Lab Scenario

You are a network engineer for a large organization with 2 branch office locations. Currently, all users connect at the branch offices but you expect up to 1500 mobile users in the future. As part of your digital transformation efforts, a web application used across your organization will move to Microsoft Azure. The application will run on Windows Server 2019 VMs. You are responsible for designing and implementing a hybrid networking solution that meets your company's needs for the web application. You will follow Microsoft best practices of hub-and-spoke network design.

Organization Requirements

The following organizational requirements will be used along with the lab scenario to determine how hybrid networking will be deployed in your organization.

- Secure connectivity from branch office locations to Azure cloud over the public Internet
- Ability to scale for future 1500 point-to-site connections from Windows and Mac mobile devices
- Traffic runs over Internet connections of branch offices
- Lowest possibleMinimizeLowest possible downtime for Azure VPN Gateway services
- Support for Internet Key Exchange (IKE) Version 2, or IKEv2
- Ability to scale aggregate throughput of VPN Connections from 2.5 Gbps to 10 Gbps for future growth
- Deploy most cost effective solutionPerformance and High Availability are desired over cost of solution
- Zone-redundant virtual networks for application tier and database tier

Hybrid Networking Options

Based on the Scenario and Requirements, these are the options for deployment. You can think of these as the answers you would see for a certification question. One option will meet all the needs, while others may look to meet some of the needs. We'll choose the best option based on the scenario.

- Implement an Active-Standby site-to-site VPN from branch offices into Azure
- Implement Active- Active site-to-site VPN from branch offices into Azure
- Implement Azure ExpressRoute
- Implement VNet Peering