

Business owners and IT leaders across the globe are replacing on-premise, legacy technology systems with cloud-based computing solutions. Cloud computing delivers several compelling reasons for companies to forego onsite hardware and servers and make the transition to a faster, more flexible IT operation and data storage solution. An Azure cloud services solution promises companies of every size and scope:

- Cost savings
- Increased security
- Reduced risk of data loss
- Improved operational efficiency
- Faster deployments

Yes, transitioning to the cloud offers several significant benefits. However, IT managers know firsthand that a tech migration of any size and scope brings with it its own unique set of potential obstacles that should be prepared for in advance. Managing and maintaining the cloud environment requires overseeing multiple moving parts, stakeholders, and project milestones. This can only be accomplished with the right people, tools and processes.

Beyond identifying the right cloud services, these businesses must also navigate cloud governance challenges that look significantly different from the obstacles faced when keeping everything on-premise within their facility. Some of the biggest obstacles faced when working with cloud-managed services include:

- Limited visibility/Full system monitoring
- Cloud sprawl
- Cloud cost management
- Security and compliance

Establishing a Cloud Center of Excellence resolves issues and achieves project goals. At VIAcode, we understand that many IT teams don't have the experience, time or resources needed to manage the cloud transition entirely. As a result, to help achieve project goals and combat issues that may occur when managing a cloud environment, we highly recommend that our clients establish a cloud center of excellence (CCoE). It's not always plausible or practical for an IT Organization to fully implement a CCoE, so it may be necessary to prioritize which elements of a CCoE to implement based on the value offered to the business.



Establishing a Cloud Center *of Excellence?*

A cloud center of excellence is a multidisciplinary team of experts within the organization tasked with managing and maintaining the cloud environment. The team of designated stakeholders develops, leads, and implements processes and governance according to best practices to ensure proper cloud usage and management across these functional areas:



FINANCIAL MANAGEMENT

The financial management stakeholders are typically tasked with aligning cloud investments with business initiatives, tracking and overseeing contribution to TCO, analysis of return-on-investment, and overall financial accountability.



OPERATIONS

The operations function maintains the proper availability and performance of the Azure cloud environment. These stakeholders also focus on the SLA, efficiency, and environment consistency.



SECURITY

Security stakeholders proactively increase security depth and eliminate vulnerabilities and risks in the environment. They also focus on access and identity management, compliance, and threat mitigation throughout the initiative.

Stakeholders When Building a CCoE

Each functional area of the CCoE is represented by a primary stakeholder:

- Cloud economist
- O Cloud operations manager

As well as possible additional stakeholders:

- ⊕ Engineering/app developers
- Line of business leaders
- **⊙** Enterprise architect
- Network engineer
- Data scientist
- **⊙** Site reliability engineer



The Benefits of a Cloud Center for Excellence

Some organizations are reluctant to implement an Azure cloud center of excellence. Many assume they don't need a CCoE, are not able to prioritize it, or do not fully understand the value it brings. A recent study from Dimensional Research revealed some of the reasons behind their hesitation:

- → We don't use enough of the cloud to justify a CCoE: 28%
- We want to do it, but it's not a priority: 28%
- → Things are moving too quickly to operationalize: 28%
- ① Lack of understanding of issues surrounding the cloud: 25%
- → No clear cloud strategy or leadership: 24%

In order to overcome this hesitation, it is essential for an organization to understand the value a CCoE brings and to understand that there is not a one-size-fits-all solution; the CCoE must be right-sized for any particular organization. The cloud center of excellence provides the framework for deliberate management of the cloud environment, driving project prioritization, cohesion and clear communications, and informed decision-making. This ensures a consistent, predictable cloud operation and proactive prevention and resolution of issues. Once fully implemented, a well-executed CCoE delivers several significant benefits to the business:



UNIFORMITY

Collaboration and uniformity across all functional areas are critical when managing a cloud environment to ensure everyone is operating from the same standards and contributing to cloud success. A CCoE provides a framework that promotes collaboration. As a result, stakeholders of a cloud center of excellence work together to develop a cloud strategy that includes guidelines, best practices, governance, and security protocols for every business unit. Consideration is also given when developing the cloud strategy to any federal or industry regulatory compliance (i.e., HIPAA in healthcare).



