Advantos ASP Hosting Services

Providing Value through Hardware and Support Savings

advantos systems, inc.

WHY SaaS?

The Software as a Service (SaaS) model has evolved because it offers significant advantages over traditional approaches to software utilization: low-cost entry, rapid implementation and deployment, elimination of the IT infrastructure needed to operate and maintain applications, elimination of the cost attached to implementing and maintaining site security, economical distribution of applications and upgrades across an entire organization, and economies of scale all make SaaS a more cost-effective (and, hence, more desirable) solution than owning, operating, and maintaining an application outright. In fact, according to a number of industry experts, the future lies with moving away from installed software to web based, "on-demand," products. Advantos Systems is among the industry leaders shaping this future by developing new products from the ground up specifically for delivery as web based services, and by hosting many of these web based products. In brief, the SaaS value proposition is that outsourced application delivery via a client web browser and Internet connection is almost always better, faster, and cheaper than the self-hosted alternative.

ADVANTOS SaaS: TURNKEY PROPERTY MANAGEMENT

Advantos SaaS hosting offers clients a single, convenient, cost-effective solution for accessing the latest property management technology. Clients benefit from the power and performance of Advantos' state-of-the-art web technology without the burden of having to establish and maintain the IT infrastructure, support services, and security necessary to keep their system operating at peak efficiency. This all-inclusive approach to residential and commercial property management lets Advantos provide, host, and maintain the system, so clients can focus their energy where it counts—on their business.

Among the key features of Advantos SaaS Hosting are:

Benefits

- ❑ Minimum up-front cost
- ❑ Rapid implementation and deployment
- ❑ Easy start-up
- ❑ 24/7 accessibility from virtually anywhere in the world
- ❑ Real-time, centralized processing linking remote sites so clients get up-to-the-minute reporting for all properties in their portfolio
- ❑ No add-ons or plug ins like Citrix® or Terminal Services® required at the user workstation – just a simple browser and Internet connection
- ❑ Future-safe your investment - protection against outdated technology
- ❑ Expert technical/support staff
- ❑ Scalability: add more users/modules, as needed
- ❑ Lower overall cost to implement and maintain system hardware and software

Security

- ❑ 128-bit encryption over the Internet
- ❑ Multiple firewalls

- ❑ On-premises security personnel
- ❑ Continuous video surveillance
- ❑ Biometric screening to enter/exit Advantos SaaS Data Center

Redundancy and Uptime

- ❑ Nightly backups and off-site transfer of all data
- ❑ Battery backups and a fully automatic fail-over standby generator to ensure uninterrupted performance in the event of a power failure
- ❑ Seismically braced server racks
- ❑ State-of-the-art fire suppression system
- ❑ Weekly server maintenance
- ❑ Round-the-clock monitoring of server operation

ADVANTOS' GROWTH AS AN SaaS PROVIDER

Advantos began offering SaaS services in January 2004, when it hosted 2 clients. And as of December 2010, fully 85% of Advantos Systems new business was by SaaS hosting.

INFRASTRUCTURE

IT Staff

Crucial to the success of Advantos SaaS hosting is its expert IT staff. Staff members provide round-the-clock coverage, on a rotating basis, of Advantos' SaaS Data Center. On-duty staff members are available via Advantos' SaaS Hotline; so that clients are never left "to fend for themselves" should they need technical assistance. On-duty IT staff perform application server support, database server maintenance, and general maintenance of the SaaS network, as well as Level 1 support (initial client contact) outside normal business hours (6 a.m. to 6 p.m. daily).

Hardware and Software

Advantos' SaaS hosting uses Dell™ hardware in combination with Cisco PIX® Firewalls, hardware load balancing, Microsoft® IIS (Internet Information Services), the power of Windows® Server 2003, and Microsoft SQL 2000 and U2 server databases to provide comprehensive, cost effective solutions to its clients. In addition, all system hard drives run in parallel, providing a high-availability environment that lets clients have round-the-clock access to their data. This redundant system architecture helps ensure uninterrupted service, so that even in the event of a hard disk failure, clients have transparent access to their data. All a client needs to access the full power of Advantos' industry-leading Enterprise software is an Internet connection and a PC equipped with Microsoft Internet Explorer. By simplifying access to the latest property management technology, clients with limited IT resources or complex operational needs can benefit from the efficiencies that come with Advantos SaaS hosting.

Routine Maintenance

Advantos SaaS Hosting staff monitors service packs and hot fixes from all vendors whose software and hardware are used in the application hosting environment. The procedure for implementing these patches is as follows:

1 Validate the patch by implementing it in a test environment

2 Implement the patch in a limited Beta environment (requires approval by Advanots SaaS management)

3 Apply the patch to a production environment (requires approval by Advantos SaaS management)

In order to meet service level goals, the Advantos SaaS hosting staff uses specialized tools to track performance-related statistics including memory utilization, CPU, and disk space. When acceptable parameters for performance are exceeded, a system alarm notifies the appropriate SaaS staff member(s). As an additional failsafe to ensure high system availability, the Advantos SaaS staff performs a weekly testing routine to validate system accessibility.

