ALCOR
ENABLING CLOUD™

Cloud Management
An Important Practice for Cloud Development, Operations and Security

INTRODUCTION

Cloud is no more a novelty. Organizations of all sizes are considering cloud adoption as a strategic initiative simply because of the many benefits it offers such as cost saving, risk mitigation, and scalability.

93% organizations are currently using cloud services and in less than 2 years, 80% of all IT budgets will be committed to cloud solutions.[1]

The rapid growth of cloud adoption is going to continue in the coming year. The first step to successful cloud adoption is to have a formal, well-defined cloud computing strategy. With well-defined strategy, organizations are less likely to struggle with cloud-related failures, budget issues, and skill gaps.

To ensure that the enterprise cloud delivers its promise of cost-effectiveness, automation, and standardization, enterprises need to ensure that the cloud is optimally managed. Cloud owners should be able to optimize the usage, control costs, and manage security and compliance – without specifically getting locked to a particular vendor. A Cloud Management Software helps enterprises achieve all this – very easily.

According to the 2017 State of the Cloud Survey, optimizing cloud costs is the top initiative across all cloud users, especially among mature cloud users.[2]

In this comprehensive guide by Alcor, you will -

▸ Know in brief what is cloud management and what are the top cloud management challenges

▸ Understand the best practices to be followed for optimal cloud management

▸ Get a quick overview of the role and need of a cloud management platform

▸ Know more about ServiceNow® Cloud Management

WHAT IS CLOUD MANAGEMENT

In simple terms, cloud management is the process followed by cloud owners to monitor and optimize cloud computing based services, software and solutions with an aim to achieve the required efficiency, performance, and overall service level.

The cloud management practice requires participation from both the organization adopting the cloud as well as the cloud service vendor. The ultimate aim of cloud management is to ensure that the cloud computing services deliver the optimal results.

Cloud management involves various basic and complex tasks in IT service management. These include ensuring that the resources are available, ensuring that the software and systems are functional all the time, and implementing security controls.

With a well-defined cloud management strategy and exercise, organizations can –

▸ Maintain a tight control over their dynamic cloud environments

▸ Allow cloud owners to review existing cloud computing instances, monitor costs, observe utilization, and optimize the expenses

▸ Automate workflows to easily translate business policies into actionable steps

▸ Perform ongoing cloud computing analysis to optimize the workloads and enhance the overall user experience

TOP CLOUD MANAGEMENT CHALLENGES

The Right Scale 2017 State of the Cloud survey[3] found that increasingly, companies are using multiple clouds and also more number of clouds. The reason for this could be the rapidly changing digital landscape which demands the use of cutting-edge technology and scalability. IT adoption is also evolving and companies want to keep pace with that. Apart from that, different cloud platforms are suitable (in terms of cost efficiency and performance) for different types of workloads and companies need to choose the best suitable ones.

Considering the fact that cloud management is increasingly becoming more complex, it has become tough to find the right skills and expertise in cloud management. Here are some of the top cloud management challenges faced by organizations:

Security
CIOs and IT leaders are often concerned about the security of data which resides on-premises. With the use of multiple clouds, data security becomes even more complex. Organizations are

trying to tackle this issue by hiring security experts in-house or by hiring security services from experienced cloud providers.

Lack of Skills

To manage cloud infrastructure, organizations need the expertise to define the IT architecture, manage migrations, manage ongoing operations, and also take care of security and compliance. Organizations often struggle to hire and retain the expertise needed to manage such fast-changing complex cloud technologies.

Managing Costs/ Controlling Overspending

Research shows that enterprises adopting the cloud waste more than 30% of their cloud spending. Since many organizations either end up over-provisioning or are unaware of things such as shutting down workloads or selecting the low-cost options or optimizing the consumption, they are unable to get the highest performance and cost efficiency.

Compliance and Governance

The best way to manage the cloud is through focused governance of who is allowed to do what with the IT resources without compromising on the visibility and control. Ensuring such governance is a thoughtful process and requires diligent implementation.

