

I LOVE THE SMELL OF CLOUD IN THE MORNING!

De heren Tim Waldron en Geert van Teylingen, National Security, NetApp

De zon gaat voor niets op, maar geldt dat ook voor wolken? De heren Dohmen en Van Teylingen schetsen de werelden van CLOUDS, waarbij de gebruiker het vertrekpunt is. Volgens Dohmen en Van Teylingen zijn cloud toepassingen anno 2013 zo robuust dat die gebruiker ook een militair kan zijn.

SO WHAT IS CLOUD ANYWAY?

Information Technology is playing a greater role in our everyday lives. It is an enabler for everything from social connections, organizing our lives through to paying our bills. The major factor driving this increased use is the shift from traditional IT delivery methods to Cloud. Traditionally, the hardware and software delivering the IT service is located locally or in close proximity to where it is consumed. However with Cloud, the hardware and software is centralized and the services are delivered via a network to the user. More importantly the method of access is highly diverse. People are able to access the same information or IT services regardless of what kind of device they are using. A real world example of this would be Facebook; your profile and friends can be accessed via any laptop or smartphone connected to the Internet. Regardless of whether you use your own laptop or computer or a friends, your Facebook experience and information remains the same and uniform through all methods of access. The only thing that is local to you is your username and password, which is unique to you and prevents others from having access.

While this centralized, universally accessible Cloud compute service has vastly improved the way we access IT services, it has driven up the importance of building the right Cloud compute infrastructure. Because Cloud enables people to access their information on any device at anytime, it is difficult for IT professionals to accurately predict and determine the usage patterns and built out the correct infrastructure or foundation to support that usage. In the IT world we define this as 'Elasticity'; the ability to expand and contract to adapt and meet the needs of the user base.

The added convenience and ubiquity of being able to access the Cloud and Cloud services on almost any device creates another challenge around security. The data needs to be secure yet it is accessible almost anywhere, this creates a lot of security openings. Think about security on a building, the fewer entrance points you need to secure the easier your job is to secure the building. Imagine a world where you only had to secure the

front and back door to a building but due to some sudden changes that number jumped to 20 doors. You would need to staff up very quickly with people and technology to insure the same level of building security. The same is happening with Cloud compute and multiple device access.

In the Military world these challenges only get magnified in their importance. The underlying technology is essentially the same but to be military class it needs to be hardened and enhanced. I liken this to a civilian vehicle compared to a Hummer. Behind the aesthetics, both are essentially a car however, in the case of the Hummer; it has been built to a higher specification of durability, security and variability of terrain and use.

One of my favorite lines in a movie is from Broken Arrow where the character Vic Deakins, played by John Travolta, says, "Battle is a highly fluid situation. You plan on your contingencies, and I have. You keep your initiatives, and I will. One thing you don't do is share command. It's never a good idea!"

I feel this quote wraps up very accurately the

importance of the right infrastructure to run your Military grade Cloud environment. It talks about: How fluid and unpredictable the environment can be and the importance of being prepared for the unexpected. Most importantly, with to keep you area of responsibility and security under your own control, this is closely aligned to security.

At the core of any IT infrastructure lays the data. It is the data, which we are interacting with which help us make the right decisions and the right time. NetApp is a leading supplier of Data storage systems and management solutions. One of the key phrases we use to describe our products and solutions is "Agile Data Infrastructure". Just as the phrase indicates, Agility is what provides the elasticity and flexibility for all Cloud deployments we are powering. One aspect of our agility is our single standardized unified architecture. This allows for a uniform Cloud infrastructure which allows its management to be streamlined and simplified. With such a solution, all tools and expertise can be applied to varying IT service models. This significantly reduces error events as well as more streamlined management and administration. However the key component of this unified architecture is its elasticity and ability to adapt to changing workloads and requirements. And because it's unified, it's existing throughout the Cloud infrastructure.



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Recently at Citrix Synergy in Barcelona it seemed Cloud and Mobility was the big topic of the event. In my conversations, around Cloud Strategy, between vendors and customers, Mobility is one of the top priorities. It makes sense given the ubiquitous and empowering nature of Cloud combined with the innovations and breakthroughs happening around smartphones and tablets.

