

Data Sheet

NetCloud Exchange Secure Connect & Service Gateway

NetCloud Exchange (NCX) Secure Connect is a secure, end-to-end network solution that offers a simple to manage alternative to complex VPN infrastructures for securely connecting sites, vehicles, IoT, and remote workers. NCX Secure Connect provides any-to-any connectivity and drastically reduces the attack surface by building undiscoverable network resources. Secure Connect tightly integrates with most Cradlepoint secure routing devices to establish encrypted connections through the NetCloud Exchange Service Gateway to access applications and resources in the cloud or data center.

NCX Service Gateway provides the foundation for the Secure Connect and future services. As the service delivery vehicle for NetCloud Exchange, the Service Gateway provides the secure data-plane and policy enforcement capabilities for Secure Connect to orchestrate agile networks from Cradlepoint routers in sites, vehicles, IoT and remote workers to digital resources in the cloud, data center and external sites. Delivered for a virtual infrastructure, cloud environment or downloaded onto a physical server, the Service Gateway can be delivered on-premises or in a hosted environment. The Service Gateway is easily provisioned via Cradlepoint NetCloud and managed like other Cradlepoint solutions.

Secure Connect and the Service Gateway run on the NetCloud Exchange (NCX) platform, an advanced technology architecture from Cradlepoint combining network and security capabilities in a service that is easy to deploy and manage at scale. With NCX, Cradlepoint incorporates encrypted connections and zero-trust principles into each service so that the network is inherently secure. NCX offers unparalleled agility, security and simplicity needed to build converged WAN and 5G that extends connections anywhere.

Notable Benefits

- Works in conjunction with NetCloud Manager Secure Connect to orchestrate tunnels between Cradlepoint routers and the Service Gateway at scale
- Simplifies IP address management by allowing overlapping IP addresses with Private NAT techniques
- Reduces network attack surfaces by using invisible network resources
- Applies zero-trust principles through no-default network level access
- Provides secure data-plane and policy enforcement capabilities to create networks that apply zero-trust principles
- Captures network traffic flows, and delivers this data for visibility in NetCloud Manager dashboards
- Operates in virtual infrastructure, cloud environments, or as software on customer-hosted servers

Key Capabilities

Simplified configuration

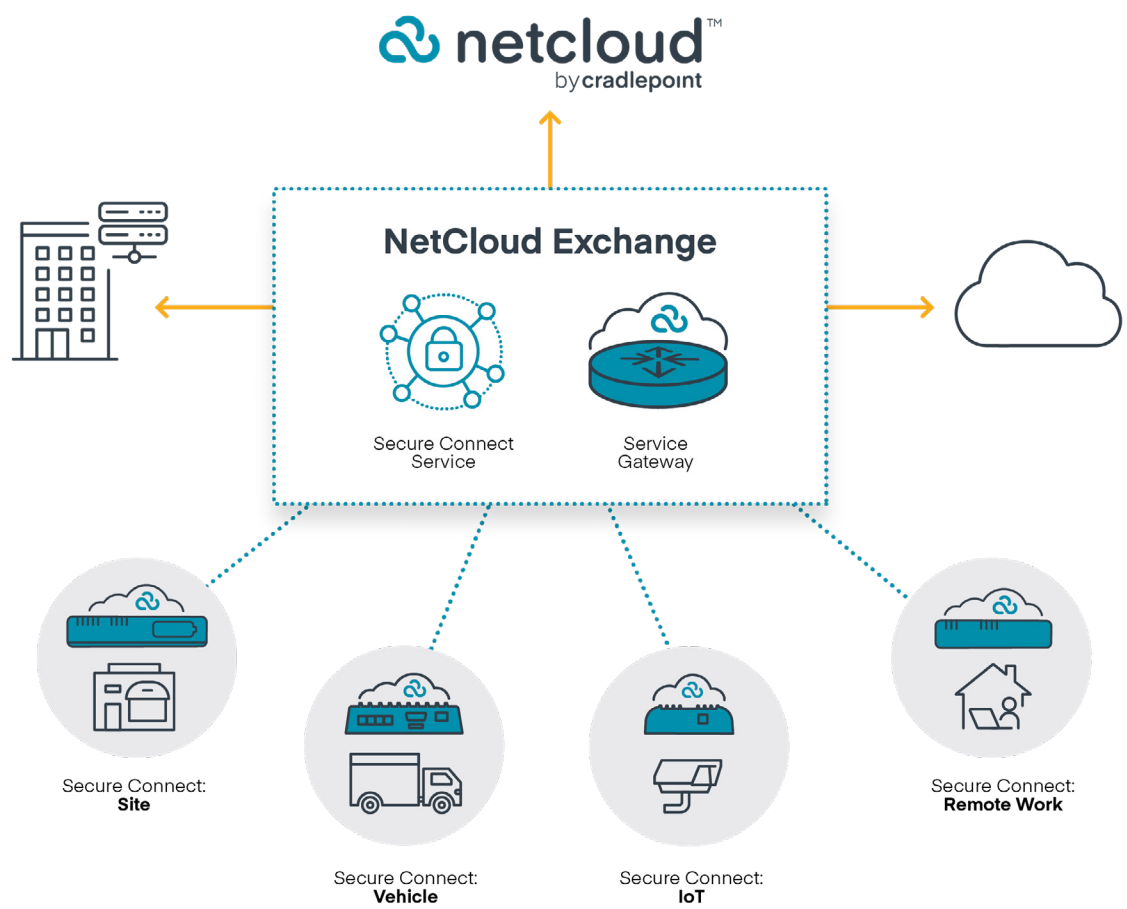
NCX Secure Connect and Service Gateway simplify the cumbersome process of IP addressing in deploying new sites for simplified setup and faster network rollout. By allowing reuse of IP addresses, and an easier to understand name-based addressing scheme, Secure Connect is significantly easier to deploy across thousands of locations and eliminates complex network configurations for higher operational efficiency and agility.