Compliance is another major concern for many organizations before migrating to cloud. Organizations such as healthcare providers, which need to comply with the stringent HIPPA requirements, need to ensure that their cloud infrastructure supports the compliance requirements.

Complexity and Performance

In order to achieve high performance and cost-efficiency, organizations need to look at different cloud options for different workloads and applications. It does not make sense to stick to only one cloud provider because there is no one size fit all situation. Evaluation of the platforms for specific requirements and then managing that particular cloud within the overall IT infrastructure of the organization is one of the most common challenges faced by the enterprises.

Vendor Lock-in

With the organic adoption of the cloud, enterprises end up building their infrastructure based on how a particular cloud provider works. But this can pose a significant challenge in case the cloud provider is unable to offer the scalability and solutions needed for future requirements. Organizations need to be careful about building an abstraction layer which can help them make the vendor switching easier.

CLOUD MANAGEMENT: BEST PRACTICES

Moving to the cloud requires a clear cloud strategy and adherence to best practices. Only then companies can reach greater cloud maturity levels and reap in the benefits of the cloud.

As per an IDC survey[4], organizations with greater cloud maturity saw significant benefits in terms of millions of dollars of additional revenue and significant cost reductions.

Implementing and following cloud management best practices helps in improving agility, lowering costs, and enhancing the overall customer experience. Here are some cloud management best practices to ensure cloud success:

Define strategy

Every successful cloud journey starts with a clear strategy which needs to be tied to the business goals. The strategy should define what the company wants to achieve with cloud adoption vis-à-vis the requirements. It is often useful to have short-term and long-term goals and milestones which can be updated based on the changing business needs. It is also important to get a buy-in from all the key stakeholders.

Build an expert team and center of excellence

Invest in building a core technology team with the right skills and cloud expertise. You might find a certain expertise within the organization or might need to hire from outside. It is useful to have a team with diverse experience. Build a Cloud Center of Excellence which can initiate and regulate cloud management practices across the company. The COE team can be responsible for conducting regular training, establishing best practices, and guiding others to ensure the cloud success.

Select the right vendor for each workload

Every workload or application has its unique set of requirements in terms of performance, scalability, and security. Based on the prioritization of such requirements, the right cloud platform needs to be chosen. Choosing the right platform based on these parameters requires an in-depth understanding of each workload and also the knowledge of servers, data sets, storage, and other such components and their interdependencies.

Start small

Instead of directly jumping into a high-risk complex project, it is recommended that organizations should start with a small project and iterate into large-scale projects by leveraging the leaning from the small projects. The real-world experiences and lessons from failures can help in knowing the exact business impact of any failures.

Track performance data and optimize

Traditionally, organizations used to optimize their data center costs on a monthly or quarterly basis based on the consumption patterns and requirements. With the cloud, there is real-time visibility and organizations can optimize their infrastructure for costs, performance, and usage on a continuous basis and achieve cost efficiency while ensuring high performance.

Implement risk mitigation plan

Risk mitigation plan is one of the core components of the cloud management strategy. It needs to consider all the threats associated with cloud. The mitigation plan should consider aspects such as disaster recovery, backup, data protection etc.

Use automation

Automation helps in reducing cloud management errors and helps in improving the overall reliability and efficiency. Use smart automation for creation, deployment, and monitoring of your cloud applications. Automating repetitive and time-consuming cloud management tasks will free up your resources and will allow them to work on other business critical tasks.

Centralize management

Different access protocols, terminologies, and cloud interfaces for different cloud providers can confuse the IT team and can lead to inefficiencies. Organizations need to ensure that the IT teams are able to manage multiple clouds through a single standardized interface.

Cloud management platforms are integrated products that provide for the management of public, private and hybrid cloud environments. The minimum requirements to be included in this category are products that incorporate self-service interfaces, provision system images, enable metering and billing, and provide for some degree of workload optimization through established policies. More-advanced offerings may also integrate with external enterprise management systems, include service catalogs, support the configuration of storage and network resources, allow for enhanced resource management via service governors and provide advanced monitoring for improved "guest" performance and availability.

