ONTAP 9: A New Kind of Toaster

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Whenever I run across a long-time NetApp user, they will often tell me about the good old days when "Network Appliance" held to a motto of Fast. Simple. Reliable. Back then, we sold NAS appliances that were so easy to use we informally called them "toasters."

As NetApp has grown, we've delivered on "Fast" beyond our wildest dreams, delivering AFF all-flash systems that can do hundreds of thousands of sub-millisecond Input/Output Instructions per Second (IOPS) with all the data management goodness ONTAP has always delivered. We've continued to deliver on "Reliable", with a consistent Five-9s and Six-9s of uptime as measured by our AutoSupport systems.

But as we grew from the basic toaster to an array of equipment that could fill a commercial kitchen, ready to serve any sort of storage through any protocol to any application, some of that "Simple" motto became just a bit tarnished. It's easy to be "simple" when all you do is sling NFS data to UNIX servers out of a storage box. But when you add more functionality than any other storage management software on the planet, sometimes a few too many knobs and levers get added.

ONTAP 9 is a huge step forward towards ONTAP reclaiming its mantle of "Simple". Our first goal in simplifying storage was to automate system setup and to pivot from rather arbitrary storage constructs like "aggregates" and "LUNs" into a focus on the demands and language of the applications.

My colleague Chris Gebhardt, one of our very best Technical Marketing Engineers, has prepared a video highlighting just how much easier ONTAP 9 makes it to deploy storage for your applications.

Our AFF systems with ONTAP 9 come preconfigured from the factory with their storage setup, network setup, and licenses installed, allowing for the entire system to be up and running in 10 minutes. As you'll see in Chris' video, OnCommand System Manager is the central point for simplified management. You can access System Manager just by pointing your web browser at the ONTAP storage cluster, no desktop clients or additional software is required.

Once System Manager is opened, if you are an experienced NetApp user, you'll notice that all the previous options are still available to create storage volumes and LUNs by hand. But, you'll also see a new "Application Provisioning" tab — the home to new options that allow for easy setup of Oracle databases (including RAC), SQL

Server, Virtual Servers or Virtual Desktops, each for either SAN or NAS.

As I mentioned, we are focusing less on storage terms and more on application terms. For instance, when you go to set up an Oracle database, the System Manager GUI isn't asking for LUN size, or aggregate, or any other storage-specific terms. Instead you provide the database name, the database server, the datafile size, the redo log capacity, the archive log destination size, etc. Likewise, when setting up a virtual server infrastructure, we ask for the hypervisor, what you want to name the datastore(s), how many datastores you want, and at what size. For virtual desktops, we ask about your hypervisor, persistence model, number of desktops and average desktop size.

In all of these cases, we're speaking the language of the DBA or the Virtualization team. Increasingly, IT Generalists are forced to wear many hats, and we want to make it as easy as possible for application or database administrations to get what they need from an ONTAP 9 system without necessarily having to become a storage expert. Even for our storage experts, we believe we're delivering new value by being able to easily take requirements from their DBA or virtualization team and turn that into storage provisioned according to NetApp best practices through a single, simple, interface.

Finally, the beauty of ONTAP 9's simplicity is that we didn't do it by "dumbing down" the system. All the power and flexibility of ONTAP is still simmering beneath the surface. As the video shows, ONTAP still has the full System Manager GUI - in addition to all existing CLI instructions and a huge set of APIs with integration into PowerShell and other languages, just waiting for our power users.

The days of the simple NetApp two-slice toaster are well behind us. ONTAP data management software has grown increasingly more sophisticated as the needs of enterprise application infrastructures have grown more demanding. However, the basic idea of simplicity should never completely fade away, but instead should also evolve with the needs of users. I tend to think of ONTAP 9 as a newer model toaster, one that embraces diverse enterprise application environments without becoming so complex that it results in burnt toast!

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