

Cloudy with SaaS-Shine for a Smarter Planet



Simon Baker
Business Development Manager
IBM NE Europe

IBM SaaS-Shine through the Clouds

► Cloud and SaaS

- *A definition and position*

► IBM Partner Program

- *Develop*
- *Deliver*
 - *Partner models*
- *Go to Market*
- *Revenue*

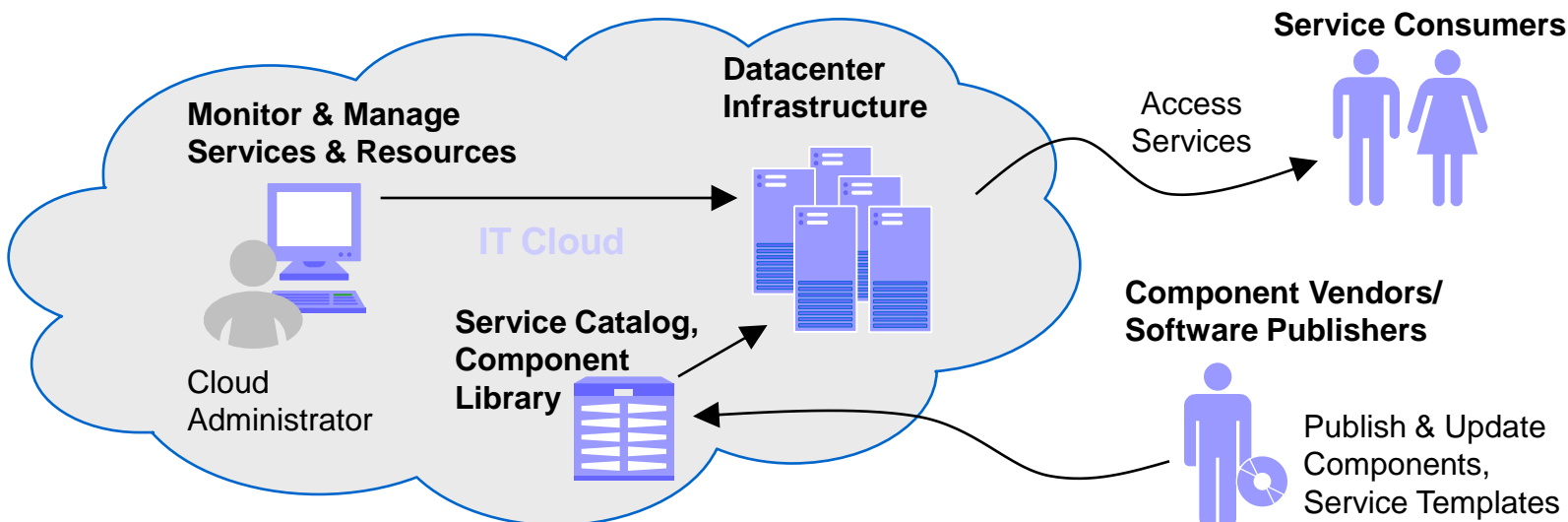
What is Cloud Computing?

A user experience and a business model

- Cloud computing is an emerging style of IT delivery in which applications, data, and IT resources are **rapidly provisioned** and provided as **standardized offerings** to users over the web in a **flexible pricing model**.

An infrastructure management and services delivery methodology

- Cloud computing is a way of **managing** large numbers of highly **virtualized resources** such that, from a management perspective, they resemble a single large resource. This can then be used to deliver services with **elastic scaling**.



Cloud: Consumption & Delivery Models Optimized by Workload

“Cloud” is:

- A new consumption and delivery model inspired by consumer Internet services.

Cloud enables:

- Self-service
- Sourcing options
- Economies-of-scale

Cloud Services

Cloud Computing Model

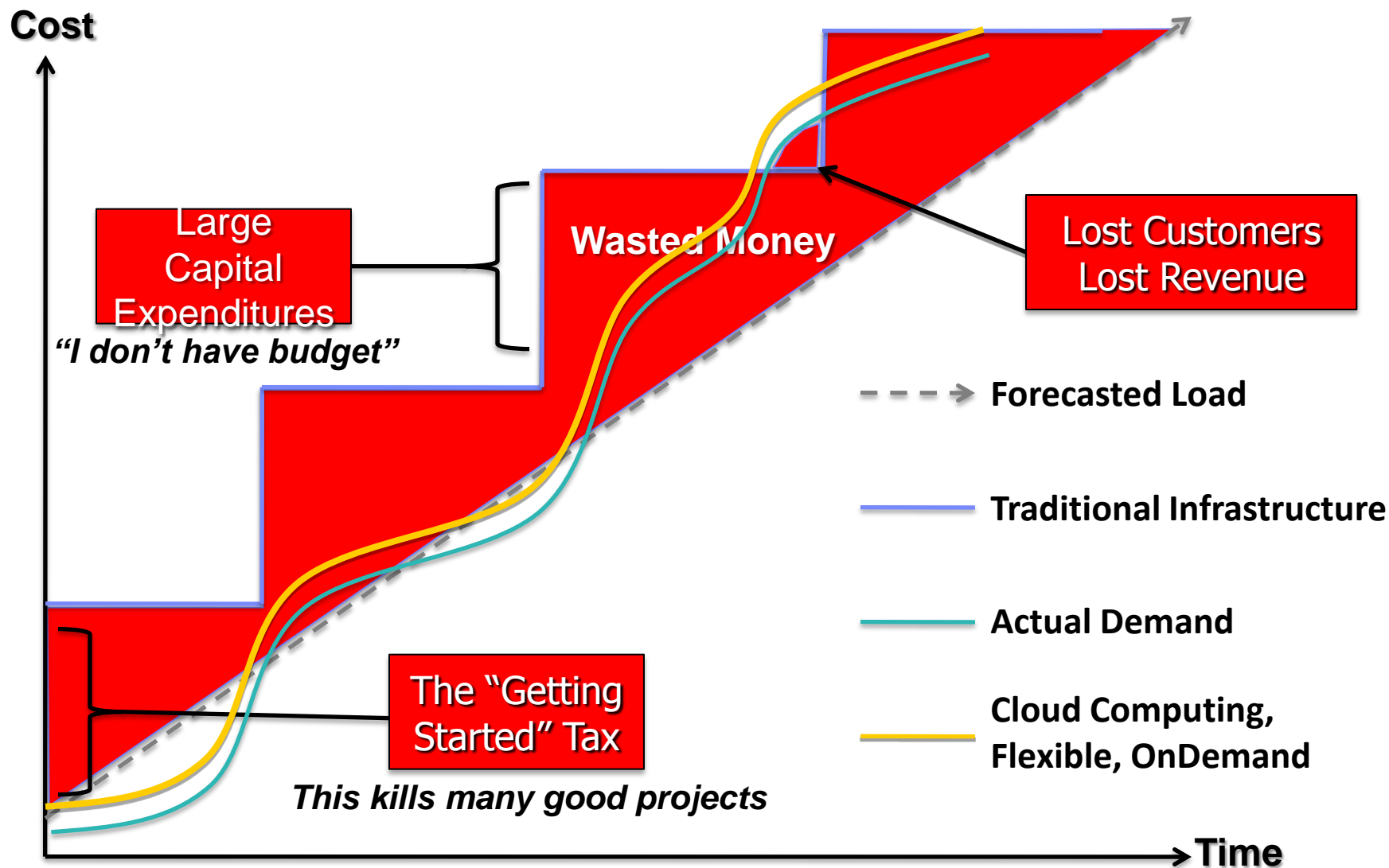
“Cloud” represents:

- The Industrialization of Delivery for IT supported Services

Multiple Types of Clouds will co-exist:

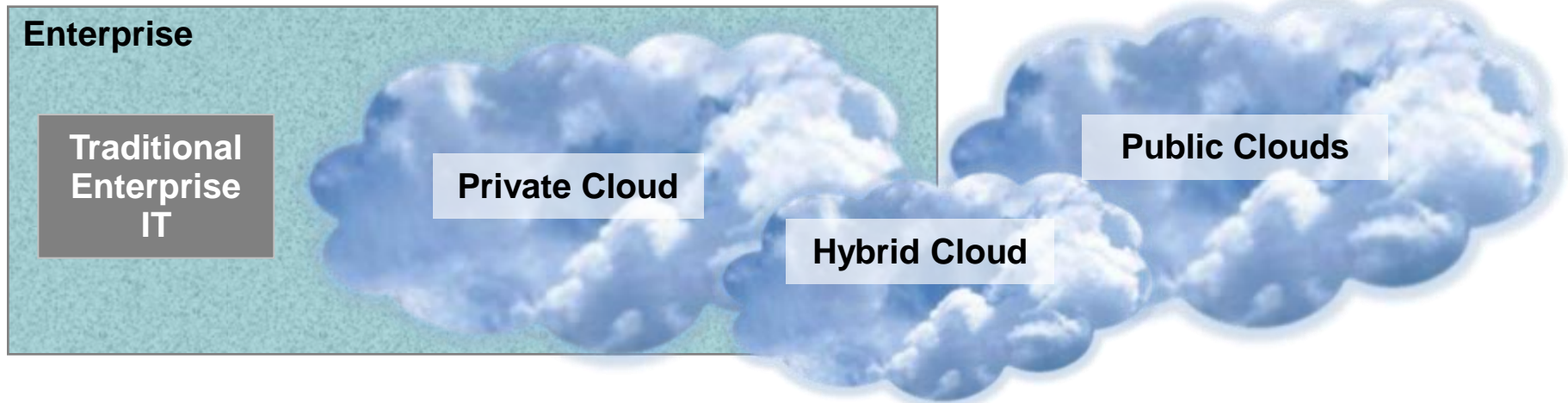
- Private, Public and Hybrid
- Workload and/or Programming Model Specific

Commodity IT



Three primary delivery models

- that companies are implementing for cloud



Private Cloud

IT activities/functions are provided “as a service,” over an intranet, within the enterprise and behind the firewall

- Key features include:
 - Scalability
 - Automatic/rapid provisioning
 - Chargeback ability
 - Widespread virtualization

Hybrid Cloud

Internal and external service delivery methods are integrated, with activities/functions allocated to based on security requirements, criticality, architecture and other established policies.

Public Cloud

IT activities/functions are provided “as a service,” over the Internet

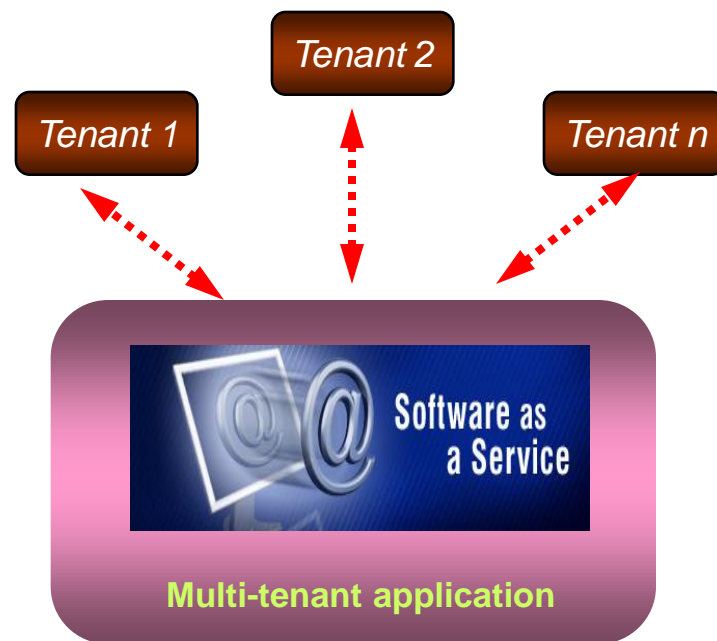
- Key features:
 - Scalability
 - Automatic/rapid provisioning
 - Standardized offerings
 - Consumption-based pricing.
 - Multi-tenancy

Software as a Service Definition

Software as a Service is the delivery of application functionality to a customer via a subscription model over the Internet.

The customer does not take ownership of the software but rather 'subscribes' to a total solution that is delivered remotely.

- ▶ Off-premise/network delivered
- ▶ Subscription-based
- ▶ Service usage based metering and billing
- ▶ Multi-tenancy with:
 - Access control
 - Self-service provisioning
 - Customization with configuration
- ▶ Service provider managed:
 - Security and Performance
 - Software upgrades



