



Canadian Cloud
C O M P U T I N G

Cloud Computing and the SME
Prosper on the cloud

**Wally Kowal, President and Founder
Canadian Cloud Computing Inc.**



Today's Agenda

- Defining cloud computing
- The benefits of cloud computing
- The state of the cloud in Canada
- Cloud computing and the SME





Who is Canadian Cloud?

- We are a cloud computing solutions provider
- We are a member of the Communtech Accelerator Program
 - Founded in 2009
 - Moved in to the Communtech Hub in Kitchener in September 2010
 - Launched commercial service in January 2011
- Our management team have decades of experience in high-growth technology companies but this is our first start-up from scratch
 - Our management team has its roots in telecom, so we understand the meaning of the word “reliable”





Defining cloud computing: NIST

"Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction."

Essential Characteristics:

- On-demand self-service*
- Broad network access*
- Resource pooling*
- Rapid elasticity*
- Measured Service*

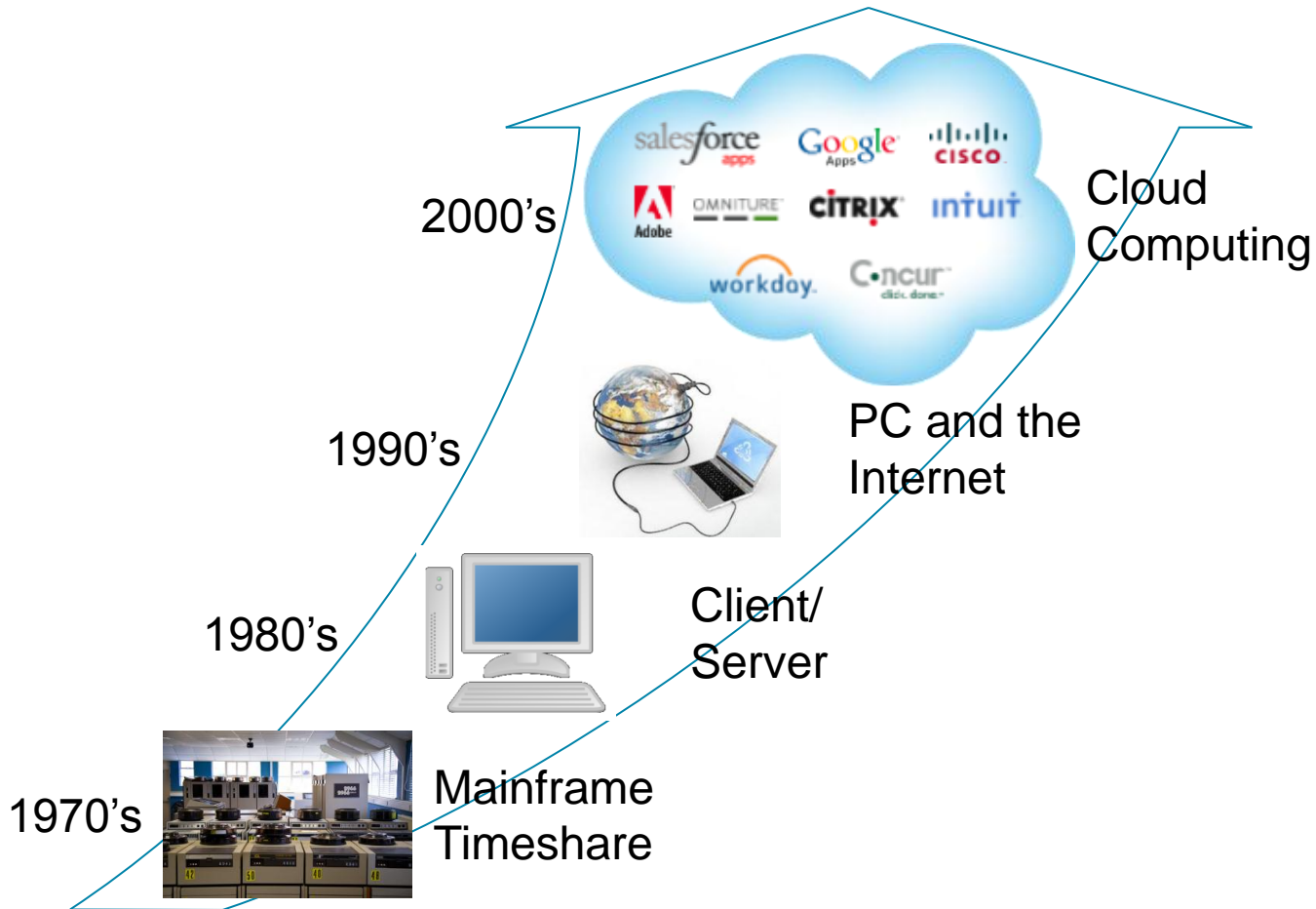
Service Models:

