Cloud Compuning pre eGovernment

Martin Jelok, Systems Services Manager, IBM

Bratislava, 10.11.2010

There are three ways to deliver IT capabilities

Software, hardware
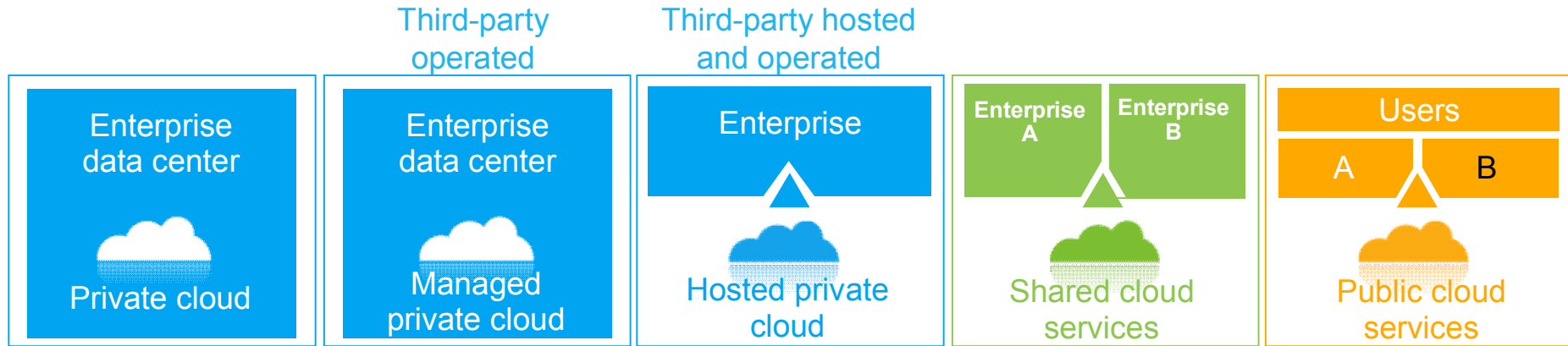and services

Pre-integrated systems
and appliances

Provided as
services…

…including cloud computing, a new model
for delivering and consuming IT capabilities

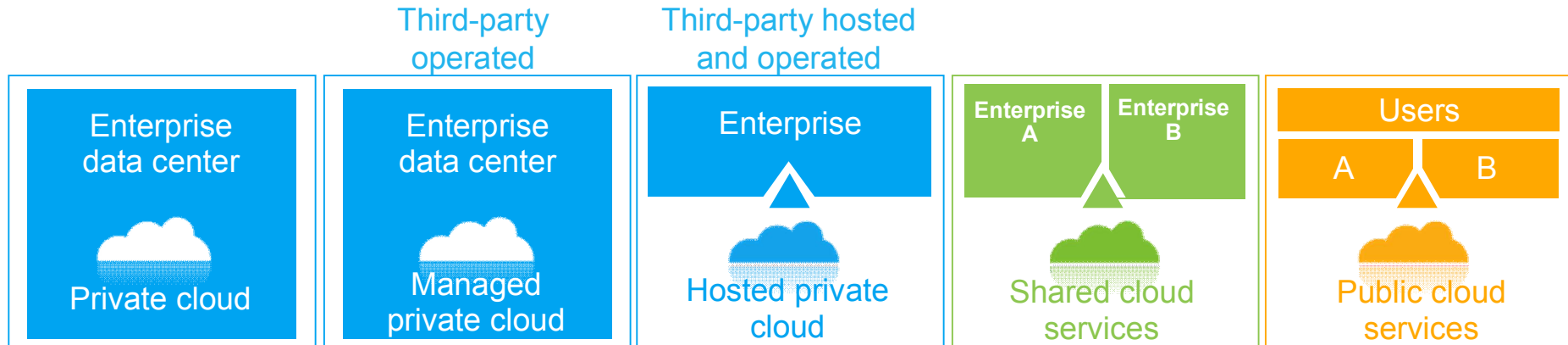# There is a spectrum of deployment options for cloud computing

