

Software as a Service: The Myth and Promise of No Software

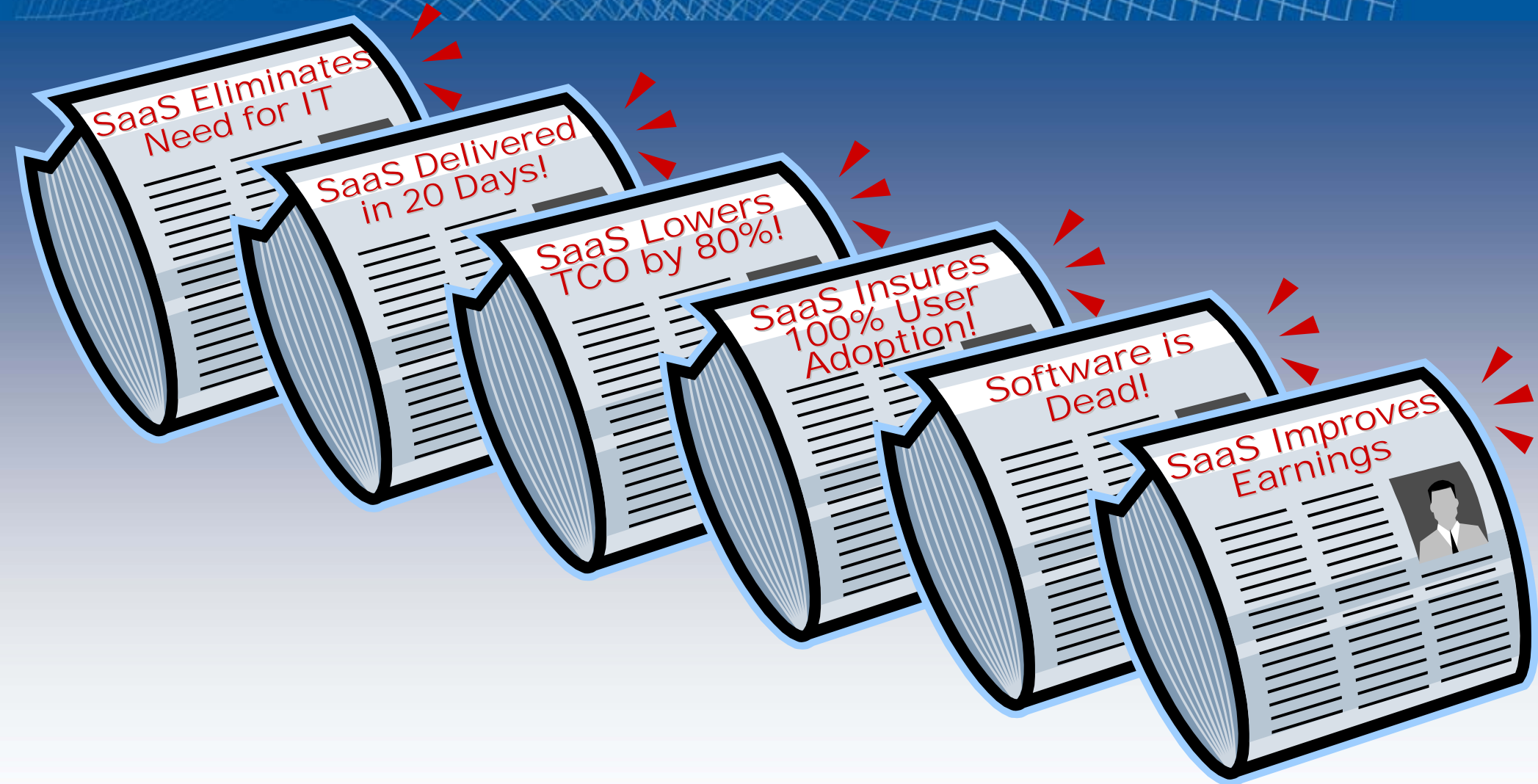
Scott Nelson



Midsize Enterprise
Summit. 2007



SaaS: Overhyped or Panacea?



SaaS can provide value in the right situations.
Ensure that it's the right solution for your organization.

