



# What is Software as a Service (SaaS)?



January 2009



Agility in On-Demand  
Product Development



# What is Software-as-a-Service?

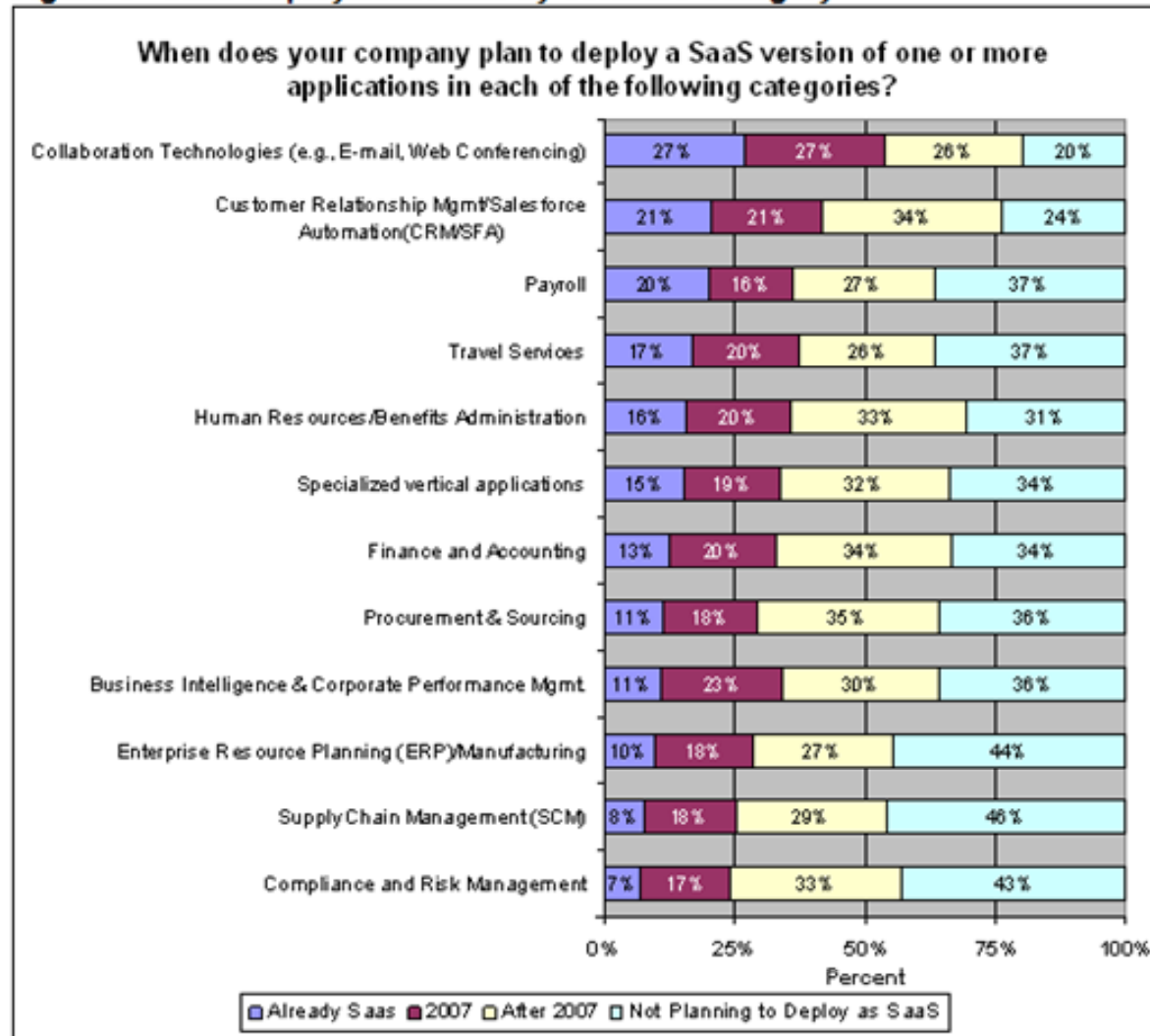
- Software as a Service (SaaS) is a model of software deployment where an application is hosted as a service provided to customers across the Internet.
- It is a Deployment/Delivery model
  - » Hosted and Managed by vendor
  - » Delivered across the Internet
- Usage-based pricing (vs. perpetual license model of on-premise software)
  - » Per user per month
  - » Per transaction
  - » Per GB of storage per month
- Examples:  