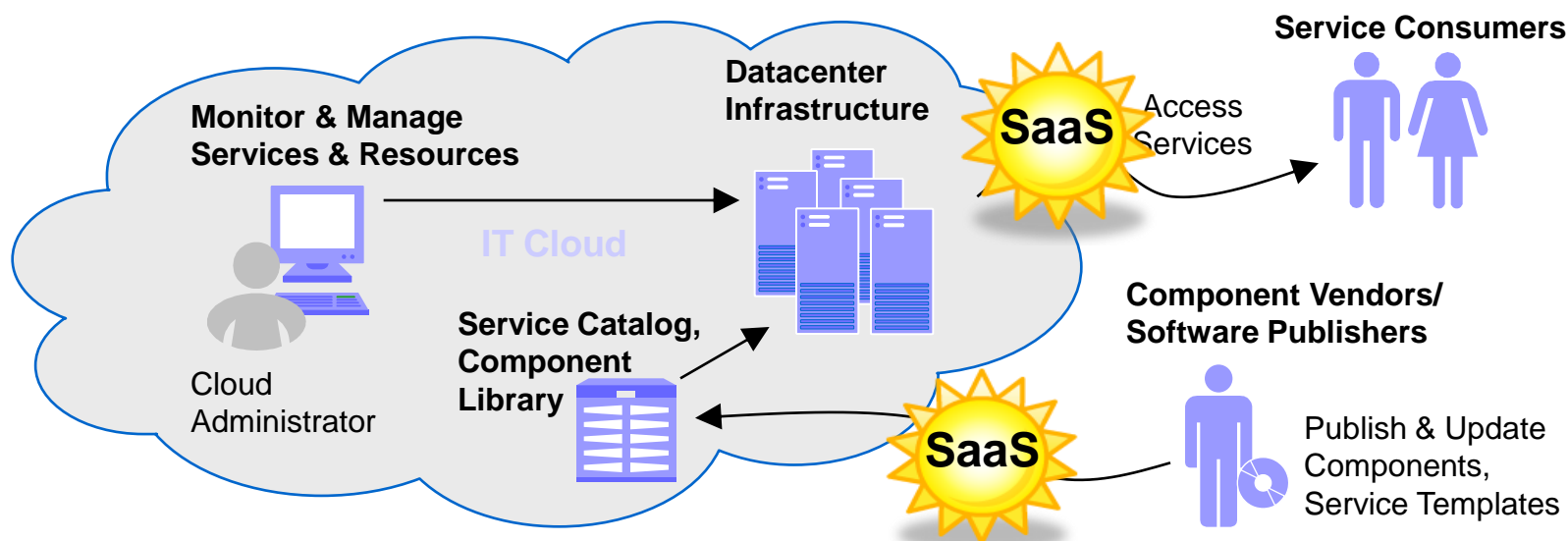
SaaS-Shine

A user experience and a business model

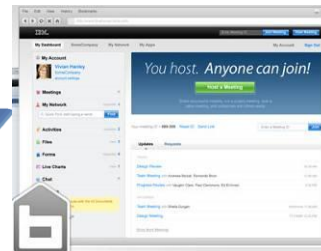
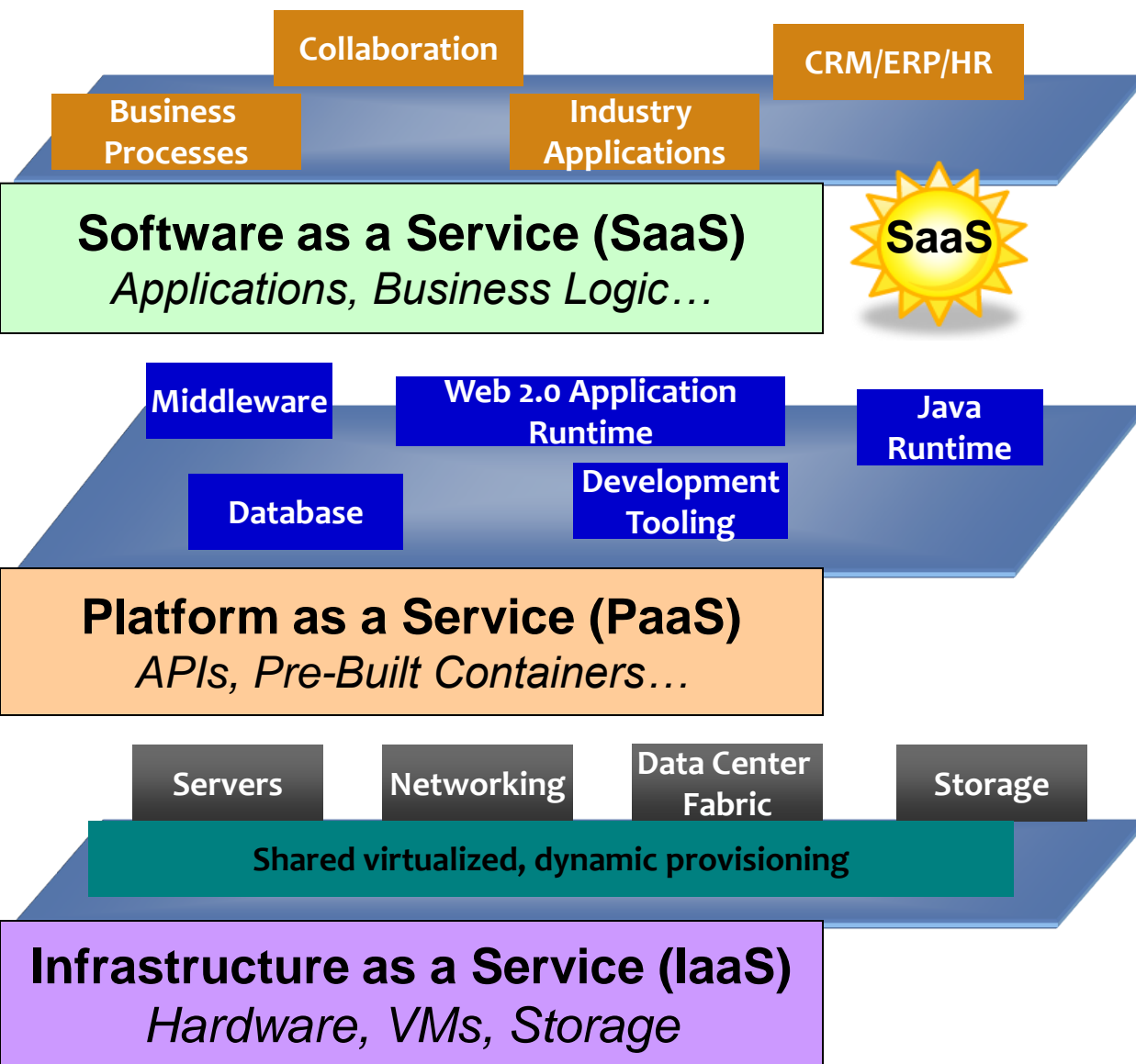
- Cloud computing is an emerging style of IT delivery in which applications, data, and IT resources are **rapidly provisioned** and provided as **standardized offerings** to users over the web in a **flexible pricing model**.

An infrastructure management and services delivery methodology

- Cloud computing is a way of **managing** large numbers of highly **virtualized resources** such that, from a management perspective, they resemble a single large resource. This can then be used to deliver services with **elastic scaling**.



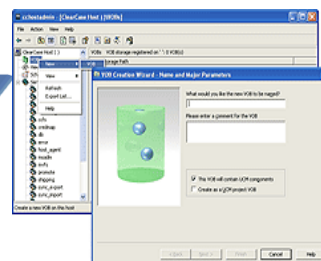
Cloud Infrastructure



salesforce.com
Success. Not Software.®

Constant Contact®

NETSUITE
ONE SYSTEM. NO LIMITS.



force.com
Success. Not Software.®



intuit.



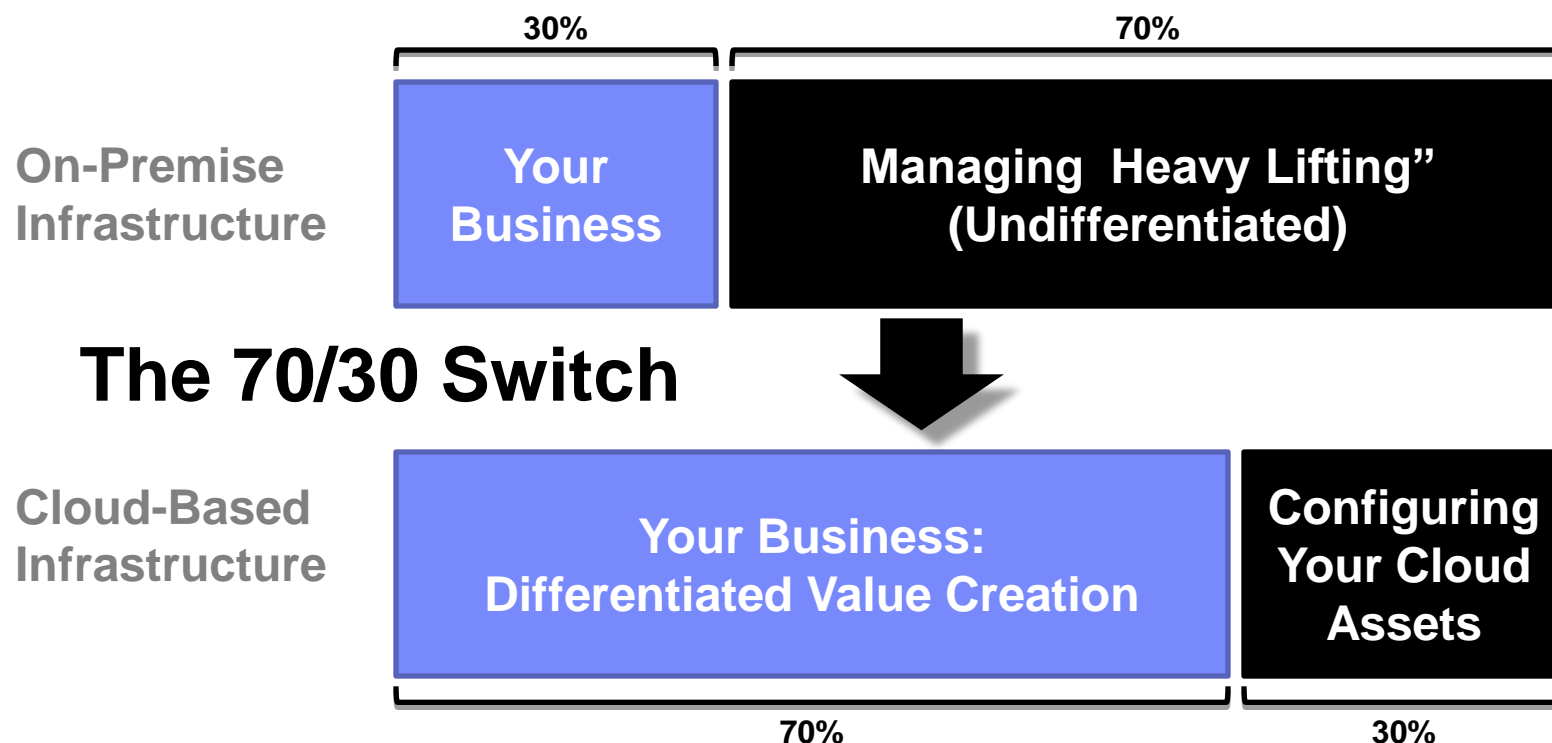
rackspace

amazon
web services™

EMC®
where information lives®

UNISYS
imagine it. done.

“Heavy Lifting” to “Differentiated Business”



A cloud infrastructure can provide

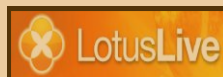
- reliable and dependable on-demand infrastructure
- that frees time and expense
- for you to focus on innovating for your business.

IBM's commitment to SaaS/Cloud continues to grow

1. Offers Smart Business Services on the IBM Cloud including

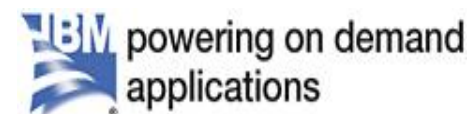
Examples :

- Lotus Live
- Rational AppScan
- Information Protection Services
- Smart Business Development and Test



2. Helps ISVs to develop, deliver and market SaaS Solutions:

- SaaS Enablement and Partner Program
- More than 200 ISVs in SaaS Specialty
 - Examples include Wesupply, GroupLive



3. Helps customer integrate SaaS solutions into their business.

- Global Business Services
 - Including practices for Salesforce.com and SuccessFactors
- Rational tools for optimizing SaaS investments
- Tivoli Provisioning Manager
- Tivoli Usage and Accounting Manager

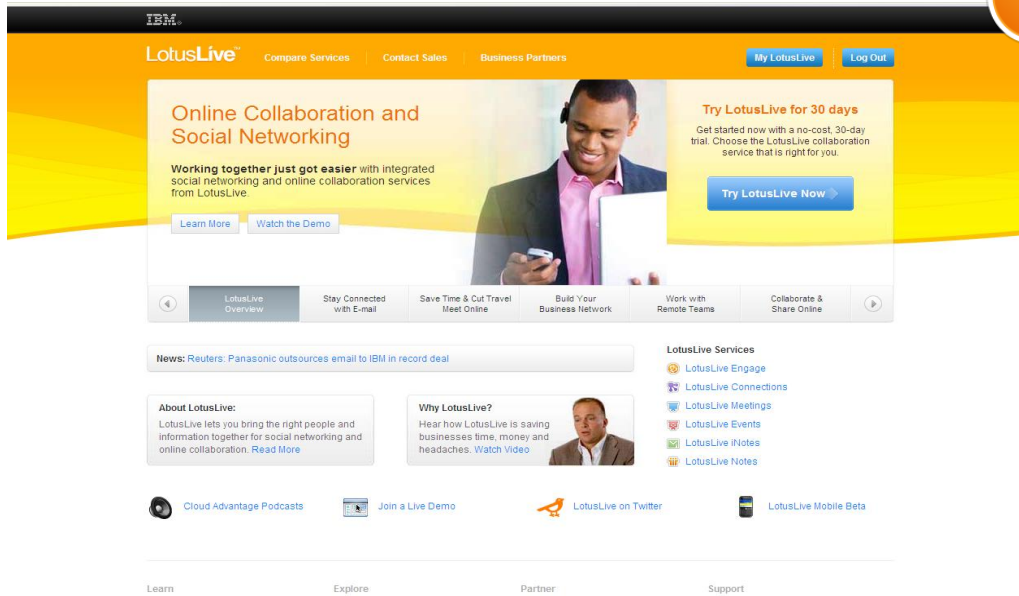


4. Helps enterprise customers to build their own 'private' Cloud environments.

- Smart Business Cloud: Private cloud services, behind your firewall, built and/or run by IBM
- Smart Business Systems: Pre-integrated workload optimized systems including IBM Cloudburst



LotusLive.com is an Open System of Systems



LotusLive™
www.lotuslive.com



Files



My Network



Meetings



Events



Chat



Activities



Charts



Survey Forms



eMail

The LotusLive Portfolio



Web Conferencing

LotusLive Meetings

A full-featured, easy to use Web conferencing service

LotusLive Events

Provides tools to create, manage and conduct webinars for up to 999 attendees



Collaboration

LotusLive Engage

An integrated suite of tools that combines your business network with collaboration and conferencing services

LotusLive Connections

Combines your business network with collaboration services



eMail

LotusLive Notes

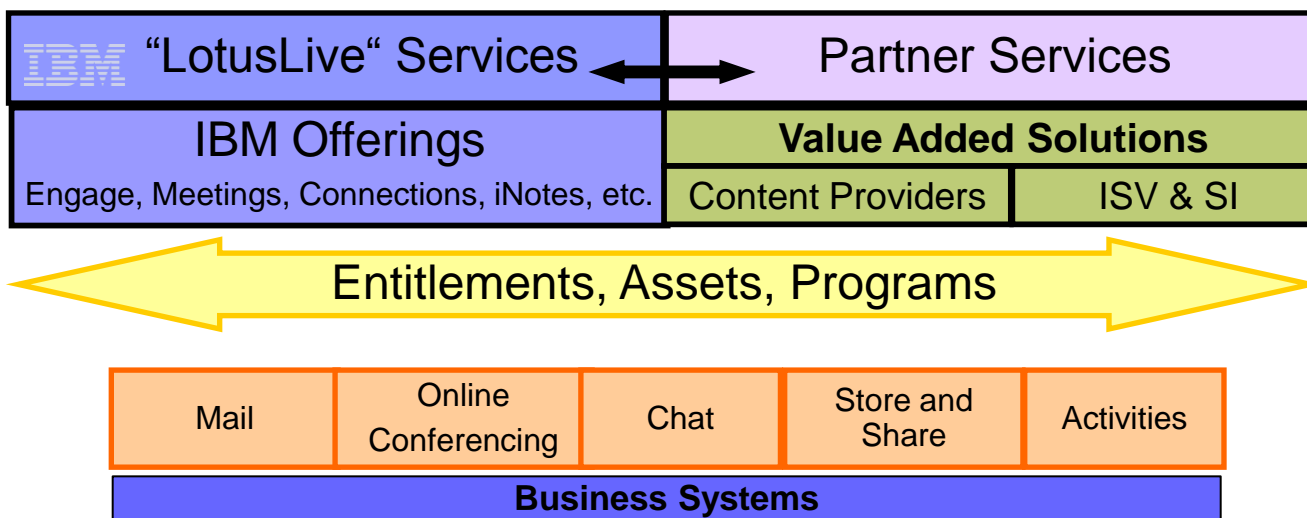
An online version of IBM's popular Lotus Notes email and calendaring & scheduling product

