UNDERSTANDING THE CLOUD ADOPTION APPROACH

This white paper is intended to serve as a comprehensive outline for organizations that are exploring migrating their on-premises environments to the public cloud. It will also discuss the benefits and considerations for any cloud migration, as well as business drivers, growth, and stakeholders.

The white paper's intended audience includes cloud architects, cloud engineers, network engineers, and security engineers, as well as the stakeholders.

Finally, the white paper also includes the multi-step migration framework executed by the ConvergeOne cloud team for any enterprise organization. Upon review, it will give a better understanding and approach to cloud adoption and migration.

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Introduction

For many years, organizations have taken a traditional approach to buying expensive hardware and storing it in rows of racks in a data center located somewhere in the world. However, in 2006, Amazon launched a subsidiary called Amazon Web Services (AWS), which completely changed the future of IT Infrastructure. It began the transition away from the traditional approach of expensive data centers with high power and cooling, hands and feet, and all the hardware expense, to a cloud-based model where the cloud service provider has multiple data centers in a particular region that offer high availability (HA), with dedicated or non-dedicated servers, storage, networking, and many other services and features.

Cloud migration involves crucial organizational and business unit change management and talent pools, process, and technology. During this process, identifying the business goals and objectives is critical.

Getting Started

Like with any technology refresh or change, it is imperative to research and learn about the technology and objectives and how it will impact and align with the business goals.

The three main cloud service providers have a framework in place called the Cloud Adoption Framework (CAF), which helps businesses understand the benefits; build a structure; and gather people, process, and technology focus.

The CAF provides help in the business for coordinating the different business units of the organization migrating to the public cloud. It is sectioned into various areas of focus relevant to cloud adoption. The focus areas are labeled Perspectives, and each Perspective is separated into Components.

Technology is just one piece of the puzzle. People are another, and to achieve their goals, organizations must use their in-house talent. Organizations must build on existing talent and invest in further talent, whether from internal or external sources. They must leverage talent retention, as today's cloud IT complexity is a very different way of working.

Cloud Adoption Framework (CAF)

The CAF was put in place to help organizations on their cloud adoption journey. It is built from migrations from all cloud service providers in many different geographies and from many industry verticals and complexities.

The CAF is drawn from multiple industry standard frameworks and provides a way to standardize stakeholders objectives, views, and concerns. It is a compressed model for addressing challenges and objectives.

Note: One critical piece of the framework is that it lets us step into the persona of the stakeholder's viewpoint.

The framework is cloud-agnostic, so you are able to use AWS's CAF (for example) to move to Azure or GCP. It gives you the option to use it as a new cloud adopter or, if you are already in the cloud, it looks at business blockers and focus areas that need improvement and provides a guided path to a successful transformation.

With any cloud transformation journey comes risk, and it is a multi-dimensional journey. By using this framework, you can determine outcomes that are tangible and realistic. The framework also creates an action plan tailored to each business unit.

- **Customer Goals:** The CAF is started with the organization's goals and imperatives in mind. It must align with the organization's vision.

- **Business Outcomes:** These are the more tangible and specific objectives that the business wants to achieve.

   Note: It is imperative that business outcomes be short and not so descriptive. Use words like "increase."

- **Technology:** The enabler that lets the organization achieve the business outcomes.

The larger enabler is the stakeholder alignment that glues it all together.

TECHNOLOGY ⟷ BUSINESS OUTCOMES ⟷ CUSTOMER GOALS

Stakeholder Alignment

How do we Build the Goals?

It is critical to start with macro goals by considering the top 3-5 rather than 15-20. This is because we want to start with an amount that we can accomplish realistically and drive impact quickly. With 15 goals, the effort is too high and a smaller percentage of them will be accomplish with all the cog wheels turning.

Next would be ***Business Outcomes***, which are aligned with business goals and must have the stakeholders very involved for prioritizing areas to focus on and giving direction on the initiative to take.

Stakeholder Identification is built on two categories: Stakeholders (Technical) and Benefit Owners.

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From **Stakeholder Identification**, we create metrics that are critical in any organization. They are built from a business viewpoint.

Enabling Technologies are the enablers that allow the organization to achieve the business outcomes.

