Do We Need to Occupy SDN?
Due Date: June 15, 2013

Is this one of those rare times in which the ongoing discussion of SDN can learn something from grass roots politics? One of the drivers of the recent *Occupy Wallstreet* movement was that the richest 1% of people in the US controls an inordinate amount of wealth. What's the connection to SDN? In the SDN world, the top 1% of companies seems to be getting most, if not all of the attention relative to SDN and Network Virtualization. Let's call this the SDN 1% rule.

One example of the SDN 1% rule is Google's often discussed use of SDN to connect their data centers. This is clearly a very interesting example of how SDN can be applied. Google, however, built their own SDN switches. How many companies that aren't a hyper-scale data center are going to build their own switches just to implement SDN? I suggest that none will. Hence, Google's use of SDN in the WAN, while terribly interesting, isn't something that will be replicated by 99% of the Fortune 500 companies.

Speaking of hyper-scale data centers, I had Igor Gashinsky on a panel of mine at the recent Interop conference. Igor is a distinguished architect at Yahoo and his role on the panel was to discuss Yahoo's use of SDN and Network Virtualization. As Igor explained, Yahoo's use of SDN and Network Virtualization was driven in large part by their need to be able to scale their data center in ways that are not possible with traditional solutions. To put Yahoo's challenge in perspective, the typical Fortune 500 company that I work with often has a couple of thousand servers in each of their large data centers. Yahoo has roughly 200,000 servers in their data center in New York. That is one hundred times more servers in one of their data centers than the typical Fortune 500 company has in one of theirs. There is no doubt that what Yahoo has done with SDN and Network Virtualization is fascinating, but the scaling issues they face aren't something that will be faced by 99% of the Fortune 500 companies.

Another group of companies that gets a lot of attention relative to their use of SDN is the high-end financial companies such as J.P. Morgan, Fidelity and Goldman Sachs. These companies bear more of a resemblance to the vast majority of IT organizations than do the hyper-scale data centers. They are, however, quite different. They are different because it is well understood by the senior management of those companies that they compete based on their use of IT. Because of that recognition, these companies are often very early adopters of new technologies and they have the sophisticated IT staff that can support the systems engineering and troubleshooting that goes along with implementing alpha or beta versions of products.

So what about the other 99% of the companies on the Fortune 500 list? What kind of attention do they need? One thing they need is a clear identification of exactly what problems or opportunities can best be solved using SDN and they need guidance in creating the associated business cases. They also need the industry to quickly get to where SDN can be implemented without requiring sophisticated systems engineering and where management tools enable the typical Fortune 500 IT organization to troubleshoot problems with no more difficulty than exists in their current environment.