LotusLive iNotes

Web-based messaging service for e-mail and personal calendar

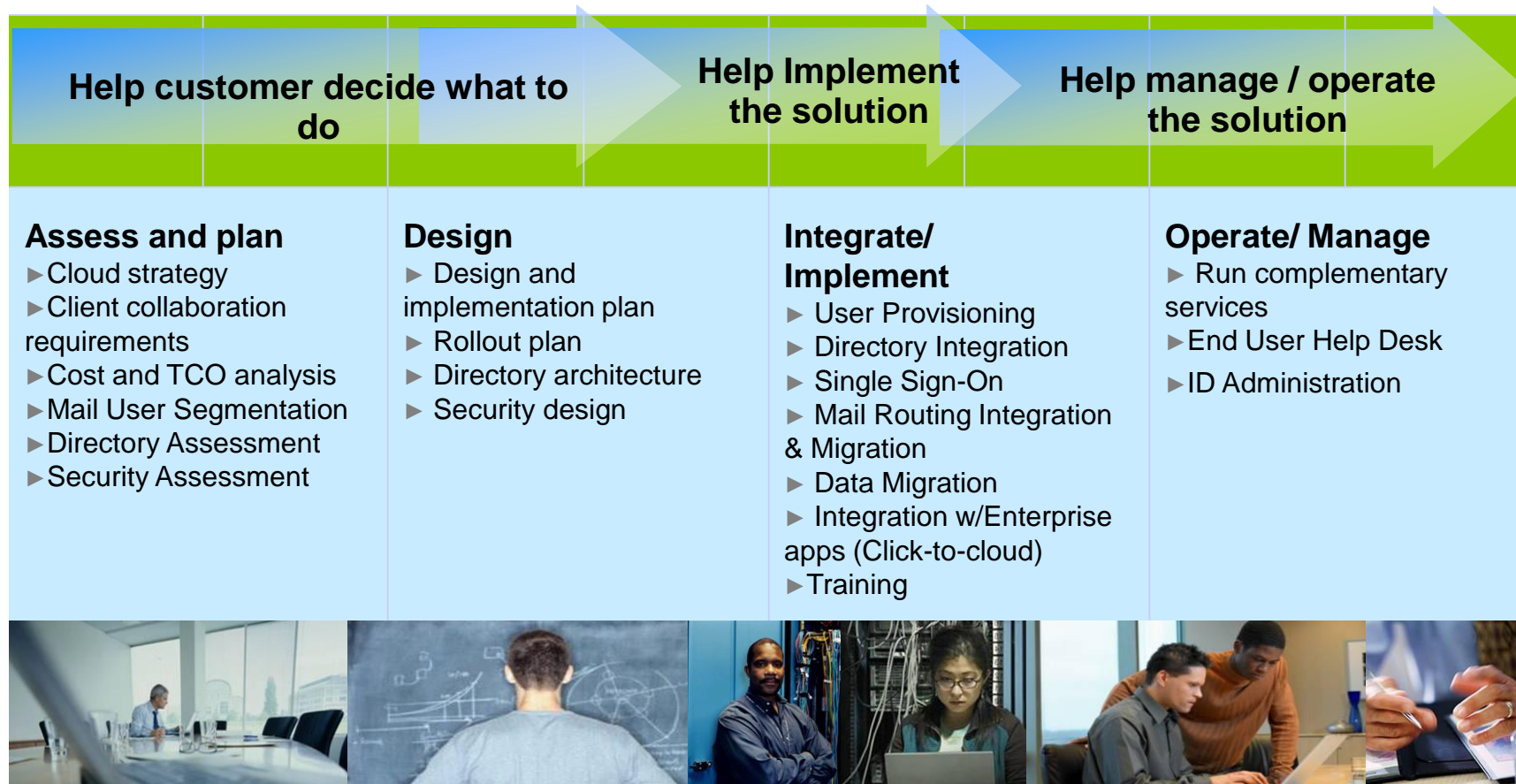


Partnering with LotusLive



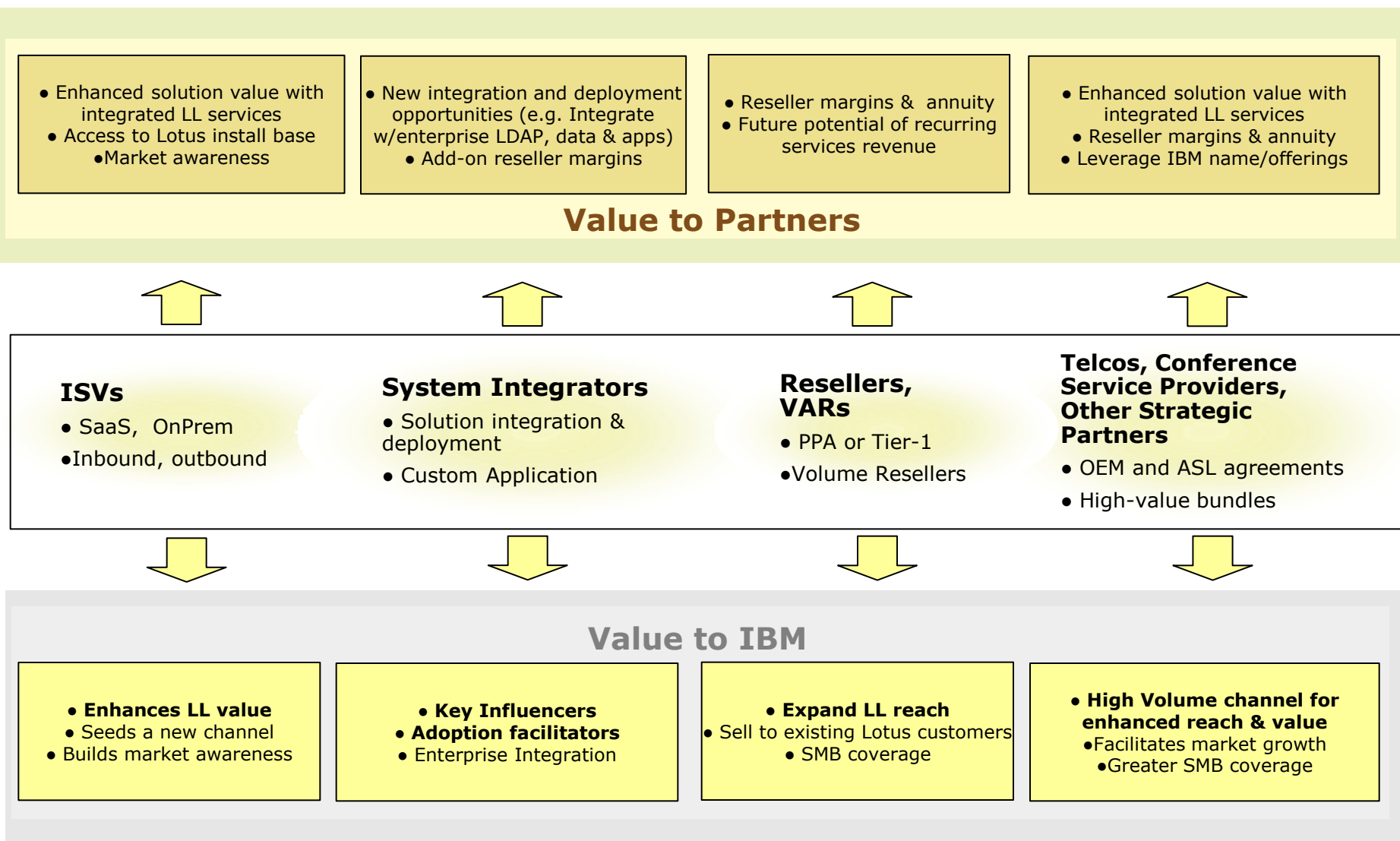
- LotusLive is a flexible SaaS platform for collaboration with partner extensions
- Partners can integrate LotusLive services in their own applications
- Partner applications can be integrated into LotusLive
- Partners can integrate LotusLive with existing, on-premise solutions (Click to Cloud TM)
- Partners can provide IT services and consulting for LotusLive
- Customers benefit from integrated external-facing collaborative business processes

Services Opportunities around LotusLive™



Total Services Opportunity: 1 to 3x yearly subscription revenue

LotusLive Partner Ecosystem



Smart Business Systems:

IBM Cloudburst

IBM WebSphere Cloudburst Appliance

- ▶ Integrated service delivery platforms that include hardware, storage, networking, virtualization and service management software.
- ▶ Workload-optimized systems create a cloud environment and build dynamic infrastructure to deliver new levels of service at reduced costs
- ▶ “Built for Performance” based on architectures required by specific workloads
- ▶ Optimized for test/dev workloads or production implementations
- ▶ Available with several attractive financing options



Clients have achieved significant benefits ...

- ▶ **Reduced IT labor cost by 50%** in configuration, operations, management and monitoring.
- ▶ **Improved capital utilization by 75%**, significantly reducing license costs.
- ▶ **Reduced provisioning cycle times from weeks to minutes.**
- ▶ **Improved quality**, eliminating 30% of software defects.
- ▶ **Reduced end user IT support costs** by up to 40%.

...working with IBM to deploy cloud computing solutions.

IBM CloudBurst
Designed from client implementations



IBM Smart Business Development and Test on the IBM Cloud

- ▶ A dynamically provisioned and scaled runtime environment
 - provides everything to develop and test applications
- ▶ Application lifecycle management offerings from Rational
 - that can be provisioned as services on the cloud
- ▶ new capabilities of existing Rational offerings to exploit cloud resources

Benefits:

- **Instant self-service provisioning of Rational solutions in the cloud** - lower TCO, no installation cost, reduced labor for configuration, no capital expense
- **Pre-configured services integration on the Jazz platform** – preconfigured software embodying best practices
- **Dynamic/elastic computing for tests and builds**
- **Virtualized development infrastructure for test and build** -- faster and more flexible deployment of development/testing environment
- **Supported** by an internet based user experience that enables collaboration and reuse.

ibm.com/cloud/developer

IBM's commitment to SaaS/Cloud continues to grow

1. Offers Smart Business Services on the IBM Cloud including

Examples :

- Lotus Live
- Rational AppScan
- Information Protection Services
- Smart Business Development and Test



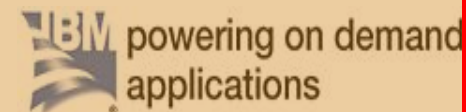
3. Helps customer integrate SaaS solutions into their business.

- Global Business Services
 - Including practices for Salesforce.com and SuccessFactors
- Rational tools for optimizing SaaS investments
- Tivoli Provisioning Manager
- Tivoli Usage and Accounting Manager



2. Helps ISVs to develop, deliver and market SaaS Solutions:

- SaaS Enablement and Partner Program
- More than 200 ISVs in SaaS Specialty
 - Examples include Wesupply, GroupLive

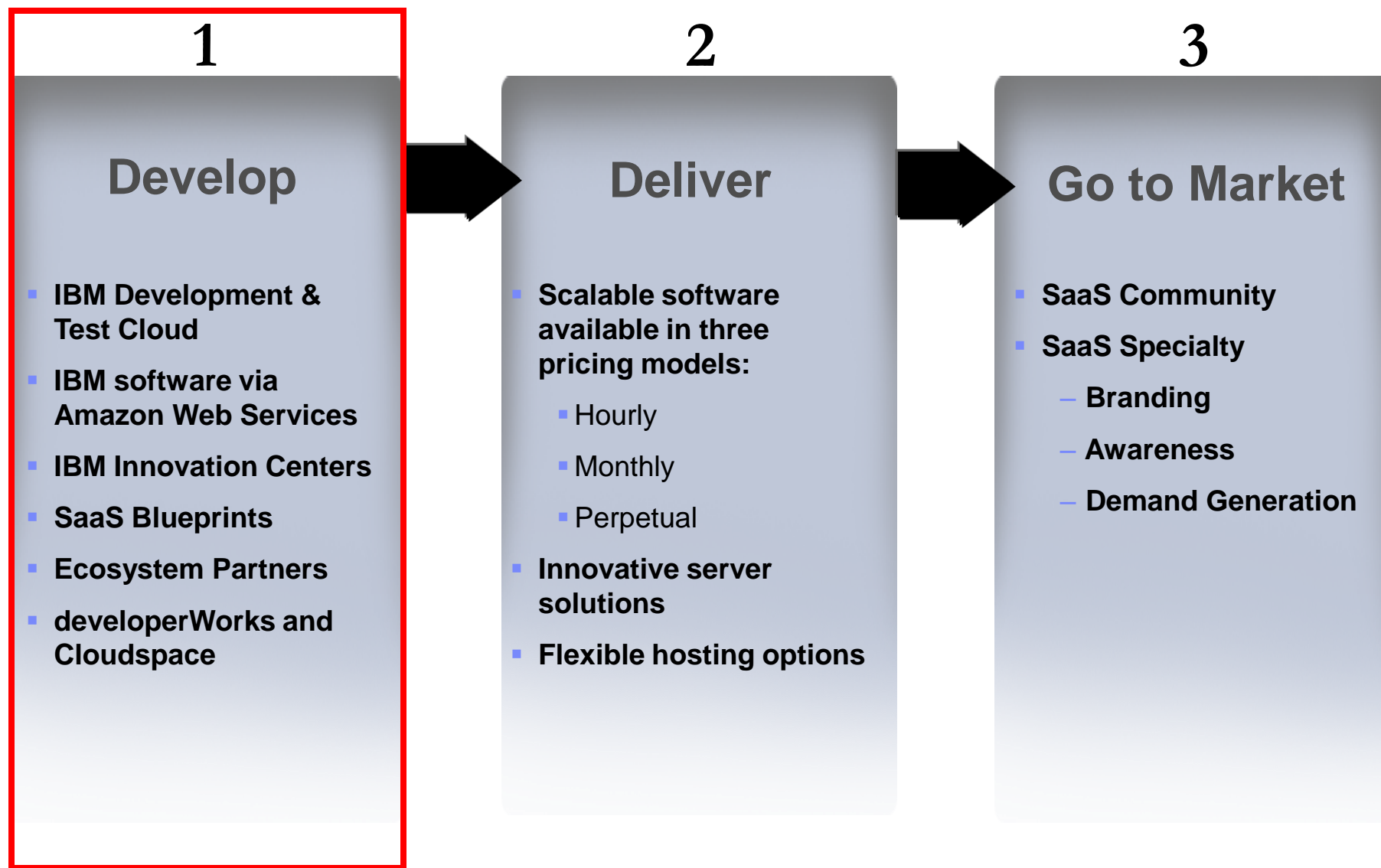


4. Helps enterprise customers to build their own 'private' Cloud environments.

- Smart Business Cloud: Private cloud services, behind your firewall, built and/or run by IBM
- Smart Business Systems: Pre-integrated workload optimized systems including IBM Cloudburst



Key components of the SaaS Partner Program



What is IBM offering on Amazon Web Services?