# SaaS Trends

- Expected growth
  - » According to a recent Gartner survey 9 out of 10 companies plan to grow their use of software-as-a-service in the next year (2009) and more than 30% plan to replace on-premises software with SaaS to drive down TCO.
- Investors, VC, M&A look for recurring revenue model

# SaaS Across the Enterprise

**Figure 1 - SaaS Deployment Plans by Software Category**



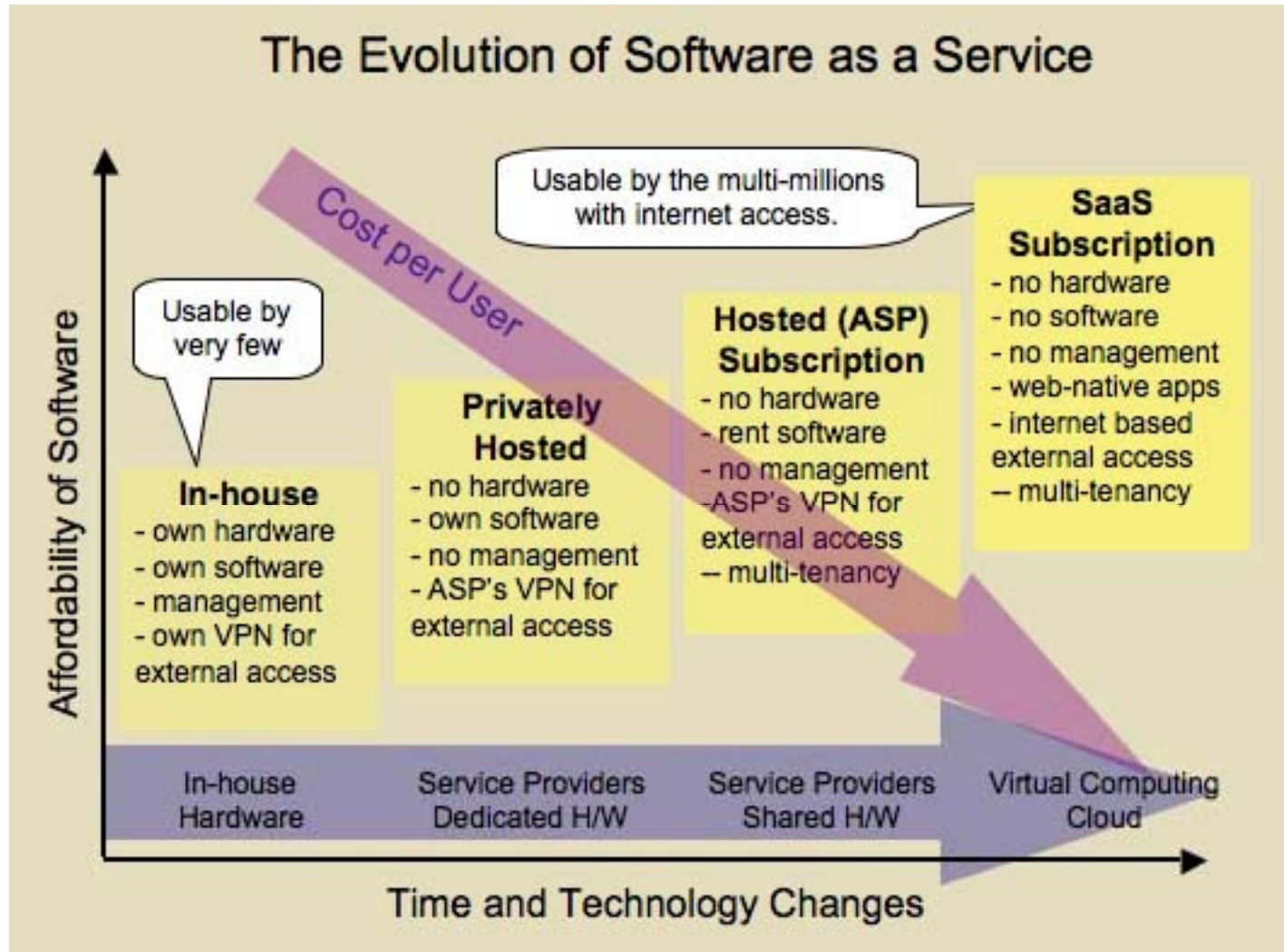
Source: Saugatuck Technology, SaaS Survey Research Jan. 2007 (n= 250). Key demographics for Jan. 2007 survey: North America -- 51 percent, Europe -- 32 percent, ROW -- 17 percent; less than \$250Mil - 30 percent, \$250Mil - \$1Bil -- 26 percent, more than \$1Bil -- 44 percent.

