

SOFTWARE AS A SERVICE (SaaS)

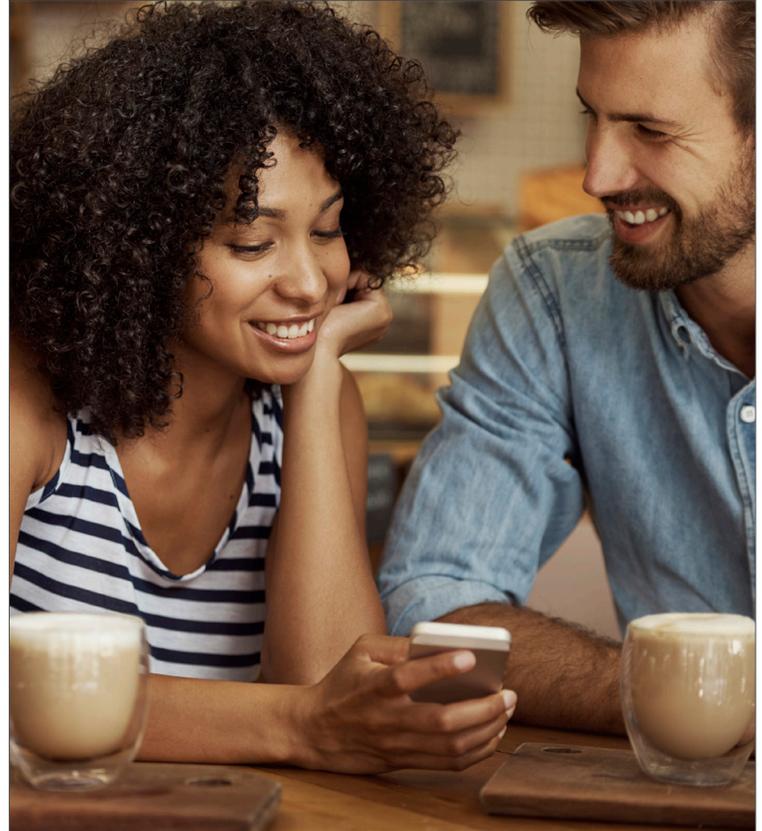
Definition, Benefits and Vendor Selection

Looking for a faster time-to-market solution with a lower investment?

Today's customers are tech-savvy and want information delivered quickly. They demand anytime, anywhere convenience and more self-service options. In order to meet these growing demands, companies require great flexibility in how they implement new products and services.

To drive sustainable growth, today's leading retailers, financial institutions and airlines are challenged to implement innovative new solutions and services while containing costs. In order to meet the aggressive timelines, companies need a way to deploy solutions faster with reduced risk and capital investment.

There's a growing concept called Software-as-a-Service (SaaS) that solves many budgeting and time-to-market challenges. Software providers still offer the traditional on-premise license solutions; however, a SaaS model may be right if you are looking for lower initial investment, quicker time to market, a constant expense structure, and/or a flexible pricing subscription model.

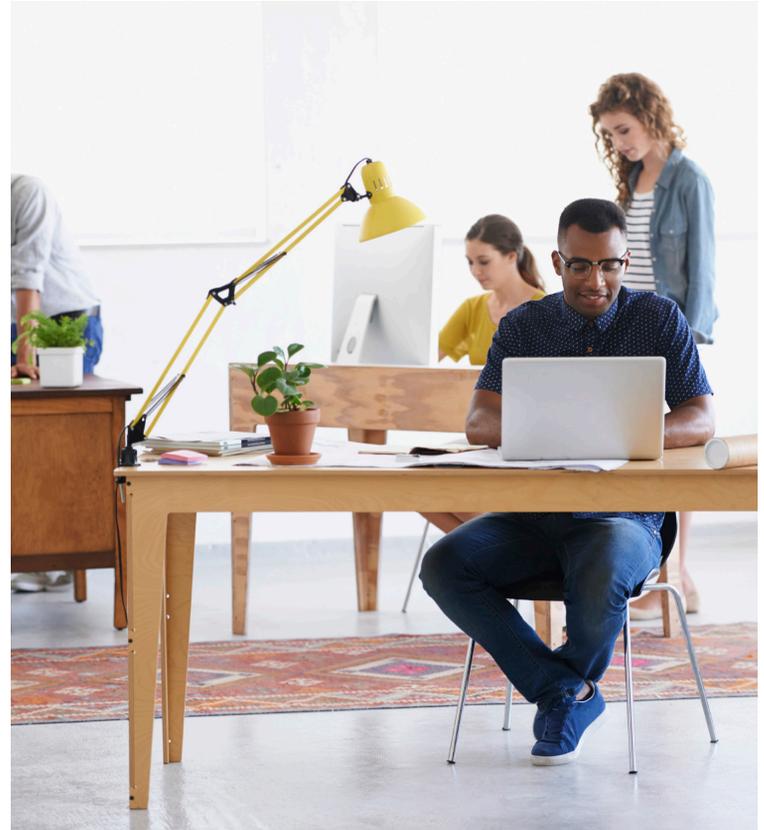


What is SaaS?

