Whitepaper

# **Clearing the Cloud Governance Hurdles**

Xebia

A value driven Cloud Center of Excellence

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## Introduction

The adoption of cloud computing has become increasingly popular in recent years, as organisations aim to benefit from the scalability and flexibility offered by cloud infrastructure. However, the complexity of cloud management still has organisations stumped and creates significant challenges for organisations seeking to maximise cloud value.

The first challenge is the lack of clarity on the role of cloud management. With the vast array of services and possibilities available in the cloud, it can be challenging for organisations to determine where their attention should be focused. This leads to ineffective governance, as organisations struggle to offer guidance and create value for platform users. Another challenge is the undefined skill sets required for effective cloud governance. Cloud management requires a diverse range of skills, including technical expertise as well as a thorough understanding of the business interests. Organisations tend to neglect this and end up hiring talent that favours either side. The third challenge is the lack of clarity around the division of tasks in the cloud. As a shared resource, the cloud creates confusion over which teams or individuals are responsible for which tasks. This leads to a lack of accountability for ensuring that governance is being implemented effectively.

To address these challenges, organisations are advised to establish a Cloud Center of Excellence (CCoE). A CCoE can serve as a catalyst for effective cloud governance by facilitating collaboration, alignment, and transparency between different stakeholders, and by leveraging automation and analytics to drive data-driven decision making.

# **01. You have appointed a CCoE, now what?**

The CCoE is often presented as the holy grail in cloud governance, a one-size-fits-all term that is supposed to be the answer to all your cloud management and enablement needs. However, merely speaking the concept into existence and appointing a management board to function as the CCoE will most likely not do the trick.

The truth is, all cloud adoptions are different and require a tailored approach to drive the intended value. Not only is the success and implementation of a CCoE dependent on the organisational context in which it is meant to operate, but a proactive style of governance is also required to capture the intended value.

To tackle the challenges that a cloud journey brings from a governance perspective, the CCoE benefits from a structured approach that leaves room for contextual tailoring. Based on years of experience and working with several companies in a variety of industries, we have identified some pointers that may help you identify a path to develop a CCoE that enables your organisation in a successful cloud adoption.

### Set your CCoE up for success.

- **01.** Map Core Capabilities: Start with where you want to get to. Instead of thinking of your CCoE as an organisational body that leads the cloud, look at which functionalities need to be fulfilled in cloud governance. From there, determine what capabilities need to be developed and start strategising.
- **02.** Staffing the CCoE: Have the right talent at the right moment. Once you know what actually needs to be done, you can start to define the roles that are needed to get there. The key here is to plan these roles to accompany the growth of cloud adoption in your organisation.
- **03.** Cloud Operating Model: Know who does what, document it and shout it from the rooftops. One of the natural pain points in an organisational change as cloud adoption is the clashes in responsibilities caused by this shift. Determine a cloud operating model and build platform- and service-level roles from there. These should be documented and available to all platform users.



"The truth is, all cloud adoptions are different and require a tailored approach to drive the intended value."



# **02. Map Core Capabilities**

Before we start to define what type of functionalities there are to be considered in cloud governance, we should start with defining what main objective we are trying to achieve here. Essentially, the goal of cloud governance, and consequently of the CCoE, is to lead an organisation in a successful cloud migration, adoption, and integration.

How this is done should align with organisational values, as some organisations require more emphasis on a gatekeeping role, whereas others might focus more on a sort of consulting role. In any case, the CCoE is there to push cloud enablement. Consequently, this means that you often find that the CCoE is more of a service provider than a manager. The distinction in this is relevant as it implies that cloud governance should inherently follow a pull strategy, with the CCoE facilitating through answering platform user demand. Of course, the CCoE may still have a gatekeeping function to harbour security and minimise complexity on the platform, but the implementation of any cloud is only as good as the experiences of the users.

To lead a successful cloud, there are two types of facilitation roles that need to be established, which then become the two key functionalities of the CCoE.

### **Cloud Business Office**

The **Cloud Business Office** ensures the effective governance for the organisation to adopt and accelerate Public Cloud use across the business. It establishes and agrees bold objectives and principles that encourage adoption of the cloud. To incorporate this functionality in cloud governance, several capabilities need to be developed.



