stateless

DATA SHEET

STATELESS LUXON

The New Platform for Software-Defined Interconnect (SD-IX)

- Simplifies management and control of interconnections; deploy new network services and applications in minutes instead of months
- Easily create new interconnects that use any combination of security services, data encryption, routing and more
- Use a built-in library of micro-services that implement standardized network functions
- Consolidate sprawled network appliances and deploy thousands of interconnects on a unified cluster.
- Open REST APIs provide complete automation, integration and visibility.

Control & Visibility

Zero-disruption maintenance and software updates

API-driven visibility for rich system-wide diagnostics

Rich logging data supports required compliance requirements

End-to-End Automation

Design, configure and deploy interconnections in seconds

Dynamic auto-scaling of networks as throughput and capacity demands

Inherent resiliency through N+1 architecture mitigates downtime and disruption

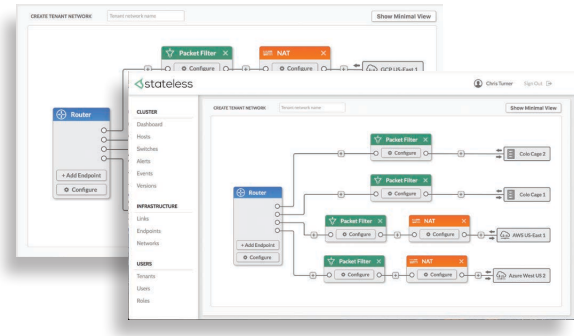
Easily Integrated

Simple, API-driven, low-risk integration into existing network architectures

- VLAN / VxLAN / EVPN support
- SDN enabled switches for integration into top-of-rack distribution
- Open REST API simplifies integration with SDN and back-office systems

Multi-Tenancy

Manage and build thousands of isolated and custom tenant networks



Q. What is an Interconnect?

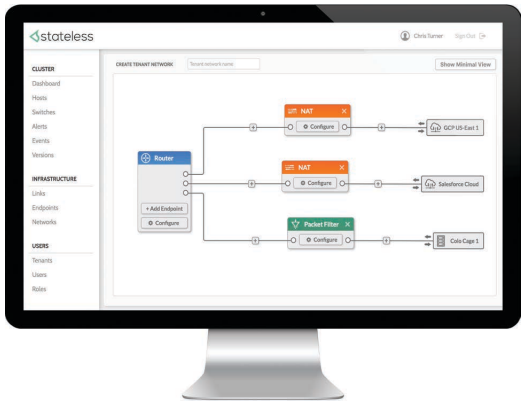
A. An interconnection is a digital pathway that includes security, routing, traffic shaping and other network infrastructure building blocks for the transfer of data between end points.

Q. What is Software Defined?

A. 'Software Defined' is a label used to describe a process or activity that is controlled via software.

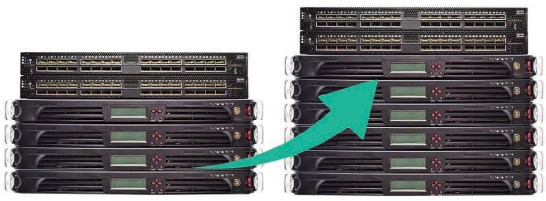
Q. What is Software Defined Interconnect (SD-IX)?

A. SD-IX is a software technology and development architecture that simplifies the process of creation, control and management of interconnections.



Scale-Out Cluster

Multi-dimensional scalability reduces capital outlay and support hitless growth.



Scale-out with growth

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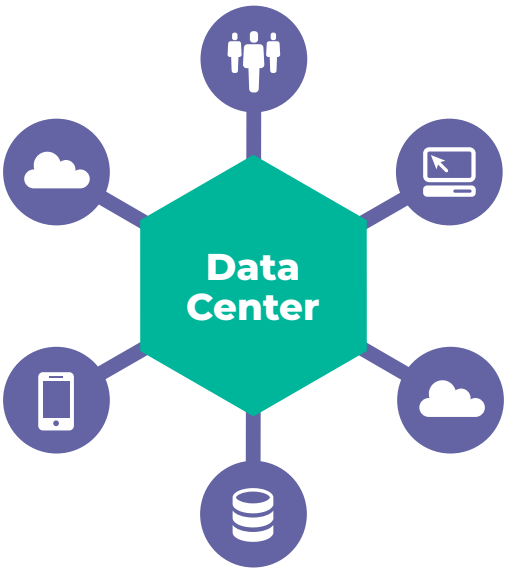
Evolvable Architecture

Deploy new functionality through software to meet changing user requirements without CAPEX investment



