

## Nasuni Offers a New Mode of Management for Unstructured Business Information

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### Management Summary

Corporate modernization is a perennial exercise, usually coming in some form of “what not to do.” Budgets are firmly focused, for the foreseeable future, on doing more with less. We want less baggage – and not just the kind you take on airplanes. Technology has played a large role in supporting this mode of thinking. When we look back a few years, we realize how much time we spent doing complicated processes that have now become simpler with the help of technology. For many of us, the Internet has transformed what constitutes a meeting, and remotes and cell phones have changed the mode of invoking an action.

Technology is not immune to the modernization imperative. The management of the documentation of business operations and projects that is stored, in rapidly growing capacities, as files exemplifies the need for a different structural approach to management. Files are growing rapidly. Their organization tends to be inadequate, their relevance may be hard to determine, and they are subject to a number of vectors of corruption and loss. Many versions and redundant copies of a file are often kept by applications, back-up processes, and end users. The result is costly organizational baggage.

**Cloud storage offers a way remove some of the complexity of storage infrastructure management from a business’ technology operations, but it does not remove the responsibility for managing the processes that assure proper access and use of valid and appropriate information. The cloud simplifies cores storage provisioning but has not been able to address files in a way that is useful to business.**

A company named Nasuni, based in Natick, MA, has put together a gateway-focused approach to file storage that leverages both partnerships and automation to leave the consumer with a downloadable interface and more money left in his or her wallet. Its development team has roots in access (Akamai), storage (EMC), and archiving (Archivas and Hitachi Data Systems). It offers, not a system, but a competent element, downloadable to a *VMware ESX* or *ESXi* Virtual Machine on existing hardware, to provide a solution to primary file storage with no upfront CAPEX costs. The *Nasuni Filer* handles security and routine activities like back up, and leaves the Nasuni customer to enjoy all the benefits, and none of the pains of having vast quantities of files to support project cadence, corporate strategies, and business decisions. For more details, please read on.

### Nasuni’s Next Gen Infrastructure Service Elements

Success in almost any endeavor is about having the requisite capabilities at hand when you need them in a way that is not cumbersome. As an IT administrator, in order to manage files, you must know what is there. You may want to see the

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details of file system and retention period. You want to replicate changes and new files promptly, and to receive assurance that the replication had completed successfully. The business units and users - who are your customers - may want additional capabilities in the realm of search, classification, and audited use. These extras, which may only be needed sporadically on limited sets of files, are only easy to provide in a timely, affordable way if a good file operations management system is in place. Nasuni provides such a foundation.<sup>1</sup>

### **No Upfront CAPEX**

Nasuni provides its competencies unobtrusively. There is no new hardware to buy. The software combines the features of an advanced file server with the cost benefits provided by the cloud. It can be downloaded to a VMware *ESX* or *ESXi* server,<sup>2</sup> and there are wizards to guide the set-up. The prudent business will want a pair of them – each installed on a different machine and clustered for high availability. As most enterprises are now familiar with server virtualization, this should not present a difficulty

You can download the *Nasuni Filer* and try it for two weeks – typical in a software offering, but not so typical in the world of storage appliances. This allows prospects to see if it meets their needs.

### **Security Designed In**

In any form of distributed computing, security must be part of the design. Nasuni uses *Open PGP*, the latest version of Pretty Good Privacy, a very good blended approach to privacy leveraging a serial combination of hashing, data compression, PKI and Synchronous Public Keys, and accessorized it with metadata encryption and SSH for all communications. Each session has a unique key. Each public key is bound to a user name and/or email address. You may keep the keys, but most will prefer the convenience (and additional security) of escrowing them with either Nasuni or the cloud storage provider.

### **Local Control Functions**

Cloud storage does have some limitations. Their replication and disaster recovery work via Web protocols, and adapting them for local

parameters requires development work. While the Nasuni filer does not store customer data permanently, it does cache files locally for immediacy of use and can be used as a point of quick recovery.

The ability to change access policies and replication policies locally is valuable to most organizations. Nasuni has been careful to design such features in, and to integrate them with the cloud management consoles of its qualified cloud partners.

### **Pre-Conditioning Files for Cloud**

The Nasuni Filer takes a synchronous snapshot<sup>3</sup> periodically. (Nasuni users determine the cadence.) Each snapshot is de-duplicated against previous snapshots of the same file, so only sub-file-level changes are transmitted to the cloud, minimizing connectivity costs. This migration may be scheduled to leverage the lowest time-of-day pricing, where that is available. Nasuni says the impact is no more than that of having an off-site recovery system.

