SoftSummit™ 2011

Cut Through Cloud Clutter: Insights from Visible Ops Private Cloud

ca technologies

IT Process Institute

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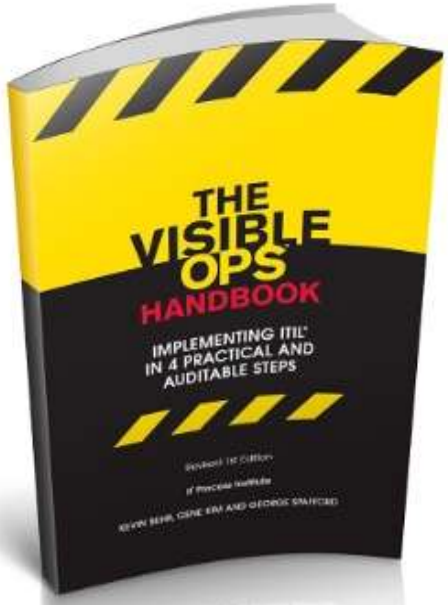
What is Visible Ops™?

- Simple, practical, step-by-step advice on how to quickly gain the biggest benefit from proven practices.
- Over 200,000 copies sold – so far!



Agenda

- Different Types of Clouds
- Market Trends
- New License Models & Trends
- Architecting for Change
- Bracing for Impact to Current Systems
- Start with Visible Ops Private Cloud

Cloud?

- 3 basic types
- 3 basic environments

	Infrastructure as a Service IaaS	**Platform as a Service Paas**	**Software as a Service SaaS**
Private	X	X	
Hybrid	X	X	X
Public	X	X	X

