Cisco 4G / 5G Ready Routers

	IR 1101, 8xx & CGR	1K Series ISR & Meraki MX	4000 Series ISR	ENCS Series	Cellular Gateways
Cisco | verizon✓ Designed. Delivered. Optimized. Together.	**IoT Workhorses**	**Branch In a Box**	**Swiss Army Router(s)**	**Virtualized Branch**	**4G / 5G Extender**
Primary Application	**Hardened IoT**	**Secure SD-WAN, 5G Ready for the Modern Branch**	**Enterprise Class Services w. Cisco Reliability!**	**Service Agility and Density w. Low Touch**	**IP Passthrough Gateway**
Customer Characteristics & Needs Applies Across Verticals	- **Deploy in deserts, mountains, & high speed vehicles.** - Leading heat dissipation, low power consumption and extreme exposure. - Modular and fixed small, hardened form factors for demanding environments.	- Need Enterprise class features in a small branch form factor. - Need standard routing services for voice, video and data. - Need intuitive SD-WAN cloud management & advanced segmentation.	- Need concurrent services and best in class redundancy. - Need "future proof" to deploy secure SD-WAN services. - Need onboard compute and storage capabilities for branch services.	- Need Enterprise Network Function Virtualization (NFV), including routing. - Need an x86 platform purpose built for branch network services. - Need support for legacy WAN transport and 5G Ready support!	- Need to place the radio outdoors / near a window to maximize reception. - Need connect routers that don't have an embedded 4G radio. - Need reliable backup for SD-WAN wired networks.
Did You Know? Key Attributes	- **Onboard compute to run docker based IoT apps** - Geo Fencing and PIN based SIM locking for physical router security. - Enterprise class UTM network security w. Cisco IOS / IOS XE - Cisco Umbrella SIG for cloud security / SASE	- 0 touch deploy advanced SD-WAN via MPLS, DIA, Broadband, or LTE / 5G. - **Optimize SaaS performance for Office 365, WebEx, Salesforce, and more!** - Layer 7 Application shaping via active-active networks - Cisco Umbrella SIG for SD-WAN cloud security / SASE	- Resilient multi-core CPUs for SD-WAN branch service performance. - Dual integrated power supplies (4451 and 4431 ISRs), and optional power supply for additional PoE power. - **Cisco Umbrella SIG for SD-WAN cloud security / SASE!**	- **Resilient multi-core CPUs for SD-WAN branch service performance.** - Complete "lights-out" capabilities and hardware acceleration for VM-to-VM traffic - Cisco Umbrella SIG for SD-WAN cloud security / SASE!	- Meraki MG21 Hardened to deploy inside or in an external IP67 enclosure. - **Meraki MG21 Fully integrated into the Meraki cloud management platform!** - The Cisco gateway(when GA) will integrate into vManage, Cisco's SD-WAN cloud management tool.
5G Ready Cat 18 Radio	Yes! (IR 1101)	Yes! (ISR 1000 Series)	No (5G upgradable w. Cisco gateway)	No (5G upgradable w. Cisco gateway)	No (Embedded radios)
Verizon PNTM & Split Data Routing[1]	**Yes!**	**Yes!**	**Yes!**	**Yes!**	No (services via router)
Switch Ports	Yes w. PoE (IR 829)	Yes w. PoE	Yes w. PoE (w. Extended SM)	Yes w. PoE (5400)	No (can be powered via PoE)
Integrated WIFI	Yes (829)	Yes	Yes (w. NIM)	No	No (services via router)
Ruggedized	Yes	No (ISR 1109 - Yes)	No	No	Yes (MG21)
Enterprise Class Security	Yes	Yes	Yes	Yes	No (services via router)
Onboard Compute Resources	Yes	No	Yes (via Extended Services Module)	Yes	No (services via router)
Verizon & Cisco R&D and Support	**Yes!**	**Yes!**	**Yes!**	**Yes!**	**Yes!**

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1. PNTM = Verizon's Private Network Traffic Management.   Split Data Routing = Dual APN