SaaS is a software licensing and delivery model in which a software application is delivered and managed as a service, by the vendor, to meet the needs of multiple customers simultaneously. A widely used example of this delivery model is Salesforce.com, a customer relationship management (CRM) tool, located in the cloud. SaaS solutions are delivered via the web and users access the software from an Internet browser. They are priced on a subscription or transactional basis, often based on the number of users or volume of usage.

A SaaS model shifts the burden of implementing and maintaining a software application from the customer to the vendor. It permits users to leverage the software functionality without the burden of deploying and managing the software themselves. It also eliminates the added costs and complexities of deploying additional hardware and software, or dedicating additional staff resources to support the software application on an ongoing basis.

The SaaS model also enables every customer to benefit from the vendor's latest technological features without the disruptions and costs associated with software updates and upgrades.



SaaS industry

Industry analysts report SaaS as being one of the fastest growing segments in the IT sector. A recent Gartner report indicates that global spending on SaaS will reach 17.9% in 2015 to \$14.5 billion and is expected to reach \$22.1 billion by the end of the year. The increase is reflective of continued demand for SaaS and returning buyer confidence for enterprise software (Gartner, 2012).

The widespread use of SaaS, as well as the adoption of SaaS as an alternative for regional deployment, broadens adoption internationally. According to the Gartner survey, investments in SaaS are expected to increase across all regions. Seventy-seven percent of respondents expected to increase spending on SaaS, while 17 percent plan to keep spending the same. More than 80 percent of respondents in Brazil and Asia/Pacific indicated more spending on SaaS applications over the next two years. The U.S. and European countries were not far behind with 73 percent of U.S. respondents and 71 percent of European respondents intending to increase spending on SaaS. (Gartner, 2012).

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When is SaaS the right option?

SaaS is becoming more mainstream and a viable option for many companies. Early on, SaaS was thought to be simply for small businesses, but now companies of all sizes are taking advantage of SaaS, scaling to hundreds of thousands of global users. Plus, it easily allows for adding incremental locations, offices and users and requires no further IT investment.

When thinking about purchasing an on premise software license or choosing the SaaS vendor-hosted option, consider your core business and distinct competence. The answer will help you determine whether or not you will benefit from a SaaS application. For example, if your business is a retail establishment or a financial institution, you likely use marketing software for your customer email communications. If you purchase this software and manage it in-house, you will hire extra personnel to maintain the hardware, software, communications, and email delivery. This type of application is ideal to be hosted by a SaaS vendor. Your attention should be on your customers and increasing revenue for your business.

Another area of consideration should be your appetite for IT infrastructure and cost. An on premise solution will require hardware, software and infrastructure resources and support.

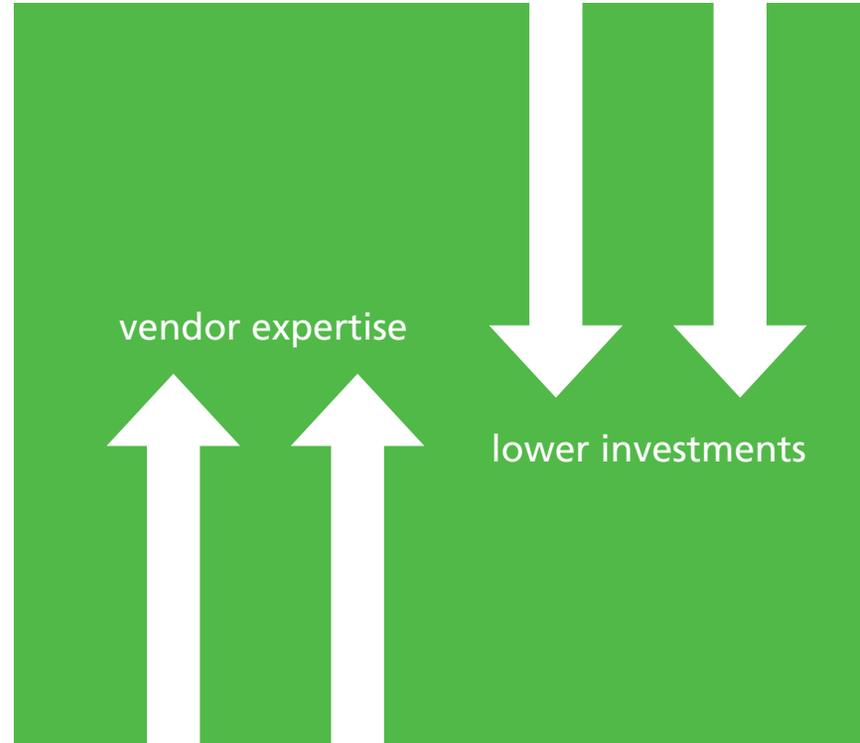
It requires your business to have the IT expertise to support and maintain the infrastructure on an on-going basis. By definition, the SaaS model demands little in the way of IT staffing, hardware, and ongoing maintenance. This enables you to focus on your particular “business objectives” and leave the hosting, networking, data security, and other IT issues to your trusted vendor.



