Don't Let Your WACs Go to Waste

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CPU, Memory, Storage, Disk I/O, LAN I/O, and WAN I/O are all components that make up compute resources and infrastructure costs, but aren't widely seen as tradeable assets on an open market. Not yet, at least. Chicago-based cloud exchange, UCX, is addressing challenges faced by the buyers and sellers of Infrastructure as a Service (IaaS) assets, including the lack of standardization across cloud components and the inherent flaws of allocation-based pricing with today's Cloud Service Providers (CSP).

By metering cloud components to gather consumption information, UCX is able to measure and standardize the compute resources into a single unit of measure called the WAC, which can be bought and sold on their exchange like a commodity. This disruptive pricing model offers buyers the option to purchase only what they consume and sellers the ability to sell excess capacity, hedging risk of underutilized assets on the balance sheet. In a brutally competitive market with more demand than supply, UCX has transformed the way cloud buyers and sellers transact cloud contracts through their innovative consumption-based financial products.

Predicting Cloud Spend Brings a Host of Challenges

CTO's have seen a host of challenges in predicting yearly cloud costs against these disparate, unpredictable components that lack standardization or a single source of truth for historical compute resource usage. Without a proper predictor of cloud consumption, CFO's are left with pricing inefficiencies associated with underutilized assets, that are not only expensive to maintain, but also pose unique challenges in reconciling operational expenses against forecasted needs. DC analysis specializing in information technology expects cloud software will grow to surpass $112.8 billion by 2019 at a compound annual growth rate (CAGR) of 18.3% and "By 2019, the cloud software model will account for $1 of every $4.59 spent on software." Without an accurate picture of IT spend, modern enterprises are exposed to an enormous amount of risk on the balance sheet.

The shift to the cloud is still nascent. Only in the past decade have companies shifted to the Infrastructure as a service (IaaS) model offered by Cloud Service Providers (CSP) such as Amazon Web Services, Rackspace, IBM SmartCloud, Google Compute Engine, and Microsoft Azure. This allocation-based pricing model provides several strong use cases for subscribers who are looking to reap the benefits of virtualization without the risk, overhead and know-how that comes with owning and maintaining the servers, hardware, software and network components behind on premise infrastructure. Subscribers of IaaS (Infrastructure as a Service) benefit from peace of mind and on-demand scalability. That is assuming they are at or near 100% utilization.

The Workload Allocation Cube (WAC): A Market Moving Measurement

What positions UCX extremely well is their exclusive rights to the Workload Allocation Cube (WAC), which is the first ever patented unit of measure for IT. The WAC takes the aforementioned six core components that make up a company's IT spend, meters it and standardizes it into a single comprehensible unit, like a kilowatt hour. Leveraging CME Group's trading platform, UCX provides a

centralized price discovery marketplace where financial contracts can be bought and sold, brokering a whole new relationship between CSP's and enterprises with a whole new asset class of exchange traded products. This first ever quantifiable metric of consumption has created a commodity trading exchange for the buyers and sellers of unused WACs. The WAC enables CTO's to align their budget against actual *metered* consumption as opposed to *predicted* allocation, essentially a "pay as you consume" model.

If You Don't Use It, You Lose It.

The truth is that most of the time, IaaS contracts are bloated to cover all the "what-if" scenarios like disaster recovery and demand spikes, when in reality the end-user ends up with idle assets. The buyer is still on the hook for the underutilized space, and the supplier is on the hook to manage the storage at the data center.

When an instance is provisioned, subscribers pay for 100% of that box whether or not it is fully utilized throughout the lifecycle of the contract. It's much like the minutes contracts offered from cell phone providers. They provide a block of minutes to use in a month, and whether or not the minutes are used within the specified time frame, the buyer still has to pay for the full amount. Similarly, small-to-mid-market companies might only consume 30% of their allocated compute resources, but remaining dollars must be written off as an operational expense. Even large scale enterprises with more predictable resource needs are not insulated from variable losses like idle resources or system downtime. As such, it becomes extremely difficult to achieve cost efficiency and scalability with too many usage variables to truly forecast consumption needs. Without a common denominator to predict consumption or a strategic way to optimize costs in this model, CEO's cannot strategically grow an enterprise.

Pay for Results, Not Hardware

Infrastructure as a Service is not the only market seeing pricing innovation. In fact, this whole concept of "renting" critical assets is not a new one. Many companies have been shifting towards a consumption-based model for years. Take the solar Power Purchase Agreement (PPA), a widely accepted and proven financial vehicles that drove solar adoption. The PPA is a contract between buyers and sellers of solar electricity where buyers reap the benefits of solar energy like lower utility bills without actually owning the hardware. The actual measurable results come in the form of kilowatt hours, not the solar panels themselves. But it's Solar Hot Water that draws the closest analogy when comparing an allocation based model to a consumption based model. As the warm sun heats up the thermal collector, water pours into an insulated tank. If the hot water is not used, the energy from heating the tank is wasted.