Manage Total Cost of Ownership

Inability to manage cloud costs can lead to cloud failure. Optimizing costs does not always mean just saving money. Benefits of the cloud are agility, flexibility, global infrastructure, scalability and more. To rightly define and access the total cost of ownership (TCO), the stakeholders should agree on common goals and objectives of adopting the cloud and optimize the cloud usage based on the defined objectives.

INTRODUCING A CLOUD MANAGEMENT PLATFORM

Multi-cloud environments with different cloud providers create a complicated IT environment. Not all clouds are created equal. They all come with different features and different engineering systems. Also, keeping track of all associated costs of various cloud providers can be challenging. Automating and streamlining the cloud deployment and managing the resources appropriately can be a huge challenge for the IT team in a multi-cloud environment. Cloud Management Platforms come to a rescue here.

A Cloud Management Platform allows companies to:

- Track and reduce costs through constant monitoring and analysis
- Streamline and automate data center operations
- Easily enforce governance policies
- Control costs through self-service provisioning
- Save money and gain competitive advantage through high degree of agility
- Offer better user experience with rapid response to provisioning requests
- Gain more granular visibility on the usage patterns

SERVICENOW® CLOUD MANAGEMENT

ServiceNow® Cloud Management makes cloud management easy by enabling rapid provisioning of cloud resources. It also facilitates consistent management and multi-cloud cost visibility making it easy to manage the public and private cloud infrastructure. This allows IT teams keep pace with business innovations by quickly launching products and controlling cloud costs.

Key Features of ServiceNow® Cloud Management:
Cloud User Portal:
It is a self-service portal which allows users to access all the information about their cloud services and take actions. It shows the users their current spend, quota usage, and the status of all their active resources. Using this interface, users can order new services, make requests, and also check on incidents that are affecting their resources.

Cloud Blueprint Designer:
ServiceNow® Cloud Management separates service design from deployment execution and offers freedom and control using a single System of Action. This enables IT teams to respond quickly to new requirements from the business and also maintain tight control over the resources. Using the Now Platform, IT teams can extend their security, incident, and management control over all their cloud resources and define policies based on a collective set of rules.

Cloud Cost Dashboard:
The solution offers a centralized picture of all the billing information across all the cloud accounts, service category, datacenter, users, and providers give IT teams a complete picture of all the resource spending. Such consolidated cost analysis helps IT planners in improving resource allocation based on specific business needs.
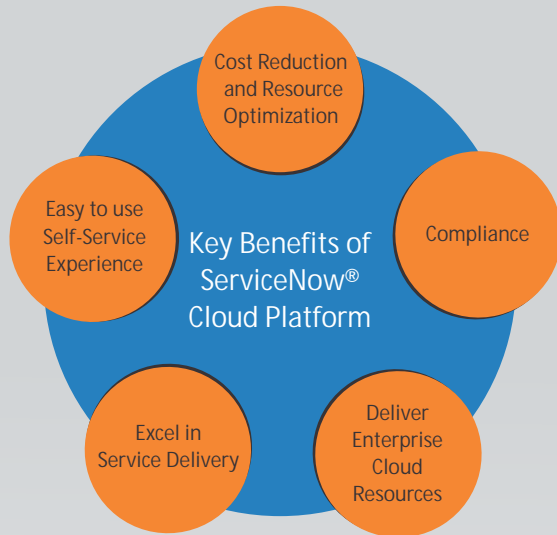
Key Benefits of ServiceNow® Cloud Platform

Cost Reduction and Resource Optimization: Optimize the allocation of cloud resources by analyzing the cost and allocation of all the cloud resources across various datacenters, users, and providers.

Compliance: Ensure compliance and security by allocating the right cloud resources to the right business activities based on coherent policies and rules.

Deliver Enterprise Cloud Resources: Elevate cloud resources to enterprise-class with the delivery of VMs on VMware, Azure, and AWS adhering to consistent processes for configuring data, businesses services, and cloud resources.

Excel in Service Delivery: Automate creation of service catalogs and simplify the design and the deployment of cloud resources. Increase service quality, standardize operational processes and reduce rededication efforts with a single system of action.