		Third-party operated	Third-party hosted and operated	

Enterprise data center **Private cloud**	Enterprise data center **Managed private cloud**	Enterprise **Hosted private cloud**	Enterprise A / Enterprise B **Shared cloud services**	Users / A / B **Public cloud services**

◀ **Private**
IT capabilities are provided "as a service," over an intranet, within the enterprise and behind the firewall

Hybrid
Internal and external service delivery methods are integrated

Public ▶
IT activities / functions are provided "as a service," over the Internet

There is a spectrum of deployment options for cloud computing

	Third-party operated	Third-party hosted and operated		
Enterprise data center **Private cloud**	Enterprise data center **Managed private cloud**	Enterprise **Hosted private cloud**	Enterprise A / Enterprise B **Shared cloud services**	Users / A / B **Public cloud services**

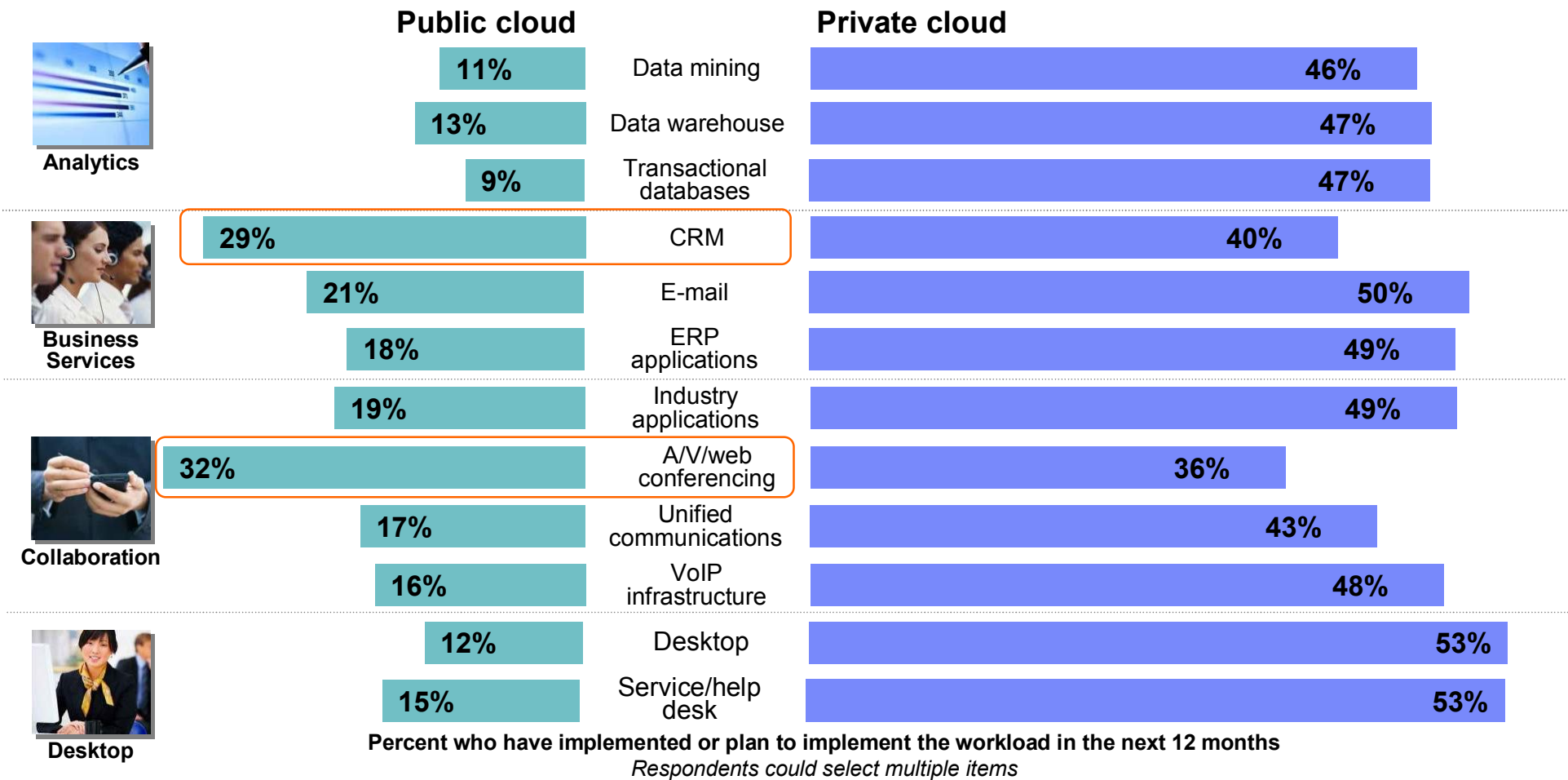|				
■ Private ■ Implemented on client premises ■ Client runs/ manages	■ Third-party operated ■ Enterprise owned ■ Mission critical ■ Packaged applications ■ High compliancy ■ Internal network	■ Third-party owned and operated ■ Standardization ■ Centralization ■ Security ■ Internal network	■ Mix of shared and dedicated resources ■ Shared facility and staff ■ Virtual private network (VPN) access ■ Subscription or membership based	■ Shared resources ■ Elastic scaling ■ Pay as you go ■ Public Internet