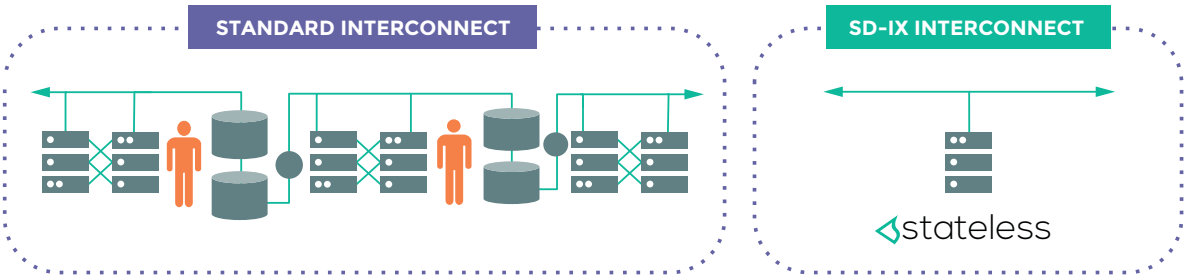
Stateless Luxon is the new platform for software-defined interconnect (SD-IX), giving users the ability to create, deliver and control interconnect points through simple software.

This gives providers and users the ability to extend connections seamlessly to reach hyper-scale cloud, cloud-based applications and other IT resources.

Luxon delivers Layer 3+ network services like BGP routing, IPsec, and packet filtering through a consolidated scale-out cluster deployed in multitenant, multi-tiered, and high throughput environments.

Using principles from micro-services, monolithic network appliances are broken down into composable software elements that can be strung together in a custom chain for each interconnection.

Luxon's revolutionary architecture solves the problem of high availability and seamless upgrades by separating network state from the underlying processing. State is placed in a distributed data store allowing the system to operate at a level that is merely impossible with traditional appliances.



FEATURE	BENEFIT
Multitenancy	Reduce infrastructure sprawl by consolidating appliances into a single platform accommodating thousands of networks.
API-Driven Visibility	Fast, quality configuration and maintenance decisions through granular network visibility and diagnostics
Evolvable Architecture	Future-proof investments through the a platform with expanding feature set that evolves with application needs
Disruptionless Updates	Deploy new capabilities without waiting for full upgrade cycles. Updates occur without breaking a single tenant connection.
Scale-Out Cluster	Reduce CAPEX outlays and avoids the need for forklift upgrades and multi-year traffic forecasting
Efficient Resource Utilization	Eliminate inefficient virtual machine server utilization through automatic, dynamic resource scaling
Innate High-Availability	Reduce downtime risk and meet SLA guarantees without costly 2 x N CAPEX expenditure
Intuitive User Interface	Reduce tenant network setup and configuration time to minutes through a simple-to-use GUI
Network Function Library	BGP routing, IPsec & Packet Filtering enable SD-IX applications such as multi-hybrid cloud connect and data center interconnect.

LUXON PLATFORM SPECIFICATIONS	
Feature	**Specification**
Min. Cluster Throughput (4 x Hosts)	≥ 250Gbps
Max. Cluster Throughput (12 x Hosts)	≥ 880Gbps
Maximum Packet Throughput	12.6 x 10E6 pps
Typical No. Tenants (12 Host cluster)	>1000
Max # concurrent network functions	up to >3000 per cluster
Encapsulation Support	VLAN, VxLAN
Supported Network Services	NAT 1:1&1:N, Packet Filter, BGP (EVPN, ECMP support)
Resiliency (4 x Host cluster)	Single Host fault HA
Resiliency (5+ x Host cluster)	Dual Host fault HA
Scalability	Transparent scale in/out
Upgrades	Interruption Free - no breaks in tenant connection
Front-end	Componentized UI

OPEN SOURCE SPECIFICATIONS	
Feature	**Specification**
API	JSON REST API using OpenAPI spec
SDK	Open Source java SDK (v1.8+)
HOST HARDWARE SPECIFICATIONS	
Feature	**Specification**
Luxon Product Format	Distributed scale-out cluster
Host Size	1U
Min Cluster size	4 x 1U Hosts + 2 x SDN switches
Max Cluster size	12 x 1U Hosts + 2 x SDN switches
Network Interface Cards per Host	2 x Dual 100Gbps ConnectX-5 cards
Host Memory	12x16GB DDR4-2666 2Rx8 LP ECC RDIMM
Host CPU	2xIntel Xeon Silver 4216
Host Storage	512GB SSD
Power Supply	2 x 750W Multi-Ouput redundant power supplies
Fans	6 Counter-rotating 4cm PWM fans
SWITCH HARDWARE SPECIFICATIONS	
Feature	**Specification**
No. Switches per Cluster	2
Switch Size	1U
No. Ports per switch	32
Port Type	100GbE QSFP28
Max Throughput	3.2Tbps
SDN Protocol	Programming Protocol-independent Packet Processors (P4)

About Stateless

At Stateless, we are reinventing network connectivity. Dedicated to relentlessly solving the network challenges others deem impossible, Stateless delivers an industry-first SD-IX platform that gives network providers the power to monetize their connectivity assets while streamlining network operations and minimizing capital outlays. The revolutionary Stateless platform gives users the power to optimize existing network assets to control and connect every endpoint, including portfolio data centers, tenant sites and hyperscale clouds. Stateless is proudly based in Boulder, Colorado. Learn more at **www.stateless.net**.