1. ISV Development Environment

- ▶ For ISVs and other companies developing commercially available applications, IBM, Novell and AWS provide no-charge development environments.
 - ▶ DB2 Express, Informix Dynamic Server
 - ▶ WebSphere Application Server, Portal, sMash, eXtreme scale
 - ▶ Lotus Web Content Management, Lotus Forms, IBM Mashup Center
- ▶ Get started in minutes, just pay for the EC2 charges starting at \$0.10 an hour.

2. Hourly priced, full production environments of leading IBM software products.

- ▶ Prices start at \$0.38 an hour and includes IBM software, Novell SuSe Linux and underlying Amazon Elastic Compute Cloud (EC2) charges.
- ▶ No commitments, contracts or minimums. Pay as you go.

3. Bring your own licenses

- ▶ Customers can deploy their purchased IBM software on AWS using an easy conversion table.

**Access IBM software
in the cloud**

IBM to deliver software portfolio via cloud
computing with Amazon Web Services.

→ Learn more



<http://aws.amazon.com/ibm/>

IBM on EC2

- Install and run IBM Program licenses in the Amazon EC2 environment
- IBM Program licenses obtained on a Processor Value Unit (PVU) basis
 - Passport Advantage
 - Application Specific Licenses (OEM)
 - SaaS Monthly Rental

AWS Instance Type	EC2 Compute Units	Number of Virtual Cores	PVUs required per Instance type	Memory	Storage	Platform
Small (default)	1	1	50	1.7 GB	160 GB	32-bit
Large	4	2	100	7.5 GB	850 GB	64-bit
Extra large	8	4	200	15 GB	1690 GB	64-bit
High CPU Medium	5	2	100	1.7 GB	350 GB	32-bit
High CPU Extra large	20	8	400	7 GB	1690 GB	64-bit

http://www-01.ibm.com/software/lotus/passportadvantage/pvu_for_Amazon_Elastic_compute_cloud.html

IBM Enablement Support

► IBM Innovation Centers: State-of-the-art facilities dedicated Business Partners

- Architectural design and implementation consulting
- Porting, migration and testing services
- Support for application integration, proof of concepts, validations, scalability testing
- Cross platform test environments
- Expertise in the latest technologies including SaaS and Cloud

► SaaS Enablement Blueprints

- Create Multi-Tenant Apps
- Implement Security, Compliance, Metering and Billing
- Provide Tenant Provisioning and Ensure Quality of Service

► IBM developerWorks: your entry point

- Logon to access IBM development & Test Cloud
- Implement Security, Compliance, Metering and Billing
- Provide Tenant Provisioning and Ensure Quality of Service



developerWorks.

developerWorks > My developerWorks > Spaces >

Cloud Computing

SaaS Ecosystem Partners

- ▶ IBM has a growing network of SaaS Enablement Partners who bring resources and experience to help you enable your SaaS solution on IBM technology including:
 - **Persistent Software** – Transform, Develop, and Integration
 - Offer a 2-week assessment to define an individualized SaaS Implementation Plan, complete with cost estimates and timeline
 - **WaveMaker** – Deploy Existing Applications on the Cloud
 - Offer a Proof of concept at IBM Innovation Center
 - **Corent** – Rapid App- Development Tools
 - SaaS-Suite™ is a set of software products for rapid development of sophisticated turnkey (SaaS) applications
 - **LongJump** – Rapid Development Platform
 - Complete PaaS stack and tools to develop and deliver applications



PERSISTENT

WaveMaker 



LONGJUMP

Platform at Your Service™

Case Study: Wavemaker and KANA

KANA Software is a leading customer service ISV with over 600 companies worldwide deploying its product, including half of the Fortune 50.

► **Business Challenge:**

- KANA wanted to give its customers a way to quickly and easily tailor WebSphere based KANA applications to fit their particular business processes

► **Solution:**

- WaveMaker Studio is a drag and drop development tool that runs in a browser
- WaveMaker enables anyone to build Web applications without complex coding

► **Benefit: WaveMaker is expected to achieve these benefits for KANA customers:**

- Reduce the cost to configure the UI for a typical customer service solution by 75%
- Make it possible to respond to changing business situations in minutes or hours
- Enable business managers to customize the software themselves
- Allow IT to focus on other business innovation
- Reduce the Total Cost of Ownership (TCO) of the product
- Ensure a stable, flexible, standards-based dynamic platform for the software product

"WaveMaker turbocharged our development effort for KANA 10, cutting at least 50 percent of our development time."

– Mark Angel, CTO, KANA

WaveMaker 

KANA

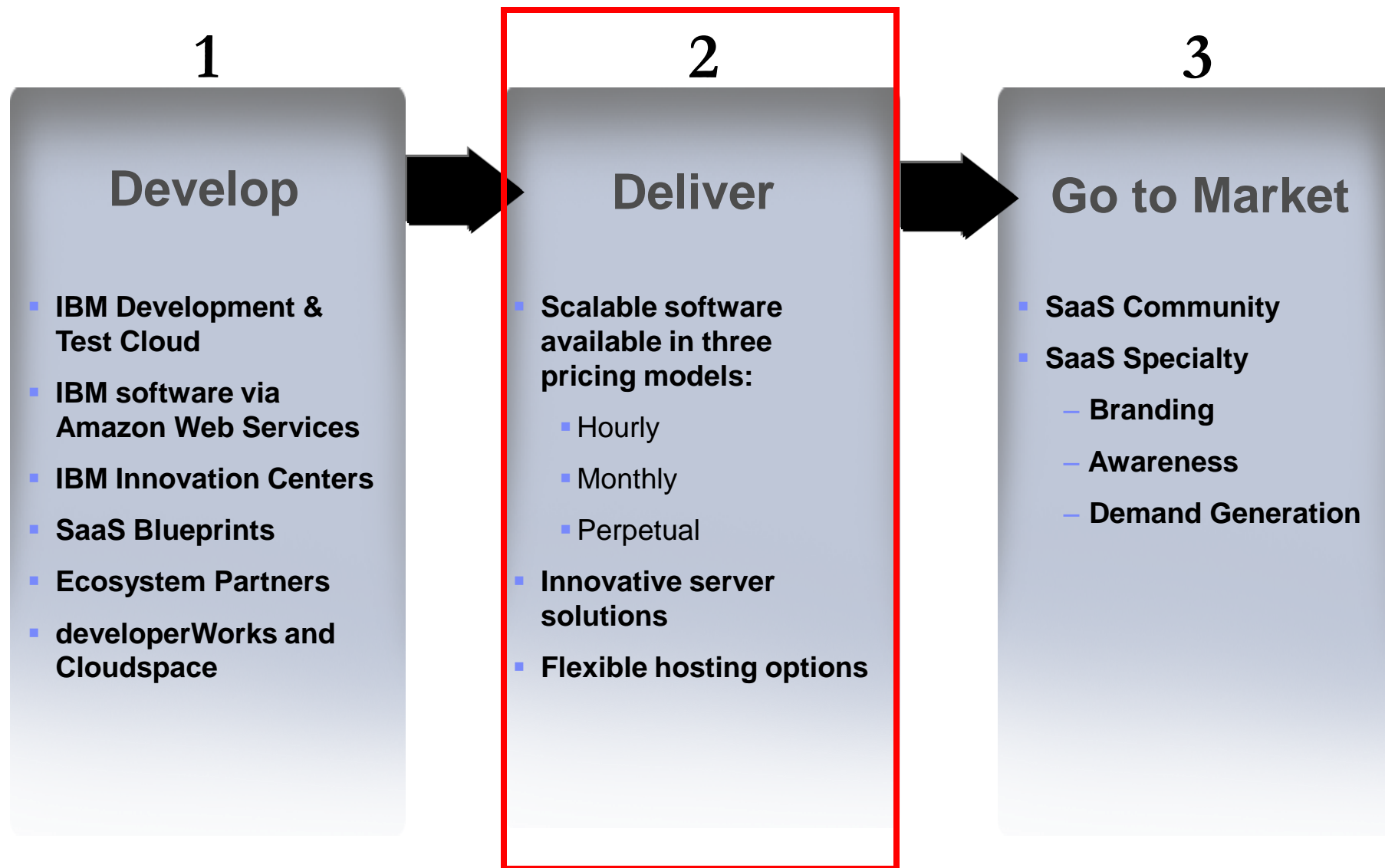


WebSphere. software

Cloud Architecture Certifications

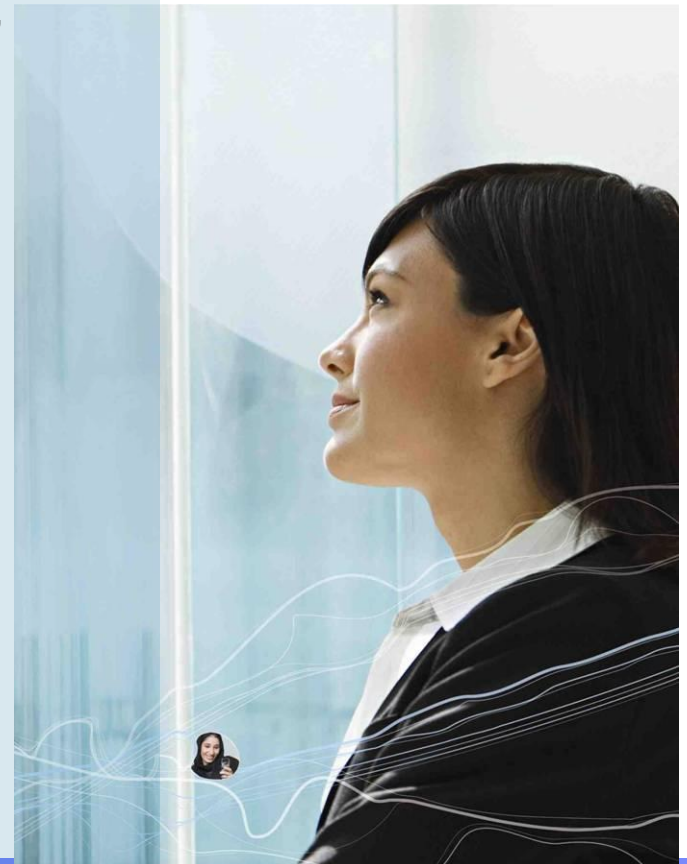
- ▶ Authorized IBM Software partners can now learn to design public and private cloud computing solutions based on the same IBM software products they are authorized to sell.
- ▶ As part of the new certification, authorized partners can take advantage of a new cloud business adoption guide that shows how to structure deals based on proven IBM business models.
- ▶ Additionally, IBM will launch new cloud camps for software partners through IBM Innovation Centers and other IBM locations.

Key components of the SaaS Partner Program



The power of IBM Software for Software as a Service

- ▶ **Complete Solution:** IBM offers a complete solution for Software as a Service – a software stack that is scalable, reliable and open standards based:
 - Data and Application Servers, Portals and Collaboration, SOA Foundation, Development lifecycle tools
- ▶ **Technology:** IBM is committed to open source and open standards providing you with flexibility and freedom
- ▶ **Market Share:** IBM is the largest IT company in the world and market leader in Service Orientated Architecture and Web 2.0
- ▶ **Risk:** IBM minimizes risk and supports you at every stage — from development to deployment; Provides accountability which not every vendor can provide
- ▶ **Total Cost of Ownership:** IBM has a range of pricing models including new SaaS pricing models which align middleware costs with SaaS revenue streams



Software pricing options for SaaS providers

- Flexibility is critical so IBM provides ISVs with three ways to acquire software required to run their service.

Hourly via Amazon Web Services	Monthly Rental SaaS Model	Perpetual License Model
<ul style="list-style-type: none">■ Hourly priced production environments starting from less than 40c per hour (Includes IBM software, Novell Linux and AWS infrastructure).■ No commitments, minimums or termination fees.■ Can be used in combination with other licensing models.	<ul style="list-style-type: none">■ New OEM contract model allows ISVs to pay for IBM software monthly based on usage.■ Two options available for ISVs:<ul style="list-style-type: none">- Variable. True 'pay-as-you-go' model with no minimum monthly commits.- Committed. ISV commits to a base level of monthly usage and can 'burst' above that level on a usage basis.	<ul style="list-style-type: none">■ ISVs with predictable software usage requirements can maximize their discounts and flexibility by purchasing software through their existing channels.

SaaS Monthly Rental Term

Illustrative Example

	Yr 1	Yr 2	Yr 3	
SRP per Unit	€100	€20	€20	Standard
<i>Volume of units</i>	<i>1500</i>	<i>1500</i>	<i>1500</i>	
Total	€150,000	€30,000	€30,000	
Annual Term per Unit = (€140/3)	€46.67	€46.67	€46.67	
Annual Base Price	€70,005	€70,005	€70,005	SaaS
<i>Monthly Rental Term Commit Usage (Divide by 12 * (1-37%))</i>	€3,675	€3,675	€3,675	
<i>Monthly Rental Term Variable Usage Includes 50% premium</i>	€5,513	€5,513	€5,513	

- ▶ If commitment to the 1500 units is made then commit price available
- ▶ If Annual term is > €50k then commit and variable possible o/wise just variable
- ▶ ASP and IBM ASL Base agreement T's and C's apply

Monthly Rental Pricing for ISVs

1. Determine the 'baseline' environment required to support SaaS solution.
2. Calculate the Processor Value Units required for each IBM software products
 - http://www-01.ibm.com/software/lotus/passportadvantage/pvu_licensing_for_customers.html
3. Calculate the 3 year Standard Retail Price (SRP) for the software (Year 1 license and support + Year 2 & 3 Subscription and Support.
4. Divide 3 year SRP by 3 = 1 year SRP.
 - If this is greater than \$50,000 you can qualify for both variable and committed options. If less than \$50,000 only variable option available.
5. Divide 1 year SRP by 12 and apply qualified discount (e.g. 37%) to determine monthly commit charge.
6. For variable models apply a variable premium rate of 50% uplift to monthly charge.