# SaaS Adoption By Segment

## SaaS adoption by segment

Infrastructure and tools	Back-office applications	General applications	
<ul style="list-style-type: none"> <li>Secure content management</li> <li>Security/vulnerability management</li> <li>Backup/archival</li> <li>Development tools</li> <li>Integration/deployment tools</li> </ul>	<ul style="list-style-type: none"> <li>Payroll</li> <li>Human capital management</li> <li>CRM</li> <li>Procurement</li> <li>Logistics</li> </ul>	<ul style="list-style-type: none"> <li>Conferencing applications</li> <li>eCommerce (on-line storefront)</li> <li>Information services</li> </ul>	Applications already migrating to SaaS
<ul style="list-style-type: none"> <li>Identify/access management</li> <li>Threat management</li> <li>Change/configuration management</li> <li>Performance management</li> <li>Event automation/job scheduling</li> <li>Network and service management</li> </ul>	<ul style="list-style-type: none"> <li>Engineering applications</li> <li>PLM</li> <li>Project management</li> <li>Business intelligence</li> <li>Product planning</li> <li>Inventory management</li> </ul>	<ul style="list-style-type: none"> <li>IP telephony</li> <li>Messaging</li> <li>Web content management</li> <li>Web analytics</li> <li>Search tools</li> <li>Location-based services</li> </ul>	Applications likely to migrate to SaaS in 3 years
	<ul style="list-style-type: none"> <li>Financial applications</li> </ul>	<ul style="list-style-type: none"> <li>Authoring applications</li> <li>Document and records management</li> </ul>	Applications unlikely to migrate to SaaS

# SaaS Evolution





# Benefits of SaaS - For Clients

- Lower entry point
  - » No large up-front investment in
    - Software licenses
    - IT infrastructure
- Lower operating/maintenance costs
  - » Fast, easy deployment (Web browser)
  - » Vendor maintains/upgrades application
  - » No IT staff necessary to keep running
- Consumption-based expenditure
  - » Pay As You Go (OpEx vs CapEx)
  - » Scale up/down as needed