Audio/video web conferencing and CRM hold the greatest interest for deploying in a public cloud

Have you, or are you planning to implement, public or private cloud delivery for these IT activities?

	Public cloud		Private cloud
Analytics	11%	Data mining	46%
	13%	Data warehouse	47%
	9%	Transactional databases	47%
Business Services	29%	CRM	40%
	21%	E-mail	50%
	18%	ERP applications	49%
Collaboration	19%	Industry applications	49%
	32%	A/V/web conferencing	36%
	17%	Unified communications	43%
	16%	VoIP infrastructure	48%
Desktop	12%	Desktop	53%
	15%	Service/help desk	53%

Percent who have implemented or plan to implement the workload in the next 12 months
Respondents could select multiple items

Source: IBM Market Insights, *Cloud Computing Research*, July 2009. n=362–1,029, depending on the workload.

Private cloud usage/implementation rates are relatively high across all workloads, with little variation

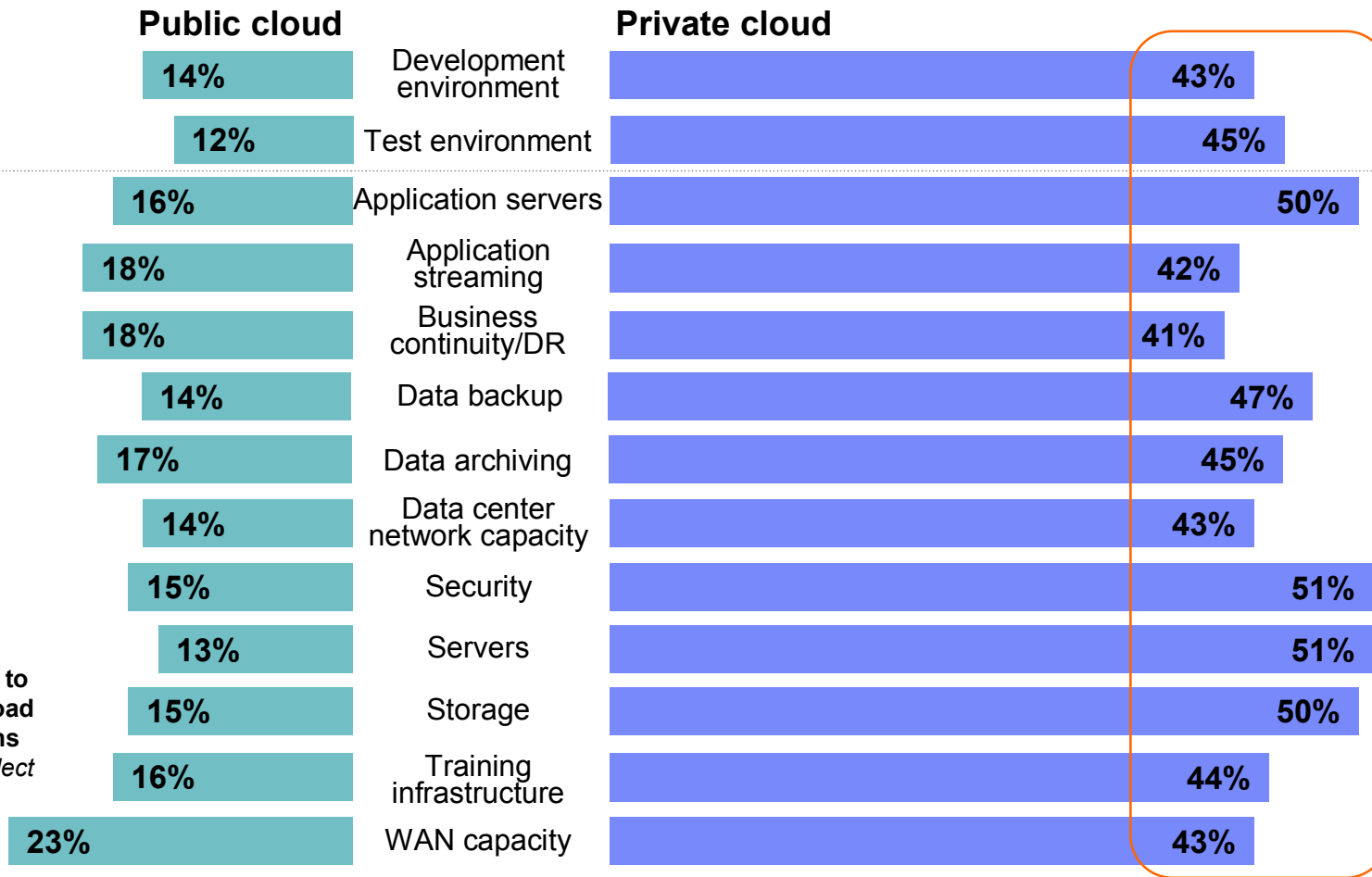**Have you, or are you planning to implement, public or private cloud delivery for these IT activities?**

	Public cloud		Private cloud	
Development and Test	14%	Development environment		43%
	12%	Test environment		45%
Infrastructure	16%	Application servers		50%
	18%	Application streaming		42%
	18%	Business continuity/DR		41%
	14%	Data backup		47%
	17%	Data archiving		45%
	14%	Data center network capacity		43%
	15%	Security		51%
	13%	Servers		51%
	15%	Storage		50%
	16%	Training infrastructure		44%
	23%	WAN capacity		43%