- Architecture Alignment: All patterns and building blocks offered by the cloud platform must meet the architectural standards within the enterprise.
- Product and Delivery Management: Ensuring that the products and services offered by the Cloud Platform address the needs of all stakeholders and that prioritisation takes place.
- Cloud Financial Management: Bring cloud spend under control by engaging all relevant stakeholders and implementing robust budgeting, reporting, forecasting and optimization processes.
- User Onboarding: Introducing and educating new users on the policies, procedures, and best practices for accessing and utilising cloud services within an organisation.
- Training and Certification: All DevOps engineers and stakeholders in general should have sufficient skills to successfully build and operate their cloud environments.
- Organisational Change Management: Defining the future state of the organisation and determining and executing a strategy to get to the future state from the current state including communication.

### **Cloud Platform Engineering**

**Cloud Platform Engineering** codifies the difference between stock service configurations and the enterprise's standards. It provides a platform with packaged, self-deployable products which are continuously improved based on feedback from stakeholders. To incorporate this functionality in cloud governance, several capabilities need to be developed.



- Codified Patterns: Velocity of cloud adoption among DevOps (application) teams can be increased by offering pre-approved building blocks.
- Core Platform: For the Cloud Platform to be effective in the organisation, several capabilities must be added to the out-of-the-box cloud offering. Some aspects you want to have centralised control over, think of connectivity and account vending.
- DevOps Enablement: Establish capabilities to enable automated build and release processes, end-to-end operations, self-service deployments, alerting and reporting.
- Security: Provide automated and codified security policies and controls. Assess and monitor environments to enforce security policies and mitigate threats.

These capabilities should be represented in your cloud governance, but the responsibility for executing these capabilities does not necessarily lie with the CCoE, nor are their weights and priority equal. It is merely about ensuring that these capabilities are present somewhere within the organisation.



# **03. Staffing the CCoE**

Once you have established what type of capabilities should be part of your CCoE implementation, the focus can switch to who is going to form the CCoE. A successful CCoE harbours specific skills that require a good understanding of both the technical and business interests, which are not 1-to-1 related to other engineering and architecting roles.

CCoE staff members with the right skills are instrumental in achieving cloud success. Each member should:

- possess a good understanding of the cloud platform and cloud technologies.
- have hands-on skills to implement landing zone capabilities, such as networking and security requirements.

A general setup for a CCoE may look like this:

- be able to converse and understand the roles and responsibilities of platform stakeholders.
- be seen as an authority on cloud technologies and can transfer knowledge to other users in a range of levels.

Again, the key to success here lies in the tailoring to fit your organisational context. For more strictly governed organisations, a cloud managerial role may be included to oversee the CCoE. An organisation with a large cloud knowledge gap may want to define additional training roles and have a separate onboarding team.



### **Staffing over Time**

Within one cloud journey, there are different needs in different stages of the adoption. When constructing a staffing strategy, this needs to be accounted for. One such trajectory could look as follows:



### **Constructing a Staffing Plan**

Having reviewed the information, we encourage you to begin crafting a staffing plan for your CCoE staffing needs. As a helpful guide, we propose utilising the following roadmap:

- **01. Define Job Profiles:** Construct an 'ideal' candidate profile for the roles focussing on CCoE competencies as well as organisational context.
- **02.** Identify Staffing Sources: there are two distinct staffing sources, internal or external sourcing, or a combination thereof.
- **03.** Assess Training and Certification: ensure that personnel in cloud roles receive training to appropriately fulfil their role.
- **04.** Look at Partner Opportunities: Partnerships can guide the organisation with initial setup or take away effort through a managed landing zone.



# 04. Cloud Operating Model

With the capabilities to fulfil clear and the CCoE staffed with the right people, the next step to achieving effective cloud governance is to design unambiguous and efficient roles and responsibilities in processes in and around the cloud.

To ensure a successful cloud adoption, it is crucial for all stakeholders to have a clear understanding of the division of roles and responsibilities. All platform users and other stakeholders should know what is expected of them, to prevent responsibility clashes and and promote a productive workflow, and should know what is expected of others, to enable collaboration and offer guidance. Once these decisions responsibilities are defined, they should be formalised and documented in a central place and accessible to all stakeholders.

One methodology to define roles is through the cloud operating model. An operating model describes what capabilities, processes, and people or workforces are needed to achieve the organisation's strategic business objectives. And most importantly, the operating model demonstrates how these responsibilities are distributed across the organisation. The operating model for IT is designed to align these business objectives and associated capabilities with the objectives that are specific to IT. For the cloud this is no different, it deals with the same tension between business and technology as IT.

The Cloud Operating Model is the answer to the question:

"Who does what in the cloud?"

