



XYZ--thanks for the opportunity to review the configurations for (COMPANY), and especially for your commitment to helping your client.

Since I did not have any data on the production environment, I can only make general observations about the configs (not in any particular order):

- The most important differences between the HDS and the IBM configs will be in their **performance** characteristics and potential :
 - The HDS configs have significantly more cache memory than the IBM units (over 2x)
 - The HDS units have 6Gbps SAS internal connections versus the 2-4Gbps FC device/drive internal interfaces in the IBM 8700. [The newer 8800s moved to this.]
- These core differences will be visible even when the units are not running at capacity. (COMPANY) should verify that this is acceptable to them. [This might be perfectly acceptable in a simple TestDev environment, or maybe even as a DR backup facility—but would *not* normally be acceptable where enterprise-class production demands are high. But this difference should be reflected in the offered pricing too.]
- The IBM units would have an integration advantage, in certain IBM host environments. For example, their Cooperative Caching and I/O Priority functions offer advantages for AIX/DB2 environments and the 8700 has many optimizations for System z. To exploit some of these, of course, might require Feature activations (and invoices!) in the host systems.
- The HDS system was only launched around this time last year, whereas the 8700 is a year older than that. The newer 8800 model sports the POWER6+ processor, but the 8700 is still running the older POWER6. The POWER7 is out, but has not been incorporated into any of the 8000 series units to date. [I hope (Company) requested configs from IBM for 8800s too.]
- The 8700 cannot use the small form factor 2.5” drives (unlike the 8800 and HDS units). SFF drives use 20-30% less energy, at both run and idle states. This can result in considerable power and cooling savings, when applied at these scales of greater than 1000 drives.
- There are software differences between the two—in terms of what is included and what needs to be purchased separately—but the main difference (Company) needs to feel comfortable with is the hardware disparity mentioned above. IBM is generally not considered to be a competitor in enterprise SAN **performance**, but is considered to be a value in IBM-centric host environments *without* those high performance demands. [IBM pricing, however, tends to reflect their view of the benefits of integration and not that of higher performance.]

That's all the thoughts that came to mind based on your information. I will be happy to discuss any of these with them, and to do any directed research under NDA on these/related issues. Let me know how I can support you, as you work to support them.

Glenn M. Miller, VP Strategic Advisory Services (November 2011)