Cloud extension of on-premises customer networks

Overview

In order to use the subnets in the on-premises system and IT infrastructure with the resources of SDS Cloud, networks can be extended.

You can add resources to SDS Cloud while maintaining your on-premises IT infrastructure. Resources can also be categorized and operated to suit your business purpose and characteristics.

This document introduces various network extension methods such as **VPN** and Dedicated **VPC** to accommodate customers' operating environments and purposes.

Architecture Diagram

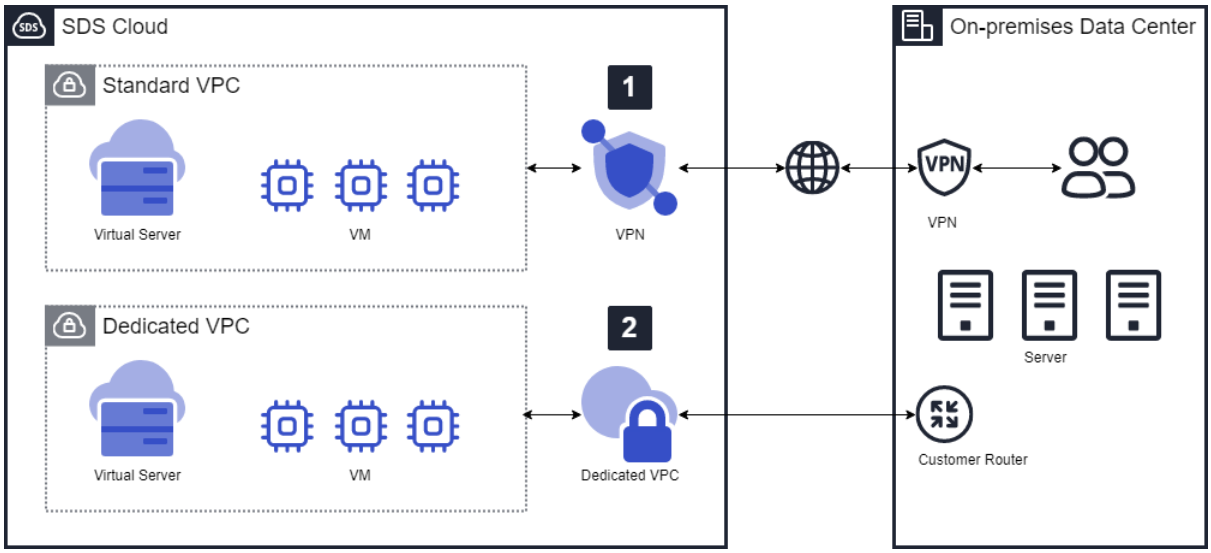

Figure 1. Cloud extension of on-premises customer networks

1. Connect SDS Cloud network to an encrypted virtual private network through **VPN**. The network provides virtual tunneling encrypted with standard IPsec to extend customers' private subnets to SDS Cloud over the Internet.
2. Provide leased line connection through dedicated **VPC** and configure it by extending

the on-premises private network to SDS Cloud.

Use Cases

A. Network extension with **VPN** connection over the Internet

For small projects that require fast deployment schedules or with short duration, the on-premises network can be extended with a **VPN** connection. Agile extension is enabled without the cost of changing the IP of the existing system or adding leased lines.

B. Network extension to Dedicated **VPC** through leased line

For projects where reliability and security are important, the network can be extended with a leased line connection between the on-premises router and SDS Cloud. You can secure connection stability through a leased line connection with a more strict service-level agreement (SLA) compared to an Internet connection without an SLA. Dedicated **VPC** provides seamless network extension to SDS Cloud using this connection.

C. Using customer's private subnet in Standard **VPC** with Internet connection

When extending a customer network using a Dedicated **VPC**, all communication paths, including Internet connections, must go through the customer's gateway router. If you need to connect to the Internet via SDS Cloud while using your private network, you can extend the private subnet by connecting a leased line to the Standard **VPC**, which is provided with an Internet connection by default (**Direct Connect**). Customer IP is set on a **Virtual Server** and an Internet connection for SDS Cloud is provided via NAT.

Pre-requisites

Network expansion via **VPN** requires 3rd party VPN equipment in an on-premises data center.

Limitations

Dedicated **VPC** and network extension through **Direct Connect** require a separate service request for a leased line connection, which takes about a week to process.

Considerations

A. Connection Methods

In order to connect using the leased line method, additional fees, including the leased line usage and installation costs, can be charged. For detailed pricing information, please refer to the service introduction page.

In order to connect with the **VPN** method, a sufficient verification of the compatibility between the 3rd party VPN device in the on-premises data center and the **VPN** of SDS Cloud must be confirmed in advance.

B. Routing

For communications between subnets within SDS Cloud and on-premises subnets when the network is extended through **Direct Connect**, static routing after a separate service request is required.

Related Products

- Virtual Server
- VPN
- VPC
- Direct Connect (To be available in 2022)

Related Documents

- Cloud bursting of on-premises workloads