Percent who have implemented or plan to implement the workload in the next 12 months
Respondents could select multiple items

Source: IBM Market Insights, *Cloud Computing Research*, July 2009. n=362–1,029, depending on the workload.

Smart business offerings provide comprehensive cloud solutions for infrastructure workloads with multiple delivery models

	Analytics	Collaboration	Development and test	Desktop and devices	Infrastructure compute	Infrastructure storage	Business services
Smart business on the IBM cloud Standardized services on the IBM cloud		IBM Lotus Live NEW - IBM Lotus® iNotes®	Smart Business Development and Test on the IBM Cloud (beta)	IBM Smart Business Desktop Cloud Smart Business End User Support	IBM Computing on Demand	IBM Information Protection Services	BPM BlueWorks (design tools) Smart business expense reporting on the IBM cloud
IBM Smart Business Services Private cloud services, behind your firewall, built and/or managed by IBM	IBM Smart Analytics Cloud		IBM Smart Business Test Cloud	IBM Smart Business Desktop Cloud		IBM Smart Business Storage Cloud	
IBM Smart Business Systems Preintegrated, workload-optimized systems	IBM Smart Analytics System		IBM CloudBurst ™ family			IBM Information Archive	Smart Business for Small or Midsize Business (backed by the IBM Cloud)

What makes IBM's approach smarter?

Workload Optimized

- Infrastructure optimized for specific workloads, tasks, or services in ways that deliver orders of magnitude better performance, scale and efficiency.