SaaS benefits

In selecting a SaaS vendor, it is important to find a trusted partner that has built the knowledge and infrastructure to keep your data secure and the software application operating at ideal capacity.

- Lower initial investment by utilizing operating expense versus capital expenses
- Quicker time to market by using the SaaS vendor's infrastructure and IT personnel
- Vendor expertise provides industry knowledge, best practices, and consulting advice
- Constant expense structure simplifies budgeting requirements
- Flexible pricing subscription models to match current usage and easily adapt to changing business needs. Subscription-based pricing translates to significantly lower up-front costs



Vendor selection : Infrastructure/reliability

The Uptime Institute has defined tier levels by their power system percentage of availability (amount of time equipment is in service). Tier IV site infrastructure provides the ability to perform activities (e.g., equipment maintenance) without disruption to the critical load. It also provides fault-tolerant functionality, meaning that one worst-case unplanned failure (losing a UPS, for example) will not impact the critical load. Because of the degree of redundancy and fault-tolerance in Tier IV infrastructures, facility-related failures that impact the data processing equipment are statistically reduced to 0.8 hours per year. This yields 99.99% availability.

All vendors should provide you a Service Level Agreement (SLA), which is a negotiated agreement between two parties where one is the customer and the other is the service provider. The SLA documents the agreement regarding services, priorities, responsibilities, guarantees and warranties. Each area of service should have the “level of service” defined.

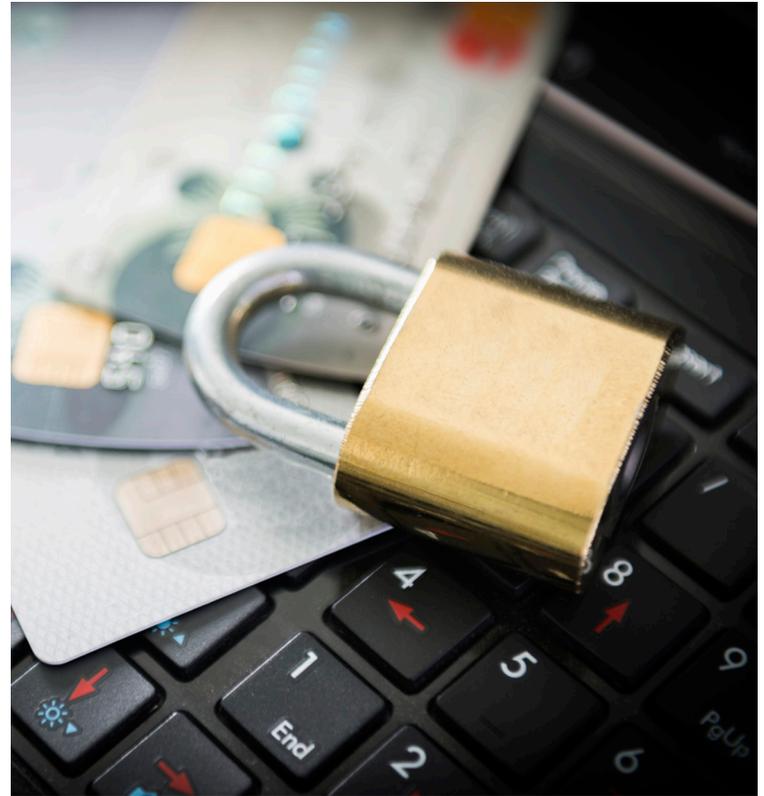
Key traits when selecting a SaaS vendor:

- Infrastructure and reliability
- Data center security
- Data center environmental controls
- Audits, compliance and certifications

Vendor selection: Security

Security is critical to the protection of your data and the reliability of the software operations. A trusted vendor's data center will have the following security levels in place:

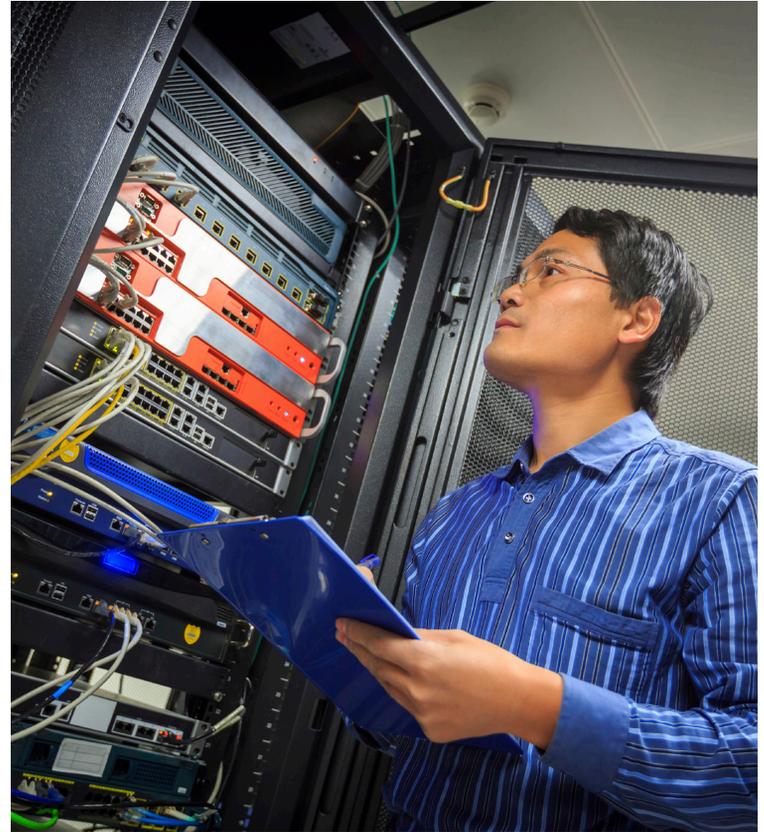
- System monitoring 24x7x365 by qualified staff to enable full data availability at all times
- Physical security through a card-access system that enables the entry of only authorized personnel. Other components should include camera monitoring, seismic sensors, and a biometric palm scan. In addition, only authorized personnel are allowed within the computer room without an escort
- Network security with the implementation of a secure firewall that integrates both network and application layer firewall protection
- Secure socket layer (SSL) protocol used to protect information over the Internet
- Additional security layers should include application security, network security, and operating security. Combined, all these layers provide a very secure and robust electronic commerce environment



Vendor selection: Environmental controls

Within the data center computer room, environmental controls are needed to ensure the integrity of the computer systems. At minimum, your trusted vendor's data center should have the following installed:

- Multiple air-handling units that provide constant temperature and humidity for a controlled environment
- Air-conditioning units configured with redundant compressors, condenser fans and power supplies. The system should be designed with excess capacity
- Multiple smoke- and water-detection systems in the ceiling and under the raised floor of the computer room
- Redundant fire-suppression systems with the primary being a state-of-the-art FM200 suppression system (FM200 is the industry standard recommended by auditing services and the U.S. Environmental Protection Agency). The secondary fire-suppression solution should consist of a dry pipe sprinkler system, monitored by a third party from a remote location



Vendor selection: Audits, compliance and certifications

Reliable SaaS vendors maintain a level of continuous improvement to achieve new certifications and validate the security levels and procedures. Vendors should engage in multiple audits on a regular basis to ensure proper procedures are in place for disaster backup, security, and sound business practices.

- Penetration tests and vulnerability assessments are tests conducted by an authorized third party to actually attempt to break into the network. If vulnerabilities are found, the vendor has an opportunity to correct these areas prior to any malicious activity.
- SAS 70 Level 2 Review performed by an independent certified public accounting firm through examining the controls and processes involved in storing, handling and transmitting data. The successful completion validates a vendor's ongoing commitment to protect the security of its customers' confidential information.
- ISO 27001 Certification is the international standard for information technology best practices.
- Health Insurance Portability and Accountability Act (HIPAA) compliance controls access to computer systems and protects communications containing protected health information (PHI) transmitted electronically over open networks from being intercepted by anyone other than the intended recipient.
- Payment card industry (PCI) compliance is adherence to a set of specific security standards that were developed to protect card information during and after a financial transaction.
- Federal Financial Institution Examination Council (FFIEC) audit for vendors hosting financial data. This interagency body is comprised of the Board of Governors of the Federal Reserve System (FRB), the Federal Deposit Insurance Corporation (FDIC), the National Credit Union Administration (NCUA), the Office of the Comptroller of the Currency (OCC), and the Office of Thrift Supervision (OTS).