X = model you need to be ready for…

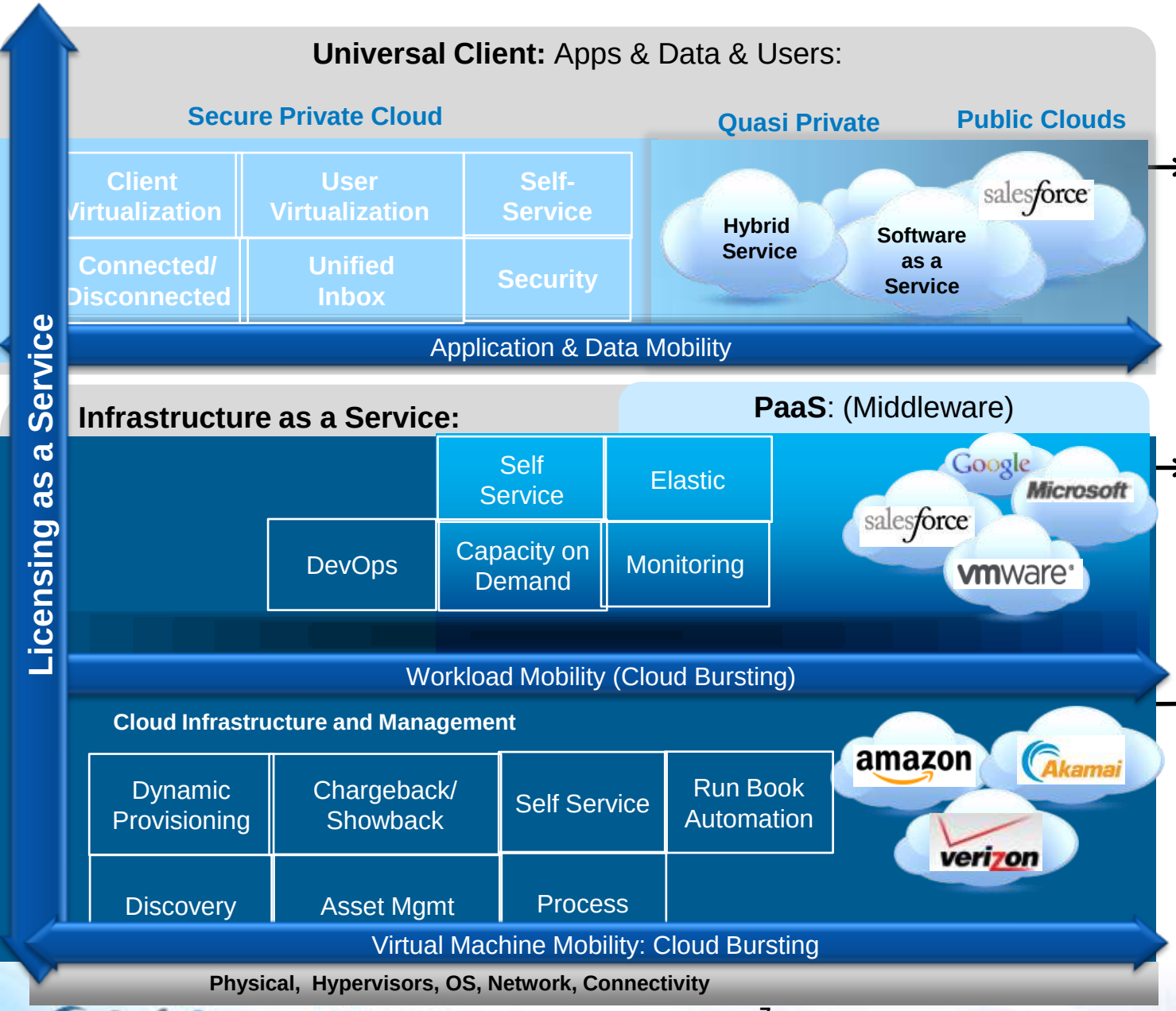
Shift to a portfolio view

Identify basic characteristics of different computing environments

	Physical	Virtual	Private Cloud	Public or Hybrid Cloud
Unit cost	$$$	$$	$	$ or $$
Agility	-	--	---	??
Service quality	*	**	***	??
Footprint	%	%%	%%%	%

Source *Visible Ops Private Cloud* © IT Process Institute

Client to cloud transformation



- **Software as a Service (SaaS)**
  Service Providers
  Salesforce.com,
  Service Now,
- **Platform as a Service (PaaS)**
  Service Providers
  MS Azure, Google,
  Salesforce, VMware
- **Infrastructure as a Service (IaaS)**
  Service Providers
  Amazon, Akamai,
  Verizon, Sprint, AT&T
- **Enablers**
  VMware, MS, Red Hat,

New per user consumption behavior

1. Consumerization of IT – either get what you need from IT or go to the Cloud to work around them

2. Consumption is moving from a per machine to a per user or access device approach to reduce costs

3. Companies want to:
   1. Reharvest old licenses for pool
   2. Reinforce license requirements
   3. Harden guidelines for compliance
   4. Expand services with Virtual Appliances for their customers/partners

Source *Visible Ops Private Cloud* © IT Process Institute

New license models

- New License Consumption Models
  - Per use, Pool per minute, monthly subscription,
  - Cloud bursting (surcharge) from Private to Public
  - Per access Device and/or Cloud

- Contracts & Agreements for new consumption models

Licensing conundrum – how do I track It?

Microsoft Mobility Licensing for Public Cloud – Effective July 1, 2011

- **Server products** –SQL Server, Exchange ServerSharePoint Server, Lync Server, System Center servers, and Dynamics CRM. Licensed App servers covered by SA for that customer's dedicated use.
- **Desktop** – requires full license for virtual desktop, $100 per access device
- **Not all Server & Desktop Apps can burst**
- **Requires Software Assurance agreement***

What is the true cost of bursting?
How do I track and report?
How do I prevent burst sprawl?

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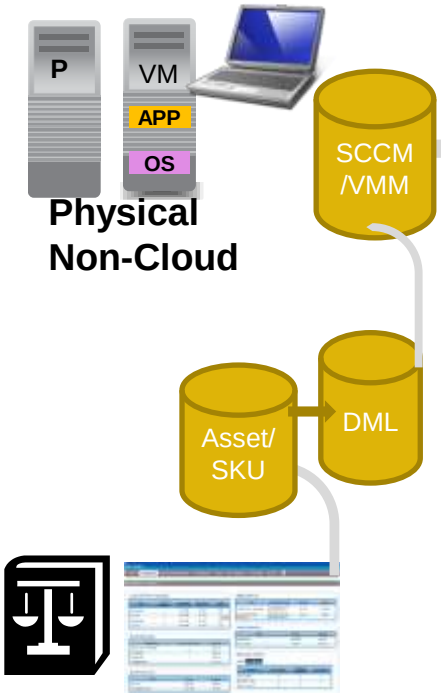
Bursting compliance dilemma (license, regulatory)

