

January 2018 Campaign FAQ – Fast Lane to the Cloud

What is Supra ITS announcing?

Supra ITS is announcing its fast connection to Amazon Web Services (AWS) using [AWS Direct Connect](#) and to Microsoft Azure using [ExpressRoute](#).

Supra is also announcing that it will soon have similar links to Oracle and Google. The company's overall goal as a Canadian managed IT services provider is to be "public cloud neutral" by investing in connectivity to all major public cloud providers. This enables us to provide customers with a true hybrid model that comprises the public cloud(s) of their choice.

Why support fast connections to both AWS and Microsoft Azure?

Supra ITS recognizes that our customers are looking to make the most of the public cloud and that not one size fits all. For example, customers may want to take advantage of AWS for its simple and elastic storage capabilities, while using Microsoft Azure's more advanced SQL capabilities. We are seeing increasing interest from customers who want to take advantage of public cloud as vendors such as Amazon and Microsoft open facilities in Canada and support Canadian data residency.

More importantly, we're enabling customers to combine their on-premise, Supra private cloud and public cloud deployments to fully take advantage of a managed hybrid cloud model.

What are the benefits of the fast, direct connections?

A direct connection will eliminate the need for those in Toronto to rely on the public internet to send data back and forth from the cloud provider. Users can establish a private connection between AWS and their own data centre, office, or colocation environment. Among the key benefits:

- **Security:** These direct connections are more secure because traffic is not routed through the public internet. The premium nature of a direct connection usually means that providers also address and resolve connectivity problems faster.
- **Performance:** Users experience less latency for applications and other critical infrastructure guaranteed with Service Level Agreements (SLAs).
- **Hybrid Cloud Usage:** Legacy colocation and dedicated server clients can now directly connect to public cloud networks.
- **Risk Mitigation:** In certain scenarios, direct connections to public cloud services enable customers to use existing IP addressing range and significantly reduce risk while transitioning to the cloud.
- **Data Sovereignty:** Data remains in Canada when in transit and at rest.

How fast are these connections?

Tests show that transferring a 1GB file using Azure ExpressRoute can be twice as fast at 41 seconds as compared with the Internet using the IPsec protocol at 93 seconds. In addition, encrypted traffic can slow as much as 15 percent when sent via IPsec tunneling compared with a direct connection.

Because "best effort" networks such as the public Internet and long-haul MPLS connections are replaced by direct peering connections to AWS and Azure, Supra ITS customers can expect consistent throughput and performance. These shorter-distance, geographically dispersed

direction connections are also closer to a larger number of users thanks to Supra ITS' colocation facilities and interconnection provider partnerships.

Is Supra ITS charging extra for this capability?

No. Support for AWS Direct Connect and Microsoft Azure ExpressRoute is part of our commitment to helping customers take advantage of the public of their choice. Customers may have to pay for any charges from the public cloud provider.

Is Supra ITS offering any additional technical support to help customers use AWS Direct Connect and Microsoft Azure ExpressRoute?

Yes. Technical support is included as part of our managed services, providing customers with a single point of contact for managed private and public cloud. Supra ITS will provide as much or as little technical support for the faster connections as customers required based on their internal level expertise. In all cases, we will be available to help customers make sure they are maximizing the benefits of AWS Direct Connect and Microsoft Azure ExpressRoute.

How does a customer set up AWS Direct Connect or Microsoft Azure ExpressRoute connection to Supra ITS?

Supra has already invested and has these connections in our private cloud so that our customers don't have to. The connections to the customer preferred public cloud networks are provisioned at the time of onboarding and are part of transition services. Existing customers can reach out to their Supra ITS technical account manager to discuss the requirements.

How is Supra ITS securing these connections?

Because AWS Direct Connect and Microsoft Azure ExpressRoute are direct connections and do not traverse the public internet, they are inherently more secure. Supra ITS' focus on security spans the entire breadth of its customers' organization. Because we are a managed IT services company and not just a partner that hosts customer data, we can integrate security from end-to-end, including your on-premise IT infrastructure, public cloud services providers and Supra's own Tier 3 data centres in the Greater Toronto Area.

Does customer data remain in Canada should they use AWS Direct Connect and Microsoft Azure ExpressRoute to connect to their applications and data?

Yes. Supra operates data centres worldwide with two based in Canada. We can provide Canadian customers private and public cloud options through our private network to ensure that all data remains within borders, while in transit or at rest.

How do AWS Direct Connect and Microsoft Azure ExpressRoute avoid using the public internet?

Supra ITS has partnered with Cologix at its Toronto facilities to connect to AWS Direct Connect and Microsoft Azure ExpressRoute.

What is AWS Direct Connect?

