


Guide to Select Cisco Network Edge Router

How to select and identify the right Cisco Network Edge router for your needs?
When you're upgrading an old Cisco router, just read and check a few simple questions below and get your results.

Do you need an on-prem physical or cloud-based virtual router?	Do you need IPsec/MACsec? (Do you need crypto-based access security?)	How much encryption throughput (Gbps IMIX) do you need? (Select the IPsec or MACsec throughput needed for your new router.)	How much system throughput do you need? (Select the amount of Gbps needed for your new router.)	How many 10GE ports do you need?	Do you need redundant hardware (data and control planes)?	Do you need 40GE/100GE support?		Recommended Product	Alternative Product
Physical	Yes	Up to 4 Gbps IPsec	—					Cisco ASR 1002-X	Cisco ASR 1001-X
		Up to 5 Gbps IPsec						Cisco ASR 1001-X	—
		Up to 8 Gbps IPsec						Cisco ASR 1001-HX	Cisco ASR 1002-HX
		Up to 16 Gbps IPsec						Cisco ASR 1002-HX	Cisco ASR 1001-HX Cisco ASR 1006-X
		Up to 25 Gbps IPsec						Cisco ASR 1002-HX	Cisco ASR 1009-X
		Up to 59 Gbps IPsec						Cisco ASR 1009-X	Cisco ASR 1013
		Up to 20 Gbps MACsec						Cisco ASR 1001-X	—
		Up to 100 Gbps MACsec						Cisco ASR 1002-HX	Cisco ASR 1006-X
		Up to 200 Gbps MACsec						Cisco ASR 1009-X	Cisco ASR 1013
	No	—	Up to 2.5 Gbps	—				Cisco ASR 1001-X	—
			Up to 5 Gbps					Cisco ASR 1001-X	Cisco ASR 1002-X
			Up to 10 Gbps					Cisco ASR 1002-X	Cisco ASR 1001-X
			Up to 20 Gbps	3 or less	Yes	—		Cisco ASR 1006-X	Cisco ASR 1001-X Cisco ASR 1004
					No				
			4 or more	Yes	—	Cisco ASR 1001-HX		Cisco ASR 1002-HX	
				No					
			Up to 36/40 Gbps	3 or less	Yes	—		Cisco ASR 1006-X	—
					No				
			4 or more	Yes	—	Cisco ASR 1006-X		—	
				No		Yes		Cisco ASR 1002-HX	Cisco ASR 1006-X
			No	No	No	Cisco ASR 1001-HX		Cisco ASR 1002-HX	
				Up to 60 Gbps	8 or less	Yes		—	Cisco ASR 1006-X
				No	Yes	No			Cisco ASR 1002-HX
			9 or more	Yes	—	Cisco ASR 1006-X		Cisco ASR 1009-X	
				No		—		Cisco ASR 1002-HX	—
			Up to 100 Gbps	18 or less	—	Cisco ASR 1002-HX		Cisco ASR 1006-X	
				more than 18		Cisco ASR 1006-X		Cisco ASR 1009-X Cisco ASR 1013	
Up to 200 Gbps				Cisco ASR 1009-X	Cisco ASR 1013				
Virtual	—						Cisco Cloud Services Router 1000V Series	—	

Looking for other types of routers?
View more brand network routers, [Cisco routers](#), [Huawei Routers](#).

More Related:
[Meet All Your Needs with Cisco ISR 4000 Models Routing, Switching, and Wi-Fi in Cisco ISR 1000 Series](#)
[Cisco 4200 Series/ISR 4221-A Router Built for SMB Networking](#)
[How to Order Cisco 4000-AX Application Experience Routers?](#)
[Cisco ONE Software Device Tiering Guide—Perpetual Licenses](#)
[View More Cisco Router Topics](#)