

Shootout - NAS



Best NAS Box for your business

Today most businesses face the challenge of having a reliable, affordable and expandable storage center to securely store, share and backup their digital assets. Here we review nine NAS boxes that cater to the workgroups ranging from small SOHO environment to medium enterprises

Rahul Sah

Given the unprecedented growth of digital data and the need to archive and backup same, it's become a challenge for IT managers to manage the storage demands of the workgroup users. This is where the role of Network Attached Storage devices comes in to store, share and backup users' data from a central point. We received nine NAS devices that meet the storage requirements of mid-market segment. The NAS boxes have HDD trays ranging from 2 to 7, thus covering the whole gamut from a SOHO environment to enterprise usage. Based on the prices, we segmented the NAS devices into three categories, below Rs. 40,000, between Rs. 40,000 - Rs. 80,000 and the final category was above Rs. 80,000.

How we tested?

To gauge the performance of the NAS devices, we used Intel NAS Performance Toolkit (NASPT) and Iometer as benchmarking tools. While Iometer was used to evaluate the throughput of the NAS device, NASPT was used as a comprehensive benchmark that emulate the behavior of actual application and uses a set of real world workload traces gathered from typical digital applications. NASPT reproduces the file system traffic recorded in these traces onto the NAS device under test and records the system response. The benchmark test suite included 'HD video playback

and record', in which a 500MB video file is simultaneously read and written to NAS, 'content creation' that have 95% of the writes having a mix of 1k, 4k and little reads, 'File Copy to NAS' in which a 4.3 GB file is written to NAS. And likewise in 'File Copy from NAS', the same file is read from the NAS. In 'Directory Copy to NAS' and 'Directory Copy from NAS', a directory containing 2833 files in 44 folders is written and read from NAS respectively. We used Brown-Gibson method to normalize the various results from the benchmarks and converted them into a score out of 100. The same was done for feature, and price & warranty to arrive at normalized scoring out of 100 respectively. Therefore, a NAS device could score a maximum of 300, and the scores given in NAS comparison table are derived from this method.

We benchmarked the NAS devices on an isolated gigabit network and the client machine having specs as Intel Core 2 2.93 GHz, 2 GB RAM. Since NASPT requires an Intel based Windows XP SP3 machine as the client, the same was used in our setup. The NAS devices that are bare-metal boxes, we used Seagate Barracuda 7200 RPM drives on them. Also, the NAS device configurations were set on default settings, except RAID which was configured to RAID 0 as the NAS devices were multi-drives, and this would also result in getting maximum performance.



Dax DX 2102E-NAS

The first thing to talk about this NAS is its performance and simplistic looks. Compared to slower data transfer rates of the other two NAS devices in this category, DX 2102E has almost double the data transfer speeds, thus taking it much ahead to them in terms of performance. The NAS is shipped with two Seagate Barracuda 1 TB HDDs that are pre-installed in the box, and is scalable upto 4TB. Amongst other standard features, the DX 2102E boasts of features that are found in higher end NAS servers, such as built-in iSCSI target service, policy-based unauthorized IP blocking, and remote replication. With the built-in iSCSI target feature, the DX 2102E can be an ideal solution for backup or storage expansion. So, users in the workgroup can easily create dedicated virtual drives on the NAS for their PCs or existing servers. To prevent the NAS from malicious attacks, the server administrator can create an IP filter policy to allow, deny, or auto-block IP address or network domains that attempt to connect to the NAS. All these advanced features and the best performance in the category justifies the high price tag that is put on this NAS device.



Price: Rs 35,830 (3 years warranty)
SMS Buy 131153 to 56677