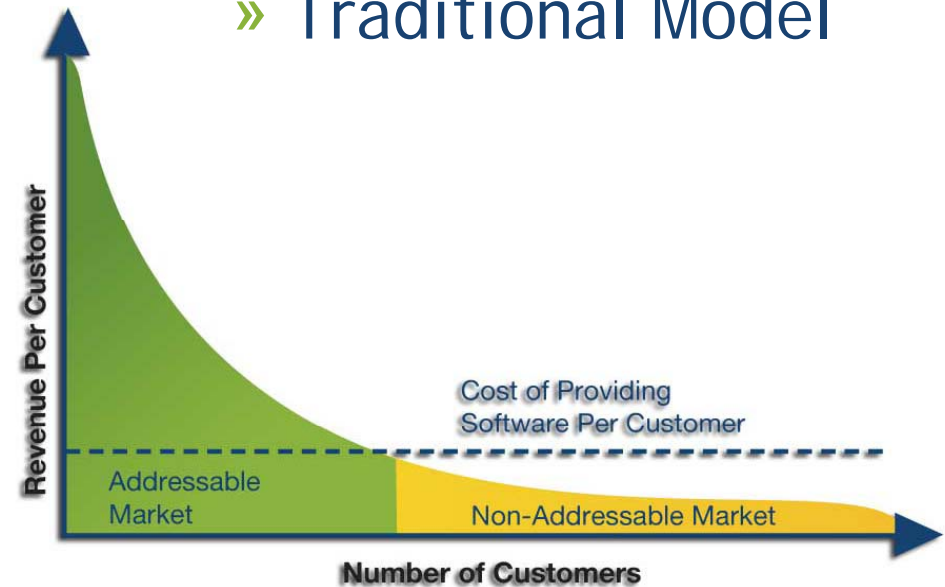
# Benefits of SaaS - For End-Users

- Easy and rapid deployment/ramp up
  - » Typically based on Web browser access
  - » No additional hardware/software needed
- Any time, Any where access
  - » Outside the corporate firewall
- Transparent updates
- 60% lower total cost of ownership over 36 months
- SaaS vendor manages scalability and availability, lowering infrastructure costs for end-users
- Vendor economics aligned with customer needs
- Easier integration & collaboration

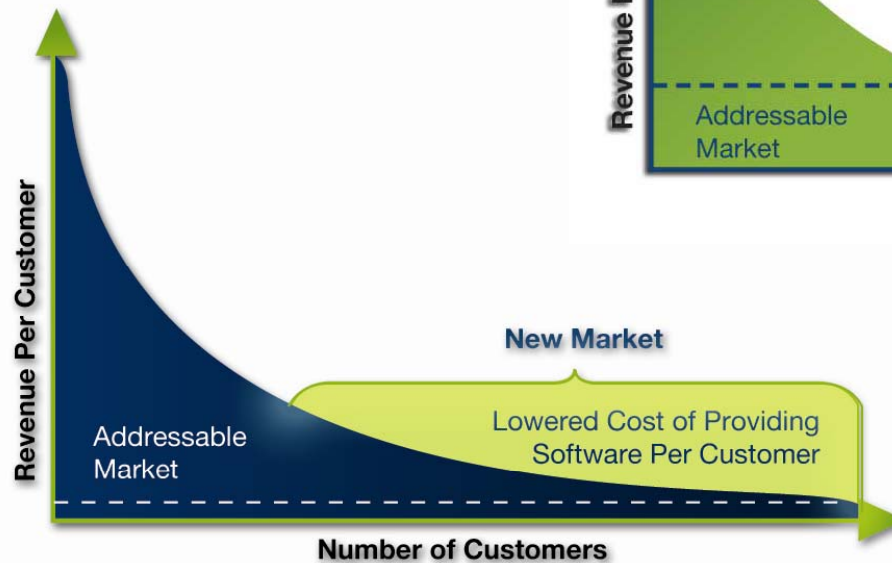
# Benefits of SaaS - For Vendors

- Market Reach - Catch the Long Tail

» Traditional Model



» SaaS



# Benefits of SaaS - For Vendors

- Economies of Scale
  - » Derived from Multi-tenant architecture
    - Better resource utilization
    - Simplified maintenance
  - » For a well designed app, operating costs per customer drop as customer base grows
- Better understanding of usage patterns
  - » To drive innovation and enhancements
- Faster release cycles to keep up with market and competition
- De-facto access to Global market



# Business Functionality of SaaS

- Client/User Registration & Management
- Provisioning
- Billing & Payment Processing
- Performance Monitoring
- Usage Metering & Tracking
- Reporting
- Customer Service & Self-Service



# SaaS Business Model Implications

- New sales & marketing approach
  - » Greater emphasis on web-centric cycle
- New sales & marketing compensation
- New release cycles and maintenance model
- New deployment/delivery approach
- New/higher expectations on customer service
- Uptime and SLA
- Professional Services

# Top SaaS Considerations



SaaS is different from on-premise software in more ways than one.