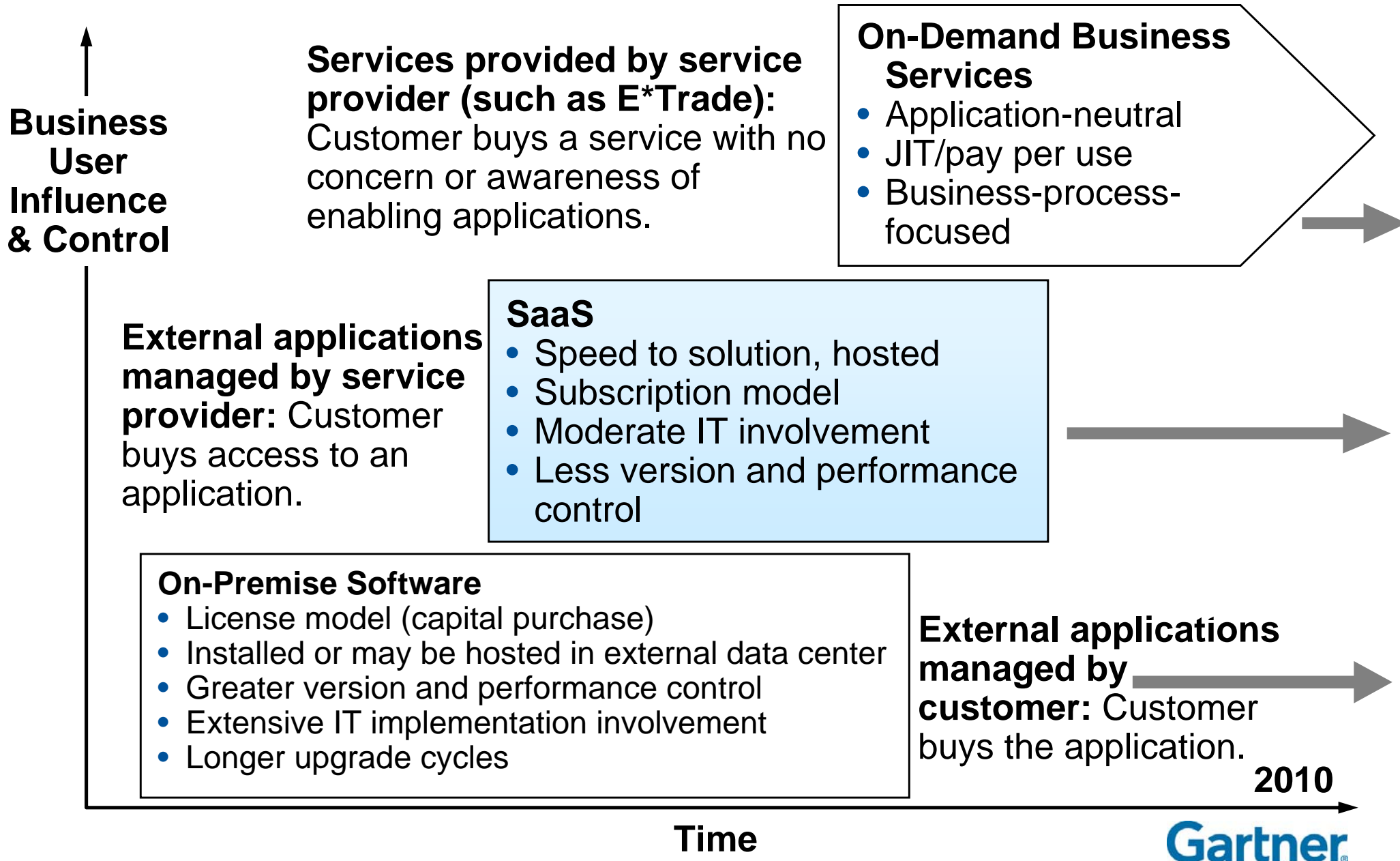
Key Issues

1. What are the business and technology drivers for adopting a SaaS model?
2. What's needed to develop a SaaS capability and how will this evolve?
3. What key commercial protections are necessary to make the SaaS model work?
4. Which applications and vendors will emerge to best enable SaaS?