A great benefit to this is running a 60-90 pilot for lead conversion to success. Within this, an organization can stand up a data lake to gather visualizations and attain business goals and objectives.
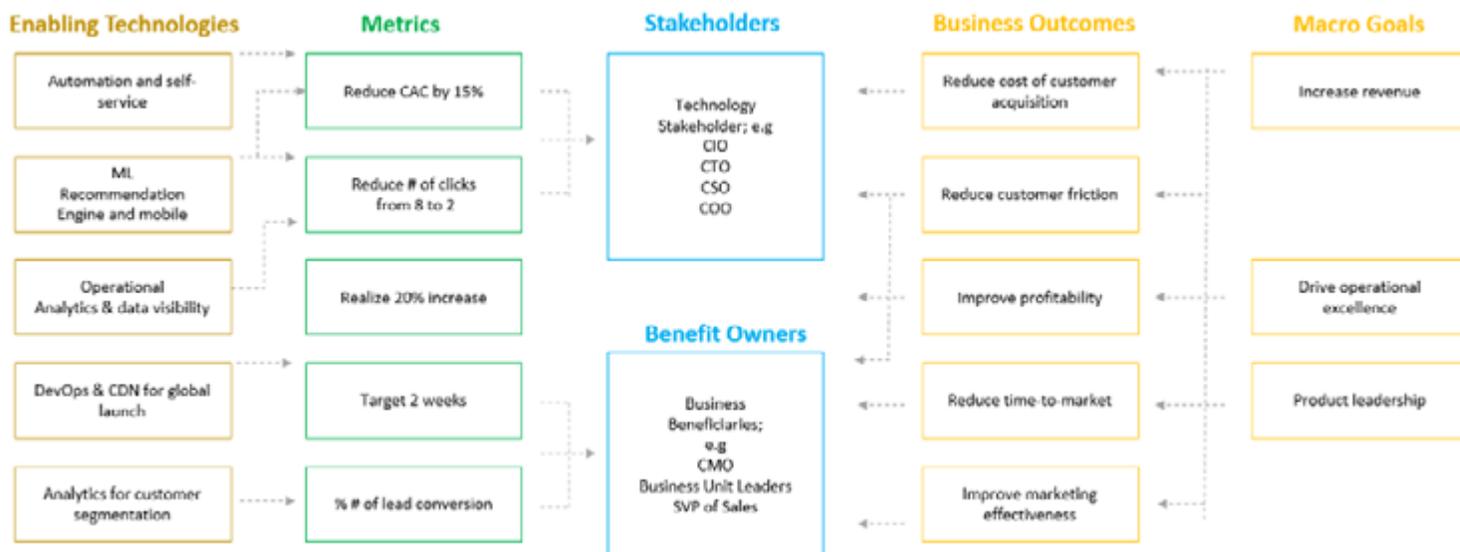
CAF Perspectives

CAF Perspectives are the guiding principles for any transformation or cloud adoption, no matter the size or cloud adoption stage the organization is currently in.

There are six perspectives that will stay with the organization, as they will help continually revise the entire organization from the viewpoint of the stakeholders within those perspectives.

Within each perspective are capabilities, and those capabilities are what changes. That's where the work transforms the business. Each perspective helps to identify the stakeholder's capabilities that transform with cloud adoption.

With each capability, you will identify skills and processes that will transform with cloud adoption, helping the business to create a plan to address the gaps.

So , to put this into some kind of method:

- Capability is what needs to change

- Skills and Process are how you are going to achieve this change

Drilling down, a Capability is not going to change too much. For example, is cloud going to change your job as a head of HR? Not really.

