



CLOUD OPERATIONS TECHNOLOGY OPTIMIZES MISSION CRITICAL WORKLOADS

By Brien M. Posey

Although the cloud holds enormous potential as a driver of digital transformation, operating within the cloud is not without its challenges. Early on, enterprise class organizations enthusiastically embraced the cloud because it promised to reduce costs and simplify IT operations. Over time however, the opposite has happened. Cloud sprawl has dramatically complicated workload management and greatly reduced visibility into resources. All of this has led to spiraling costs.

The last several years have seen enterprise IT working diligently to migrate mission critical workloads to the cloud, and to deal with operational challenges such as figuring out how to best protect those workloads. Now that these initial challenges have been addressed, it is time for organizations to begin working to eliminate unnecessary complexity from their cloud environments, while also coming up with a better way of managing cloud resources. By doing so, organizations will be able to decrease their operational costs, and begin to see the savings and ROI that lured them to the cloud in the first place.



MAKING DIGITAL HAPPEN

As appealing as the thought of reducing cloud complexity might be, in practice, it can be extraordinarily difficult to achieve. Business continuity requirements have forced organizations to build complex webs of interconnected services that span multiple clouds. This is in addition to whatever on premises resources an organization may have in place. As challenging as it may be to span workloads across multiple clouds, the complexities are compounded by the fact that most management tools are not designed to work across clouds. A tool that is optimized for use in Microsoft Azure for example, will typically provide little to no support for AWS.

Microland (<https://www.microland.com>) has addressed this challenge by creating a single pane of glass management tool for

hybrid IT, that provides visibility and control over cloud resources, while also helping organizations to avoid cloud sprawl.

Although the management console might be the most visible part of Microland's solution, most of the real innovation happens behind the scenes. Microland has created a next generation Cloud Operations (CloudOps) platform that allows various policies and controls to be applied across an organization's public and private cloud resources, thereby delivering a seamless management and monitoring experience. This end-to-end visibility makes it far easier to secure cloud resources and to maintain compliance, without stifling innovation in the process. Perhaps even more importantly, having increased visibility into the cloud resources that are being used finally makes it

possible for an organization to truly optimize its costs in a meaningful way.

THE MICROLAND STRATEGY

Microland has developed a four step approach to CloudOps that will help customers to reduce the cost and complexity of their cloud operations, while also helping to make these operations optimally successful (see chart below).

Assess the Client Environment

The first step in Microland’s four step approach is to assess the client environment. After all, it is impossible to build an effective CloudOps solution unless you first define what it is that is truly needed.

Microland begins this process by evaluating the client’s existing environment through its Now2Cloud transformation framework. In doing so, Microland seeks to understand the client’s requirements, as well as the tools and processes that the

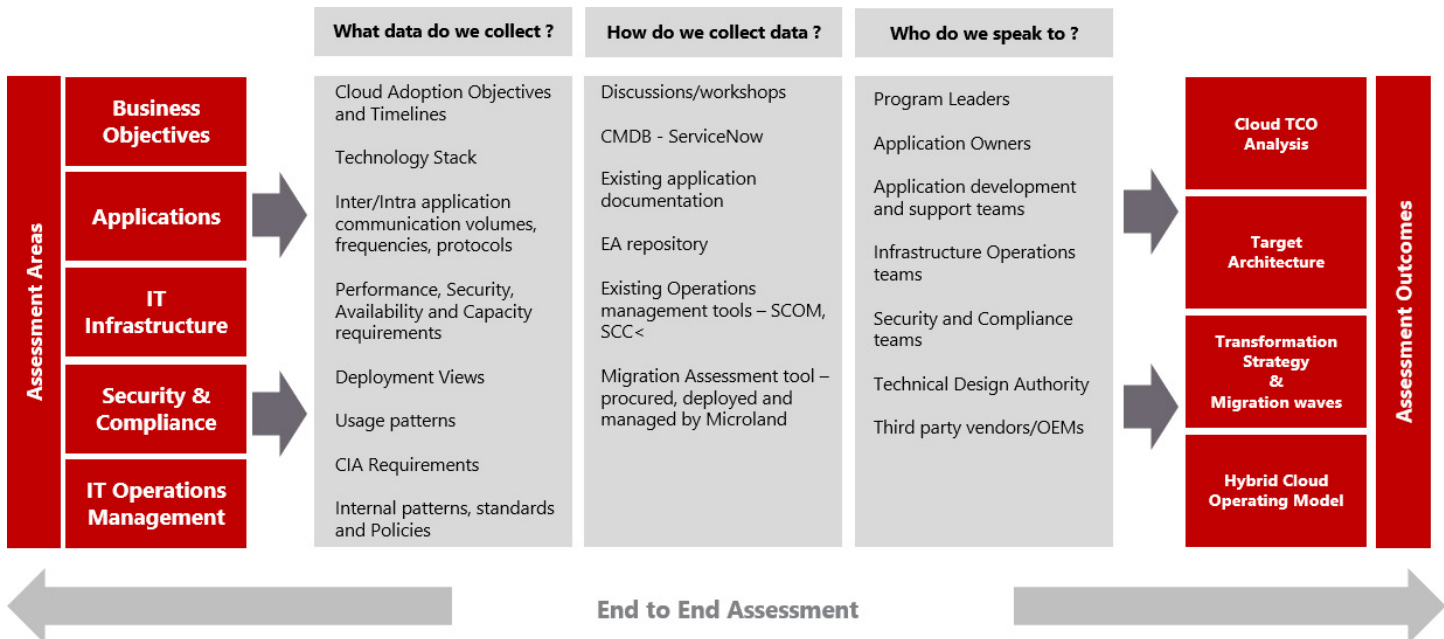
client currently has in place. This allows Microland to perform a gap analysis, identifying operational or logistical requirements that are not being met by the client’s current solution. Once these shortcomings have been identified, Microland creates a plan of action, and provides the client with a detailed report on how best to address the gaps (see chart page 3).