NCR SaaS infrastructure

NCR is dedicated to providing best-in-class, high-availability solutions to customers located anywhere in the world.

The NCR Hosting Center in Beltsville, Maryland is a secure, high-availability facility. It is a Tier IV hosting center, SAS 70 Level 2 certified facility built specifically for data center operations.

Multiple layers of security are built into our solution offerings, including:

- Physical security through a card-access system and biometric palm scan
- Network security through our Checkpoint
- Firewall-1 solution and secure socket layer (SSL) protocol
- Application security
- Operating security

Combined, all these layers provide a very secure and robust electronic commerce environment.

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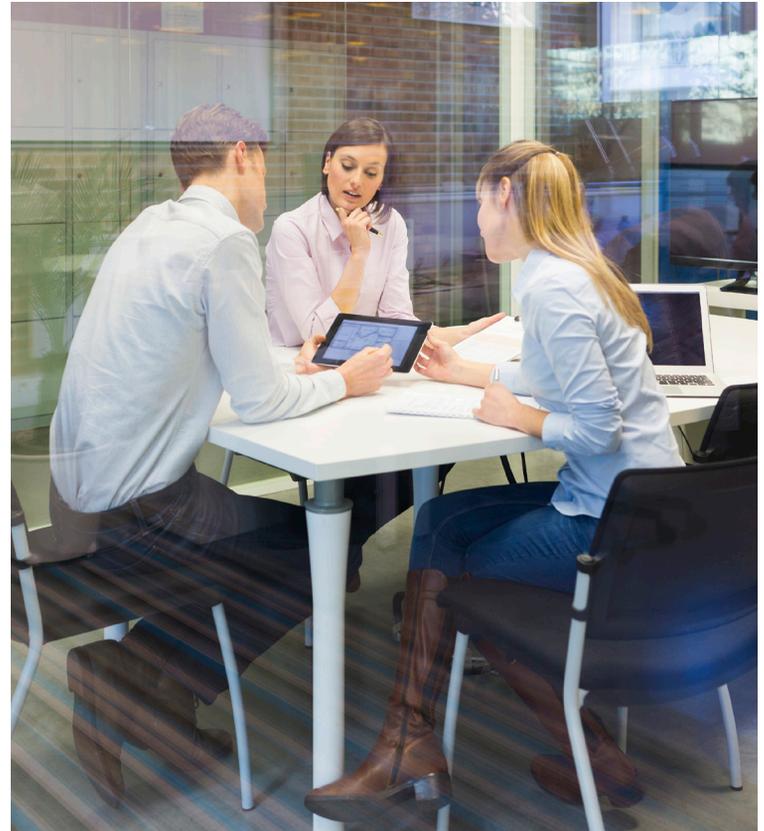
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- Network security through our Checkpoint
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- Application security
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NCR SaaS infrastructure

A reputable SaaS vendor will provide all of this and more. Companies should research all aspects of a potential SaaS vendor and not simply focus on the price. You need a trusted vendor to meet the growing needs of your customers.

It is important that your SaaS vendor have a wide SaaS portfolio, a Tier IV infrastructure and global reach. To insure your data integrity, verify that their data center has the following certifications: SAS 70 Level 2, ISO 27001, HIPAA compliance, PCI compliance and FFIEC audits.

The SaaS market is growing and can help you meet the growing demands of your customers. Now is the time for retailers, financial institutions and airlines to implement SaaS solutions. You'll be able to overcome aggressive timelines by deploying solutions faster with reduced risk and capital investment.



Why NCR?

NCR Corporation (NYSE: NCR) is the global leader in consumer transaction technologies, turning everyday interactions with businesses into exceptional experiences. With its software, hardware, and portfolio of services, NCR enables more than 485 million transactions daily across retail, financial, travel, hospitality, telecom and technology, and small business. NCR solutions run the everyday transactions that make your life easier.

NCR is headquartered in Duluth, Georgia with approximately 29,000 employees and does business in 180 countries. NCR is a trademark of NCR Corporation in the United States and other countries.

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