Security services

NetCloud Exchange establishes a zero-trust foundation as soon as it is deployed by eliminating default network level access and only allowing access to defined resources. When Secure Connect links Cradlepoint routers through the NCX Service Gateway, the networking, application, and data details become obscured to outside elements, which makes the IP addresses undiscoverable. This private networking scheme locks out external access and significantly reduces the attack surface.

Scalable and cloud native

NetCloud's centralized, cloud-based management uses Cellular Intelligence to unlock the power of LTE, 5G, and wired connections at the network edge to connect devices to critical applications and services. Secure Connect is deployed, orchestrated, and managed through cloud-based NetCloud to automate processes and unlock services as needed to scale. NetCloud provides end-to-end visibility for users, devices, and access to applications with dashboards, analytics, and insights.



NCX Secure Connect Site Specifications

PERFORMANCE												
	MICRO					SMALL			MEDIUM		LARGE	
Endpoint:	IBR650B	IBR600C	IBR650C	R500-PLTE	IBR900	E100	E102	IBR1700	AER2200	E300	E3000	R1900
Typical Client Count:	5	5	5	5	5	5	5	30	100	50	100	100
Throughput (Mbps):	10	10	10	20	10	40	40	40	40	400	400	400
Concurrent Tunnels:	10	10	10	10	10	20	20	20	20	20	20	20
SYSTEM REQUIREMENTS												
Endpoint:	IBR650B	IBR600C	IBR650C	R500-PLTE	IBR900	E100	E102	IBR1700	AER2200	E300	E3000	R1900
Minimum NetCloud OS Release:	7.22.70	7.22.70	7.22.70	7.22.70	7.22.70	7.22.70	7.22.70	7.22.70	7.22.70	7.22.70	7.22.70	7.22.70

NCX Service Gateway Specifications

Performance				
Size:	Small	Medium	Large	X-Large [†]
Throughput:	500 Mbps	1 Gbps	2 Gbps	4 Gbps
Concurrent Tunnels:	250	1000	2000	4000
System Requirements (All Sizes)				
	Cloud		On-Premises	
Deployment:	AWS [†]	Azure	KVM	VMware
Software Version:	N/A	N/A	Ubuntu 18.04	ESXi 6.7 or newer
Instance:	c52.xlarge	Standard_D8S_v3	N/A	N/A
vCPUs:	N/A	N/A	8	8
Memory:	N/A	N/A	16 GB	16 GB
Min. Disk Space:	16 GB	16 GB	16 GB	16 GB
vNICs:	3	3	3	3
Minimum NCX Service Gateway Release:	7.22.70	7.22.70	7.22.70	7.22.70

Performance testing was conducted based on requirements as defined in RFC2544 using fixed-frame 1518 byte packets. Throughput results reflect unidirectional. UDP traffic with less than 1% packet loss as tested with wired connections. At the time of release, the number of supported sites and tunnels is a 1:1 ratio. Each NetCloud Edge router will only support one tunnel on one active WAN interface at a time.

[†]Available ~Q3 2022.

Ordering Guide

NetCloud Exchange Service Gateway and Secure Connect are service enablement appliances. Activation and use of NetCloud Exchange Service Gateway and Secure Connect are only sold as an add-on to a NetCloud Service Plan.

For details on the features available to a licensed NetCloud Exchange Service Gateway by service plan, refer to the summary on the [NetCloud Service webpage](#) and the detail in the NetCloud Service Features document.

For more details on NetCloud Exchange Service Gateway, see below.

1 Select a NetCloud Service plan(s) [†]	2 Select NCX Secure Connect site license(s) for supported routers	3 Select NCX Service Gateway capacity for entire solution (Purchase qty 2 for high availability)
NetCloud Service for Branch	Micro Site	500 Mbps
NetCloud Service for Mobile	Small Site	1 Gbps
NetCloud Service for IoT	Medium Site	2 Gbps
NetCloud Service for SOHO	Large Site	4 Gbps

[†]Refer to [NetCloud Services webpage](#) for service plan details.

2 NCX Secure Connect Site License(s)

REGION	DESCRIPTION	PART NUMBER
All Regions	PROMO NCX Secure Connect — Micro Site	NCX-000y-SCMICRO
	PROMO NCX Secure Connect — Small Site	NCX-000y-SCS
	PROMO NCX Secure Connect — Medium Site	NCX-000y-SCM
	PROMO NCX Secure Connect — Large Site	NCX-000y-SCL
All Regions: Renewal	NCX Secure Connect — Micro Site Renewal	NCX-000x-SCMICRO-R
	NCX Secure Connect — Small Site Renewal	NCX-000x-SCS-R
	NCX Secure Connect — Medium Site Renewal	NCX-000x-SCM-R
	NCX Secure Connect — Large Site Renewal	NCX-000x-SCL-R

x = 1, 3, or 5 years
y = 2, 4, or 6 years

3 NCX Service Gateway Capacity

REGION	DESCRIPTION	PART NUMBER
All Regions	PROMO NCX Service Gateway — 500 Mbps	NCX-000y-SG500MBPS
	PROMO NCX Service Gateway — 1 Gbps	NCX-000y-SG1GBPS
	PROMO NCX Service Gateway — 2 Gbps	NCX-000y-SG2GBPS
	PROMO NCX Service Gateway — 4 Gbps	NCX-000y-SG4GBPS
All Regions: Renewal	NCX Service Gateway — 500 Mbps Renewal	NCX-000x-SG500MBPS-R

x = 1, 3, or 5 years
y = 2, 4, or 6 years