Define the CloudOps Platform

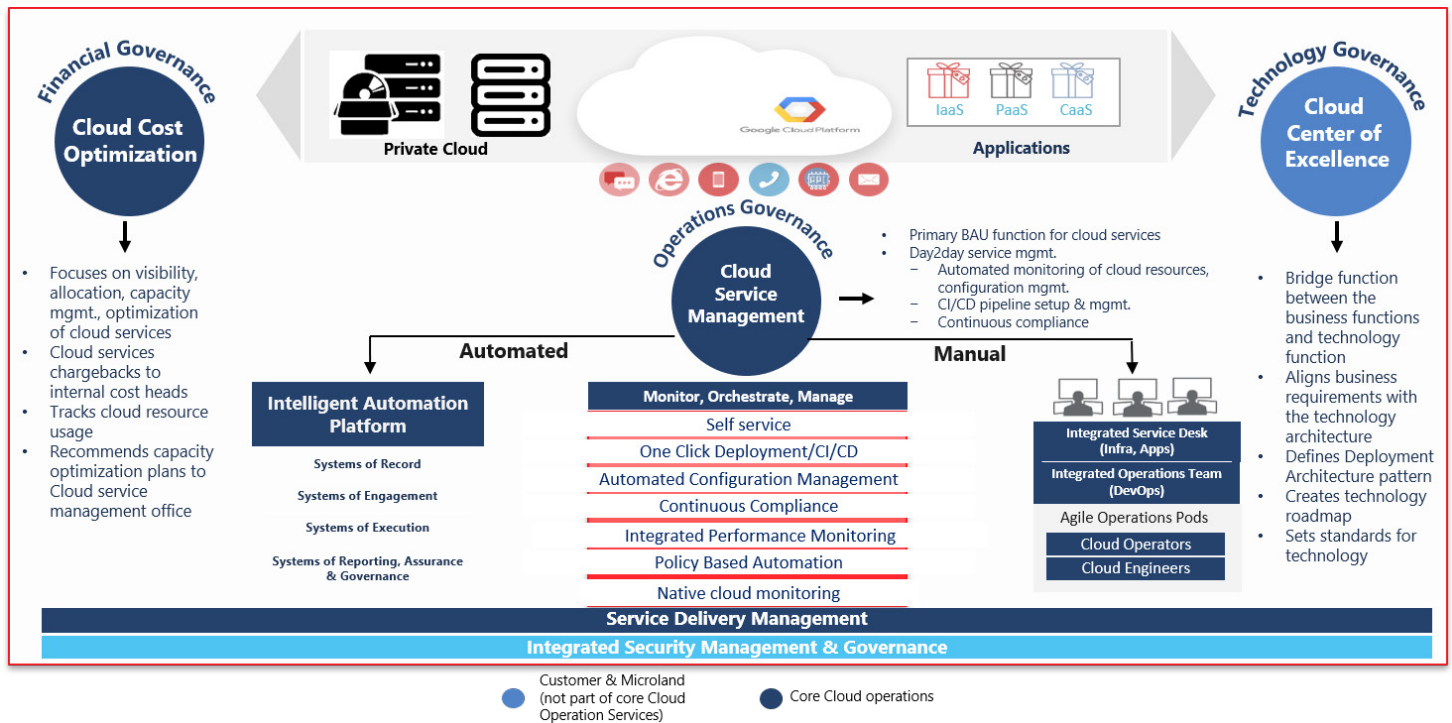
With the gap analysis complete, Microland’s second step is to define the CloudOps platform. While this process involves mapping CloudOps functions to the existing toolsets and defining any additional toolsets that may be required, this is really only the first part of the process. The other significant component to this step is that Microland works to integrate artificial intelligence (AI) into the CloudOps solution.

