

# Hybrid Cloud Services

with SC//Platform and Azure



As IT departments continue to put more and more focus into combining the best features of public and private clouds, hybrid cloud has become a key investment for many businesses.

Scale Computing Platform delivers cloud-like simplicity, high availability, and scalability built into a self-healing platform for autonomously running applications in remote data centers or at the edge of your network closest to where data is created and utilized.

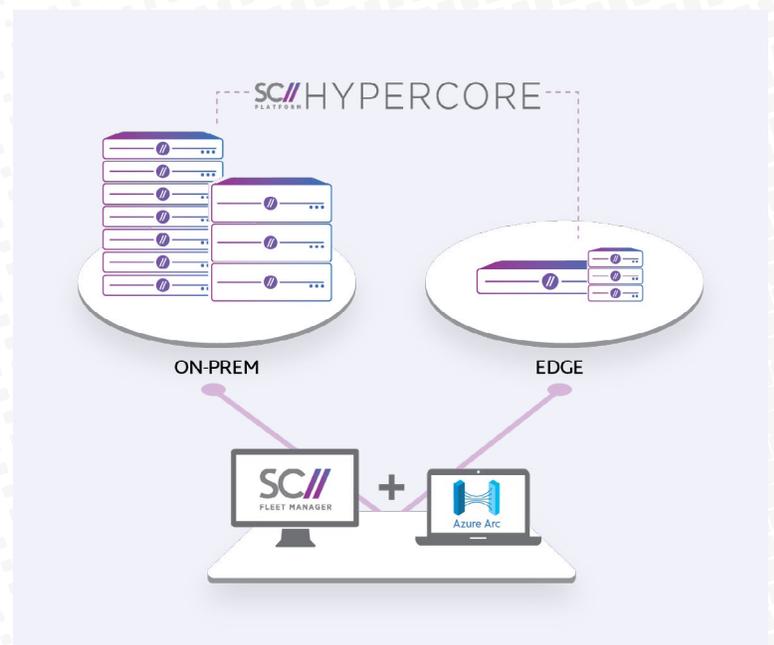
SC//Platform consists of SC//HyperCore which is the complete software stack that provides on-premises autonomous IT infrastructure management and SC//Fleet Manager for centralized monitoring, management and orchestration of that distributed IT infrastructure fleet. Integrating SC//Platform with various Azure cloud-based services enables an approach to hybrid cloud that allows your IT departments to provide the optimal infrastructure solution for each new or existing application based on the unique requirements of those applications. Requirements such as resiliency to network outages, latency/response, data governance, compliance, and overall cost can be managed on an application-by-application basis.

SC//Platform can run all your on-premises workloads and integration with Azure (and other public cloud providers) lets IT teams provide application developers the ability to continue using the tools and processes they are most productive with for public cloud deployment while providing a true hybrid cloud experience even for widely distributed compute resources. IT teams can monitor and manage on-premises resources running on SC//HyperCore as if they were Azure-hosted resources and easily support a wide range of modern cloud-native and virtualized workloads. The Autonomous Infrastructure Management Engine (AIME) within SC//HyperCore makes the on-premises hardware and software infrastructure stack nearly invisible, as it is in public cloud deployments.

## Connecting SC//Platform to Azure Hybrid Services

You can extend your Azure Cloud to allow management of on-premises deployments of Windows Server (as well as Windows IoT and desktop), most popular Linux OS's as well as containers and Kubernetes by using Azure hybrid services. This includes virtual machine and container-based workloads running on SC//Platform across one or thousands of locations.

Further, SC//Platform automation and orchestration tools can easily automate the deployment and lifecycle management of those workloads as well as register those workloads securely into your Azure Cloud tenant for ongoing monitoring and management utilizing Azure hybrid services.



## Managing On-Premises Infrastructure from Azure

### Azure Arc

Azure Arc is a service that extends the Azure platform to help organizations build applications and services with the flexibility to run across any number of locations including edge computing environments provided by SC//Platform. Azure Arc lets organizations support existing applications and develop cloud-native applications with a consistent development, operations, and security model regardless of where those applications live. Azure Arc can centrally manage and monitor Windows and Linux VMs as well as Kubernetes and containers running at the edge on Scale Computing HyperCore.

Azure Arc provides an ever-growing range of services to manage remote resources from the cloud-based Azure portal. Monitor servers, both on-premises and in the cloud, and configure alerts with Azure Monitor. Apply governance policies to your on-premises servers through Azure Policy using Azure Arc for servers. For SC//HyperCore VMs, the Azure Arc agent is loaded inside the guest OS and automatically connects to the Azure Cloud to enable these remote monitoring and management capabilities.

