Cisco reserves the right to add, modify, change, improve, suspend or discontinue any product or promotion at any time without prior notice nor liability or costs.

Last Revised: 10MAR2017

Cisco Networking Academy
CCNA Routing & Switching Equipment List

This equipment list supports the CCNA Routing & Switching curriculum.

Lab Equipment Requirements in this Spreadsheet
- 1. Standard Equipment List
- 2. Optional Products
- 3. Additional Lab Hardware and Software Required

1. Standard Equipment List

Qty	Product Number	Description	Notes
3	CISCO1941/K9	Cisco 1941 w/2 GE,2 EHWIC slots,256MB CF,512MB DRAM,IP Base	1, 2, 3, 4
3	HWIC-2T=	2-Port Serial WAN Interface Card *(Note: WIC-2T and WIC-2A/S not supported in ISR G2 devices)*	8
3	CAB-SS-V35MT=	V.35 Cable, DTE Male to Smart Serial, 10 Feet	
3	CAB-SS-V35FC=	V.35 Cable, DCE Female to Smart Serial, 10 Feet	
3	WS-C2960+24TC-L	Catalyst 2960 24 10/100 + 2 1000BT LAN Base Image	1, 2
2	Wireless Router	Wireless N-Router (b/g/n Wi-Fi) with Simultaneous Dual-Band, MIMO antenna array for expanded high speed coverage and reliability, 4 Gigabit Ethernet Ports, support for IPv6, WPA2 encryption and SPI Firewall, Quality of Service (QoS), Cisco Connect Software, and Cisco Connect Cloud. *(Note: CCNA Routing & Switching version 6 does not require wireless router)*	10

2. Optional Products

Console Cables

Qty	Product Number	Description	Notes
3	CAB-CONSOLE-USB=	Console Cable 6ft with USB Type A and mini-USB Type B	2
3	CAB-CONSOLE-RJ45=	Console Cable 6ft with RJ45 and DB9F	2

Service Products

Qty	Product Number	Description	Notes
3	CON-SNT-1941	SNTC-8X5XNBD Cisco 1941 w/2 GE,Cisco 1941 w/2 GE,2 EHWIC slot	
3	CON-SNT-WSC296TC	SNTC-8X5XNBD Catalyst 2960 24 10/100 + 2 1000BT LAN	

Router Options

Qty	Product Number	Description	Notes
3	CISCO1921/K9	C1921 Modular Router, 2 GE, 2 EHWIC slots, 512DRAM, IP Base	
3	CON-SNT-1921	SNTC-8X5XNBD C1921 Modular Router	
	OR		
3	ISR4321/K9	Cisco ISR 4321 (2GE,2NIM,4G FLASH,4G DRAM,IPB)	1,2
3	NIM-2T=	2-Port Serial WAN Interface card	7

Last Revised: 10MAR2017

Cisco Networking Academy
CCNA Routing & Switching Equipment List

This equipment list supports the CCNA Routing & Switching curriculum.

Lab Equipment Requirements in this Spreadsheet
  1. Standard Equipment List
  2. Optional Products
  3. Additional Lab Hardware and Software Required

3	CON-SNT-ISR4321K	SNTC-8X5XNBD Cisco ISR 4321 (2GE,2NIM,4G FLASH,4G DRAM,IPB)	
Optional Equipment for NETLAB+			
	HWIC-8A=	8-Port Async HWIC	**5,8**
	HWIC-16A=	16-Port Async HWIC	**5,8**
	NIM-16A=	16-Port Async Serial NIM	**7,9**
	CAB-HD8-ASYNC=	High Density 8-port EIA-232 Async Cable	
	CAB-ASYNC-8=	Async cable Octopus Cable for Async NIM	**7,9**
	WS-C2960+48TC-L	Catalyst 2960 Plus 48 10/100 + 2 T/SFP LAN Base	**6**
	CON-SNT-WSC2968C	SNTC-8X5XNBD Catalyst 2960 Plus 48 10/100 + 2 T/SFP L	

3. Additional Lab Hardware and Software Required

Hardware

Qty	Description	Notes
1	(optional) PC acting as an application server (MS Windows Server or Windows 7 or later)	
3	Desktop PCs acting as clients (MS Windows 7 or later)	
2	Wireless LAN Adapters for the client PCs	
	Ethernet cables and Serial Cables as required	

Software

Qty	Description	Notes
3	Cisco Configuration Professional (CCP) 2.6	
3	Freeware SSH client for PCs (e.g. PuTTy)	
1	Freeware servers for lab support.	
1	WireShark	
1	(optional) Freeware server services for local support and lab enhancement	

Last Revised: 10MAR2017

Cisco Networking Academy
CCNA Routing & Switching Equipment List

This equipment list supports the CCNA Routing & Switching curriculum.

Lab Equipment Requirements in this Spreadsheet
   1. Standard Equipment List
   2. Optional Products
   3. Additional Lab Hardware and Software Required

NOTE 1: The Networking Academy - Image & Hardware Support Document lists the tested and supported IOS images for each hardware platform that provide expected and consistent results for the lab exercises. Routers and switches always ship with the latest IOS version and it may be necessary to move them to the tested and supported IOS image. The NetAcad Maintenance program allows instructors to download the recommended IOS image at no cost. The Image & Hardware Support Document and information on signing up for NetAcad Maintenance can be found in the Equipment Information section of netacad.com (Program Menu / Equipment Information / NetAcad Maintenance Folder).

NOTE 2: Console cables are no longer included with the purchase of new network devices (routers, etc.), so they have been added in the optional equipment section. Our recommendation is to purchase one CAB-CONSOLE-USB= cable with every ISR-G2 router and one CAB-CONSOLE-RJ45= cable with all other devices (switches and ASAs).

NOTE 3: The 1941 router does not support the Unified Communications Technology Package. Voice labs are only supported on the 2900 series routers (2901, 2911). There are no voice labs in the CCNA curricula; however, this could be an issue for academies that wish to use the devices to also teach a voice course as well as CCNA.

NOTE 4: Of the router models, only the 1921, 4321 routers are a 1RU form factor. If rack space is a critical factor, the 1921 or the 4321 is the best choice as it takes half as much rack space as the 1941.

NOTE 5: HWIC-16A= is not supported on the 1800 & 1900 series ISRs, the HWIC-8A= is supported.

NOTE 6: Recommended for institutions using NETLAB+ as a control switch

NOTE 7: Not supported by 1921, 1941, 2901, 2911 router

NOTE 8: Not supported by ISR 4321 router

NOTE 9: NIM-16A requires IOS-XE 16.3.1 or later

NOTE 10: CCNA Routing & Switching version 6 does not require wireless router