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Evolution of Business Software Delivery



SaaS Drivers: SaaS vs. Traditional On-Premise Software

SaaS



- **Risk Mitigation**
 - Avoiding an IT bottleneck
- **Speed of Deployment**
 - Limited IT capital budget
- **Resource Constraints**
 - Limited business justification required

Traditional On-Premise



- **Complex Business Process Integration**
- **Transaction-Intensive Processes**
- **Sensitive Data**
- **Deep Functional Requirements**

CRM on Demand Provides Better TCO for Moderately Complex Applications

Assumptions: 400 users, moderate complexity, \$84 per user per month or \$1,250 per license with 20% maint. fee, no cost difference for business change mgmt., training, configuration, customization; assumes no hidden on-demand fees

On-Demand Costs

Assumes 4% Annual Upgrade Expense

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
On-Demand Subscription	\$336,000	\$336,000	\$336,000	\$336,000	\$336,000	
Upgrades	\$13,400	\$13,400	\$13,400	\$13,400	\$13,400	
Subtotal	\$349,400	\$349,400	\$349,400	\$349,400	\$349,400	\$1,747,000

On-Premise Costs

Assumes Incremental Hire

Assumes 30% Initial License Cost

License	\$500,000					\$500,000
Maintenance	\$135,000	\$100,000	\$100,000	\$100,000	\$100,000	\$400,000
DBA/Support	\$135,000	\$135,000	\$135,000	\$135,000	\$135,000	\$675,000
Upgrades				\$150,000		\$150,000
Hardware*	\$100,000					\$100,000
Subtotal	\$735,000	\$235,000	\$235,000	\$385,000	\$235,000	\$1,825,000

*Some on-demand vendors require users to source ACD, IVR infrastructure for a contact center; therefore, no savings occur when compared with on premise.

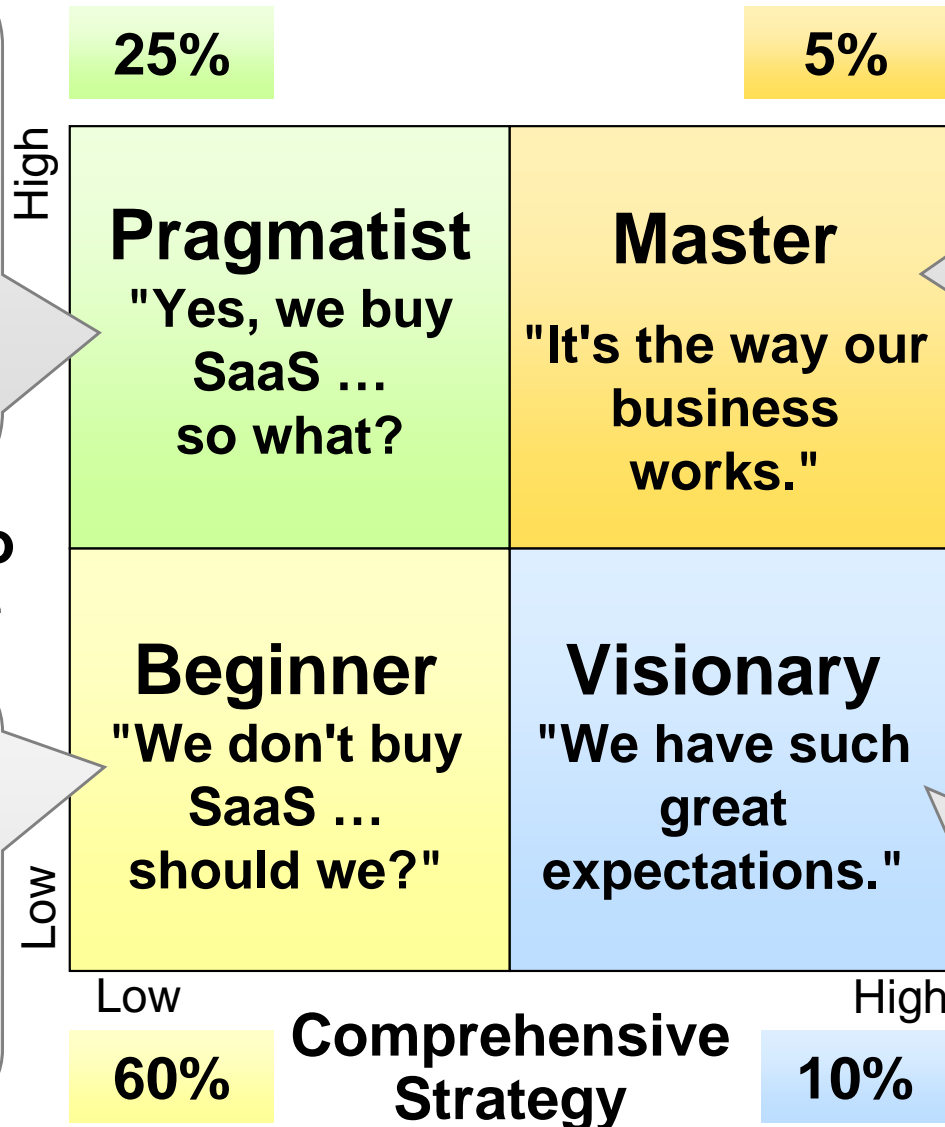
Increased Demand for 'Good Enough' Applications Accelerates SaaS Adoption

