

# The Seven Standards of Cloud Computing Service Delivery



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The technology industry has changed dramatically over the last 10 years. In economic times like these, leading companies are looking to cloud-computing platforms to deliver business functions ranging from packaged business applications to custom application development at a fraction of the time and cost of traditional on-premises platforms. With this growth in enterprise use of cloud-computing comes a corresponding increase in responsibility on the part of vendors to provide cloud-computing platforms that offer outstanding service delivery.

Salesforce.com is the leader in enterprise cloud computing. We have more than 10 years of experience in delivering highly available, secure, and scalable cloud-computing applications based on the Force.com platform. We're well versed in every aspect of service delivery, from infrastructure to security, policies, and procedures. And cloud computing isn't simply an adjunct to our core business—it is our core business.

At the heart of our success is the Force.com platform. The Force.com platform is the foundation for all salesforce.com CRM, partner, and customer applications. With the Force.com platform, salesforce.com has set the standard for cloud-computing service delivery. We've democratized the enterprise application by making it available to small seven-user deployments like Voices.com and enterprise-level deployments such as Japan Post Network with more than 75,000 platform users. The best part? With the multitenant Force.com platform, every one of our 55,400+ customers benefits from the same high-scale performance capabilities and functionality demanded by the largest enterprises.

The CIOs of the largest financial and network security companies require that cloud-computing platforms meet the highest standards of service. After all, they're entrusting them with critical corporate data. To meet these requirements and ensure we can make customers of any size successful, the Force.com platform adheres to the seven standards outlined below. They're the building blocks of the best practices every successful cloud-computing platform should follow:

- 1. World-class security Provision world-class security at every level.
- 2. **Trust and transparency** Provide transparent, real-time, accurate service performance and availability information.
- 3. **True multitenancy** Deliver maximum scalability and performance to customers with a true multitenant architecture.
- 4. **Proven scale** Support millions of users with proven scalability.
- 5. **High performance** Deliver consistent, high-speed performance globally.
- 6. **Complete disaster recovery** Protect customer data by running the service on multiple, geographically dispersed data centers with extensive backup, data archive, and failover capabilities.
- 7. **High availability** Equip world-class facilities with proven high-availability infrastructure and application software.

Force.com is the *only* cloud-computing platform that adheres to all seven of theses standards.

# **Platform Standard**

#### 1. World-Class Security

Provision world-class security at every level. Security is more than just user privileges and password policies. It's a multidimensional business imperative, especially for platforms that are responsible for customer data. Cloud-computing platforms must have detailed, robust policies and procedures in place to guarantee the highest possible levels of:

- :: Physical security
- :: Network security
- :: Application security
- :: Internal systems security
- :: Secure data-backup strategy
- :: Secure internal policies and procedures
- :: Third-party certification

# The Force.com Difference

Security has been the top priority from day one. We ensure that our customers' data is protected with comprehensive physical security, data encryption, user authentication, and application security as well as the latest standard-setting security practices and certifications, including:

- **::** World-class security specifications
- SAS 70 Type II, SOX, ISO27001, and third-party vulnerability and SysTrust certifications
- Secure point-to-point data replication for data backup: Backup tapes for customer data never leave our facilities—no tapes ever in transport

#### **Platform Standard**

#### 2. Trust and Transparency

Provide transparent, real-time, accurate service performance and availability information.

Cloud-computing platforms should provide customers with detailed information about service delivery and performance in real time, including:

- Accurate, timely, and detailed information about service performance data and planned maintenance activities
- Daily data on service availability and transaction performance
- Proactive communications regarding maintenance activities

### 3. True Multitenancy

Deliver maximum scalability and performance to customers with a true multitenant architecture.

Leading Web applications—including Google, eBay, and Salesforce CRM—run on a single code base and infrastructure shared by all users. A multitenant architecture allows for high scalability and faster innovation at a lower cost. Single-tenant systems, on the other hand, are not designed for large-scale cloud-computing success. The internal inefficiencies of maintaining a separate physical infrastructure and/or separate code lines for each customer make it impossible to deliver quality service or innovate quickly. Multitenancy provides customers with the following benefits:

- Efficient service delivery, with a low maintenance and upgrade burden
- Consistent performance and reliability based on an efficient, large-scale architecture
- :: Rapid product release cycles

### 4. Proven Scale

Support millions of users with proven scalability. With any cloud-computing service, customers benefit from the scale of the platform. A larger scale means a larger customer community, which can deliver more and higher-quality feedback to drive future platform innovation. A larger customer community also provides rich opportunities for collaboration between customers, creating communities that can share interests and foster best practices. Cloud-computing platforms must have:

- Proof of the ability to scale to hundreds of thousands of subscribers
- Resources to guarantee the highest standards of service quality, performance, and security to every customer
- The ability to grow systems and infrastructure to meet changing demands
- Support that responds quickly and accurately to every customer
- Proven performance and reliability as customer numbers grow

#### The Force.com Difference

The Force.com platform sets the highest standard for trust and transparency. It is the only cloud-computing platform that makes daily service-quality and performance data available to the public.