Microland has found that Artificial Intelligence for AI operations (AIOps) is

Now2Cloud assessment framework



Microland's SmartCloudOps



an ideal solution for managing complex, CloudOps use cases. The technology can be used to handle event triggers and notifications, and to perform automated remediation when necessary.

Build, Integrate, and Automate the Platform

Once the CloudOps platform, and the underlying AIOps foundation has been defined, Microland's third step in its approach to CloudOps is to build, integrate, and automate the platform. Obviously, this step involves creating the environment that will run the client's cloud-based workloads, but Microland's approach also places a heavy emphasis on IT Service Management (ITSM).

Historically, enterprise IT has leaned toward the use of management approaches that are aligned with specific

technologies. Network management and storage management are two such examples. In contrast, IT Service Management focuses on addressing client's needs through the use of appropriate IT services. As such, the client's needs are put at the forefront of the design process, with the underlying technologies acting as tools for enabling those needs to be met.

When building, integrating, and automating the platform, Microland integrates the client's chosen tools in a way that allows them to work together in a cohesive manner. This process also includes defining the service catalog and creating automations that can be used to orchestrate resource provisioning and configuration within the client's environment. Extensive testing is also a part of the overall integration process.

Defining the IT Metrics that Impact the Business

The fourth and final step in Microland's approach to CloudOps is to define a meaningful set of metrics against which the project's success can be measured.

Historically, project metrics have often been synonymous with service level agreements (SLAs). As such, metrics have tended to focus on things like service availability or the amount of time that it takes to respond to a service request. Although these SLA oriented metrics are undeniably important, they are inadequate by themselves.

Enterprise IT is tasked with using technology to solve business problems. As such, CloudOps metrics should not focus solely on how well the organization's technology is functioning, but also on how well that technology is helping the organization to meet its business objectives.

As important as it may be to define the IT metrics that impact the business, doing so is really only the first step in the process. Well defined metrics can help the management team to validate the organization's current state, but any business decisions that are made based on these metrics are by definition, reactive. The business' leaders are in essence, responding to a condition that already exists.

If an organization is to be proactive in its decision making, then real time metrics are not enough. Instead, the organization needs to perform AI forecasting based on metrics and data from multiple sources throughout the organization.

Microland's AIOps platform can be a highly effective tool for parsing an

organization's available data, and deriving meaningful insight from that data.

BEYOND THE PLATFORM

While it is easy to focus on Microland's innovative CloudOps platform, it is ultimately the company's focus on ITSM that matters most. As previously noted, ITSM is based on the idea that enterprise IT's job is to use technology to solve an organization's business challenges. As such, the primary emphasis is always on the business. The various technologies that enterprise IT leverages are merely vehicles for helping to achieve the organization's business goals, and are therefore secondary in importance.

As a way of making digital happen for its clients, Microland has based its CloudOps model around three ITSM oriented services. These services include:

- Cloud Service Management
- Cloud Cost Optimization
- Cloud Center of Excellence

Cloud Service Management

Cloud Service Management is the first piece of Microland's three pronged approach to CloudOps. Cloud Service Management is the thing that most people probably think of when they think about cloud operations. This service is all about making sure that cloud resources are functioning normally, and that enterprise IT is meeting all of its SLAs.

Microland's model for Cloud Service Management is based on adherence to established industry best practices, and on an organization's existing policies. Security and compliance policies for example are used as a basis for the provisioning, configuration, and general

governance of all cloud based resources.

Cloud Service Management is tied directly to the third step of Microland’s four step approach to CloudOps—building, integrating, and automating the platform. Cloud Service Management ensures that as the client’s platform is constructed and automations are created, there is always a focus on adhering to the organization’s internal guidelines and to established industry best practices (see chart below).

Cloud Cost Optimization

The second integral component of Microland’s CloudOps service offerings is Cloud Cost Optimization. As its name implies, Cloud Cost Optimization is tied to cost governance and is designed to help clients to minimize their cloud related costs, while also maximizing the return on their investment.