Illustrative Example: 1000 PVUs @ \$200 per PVU

- 3 Year SRP = \$280,000 (\$200K + \$40K + \$40K)
- 1 Year SRP = \$93,333
- Commit monthly = $\$93,333 / 12 \times (1 - 37\%) = \$4,900$ per month. Incremental usage charge at \$490 per 100 PVUs per month.
- Variable monthly = $\$93,333 / 12 \times (1 - 37\%) + 50\% = \$7,350$ per month

Contract Options

► Amazon Web Services

Entry

1. Development & Test for ISVs
2. Hourly Production prices
3. Bring Your Own License

► Monthly Fixed Term Rental

Low entry price
OpEx v.CapEx
Reduced Risk

► Application Specific License (OEM) types (with ASP Amendment)

► Purchase Commit

Upfront Commitment

► Earned Discount

Purchase History

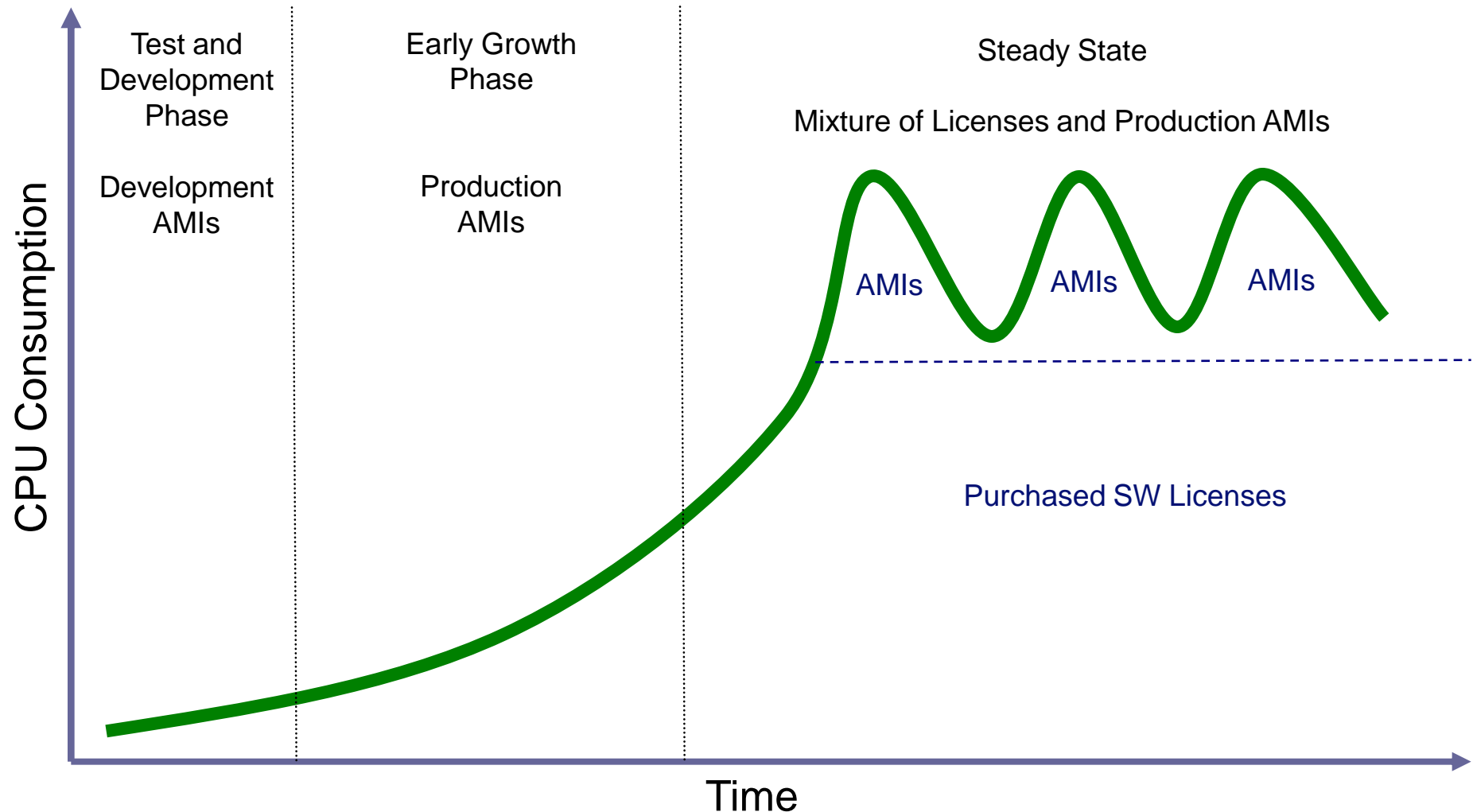
► Percent of Revenue

Pay as you sell

► Passport Advantage

One Time Charge upfront

Combining the models



VADs Contract Options

- ▶ Monthly Rental SaaS pilot for VADs only to offer to ISV SaaS applications
- ▶ ASL and ASP already in place for MIDP VADs
- ▶ Terms, conditions and pricing are between IBM and VAD
- ▶ Monthly rental is paid in arrears
 - based on actual usage of the tier-2 SaaS ISV
- ▶ standard licensing metrics
 - E.g.
 - Authorized User
 - Full machine PVU
 - Sub-capacity licensing
- ▶ IBM Europe ASL and IDR are working jointly with mid-market ISV distributors with identified opportunities

Hosting Provider Contract Options

- ▶ Monthly Rental SaaS pilot for Hosting Provider supporting ISV SaaS applications
- ▶ Hosting Services that include IBM software offered to ISV by hosting provider
- ▶ ASL Monthly Rental SaaS Transaction Document terms apply
 - a) level 1 & 2 support by BP
 - b) maintain skills on each program product
- ▶ Selection based on technical and sales skills commitment, knowledge and access to ISV market, defined opportunity
- ▶ IBM Europe ASL and IDR are working jointly with mid-market ISV distributors with identified opportunities

Market example

- ▶ Hosting Provider with service to many ISVs supported by VAD
 - ▶ ISVs want to offer per seat or usage pricing for their applications
 - ▶ Contract is between IBM and Hosting Provider
 - ▶ Based on SaaS Monthly Term Contract
 - ▶ Hosting provider working with VAD and IBM
 - ▶ VAD to provide contract management
 - ▶ VAD interest is relationship building to other opportunities

ASL/OEM Monthly Rental SaaS model: T&Cs

- Restricted Use license may only be used in conjunction with Partner's 'Value-Add' component that are delivered over the Internet
- Business Partner provides Level 1/2 support
- May not be combined with other volume pricing discounts
- Deals must be standalone Monthly Rental deals to avoid revenue recognition issues
- No OTC conversion credit given
- Partner's Solution must be a "hosted" arrangement, not for use with on premises deployments of Solution
- Requires use of Custom Monthly Rental Transaction Document (provides for one month use of license, no perpetual entitlement)
- Monthly Rental SaaS TD Released by SWG Legal to IOT Legal departments.
- Monthly Rental SaaS TD uses new ASL/OEM-only A P/Ns along with Subscription and Support E P/Ns
- The partner must be sufficiently licensed to cover all customers and/or peak usage in a month.

SaaS Vendors Require Flexible Hosting Services

Majority of SaaS software vendors (ISVs) want co-Location or partially managed services.

Hosting providers

Co-Location

**Partially
Managed**

**Fully
Managed**

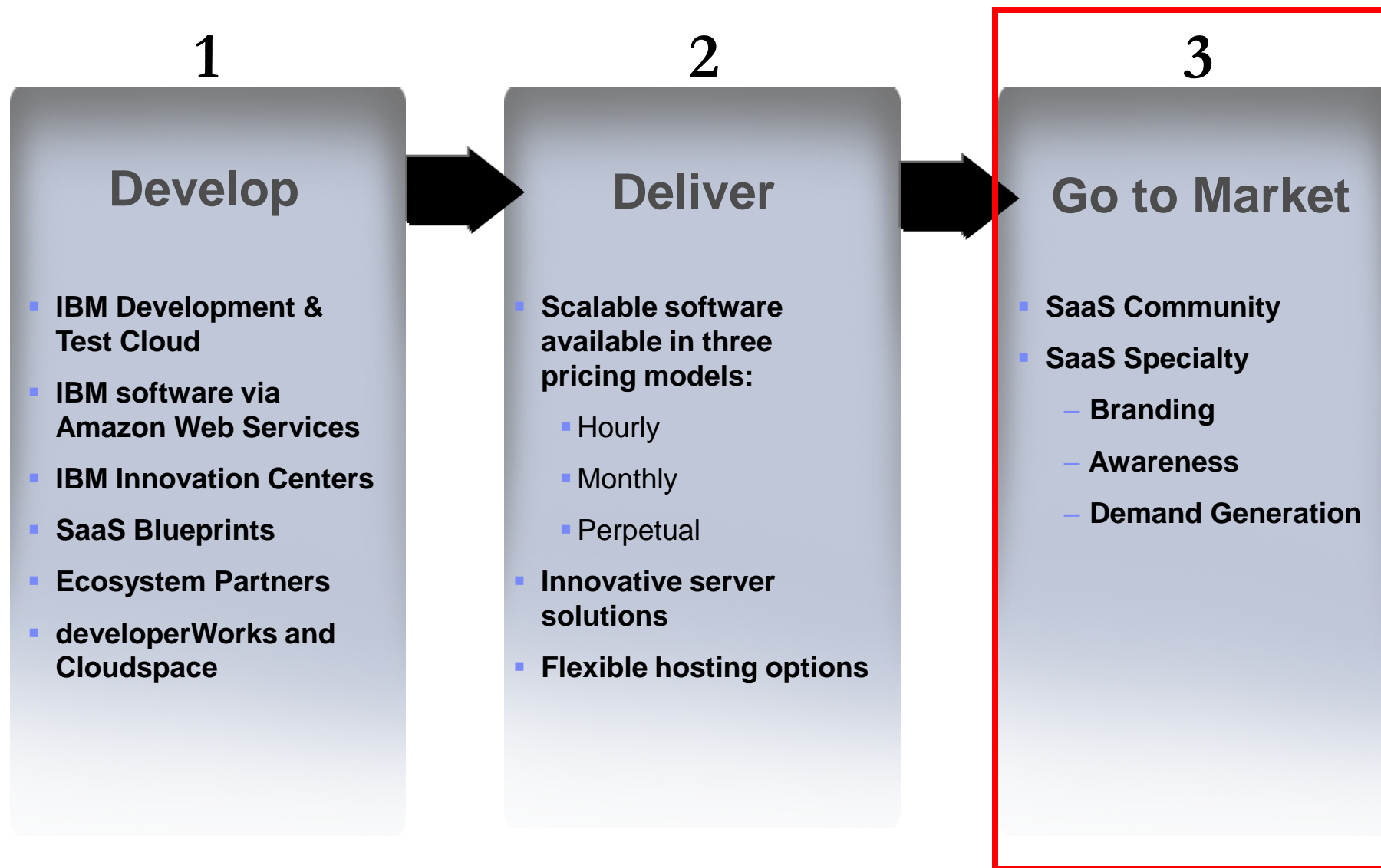
**Application
Services**

- *Ping (Repetitive test for Server Response)*
- *Power – Electricity*
- *Pipe – Internet connectivity*

- *Facilities Services*
- *Network Services*
- *Server Services*
- *Storage & Backup Services*
- *Security Services*
- *Monitoring Services*
- *Performance Services*
- *Support Services*
- *Professional Services*

- *Application Support Services*
- *Helpdesk*

Key components of the SaaS Partner Program



Get started today and get go-to-market support

SaaS Community

Requirements:

- PartnerWorld member
- Select SaaS as an area of interest

Education

- developerWorks
- Virtual Events
- IIC Education sessions

Enablement

- IBM Development & Test Cloud
- SaaS blueprints
- IBM Innovation Centers

Collaboration

- Cloud Community
- Newsletter
- Ecosystem Partners

SaaS Specialty

Requirements:

- PartnerWorld Advanced member
- 2 IBM technologies (IBM hardware, IBM Middleware or IBM Managed Hosting)

Awareness

- Customer success stories
- Media support
- Trade show support

Demand Generation

- Marketing Resource Manager
- Client events support

Branding

- Powering on Demand applications logo

Cloud Revenue opportunities

► Consult

- Development (objectives, architecture, solution)
- Define repeatable service offerings (definitions)
- Business and technical process workflows
- Administrative and self-service user interfaces
- Best practices for Image lifecycle management

