



SOFTWARE-AS-A-SERVICE

SaaS Solutions for e-Learning Providers

In a challenging marketplace with rapidly changing business needs, Savvis offers Software-as-a-Service (SaaS) solutions that can help you efficiently manage your Web applications and confidential data. With a holistic approach, broad service offering, and history of proven SaaS implementations, Savvis' SaaS solutions should be the answer for any organization that's searching for an innovative service provider with demonstrated hosting leadership, security expertise and outstanding customer support.

Savvis offers a portfolio of services that meet your needs, from development through deployment. You can begin reaping the benefits of SaaS without making large investments in infrastructure or rewriting your databases. Even with most legacy applications, Savvis provides fast, reliable virtualization solutions that offer you the additional performance, reliability and security protection you require. Savvis' comprehensive SaaS solutions for e-Learning Providers include Savvis Cloud Compute, Application Performance Monitoring, Utility Backup and Vaulting Services and Physical and Logical Security Services.

Savvis Cloud Compute

Maintaining Availability of Critical Systems

Savvis understands that e-Learning organizations require an IT provider that can offer them highly-available services, to prevent cancellation or postponement of important courses or training sessions. With our Cloud Compute services, we specially design the services to eliminate downtime caused by hardware failure. And our dynamic architecture can move instances between physical servers without service interruption, to keep your Web site and critical applications up-and-running without compromising performance. We offer scalable, agile compute solutions in either shared or dedicated environments, depending on your specialized needs. Further, our cloud server instances act just like physical servers and run your applications in the same efficient way to which you've become accustomed.

Managing High-Demand Periods with Ease

Savvis Cloud Compute combines virtualization technology from VMware®, an industry leader, with our dedicated and shared hosting platforms. To accommodate higher-volume periods of the year such as those associated with mandatory training sessions, required courses and benefits enrollment periods, Savvis' customers are empowered with convenient tools to provision new instances online as they require, with brief, flexible term commitments. This equips your organization with the necessary tools to build, control and customize your hosting environment, and to support the increased demands placed on your infrastructure by higher volumes of activity.

Flexibility

- Breadth and depth of hosting and network services
- Global network footprint
- Companion Professional Services offerings available

Focus

- SaaS Market leader

Expertise

- Outstanding customer service and support
- Extensive hosting, backup & vaulting, monitoring and security experience

Innovation

- Cloud Compute Services
- SOASTA CloudTest Service
- Web Application Firewall Service
- Application Performance Monitoring Service



Even better, you can leverage these tools without the burden of long-term contracts or longer lead times frequently associated with traditional deployments. We understand that the demand on your compute resources is dynamic and always changing, and that although some demands are predictable, many are not. Every component of Savvis Cloud Compute is based on the notion that you should be able to deploy compute resources quickly and easily when you need them, and turn them off when you don't.

Recently, Savvis has teamed with SOASTA to provide organizations like yours with affordable Web-scale performance testing and optimization capabilities. These testing capabilities can boost organizational confidence in your Web site's ability to perform effectively during periods of peak demand and system stress.

Benefitting from Higher Performance at a Lower Cost

On a routine basis, your clients are exposed to reports that describe the impact of rising educational and training costs on their daily lives. Savvis Cloud Compute eliminates the capital burden of investing in costly physical server deployments that are frequently underutilized, providing you with valuable savings that can be passed on to your students or invested in other important projects.

Application Performance Monitoring (APM)

Validating Web-User Experience

With each passing day, the volume of training material and course content that is provided to your students through the Web continues to grow. Therefore, the importance of validating the quality and effectiveness of your end-users' Web experience continues to grow at a similar pace. With Savvis' Application Performance Monitoring (APM) Service, you're provided with a valuable tool that enables rapid diagnosis of issues, permitting you to take immediate corrective measures and minimize service issues that are experienced by end-users. The service provides you with the following capabilities:

- **Identification:** Savvis' APM Service monitors every component of the application stack as each component executes, in order to determine where latency or performance issues occur.
- **End-user experience alerts and analysis:** APM delivers alerts and reporting for end-user response times that exceed your defined thresholds. APM then utilizes this data to identify potential performance bottlenecks, and to provide you with actionable advice when end-user experience becomes compromised.
- **Comprehensive performance monitoring:** APM aggregates, correlates, analyzes and reports on application-relevant information across Windows and Linux operating systems, file-oriented databases including Oracle and SQL and enterprise applications including Oracle, Apache, IIS and MS SQL.
- **Access to SavvisStation Portal:** All of the monitored components of your application stack are visible in SavvisStation, a robust portal designed to keep you apprised of the system health of your applications, servers and networking devices.

