

eBook



Connecting SaaS Applications to Customer Data

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Some SaaS applications must leverage data that resides in a customer's cloud or data center environment.

Whether due to difficulties migrating data to the cloud, customer security concerns, or regulatory-driven data residency issues, there are numerous instances where a SaaS application must have real-time, bi-directional access to data living behind a firewall they don't control.

In these situations, Trustgrid is the best way to establish network connections between a multi-tenant cloud application and multiple customer data sources.

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The Challenges

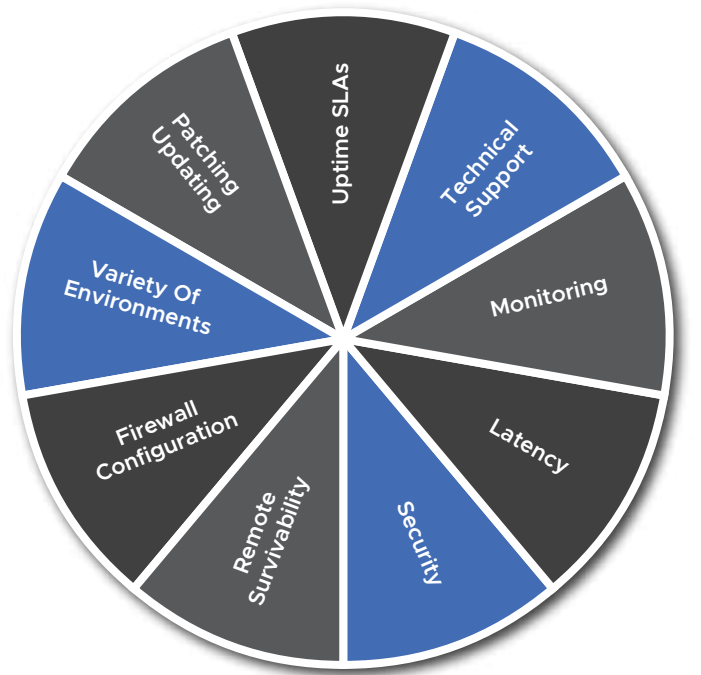
SaaS applications that rely on data in their customer’s environment require a networking component.

Initially, a SaaS vendor’s understanding of this networking challenge is focused on the most important one or two issues preventing success.

As development progresses and deployments scale, the extent of the challenges come into greater focus.

Deployment challenges for new customers are usually one of the first issues to cause pain.

When cloud applications are dependent on a 3rd party-controlled environment the networking solution typically requires a change to a customer’s firewall configurations, runs into overlapping subnets between the two environments, and deployments may be impeded by the availability (or lack) of network engineers.

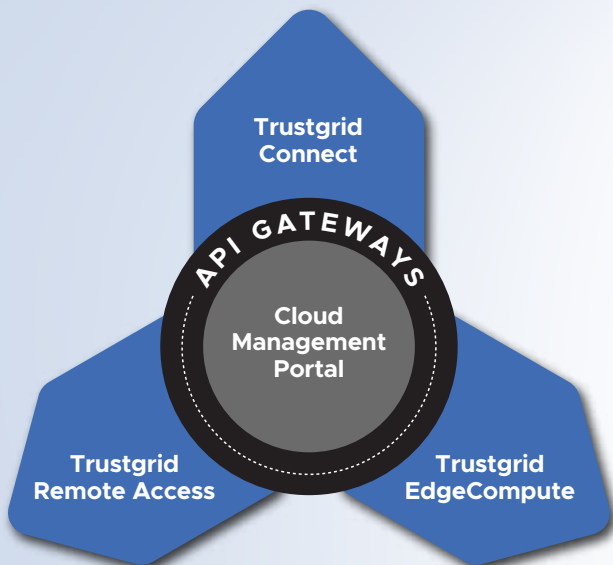


The most common challenges when networking SaaS applications to customer environments.

Trustgrid has been designed as an alternative to VPN and MPLS solutions and solves the vast array of the networking issues encountered by application providers as they attempt to connect, deliver and scale their SaaS offering.