► Customize

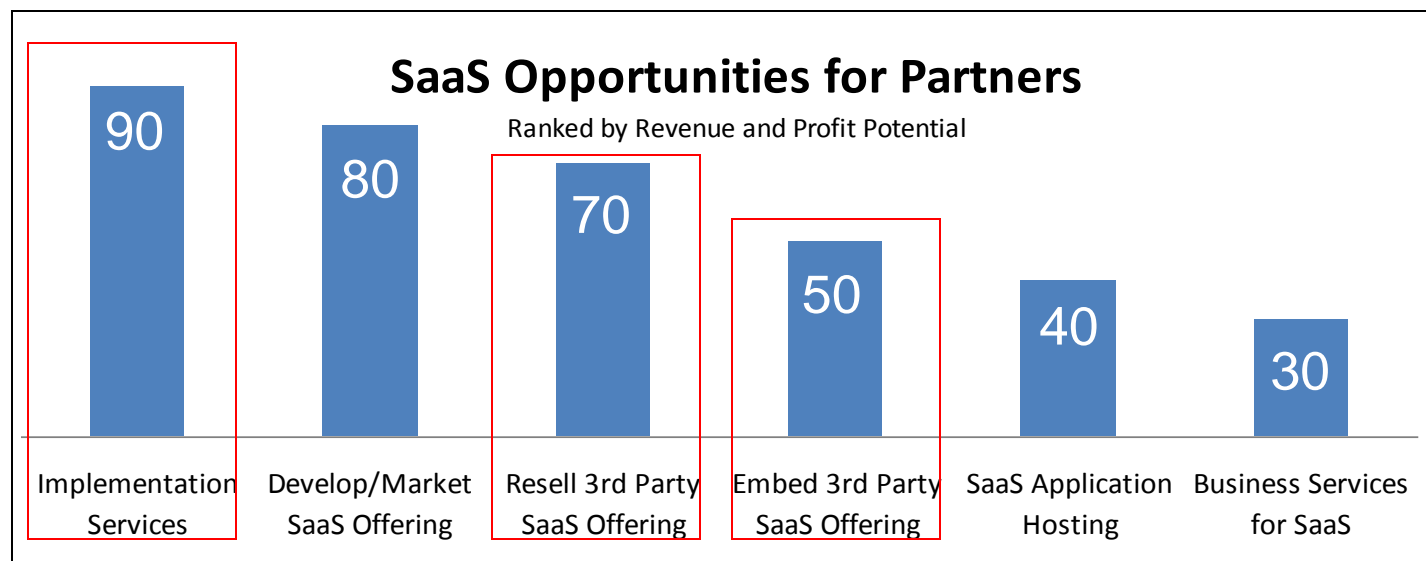
- Build service offerings (create projects)
- Add pre-configured offerings to the image library
- Create users, groups and security
- Build process automation workflow
- Customize service catalogs & reporting

► Maintain

- Managed operations
- Service Level Agreements
- Change management
- Image lifecycle management
- Monitoring & Metering, analysis and reporting
- Health assessments & tune-ups

*Apply
your
Industry
specific
Expertise*

Making money & building business with Cloud

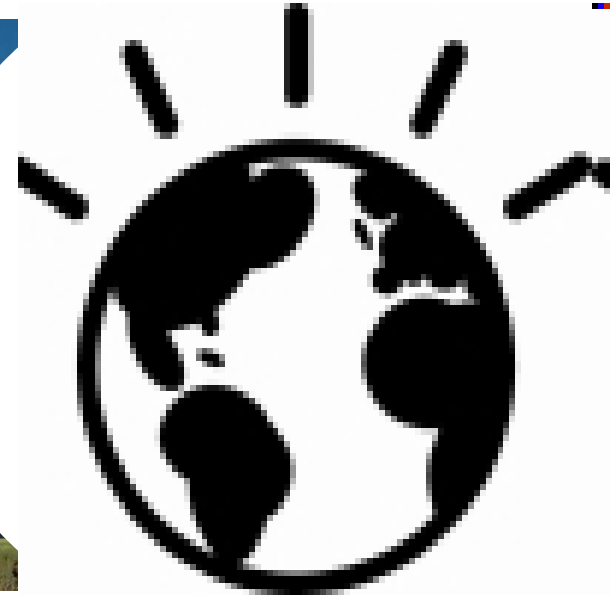


Source: Blended 'attractiveness' rating scale, combining both Revenue and Profit opportunity factors, developed by IBM based on an IDC study

	Public Cloud Services	Private Cloud Infrastructure
Architect Solutions	Identify public cloud services that meet business goals	Define workloads that benefit from private cloud e.g: <u>Workload Optimization</u>
Resell Capabilities	Sell annual or multi-year PPA contracts. Earn annual margins. Build annuity stream. e.g: <u>LotusLive</u>	Sell IBM enabling capabilities to build private clouds today e.g: <u>Tivoli Service Automation Manager</u>
Implement Solutions	Integrate public services with existing applications	Deploy private cloud and optimize workloads

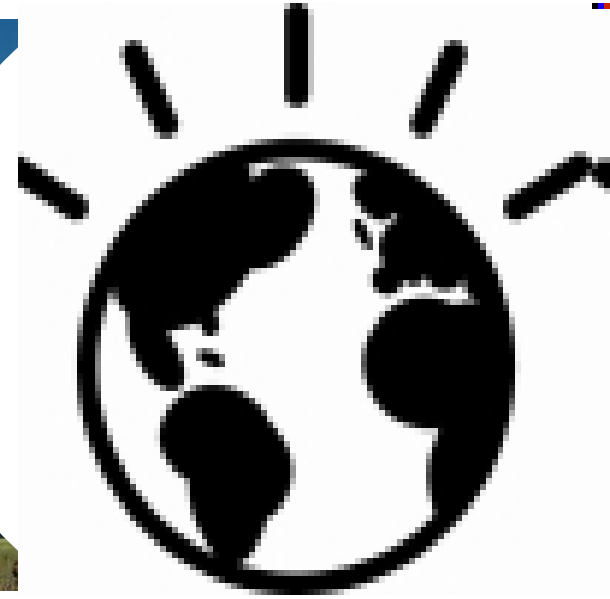


Thank you!





Discussion



Open Discussion

► Generation gaps

- Baby Boomer v. Generation X v. Generation Y

► China's Internet obsession

- People in the country's 60 largest cities spend 70 percent of their leisure time online.
- Seismic changes in the consumer market are likely as a result.

► “In Saugatuck’s view, all aspects of user IT and business operations are rapidly melding into an inextricably interwoven, and inter-dependent, series of capabilities that are delivered and used as one or more services via one or more networks. Core business tasks and operations have become software or service-based functions. Outsourced services delivered via Cloud today include simple IT solutions, business functions, and entire departments, from applications to databases to management. We no longer see easily-definable boundaries between IT and business; just as we will soon see the disappearance of boundaries between traditional (on-premise) and Cloud-based business and IT.”

- Saugatuck Strategic Research Report SSR-706, “[Lead, Follow, and Get Out of the Way: A Working Model for Cloud IT through 2014](#),” 25 Feb. 2010.

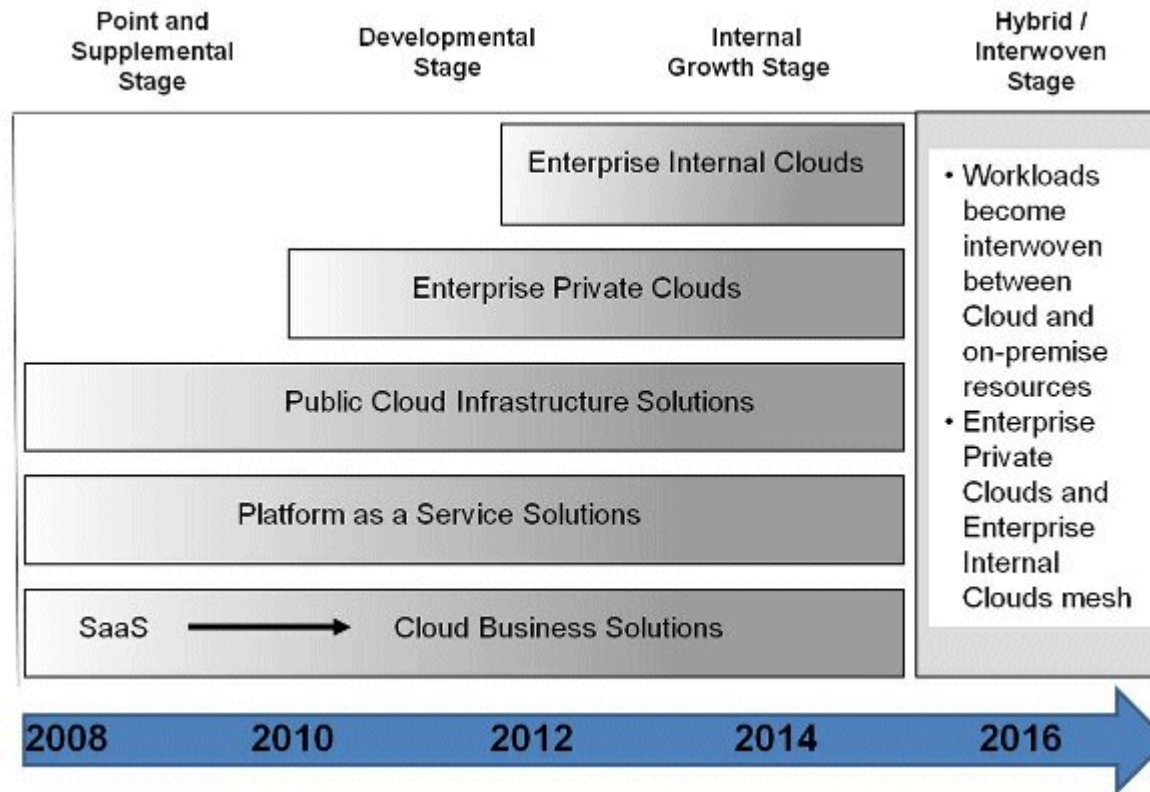
Saugatuck Releases First Cloud Leadership Study

Core research on Cloud use drives effective strategies of “Lead, Follow, and Get Out of the Way”

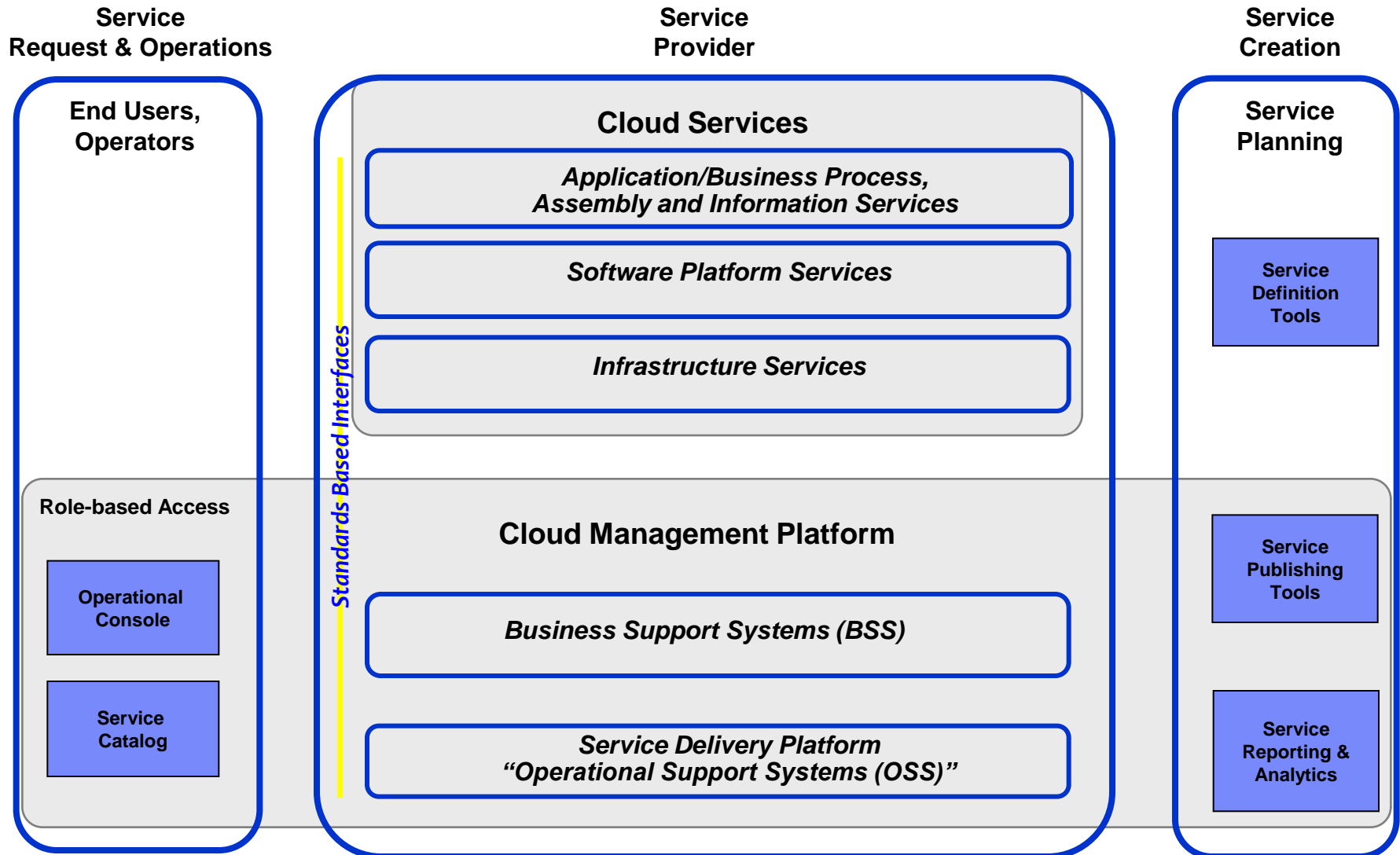
- ▶ Traditional IT and business leadership strategies and tactics will be of limited effectiveness in a Cloud-based environment where anyone can do practically anything they want or need to.
- ▶ Most user organizations either are going through, or within the next few years will go through, at least three of the four stages – each of which advances, and complicates, the roles and use of Cloud IT.
- ▶ By YE 2011, at least 75 percent of user organizations will be using one or more Cloud IT instances (e.g., SaaS, Cloud infrastructure, business services), to enable and support daily business operations
- ▶ To minimize costs and optimize Cloud effectiveness and efficiencies, leadership is needed from IT, Finance, and business organizations – and from Cloud IT providers as well.
- ▶ By YE 2014, 45 percent or more of NEW enterprise IT workloads will be Cloud-based.