However, the Skills and Process are going to be different, especially if the organization is migrating from an on-premises environment to a public cloud environment. The Skills alone are different, and Processes are greatly impacted by technology advancements.
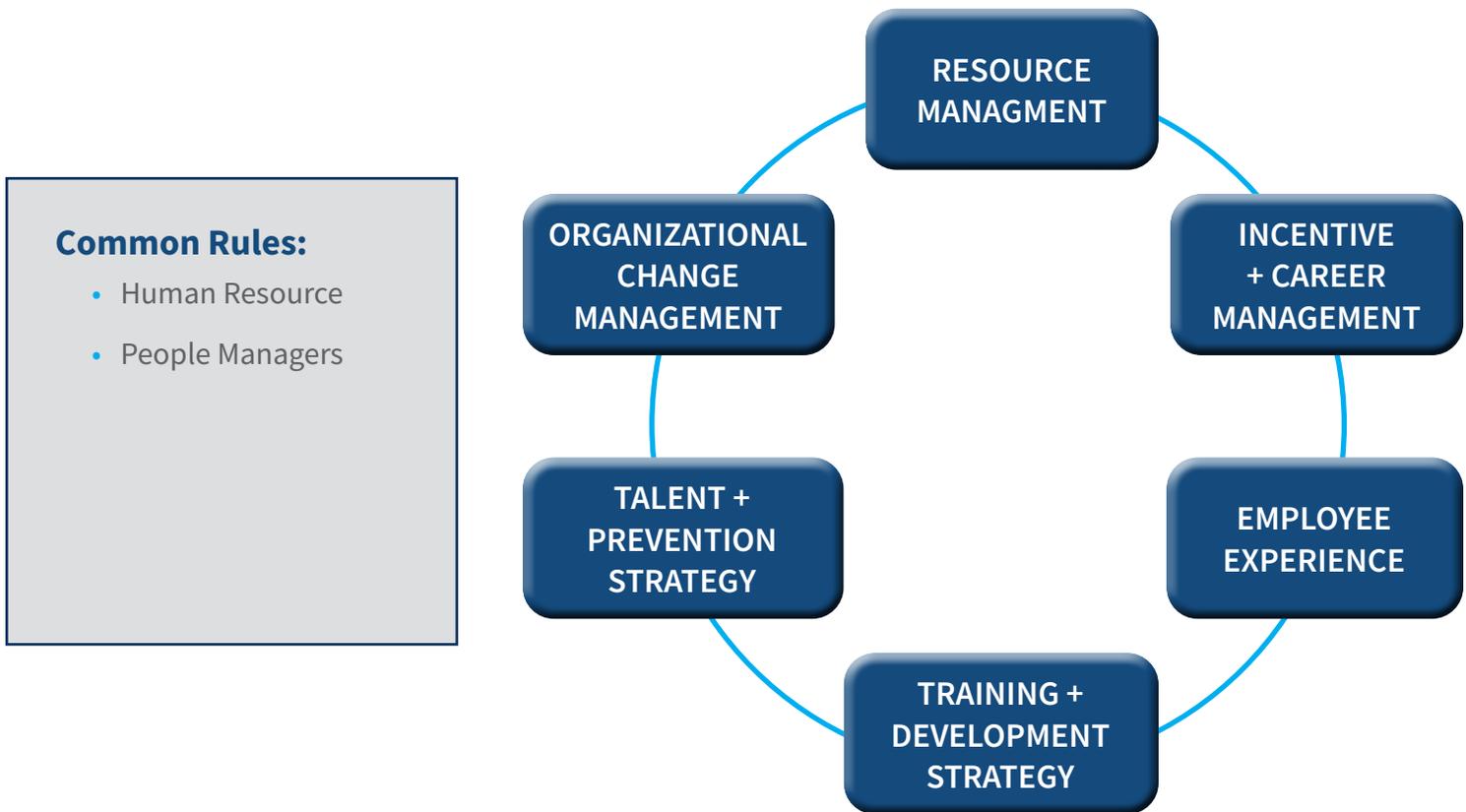
Business Perspective

Common Rules:
- CFO/CIO/CSO
- Strategy Stakeholders
- Finance Managers
- Business Unit(s) Leaders

FINANCE

STRATEGIC ALIGNMENT

BUSINESS PERFORMANCE

BUSINESS RISK MANAGEMENT

ORGANIZATIONAL STRUCTURE

INNOVATION MANAGEMENT

The Common roles above are what I am seeing as the most used from personal. They are the individual stakeholders that should be involved in cloud strategy discussions to share their views, concerns, and objectives.

- **Finance:** To discuss finance as a capability. This is where we think about return on investment (ROI). The organization must build a cloud economics strategy, focusing on a cost strategy that links the cloud technology to a finance business outcome.

- **Strategic Alignment:** This is where business and technology are aligned and strategies are built, including micro-strategies for different business units. It is aligns the cloud to technologies that the organization will need to deliver its goals.

- **Business Performance:** This is the capability in which the impact of cloud is measured, essentially measuring the return on the benefit of cloud.

- **Business Risk Management:** This is how risk is identified, evaluated, and then addressed. Risk in the cloud is different in the fact that cloud often reduces risk – identify key areas.

- **Organizational Structure:** This is where capabilities put in place to respond to business needs rapidly— like changes and unforeseen events like COVID—are evaluated to see how agile the business is and how quickly it can pivot. These capabilities are very critical.