<p><b>Architectural</b></p> <ul style="list-style-type: none"> <li>• Multi-tenancy</li> <li>• Scalability</li> <li>• Security</li> <li>• Performance</li> </ul>	<p><b>Functional</b></p> <ul style="list-style-type: none"> <li>• Provisioning</li> <li>• Billing</li> <li>• Metering</li> <li>• Monitoring</li> </ul>
<p><b>Business Context</b></p> <ul style="list-style-type: none"> <li>• Integration Capabilities</li> <li>• Feature Planning</li> <li>• Release Roadmap</li> </ul>	<p><b>Operations</b></p> <ul style="list-style-type: none"> <li>• Hosting/ Infrastructure Selection</li> <li>• Infrastructure Management</li> <li>• Release Management</li> </ul>
<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• Sales model</li> <li>• Sales compensation</li> <li>• Partner channel</li> <li>• VARs</li> </ul>	<p><b>Marketing</b></p> <ul style="list-style-type: none"> <li>• Strategy &amp; Positioning</li> <li>• Competitive Analysis</li> <li>• Web-centric Marketing</li> </ul>

Top SaaS Considerations

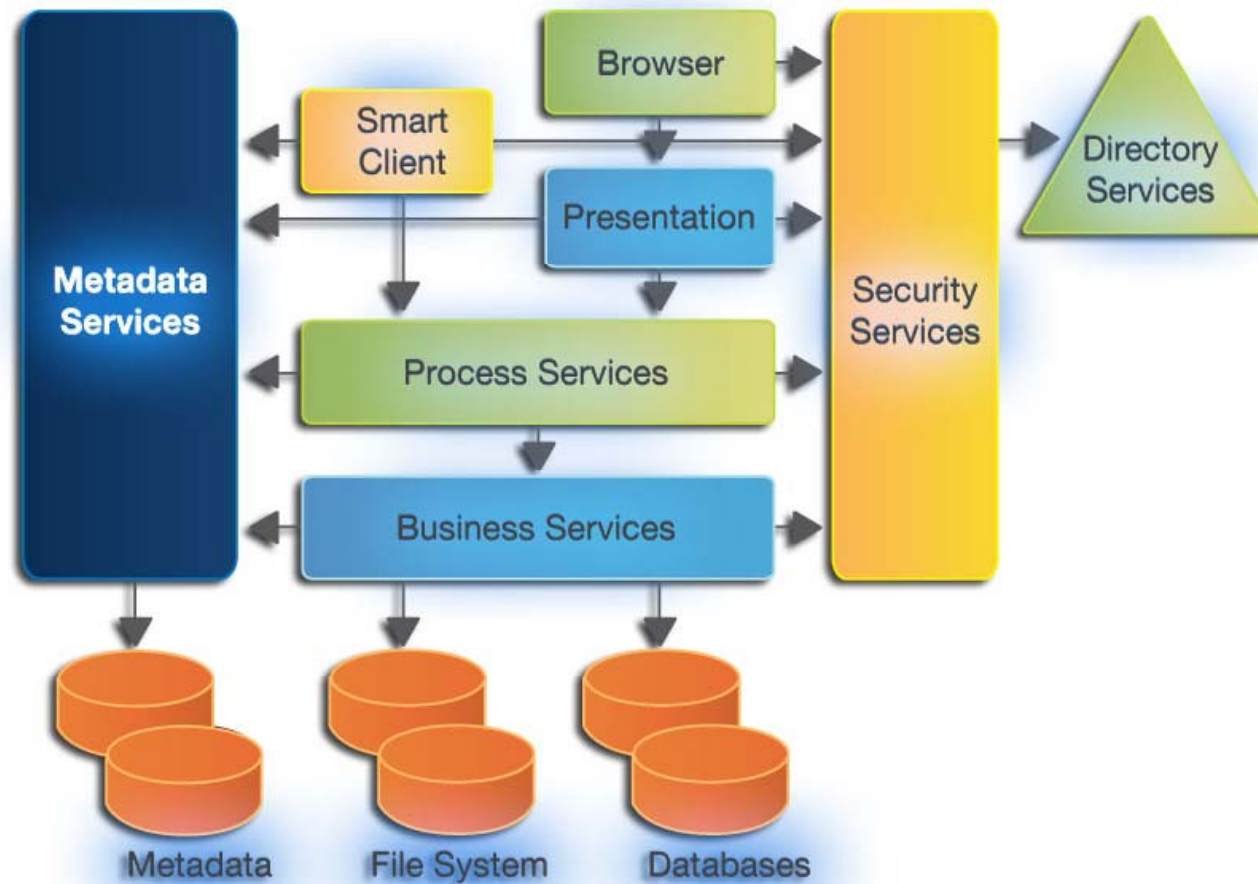
# SaaS vs ASP

- ASP: Application Service Provider
  - » Single-tenant architecture (one customer per instance)
  - » Multiple instances running (as many as there are clients), typically hosted by third parties
- Disadvantages
  - » Significant management overhead
  - » Difficult maintenance
  - » No economies of scale

# Technical Aspects of SaaS

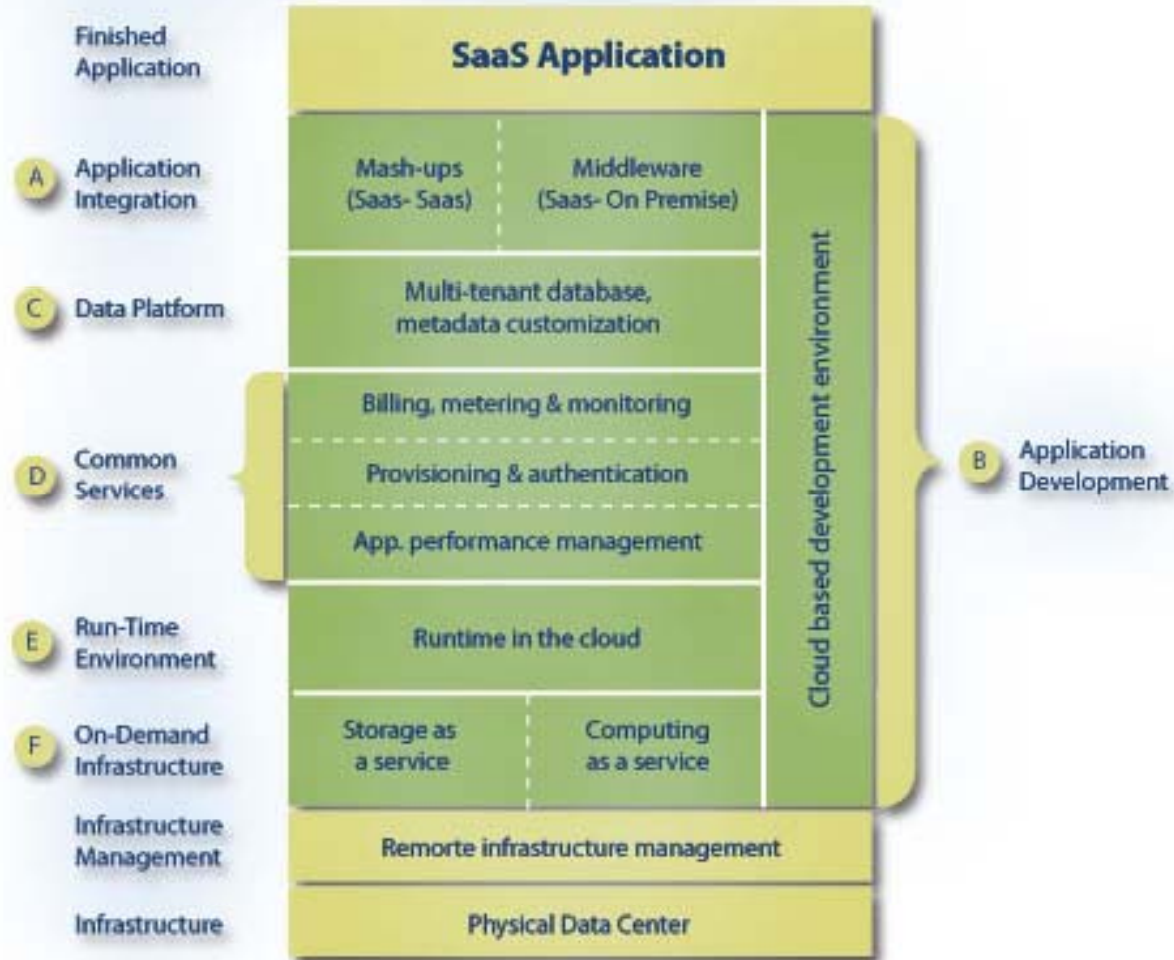
- Architected for
  - » Single instance deployment
  - » Multi-tenancy
  - » Scalability
    - Maximizing concurrency
  - » Configuration and Customization
  - » Security
  - » Availability
- Other considerations
  - » Integration capabilities
  - » Globalization