Saugatuck Cloud IT Reality Model

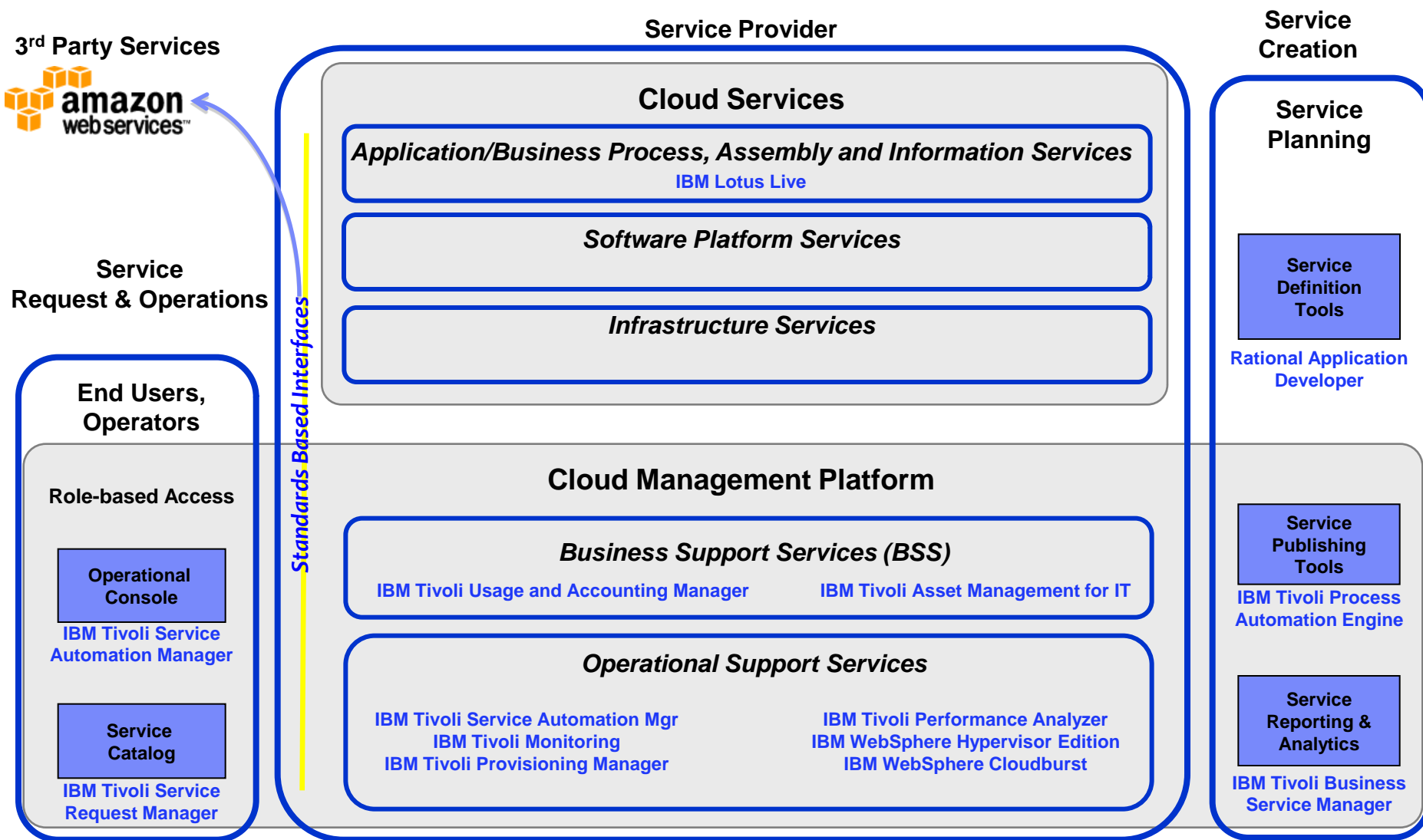


Architectural Model for Cloud Computing



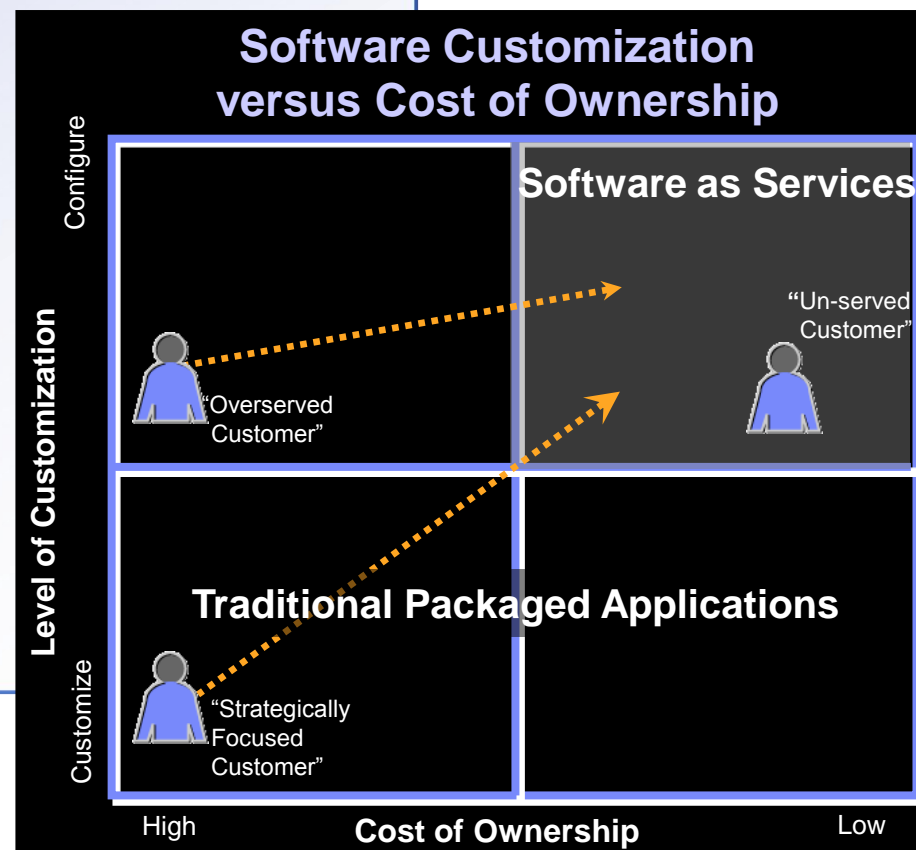
IBM Cloud Computing Products & Services

- SWG Enabling Capabilities



Customer Drivers

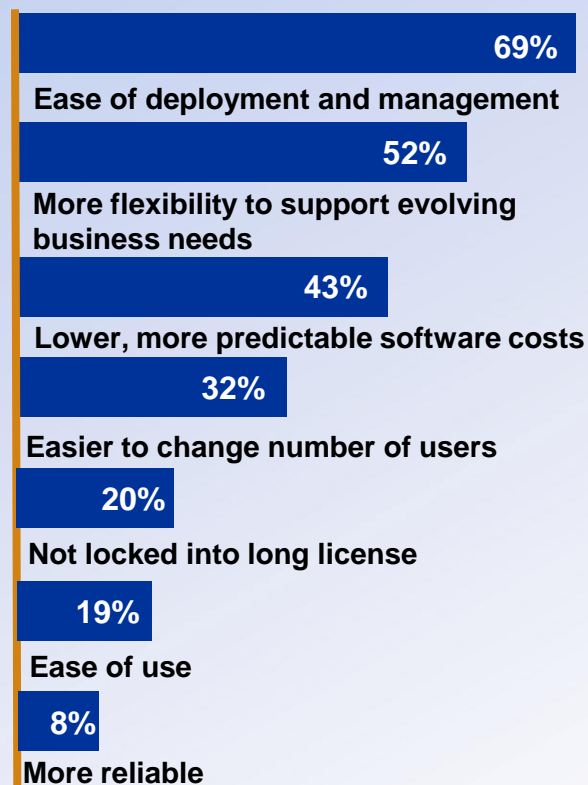
- Challenge of complex, heterogeneous environments
- Lower TCO for applications
- IT shops full
- Scalable without new infrastructure costs
- Shift the risk of software acquisition
- Migrate from a reactive IT cost center
- Access to latest infrastructure technology



Source: IBM analysis; Clayton Christensen, "The Innovator's Solution"; IDC, "Software as a Service: Yes, It's Disruptive, But What's an ISV to Do?"

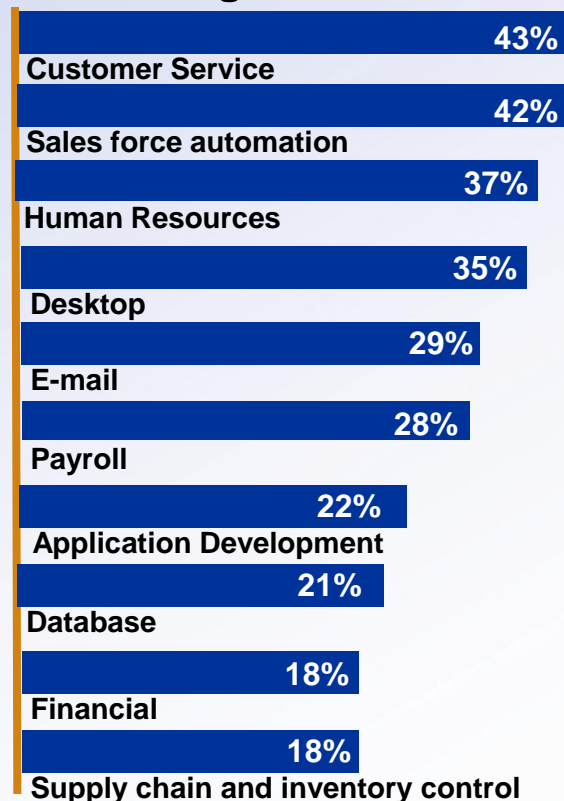
Speed, cost and efficiency are the main factors driving adoption of SaaS.

Why Are You Adopting SaaS?



Note: Multiple responses allowed.
Base: 159 Companies using or planning to use SaaS

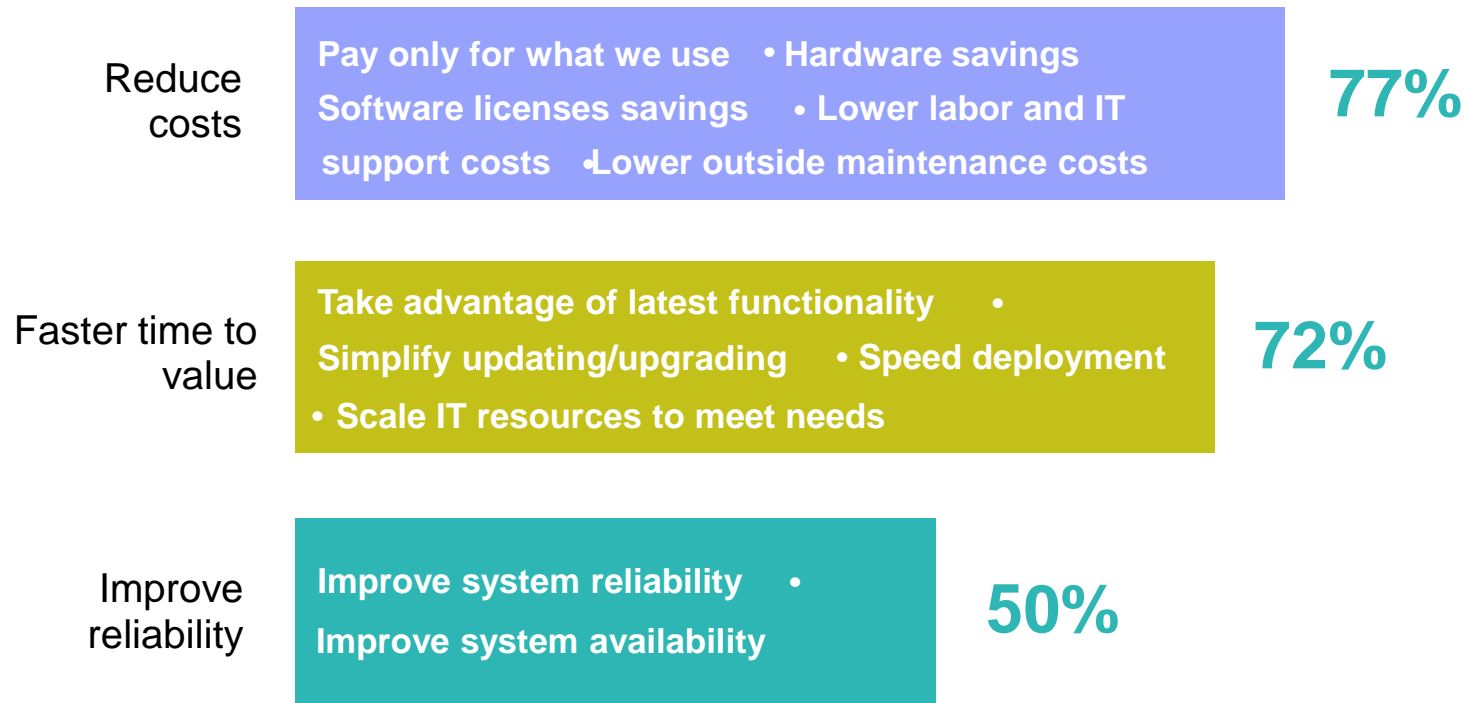
What Apps Would You Consider Using SaaS For?



Sources: InformationWeek Research Software As A Service survey of 250 business technology professionals.

Cost savings and faster time to value are the leading reasons why companies consider cloud

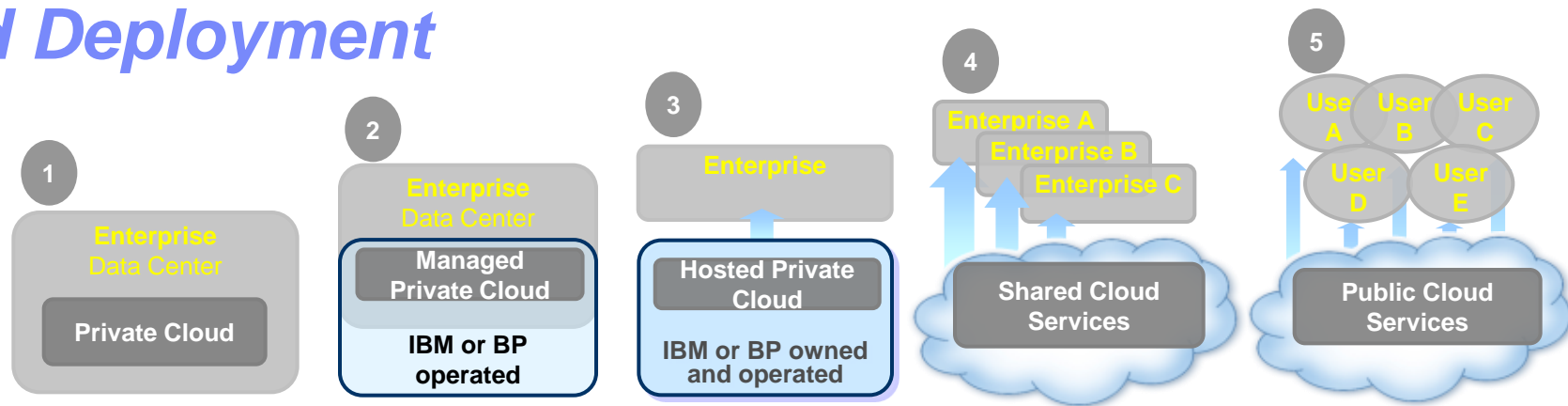
To what degree would each of these factors induce you to acquire public cloud services?