Service Management

- Provides visibility, control and automation across the business and IT infrastructure to accelerate the delivery of high quality services.
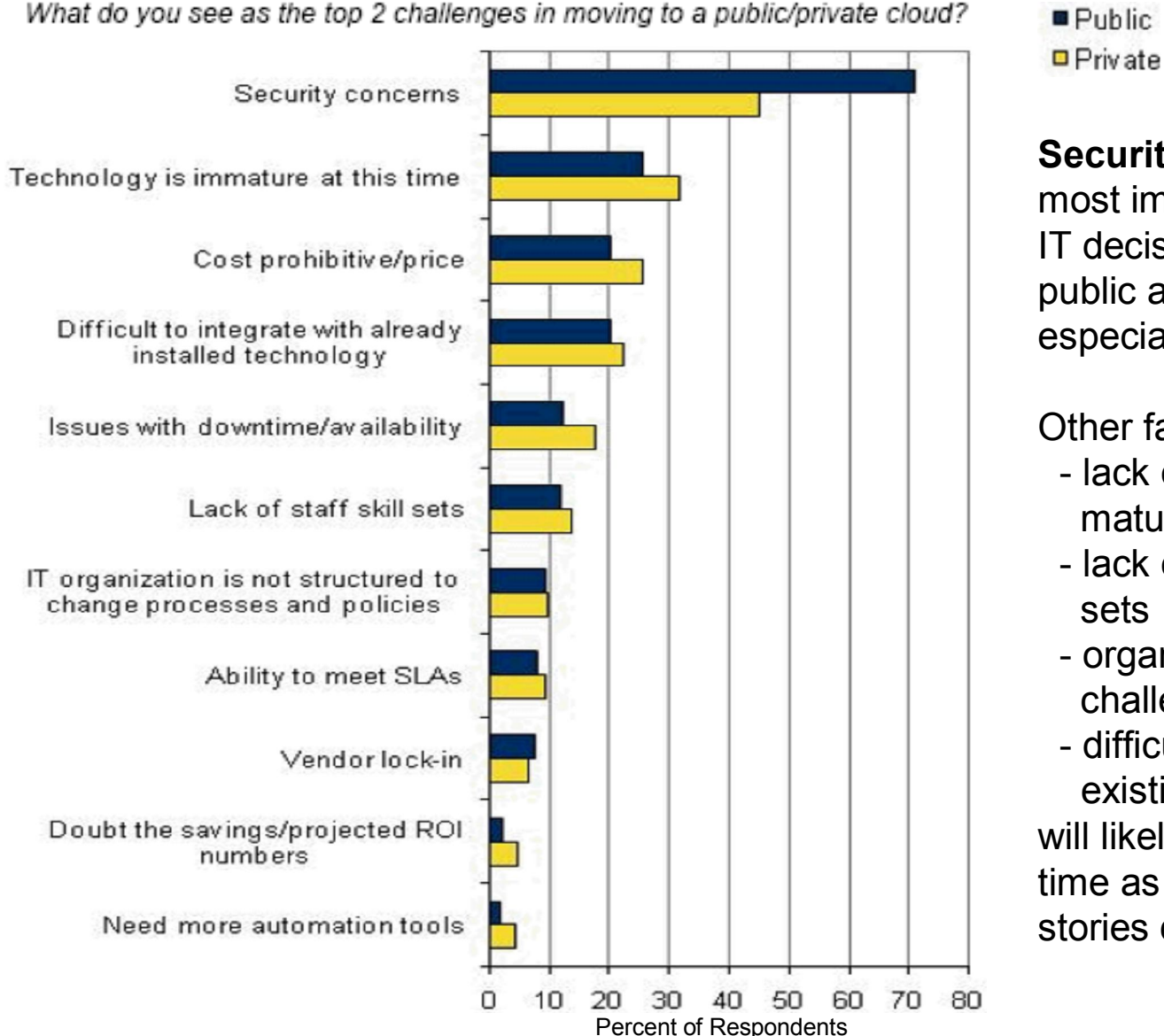
Flexible Delivery Choices

- New delivery choices characterized by self-service, elastic scaling and rapid provisioning for optimal performance with reduced costs and risk.