- Cloud Software as a Service (SaaS)*
- Cloud Platform as a Service (PaaS)*
- Cloud Infrastructure as a Service (IaaS)*

Deployment Models:

- Private cloud*
- Community cloud*
- Public cloud*
- Hybrid cloud*

The Roots of Cloud Computing





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A Typical Cloud Platform

Hardware

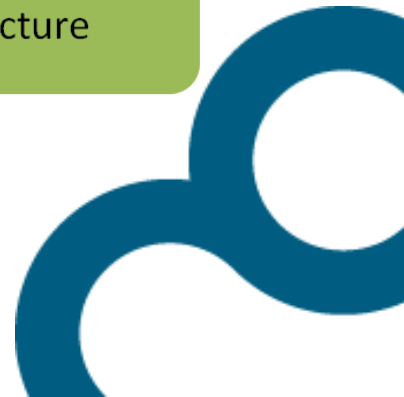
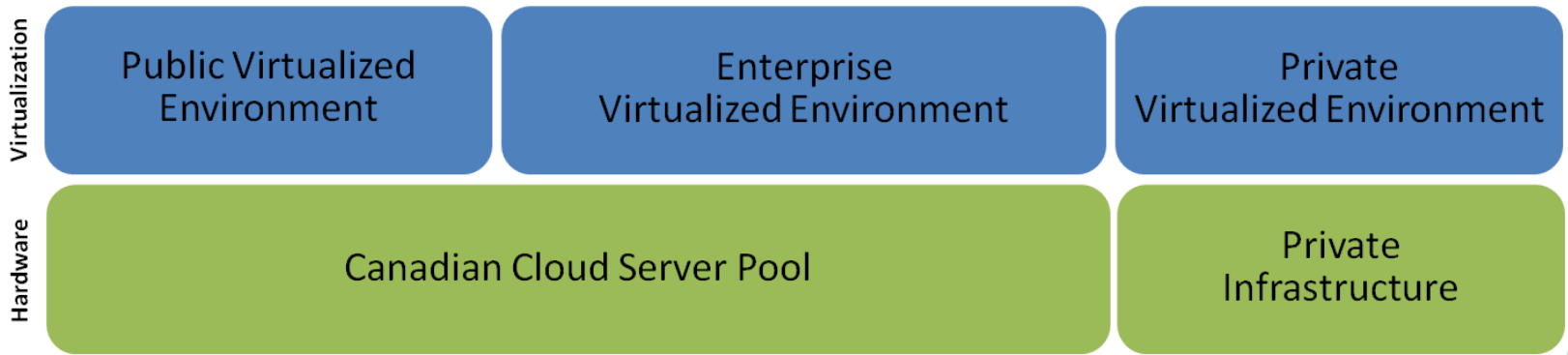
Canadian Cloud Server Pool

