

Financial Management of the Cloud

With so many organizations adopting the cloud as a core part of their business operations, concerns of cost are a daily occurrence among finance and IT leaders in the US and the UK. In fact, research by 451 on Enterprises' readiness to manage multi-million-dollar cloud budgets found that 57% worry about costs daily and have experienced a negative impact to the business due to poor cloud financial management, including:

- Slower cloud adoption (53%) - without a process for managing how cloud resources are consumed and budgeted, enterprise adoption slows or comes to a halt.
- Negative impact on innovation (25%) - the promise of cloud and freedom to innovate is at risk for organizations who are unable to properly manage escalating cloud spend.
- Lower quality of service (38%) - poor utilization of cloud puts a strain on service levels.
- Sprawl/under-utilization of resources (40%) - visibility is critical to prevent over or under-provisioning of resources.
- Higher cost (22%) - lack of awareness into current spend levels leads to rampant overspending.ⁱ

Cloud adoption, it seems, is a double-edged sword. On the one hand it can greatly reduce costs by eliminating the need for a data center and letting companies off-load to the cloud formerly on-premise resources. However, without visibility into exactly what is happening “within the mysterious cloud,” businesses can quickly become inundated with overrun costs. This white paper takes the mystery out of cloud adoption, going in-depth into specific cost dangers, and provides a sound cloud financial management structure to instill confidence in finance and IT professionals that can dramatically reduce this daily worry.

In this white paper we will tackle:

1. Sprawl or under-utilization of resources
2. Over-utilization of resources
3. Dangling resources
4. A financial management model for finance and IT leaders to follow (FINOPS)

The Heart of the Waste

First, let's get to the numbers. According to ParkMyCloud, \$33 Billion will be spent on compute in 2021. Of this spend, \$11 billion from idle resources will be wasted plus \$6.6 billion from oversized resources for a total of \$17.6 billion in wasted cloud spend.ⁱⁱ Let's take a closer look at these two money drains.

1. Idle Resources – You are paying for VMs or instances that are not being utilized 24x7 but you are footing the bill for them nonetheless. Idle resources are typically found in non-production environments such as quality assurance testing and staging environments that are not continuously used.
2. Oversized Resources – You are paying for large amounts of various resources yet using very little of these resources, if at all. According to Jay Chapel, CEO of ParkMyCloud, about [40% of instances](#) are sized at least one

size larger than needed for their workloads. Just by reducing an instance by one size, the cost is reduced by 50%. Downsizing by two sizes saves 75%.ⁱⁱⁱ

Interdepartmental Confusion

The need for departmental communication is paramount, as cloud management cannot fall under Finance or IT exclusively, without detrimental effects on the company. Why is that? It is clear from surveys done by analyst firms that there is a significant disconnect between IT and Finance that lingers across many organizations.

For example, according to 451 Research, 72% of respondents acknowledged that they have no formal reporting capacity between departments. Additional data suggests the IT department is completely unaware of the burden cloud budgeting has on finance.

- 51% of finance respondents admit to occasionally overspending; whereas, only 37% of IT believe they are operating in the red
- 68% of finance respondents state they are alerted to overspend only after it's too late; whereas, 80% of IT think they are alerted before overspend takes place.
- 82% of respondents rely on cloud vendors, spreadsheets and manual tracking or have no visibility into cloud costs.^{iv}

Where budgets are concerned, 73% in the US and 81% in the UK still treat cloud as a fixed (CapEx) cost rather than a variable (OpEx) expense. In addition, 65% are not doing chargeback/showback despite being worried about cost management.

While cloud adoption across organizations isn't new, managing cloud operations can be increasingly elusive given the lack of visibility inside major cloud vendors and private and hybrid cloud operations. Idle resources and oversized resources as discussed above can bring sound financial cloud management to a halt if there isn't a proper practice and cross-functional team management in place. What is clearly needed is structure and financial accountability within cloud operations.

A Structure Around Financial Cloud Management

FinOps was created for the purpose of bringing financial accountability to the variable spend model of the cloud, enabling distributed teams to make business trade-offs between speed, cost, and quality.

[The Linux Foundation](#) hosts the FinOps foundation to advance the discipline of FinOps and cloud financial management through best practices, education, and standards. The community-driven FinOps Foundation includes 2,700+ individual members, representing more than 1200 companies.

The FinOps Foundation and community works together to define cloud financial management education, standards and advance the ubiquity of this discipline across industries. The organization will support the professionals leading this work by providing development, training, events and certification programs.

FinOps Stakeholders

FinOps stakeholders include:

- **Executive:** CIO, CTO, CFO, VP/Head of Infra, VP/Head of Cloud Mgmt. & Operations
- **Business / Product Owner aka FinOps Practitioner:** Director/Head of Cloud Optimization, Cloud Analyst, Business Operations Manager
- **Finance / Procurement:** Strategic Sourcing, Procurement Mgr., Financial Business Advisor

- **Engineering / Operations:** Engineering Mgr., Architect, Systems Engineer, Software Engineer

3-Phases of FinOps

The FinOps journey consists of three iterative phases — **Inform, Optimize, Operate**.

1. **Inform** gives the visibility for allocation & for creating shared accountability, benchmarking, budgeting and forecasting by showing teams what they're spending and why.
2. **Optimize** empowers teams to identify (over-provisioned or under utilized instances/services) and measure efficiency optimizations (right-sizing instances/services, automating shut-downs/turn-off), then make goals (comparative pricing, centralized buying for reserved instances) based on opportunities.
3. **Operate** measures business alignment on speed, quality and cost, with a collaborative model built around business, financial and operational stakeholders who also define the appropriate governance, thereby enabling finance to operate at the speed of IT, while IT focuses on innovations; together, continuously improving efficiencies, reducing cloud wastage and hence cloud costs.

Conclusion

Predecir understands the challenges faced by businesses of all sizes as they adopt public, private, and hybrid cloud infrastructures. That is why Predecir is dedicated to helping its clients reduce and eliminate wasted cloud spend through its flagship product PREDECIRx, a 2021 Thomas Edison award nominee in Innovation. PREDECIRx provides customers drastic cost-savings through its AI and ML technology and is based on the following four pillars:

1. Visibility into cloud resource usage as it occurs, to remove cost blind spots
2. Predicting the workload
3. Forecasting resource requirements before incurring runaway costs, months in advance
4. Prescriptions that protect customers from budget overruns

Further, Predecir is cloud agnostic for inter and intra cloud operations.

Want to learn more? Email us: patty@predecir.net

About Predecir

Predecir provides cutting-edge technology and services that enables our clients to optimize their cloud usage while minimizing their total monthly spend. We have developed actionable predictive analytics to stay ahead of the curve and improve profit margin and EBITDA. Our system intelligently analyzes the short and long term needs of capital investment for resources to optimize the infrastructure footprint in AWS, Azure, and Google cloud environments as well as private and hybrid cloud deployments.

Want to learn more? Email us: patty@predecir.net or visit us at <https://www.predecir.net/>

ⁱ <https://www.prnewswire.com/news-releases/new-research-finds-enterprises-uneducated-and-unprepared-to-manage-multi-million-dollar-cloud-budgets-top-spenders-share-common-best-practices-for-staying-ahead-300801896.html>

ⁱⁱ <https://www.parkmycloud.com/blog/cloud-computing-growth/>

ⁱⁱⁱ <https://jaychapel.medium.com/wasted-cloud-spend-to-exceed-17-6-billion-in-2020-fueled-by-cloud-computing-growth-7c8f81d5c616>

^{iv} <https://www.cloudability.com/company/newsroom/press-release/cloud-budgets-new-research/>