

The 5 Easiest Ways to Deliver a Better AWS Application

Trustgrid + AWS Transit Gateway

AWS Transit Gateway solves the challenge of connecting AWS-hosted cloud applications with multiple VPCs to on-premise networks.

Functioning as a network hub, Transit Gateway allows the interconnection of an application's virtual private clouds (VPCs) in AWS to a customer's on-premises networks through a single transit VPC.

As an AWS-hosted application grows in complexity and scale it will require multiple Amazon VPCs to be utilized. When an application's VPCs connect to networks outside of Amazon a complex web of direct connections arise which must be manually managed through solutions such as remapping of subdomains and network address translation.

This becomes increasingly difficult to manage as the number of AWS VPCs and customers scale.

With AWS Transit Gateway, each Amazon VPC or on-premise environment connects to a single, centralized Transit Gateway per AWS Region. Transit Gateway then controls how the traffic is routed among all the connected networks. This hub and spoke model significantly simplifies the management of connected resources.

New AWS VPCs or on-premise environments are simply connected to the Transit Gateway and are then automatically available to all resources connected to the Transit Gateway. This ease of connectivity makes it easy to scale your network as you add new VPCs and customer connections.

The Cloud to On-Premise Connection

Trustgrid's software-defined connectivity was designed for application providers and supplements AWS Transit Gateway with additional features that help to simplify connectivity to on-premise systems.

When Trustgrid and AWS Transit Gateway are combined, new deployments and the management of existing connections to on-premise data and systems become easier to configure, less costly to manage and increase an application providers ability to provide a best in class customer experience to their users.

Lets dive into the way that Trustgrid and AWS Transit Gateway enhance an application's ability to connect to on-premise customer data.



How Trustgrid + AWS Transit Gateway Make Your Application Better

1. Simplify Deployment of New Customer Connections

Connecting an AWS-hosted application into a new customer environment can be difficult and often depends on the customer's IT staff, network configurations, and security policies.

Trustgrid's software-defined connectivity solution easily connects to Transit Gateway by deploying in AWS as an Amazon Machine Image (AMI) and at a customer's site as a virtual appliance or on non-proprietary x86 hardware. Trustgrid's software-defined connectivity enables zero touch configurations and firewall friendly TLS tunnels to install easily in environments with variable IT skill sets, network and security configurations.

All of this means that new customer connections are managed centrally without the need for skilled network engineers onsite.

2. Easily Meet (and Exceed) Enterprise SLAs

Achieving enterprise SLAs with traditional VPN connectivity requires dynamic routing protocols which can further increase the configuration and management burden. AWS-hosted applications that depend on the data from a customer premises can't afford to be down because of internet connectivity, hardware, or other issues.

When paired with Transit Gateway, Trustgrid delivers on-premise connections with 99.99% uptime SLAs by leveraging high-availability clustering, automated failover and disaster recovery over a customer's standard broadband internet connection.

3. Centralize Network Device Management

Managing hundreds or thousands of connections and devices is a cumbersome task. Security patches and updates require an extensive commitment of staff. Support is an around-the-clock requirement. Monitoring, configuration and change management of network connections become massive burdens and erode an application's profit margins.

Trustgrid's software-defined approach automates network device management tasks including patching/updates, authentication, and support. Trustgrid enabled connections can be easily managed in groups or as a whole to simplify maintenance and support. And because all management tasks are centrally delivered through a cloud portal or API, there is no need to involve onsite customer IT support to diagnose and troubleshoot many network issues.

4. Untangle the Management of Multiple Networks

Applications connecting to customer environments will occasionally be confronted with the challenge of overlapping subnets. Referred to as overlapping RFC 1918 subnets, this occurs when a customer environment uses the same private address subnet as a Transit Gateway virtual network. While VPNs require complex network address translation (NAT) to solve this issue, Trustgrid radically simplifies this process with a seamless virtual network overlay.

By pairing Trustgrid with Transit Gateway, application providers are able to connect multiple virtual private clouds with multiple customers and manage all networks and related subnets as if they are on the same virtual network.

5. Get Rid of the VPN and MPLS Requirements

Providing connectivity from an AWS-hosted application to a customer's data requires a secure and reliable connection. Historically, many have simply put up with the time, cost and frustration delivered by VPN or MPLS enabled connections.

Trustgrid, combined with AWS Transit Gateway, allows for the elimination of VPNs and MPLS by leveraging software. Trustgrid's virtual and hardware appliances run on a variety of hardware platforms and are configured centrally, bypassing the tedious process of configuring IPsec tunnels.

Trustgrid connections are universally compatible with existing network and security infrastructure. They provide the ease and security of TLS encrypted data transfer as well as enhanced functionality such as remote network device log-ins, that VPNs were never designed to deliver.

The Architecture

Using Trustgrid to Connect AWS VPCs to On-Premise Customer Systems

As an AWS Advanced Technology partner, Trustgrid supplements AWS Transit Gateway to provide a robust connectivity solution for application providers who want to gain more control over networked environments, simplify new deployments and create an overall greater customer experience for their application.