- **Innovation Management:** This will help the organization gain competitive advantage and innovate with cloud.
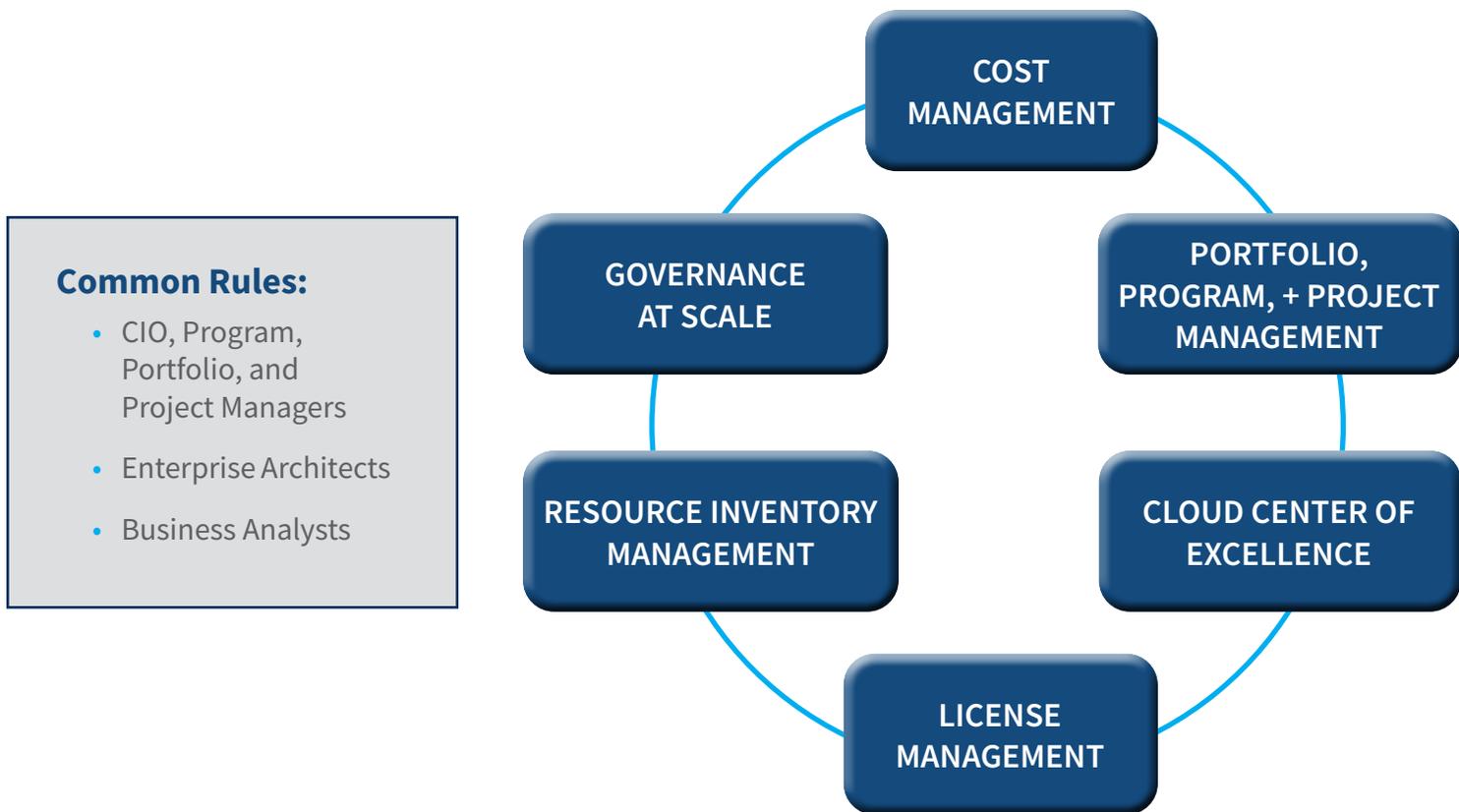
People Perspective

Common Rules:
- Human Resource
- People Managers

RESOURCE MANAGMENT

INCENTIVE + CAREER MANAGEMENT

ORGANIZATIONAL CHANGE MANAGEMENT

EMPLOYEE EXPERIENCE

TALENT + PREVENTION STRATEGY

TRAINING + DEVELOPMENT STRATEGY

Let's take a closer look at the People perspective.

- **Resource Managers:** With cloud adoption, resource management must work with all the perspectives to coordinate.

- **Incentive and Career Management:** Incentives may be put into place, along with career guidance, pending on the culture and organizational elements.

- **Employee Experience:** This ensures the employees are equipped with the right tools for the job, especially being remote and given unprecedented circumstances.

- **Training and Development Strategy:** This is essential now, and training needs to be a continuation— with Learning Management System-type training, as an example—to develop talent.

- **Talent Retention Strategy:** This is very important to finding a way to keep the staff.