Private Infrastructure



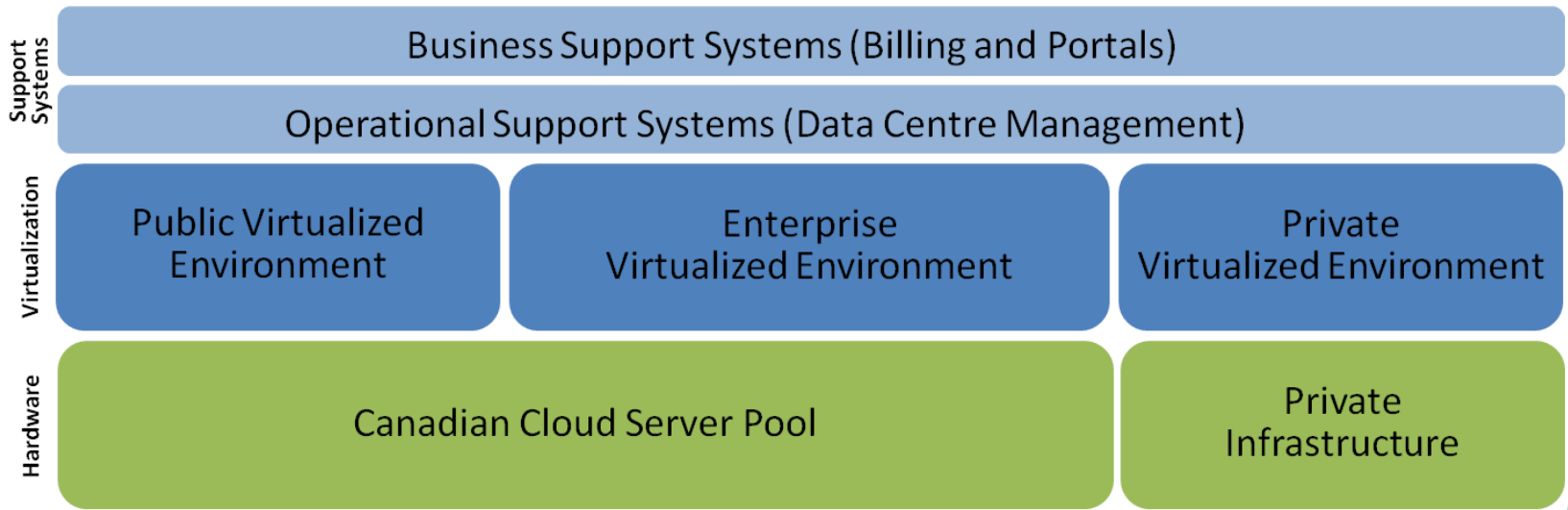