Easy to use Self-Service Experience: Allow users to easily order for everything via a fast, consistent, and easy-to-use experience.

For more information on ServiceNow® Cloud Management, visit https://www.servicenow.com/products/cloud-management.html

ALCOR'S EXPERTISE IN SERVICENOW®

Alcor takes a strategic ITSM implementation approach and focuses on solving the business problems of their clients by leveraging an integrated business process design and technology implementation capability. Alcor's ITSM solutions with ServiceNow® leverage a business view of IT services.

The objective is to enable the IT support organization to:
- Quickly resolve or escalate issues and problems
- Improve root cause isolation, and
- Provide higher levels of business user satisfaction.

Alcor brings substantial process expertise; ServiceNow® experience and depth of organizational governance modeling to build solutions that are effective and provide complete life cycle support for Incident Management, Problem Management, Change Management and Configuration Management.

Alcor has experience in Automating ServiceNow® with external applications like emails, active directories, Adobe, assets, and Amazon Cloud Provision (LABS). This includes real-world experience of having worked with enterprises in the banking and financial services and retail sector where we have helped orchestrate transaction volumes running into the 100's of thousands.

Alcor has specific expertise in ServiceNow® IT Operations Management across the three levels- Orchestration, Release Management and Service Analytics. Through effective orchestration, Alcor helps clients launch the right automated process consistently and to codify best practices into the process workflows to save time and money. Alcor's expertise in helping their clients manage Release Management better allows optimal usage of the IT assets, hardware and software, available to the client to ensure effective, timely, uninterrupted and on-demand service delivery. Alcor helps their clients put in place Service Analytics Solutions that gives them the capability to keep track of each and every infrastructure component that impacts overall service delivery.

Alcor achieves this by leveraging their integrated business process design and technology implementation capability. Their professionals are the top talents in the business with deep personal understanding of the business verticals they service. This allows them to deliver flexible solutions that work in the real world. Their strength lies in delivering solutions that are customized to the specific requirements of their customers including complex integrations with the other systems in the eco-system like Financial and Procurement Management systems.

Building effective Enterprise Service Management Solutions is one of Alcor's key business focus areas. Alcor consultants have deep expertise around implementing and managing key IT Service Management processes such as Incident, Change, Release, Problem, Configuration Management & Asset Management. Alcor provides process maturity & technological sophistication when implementing ESM solutions.

CONCLUSION

With a growing adoption of cloud across enterprises of all sizes, there is also a need to optimally manage the cloud resources to really gain the benefits of optimized costs, performance, and scalability. The cloud technology is evolving at a rapid pace and organizations are also adopting multiple cloud providers and types for their different business needs. In such a situation, the IT teams are struggling to manage all IT resources while optimizing costs and keeping pace with business innovations. Cloud Management Platforms offer a solution for these problems. Cloud Management Platforms allow organizations to manage all their cloud resources, costs, and allocation through a centralized system. They also help organizations in ensuring IT governance, compliance, and security. ServiceNow® Cloud Management is one such popular platform being used by organizations worldwide to optimize their cloud utilization and costs.

ABOUT ALCOR SOLUTIONS

Alcor is a global cloud advisory and implementation services company serving Fortune 500, Government Agencies, and other leading organizations in multiple industry verticals across the Americas, Canada and India. Alcor is a ServiceNow® Gold Services Partner and also partners to Salesforce®, FireEye, Microsoft®, Dell, Bomgar, and BigPanda® amongst others. They advise leading businesses on cloud platforms, architecture, enterprise service management and integrating IT service delivery. They also provide business process consulting to capture, re-engineer and improve processes that can easily be automated to deliver real value. The Alcor consulting team has expertise in Business strategy, Cloud Technology and Organizational Change Management.

For more information, connect with them at information@alcortech.com

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Alcor is a technology implementation company focusing on Enterprise and Government technology needs in ITSM, systems integration, web development and mobility space. We provide a strategic ITSM implementation approach to our clients and focus on solving business problems by leveraging an integrated business process design and technology implementation capability.

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