Leveraging the Marketing Potential of the Mobile Web
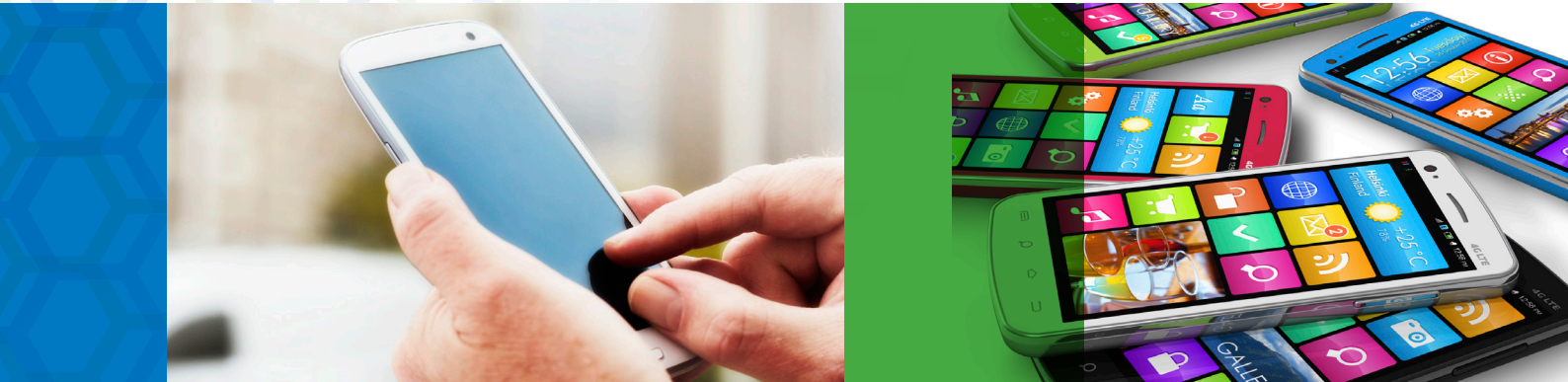
AdMob Trusts SGI® StorHouse® to Backup and Protect Valuable Web Server File Data

If history characterized centuries with sounds, the 21st might be distinguished by the billions of clicks generated by Internet users as they navigate through myriad entertainment and utility websites to watch movies, catch up on the latest news, pay bills, or purchase items from online stores. Now, with the advent of mobile websites and smart phone technology, millions of people on-the-go have anytime, anywhere access to this same online information.

About AdMob

Founded in 2006, AdMob is a highly energetic, technology-savvy network dedicated to providing business models, tools, services, and data essential to developing and expanding the mobile Internet. AdMob makes it easier for advertisers to engage with consumers on their mobile devices and helps publishers monetize their mobile web traffic.

Collecting and Backing Up Ad Campaign Data

From a business perspective, clickstreams generated on the mobile web are treasure troves of marketing research information. During ad campaigns, AdMob collects anonymous clickstream and other data in web server logs. It is critical for these log files to remain accessible for future processing.

Initial Backup Strategy

Initially, AdMob backed up all web server log files to disk. However, as the popularity of the mobile web increased, the company rolled out additional ad campaigns that reached even more mobile devices. With more data to manage, AdMob quickly realized that its all-disk backup

strategy was no longer a viable option because of its high cost-per-terabyte of storage.

AdMob evaluated industry-leading backup vendors in search of an innovative, automated, and more cost-effective backup solution that also ensured data integrity and provided an immediate and measurable return on investment. The company selected a StorHouse® native file format backup system from SGI®- a leading provider of storage virtualization, data management and information governance solutions – to back up and protect its log files. The SGI StorHouse solution quickly went into production within one month.

About SGI StorHouse

The SGI StorHouse solution is a unique storage virtualization platform that can archive, retrieve, and back up massive amounts of relational and file-based information using an automatically managed pool of traditional and alternative storage devices such as disk and tape. In addition, the system provides unprecedented scalability to zettabytes with no performance degradation. Organizations deploy StorHouse software for digital preservation initiatives, active archive applications, database extension systems, and native file format backups of data residing on operational systems.

