Introducing Stateless Akros

Key Benefits

Reduced Business Risk with Scale Out
Scale the system on a node by node basis making forklift upgrades and multi-year traffic forecasts a thing of the past.

Native Multitenancy Minimizes Downtime
Tenant elasticity and innate HA are managed without operator intervention making true multitenancy effortless.

Unmatched Tenant Experience
Customized services for each tenant come to life in a matter of minutes. Tenants get exactly what they want through a simple-to-use dashboard with the right amount of control.

Enterprise demands for simplified IT with "as a Service" principles are reshaping the cloud as workloads are being pushed off-premise. With this shift, service providers are uniquely positioned to become the key link between workloads if they can deliver innovative, value-add services.

Stateless Akros
Stateless Akros is the key to unlocking this opportunity.

Akros is the network services platform designed for multitenant environments at-scale. The platform enables service providers to deploy services quickly and grow their infrastructure with tenant demand through a scale-out approach.

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

The platform is brought to life on commodity hardware. Minimum deployments require two OpenFlow enabled switches and four x86 servers.

A Revolutionary Architecture
To achieve true multitenancy at scale, hardware appliances cannot simply be mimicked with software and virtualization.

Akros uses a revolutionary distributed systems architecture.

This means the state is separated from underlying network functions and placed in a distributed data store accessible throughout a scale-out cluster. This allows the system to operate at a level that is simply impossible with appliances.

Thanks to patented technology, performance hurdles typically associated with using a distributed systems approach in large scale networks are no longer a challenge.

Scale Out

With Akros, providers can grow their infrastructure with a scale out model, an approach commonly used in compute and storage. Resources are delivered in a linear fashion and availability of a single instance is no longer a limiting factor.

As traffic increases, x86 servers can be introduced to the system on a node by node basis.

A new node can be added to the system in a matter minutes and traffic is automatically redistributed without disruption or reconfiguration. The same can be said for retiring or replacing old nodes.

This approach reduces business risk in the service provider business model as forklift upgrades and multi-year traffic forecasts are no longer required.

Tenant Elasticity

Within the scale-out cluster, tenant traffic is dynamically allocated. If demand on the system increases, tenants are redistributed throughout available hosts resulting in better resilience and availability.

One tenant's resource consumption will not affect any other tenants on the platform thanks to per tenant QoS.

This eliminates performance variance caused by noisy neighbors and resource starvation. Throughput can expand or contract without disruption or operator intervention.

Native High Availability

Traditional approaches to failover management require appliance redundancy, either physical or virtual.

This model is expensive as management overhead and capital outlays are doubled.

Similar to scaling events, Akros automatically redistributes workloads to healthy hosts without downtime or intervention in the case of failure.

Workloads are migrated and balanced based on resource availability without redundant backups or HA configurations. This reduces tenant complaints and ensures SLA compliance.

Unmatched Tenant Experience

In today's rapidly evolving cloud environment, there are no one-size-fits-all solutions. No two business are the same and neither are their networking needs.

With Akros, providers can compose custom network functions chains to fit an enterprise's exact business requirements. All that is required from the provider to build these isolated chains is a handful of API calls, and the services are ready in a matter of minutes.

Across a network function chain, performance can be guaranteed in a way that was never possible. Instead of estimating performance across multiple switches and appliances, service providers can set requirements on a per-tenant basis, resulting in predictable, guaranteeable performance.

Tenants are able to view and control their environments through a user-centric tenant portal. Tenants can view and modify their network settings through a easy to use dashboard that is designed with modern UX principles.

About Stateless

Stateless was founded with the mission of making networks dead simple to manage. We believe in partnering with our customers to turn networking into a competitive advantage so they can unleash the power of their infrastructure. Visit us at BeStateless.com.