

Five tactics for taming the cloud complexity beast

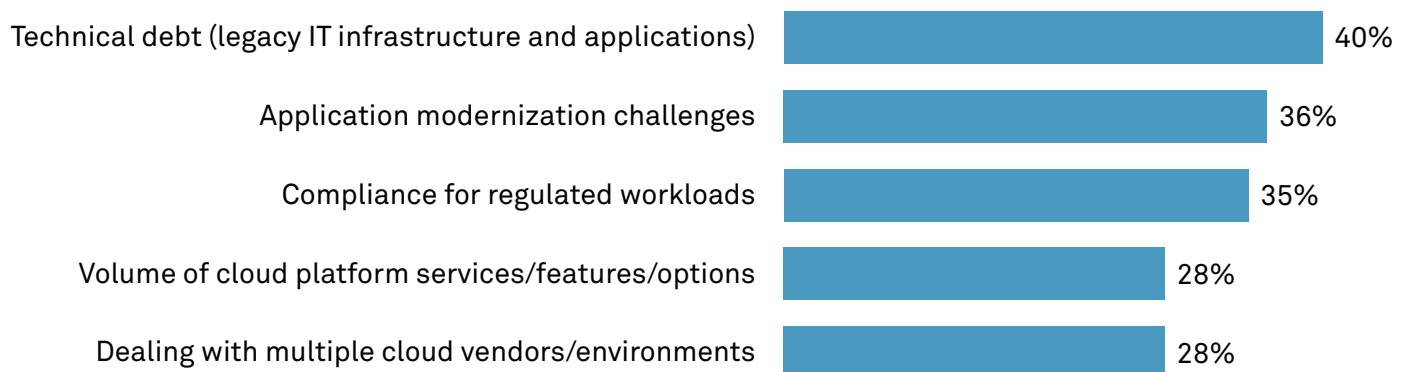
by Jean Atelsek

Businesses are spoiled for choice in today's IT market. Imagine shopping for groceries in a supermarket with 1,000 aisles – that's what is on offer for today's IT decision-makers.

451 Research's Cloud Price Index is now tracking over two million compute SKUs from major public cloud providers. Add in a growing number of storage, database, networking and other services, and you get a perfect storm of complexity. Not only are buyers considering an ever-growing variety of public cloud resources, but frequent service and price changes – in Q2 2021, the CPI captured 440,000 price increases, price decreases, service additions and service removals from hyperscaler billing APIs – make decisions exponentially more complicated.

Recent 451 Voice of the Enterprise research reveals that top contributors to extremely complex cloud environments include legacy infrastructure, application modernization, the large volume of current cloud options, and the difficulty of dealing with multiple cloud vendors and environments (see figure).

Top Contributors to Extremely Complex Cloud Environments



Q. Which of the following factors have contributed to the complexity of your organization's current cloud environment?
Please select all that apply.

Base: Cloud environment is extremely complex (n=144)

Source: 451 Research's Voice of the Enterprise: Cloud, Hosting & Managed Services, Organizational Dynamics 2021

Cloud providers have developed a number of techniques to help customers address these factors that contribute to complexity. For example, many have built bridges between on-premises and cloud resources (e.g., Oracle Cloud@Customer, AWS Outposts, Azure Stack). These so-called 'cloud to ground' initiatives use hardware appliances to extend the cloud environment into a customer's datacenter. While many of these offerings make only a subset of cloud services available on-premises (not surprising, given the massive hyperscaler catalogs), Oracle's Dedicated Region Cloud@Customer is designed to fully replicate the functionality of Oracle Cloud Infrastructure at the customer location.

For app modernization, cloud providers offer frameworks, documentation and tools to help buyers assess their on-premises environments and determine which are likely to deliver the speediest ROI when shifted to cloud. Make no mistake, this process involves careful planning and heavy lifting in terms of assessing and architecting workloads for efficient cloud operation; it is not simply a matter of containerizing or duplicating an application in a different environment. Oracle's recently announced Cloud Lift program promises comprehensive engineering resources to facilitate this process, using a range of tools to help migrate up to 10 applications for free. Other examples include Azure Migrate and Google cloud-native application development.

In terms of dealing with the sheer volume of cloud services available, providers offer a variety of commitment discounts. These programs lower costs, help with budgeting and provide predictable pricing over a one- or three-year term. In 2017 Oracle introduced Universal Credits, enabling a single SKU to be applied to all Oracle IaaS and PaaS services, reducing friction in the procurement process. It also supplemented 't-shirt sizes' for compute resources by allowing flexible vCPU, RAM and storage provisioning to better match application needs. Other examples of commitment discounts include AWS and Azure Reserved Instances and Google committed use discounts, which apply primarily to compute resources.

Oracle is one of several system vendors seeking to transition customers from a license model to a subscription model for as-a-service metered consumption of infrastructure. Oracle's Support Rewards program takes a novel approach to enabling this change, encouraging customers to shift from maintenance contracts to cloud. The program is based on Oracle's Universal Credits model, designed to smooth the cloud procurement process via credits that can be deployed to purchase any Oracle services. Support Rewards applies at least \$0.25 of every dollar spent on Oracle Cloud Infrastructure to reduce existing on-premises support fees. HPE GreenLake and Dell's new Apex program are other prominent subscription-based infrastructure offerings.

Finally, for globally distributed workloads, uniform pricing across geographies enables predictable spending, even during global expansion or workload failover. Cloud vendors including OCI have sought to keep pricing simple through this model, whereas AWS, Azure and Google Cloud charge different prices by region for many services.

For the cloud technologist today, managing even straightforward IT environments takes knowledge and skill. In a world of ever-expanding options for IT services, choosing one or more vendors that provide cloud-to-ground connectivity, included services for migration, flexible and consistent pricing, and commitment discounts can help sort through the decision-making process.