StorHouse products protect against silent corruption and bit rot by proactively auditing, monitoring, copying, and rewriting content to ensure information remains safe and secure throughout its useful lifecycle. The StorHouse system software continually checks data and media for

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signs of degradation and corruption. If there is a problem, StorHouse software can automatically relocate data to another volume or create a new file from a secondary copy to maintain data integrity and accessibility.

Moreover, StorHouse systems provides user-definable version control and retention management and complete compliance support with individual backup file deletes on any media, including tape.The StorHouse solution supports backups across hard disks and tape libraries as well as the ability to access that data seamlessly.

For data integrity, content validation and repair processes provide insurance against loss due to bad media. These features satisfy AdMob's main requirements for scalability and low-cost backup.
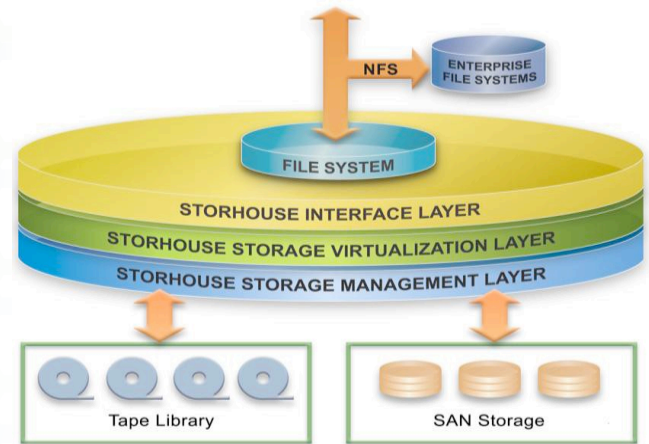
The StorHouse Application at AdMob

The StorHouse application at AdMob is unique because it stores backed-up files in native file format instead of in proprietary compressed formats typically used by legacy backup applications. By providing users with real-time access to individual files in native format, the StorHouse software eliminates the need to perform restore operations. Users simply navigate to the files they need and re-acquire them in their native format at any time.

AdMob writes log files to the StorHouse application through the StorHouse file system interface layer. Because this interface uses standard NFS/NTFS/CIFS protocols, existing AdMob applications required no code modifications. The StorHouse platform simply appears on the AdMob network as a single, unified file share that users and applications can access through traditional drive letter mapping or a server-oriented file path.

During the backup process, StorHouse software groups individual log files in collections with similar attributes and writes them to a log file staging area on a directly attached storage solution. Once a collection is complete, the system copies it from the staging area to StorHouse-managed tape. Based on a configurable system parameter setting, StorHouse software automatically makes a secondary copy of the AdMob collections through its internal backup software feature.

The StorHouse hardware architecture at AdMob consists of a Sun Solaris server that runs the StorHouse system software and file system interface, fast disks for the StorHouse performance buffer and file collection staging area, and a dedicated Qualstar® tape library for storing the backed up log files. The Qualstar library has four tape drives, uses 800-GB LT04 media, and affords growth to 100s of terabytes of data.

StorHouse Architecture

Future Application Expansion

A single StorHouse platform can support many applications and share relational and file-based data between diverse computing platforms with no format conversions. To benefit from these features, AdMob has future plans to use StorHouse solutions to back up its corporate data warehouse and archive snapshots of its customer transaction databases.

Summary

As file data volumes increased, AdMob's initial disk-based backup system was no longer cost-effective to operate.

After researching many vendors, the company selected and deployed a StorHouse native file format backup solution from SGI to store and protect its web server data. By storing information in native file format, the StorHouse application provides faster time to critical backup data because administrators must no longer restore files to disk prior to access. In addition, the StorHouse system supports data protection, self-healing, and tape management features that safeguard the integrity, scalability, and accessibility of all data.

About SGI

SGI, the trusted leader in high performance computing (HPC), is focused on helping customers solve their most demanding business and technology challenges by delivering technical computing, Big Data analytics, cloud computing, and petascale storage solutions that accelerate time to discovery, innovation, and profitability.

On October 1, 2013, SGI acquired the assets and some employees of FileTek, Inc., including all the rights to StorHouse software.

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