ACCELERATION

A CCoE framework promotes team cohesion that helps accelerate evolution of operational efficiency and performance and the development and delivery of new functionality and apps. By fast-tracking innovation, CCoEs are able to improve business outcomes and deliver a better user experience than stakeholders working independently and/or relying on trial-and-error experimentation.



EFFICIENCY

Creating a cloud center of excellence also helps eliminate unnecessary cloud resources, thus minimizing expenditures while maximizing efficiency. A CCoE helps team members efficiently manage the cloud solution by avoiding and identifying cloud waste, driving cost savings, increasing security measures, and maintaining visibility across the entire environment so issues are quickly detected and resolved.

Establishing a CCoE Maturity Model

Once a business owner recognizes the value of a CCoE and identifies key participants, it's important to understand maturity stages for each functional area. Stakeholders across financial management, operations, and security business units must recognize the importance of their role as the organization's cloud practices move through the visibility, automation, and alignment maturity stages.

GROUP	VISIBILITY	AUTOMATION	ALIGNMENT
Financial Management	Cost Center Allocation & Showbacks	Cost Optimization & Control	COGS/Margin
Operations	Availability/ Performance/Capacity Monitoring & Reporting	Auto-scale Scheduling & Rightsizing	SLA
Security	Real-time Detection	Security Drift Prevention	Compliance (HIPAA, NIST, ISO)

While alignment is the most mature stage for each business area, each CCoE area will progress from stage to stage independent of the other CCoE areas.





What Does CCoE Success Look Like?

VIAcode effectively taps into best practices, such as the Microsoft Azure Cloud Adoption Framework (CAF) and Azure Well-Architected Framework (WAF), and expertise to both show our clients what success looks like — and how to achieve it on every project. Of course, one size does not fit all, so the process and priorities for implementing a CCoE and moving through the maturity stages will vary for each company. Based on our experience, here is a breakdown of success by function and maturity phase:

MATURITY PHASE: VISIBILITY

ACROSS ALL BUSINESS AREAS, VISIBILITY REQUIRES IDENTIFYING AND ESTABLISHING METRICS; MEASURING RESULTS IS CRITICAL FOR MANAGING THE ENVIRONMENT.

For financial management stakeholders, visibility success means having insight into costs and being able to allocate cost internally appropriately. To accomplish this, the CCoE needs to establish a budget, tag available resources, and automate cost alerts as they arise. Financial management participants in the cloud center of excellence must establish management groups and Azure cloud services costs. Visibility success metrics for this group include:

- Cost of all untagged resources
- Percentage of resources with proper tagging
- Percentage of resources with budget & alerts

For operations stakeholders in a CCoE, visibility requires establishing and aggregating capacity, availability, and performance alerts and dashboarding them using Azure Monitor and other tools. Visibility success metrics for operations include the percentage of monitored resources.

Visibility for security stakeholders requires establishing security alerts using Azure Security Center and Azure Sentinel. Visibility success metrics for security teams includes identifying the total number of threats and pinpointing an overall Secure Score.

MATURITY PHASE: AUTOMATION

AUTOMATION OFTEN BOILS DOWN TO A FOCUS ON GOVERNANCE, WHICH MEANS ALL CCOE STAKEHOLDERS NEED TO COLLABORATE TO DEFINE BOTH GUIDELINES AND GUARDRAILS FOR CLOUD USAGE.

	PROACTIVE	REACTIVE	
GUIDELINES	Notification before deployment	Notification after deployment	
GUARDRAILS	Block deployment	Correction after deployment	

Understanding the difference between guidelines and guardrails is important. Guidelines are established to automatically notify stakeholders when an operational component is out of compliance. Guardrails are actions put in place to prevent an operational component from being out of compliance.