Percentages are estimates for 2007.

- Anticipate and support business users' possible attraction to application utility.
- Acceptance of "good enough" for standardized (or noncore) apps.

Ability to Execute

- Evaluate core and noncore applications.
- Solution fit is more important than delivery model.
- Begin testing.




- Improves the organization's credibility curve with business.
- Enables workforce's focus on business issues.

- Process, applications, information and knowledge integration.
- Workforce impact.
- Struggle among custom and standard business applications.

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SaaS Generational Model

	First Basic Competence	Second Functional Effectiveness		Third Intraenterprise Integration	Fourth Business "Ecosystem"
Strategy	<ul style="list-style-type: none"> • Departmental • Baseline capabilities 	<ul style="list-style-type: none"> • Departmental • Competitive differentiation 		<ul style="list-style-type: none"> • X-dept. • 360-degree view (customer/asset/item data) 	<ul style="list-style-type: none"> • Collaborative processes, multienterprise • Immediate access
Technology	<ul style="list-style-type: none"> • Limited or no configuration/customization/integration 	<ul style="list-style-type: none"> • Configuration/customization required • Integration w/ applications and data 		<ul style="list-style-type: none"> • SOA support • Lack of standards mediating process integration between SaaS and on-premise • Advances needed in MDM, CDI, BPM 	<ul style="list-style-type: none"> • Business process modeling • Customer/master data integration
Adoption	Mainstream	Early Adoption		Infancy	Infancy

Challenge Gap

Business and IT Partnership Remains Critical to Developing a SaaS Capability

By involving the IT and procurement organization early and often, it can:



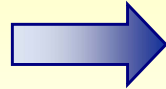
- Identify the *right solutions* and *suppliers*.
- Ensure integration with other on-premise systems, and that data is properly specified.
- Negotiate favorable terms and conditions.
- Ensure adequate security.
- Ensure adequate data center operations.

SaaS Provider Operational Best Practices

Operational Task

Best Practice

System Monitoring



24/7 transaction-level, intervals no longer than 15 minutes apart (ideally 5 minutes) with customer portal access

Help Desk Support



24/7 help desk with escalation

Change Management



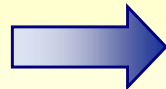
Adequate notice of service changes, opt-in for release enhancements, opt-out release rollback if changes fail in production

Server Staging



Provides staging server for the customer to test changes before placing them into production

Data Recovery



Supports full data and rule customization recovery on contract termination

Securing a SaaS Environment

Network — logical and physical connectivity of systems

- 128-bit or stronger encryption and two-factor authentication to connect from customer LANs to production backbone
- Provider performs external penetration tests at least quarterly, and internal network security audits at least annually

Platform — hardware and software

- Provider has a documented policy for "hardening" the operating system under Web and other servers
- Provider has a documented set of controls to separate data and security information among customer applications

Operations — facilities management, platform operation and deployment

- Provider performs background checks on personnel with administrative access to servers and applications
- Documented process for security alerts from IT partners
- Procedures for business continuity and disaster recovery

Applications — deliver business functionality

- Provider certifies the security of scripts and integration code; documented procedures for installing security patches
- Provider offers application- or transaction-based intrusion-detection services