- **Organizational Change Management:** This builds champions in the organization, and it all comes down to the organization's culture.
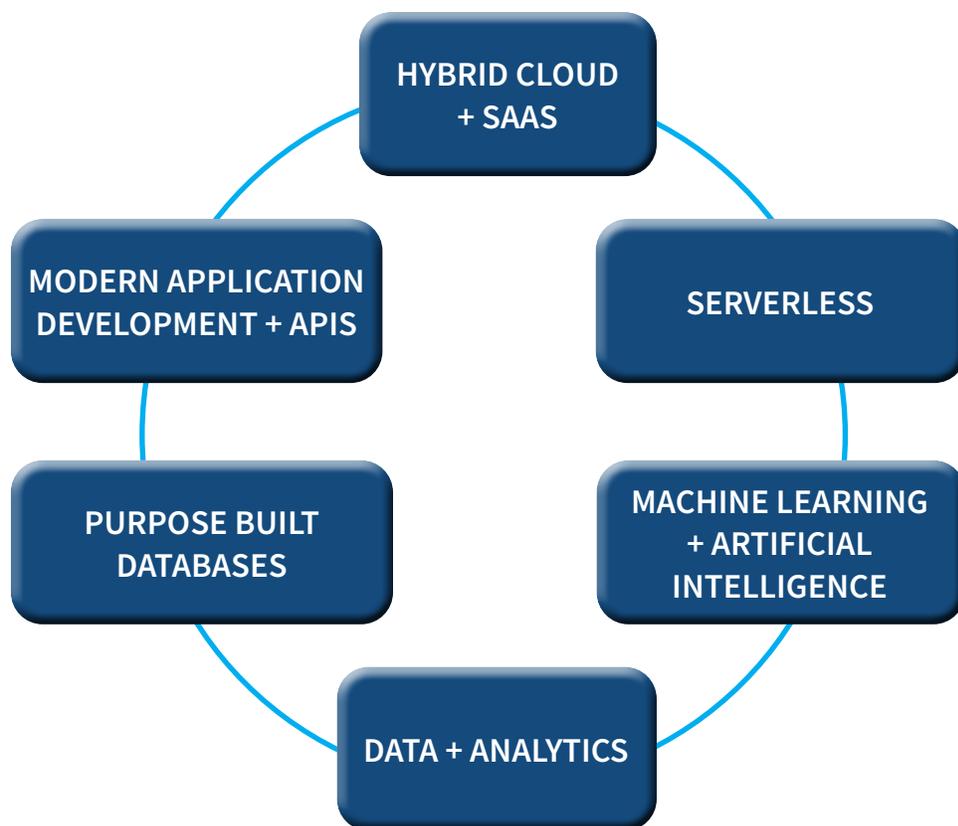
Governance Perspective

Common Rules:

- CIO, Program, Portfolio, and Project Managers
- Enterprise Architects
- Business Analysts

COST MANAGEMENT

GOVERNANCE AT SCALE

PORTFOLIO, PROGRAM, + PROJECT MANAGEMENT

RESOURCE INVENTORY MANAGEMENT

CLOUD CENTER OF EXCELLENCE

LICENSE MANAGEMENT

- **Cost Management:** Where we talk about guardrails and best practices for the organization to avoid drifts around cost—but also promote innovation.

- **Portfolio and Project Management:** Think about what capabilities will change. Is the organization agile? Do you need to provide new ways of doing things? Now that you're in the cloud, can you produce new products?

- **Cloud Center of Excellence:** Don't let the center of excellence become a blocker. Make it a place for proof of concepts.

- **License Management:** Find a way to look at license costs when moving to the cloud.

- **Resource Inventory Management:** What tools do you use in the cloud? Determine both necessary skills and processes.

