Bringing Cloud out of the Shadows

Most enterprises have little visibility or control over worker self-provisioning of cloud services. Discovering the extent and learning how to manage this issue is vital to controlling costs and compliance.
Delivery of IT services has been traditionally fraught with delays and frustrations. Rather than wait months or even years for what they believe are critical business needs, workers and managers today are often able to self-provision cloud-based services outside of the purview of IT and financial management. But while this may increase business agility, lack of visibility into what is being used by how many can lead to duplication, inefficiency and potential security and compliance issues.

Most organizations could gain greater leverage over service providers if they were better able to discover and centrally manage licenses for these resources. At the same time business departments and many CIOs are reluctant to try and force cloud services acquisition into the traditional IT asset procurement process.

Cloud services are proliferating rapidly. In many cases they are remarkably easy to self-provision, which allows business workers to begin using them quickly. Oftentimes this results in employees signing up and expensing the costs, a concept known as "Shadow IT" that is largely invisible to IT and financial management. Employees may even be using consumer-grade services with little insight into potential security and compliance risks.

In part, this reflects the consumerization of IT that has taken enterprises by storm. End user productivity, often dramatically increasing productivity and collaboration, but also diluting traditional governance processes.

An IDG Enterprise survey of IT executives and professionals on the impact of consumerization of IT found that 52 percent of companies with 1,000 employees or more indicate they have experienced integration issues with their security platforms and consumer applications and that 48 percent say they have inadequate insight into end-user activity. In addition, 47 percent say end users are adopting cloud services from smaller startups and consumer companies.

"The challenges that businesses face today are similar to those telecom expense management faced 10 years ago," observes industry analyst David S. Linthicum in a 2014 Gigaom Research report.

But there is a difference, Linthicum noted. "While cloud and telecommunications are both services, itemization is far less developed in the cloud, making cost assignment more difficult to track post-consumption. In this regard, cloud is more akin to utilities: While businesses could simply take the cloud provider’s word, detailed logging of true usage is necessary to validate that costs are legitimate and to provide an audit trail for further validation."

Various reports have found that enterprises consistently underestimate the scope of cloud services being utilized by their workers. According to a recent survey by IDG Research Services, more than 40 percent indicate such use is often discovered serendipitously during maintenance or upgrades of other applications. The second most widely reported discovery method is when users of rogue services contact enterprise help desks for support. Others find out when somebody spots expense report submissions for unauthorized provisioning.
What’s hiding in the shadows?

While cloud services often are instrumental in achieving business goals, they can also create a morass of hidden costs and risks.

“We’re seeing outcomes with a number of larger clients who thought they were spending a couple million dollars on cloud services and, lo and behold, they’re already up to $30 million and we haven’t yet crawled through everything they’re consuming,” says Ken Lienemann, senior vice president at Tangoe, Inc., which provides software and services to manage the assets, expense, usage, and analytics associated with an enterprises’ IT expenses.

“Cloud computing is more often an on-demand environment, more of an operational expense where fees are variable and vary based on consumption. The internal processes in many enterprises really haven’t adjusted to that yet.”

— Ken Lienemann, senior vice president, Tangoe, Inc.

How Does Shadow IT Really Affect Your Business?

BY KEN LIENEMANN

Using applications without the explicit organizational approval of IT has been a known issue for decades. Dubbed “Shadow IT” for obvious reasons, this phenomenon needs to be viewed through a different lens given today’s new generation of connections and apps.

Most people think about the security implications of Shadow IT. But it may also negatively impact productivity and introduce greater complexity into managing business data.

Cloud applications start with the premise and promise of increased productivity, reduced impact on IT staff, and lower cost of ownership. Think of project management apps in the cloud — most offer real-time collaboration across departments and outside of the firewall with partners and vendors. This eases the burden of data and files clogging email inboxes.

But, if the business does not have a clear-cut strategy that leverages an enterprise-level application, different groups may try different project management cloud apps. This could result in your data residing on several different, disjointed platforms that absent a coherent connection that can be secured, shared, or monitored by the IT department.

There are dozens of project management apps out there, so if the marketing department uses one app while product teams are using half a dozen different apps, you can imagine the problems that can arise. That adversely impacts the integrity of data, not just as it sits in disparate clouds, but also as it resides on various devices and network endpoints around the world.

People expect cloud apps to reduce the impact on IT staff. But the complexity of discovering and managing data now becomes a monumental project that the business will expect IT to fix.

Recent analyst studies have pulled back the curtains to reveal that some enterprises have hundreds of instances of cloud apps running unbeknownst to IT. Extend that to different silos, regions, and countries, and the result is absolute data and communication chaos. In such an environment, initial low cost of ownership quickly flies out the window.