The Platform for Customer Connectivity

The Trustgrid platform provides turnkey, scalable connectivity. It gives SaaS providers everything they need to build, connect, and support connectivity across any environment (owned or 3rd party) with similar levels of control and automation experienced in the cloud.



At the center of the platform is the Trustgrid Cloud Management Portal.

The portal is the interface for all Trustgrid products (Connect, EdgeCompute, and Remote Access) and sits at the heart of the administrative user experience.

The portal is used to centrally configure the network, monitor network health, and provide troubleshooting and support tools for the network.

Delivered as a technology-driven managed service, Trustgrid is built for the needs of SaaS product development and DevOps teams so they can remove themselves from building and managing networks, and focus on delivering software to their customers.

Building Cloud to Customer Networks

Delivering world-class SaaS applications requires automation and optimization in every layer in the stack.

When integration with customer environments is needed, SaaS architectures are complicated by the variety of systems, configurations, and lack of control over 3rd party infrastructure.

In addition to the scaling challenges of managing 100s or 1000s of unique networks, security and compliance gaps can be introduced as each new network is built using different tools with custom configurations.

Tackling these challenges with Trustgrid gives SaaS providers a plug-and-play, consistent way to build cloud-to-edge architectures.

These customer networks start with Trustgrid Connect nodes.

When a SaaS provider needs to build a secure network to a customer's on-premise system or data center, Trustgrid Connect provides the connectivity by placing nodes in the cloud or at the edge.

These software-defined network nodes are used to build encrypted tunnels between the SaaS application and a customer's environment. Through a shared responsibility model, Trustgrid engineers help SaaS admins configure, manage, and monitor the network from the Trustgrid management portal.

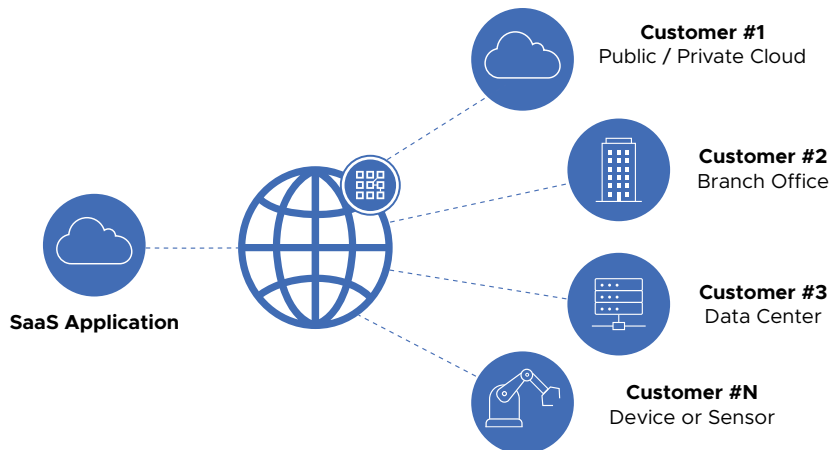
From the management portal, administrators and support teams have visibility over the entire network and control the ability to push updates, troubleshoot, and remediate networking issues remotely. This can be especially helpful when a customer lacks the resources to investigate application and network problems onsite.

For mission critical connections, redundant nodes with automated disaster recovery ensure up to 99.99% network uptime.

Trustgrid Connect

Trustgrid Connect is the platform's cloud networking product. Delivering next-gen SD-WAN capabilities, it is designed to meet the challenges of application providers who require connectivity to customer clouds or data centers at scale.

Trustgrid Connect is critical to bridging the complexity that arises when connecting environments from two different organizations and builds a multi-tenant network fabric between a cloud application and any number of edge environments.



Specifically designed for SaaS applications that must connect to hundreds or thousands of customer, partner, or other diverse IT environments, Trustgrid Connect is an alternative to site-to-site VPNs and MPLS and provides a cloud-delivered WAN, optimized for ease of management.

With Trustgrid Connect, SaaS application providers get all the tools to build both mesh and hub-and-spoke network architectures. The product supports multi-cloud, hybrid cloud, and site-to-site use cases.