- **Governance at Scale:** How can the organization build governance at scale in the cloud?
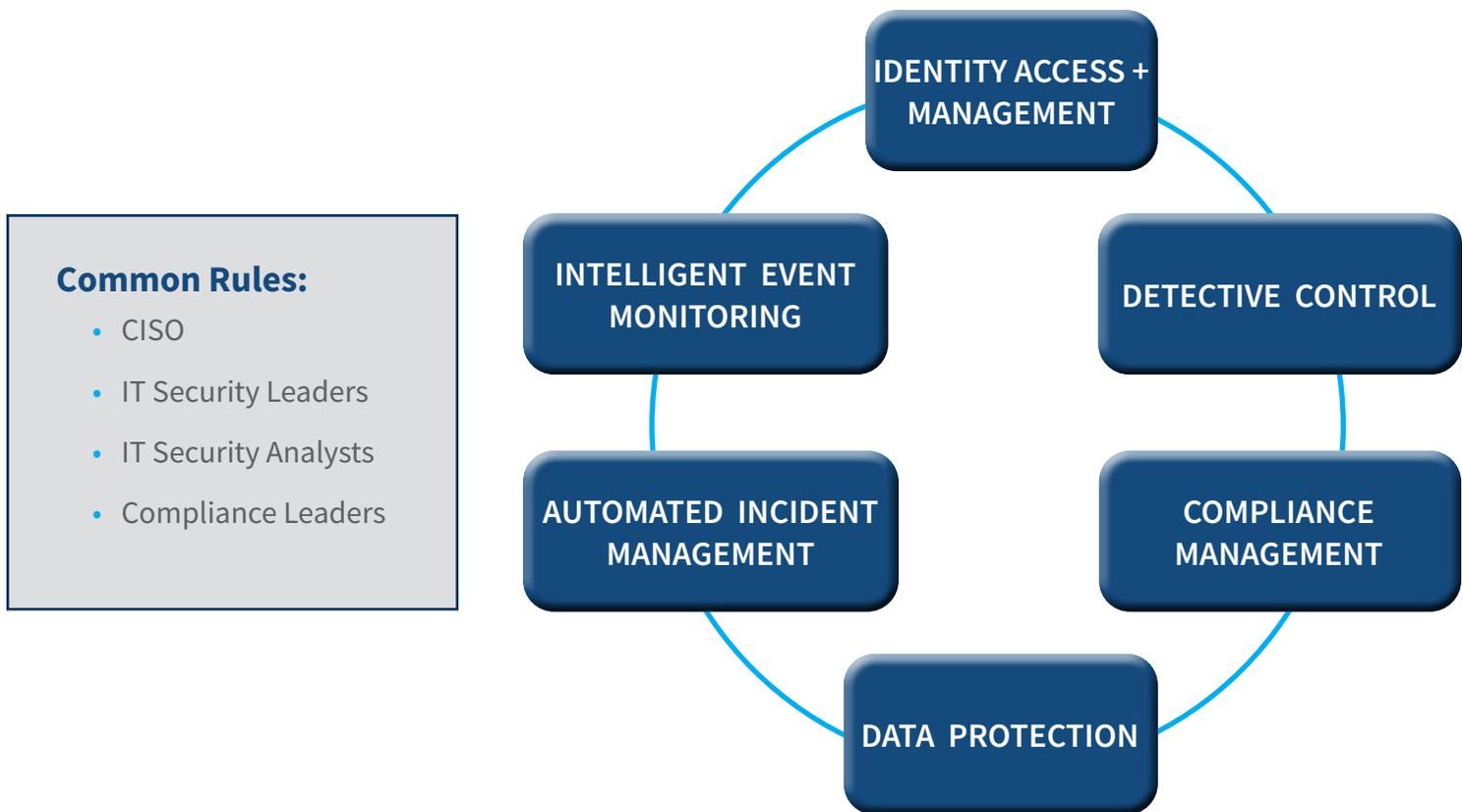
Platform Perspective

HYBRID CLOUD + SAAS

MODERN APPLICATION DEVELOPMENT + APIS

SERVERLESS

PURPOSE BUILT DATABASES

MACHINE LEARNING + ARTIFICIAL INTELLIGENCE

DATA + ANALYTICS

Common Rules:
- CTO/CIO
- IT Leaders
- Enterprise Architects
- Builders and Data Scientists

- **Hybrid Cloud and SaaS:** Usually the first step of an organization's cloud journey, moving from on-premises or backups to the cloud.

- **Serverless:** Usually event-driven workloads. How do you decouple and use event based?

- **Machine Learning and Artificial Intelligence:** Innovation, prediction, and automation. This is being used by many organizations.

- **Data and Analytics:** Make data-driven decisions and monitor data with real-time dashboards.

- **Purpose-Built Databases:** There are huge benefits for relational and key values to be in a managed database. There are many options, as well as data warehousing and data lakes.

- **Modern App Development and APIs:** Introduction of DevOps and flexibility with APIs and containers.

Security Perspective

Common Rules:
- CISO
- IT Security Leaders
- IT Security Analysts
- Compliance Leaders