…..looking at IT service delivery from the business' perspective.

Top Challenges in Moving to a Public or Private Cloud

Q. *What do you see as the top 2 challenges in moving to a public/private cloud?*

■ Public
□ Private

Security concerns

Technology is immature at this time

Cost prohibitive/price

Difficult to integrate with already installed technology

Issues with downtime/availability

Lack of staff skill sets

IT organization is not structured to change processes and policies

Ability to meet SLAs

Vendor lock-in

Doubt the savings/projected ROI numbers

Need more automation tools

0 10 20 30 40 50 60 70 80

Percent of Respondents

Security concerns are the most important fear among IT decision-makers for both public and private cloud, especially public cloud.

Other factors, such as
 - lack of technology maturity
 - lack of personnel skill sets
 - organizational challenges and
 - difficulty integrating with existing infrastructure
will likely decrease over time as cloud success stories circulate.

9

Source: "Cloud Computing Attitudes", IDC, April, 2010

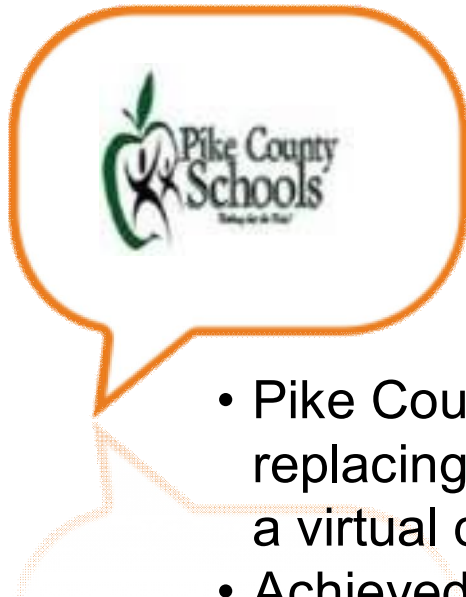# Príležitosti Cloud Computing pre eGovernment – spoločne využívané služby

- Riadenie ľudských zdrojov
- Riadenie Majetku - budovy, vozový park
- Rozpočet a Financie – okamžitý prehľad o pridelených a využitých zdrojoch
- Účtovníctvo

- eMail
- kolaboračné služby – messaging, web konferencie,
- IT ServiceDesk a podpora používateľov
- ...

Príležitosti Cloud Computing pre eGovernment – zdieľanie výpočtových zdrojov

- Ochrana dát
- Pamäťová kapacita
- Archivácia dát
- Služby obnovy prevádzky – záložné výpočtové zdroje
- Virtuálne desktopy
- Sezónne špičky v dopyte po výpočtových zdrojoch IT
  - Daňové priznania
  - Zdravotné poistenie
  - eLearning
  - Vývojové a testovacie prostredie

Saving money to invest in education

- Pike County Schools avoided the cost of replacing 1,400 workstations by deploying a virtual desktop solution on the IBM cloud
- Achieved cost savings of more than 60%
- Increased security
- Reduced SW license and overall maintenance costs

Solution

- IBM Smart Business Desktop on the IBM Cloud

Why take advantage of cloud now?

We asked IBM clients "To what degree would each of these factors induce you to acquire cloud services?"

Reduce costs

77%
or higher

- Hardware savings
- Software license savings
- Lower labor and IT support costs
- Lower outside maintenance costs

Faster time to value

72%
or higher

- Relieve pressure on internal resources
- Simplify updating/upgrading
- Speed deployment
- Scale IT resources to meet needs

Consider cloud now:

- To lower the costs of delivering IT services

- To deliver flexible IT

- Because your competitors are already thinking about cloud—some are already implementing it

- Because cloud changes the economics of IT and offers competitive advantage

Respondents could rate multiple factors; listed is factors where that percentage or higher of respondents selected that factor
SOURCE: IBM, *Dispelling the vapor around cloud computing: New findings from IBM Market Insights*, 2009.

Thank you!

For more information, please visit:
http://www.ibm.com/cloud