- More advanced features such as IP SLA (selects the best path for traffic) and QoS at the end points (prioritizes latency sensitive data) ensure that the cloud application is delivering a seamless experience to the end user.
- Network segmentation separating each customer network is default behavior for Trustgrid Connect and it easily integrates to VRFs and VLANs in data centers and cloud environments.

Once a Trustgrid network is used to build SaaS-to-customer networks, DevOps teams gain global visibility and control over their customer facing networks and support teams now have a single pane of glass to troubleshoot any deployment. This multi-tenant connectivity allows for an application provider to support the entire network in the same way they would any public cloud service.

Trustgrid Connect features include:

- Layer 3 / 4 networking
- 99.99% uptime SLA
- Zero trust network architecture
- Separate control plane and data plane
- Certificate-based authentication
- Continuous patching and updating
- Automated failover and disaster recovery
- Supports all cloud and on-premise environments
- Simplified network address translation management
- 1-touch deployments with little to no firewall reconfiguration

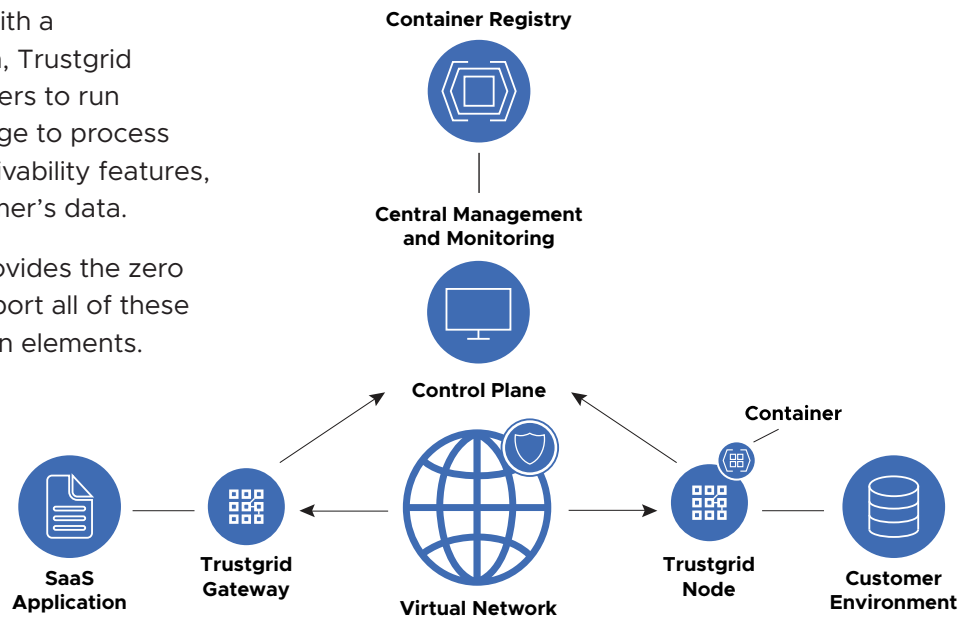
Networking that goes beyond connectivity

Trustgrid Connect provides everything that a SaaS provider needs to scale their network connections to customer environments. But Trustgrid Connect is just one of the products in the larger Trustgrid Platform.

Trustgrid EdgeCompute adds to the capabilities of Trustgrid Connect to provide a distributed computing platform for deploying and supporting distributed application components from the cloud to the network edge.

Integrating networking features with a containerized application platform, Trustgrid EdgeCompute allows SaaS providers to run application components at the edge to process edge data, introduce remote survivability features, and even build APIs from a customer's data.

Trustgrid Remote Access then provides the zero trust network access used to support all of these networking and remote application elements.



Each of the products in the Trustgrid Platform work seamlessly together to build, manage, and support cloud-to-edge architectures from a common management portal.

SaaS Connects with Trustgrid

Trustgrid allows SaaS developers and DevOps teams to focus on what they do best – delivering software.

By combining advanced networking capabilities, edge computing features and turnkey managed services, Trustgrid removes the networking burden for teams struggling with SaaS-to-customer networking.