There are several different functions that are tied to Cloud Cost Optimization, not the least of which is the tracking of cloud resource consumption for the

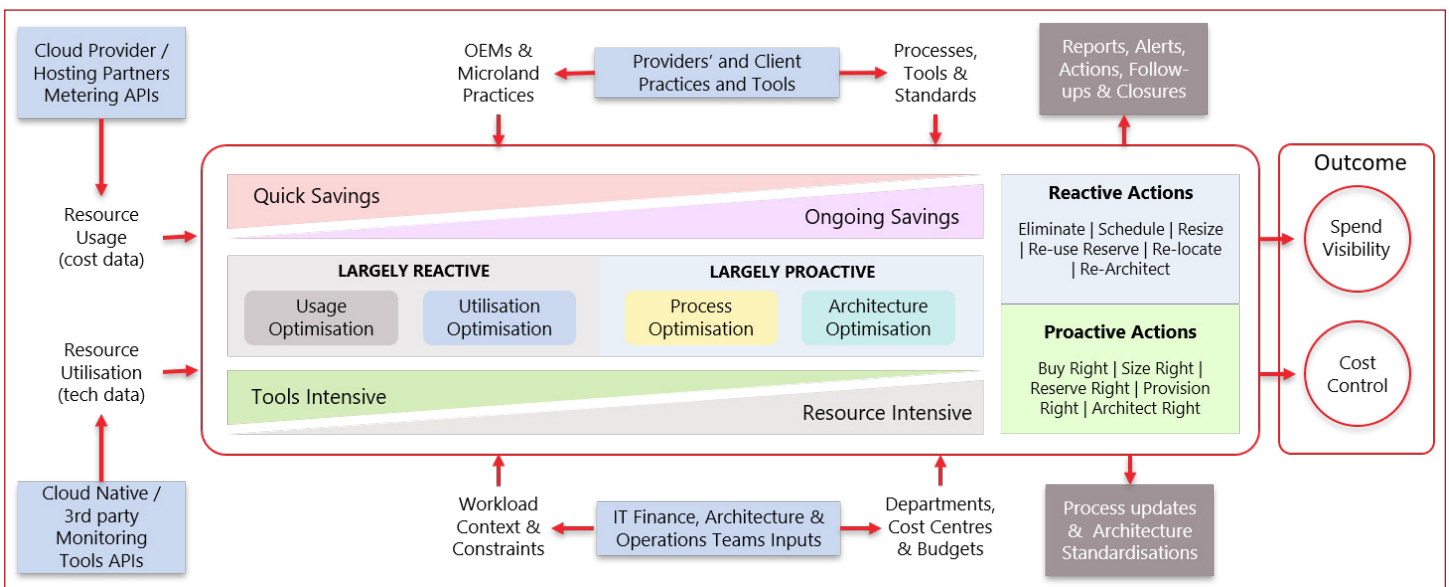
purpose of helping organizations to find areas in which cost savings can be achieved by making adjustment allocations. The resulting recommendations can then be reviewed by Microland, and the organization’s own cloud architects, subject matter experts, and key stakeholders. Any accepted recommendations can then be implemented in accordance with the organization’s own change management policy.

As previously noted, the last step in Microland’s four step approach to CloudOps is to define the IT metrics that impact the business. These metrics are almost always tied to cost, which is a major reason why the Cloud Cost Optimization Center is so important.

Cloud Center of Excellence

The third core component of Microland’s three pronged CloudOps strategy is the Cloud Center of Excellence. The Cloud Center of Excellence is all about adhering to the philosophy of ITSM.

Microland’s Cloud Cost Management Framework



At its core, the Cloud Center of Excellence is designed to ensure that the technology that an organization uses is well aligned with its business goals. The Cloud Center of Excellence comes into play early in Microland's approach to CloudOps. The first step in Microland's four step process was to assess the client environment, and the second step was to define the CloudOps platform based on that assessment. The Cloud Center of Excellence plays a major role in both of these steps. The fourth step in the process, defining metrics that impact business, can be used as a tool for evaluating the Cloud Center of Excellence's effectiveness.

The Cloud Center of Excellence also goes hand in hand with the Cloud Cost Optimization component since technology adoption in the enterprise is so often driven by budgetary requirements.

CONCLUSION

The era of the cloud promised to simplify systems management and drive down costs by moving workloads out of the datacenter and onto hosted platforms. Unfortunately, the transition to the cloud has actually resulted in increased costs and complexity. This can largely be attributed to the use of hybrid clouds and multi-cloud deployments.

If organizations are to eliminate cloud sprawl, drive down costs, and reduce complexity, they will need to adopt a system that maps the use of cloud services directly to business requirements. Additionally, all of the

organization's public and private cloud resources need to be brought under a cohesive management layer that provides single pane of glass visibility and cross cloud automation.

MICROLAND

Microland's delivery of digital is all about making technology do more and intrude less. As we help enterprises move to nextGen technologies, we make sure this embrace of brilliance is predictable, reliable and stable.

Incorporated in 1989 and headquartered in Bengaluru, India, Microland comprises more than 4,500 digital specialists across offices and delivery centers in Asia, Australia, Europe, Middle East and North America.

For more information visit www.microland.com or email us at info@microland.com

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