Application Performance Monitoring (APM)

- Identification
- End-user experience alerts and analysis
- Comprehensive performance monitoring
- Access to SavvisStation Portal

Utility Backup and Vaulting Services

Simplifying Data Backup and Restoration

Savvis recognizes that e-Learning providers are compelled to retain important course content for lengthy time periods. We also understand that you expect real-time data recovery capabilities, while paying for the data backup that you use, when you need it.

Savvis' Utility Backup Services suite is scalable from gigabytes to terabytes, and provides you with a usage-based billing model. Our solutions include all the infrastructure, technology, processes, management services, and expertise you need to address the complexities associated with backup and restoration. And, since Savvis manages your backup and vaulting infrastructure, you can focus on tending to your students' needs and managing your organization.

Customizing your Solution with Savvis' Utility Backup Services Suite

The following services are available to address your specialized data backup needs:

- **Utility Vaulting:** We offer offsite backup data storage at a secure facility. You choose from a rotation and retention schedule matrix, and select a schedule that best meets your requirements.
- **Encryption:** We help keep your data safe with backup data tape encryption.
- **Database Hot Backup:** We provide you with online, non-disruptive backups of your database.
- **Professional Services Backup Assessment:** Our Professional Services team will help you assess your true backup requirements and devise a configuration that works best for you.

Leveraging Savvis' Data Backup and Restoration expertise

Savvis understands that many e-Learning providers struggle to maintain internal backup and restoration expertise, and also want to keep their data backup and restoration-related capital costs as low as possible. At Savvis, our dedicated managed backup engineering staff has an average of eight years experience per person. When your data simply must be online and efficient, reliable data management is vital to containing costs. Our team can provide the management expertise you need, while increasing your operational efficiencies.

Savvis' Physical and Logical Security Services

Our Physical and Logical Security Services help you to protect your hosting and network infrastructures from potential data compromises. In addition, critical security reporting is made available to you immediately via our SavvisStation portal, permitting you to address potential security threats quickly and effectively. Additional details about our extensive portfolio of Physical and Logical Security Services appear in the following sections.

Reducing the likelihood of data breaches

Data breaches can have a significant negative impact on your business relationships with clients, investors, suppliers and employees. In extreme cases, such breaches can lead to governmental or industry fines, legal action and/or an impact on your organization's stock price. Savvis understands that your organization needs our support to help you protect yourself against internal and external threats to your valuable data. As such, Savvis offers a full range of data center, systems access, malware and backup & storage protection

Utility Backup and Vaulting Services

- Utility Vaulting
- Encryption
- Database Hot Backup
- Professional Services Backup Assessment

services that are designed to meet the infrastructure security needs of e-Learning providers like you.

Physical Security Services

Our first level of protection involves access to Colocation or Managed Hosting space at our data center locations. In our many years of data center management experience, we have become familiar with clients' expectations regarding data center access, and regularly review our policies to keep up with clients' changing needs and expectations.

Our physical security services provide you with the following capabilities:

- **Controlled Access to Data Center Space:** It is mandatory that all outside visitors to our data center locations be escorted by Savvis personnel. Manual log-sheets are maintained for all access to our data centers, and Electronic Access Control Reports can be made available that capture daily data center activity at the main lobby door, at the portal/person-trap and inside the security door to the data center. By following these practices, you are protected from unauthorized access to your data center infrastructure by outsiders.
- **Secure Data Center Infrastructure:** Savvis' data centers leverage advanced, cutting-edge standards in data center infrastructure, including biometric readers, card-scanners and person-traps as standard methods to validate legitimate access to our data center infrastructure.