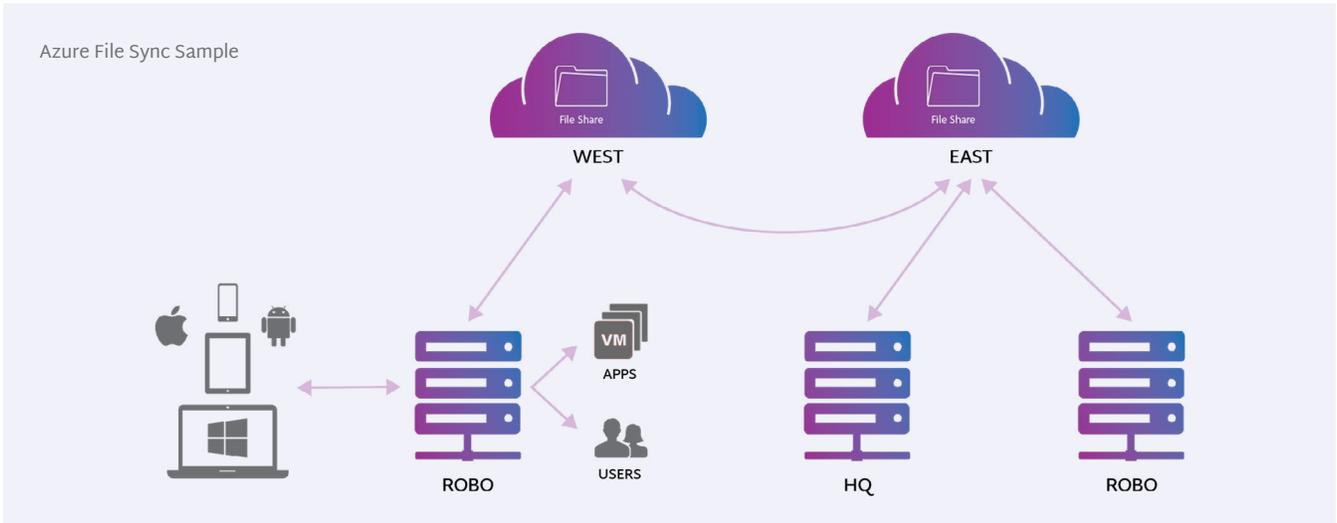
For containerized and Kubernetes-based workloads, [Azure Arc for Kubernetes](#) can be deployed to on-premises Kubernetes environments.

## Utilizing Azure Cloud Storage

### Azure File Sync

Extend effective storage capacity and sync your SC//HyperCore file server VMs and data to the cloud and optionally to other locations using [Azure File Sync](#). Azure File Sync will archive or “tier” older files from on-premises file servers running on Scale Computing HyperCore to Azure storage automatically. Files that have been archived to the cloud still appear as available and are retrieved from Azure cloud storage automatically if accessed. Azure File Sync can also serve as an archive location for Milestone XProtect Video Management Software to retain older video footage in the cloud. Because Azure File Sync can replicate to/from multiple file servers, it may also be used to sync data you want to share three ways between your “edge” site file server VM, central data center site (lab) file server VM, and Azure cloud. ) Azure File Sync supports shares up to 100Tb capacity and supports sync groups of up to 99 remote servers plus cloud file share endpoints. Azure File Sync interfaces with [Azure Files](#) service.

Name	Status	Resource group	Subscription	Datacenter (tag)	Operating system	Tags	platform (tag)
acronis3	Connected	DD	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
adfs	Connected	DD	Visual Studio Premium w-		Windows	Role: Production	HyperCore
ansiblerunner	Connected	DD	Visual Studio Premium w-		Linux	Role: Production	HyperCore
ci-smb	Connected	DD	Visual Studio Premium w-		Linux	Role: Production	HyperCore
dc1	Connected	DD	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
file2	Connected	DD	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
file2016	Connected	DD	Visual Studio Premium w-		Windows	Role: Production	HyperCore
iot-storage2	Connected	AzureArcTest	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
iot-store1	Connected	AzureArcTest	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
iot-store101	Connected	AzureArcTest	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
iot-store102	Offline	AzureArcTest	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
iot-store103	Offline	AzureArcTest	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
iot-store104	Offline	AzureArcTest	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
iot-store2	Connected	AzureArcTest	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
iot-store205	Offline	AzureArcTest	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
iot-store3	Connected	AzureArcTest	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
iot-store440	Offline	AzureArcTest	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
iot-store443	Offline	AzureArcTest	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore
iot-storef1	Connected	AzureArcTest	Visual Studio Premium w-		Windows	Platform: HyperCore	HyperCore



## Leveraging Azure for Public Cloud Access to On-Premises Resources

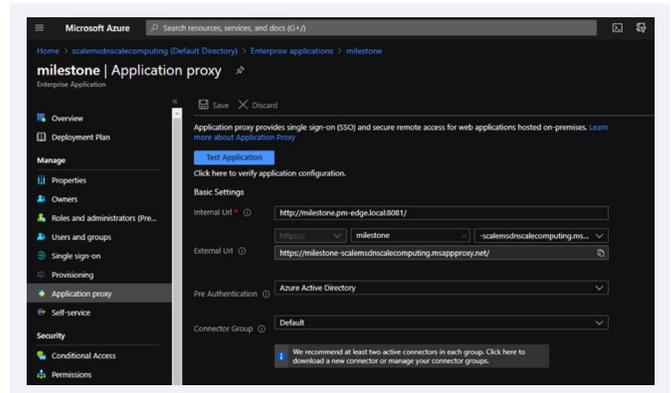
### Azure AD Integration

Many organizations leverage [Azure AD Connect](#) to sync existing on-premises Active Directory accounts to Azure AD to allow for centralized, cloud-based authentication and management.

Further, all current versions of SC//HyperCore can use Azure AD as an OpenID Connect (OIDC) single sign-on source, Azure's multi-factor authentication (MFA), and supported third-party MFA solutions to secure access to SC//HyperCore systems. Azure AD / Microsoft 365 Accounts can also be used for single sign-on to the SC//Fleet Manager console.

### Azure Application Proxy

Azure AD also offers a feature called Azure Application Proxy, which allows remote users to access web-based applications running on-premises by logging into the Azure AD portal without the need to VPN directly into the on-premises site. This could be used to access the SC//HyperCore web-based UI from edge locations and any other web-based application or portal (or REST API) that might run on-premises but benefit from secure, authenticated remote access.



Microsoft Azure complements SC//Platform for the perfect hybrid cloud experience. Beyond the integrations described here - further integration is possible with solutions such as Azure IoT Core, Azure Networking services and many others. For more information, contact your Scale Computing partner or account manager.