

A client is still a client even when it's on the space station



Lori MacVittie, 2008-14-11



While I was at [SD Best Practices](#) in Boston last month I got to talk to a lot of engineers, developers, and architects about their environments and about what [F5](#) does for application delivery.

One of the developers glibly told me he wasn't sure we could help him out because his environment was the international space station.

Yeah, how cool is that? Now *that's* cloud computing.

Another architect, who turned out to be a friend of a friend who I've conversed with but never met in person said the same thing, but his environment was nuclear submarines.

The Internet, she is everywhere.

There are certainly challenges with developing and delivering applications for such unique environments, but in the end a client is a client and a network is a network, even if it's over satellite links - which is most certainly the case for locations that cannot be wired or take advantage of wireless technology. What's awesome about application delivery solutions is that they are primarily asymmetric, they are a proxy to the core network that is almost always physically located in a data center somewhere on, well, earth. And on dry land.

An application delivery platform mediates, and it is physically located at the edge of the physical network. If there's a client on the space station or a nuclear submarine or a cruise ship or airplane that can communicate via a network, then an application delivery solution can indeed help the performance, security, and availability of the applications being delivered to those very remote locations.



Asymmetric solutions, of which a [reverse proxy](#) is almost always one, do not require deployment of client-side software. They are one sided, hence the use of the term asymmetric. All you need is the application delivery solution to be deployed at the edge of the physical network and voila! You can begin taking advantage of [acceleration features](#) like caching, compression, and protocol optimizations. The application delivery platform is aware of the network across which applications must traverse to reach the client, but it doesn't require that it be a certain speed, or a certain type, or anything, really. As long as it's operating on standards-based network protocols like IP, you can take advantage of the features of an application delivery solution for your environment.

In fact, an [application delivery solution](#) is perfect for address many of the problems inherent in low speed, high latency links like those used to communicate with uber remote locations like the space station or a nuclear sub because it has the intelligence to understand the network conditions unique to each link and adapt in real-time to provide the best performance possible for users accessing data and applications over that link.

And because the application delivery platform mediates between clients and applications, it can provide [availability services](#) to clients regardless of their location. In fact, because most application delivery platforms are [full-proxy solutions](#), they are particularly adept at managing each side of the equation individually, simultaneously improving [data center efficiency](#), reliability, and [performance](#) while adjusting proactively to the conditions currently being experienced by the client.

Being contextually aware of the unique environment from which clients access applications over a network is part of the secret sauce of application delivery solutions. By being able to understand and adapt to conditions on a per-request basis it can optimize delivery of applications for everyone - whether they are at home, at the office, on the international space station, or 20,000 leagues under the sea.



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