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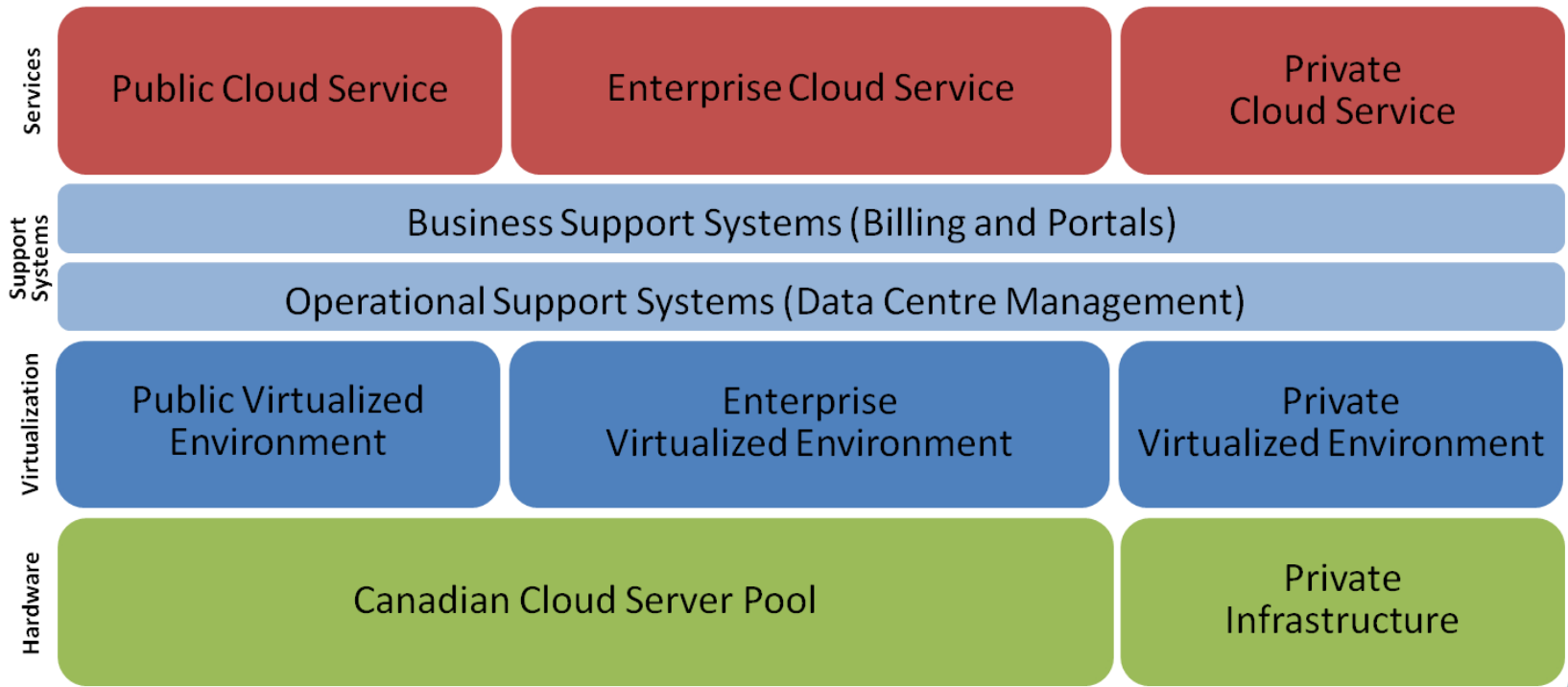