To solve the Shadow IT problem, business leaders must pull together and agree on a cloud application plan. The right cloud management partner can help you determine the best course of action across all departments, thereby creating efficiencies and saving time and money while still allowing you to retain control over your data. If you don’t have control over your cloud environment, it may be time to join forces with an expert cloud service that can shed light and bring visibility to the Shadow IT situation.
Organizations have an average of 613 cloud apps in their environment — a 46 percent increase over the last 12 months, according to the cloud security experts at Netskope. So if you haven’t been thinking about cloud, now is the time to get in front of it.

First and foremost, the enterprise processes you have in place today to activate, track, and retire physical assets are not equipped to handle the virtual licenses associated with cloud services. Cloud licensing models vary and can be complex depending upon the cloud delivery model (SaaS, PaaS, IaaS) and the contract terms.

The larger the corporation and the greater number of cloud services in use, the more licenses will need to be managed. So if you aren’t able to track license capacity, you can quickly find yourself out of compliance and potentially provisioning new licenses at a premium, well above your contracted rates.

Case in point: One Tangoe client was attempting to manage Adobe licenses via spreadsheets, but quickly lost control over the scope and found itself out of contract compliance. Without knowledge of how many licenses left to distribute, the client requested additional licenses that went beyond what had been contracted. Subsequently the client was audited and billed at a 120 percent premium for each license over compliance.

The flipside of over-capacity is a situation where licenses seem to, quite literally, get lost, especially when an employee leaves the company or moves to another department. Licenses assigned to such an individual may never be reassigned, even though the company is still being charged for their use.

These licensing issues can push a department or organization closer to any license capacity caps and closer to being out of compliance with contract terms.

The results of a Gartner report show that there is a 63 percent chance that organizations will be audited within the next twelve months. While these audits have traditionally been focused on larger organizations (5,000+ employees), the focus is shifting to smaller organizations (less than 1,000 employees) as well. If you think you’ll never be a target for an audit, think again.

The bottom line is that virtual licenses need to be tracked and managed just like any other asset. Subscription licenses that are not being used need to be retired or reassigned to new users, which can be difficult without a system designed to manage them.

Managing cloud licenses in a systematic way requires tools that support change management and capacity tracking. Those tools should enable inventory and capacity tracking, cloud vendor management, consumption management, cost validation and allocation, and the ability to optimize licenses and contracts.
Many businesses may be unknowingly racking up large expenses in the form of individual service subscriptions for which they could obtain a more cost-effective enterprise subscription rate. “Cloud service providers don’t necessarily do business the way traditional IT companies did,” says Lienemann. “Their idea of contract terms may be month-to-month, while others may lock in terms for a year and require payment on unused licenses until the term is up. So there is tremendous opportunity for enterprises to take advantage of increased leverage if they can get their arms around how these services are being consumed.”

**Shining a light on usage**

Traditional IT asset management tools and processes aren’t equipped to deal with the often fragmented acquisition of cloud services that are priced based on a variable subscription model. Cloud services are more akin to mobile telecom services when it comes to billing, auditing, and chargeback, than to traditional enterprise software licensing.

 Enterprises need to take additional steps to assess cloud usage and discover the extent of the issues.

“There’s an easy way and a hard way to do this and both can work,” says Anne Marie Murray, senior product marketing manager at Tangoe. The harder way is to comb through accounts-payable records searching for cloud service providers being paid and tasking business unit managers with creating an inventory of what’s being used. “That takes a lot of legwork and it’s tough for a big organization, particularly as you may need a list of hundreds or thousands of cloud service providers against which to track expenses,” Murray observes.

The easier way is to use cloud discovery tools that review web logs and identify all the cloud services that are being accessed within the organizations. But that is still going to require additional effort to track down contracts and create automation and processes to catalog service agreements, validate bills against usage, and ensure license compliance.

Based on more than a decade of providing telecom expense management solutions, Tangoe in early 2015 launched its MatrixCloud solution to enable the connected enterprise to centralize and control Software-as-a-Service (SaaS), Platform-as-a-Service (PaaS), and Infrastructure-as-a-Service (IaaS) cloud expenses. Matrix is designed to provide visibility, tracking, auditing, and chargeback capabilities for cloud license, expense and capacity management.

Lienemann says with its technology and consulting services, Tangoe aims to provide IT, finance, and procurement departments with the information and analytics to optimize licensing and the consumption of cloud services without stifling the flexibility and creativity of business units.

“Those centralized functions can help the business units be more responsible stewards of their resources without disrupting what the business units are doing operationally,” he says. At the same time, he adds, business units need to recognize that as cloud expenses climb, they are going to be increasingly held accountable for outcomes. “Nothing goes unregulated forever and the best way for business users to get on board is in a way that doesn’t limit their authority and ability to get the job done.”

“Centrally monitoring and managing cloud-computing expenses and cloud resources can help companies derive the best value for their businesses.”