- http://trust.salesforce.com shows real-time and historical service status and provides maintenance notices
- Our customers trust us to manage critical corporate and customer data, and they deserve full transparency of operations related to our service.

Force.com is the leading cloud-computing platform for providing massively scalable and highly extensible business applications on a multitenant architecture. With more than 1.5 million subscribers, the Force.com platform continues to grow and scale while offering industry-leading performance. Force.com is designed to let users share the same physical infrastructure and identical code lines to build and run their business applications. Individual customer "deployments" of those applications occupy virtual partitions on the platform rather than requiring separate physical stacks of hardware and software. Force.com's true, multitenant architecture lets customers deploy solutions quickly while realizing lower costs and faster innovation.

#### Multitenancy is:

- **::** *The* platform for high performance
- :: The platform for high availability
- **:: The** platform for rapid innovation

The Force.com platform has the largest subscriber base and the highest track record for service delivery of all business cloud-computing platforms. For more than 10 years, the Force.com platform has been the proven enterprise standard for building and running extensible and reliable business applications on the Web. Today, the Force.com platform supports:

- :: More than 55,400 customers
- 200 million total transactions per day and growing, while maintaining sub-second network latency
- More than 50 percent of these transactions are integration transactions with the Force.com Web Services API
- More than 176,000 custom objects: unique "virtual tables" our customers have created to customize their Salesforce CRM deployments

#### **Platform Standard**

### 5. High Performance

Deliver consistent, high-speed performance

Cloud-computing platforms must deliver consistent, high-speed systems performance worldwide and provide detailed historical statistics to back up performance claims, including:

- Average page response times
- Average number of transactions per day

#### The Force.com Difference

Force.com has a track record of fast application performance—from delivering Web pages to processing transactions. Its multitenant application design, combined with the fastest servers and highperformance networking infrastructure available, guarantees lightning-fast performance. We run our cloud-computing services with:

- :: Redundant network vendors delivering highperformance network access to our facilities worldwide
- :: The fastest hardware and software servers available

Plus, we publish daily performance data on our public Web site: http://trust.salesforce.com

# **6. Complete Disaster Recovery**

Protect customer data by running the service on multiple, geographically dispersed data centers with extensive backup, data archive, and failover capabilities.

Platforms providing cloud-computing services must be flexible enough to account for every potential disaster. A complete disaster recovery plan includes:

- Data backup procedures that create multiple backup copies of customers' data, in near real time, at the disk level
- A multilevel backup strategy that includes disk-to-disk-to-tape data backup in which tape backups serve as a secondary level of backup, not as the primary disaster-recovery data source. This disk-oriented model ensures maximum recovery speed with a minimum potential for data loss in the event of a disaster.

Force.com is the first cloud-computing platform to deliver fully mirrored data centers that provide seamless disaster recovery. Our data centers follow stringent backup-and-recovery procedures to ensure that customer data is safe. Our approach includes:

- :: A full-scale 1:1 disaster recovery facility that quarantees consistent service performance in the event of a regional disaster
- Multilevel data integrity and backup procedures that ensure rapid recovery with minimal data loss

# 7. High Availability

Equip world-class facilities with proven highavailability infrastructure and application

Any platform offering cloud-computing applications needs to be able to deliver very high availability. Requirements for proving high availability include:

- :: Facilities with reliable power, cooling, and network infrastructure
- :: High-availability infrastructure: networking, server infrastructure, and software
- N+1 redundancy
- Detailed historical availability data on the entire service, not just on individual servers

We have made a \$50 million investment across four data centers. As a result, the Force.com platform provides the infrastructure, software, and procedures that deliver extremely high availability and service quality. Force.com is the only cloudcomputing platform with:

- :: Daily service-quality data available on a public Web site: http://trust.salesforce.com
- **::** Complete N+1 redundancy
- :: A historical track record of high availability

For More Information

Contact your account executive to learn how we can help you accelerate your CRM success.

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