CCNA Lab Options - Pros and Cons

Lab Type	Pros	Cons	Price
Physical Lab	• Only option which allows you to physically cable and connect to devices • One-off cost (other than negligible running costs) • Can start small and grow to support any level of certification	• Takes time to purchase and install • Takes up physical space • Needs remote power switch to access remotely	Borrow from work – Free Ebay US Prices: Pre-built lab ~ $350 - Build your own: 3x 2950 or 3550 Switch ~ $30 each 3x 2800 Router ~ $70 each - Also buy cables - Optional: Perle Remote Power Switch ~ $100
Online Lab	• Ready immediately • Inexpensive for short term use • Uses physical devices • Supports all levels of certification (price varies)	• Cannot physically cable and connect to devices • Price adds up with long term use • Requires Internet connectivity	INE - $3 per hour Many other options available
Cisco VIRL Virtual Lab	• Supports most Cisco devices including full featured virtual switch • Also supports all CCNP tracks	• Requires powerful PC to run it on, or cloud setup at additional cost • You need to learn how to configure the software	VIRL Personal - $199.99 per year
GNS3 Virtual Lab	• Free (requires IOS images) • Also supports CCNP Routing and Switching	• Supports only very limited switch features without VIRL license or IOU • You need to learn how to configure the software • You need to source the IOS images	GNS3 - Free
Cisco Packet Tracer	• Free • Guided labs available for free online • Ready immediately	• Not real IOS, does not behave exactly like a real router or switch • You need to learn how to configure the software for your own custom labs	Cisco Packet Tracer - Free
Boson NetSim	• Ready immediately • Has guided lab exercises • One-off cost	• Not real IOS, does not behave exactly like a real router or switch • CCNP also available but at additional cost • You need to learn how to configure the software for your own custom labs	Boson NetSim 11 for CCNA - $179