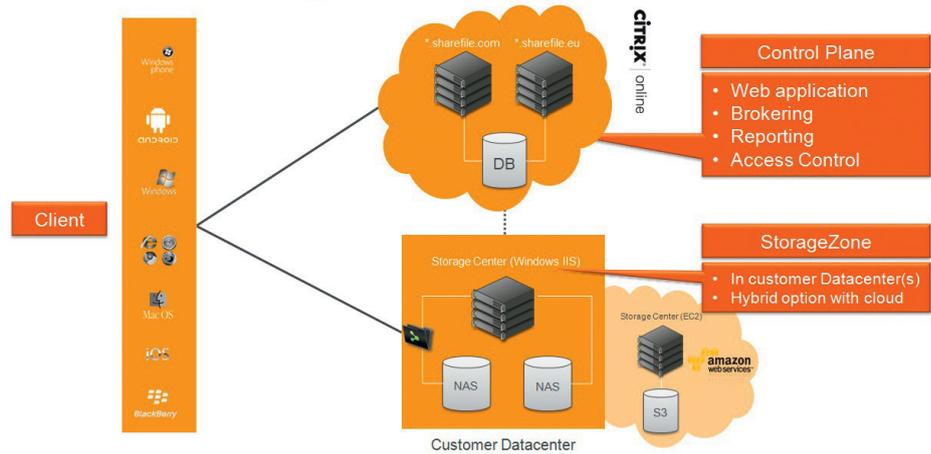
During Mark Templeton's (President and Chief Executive Officer – Citrix) Keynote he discussed the cost challenges around delivering Mobile Computing. Whether you are an Enterprise supporting BYOD (Bring Your Own Device) or a Cloud Services company or an IT department provisioning Mobile compute products to its customers or users, delivering this service cost effectively will determine its sustainability and profitability.

In order for a technical solution to be successful, it needs to address the needs of its users but also be financially profitable for the Service Provider/IT department delivering that service. If it is not profitable then the incentive to provide that service goes down. Either the quality of the service suffers or the service ceases to exist. Using Facebook as an example, it has been observed that the Facebook user base has shifted from using a traditional browser to a mobile device to access the Facebook service. This switch has caused a dramatic impact to Facebook's ad revenue business model. Like Facebook, Cloud Mobility Service Providers have two variables in an equation to maintain. The one variable is revenue attached to the Mobile Compute service and the other is the cost of delivering that service. Given that revenue streams are flat or declining, bringing the line derived from this equation to have a positive slope requires delivering the service in a more efficient manner. Providing hardened security in those environments that need it, like in the military arena, will only add to these costs. The one who can combine the three elements (cost reduction, security, and usability) best will be able to create the most effective cloud service for its users.

A great example would be **Citrix ShareFile Enterprise**. This is a Mobile Data Access solution which enterprises can deploy internally or Service Providers and adds to their service portfolio. It allows users to securely store, sync, and share data on any device, anywhere.

Recently, Citrix and NetApp have announced a joint solution, **Citrix ShareFile with StorageZones**. This solution helps enterprises and service providers simplify and

ShareFile StorageZone Architecture



accelerate on-premises, large-scale data sharing and storage deployments. Combining Citrix ShareFile and **NetApp Agile Data Infrastructure** is already helping many enterprise customers and service providers deliver a cost effective Mobile Data Access solution. With ShareFile as a new data storage mechanism in the enterprise, end users can rapidly consume storage with multiple file versions and desktop synchronization. NetApp's efficiency with deduplication for primary data allows for up to 50% savings in storage infrastructure needs, storing only incremental changes to updated content. This all happens without any performance penalty and in some cases delivers higher performance due driving up the efficiency and leverage of the Flash technology on the NetApp storage systems.

Given the unpredictability of Mobile Compute adoption and growth a very important consideration is the overall agility of the underlying infrastructure. It is very likely that the environment built for today's needs, will often not be able to keep up with the adoption and usage rate. Mobile File Access is very popular and growing every day. To address this, NetApp provides a truly uniquely unified storage infrastructure that allows for the quick expansion and adding of functionality without the need to retool or retrain.

With the rapid adoption and innovation around Cloud and Mobile Compute there will be a continuous eye on the economics of how it plays out. Citrix having a name synonymous with Mobile Compute is in the position to bring a lot of value to the Cloud and Mobile compute solutions. NetApp's unique industry and business impacting solutions allowing for unparalleled efficiency and agility will enable these solutions and allow the architectures to change and adapt as Cloud and Mobile Compute grow into more areas of our personal and business lives.

Beyond the business impacts StorageZones and Data ONTAP together offer, it also addresses security concerns around BYOD and Mobile Data Access. Because this solution is designed to be deployed on premise it allows customers to meet compliance and data sovereignty requirements, especially important in the military. Given the powerful and enabling characteristics of Mobile Data Access, allowing users to view their data anywhere and anytime, this can also present a security concern if the mobile device gets into the wrong hands. This is where rich security policies such as remote wipe and poison pill are essential elements contained in this solution. Most importantly, security also means preventing data loss.

CONCLUSION

IT Cloud exists everywhere and touches many areas of our personal and professional lives. Its ease of use and access is a clear sign that it's here to stay. There are many technologies which add and assist in delivering Cloud IT services however it's important to choose partners who can enable Cloud the right way which accurately address the unique needs of your organization.



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