### **Pre-qualification of Cloud Providers**

Early cloud storage offerings primarily have focused on temporary needs, non-sensitive information, or backup. Nasuni has the controls that let cloud storage be used more broadly for secondary and even for primary storage. The scale and features of storage clouds means that Nasuni administrators will have fewer routine tasks to do – but it also means that who Nasuni partners with matters. A chain is only as strong as its weakest link.

Nasuni has tested extensively with the Amazon *S3 Cloud* and with Iron Mountain. By the second half of 2010, two other cloud providers, both recognized names, should join the roster of qualified cloud providers, according to Nasuni executives.

### **Next Gen Pricing**

The Nasuni File Management Service is priced by a flat connectivity fee. It does not include a capacity-based component or a surcharge of cloud's utility pricing. This keeps pricing low and partners' margins intact. Nasuni's intentions are, wherever possible, to be a service component of the cloud providers' offering. This clean approach avoids both cost creep for the customer and the erosion of margins for the cloud provider.

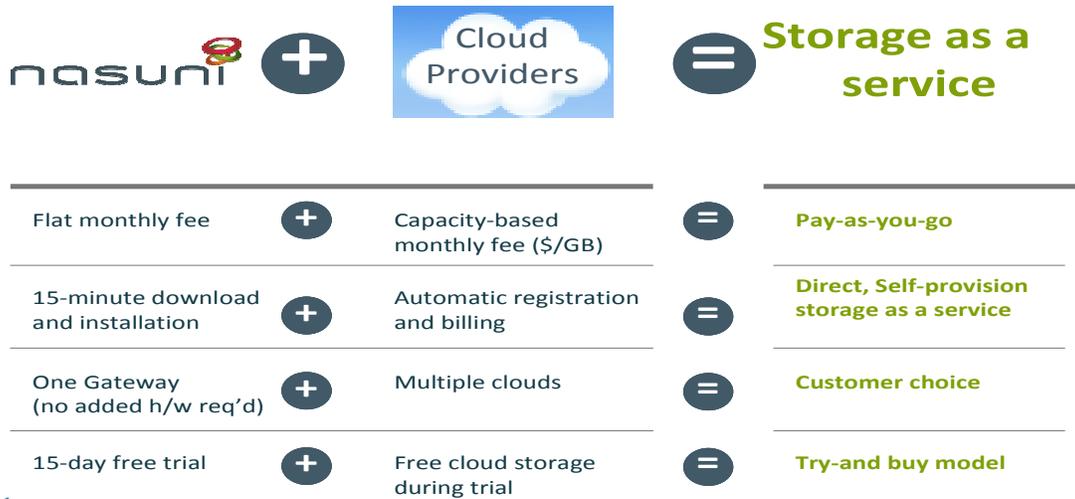
<sup>1</sup> It does not provide search or any other advanced functionality. However, its structural design would allow partnering for such functionalities.

<sup>2</sup> Support for *Microsoft HyperV* will be added later this year.

<sup>3</sup> Snapshots provide a consistent point-in-time for the file system, eliminating the need to back up the Nasuni Filer.

**Exhibit 1 — Nasuni’s Value Proposition**

**Nasuni brings “Storage as a Service” to the mid-market**



1

Source: Nasuni

At launch, a single Nasuni Filer will be offered. Within a few months, the testing will be complete to offer a clustered pair, which usually will be enough to serve a campus. Later, support for additional filer pairs will expand the reach of Nasuni across many geographic locations adequately. The clustered filers will maintain coherence and consistency across an organization’s entire file environment.

**Breadth of Support**

Breadth of support is a matter of integration and testing. At launch, the Nasuni filer has full integration with *CIFS*, *ACL (Access Control Lists)*, and *Microsoft Active Directory*. Support for *NFS* will be coming soon, according to Nasuni. The build-out of support will depend on customer requirements. The broad heritage of the Nasuni development team will be helpful in accelerating the build-out.

**Conclusion**

Convincing people that any one product or service *can do it all* is the stuff of infomercials and early morning TV. In the real world, a service offering must include what it does, how it fits into a larger endeavor, *and how the partnerships with this larger ecosystem work*. Like the creators of a variety of edge devices, Nasuni has focused on designing an element that will

facilitate the functioning of a larger system. It has included features and security that make its element both valuable in itself and valuable to the other components of a larger system. If you are plagued by files and have little *CAP(ital)* to *EX(pend)*, consider Nasuni.



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