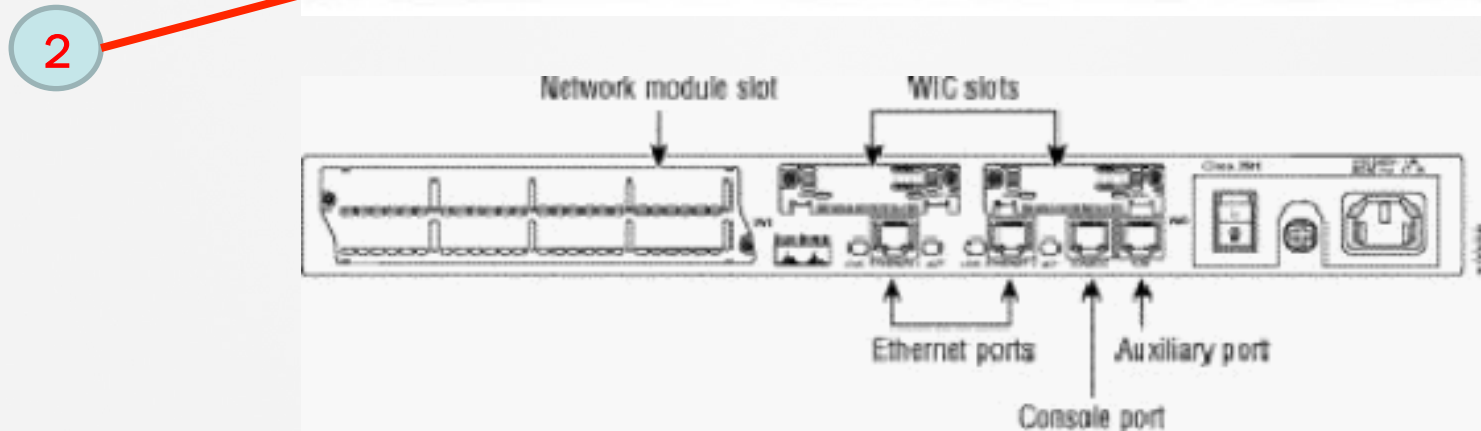
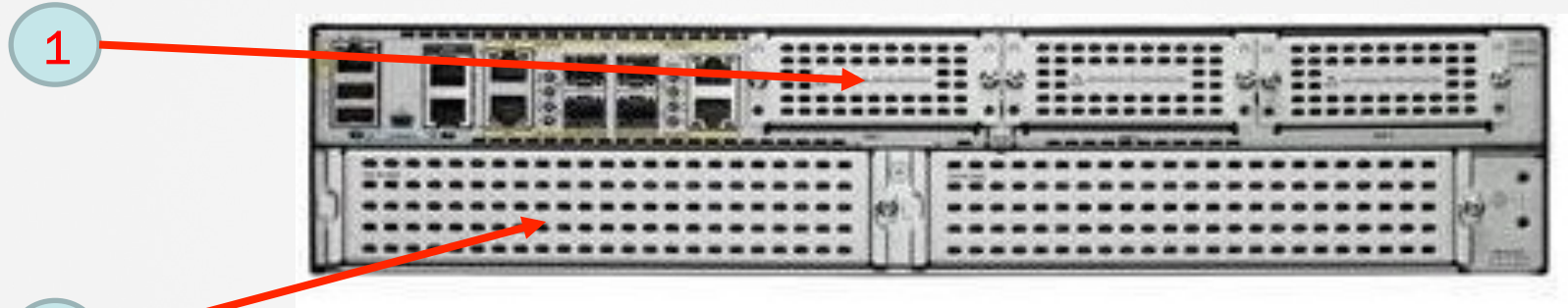
- » Term typically used to describe the removable media containing network interfaces on Switches.



# Modules and Adapters (1)



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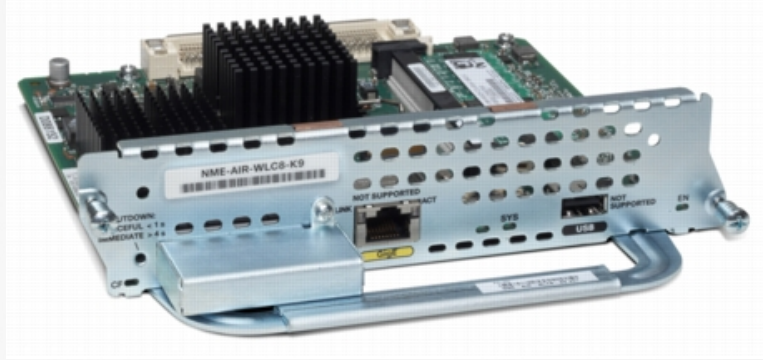




# Service Modules



Firewall Services Module (FSM)



WLAN Controller Services Module



ASA IPS Services Module

# Names and Sizes

- » Smallest slots hold WICs, HWICs or VWICs
- » Medium-sized slots typically host Port Adapters or NIMs
- » Larger-sized slots typically host Network Modules, NMEs, or Service Modules.