IDENTITY ACCESS + MANAGEMENT

DETECTIVE CONTROL

INTELLIGENT EVENT MONITORING

COMPLIANCE MANAGEMENT

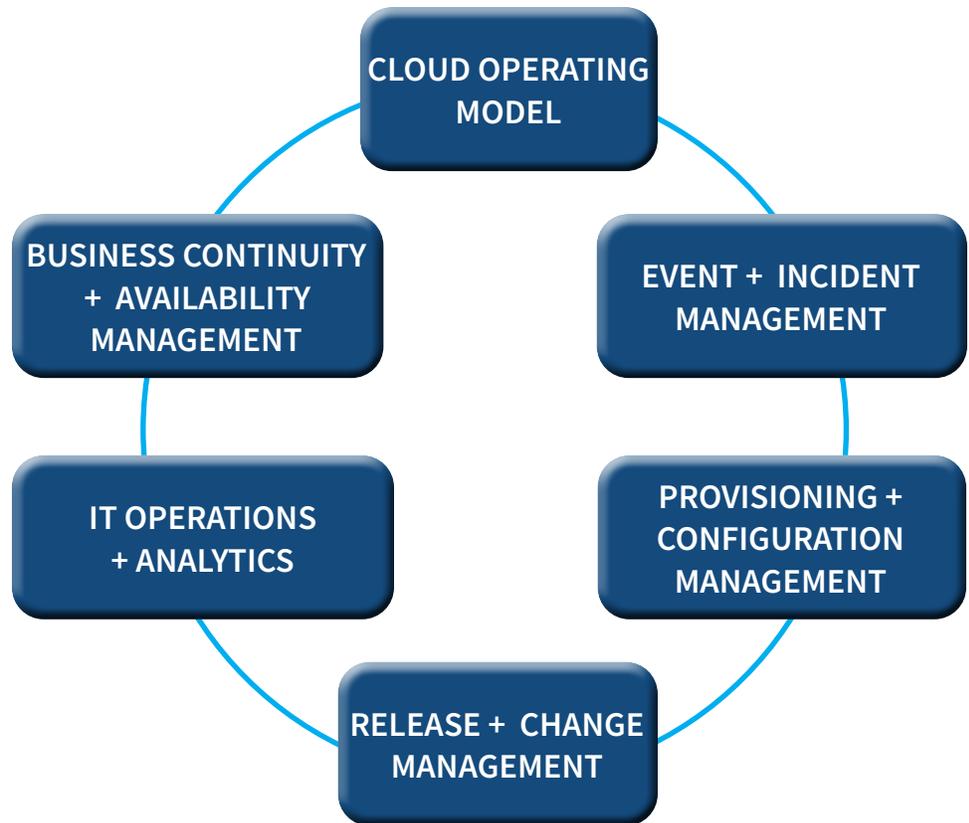AUTOMATED INCIDENT MANAGEMENT

DATA PROTECTION

- **Identity Access and Management:** How will users authenticate and authorize? Where, when, how, and who.

- **Detective Controls:** Think of this as IPS/IDS – prevent and identify any potential threat.

- **Compliance Management:** Addressing compliance frameworks in the cloud.

- **Data Protection:** Encryption types, granular access, and silo data.

- **Automated Incident Management:** How to remediate an incident automatically.

- **Intelligent Event Monitoring:** Real-time predictions in the cloud environment.

Operations Perspective

Common Rules:

- IT Operations Leaders
- Site Reliability Engineers (SRE)
- Platform Performance Engineers

CLOUD OPERATING MODEL

BUSINESS CONTINUITY + AVAILABILITY MANAGEMENT

EVENT + INCIDENT MANAGEMENT

IT OPERATIONS + ANALYTICS

PROVISIONING + CONFIGURATION MANAGEMENT

RELEASE + CHANGE MANAGEMENT

- **Cloud Operating Model:** There are many examples of this, such Cloud Operating Readiness.

- **Event and Incident Management:** Service monitoring, SLAs, SLOs need to be addressed.

- **Provisioning and Configuration Management:** Leverage automation and build service catalogue for on-demand.

- **Release and Change Management:** See what this looks like in the cloud and what needs to be done differently.

- **IT Operations and Analytics:** Use decisions based upon analytics collected from operations and centralized logging.

- **Business Continuity and Availability Management:** Identify what the business needs and map to the cloud offering.

Build an Action Plan

Now that we've discussed the perspectives with all the necessary involvement from the correct Stakeholders, the next step is to build an Action Plan.

Step 1

Use the Common Roles and Capabilities to identify key Stakeholders.

Step 2

Determine the Questions, Challenges, and Concerns from the Stakeholders' perspectives. Document them.

Step 3

Determine if the concern is remediated by Skill; development of a new Skill; or via the creation, update, or integration of Processes.

Step 4

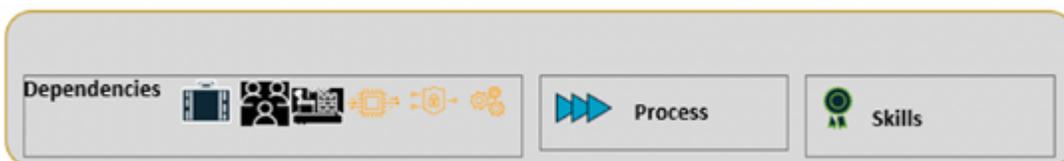Document those activities and the associated Stakeholder(s) in the Action Plan.