# Typical SaaS Architecture



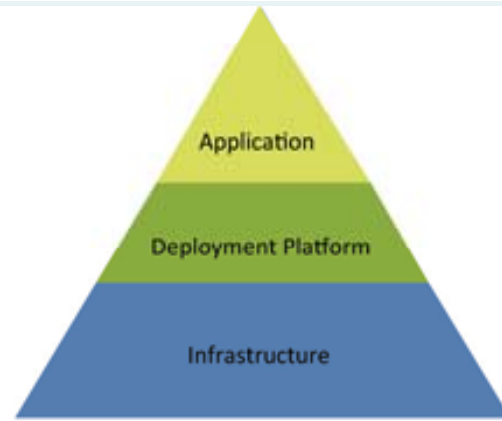
# SaaS Application Stack

## The Components of the SaaS Application Stack



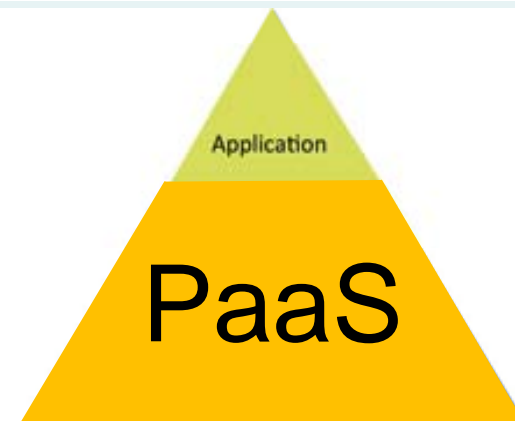
# Building SaaS - Alternatives

## From the Ground Up



Technical Layers of SaaS Applications

## Through a PaaS (Platform as a Service)



Technical Layers of SaaS Applications

### Platform Examples:

- LAMP
- Win, IIS, ASP.NET, SQL Server
- Ruby on Rails

### Hosting Alternatives:

- In-house
- Co-location
- Cloud Computing (EC2, GoGrid)

### PaaS Examples:

- Force.com
- Google App Engine
- SaaSGrid, Coghead, Bungee Lab

### Hosting:

- Included

# B2B SaaS Examples



Looking for a specific SaaS provider in your industry?  
<http://www.saas-showplace.com/saasproviderdirectory.html>



# Who is Scio?

- Outsourced Product Development company
  - » Product lifecycle focus
  - » ISV needs alignment
- Focus on Software as a Service and Web 2.0
  - » Highly scalable/available Web-delivered applications
  - » SaaS Model, Infrastructure and Service issues
  - » UI Design Optimization
  - » Full IT Lifecycle Services
- Nearshore Model = easier, cheaper, smarter
  - » Same time zone > real-time collaboration > increased productivity > faster time to market & lower cost

## From Ideas to Product



- **Idea Lab**

- » Software product design consulting



- **Development Center**

- » Design, Development, Testing, Launch



- **Support and Maintenance Services**

- » Maintenance, Training, User Support



- **Dedicated Teams**

- » Long-term custom-built teams

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