For financial management stakeholders, automation requires implementation of policies for cost control, such as:

- Tagging requirements
- Enforcing lower-cost regions
- Enforcing hybrid use benefits

Financial management participants in the cloud center of excellence typically start with guideline policies where specific teams are notified during a compliance breach. However, over time, guideline policies eventually transition to guardrail policies where a users' noncompliant actions may be blocked by the system.

For operations stakeholders in a CCoE, automation includes:

- Update management
- Auto-scaling
- Automation DSC (Desired State Configuration)

Operations stakeholders can leverage Azure DevOps, Azure Automation, and Azure Policy to determine:

- Percentage of VMs under scheduler
- Percentage of VMs in compliance
- Percentage of services with CI/CD

Automation for security stakeholders entails being able to audit the cloud environment for potential vulnerabilities, such as a public IP or data storage with open endpoints. The members of a cloud center of excellence can leverage Azure Automation, Azure Sentinel, and Azure Policy to identify the percentage of policies in a compliant state as well as the percentage of auto-remediated threats.

MATURITY PHASE: ALIGNMENT

The alignment phase often relies on heavy customization to ensure all business requests are supported and meet specific requirements from the CCoE.

Financial management participants can establish alignment for metrics such as the cost of goods (COGS) using Azure Cost Management, Microsoft Dynamics, and Microsoft PowerBI.

Operations stakeholders leverage operational-level agreements and service-level agreements as part of the alignment process. Tools such as Azure Monitor, Azure Log Analytics, and Microsoft PowerBI can be used to pool environment data and determine the percentage of services within SLA compliance.

Security, in particular data security, alignment is critical within an Azure cloud center of excellence. Microsoft, as part of Azure policy, has several built-in compliance resources that can be customized throughout the alignment phase. Depending on the industry, some essential components to security alignment may include compliance such as:

- → HIPAA/HITRUST 9.2
- **⊙** ISO 27001:2013
- **⊙** NIST SP 800-53 R4
- **⊙** NIST SP 800-171 R2

Security stakeholders on a CCoE can also use Azure Policy and Microsoft PowerBI to determine the percentage of services under compliance.

Partnering With the Right Azure Cloud Services Consulting Team

Many organizations believe they must handle developing a CCoE internally. However, successfully transitioning to the cloud and effectively implementing a cloud center of excellence can be overwhelming to IT teams that are already stretched too thin. Partnering with the right Azure cloud services consulting team can streamline the CCoE process. The right partner will be able to help you develop a practical approach to building a CCoE, customized for your organization, with the right list of stakeholders and success metrics for optimized efficiencies and results.

At VIAcode, we leverage industry-leading standards, best practices and extensive Azure experience to help our clients best navigate developing a cloud center of excellence. We have proudly been working with Azure since it was first released; helping organizations worldwide with Azure migration, management, optimization and app modernization. VIAcode is a gold certified Microsoft partner and has earned advanced specialization in Windows and SQL Server Migration to Microsoft Azure. Additionally, our CEO is a former Group Program Manager on the Microsoft Azure product team. Our team also built and currently maintains the Azure demo environment used by Microsoft Cloud Solution Architects worldwide.



Contact VIACODE TODAY

VIAcode's Azure consulting professionals help business owners and stakeholders develop dynamic cloud centers of excellence to promote operational excellence and overall success of IT. Contact our team today to learn more. Be sure to download our recent webinar,

A Practical Game Plan for Building a Cloud Center of Excellence, to learn more about building a cloud center of excellence for your Azure cloud migration.

CONNECT TODAY

Be sure to download our recent webinar, A Practical Game Plan for Building a Cloud Center of Excellence to learn more about building a cloud center of excellence for your Azure cloud migration.

WATCH NOW



860-882-1150 | info@viacode.com | www.viacode.com | 🚹 in

REDMOND, WA OFFICE 8201 164th Ave NE, Suite 240 Redmond, WA 98052 WEST HARTFORD, CT OFFICE 7 South Main St, Suite 206

West Hartford, CT 06107