Step 5

Prioritize the actions you will undertake in the next 2-4 weeks. This timeline is aggressive, but it is necessary, or the project will possibly never go anywhere.

Key Actions

The below image shows a typical example of a Key Action plan. The six perspectives—which are the most important and fundamental elements—will continue to help break down the enormous undertaking into smaller, more focused areas. Each block below is an initiative, and as with anything, people must work together and excellent change management must be in place in order to drive success.

Key Actions Examples

Dependencies	Process	Skills

	Col 1	Col 2	Col 3	Col 4	Col 5	Col 6
Business Dependencies	Learn about reporting services for billing — Luka M	Learn about variable cost models for IT — Kosta C	Establish a process for billing enquiries — Luka M	Establish a process review cloud funding options within IT Finance — Kosta C		
People Dependencies	Identify roles, skills and capabilities for cloud-based IT — Sara W	Review current support model and identify skill gaps and training plans — Sean S	Establish skills matrix and track cloud certifications — Sara W	Engage training partner to identify suitable training plans — Richard F	Identify communication strategy for cloud adoption — Rob G	Establish process to create cloud evangelists — Sara W
Governance Dependencies	Review how cloud governance will integrate into current governance team — Martin C	Identify roles, skills and capabilities for cloud-based IT — John A	Agree priorities for interim Governance dashboard — Martin C	Map out timelines and adoption processes for initial cloud projects — Jaime F		
Platform Dependencies	Establish patterns and standardization for the cloud — Jeff L	Review patterns for shared services/retail integration components — Jeff L	Review stack delivery mechanism requirements for cloud -MS — Tom M	Review and investigate networking architecture design — Frank F	Review SecOps and service management integration patterns — Mark W (Sec)	Undertake Service Catalog immersion Day — Bob K
Security Dependencies	Review security operations skills and capabilities and identify gaps — Mark W	Create and agree a RACI model around security operations — Tina R	Undertake a security assessment to determine a control framework — Lindsay W	Review end to end authentication methods — Janet S		
Operations Dependencies	Identify BANK service operations processes and align to current operations — Mike M	Identify interim and Target operating model requirements — Ryan S	Review existing operational multi-party processes that cloud will touch — Mike M			

About ConvergeOne

ConvergeOne

Founded in 1993, ConvergeOne is a leading global IT service provider of collaboration and technology solutions. Thousands of enterprise and mid-market customers trust ConvergeOne with customer experience, cybersecurity, data center, enterprise networking, and unified communications solutions to achieve business outcomes. Our investments in cloud infrastructure and managed services provide transformational opportunities for customers to achieve financial and operational benefits with leading technologies.

About the Author

Martin Townend
Senior Cloud Solutions Architect

Martin Townend is a Senior Cloud Solutions Architect for ConvergeOne's National Data Center Practice. Martin has a deep understanding of cloud security and the various public clouds on offer. Martin has focused on cloud for over 10 years, helping organizations on their cloud journey and designing secure, scalable environments. Martin's innovation continues within cloud and emerging technologies.

How ConvergeOne can help with Cloud Migration

ConvergeOne's proven Cloud Readiness Assessments give our customers the Gap Analysis and Infrastructure mapping and predictive costs they need while on their cloud journey.

ConvergeOne has a Cloud Adoption Framework, which is a five-phase process that starts with business alignment and objectives and works with stakeholders to map to the cloud.

Migration

1 STRATEGIZE
Align cloud strategy with business and IT vision.

ConvergeOne Cloud Assessment Model; Cloudamize

2 ASSESS & PLAN
Decide on workload specific strategies; develop migration roadmaps

ConvergeOne Cloud Assessment Model; Microsoft MAP; Cloudamize; AWS Migration Service , AWS App Discovery Service

3 DESIGN & BUILD
Design the target state hybrid architecture, security controls, cloud environment

AWS CloudFormation, AMI

4 MIGRATE & VALIDATE
Securely migrate the workloads to the cloud; validate benchmarks.

AWS Import/ Export.; AWS Server Migration Service Connector VMware AD Federation

5 RUN
Seamlessly transition to "RUN" operations

Get Started Today.

ConvergeOne can help with every step of cloud adoption and is able to use a 60-90-day pilot with a fixed number of Instances.

Start by scheduling a Cloud Strategy Workshop:
www.convergeone.com/cloudworkshop

About ConvergeOne
ConvergeOne is a leading IT services provider of collaboration and technology solutions for large and medium enterprises.

About AWS
Amazon Web Services (AWS) provides a highly reliable, scalable, low-cost infrastructure platform in the cloud that powers hundreds of thousands of businesses in 190 countries around the world.

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