Extending IT Best Practices to Microsoft Azure

The IT challenge

Reduce risk with world-class security: The same security technology that supports Azure's private global network protects your data while meeting rigorous industry-specific compliance standards**.**

Improve choice with hybrid and multi-cloud: Using an Azure-managed cloud-native solution means your developers can write an application once and then run it on-premises, on Azure, or on other clouds—with no change in infrastructure.

Spark innovation with AI and data analytics: Azure's easy-to-use artificial intelligence and machine learning capabilities are embedded in our core solutions and infrastructure, making them accessible and easily deployed across the enterprise.

Stay nimble with our flexible platform: Simplify your operations and product deployment with Azure's fully managed, serverless offerings and hybrid and multi-cloud capabilities.

Optimize Costs: Identify machines that appear to be completely unused and automate remediation and change control.

Benefiting from this seamless operation requires building a unified management framework for cloud provisioning, configuration, and service assurance while managing your cloud and on-premises infrastructure from a single pane of glass. But how do you implement this consistent governance without compromising the agility of Azure?

Create a unified cloud operating model

Use consistent, efficient processes to manage your Azure and on-premises IT environment. Strengthen governance and reduce operational costs—without compromising speed, agility, or Azure functionality. Leverage your existing ITSM processes, quickly creating a unified management framework across cloud and non-cloud resources.

Deliver Azure cloud services better

Easily define new types of Azure cloud services and offer them through a unified Service Catalog. Automate provisioning of these cloud services, responding instantly to requests from DevOps and other cloud users.

Empower your users with self-service

Deliver a streamlined, responsive user experience by giving cloud users an intuitive self-service portal where they can create new cloud resources, manage existing resources, and see resource status and history across Azure.

Integrate with third-party solutions

Take advantage of integrations with configuration solutions such as the enterprise and free versions of Red Hat® Ansible®, as well as with other vendors such as Infoblox and CyberArk.

The ServiceNow solution

ServiceNow® ITOM Optimization lets you rise to this challenge. It provides comprehensive visibility of your cloud costs and usage, identifying and automating opportunities to reduce cloud spend. It also has automated cloud provisioning capabilities that allow you to establish an effective governance model without compromising agility.

By provisioning and configuring on-demand Azure cloud services, Cloud Provisioning and Governance delivers uncompromised agility while providing consistent, non-intrusive governance guardrails. And, because it directly leverages native Azure provisioning capabilities, you have unrestricted access to the full power of Azure.

Cloud Provisioning and Governance also works in your rapidly changing cloud environment by using either vertical discovery, horizontal discovery, or tagging to locate all your pre-existing cloud resources—including ephemeral objects. It creates a single system of record for your entire Azure infrastructure. It then manages the lifecycle of your Azure resources, monitoring resources for status changes, automating change requests—for example, increasing resource compute capacity—and deprovisioning resources when they are no longer required.

Cloud Provisioning and Governance supports Azure out of the box and works seamlessly with ServiceNow IT Service Management—including the Service Catalog and Change Management—providing a single, consistent operating model across both your cloud and non-cloud IT estate.

Standardized Cloud Service Catalog

With Cloud Provisioning and Governance, you can create a catalog of standardized Azure cloud services using ServiceNow's role-based Service Catalog. By providing support for Infrastructure as Code through ARM as well as Terraform cloud templates, Cloud Provisioning and Governance dramatically reduces the time it takes to create catalogs. You can directly consume cloud templates to create ServiceNow standard cloud catalog items that will aid in any enterprise-grade deployment.

Once a catalog is live, app owners from lines of business can simply select the Azure service they want from a catalog, enter configuration parameters—such as storage size—into a form, and submit their request. This provides a consistent, secure, and auditable way of ordering Azure cloud services, delivering effective governance while dramatically simplifying the cloud service provisioning process for users.

Meanwhile, DevOps teams and core developers can select Azure cloud services by calling up an API or writing a script. By provisioning services directly—rather than going through the IT department—these technical-minded users can more easily keep up with the fast pace of development. Cloud Provisioning and Governance also enables developers to use an API request to order environments for continuous integration and continuous development.

Once the request is submitted, Cloud Provisioning and Governance automates the end-to-end provisioning process, creating the requested cloud resources in real time—often in seconds when no approvals are required. This automation ensures the responsiveness that users expect when creating cloud services, rather than having to wait for manual back-end fulfillment processes.

You can define these standardized services using the native provisioning capabilities of Azure. For example, you can import Azure Resource Management (ARM) templates directly into the Service Catalog to create new types of services. Every service deployment will require additional steps during the pre- and post-install phases. Typical activities may include:

- Installing applications such as Oracle and Tomcat

- Virtual machine and operating system hardening

- Adding a server to Active Directory

- Deploying a monitoring agent

- Generating a business services map

- Creating custom-tag elements

Non-intrusive policy guardrails

While consistent and effective governance is critical for multi-cloud environments, it can't get in the way of time-critical processes such as your DevOps CI/CD chain. That's why Cloud Provisioning and Governance has a flexible engine that allows you to define appropriate role-based permissions and policies for your users—whether they request resources directly from the Service Catalog or automate requests using the built-in REST API. For example, you can:

- Define the types of cloud service each user can access based on their role

- Enforce naming conventions for provisioned resources

- Control workload placement

- Set limits on the sizing of individual resources

- Enforce resource tagging policies

- Trigger approval workflows for requests only when specific conditions are met

These mechanisms allow you to create non-intrusive policy guardrails, only requiring approvals for exception conditions.

Empower your cloud users with intuitive self-service

Cloud Provisioning and Governance makes it easy for cloud users to see and manage all their Azure cloud services in one place. Its Cloud User Portal delivers a consumer-like, unified experience where users can create new cloud services, manage their existing cloud services, track approvals, and see associated changes and incidents for their cloud resources. The portal also provides budget and quota utilization information, creating situational awareness and encouraging users to release cloud resources they no longer require.

ServiceNow IT Operations Management Solutions

ServiceNow's ITOM gives enterprises complete visibility and control of their entire IT environment—including virtualized and cloud infrastructure. It simplifies service mapping, delivery, and assurance, consolidating IT service and infrastructure data into a single system of record. It also automates and streamlines key processes—including event, incident, problem, configuration, and change management— creating a complete, consistent, and integrated IT operational framework that drives efficiency and improves service quality.