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Cloud has Multiple Delivery Models

- Software as a Service (SaaS)
 - Use provider's applications over a network
 - e.g. Provide applications
 - Built upon IaaS or PaaS platforms
- Platform as a Service (PaaS)
 - Deploy customer-created applications to a cloud
 - e.g. Provide web servers
 - Built upon IaaS platform
- Infrastructure as a Service (IaaS)
 - Rent processing, storage, network capacity, and other fundamental computing resources
 - e.g. Provide bare-bones servers



A red rounded rectangular box containing the Salesforce logo (salesforce.com Success. Not Software.) on the left, the text "SaaS" in the middle, and the Gmail logo (by Google) on the right. Below these elements is the text "Virtualized Application".



A blue rounded rectangular box containing the Windows Azure logo on the left, the text "PaaS" in the middle, and the Google Apps logo on the right. Below these elements is the text "Virtualized Web/MySQL Server".



A green rounded rectangular box containing the text "IaaS" in the middle and the Amazon Web Services logo on the right. Below these elements is the text "Virtualized Server + OS".



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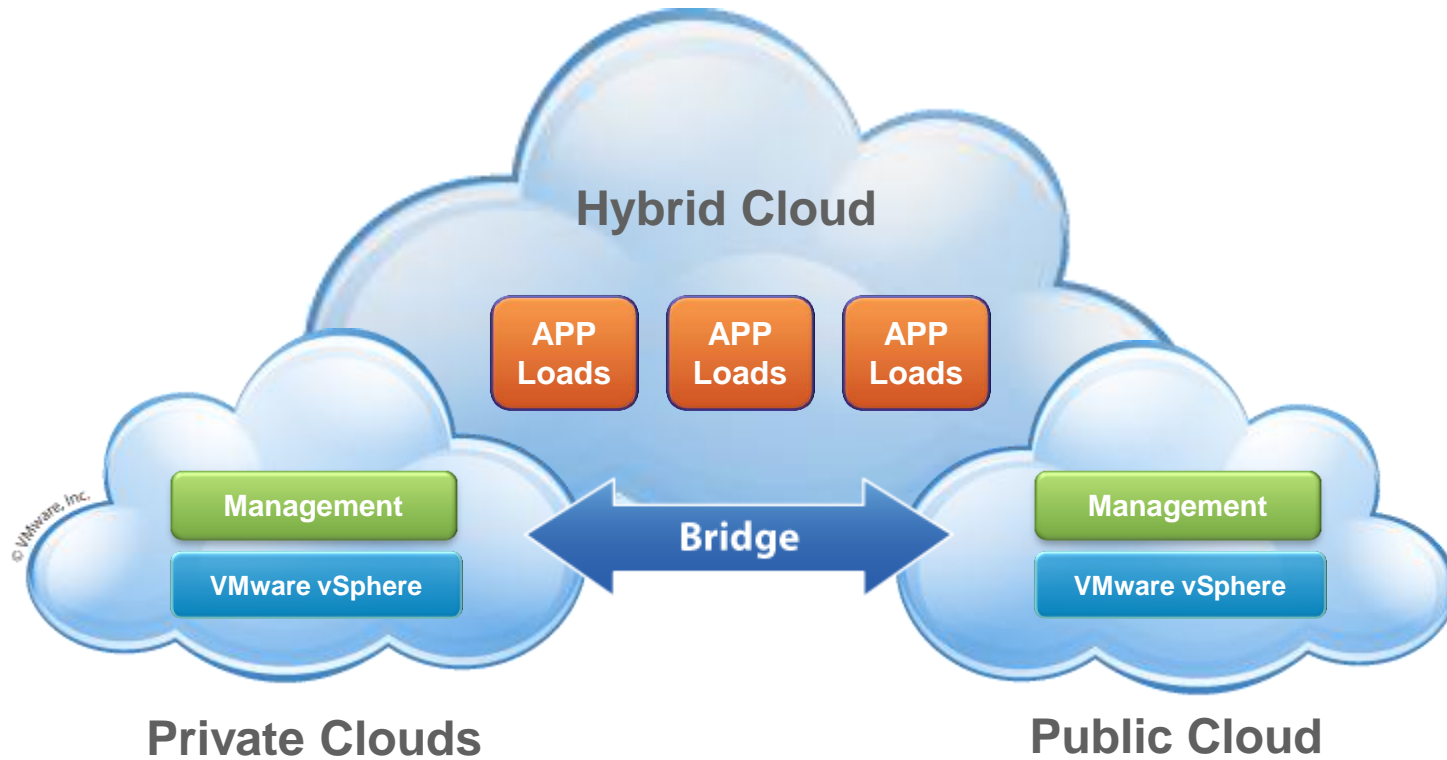
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The Power of the Cloud





Benefits of Cloud Computing for the SME

- Reduce capital costs
 - Cloud computing removes the need to purchase hardware and software and replaces capital expenses with operating expenses
- Increase flexibility and open new business opportunities
 - Cloud computing lets you change CPU, memory or storage as required
 - Address riskier opportunities because of the low barriers to entry and exit
- Reduce implementation time
 - The cloud delivers a server up and running within minutes or hours instead of weeks or months
- Increase quality of service
 - Clouds are usually located in a data centre where power, cooling and Internet connectivity meet strict reliability levels
- Save money
 - Leave server operations and maintenance to the cloud provider.