A common pitfall we encounter is that organisations who already have a traditional IT operating model of sorts do not adapt this for the cloud. The underlying assumption to this is that whatever we do on the cloud, we already did on-premises, so there would be no need to change our processes. This managerial perspective could lead to one of two scenarios:

- **01.** The organisation interacts with the cloud in the same manner as in their on-premises environment. This means that the company is not able to leverage many cloud benefits such as elasticity, deployment speed and access to new technology in the form of cloud services. Alternatively, the organisation may find that the role of the cloud vendor in their environment is different than that of their previous outsourcing party, who took on more of an operational role.
- **02.** The organisation skews away from their traditional operating model towards DevOps without defining and formalising the new responsibilities. In this case, tasks will be ill-defined, some tasks will be completed twice, and others will not be done at all. A platform user that needs to get something done outside of his or her jurisdiction will spend a large amount of time asking around before being able to get anything concretely done.

Due to the unique nature of cloud computing compared to traditional IT, an operational shift is required. This need is especially strong when your organisation aims to leverage full cloud benefits and has ambitions to enable DevOps. The Cloud Operating Model is the answer to the question:

"Who does what in the cloud?"



## The Principal Cloud Operating Model

Defining a concrete Cloud Operating Model starts with zooming out and looking at the organisation's desired interaction with the cloud in general. This can be described by selecting one of the three basic cloud operating models as a principal cloud operating model.



The **Traditional Model** follows a siloed approach where different teams, such as developers, operations, and security, work separately. This model implies that responsibilities for applications and infrastructure switches when it moves to production. It is mainly used for lift-and-shift applications with few modifications.

In the **CloudOps Model** the landing zone teams provide codified organisational standards and governance that ensure that application teams can be agile and responsive, without having to possess deep knowledge of the underlying platform.

In the **DevOps Model** the application teams are responsible for their applications, and also are empowered to look beyond the current platform capabilities to those that have not yet been standardised by the platform team. To streamline this process, the platform team still ensures that some standards and guardrails are in place. The three models present three categorizations of cloud operating models, and chances are your organisation is not going to follow one model completely. Yet choosing one model can set precedent for defining roles and responsibilities and provide you with a skeleton for defining the roles on a more hands-on level.

Once a base cloud operating model is selected, it is now important to define it more thoroughly, because this high-level design is insufficient in providing any actual guidance. Service or platform-level shared responsibilities can be derived from the principal model, in which the emphasis is more task-based. These shared responsibility models should detail aspects such as patch management, monitoring, backup execution and encryption. The organisation should then ensure that these are readily available to all platform users and integrate them in the onboarding



process.

### **Defining Concrete Processes**

With CCoE functionalities determined, the right talent employed, and unambiguous responsibilities assigned, you can start to design processes that will solidify cloud governance on your platform. These processes are very context-specific, but there are a few pointers to take note of:

- Engage stakeholders in the process design to promote sponsorship.
- Solution Formalise the processes and publish them so everybody can see.
- Promote the CCoE to ensure its mandate and authority is known in the organisation.
- Setablish a single communication channel for requests to the CCoE.





# **Key Takeaways**

#### Design governance for problems

Large organisational changes rarely happen without pain points. The key to navigating these pain points is designing governance to rapidly signal and tackle these problems, in order to grow and learn from them in the future.

#### Don't neglect the business

Moving to the cloud has far-reaching business implications that require careful consideration. Designing a technically sound cloud environment for your cloud users is important, but the end results will inevitably be measured by the value that it brings.

#### Plan for future staffing needs

To form a successful CCoE, a rather specific skill set is required which may not be readily available to your organisation. Tackling this requires a careful examination of needed roles and a solid staffing and sourcing plan.

#### Formalise the Cloud Operating Model

During cloud adoption, defining the roles and responsibilities on and around the platform is imperative to ensure efficient workflows. The operating model needs to be clear and the CCoE should have a central position within the landscape, not an entity that you need to hunt down to get something done.

#### Learn from your experiences

CCoE design and implementation is an iterative process. Employ an experienced partner to get a head start and accelerate the process.

#### **About Xebia**

Xebia is an IT Consultancy and Software Development Company that has been creating digital leaders across the globe since 2001. With offices on every continent, we help the top 250 companies worldwide embrace innovation, adopt the latest technologies, and implement the most successful business models. To meet every digital demand, Xebia is organized into chapters. These are teams with tremendous knowledge and experience in Agile, DevOps, Data and Al, Cloud, Software Development, Security, Quality Assurance, Low Code, and Microsoft Solutions. In addition to high-quality consulting and state-of-the-art software, Xebia Academy offers the training that modern companies need to work better, smarter, and faster. Today, Xebia continues to expand through a buy and build strategy. We partner with leading IT companies to gain a greater foothold in the digital space.

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