Cloud: Commoditizing End-Users

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It's not just commoditization of business functions (SaaS) or IT infrastructure (IaaS) - it's the users, too.

Prioritization. It's something that's built into nearly every technology, particularly that which services network traffic. Rate shaping. Queuing. Coloring bits.

We do a lot of interesting gyrations with technology to ensure that some user traffic and requests are more equal than others.

Today we still do the same thing, but it's done in different ways. Software as a Service charges a premium for "extra" API calls, for example, and if you want access to premium content there's sure to be a paywall in front of it.

But that's at the *service* level. It's not the same as prioritization of individual users; of affording specific users privileges of some kind based either on their position (No, no, the CEO can't have his e-mail be delayed - never apply bandwidth limiting policies to *him)* or on their customer status (They're a "gold" customer, make sure their requests go to the fastest application instance).

These kinds of customer privileges have always existed and in some industries remain a staple reward or requirement for operations.

Cloud, however, commoditizes users, affording operations no way to distinguish between traffic from the CEO and traffic from, well, me.

IT'S THE NETWORK

That's because the mechanisms by which traffic and requests are prioritized exist in the network; in the data path. By the time the request gets to the Exchange server, it's already too late. The Exchange server doesn't know that three upstream switches and routers have queued the packets comprising the CEO's request, causing a slight but noticeable delay. It is the infrastructure - the network - that provides this service necessarily. Prioritization of traffic through a series of tubes interconnected by what are essentially processing centers has to occur at those processing centers, *before* it arrives at the destination.

The effect is commoditization of users. Every user is the same, every request - equal. There is no special treatment for anyone, period. Part of this is due to the relinquishment of control over the network inherent in a cloud-based environment, part of it is due to the failure of that same network to pass on context and awareness of the user and the context in which such requests are made.

The inability to deploy policies designed to give preference to some requests over other - for whatever reason the business thinks it may be necessary - means users are commoditized. They become a sequence number, nothing more, nothing less.

For many applications and business models this may be a non-issue. But for industries and organizations that in part monetize (or have monetized in the past) based on the ability to offer "better or faster" service on an individual basis, moving to cloud will have a significant impact and may require changes to not only operations but to the business.

Some capability to differentiate levels of service on a per-user basis may be returned as more mature services are offered by cloud providers, but the level of differentiation and prioritization IT has known in the data center will never completely return in the cloud.

Organizations who may be impacted by this commoditization in the form of frustrated users or churning customers will need to consider other ways in which to address the ability to decommoditize its users.