

# Azure Government Starter Pack: SQL Server Cloud Resiliency



*This document provides an overview of the SQL Server Cloud Resiliency Starter Pack for GSA IT Schedule 70, powered by Microsoft Azure Government.*

*Designed to help government customers get up and running quickly with common cloud workloads, the Starter Packs include the essential services, support, and implementation guidance for such scenarios as datacenter migration, dev-test, and websites.*

Azure Government is an exclusive instance of Microsoft Azure with world-class security and controls designed for highly sensitive data, enabling government customers to safely transfer mission-critical workloads to the cloud.

Azure Government has over 38 services included in our FedRAMP High compliance program and robust networking throughout the United States with 8 announced regions, including 2 DoD regions certified at Impact Level 5, all connected via private dark fiber. Each region is over 500 miles apart with data replication across regions for business continuity.

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## Summary

The SQL Server Cloud Resiliency Starter Pack is designed to provide a high availability or disaster recovery (HA/DR) option for critical databases. As a first step in preparing to move data to the cloud, building your HA/DR solutions in Azure can help you meet customer needs and agency protocols using the enterprise-grade capabilities of SQL Server.

Many government agencies have mandates to provide COOP and/or DR plans for their mission-critical databases. However, secondary datacenters are not always practical, and hardware, software, cooling, security, all factor in due to high capital expenditure costs. Replicating your databases to Azure can bring peace of mind.

The starter pack includes the key services you need for a HA/DR scenario, such as a SQL Server and domain controller VMs, storage, VNETs/networks, and VPN, along with implementation guidance for your project.

The SQL Server Cloud Resiliency Starter Pack includes a week of support with a Microsoft FastTrack for Azure engineer(s) or a Technical Architect.

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## Azure services included

**Azure Virtual Machines:** With support for Linux, Windows Server, SQL Server, Oracle, IBM, and SAP, Azure Virtual Machines gives you the flexibility of virtualization for a wide range of computing solutions—development and testing, running applications, and extending your datacenter. It's the freedom of open-source software configured your way.

**Five static IPs:** Connectivity between services requires unique addressing. With static IPs, addressing remains constant. Firewall rules, name resolution, and other re-configurations will be minimized.

**Azure VPN Gateway:** Azure VPN Gateway connects your on-premises networks to Azure through Site-to-Site VPNs in a similar way that you set up and connect to a remote branch office. The connectivity is secure and uses the industry-standard protocols Internet Protocol Security (IPsec) and Internet Key Exchange (IKE).

**Azure Traffic Manager:** Route incoming traffic for better performance and availability. Azure Traffic Manager operates at the DNS layer to quickly and efficiently direct incoming DNS requests based on the routing method of your choice. Traffic Manager can improve the availability of important applications by monitoring your Azure services, or external websites and services, automatically directing users to the next best location when there's a failure.

**Azure Blob Storage:** With exabytes of capacity and massive scalability, Blob Storage stores from hundreds to billions of objects in hot, cool, or archive tiers, depending on how often data access is needed. Store any type of unstructured data—images, videos, audio, documents, and more—easily and cost-effectively.

## 03 / How to buy

To buy the SQL Server Cloud Resiliency Starter Pack, please order the following Microsoft SKU through a [Microsoft Licensing Solution Provider \(LSP\)](#) or your Microsoft account representative. Within this SKU, you'll have the flexibility to select the services you need for your specific workload.