Respondents could rate multiple drivers items

Source: IBM Market Insights, *Cloud Computing Research*, July 2009. n=1,090

Cloud Deployment



	Private Cloud	Managed Private Cloud	Hosted Private Cloud	Shared Cloud	Public Cloud
IBM and/or Partner Role	Develop, Sell or Recommend, Build	+ Operate	+ Host	+Multi tenant Cloud Services Provider (SP)	Public Cloud SP
IBM and/or Partner Provides	IaaS, PaaS, SaaS	IaaS, PaaS, SaaS	IaaS, PaaS, SaaS	IaaS, PaaS, SaaS	IaaS, PaaS, SaaS
Pricing Models	Fixed price, Time & materials	+ Service Level Agreement (SLA)	+ Term contract	+Shared/Metered pricing	Metered pricing
Revenue Streams	Product Resale, Services, Training	Managed Services	+ Hosting Services	Hosting Services	Subscription Services
Ownership	Customer owns & operates	Customer owns IBM or BP operate	IBM or BP owns and operates	IBM or BP owns and operates	IBM or BP owns and operates
Client View	Internal network, dedicated assets Capex, Opex	Leverage IBM/BP Cloud & Industry expertise, Lower Opex	External network, dedicated assets, Lower Capex & Opex	External network, multi-tenant partners, cost sharing	Open to public, Shared Assets

Cloud Channel

Revenue Sources

Emerging Business Models

Cloud Usage
Services

SW Centric Reseller

Cloud Reseller

Cloud Hosting
Services

Services Centric
Provider

Cloud Operator

Cloud Development
Services

Cloud Builder

Product Resale

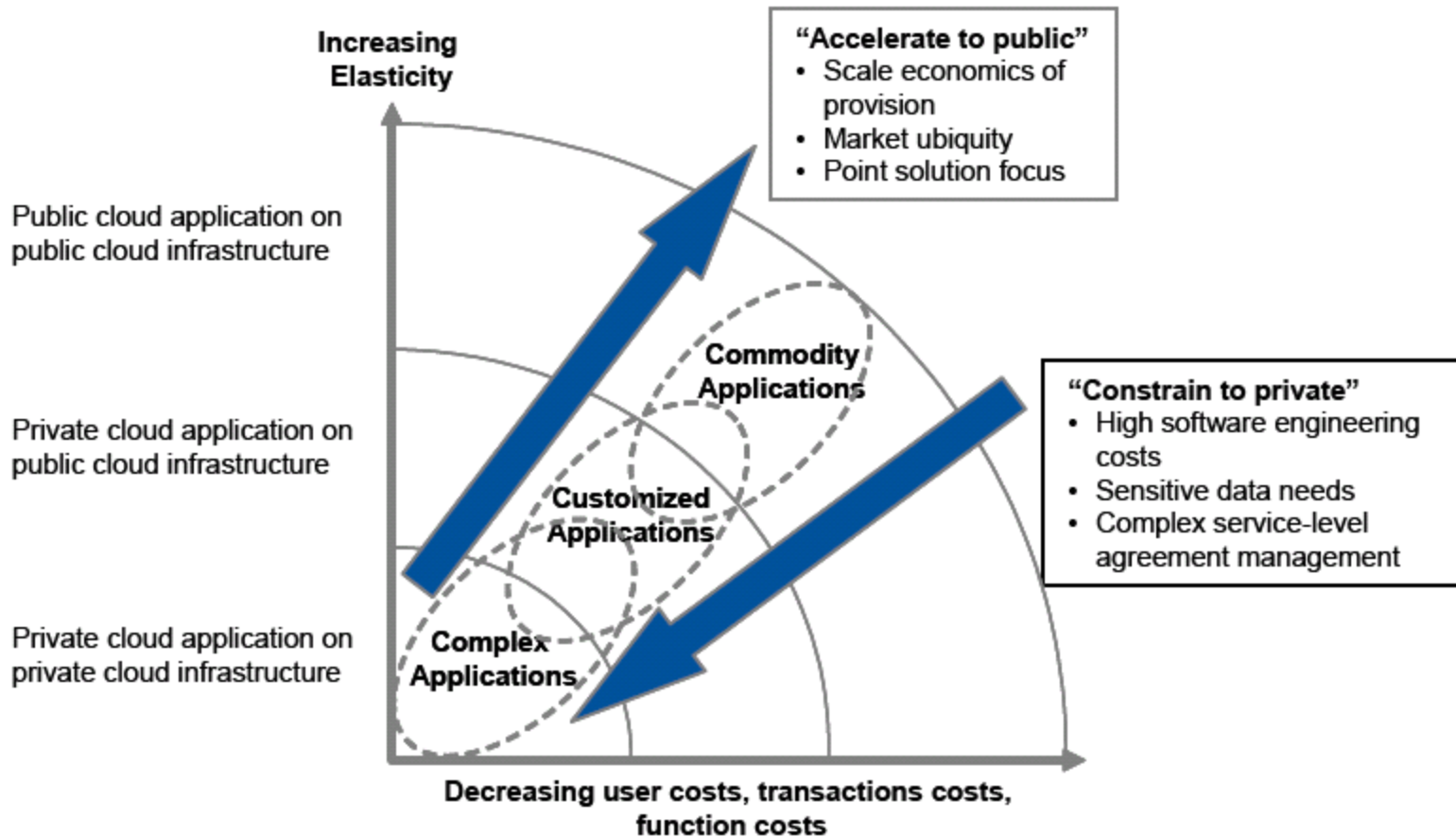
HW Centric Reseller

Cloud Supplier

IT Solution Provider



Figure 1. Application and Cloud Business Drivers and Overlapping Market Segments



Source: Gartner (July 2009)

Cloud Computing Attributes

- ▶ Abstract Resources
 - *Focus on your business needs, not on just technology.*
- ▶ On-demand Provisioning
 - *Ask for what you need for your business, exactly when you need it.*
- ▶ Elastic Scale
 - *Cloud is conceptually made of infinite capacity. Scale up and down as needed.*
- ▶ No Up-front Hardware Investment
 - *Costs are in direct proportion to actual usage, pay as you go*
- ▶ Loosely Coupled
 - *Pick and choose the components you need. One does not require others.*
- ▶ Plug and Play SW Stack/Web Services API
 - *Linux, Windows, Database, App Server, Security, etc.*
- ▶ Utility Consumption and Pricing
 - *Only pay for what you use. Pay by the hour or month. No Contracts.*

What IT Services workloads are moving to cloud ?

- 1 Single virtual appliance workloads
- 2 Test and Pre-production systems
- 3 Mature packaged offerings, like e-mail and collaboration (see <http://www.lotuslive.com>)
- 4 Software development environments
- 5 Batch processing jobs with limited security requirements
- 6 Isolated workloads where latency between components is not an issue
- 7 Storage Solutions/Storage as a Service
- 8 Backup Solutions/Backup & Restore as a Service
- 9 Some data intensive workloads if the provider has a cloud storage offering tied to the cloud compute offering

What IT Services workloads may not be ready for cloud?

1

▶ Workloads which depend on sensitive data normally restricted to the Enterprise

- Employee Information - Most companies are not ready to move their LDAP server into a public cloud because of the sensitivity of the data
- Health Care Records - May not be ready to move until the security of the cloud provider is well established

2

▶ Workloads composed of multiple, co-dependent services

- High throughput online transaction processing

3

▶ Workloads requiring a high level of auditability, accountability

- Workloads subject to Sarbanes-Oxley, for example

4

▶ Workloads based on 3rd party software which does not have a virtualization or cloud aware licensing strategy

5

▶ Workloads requiring detailed chargeback or utilization measurement as required for capacity planning or departmental level billing

6

▶ Workloads requiring customization (e.g. customized SaaS)

Cloud Use Cases

- ▶ Rapid App Deployment
- ▶ Backup / Archiving
- ▶ Media / Web Hosting
- ▶ Financial Applications
- ▶ Large Scale Simulation
- ▶ Scientific Computation
- ▶ Batch Processing

Where are we going ?

“Cloud” is an emerging consumption and delivery model for many IT-based services.

30 billion embedded RFID tags by 2010

1/2 of all sensors in transportation, facilities & production equipment are smart sensors

1/3 of the world's population on the Web by 2011

4B mobile subscribers globally at the end of 2008

15 petabytes of new information generated every day
(8x more than the information in all U.S. libraries)

64B credit card transactions/annum; **up 35%**



The World is Getting Smarter



Smart traffic systems



Intelligent oil field technologies



Smart food systems



Smart healthcare



Smart energy grids



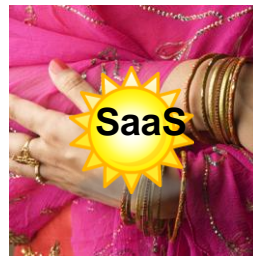
Smart retail



Smart water management



Smart supply chains



Smart countries



Smart weather



Smart regions



Smart cities

Development & Production AMIs

AMI Name
IBM DB2 Express Edition (32-bit)
IBM DB2 Workgroup Edition (64-bit)
IBM Informix Dynamic Server Express (32-bit)
IBM Informix Dynamic Server Workgroup (64-bit)
IBM Lotus Forms Turbo (32-bit)
IBM Lotus Web Content Management Standard Edition (64-bit)
IBM Mashup Center 2.0 (32-bit)
IBM Tivoli Monitoring on Linux - 50 Virtual Cores (32-bit) NEW!
IBM Tivoli Monitoring on Linux - 200 Virtual Cores (32-bit) NEW!
IBM Tivoli Monitoring on Linux - 600 Virtual Cores (32-bit) NEW!
IBM WebSphere Application Server (32-bit)
IBM WebSphere sMash (32-bit)
IBM Lotus Web Content Management Standard Edition/IBM WebSphere Portal Server (64-bit)
IBM WebSphere eXtreme Scale v7.0 on Linux NEW!
IBM InfoSphere DataStage/QualityStage NEW!
IBM InfoSphere DataStage/QualityStage Designer Windows Client NEW!

Pricing for Instances running IBM DB2 Express Edition

Instance Type	US East (N. Virginia) Region	EU (Ireland) Region
Standard Small (Default)	\$0.365 per hour	\$0.375 per hour
High-CPU Medium	\$0.62 per hour	\$0.64 per hour

Pricing for Instances running IBM DB2 Workgroup Edition

Instance Type	US East (N. Virginia) Region	EU (Ireland) Region
Standard Large	\$1.25 per hour	\$1.29 per hour
Standard Extra Large	\$2.38 per hour	\$2.46 per hour
High-CPU Extra Large	\$3.18 per hour	\$3.26 per hour

Pricing for Instances running IBM Informix Dynamic Server Express Edition

Instance Type	US East (N. Virginia) Region	EU (Ireland) Region
Standard Small (Default)	\$0.365 per hour	\$0.375 per hour
High-CPU Medium	\$0.62 per hour	\$0.64 per hour

Pricing for Instances running IBM Informix Dynamic Server Workgroup Edition

Instance Type	US East (N. Virginia) Region	EU (Ireland) Region
Standard Large	\$1.25 per hour	\$1.29 per hour
Standard Extra Large	\$2.38 per hour	\$2.46 per hour
High-CPU Extra Large	\$3.18 per hour	\$3.26 per hour

Pricing for Instances Running IBM Mashup Center

Instance Type	US East (N. Virginia) Region	EU (Ireland) Region
Standard Small (Default)	\$1.965 per hour	\$1.975 per hour
High-CPU Medium	\$3.76 per hour	\$3.78 per hour

Pricing for Instances Running IBM Tivoli Monitoring – 50 Virtual Cores

Instance Type	US East (N. Virginia) Region	EU (Ireland) Region
Standard Small (Default)	\$1.09 per hour	\$1.10 per hour
High-CPU Medium	\$1.18 per hour	\$1.20 per hour

Choose from a range of hosting options for ISVs

IBM Computing on Demand

- Flexible computing power by the hour, week or year
- Seven global CoD centers
- <http://www-03.ibm.com/systems/deepcomputing/cod/>

SaaS Enablement Network

- International and regional Hosting providers
- Utilize IBM servers and support IBM middleware
- ibm.com/isv/marketing/saas/benefits/network_list.html



Cloud Infrastructure Partners

- Provide IBM software for production hosting on hourly / monthly basis
- Pay-as-you-go pricing model. No commitments or minimums.
- <http://aws.amazon.com/ibm>

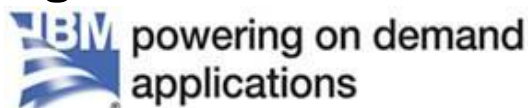
Go to Market Support to help grow your business

- ▶ Build awareness through media support including case studies and press releases
- ▶ Reduce travel costs, save time and increase productivity with free LotusLive Meeting:

- <http://www.ibm.com/partnerworld/page/isv/lotuslive>



- ▶ Leverage the strength of the IBM brand and technology



- ▶ Extend your marketing reach and leverage the SaaS community through SaaS.Space.com



- ▶ Gain exposure for your solution through the IBM SaaS Showcase



Bringing it all together

IBM can help you develop, deliver and market your cloud services

- We provide infrastructure, technology and services leadership
- Our ISV partners provide the applications that are core to our client's needs
- Together, we provide the end-to-end solution clients demand

"In a world without borders and an economy that is rebuilding itself, traditional ideas about software sales and implementation have gone out the window. The IBM SaaS specialty partners offer Green, Clean and Economical solutions to meet the ever changing needs of their client base. Working as an IBM SaaS partner means you are part of a worldwide online directory that allows your solution to be showcased as part of emerging technologies. Our experience with the IBM SaaS Specialty has been one of the major reasons we have been able to grow our business and compete globally."

David Fertig, VP Technical Services, The Systems House, Inc.

"The SaaS specialty assisted with each and every aspect of the product life cycle for our cloud CRM and wireless solutions including development, testing, infrastructure and marketing support that has lead to the success iEnterprises' cloud offerings have in the marketplace today."

John Carini, CEO, iEnterprises



Key links for SaaS and Cloud Computing

- ▶ ibm.com/cloud
- ▶ ibm.com/developerworks/spaces/cloud
- ▶ ibm.com/developerworks/downloads/cloud.html
- ▶ ibm.com/developerworks/downloads/faq-ec2/faq-ec2.html
- ▶ ibm.com/isv/marketing/saas/demo_series.html
- ▶ ibm.com/partnerworld/saas
- ▶ <https://www-304.ibm.com/jct01005c/isv/spc/events/index.jsp>
- ▶ <http://aws.amazon.com/ibm>

