



# **Beware of False Clouds: Hosted Systems vs. Software-as-a-Service (SaaS) for Document and Email Management**

*Technology is fundamentally changing the way business is conducted and an ever increasing need for mobility and connectedness in law firms requires state-of-the-art technology to remain competitive and to provide the firm and its clients accessibility to their documents and email. It is now more essential than ever that law firm's technical solutions for managing content be designed to keep up with industry and client demands.*

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## HOSTED SYSTEMS VS. SAAS ARCHITECTURE

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In recent years, vendors selling on-premises, server-based systems have been attempting to adapt to a cloud delivery model by hosting the same on-premises systems in offsite locations and billing on a subscription basis. This has created confusion in the market as to the difference between a hosted solution accessed over the web, and a true Software-as-a-Service (SaaS) cloud service and infrastructure.

**A Hosted System** is a technology delivery model where the storage layer (database) and the processing layer (servers) are located in a remote datacenter, physically separated from the local client layer (workstation). The traditional computing model of the 1980s and 1990s is based upon a three tier architecture (database, servers, and workstations), and has been challenged in the past decade by the rise of modern, more efficient web technologies. Vendors caught with a legacy, three tier architecture, if unable to re-develop and modernize their aging technologies, have resorted to a hosted solution. In essence, these vendors have simply moved the back-end layers of the database and processing to a remote location, physically separating it from the client workstation, to give the appearance of cloud and web, but without the inherent architectural changes.

**A SaaS (Software-as-a-Service) Solution** is a technology delivery model where the entire application stack was developed using web technologies. Concepts such as multi-tenancy, distributed computing, SAML-based authentication, agile development methodologies with periodic releases, software encryption, and client-controlled hardware security module (HSM), are all part of an enterprise SaaS solution. Hosted three tier architecture deploys traditional “enterprise architecture” with a SQL server for the database, Raid-6 & Replication for high availability, and Verity or IDOL for the search engine; modern SaaS architecture deploys newer and much more robust and scalable “web architecture” of no-SQL databases such as Cassandra or Couchbase, object store for high availability, and Solr or Elastic Search for the search engine. SaaS solutions are conceived, architected, developed, tested, and deployed for highly efficient, secure, modern, and multi-tenant architecture. Hosted solutions were conceived, architected, and developed for on-premises deployment, and warmed-up for the cloud by avoiding the hard work of re-writing the application and simply creating a physical distance between the database/server layer and the workstation/client layer.

### The Difference

Vendors focusing on hosted systems suffer from the insurmountable challenge of deploying, licensing, monitoring, and supporting an increasingly heavy load of hardware and software as the number of clients increase. Each additional client requires more labor and resources, as the hosted architecture does not benefit from economies of scale as there is a single service installation for each client.

Vendors focusing on SaaS Solutions enjoy a single instance for all clients and all users, thus benefiting from economies of scale as all customer firms access the same architecture, hardware, and software. This benefit of a one-to-many (one technology to many customers) structure is that SaaS vendors are able to justify extensive investment in best-of-breed technology, security, and compliance solutions that would be prohibitively expensive for a single firm to deploy.

**A modern cloud and SaaS architecture can deliver the benefits of best-of-breed technology.**

### **The Market Confusion**

In the document management market, on-premises vendors have attempted to rebuff the cloud vendors by offering their systems in a hosted environment. Unable to keep up with the strong technology advantages of cloud vendors under multi-tenancy, hosted vendors attempt to justify their inefficient architecture under the premise that the hosted model is safer because it is non multi-tenant, therefore avoiding the dreaded concept of co-mingling client documents. This is a fallacy. All hosted or on-premises installations are co-mingling client documents, as documents are stored on the same disks, same hardware, and same network. There is no data encryption nor best-practices such as segregation of duties, defective media retention, and removable media disablement. Under the hosted model, there is arguably more co-mingling of data compared to an on-premises system, as the virtualization of servers stores multiple firms' documents under the same hardware and storage infrastructures.

Cloud architecture such as NetDocuments gives firms the freedom of having complete physical and logical segregation of storage and encryption keys for particularly sensitive clients. There is no sharing of disk spindles or storage systems. A modern cloud and SaaS architecture can deliver the benefits of best-of-breed technology. This is accomplished by leveraging world class technology, certifications, and audits across the entire customer base.

### **About NetDocuments**

Founded in 1999, and with offices in the US, UK, and Australia, NetDocuments is the leader in cloud-based document and email management for law firms. With hundreds of thousands of users across 140 countries, firms enjoy the power and simplicity of built-in disaster recovery, matter centricity, enterprise search, mobility, records management, collaboration, and compliance for documents and email.

Deployed by many of the Am Law 100 firms, world-class security, compliance, and availability are top priorities. With a 99.99% uptime, the content is always available, anywhere in the world and on any device. NetDocuments' award winning, patented technology, is deployed across world-class ISO 270001 certified datacenters with leading standards of security, encryption, SEC, FINRA, and HIPAA compliance, as well as a SOC 2 Type 2 annual audit.

Seamlessly integrated with Microsoft Office, Adobe, imaging systems, and many third-party applications, firms are simply getting more done with less – more productivity, more security, more collaboration, and more mobility – with less cost, hardware and hassle.

By combining document and email management with records management, imaging, and client collaboration tools, NetDocuments brings legal technology and information governance to the forefront of the firm, providing a distinct marketplace advantage for firms of any size, increasing productivity, while reducing costs and simplifying technology.