GE Aviation also proved a radical pricing model through its Maintenance Cost per Hour offering, in which their airline customers purchased engine uptime or per hour use rather than owning the critical assets themselves, including all the associated parts maintenance. According to Patrick Lefner in "Innovating with Price," "GE's strategic use of the power-by-the-hour concept has helped it transform the competitive position and profitability of its commercial aircraft engine business: It now accounts for the lion's share of engine sales and has the highest margins in the business." This trend is not going away, and UCX's model further solidifies that consumers want solutions, not products.

Paradigm Shift in Cloud Economics

This paradigm shift in cloud economics is far beyond proof of concept stage, as many companies are already trading UCX contracts openly on the platform. As of January 2016, over 12MM WAC Hours have

been traded globally, and the healthy pipeline of interested STAR Certified CSP's proves that this model is beneficial for both buyers and sellers. UCX Members enjoy peace of mind in knowing that they are simply able to pay for what they use, while CSP's are given access to new sales channels at a lower cost of customer acquisition. And, with the help of CME Group licensing the exclusive 20-year rights to develop WAC futures and options products from UCX, WAC Financial Products have gained credibility. This is an optimal way to manage costs, forecast future needs, and hedge risk against compute resource costs. It also eases administration by providing one single platform to buy/sell compute resources. The WAC is not just a standardized unit of measure for your compute resources; it provides a universal language across your enterprise, from IT to Finance, by allowing an apples-to-apples comparison of IT expenditures with other enterprise expenses.

Buyer-Friendly Contracts

UCX keeps the barrier to entry low on the exchange, offering three types of buyer contracts: **Pay-as-you-Consume (PayC), Fixed-Forward, and Good til Consumed,** each designed to suit the variable needs of their buyers.

With the WAC meter, members on the platform are easily able to measure their usage and set a price discovery baseline for their contracts going forward. The PayC contract enables organizations to pay for the amount of compute resources they consume at the end of each monthly contract term, like an electricity bill. The Fixed-Forward contract, similar to the solar PPA, is instead designed for buyers that understand exactly what they are utilizing over a period of time so they can lock in a set WAC quantity and (often lower) price. The Good til Consumed model allows buyers to purchase WACs up-front, and fill up again when they are "getting low," similar to a tank of gas. Enabling members to resell their unused capacity in the form of WACs doesn't just insulate members from risk, it empowers them to respond to the ebb and flow of their usage and minimize risk.

Traditionally, it has been difficult to comparison shop for cloud storage with each CSP boasting different value propositions such as storage performance, API calls or compute resources scalability, resulting in disparate, multi-tenant options to manage. UCX takes this out of the equation completely by leveling the playing field across suppliers and promising fair market value for the amount of WACs buyers need.

Different Use Cases for Buyers and Sellers

The exchange makes sense for anyone who consumes compute resources, whether it be for variable usage, software development, new implementations or project work. Specifically, for cloud consultants doing system integrations, massive development projects that require agile development, migration and testing for clients, offering cloud capacity as a tradeable product could be a huge game changer. Fluctuations in usage for things like seasonal business, live events, development, sprints, testing, contract work, transitioning to the cloud and other apps give power back to the consumer by allowing them to control their own IT spend. The bottom line is, UCX provides consumers with more operational agility, security, resource scalability and lower costs and more accurate forecasting with metered usage of the WAC.

Bear With Me

While the WAC is gaining momentum in the world of cloud computing, with interest also rising in Indian and European Markets, full adoption will not come without challenges. Aside from having to educate

CSP's and consumers, the exchange will likely face regulation in the future. Particularly, as UCX takes on more contract types for various verticals such as HIPAA for healthcare and SOX for financial services, consumers will have stronger privacy requirements. Through their partnership with Plante Moran, UCX is staying ahead of the regulatory environment to ensure that all CSP's are fully vetted through rigorous security standards.

Ultimately, true success will be measured by the volume of transactions on the exchange, which is why UCX is creating more compelling ways for members to join the exchange and defining different levels of access to bids and offers. Additionally, as more buyers join the exchange, the idea that cloud space is a tradeable commodity shows that this is likely to drive down cloud costs. Suppliers benefit from being exposed to a whole new market of buyers, and through the ability to maximize their capacity and avoid revenue leakage in terms of operational costs.

UCX has already taken major strides to drive adoption with complete market transparency, easy WAC metering, web-based portals, on-demand pricing and unparalleled support. According to Gartner, "By 2015, at least 20% of all cloud services will be consumed via internal or external cloud service brokerages, rather than directly, up from less than 5% today." This positions UCX extremely well for growth and further validity in the coming months, especially as they continue to explore other trading strategies like WAC derivatives and futures products.

About the author:

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