— Ken Lienemann, senior vice president, Tangoe, Inc.
Maximizing the benefit of Cloud

The provisioning of IT services traditionally was a very deliberate process, typically involving a capital asset purchase involving the heads of IT, finance and procurement and in support of deliberate business processes that are intended to be in place for sustainable periods. Cloud upends that and only by better understanding, controlling, and managing cloud services can enterprises fully integrate cloud into the lifecycle management of its technology assets.

“Most enterprises don’t know if they are paying too much for cloud services,” Linthicum observed. “Centrally monitoring and managing cloud-computing expenses and cloud resources can help companies derive the best value for their businesses.”

Furthermore, he advised, “Before the number of cloud services grows too numerous and difficult to inventory and track, enterprises should follow a well-defined process for implementing cost management and governance.”

Many IT organizations have not yet implemented a coherent cloud computing IT policy to govern use of cloud applications and services within the enterprise. Without such policies in place, workers are likely to feel unconstrained in using whatever cloud services they want, whenever they want it.

Accounting for Bring Your Own Cloud

BY ANNE MARIE MURRAY

While the challenges and effects of the Bring Your Own Device (BYOD) trend still linger, a new organizational and financial challenge has emerged center stage: Bring Your Own Cloud (BYOC).

The adoption of cloud applications has become so pervasive in today’s enterprise because it can be faster, easier, and/or less expensive than having the IT department build custom applications to fulfill specific enterprise needs. Many of these cloud services offer free trials or low cost subscriptions, prompting employees to sign up without a complete understanding of the consequences.

Many companies don’t want to stifle creativity and the agility that such services enable. But in order to properly support a BYOC environment, they need to create transparent policies that promote awareness of cloud applications and the possible ripple effects throughout the company.

Establishing such policies would clearly define which cloud services can be used and who is authorized to sign contracts and agree to add-on services. This would help bring a welcome order to the enterprise by reducing risks and maximizing the benefits that the cloud has to offer.

The following are crucial to managing cloud and avoiding chaos:

- **VISIBILITY:** One of the biggest challenges to gaining visibility inside the organization is collecting all the relevant invoices and contracts. Once these are collected, it’s important to know who in the organization is using the services so that asset costs can be properly allocated. Departments commonly sign up for these cloud solutions independently, which makes tracking down invoices, contracts, and associated departments and users quite difficult. Unlike telecom, these cloud services are coming in through all different departments where employees feel empowered to contract out, negotiate, and at times even pay with their corporate credit card. These transactions do not involve the finance department until they need to be reimbursed.

- **CONTRACT MANAGEMENT:** If the stipulations, guidelines, and terms of a contract are not being monitored, enterprises may experience a rude awakening. They may find auto-renews they didn’t know existed and discover a rocky billing landscape that grows in complexity by the day. They also may find that they are being charged for licenses that were purchased beyond what they’ve contracted, potentially resulting in paying premiums on those additional licenses. Some cloud vendors raise rates or announce higher rates once the company has fully adopted the solution. Furthermore, finance needs to determine how it is going to keep track of this new “asset.” Cloud invites new and often unknown billing techniques, while invoices likely contain no clear asset identifiers. Enterprises need to determine if they’ll be defining assets by application/service name, account, vendor, or quote number, and then ensure that contract rates are negotiated fairly and that billing is charged in compliance with contracted rates.

- **FINANCIAL INTEGRATION:** The disparate information about these new assets needs to be uploaded into an inventory storehouse that can provide a snapshot for consolidating and drilling down into the different pieces of critical information to help contain the assets and associated costs. So, in other words, create a single view of all the cloud contracts. You need the ability to assign an identifier to different assets, manage the different licenses, track capacity, assign license owners, and set up contract actions like renewal alerts and more.
Most organizations should begin with a cloud maturity assessment and a process to discover exactly what cloud services are in use across the entire organization. Only then can IT begin the process of examining their entire cloud universe and implementing a cloud procurement process. Part of that process involves cataloging all relevant license agreements and collecting data on usage and costs to better manage vendor relationships.

“Enterprises can really start to look at usage of applications and data on user devices and start to correlate to forward thinking outcomes,” Lienemann says. “Customers can leverage our business analytics across these huge amounts of data associated with IT assets, expense and usage to better understand business outcomes, and drive improvements.”

Learn more about MatrixCloud

MatrixCloud is the first available of five new solution lines from Tangoe leveraging the Matrix platform, a connection-focused, purpose-built software architecture that manages the assets, expense, usage, and analytics associated with an enterprises’ IT expenses. Complementing the MatrixCloud solution is Tangoe’s Cloud Advisory Service, which provides organizations an objective assessment of their cloud environments to help them make decisions around current and future investments, control costs, and minimize risks.

For more information, please go to 
www.tangoe.com/MatrixCloud