# **Explore Azure network services**

[Azure Networking](https://azure.microsoft.com/product-categories/networking" \t "https://docs.microsoft.com/en-us/learn/modules/define-core-azure-services-products/az-portal) allows you to connect cloud and on-premises infrastructure and services to provide your customers and users the best possible experience. Once the resources move to Azure, they require the same networking functionality as an on-premises deployment. In specific scenarios, they may require some level of network isolation. Azure networking components offer a range of functionality and services that can help organizations design and build cloud infrastructure services that meet their requirements.

Some of the most common networking service types in Azure are discussed in the following sections.

## **Azure Virtual Network**



[Azure Virtual Network](https://docs.microsoft.com/en-us/azure/virtual-network" \t "https://docs.microsoft.com/en-us/learn/modules/define-core-azure-services-products/az-portal) enables many types of Azure resources such as Azure VMs to securely communicate with each other, the internet, and on-premises networks. A virtual network is scoped to a single region; however, multiple virtual networks from different regions can be connected using virtual network peering. With Azure Virtual Network you can provide isolation, segmentation, communication with on-premises and cloud resources, routing and filtering of network traffic.

## **Azure Load Balancer**



[Azure Load Balancer](https://azure.microsoft.com/services/load-balancer" \t "https://docs.microsoft.com/en-us/learn/modules/define-core-azure-services-products/az-portal) can provide scale for your applications and create high availability for your services. Load Balancer supports inbound and outbound scenarios, provides low latency and high throughput, and scales up to millions of flows for all Transmission Control Protocol (TCP) and User Datagram Protocol (UDP) applications. You can use Load Balancer with incoming internet traffic, internal traffic across Azure services, port forwarding for specific traffic, or outbound connectivity for VMs in your virtual network.

## **Virtual Private Network (VPN) gateway**



A [VPN gateway](https://azure.microsoft.com/services/vpn-gateway" \t "https://docs.microsoft.com/en-us/learn/modules/define-core-azure-services-products/az-portal) is a specific type of virtual network gateway that is used to send encrypted traffic between an Azure Virtual Network and an on-premises location over the public internet. It provides a more secure connection from on-premises to Azure over the internet.

## **Azure Application Gateway**



[Azure Application Gateway](https://azure.microsoft.com/services/application-gateway" \t "https://docs.microsoft.com/en-us/learn/modules/define-core-azure-services-products/az-portal) is a web traffic load balancer that enables you to manage traffic to your web applications. It is the connection through which users connect to your application. With Application Gateway you can route traffic based on source IP address and port to a destination IP address and port. You also can help protect a web application with a web application firewall, redirection, session affinity to keep a user on the same server, and many more configuration options.

## **Content Delivery Network**



A [Content Delivery Network (CDN)](https://azure.microsoft.com/services/cdn" \t "https://docs.microsoft.com/en-us/learn/modules/define-core-azure-services-products/az-portal) is a distributed network of servers that can efficiently deliver web content to users. It is a way to get content to users in their local region to minimize latency. CDN can be hosted in Azure or any other location. You can cache content at strategically placed physical nodes across the world and provide better performance to end users. Typical usage scenarios include web applications containing multimedia content, a product launch event in a region, or any event where you expect a high bandwidth requirement in a region.