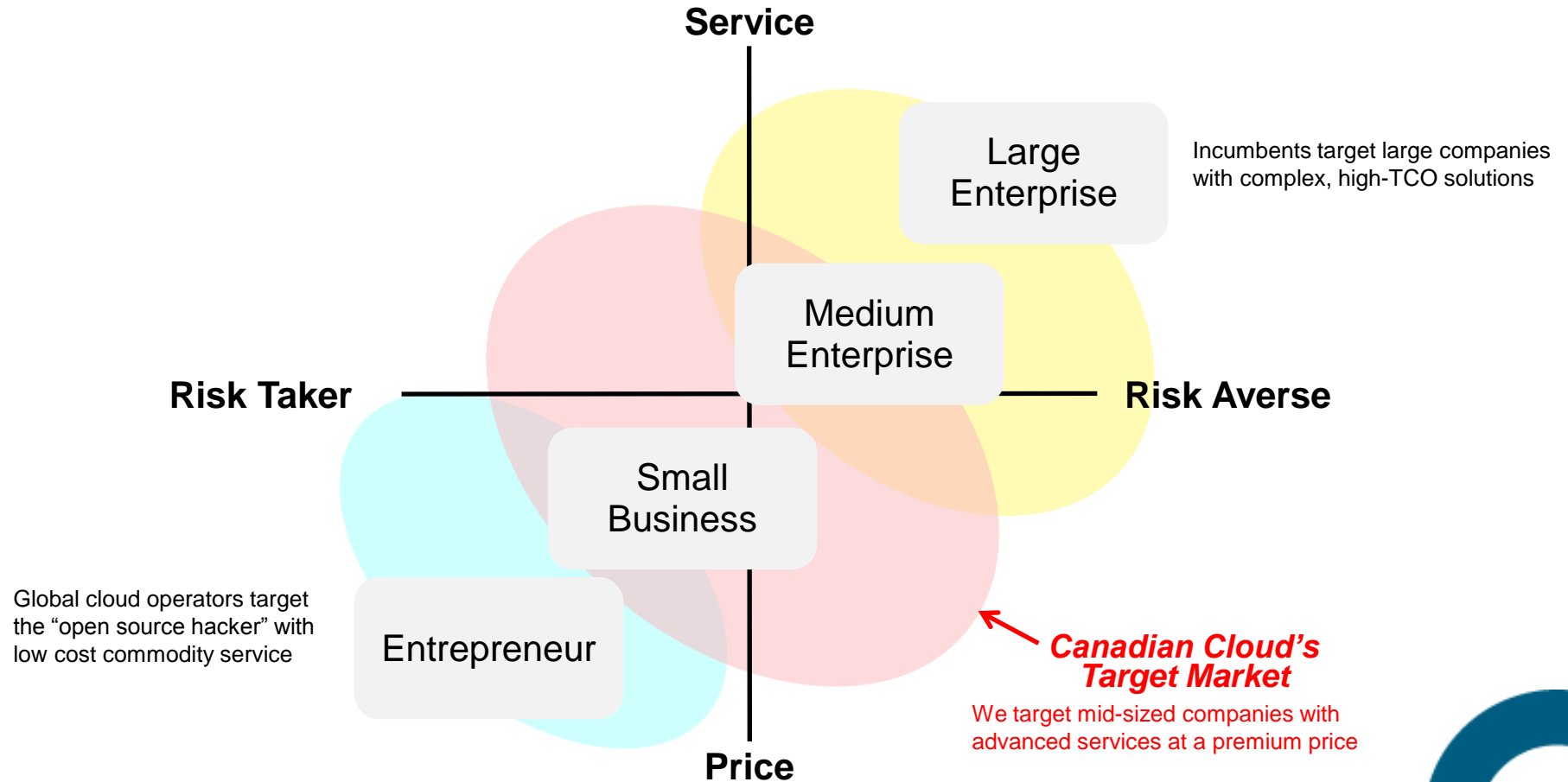


Cloud Computing in Canada

- The 2014 cloud computing infrastructure market in Canada is forecast to be \$1 billion (IDC)
 - Almost exclusively SaaS
 - Unlike US, little interest in IaaS or PaaS in Canada
- US cloud market is estimated to be over \$100 billion in 2015
- Most Canadian IT players are innovation laggards or are intentionally delaying the emergence of cloud computing
- Very few actual Canadian-based clouds exist
- Foreign companies (mostly US-based) are dominating the Canadian cloud market.



The Canadian Cloud Computing Market





Most cloud issues are not new

- Service level agreement
- User access
- Regulatory compliance
- Data recovery
- Investigative support
- Archiving
- Taxation.





Some issues are unique to cloud

- Data geographic location
 1. Some companies have legal requirements
 2. Some companies have regulatory requirements
 3. Some companies just want to sleep better
- Data segregation in SaaS
- Software licensing in IaaS
 - Licensing for third-party platforms
 - Moving between virtual machines
- Consumerization of IT
- Shadow IT organization
 - Does IT even know what the users are doing?
 - Getting killed by click-throughs.





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- 3.4 Canadian Cloud will use the Customer Data strictly as necessary to carry out its obligations under this Agreement, and for no other purpose.





Summary

- Cloud computing is here to stay and will be growing
 - Apply current IT outsourcing requirements
 - Learn to adapt to the new business and technical models
- Cloud computing is much more than cheaper IT
 - Companies who learn how to leverage the cloud will have a competitive advantage
- **Go boldly and prosper on the cloud.**





Thank You

