Connections to the Cloud

After completing this episode, you should be able to:

- Discuss the various options for connecting your local network to the cloud

Description: In this episode, you will learn about the many options that exist for connecting to your cloud resources. These many options vary from a simple public Internet connection to a completely private, direct connection to the cloud.

Connections to the Cloud

There are many options when needing connectivity to your cloud resources - these include:

- Public Internet connection - A public Internet connection to the public cloud utilizes the existing infrastructure of the internet to establish connectivity between the user's local network and the cloud provider's data centers, offering accessibility and convenience for accessing cloud resources from virtually any location. While cost-effective and widely available, public Internet connections may present security and performance challenges compared to dedicated or private connectivity options.
- Software VPN solution - A software VPN connection to the public cloud creates a secure, encrypted tunnel over the internet, enabling users to securely access cloud resources from remote locations with authentication and encryption protocols. This flexible and scalable solution offers cost-effective connectivity while ensuring data privacy and integrity for organizations leveraging cloud services.
- Hardware VPN solution - A hardware VPN solution for connecting to the public cloud involves deploying dedicated networking appliances or routers equipped with VPN capabilities at both the on-premises and cloud ends, ensuring secure communication via encrypted tunnels over the internet. This approach offers enhanced performance, scalability, and reliability compared to software VPNs, making it suitable for organizations with high-volume traffic and stringent security requirements.
- Private, dedicated connection - A private, dedicated connection to the public cloud establishes a direct physical link between the organization's on-premises infrastructure and the cloud provider's data centers, bypassing the public internet for enhanced security and reliability. This high-bandwidth, low-latency connection ensures consistent performance and enables seamless integration of on-premises and cloud resources, ideal for mission-critical applications and sensitive workloads.

Additional resources

- Amazon Virtual Private Cloud Connectivity Options: https://docs.aws.amazon.com/whitepapers/latest/aws-vpc-connectivity-options/introduction.html (https://docs.aws.amazon.com/whitepapers/latest/aws-vpc-connectivity-options/introduction.html)