End Services — consulting, systems integration, customization and management skills

- Documented identity management and help desk procedures
- 75% of security staff have security industry certification
- Provider's security staff averages more than four years of experience in information and network security

SaaS Architecture Models

	Managed Hosting Service	Isolated Tenancy	Shared Execution	Multitenant/ Single Version	Multitenant/ Multiversion
Application Execution Infrastruc.	Dedicated	Dedicated	Shared	Shared	Shared
Application Versioning	Multiple	Single	Single	Single	Multiple
Data Separation	Physical	Physical	Physical	Logical	Logical

 - Supports SaaS

When to Consider:

- Heavy customization
- Version & performance control
- Potentially highest cost
- Risk-averse for data security

- Performance control
- Risk-averse for data security
- Potentially lower cost than managed hosting

- Potentially lower cost than isolated tenancy due to shared execution infrastructure
- Risk-averse for data security

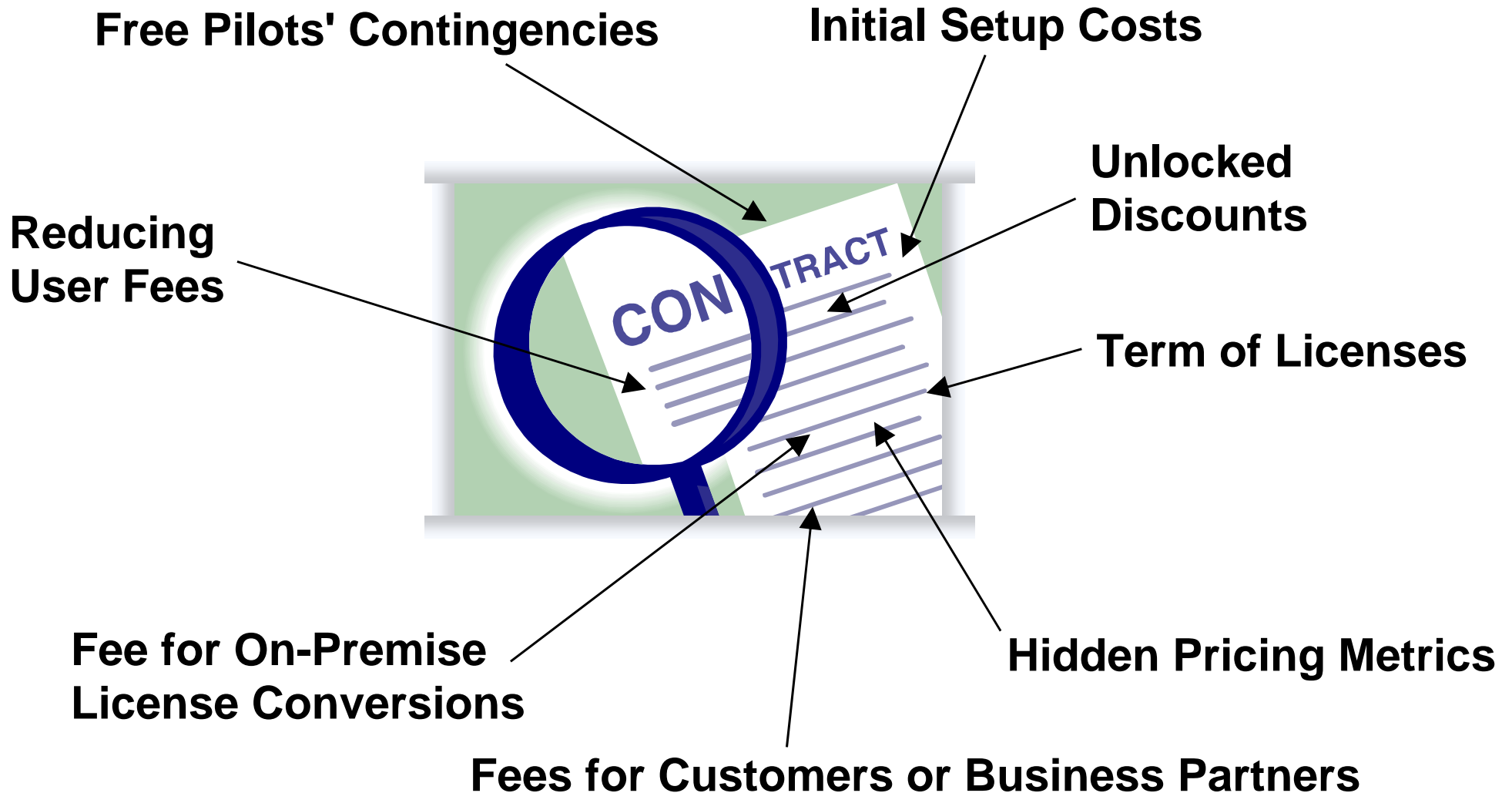
- Least cost to serve, but data security, version and performance control are possibly an issue

