

STORAGE SWITZERLAND

GATEWAYS CAN HELP CLOUD SERVICE PROVIDERS TRANSITION TO CLOUD STORAGE



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There are some significant differences between selling cloud services, like Software as a Service (SaaS) or Platform as a Service (PaaS), and selling a Storage as a Service. For the Cloud Service Provider's (CSP's) current customers, to whom they're expecting to sell these new cloud storage products, these differences could have an impact on how they view this new opportunity and how they approach the market.

Bandwidth and Performance

Data is growing everywhere and pushing storage capacities along with it. This is especially true in the area of unstructured data, as file systems are shouldering the bulk of this storage expansion. The ability to scale easily and accommodate this growth is actually one of the primary value propositions of cloud storage. But it also means that cloud storage customers could be faced with diminished performance as they move more and more data to and from the cloud.

The result can be a greater requirement for bandwidth to accommodate this data transfer within an acceptable timeframe. For customers this means they either have to pay for the additional bandwidth or accept a reduced level of storage performance. The net of this can be a lower level of satisfaction with the storage service, making it harder for CSP's to retain customers.

Raw Storage

Accessing cloud storage directly from a provider is infrastructure, not an application, so it can be more difficult for their existing customers to use. Capacity at the end of the wire doesn't do anything by itself. Customers who were used to buying the 'finished product' of application or infrastructure services may not see the value in buying the 'raw materials' of simple cloud storage. For CSPs this can mean having to market this new product to a somewhat different set of potential users, something which is always less desirable, from a sales perspective.

Security and Protocols

Cloud storage requires an infrastructure to maintain security of data at rest and data transmitted to users. The fact that transmissions often involve complete data objects, like files or database tables, which could be of value to a hacker if these transmissions were compromised, puts greater onus on the CSP to ensure security. Also, special protocols (like Representational State Transfer or REST) are required to implement object-based storage, which virtually all scalable cloud storage systems use, different from file sharing protocols in use at most companies. This means that if CSPs are not well versed in these protocols they'll have to learn them, and then provide the translation, usually with APIs, to implement cloud storage within the environment of each client.

Cloud Storage Gateway

The answer for a lot of CSPs could be to implement a Cloud Storage Gateway appliance, which is installed in the customer's data center and handles transfers transparently with the CSP's cloud storage infrastructure. Configured as a storage appliance with onboard processing and connectivity, cloud gateways can resolve many of the challenges that face CSPs and their clients who are looking at adding storage as a service purchased from their CSP.

Gateway appliances have onboard storage capacity and can present as a network attached storage (NAS) device to provide local file services in the customer data center. This local storage capacity enables them to effectively cache frequently accessed data, reducing the likelihood of users waiting for data from the cloud. Some gateways also provide other storage services, like snapshots, iSCSI support and sophisticated storage management functionality. Finally, gateways can also deduplicate and compress data, reducing the amount of data actually sent to the cloud. For users this can mean a savings in bandwidth and cloud capacity charges.

Cloud storage implementations typically involve an application, most often data protection, a use case that cloud gateway appliances are well suited for. With onboard storage, processing power and network connectivity, they can be a comprehensive backup and DR solution. Products like the C400 and C800 from CTERA, have built-in backup applications which provide client-less and agent-based backup of local servers, desktops and laptops. Then, these backups can be sent to the cloud, handling backup and DR in a single step, and providing end-to-end transparency to the file and revision level.

For CSPs the advantages are clear. A cloud gateway appliance makes their customers happier by reducing or eliminating the pain of storage latency and the cost of increased bandwidth that accompanies many cloud-based solutions. Gateways can also support a simple but powerful data protection solution, one that includes off-site storage for disaster recovery requirements. But just as important, it can make the CSP's job easier too.

With built-in cloud connectivity, implementation means simply installing a NAS device. CSPs don't need to learn complex cloud protocol translation, something which is also hidden from the users. And, on-board encryption ensures that data's secure. But cloud storage gateways, like CTERA's, also fit easily onto the line card of CSPs looking to add storage to their other cloud services.

Instead of selling 'raw storage' to a customer base that's used to purchasing services, they can offer a NAS appliance that includes iSCSI connectivity, as well as thin-provisioned snapshots, encryption and deduplication. This solution can even replace a traditional file server, while offering the scalability of the cloud. In addition, this system can provide file-level collaboration between users in a single office or over the internet.

Finally, with an embedded backup application, a cloud gateway appliance can replace a more expensive traditional backup process already in place, or consolidate multiple backup products.

For CSPs, selling cloud storage can be a very different experience than the cloud-based application and platform services they're familiar with. Cloud storage transfers more data, consumes more bandwidth, and requires that CSPs provide data security and cloud protocol expertise. Cloud storage gateways can address these issues in a relatively simple on-site solution. With file services and "sticky" embedded applications like backup and disaster recovery, this appliance can help drive net new customers, and help existing clients justify adding cloud storage to their current services package. Since storage is a consumable, more so

than infrastructure or application services, it can bring a growing revenue stream to CSPs as well.

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