Reason #1 That You Need File Virtualization

Don MacVittie, 2009-04-03

So I've been going to start this series forever, and things just kept piling up. Today I have decided to embark upon it, and worry later about other commitments, because I think it is an important topic.

I wasn't a fan of File/NAS Virtualization at first – it seemed like an added layer to the very clean (if chatty) NAS hierarchy. I've grown to understand that the addition of the layer is nothing compared to the adaptability that layer provides, so I want to share.

This series will start with the low-hanging fruit, the stuff that anyone who's looked into File Virtualization will likely know, and will move on to increasingly less well-known but still largely impactful topics. I'm not here to sell you, I figure educating you on the benefits of the technology is enough, we have a sales staff to do the hard part.

Gratuitous graphic of ARX ;-). That's my sales bit, on to the solution.

With that, reason #1 is…

Simplified Desktop Management

Every desktop in your enterprise has mapped drives somewhere. Likely you have a plan that shows where maps go, etc. So you have NAS box named BigOldNASBox, and user Bob has drive E: mapped to \\BigOldNASBox\users\bob but BigOldNASBox is out of space, and out of drawers for new disks. What to do? Well, in most enterprises you bring in the new NAS and name it something snappy like ShinyNewNASBox and then evaluate what to move to ShinyNewNASBox, which won't be everything because BigOldNASBox is still a good system, it just ran out of space. So you move the users directory over to ShinyNewNASBox, then kick off some form of (hopefully automated!) system to update desktops, and hunker down waiting to find out whose system didn't get the new mapping of E: to \\ShinyNewNASBox\users\ . Those who failed you walk through changing the mapping manually, or you send desktop support (physically or virtually) to the machine to fix it. Meanwhile, user's faces are red and some of them are using "IT" and other, more inventive words in the same sentence. With luck (or some specialized work on the migration), the CIO isn't one of those users.

Of course there are a lot of other good reasons to move files about, like bulk-replacing your NAS vendor, which thankfully has never been as painful as bulk-replacing your SAN vendor ;-).

Welcome to the world of File Virtualization…

It just doesn't have to be that hard man. Instead, with File Virtualization, you add the ShinyNewNASBox to the Virtualization Appliance (in our case ARX, of course), then tell the appliance to migrate or replicate the user's folder over to the new box, and when it's done, you point the users folder on the appliance (the one that is presented to your desktops) at the \\ShinyNewNASBox\users folder. Bob automatically sees his E: drive correctly without so much as a reboot.

Desktops do not change, the appliance does. That's huge in my book, don't touch desktop settings unless you must. There are other solutions to meet this end, but they're rarely heterogeneous, and many of them don't even cross NAS storage racks. File Virtualization appliances *must be* heterogeneous if they're not owned by a storage vendor, most support CIFS and NFS, plenty enough for most enterprise's NAS needs.

In short, how many lost hours and how many support calls does it take to pay for putting such a device in? Honestly, if you move mounted folders between NAS devices (or file servers) a lot, this reason alone is compelling.

But this is just the first of many. You'll be amazed at the story that develops from looking closely at how you can achieve efficiency in storage with these devices. At least I was, but maybe I'm slow ;-).

Look for one of these each Thursday from now until… Well, until I'm done ;-). I have several bouncing around in my head along with all of that other stuff, I know it will be at least ten, likely less than a hundred. But if those of you using this type of technology get into the spirit and start sending me your ideas… Well maybe we'll top a hundred, but I still doubt it – that would be a lot of reasons, I'm guessing they'd get weak.

Don.

PS: Never noticed how quick and easy it is to mistype file and get vile virtualization. I'll have to watch that ;-).