- Version control
- Less-than-managed hosting service, but potentially more expensive than other models

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Avoid SaaS Contract 'Gotchas'



Unplanned Service Downtime Leads to Lost Productivity

- **On-premise best-in-class is 99.5%. SaaS providers only guarantee back-end application, not IP connectivity; they must support 99.9% to be equivalent.**
- **Impact of downtime is dependent on business function (call center vs. salesperson). Consider your productivity loss due to downtime (mission-critical vs. casual).**
- **Contractual assurances:**
 - Penalties (one day of fees for each full or partial percentage point below the SLA during any single month)
 - Audits of SLA compliance
 - Escalation clauses

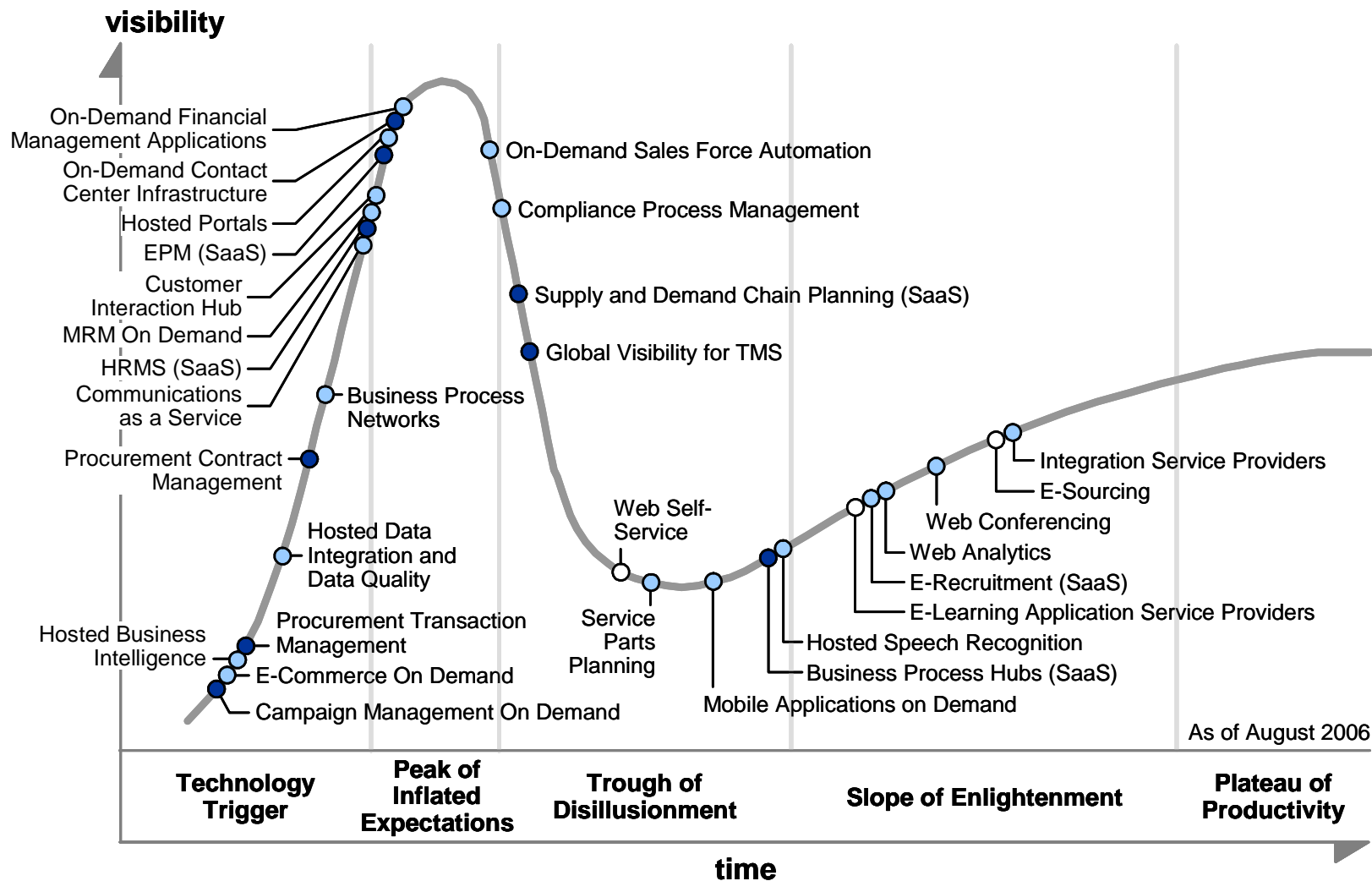


Employee Productivity During Unplanned SaaS Downtime

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Hype Cycle for Software as a Service, 2006



Years to mainstream adoption:

○ less than 2 years

○ 2 to 5 years

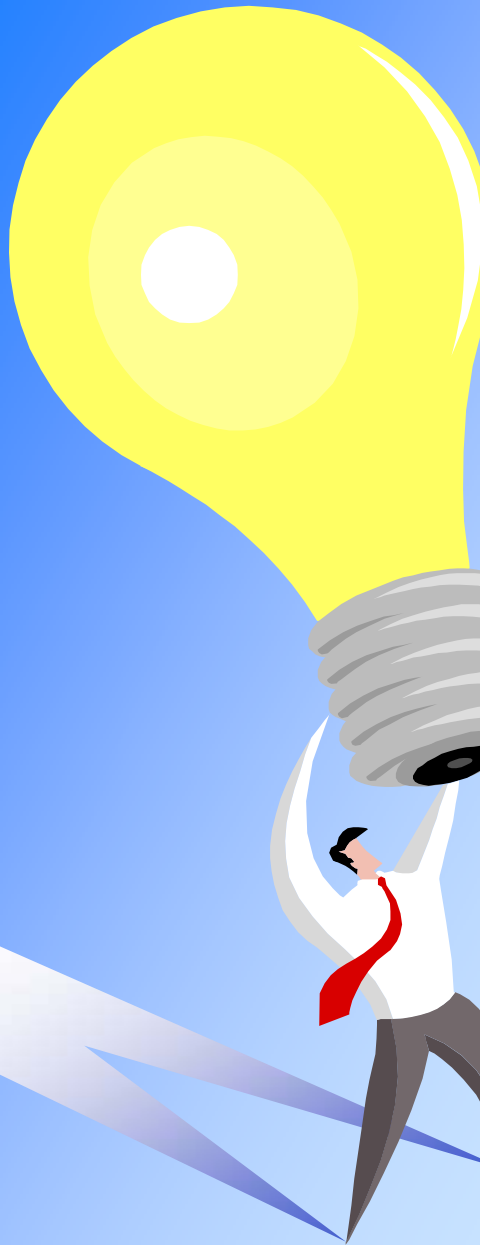
● 5 to 10 years

▲ more than 10 years

obsolete

⊗ before plateau

SaaS Will Be a Primary Source of Vendor Innovation



- Lower barrier to entry for new vendors
- SaaS business model attracting venture capital
- Leveraged infrastructure enables higher R&D investment in functionality
- Rapid release schedule gets new functionality to customers quickly