Logical Security Services

Savvis' security protection doesn't just extend to your physical infrastructure; we also have significant experience in helping clients bolster their level of IT system security. The following Savvis services can provide protection to your systems from unauthorized access, allowing you to maintain system maximum availability to your clients and end-users:

- **Web Application Firewall (WAF):** With Savvis' Web Application Firewall Service, you can keep your critical SaaS-enabled applications running smoothly by protecting them against potential attacks. Our Web Application Firewall Service leverages Imperva's® leading SecureSphere® technology to provide reliable and affordable Web application protection to your organization. Most importantly, our WAF Service helps e-Learning providers prevent potential data compromise, as the WAF technology is capable of inspecting outbound traffic to identify possible leaks of sensitive data such as student data and social security numbers.
- **Intrusion Detection Services:** Network Intrusion Detection System (NIDS) services alert you to potential breaches of your network, and are offered in conjunction with Incident Response Services, which can be activated rapidly if a breach is suspected.
- **Log Management Service:** Attempts by end-users to access unauthorized systems may be logged via our Log Management Service. Reporting of such attempts is available in the substantial amount of logging data that are available for your review.
- **Integrity Monitoring Service:** Our Integrity Monitoring Service (IMS) provides notification and alerts when specified files residing on your host computers are changed. With your authorization, alerts are responded to on a 24/7 basis by Savvis' Managed Security Team.

Physical Security Services

- Controlled Access to Data Center Space
- Secure Data Center Infrastructure

Logical Security Services

- Web Application Firewall (WAF)
- Intrusion Detection Services
- Log Management Service
- Integrity Monitoring Service

Malware Protection Services

Our malware protection services can help protect you against threats posed by computer malware, such as viruses, worms and Trojan horses. Service options include the following:

- **Email Anti-Virus and Web Anti-Virus and Anti-Spam Services:** We can help you to protect your email from viruses, worms, Trojan horses and other forms of computer malware, through our email and Web protection services.
- **Routine application of security patches and system updates:** For all of your Savvis-managed hosting servers and security devices, we apply security patches and updates after they are tested by Savvis for stability purposes. These patches and updates allow you to remain up-to-date with evolving threats and vulnerabilities. You are notified in advance of any planned changes to your infrastructure, so that you can plan for upcoming changes.

Backup & Storage Security Services

Savvis also provides valuable protection for your stored data, since that data frequently contains sensitive organizational information that you wouldn't want to have exposed to outsiders. Our capabilities and operational procedures include:

- **Restricted Access to Backup, Storage and Vaulting Media:** Only authorized Savvis employees and vaulting vendors are permitted to physically handle your organization's media.
- **Off-site Tape Rotation Capabilities:** With our Utility Vaulting Service, all of your full back-ups are taken off-site, not just information that's backed-up from specific files or servers. Tape rotation occurs on a regularly-scheduled basis, and your data are retained for at least 28 days.
- **Utility Backup Encryption:** With Utility Backup Encryption, all of your server data are encrypted utilizing a minimum of 128-bit encryption. The service leverages Advanced Encryption Standard (AES), a United States federal standard symmetric block cipher.

You run your organization. We'll run the rest.

Savvis has built its SaaS leadership position on a simple principle: we operate at high standards so our clients can, too. If your business depends on data and system availability, reliable performance and outstanding customer support, Savvis has the right infrastructure solutions for you.

About Savvis

Savvis, Inc. (NASDAQ:SVVS) is an outsourcing provider of managed computing and network infrastructure for IT applications. By outsourcing to Savvis, enterprises can focus on their core business while Savvis ensures the quality of their IT infrastructure. Leading IT organizations around the world have selected Savvis to help them improve their service levels, reduce capital expense and deal with the rising costs of bandwidth, energy, real estate, staff and expertise. As a pioneer in utility computing, Savvis understands and harnesses the latest advances in technology like virtualization, cloud computing and support process automation.

Malware Protection Services

- Email Anti-Virus and Web Anti-Virus and Anti-Spam Services
- Routine application of security patches and system updates

Backup & Storage Security Services

- Restricted Access to Backup, Storage and Vaulting Media
- Off-site Tape Rotation Capabilities
- Utility Backup Encryption

For more information about Savvis, visit www.savvis.net or call 1.800.SAVVIS.1 (1.800.728.8471).

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