### **Azure Government Starter Pack: SQL Server Cloud Resiliency \$92,000 J5U-00001 AzureG Commit**

The table below details estimated pricing for the services included in the SQL Server Cloud Resiliency Starter Pack:

Service type	Region	Description	Estimated Cost
Virtual Machines	US Gov Virginia	1 D2 v2 (2 vCPU(s), 7 GB RAM) x 1 Months; Windows – (OS Only); Pay as you go; 1 managed OS disks – S10	\$270.00
Virtual Machines	US Gov Virginia	1 DS13 v2 (8 vCPU(s), 56 GB RAM) x 1 Months; Windows – SQL Server; Pay as you go; 4 managed OS disks – P50	\$5,800.00
IP Addresses	US Gov Virginia	5 Static IP Addresses	\$30.00
VPN Gateway	US Gov Virginia	VPN Gateways type, VpnGw1 tier, 730 gateway hour(s), 5 TB, VPN outbound VPN gateway type	\$800.00
Traffic Manager	US Gov Virginia	100 million DNS queries/mo, 2 Azure endpoint(s), 2 Fast Azure endpoint(s), 0 External endpoint(s), 0 Fast External endpoint(s), 0 million(s) of user measurements, 0 million(s) of data points processed.	\$70.00
Storage	US Gov Virginia	Block Blob Storage, General Purpose V2, LRS Redundancy, Hot Access Tier, 20 TB Capacity, 100,000 Write operations, 100,000 List and Create Container Operations, 100,000 Read operations, 1 Other operations. 1,000 GB Data Retrieval, 1,000 GB Data Write	\$690.00
<b>Monthly Total</b>			<b>\$7,660.00</b>
<b>Annual Total</b>			<b>\$91,920.00</b>

#### Disclaimer

All prices shown are in US Dollar (\$). This is a summary estimate, not a quote. For up-to-date pricing information please visit <https://azure.microsoft.com/pricing/calculator/>. This estimate was created 7/15/2018 6:29:35 PM UTC.

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# Support and implementation resources

## SQL Server Cloud Resiliency Starter Pack support includes:

The SQL Server Cloud Resiliency Starter Pack includes a week of support with a Microsoft FastTrack for Azure engineer(s) or a Technical Architect.

[FastTrack for Azure](#) helps you build solutions quickly and confidently with direct assistance from Azure engineers who work hand-in-hand with partners. During a typical FastTrack engagement, we help you define the business vision to plan and develop Azure solutions successfully, assess your architectural needs, and provide guidance, design principles, tools, and resources to help you build, deploy, and manage your Azure solutions. This a separate program with distinct eligibility requirements from Azure Government, including an active paid Azure subscription and a project estimated to consume a minimum of \$5000/month of Azure services. Read the [eligibility requirements for FastTrack for Azure](#) to assess whether this is a fit for your organization.

## SQL Server Cloud Resiliency Solution Accelerators

Use templates to create fully customizable solutions for common SQL Server HA/DR deployments. Make a critical database available for disaster recovery scenarios and allow for security and peace of mind with a copy residing in Azure using [Always On Availability Groups](#).

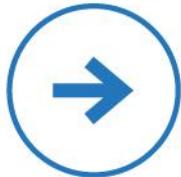
**Active Directory Resiliency:** Identity is required throughout network environments, and for resiliency in the cloud, it is recommended for an Active Directory Domain Controller to be available in the environment where a SQL Server is hosted. A small Domain Controller can synchronize with on-premises domain to have a working copy of a customer domain in Azure. Optionally, it is recommended to use [Azure Active Directory](#), a PaaS service, for cloud-based functionality at a different cost.

## Virtual Machines

Azure Virtual Machines can be patched, maintained, and monitored from one portal. When more resources, such as CPU or RAM need to be available, simply scale up your machine(s) for a minimal cost. You can rest assured that SLAs are in place to provide for availability of the machine.

## Deployment Template

Easily deploy an Always On Availability Group in an existing Azure VNet and an Active Directory instance using the [Azure Quickstart Template for SQL Server 2014 Always On](#), for lab and testing scenarios. This template can be modified to provision the load balancer, storage, VMs, and provision the availability set. A second template exists for deployment of a full cluster and domain controller into Azure using the [Cluster Template](#).



Contact your designated Microsoft account representative or partner to help you get started, or email [Microsoft Azure Starter Packs](#) with any questions.