SaaS Providers: Lower Barrier to Exit

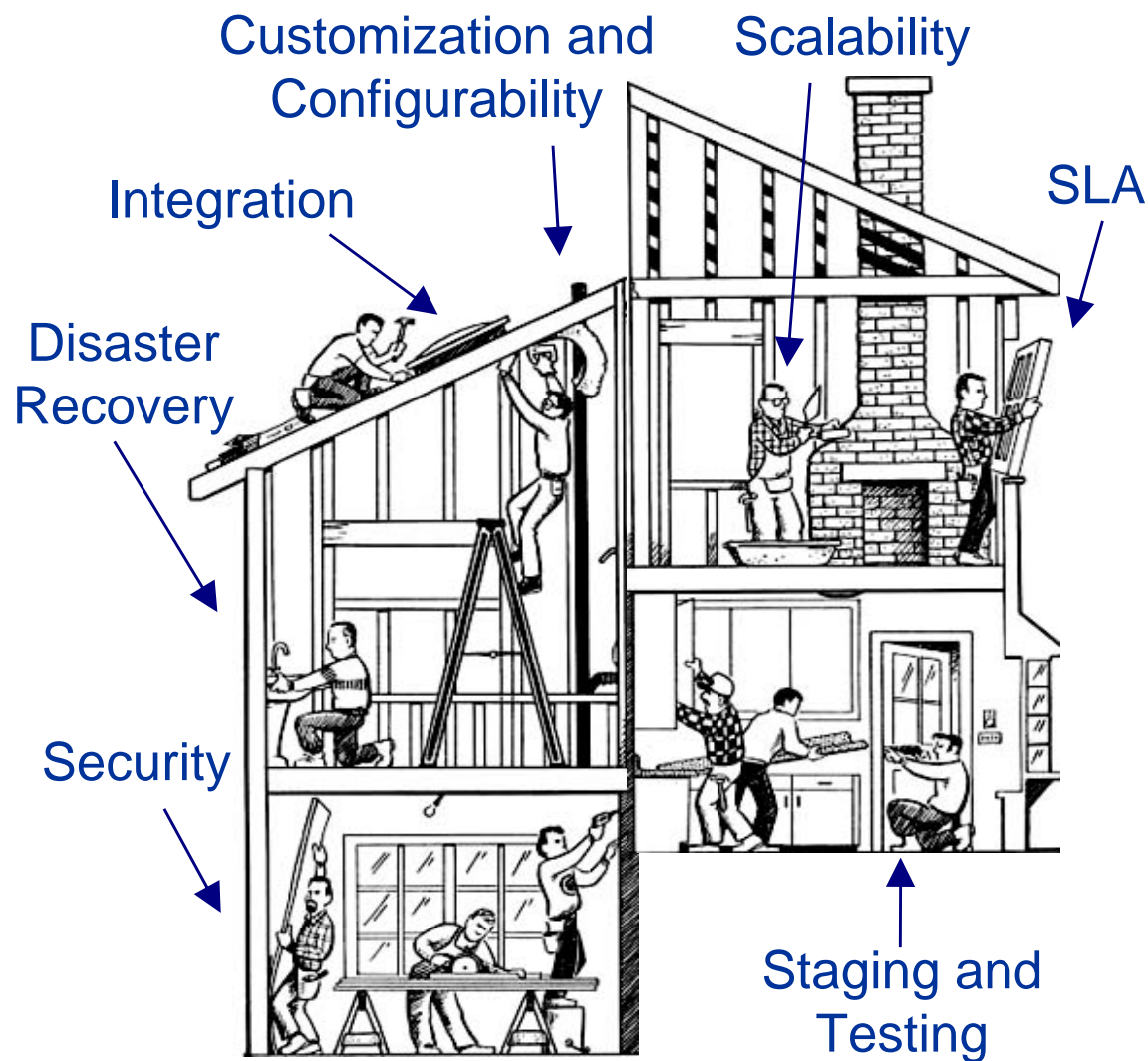


- Customers face a defined decision point on whether to continue a relationship with a SaaS provider.
- There are switching costs, but few barriers to change SaaS providers.
- SaaS providers must "win the business" every day.

SaaS Vendor: A Dream House to Some, Finish Work for Others



Business User View of a SaaS Application



IT Person's View of the Same SaaS Application

Recommendations

- ✓ SaaS is neither a fad nor a panacea. Beware of ruling it out before assessing it, but also remember that to succeed, you must still focus on business processes and people.
- ✓ Consider SaaS primarily for departmental initiatives.
- ✓ Evaluate the SaaS vendor's operational practices, security and system architecture — not all are equally adept at protecting your interests.
- ✓ Plan on using multiple SaaS service providers to support moderate-to-complex deployments through 2010. Also, remember that integration costs will be as expensive as on-premise.

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