Service Level Goals

To ensure the highest system performance possible, Advantos ASP Hosting operates under the following service level benchmarks:

Service Level	Metric	Goal
Network Availability	Network Uptime	99.5%
Operating Systems ❑ Servers ❑ Storage Devices ❑ Switches ❑ Routers ❑ Firewalls	System Uptime	99.5%
Application Availability	Application Uptime	99.5%

Partners

Advantos SaaS Hosting is built on a world-class data center. To achieve full redundancy and minimize risk, Advantos has partnered with a carefully selected network provider to establish a qualified site to host, maintain, and back up client data. The system architecture implemented by Advantos SaaS hosting ensures maximum protection of client information.

SECURITY

Advantos SaaS Hosting provides the highest level of security for its clients. Site security at data centers includes on-premises security personnel, continuous video surveillance, biometric screening of all persons entering or exiting the premises, seismically braced server racks, state-of-the-art fire suppression systems, and round-the-clock monitoring of server operations.

Stringent security has been implemented around a six-layer model:

Layer 1

Multiple Firewalls – control the type of information that is transmitted and received by data center servers.

Layer 2

Secure Socket Layer (SSL) – uses 128-bit encryption to protect data anytime it is sent over the Internet.

Layer 3

NT Active Directory Security – ensures that clients only have access to their specific applications; folder access is based on company-defined permissions.

Layer 4

Microsoft SQL Server 2000 Authentication and Database Name Encryption – any attempt to log into the SQL server is authenticated before it is allowed.

Layer 5

User-Defined, Machine-Specific Access – a designated user can authorize who can access program features and reports, as well as define the length of "idle" timeouts, from within the program. The user can also specify which machines/PCs can access the program.

Layer 6

User-Defined Password Expiration – an authorized user can control how often system passwords must be changed to conform to internal protocol.

SARBANES-OXLEY

For those clients who require stricter controls, Advantos has implemented multiple processes to ensure the integrity of client data. Many of these processes fulfill the stated objective of the Sarbanes-Oxley Act: "To protect investors by improving the accuracy and reliability of corporate disclosures made pursuant to the securities laws."

Every Advantos SaaS-hosted data center has the controls in place to comply with the intent of the Sarbanes-Oxley Act:

❑ On-premises security personnel
❑ Continuous video surveillance
❑ Biometric screening to enter/exit Advantos SaaS Data Centers

Additional internal controls used by Advantos SaaS hosting include:

❑ Written client approval required to implement any change to the client production environment
❑ Regular meetings, where required, between the client and Advantos SaaS hosting to review server performance in handling client data, as well as ongoing/future client needs
❑ Stringent controls governing user access to client data
❑ Segregation of job functions to ensure data integrity

REDUNDANCY

System Backups

Advantos SaaS Hosting is designed around a system architecture that includes multiple levels of redundancy to ensure maximum protection of client data. Client programs and linked files are stored on RAID 5 or RAID 10 disk arrays. Every hosted client database is replicated on a separate hard drive.

Furthermore, if the client elects, all client data can be backed up periodically to a secure, on-site FTP server accessible to a designated user for each client. If this is done, Advantos recommends that clients periodically download and archive their database backups from this client-accessible server. As many as 10 backups of client data can be stored on the FTP server, after which they are deleted to make room for new backups. If necessary, clients may purchase longer periods of storage on the server.

Site and Network Redundancy

Our data center is also equipped with backup generators to ensure an uninterrupted power supply (UPS) for the site in the event of a catastrophic power failure. Similarly, every data center has redundant heating, ventilation, and air conditioning (HVAC) to ensure that the controlled server

environment essential for optimal system performance is not compromised by hardware failure. In addition, Advantos SaaS Hosting uses multiple ISPs for each of its data centers to ensure uninterrupted Internet access in the event that any single provider's network becomes compromised.

Collectively, these precautionary measures equate to uninterrupted business continuity for Advantos hosted clients, enabling them to focus their energy where it counts—on maximizing the productivity and profitability of their business.

SCALABILITY

Growing with the Client

One of the key benefits of Advantos SaaS hosting is the ease with which it allows clients to increase their processing capacity as their business grows. New users/modules can be added quickly as demands increase, and Advantos' data center maintains excess capacity at all times, so that no matter how rapidly our clients grow, there are always enough servers on the Advantos SaaS hosting network to readily meet their needs. Conversely, should clients ever have to scale back their operations, they can do so without having to suffer the loss of investments made in unused software and hardware.

CENTRALIZED PROCESSING

Another major benefit of Advantos SaaS hosting is its centralized database and real-time processing. The seamless integration of client database information with Advantos' state-of-the-art property management and financial reporting applications provides the ideal solution for a mobile/distributed workforce. Remote sites can be linked and provided with up-to-the-minute reporting and real-time transaction posting for an entire portfolio. In effect, Advantos SaaS Hosting lets clients run their business as if all their offices were under one roof, resulting in increased efficiency and profitability.

CLIENT REQUIREMENTS

Following are the recommended hardware specifications for hosted clients:

❑ Operating System - Windows 98, Windows 2000, or Windows XP or Windows 7

❑ Processor - Intel® Pentium® or AMD Athlon™, 200 MHz or greater and 32 MB RAM

❑ Available Hard Drive Space - 100 MB of disk space

❑ Network - Connection to Internet