AWS Direct Connect makes it easy for Supra ITS customers to establish a dedicated network connection from their premises as well as their facilities managed by Supra ITS to AWS. AWS Direct Connect enables private connectivity between AWS and the customer's data centre, office, or colocation environment.

Using industry standard 802.1q VLANs, this dedicated connection can be partitioned into multiple virtual interfaces and allows customers to use the same connection to access public resources such as objects stored in Amazon S3 using public IP address space, and private resources such as Amazon EC2 instances running within an Amazon Virtual Private Cloud (VPC) using private IP space, while maintaining network separation between the public and private environments.

What are the set-up costs for AWS Direct Connect for Supra ITS customers?

Normally, it is included as part of transition services for our managed customers. Existing customers should reach out their Technical Account Manager (TAM) at Supra.

What are the ongoing costs for AWS Direct Connect for Supra ITS customers?

The costs of these connections are included for Supra's managed services customers where we manage private and public cloud. Other [AWS](#) and [Azure](#) costs are extra and depend upon the usage.

Where is the AWS Direct Connect facility located?

The Toronto AWS Direct Connect facility is located at 250 Front St. W, Toronto. Companies can set up a single connection to any AWS Direct Connect location in North America, and use it to then access public AWS services in any North American region and AWS GovCloud.

Which AWS services can be used with AWS Direct Connect?

All AWS services, including Amazon Elastic Compute Cloud (EC2), Amazon Virtual Private Cloud (VPC), Amazon Simple Storage Service (S3), and Amazon DynamoDB can be used with AWS Direct Connect.

Can customers use the same private network connection with Amazon Virtual Private Cloud (VPC) and other AWS services simultaneously?

Yes. Each AWS Direct Connect connection can be configured with one or more virtual interfaces. Virtual interfaces may be configured to access AWS services such as Amazon EC2 and Amazon S3 using public IP space, or resources in a VPC using private IP space.

If customers are using Amazon CloudFront and their origin is in their own data centre, can they use AWS Direct Connect to transfer the objects stored in their own data centre?

Yes. Amazon CloudFront supports custom origins including origins you run outside of AWS. The access to the CloudFront edge locations will be restricted to the geographically nearest AWS region. With the exception of the North America regions which currently allow access to all North American region's on-net CloudFront origins. With AWS Direct Connect, you will pay AWS Direct Connect data transfer rates for origin transfer.

Through Direct Connect, customer traffic will remain on the Amazon backbone network after it enters it. Therefore, prefixes of CloudFront locations that are not on the Amazon backbone network will not be advertised through Direct Connect.

What does Azure ExpressRoute do?

Supra ITS customers can use Azure ExpressRoute to create private connections between Azure data centres and infrastructure on their premises or in a colocation environment, including their infrastructure at Supra ITS. ExpressRoute connections don't go over the public Internet, and they offer more reliability, faster speeds, and lower latencies than typical Internet connections. In some cases, using ExpressRoute

connections to transfer data between on-premises systems and Azure can give customers significant cost benefits.

What are some of the benefits for Supra ITS customers?

ExpressRoute gives Supra ITS customers a fast and reliable connection to Azure, which makes it excellent for scenarios such as periodic data migration, replication for business continuity, disaster recovery, and other high-availability strategies. It can be a cost-effective option for transferring large amounts of data, such as datasets for high-performance computing applications, or moving large virtual machines between a dev-test environment in an Azure virtual private cloud and an on-premises production environment.

What kind of connectivity does ExpressRoute employ?

Microsoft uses industry standard dynamic routing protocol (BGP) to exchange routes between a customer's on-premises network, their instances in Azure, and Microsoft public addresses. It establishes multiple BGP sessions with the customer's network for different traffic profiles.

Which Microsoft cloud services can be accessed using ExpressRoute?

Infrastructure and platform services running in Azure often benefit by addressing network architecture and performance considerations. That's why Microsoft recommends enterprises use ExpressRoute for Azure. Microsoft's Software as a Service offerings, such as Office 365 and Dynamics 365, were created to be accessed securely and reliably via the Internet, so Microsoft only recommends ExpressRoute for these applications in specific scenarios.

How might Supra ITS customers take advantage of their ExpressRoute connection to Microsoft Azure?

Supra ITS customers can use ExpressRoute to add compute and storage capacity to its existing data centre or facilities at Supra ITS, enabling them to enjoy the scale and economics of the public cloud without having to compromise on network performance. They can also build hybrid applications build applications that span on-premises infrastructure (their own and Supra ITS') and Azure without compromising privacy or performance.

What the bandwidth options for ExpressRoute?

Supra ITS customers can purchase ExpressRoute circuits for a wide range of bandwidths. Supra ITS supports the following bandwidths:

- 50 Mbps
- 100 Mbps
- 200 Mbps
- 500 Mbps
- 1 Gbps
- 2 Gbps
- 5 Gbps
- 10 Gbps