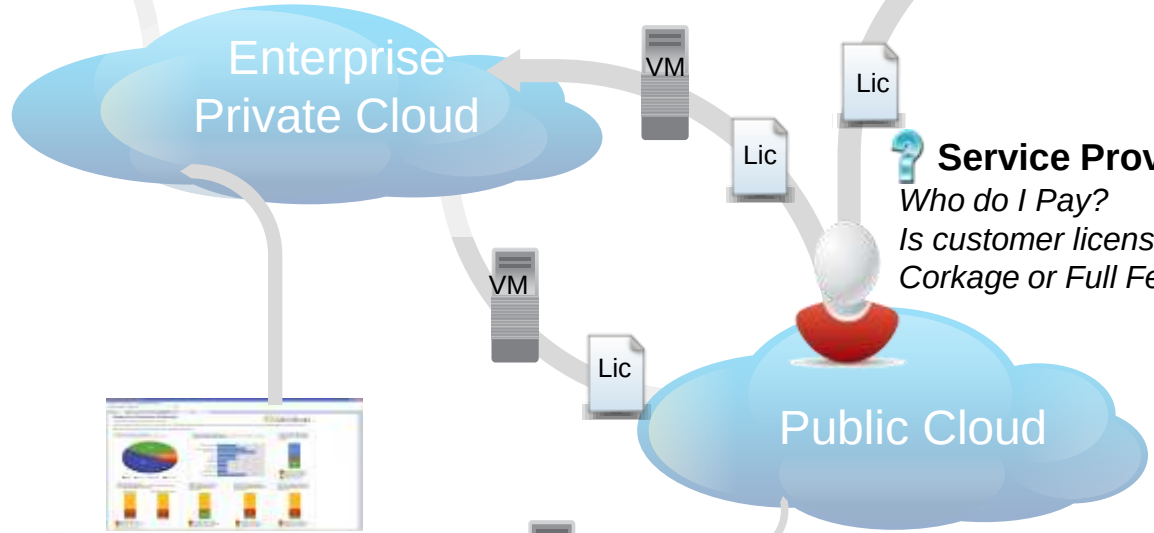


Cloud Architect

Out of capacity. Who can I burst to? What can I burst? What is the Cost? Visibility for Compliance?

Software Producer

How do I prevent License Leakage in Cloud?



Service Provider

Who do I Pay?
Is customer licensed?
Corkage or Full Fee?

Audit/Governance

Are we in compliance?
License/Regulatory

IT Eng (Dev)

Need extra servers for load testing/QA? Will IT find out?

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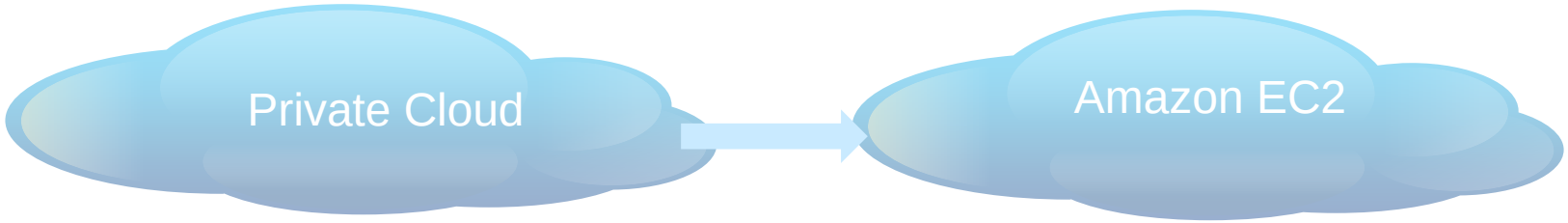
Compliance – private to public clouds opportunity



Flexera ECM binds licenses to VM, enforces entitlement, reports results

Producers

Track Usage Across

Reduce License Leakage

Prevent License Replication

Report Compliance

Enables new Business Models

Consumers (Enterprise)

Prevents over usage of Capacity

Reduces Risk Leakage

Reports Compliance (License, Reg)

New models User, Subscription

Showback for Chargeback

3rd Party ISPs

Reporting for True Up

Assess Corkage Fees

Report Compliance

Integrates to DevPay – Chargeback

Enables new Business Models

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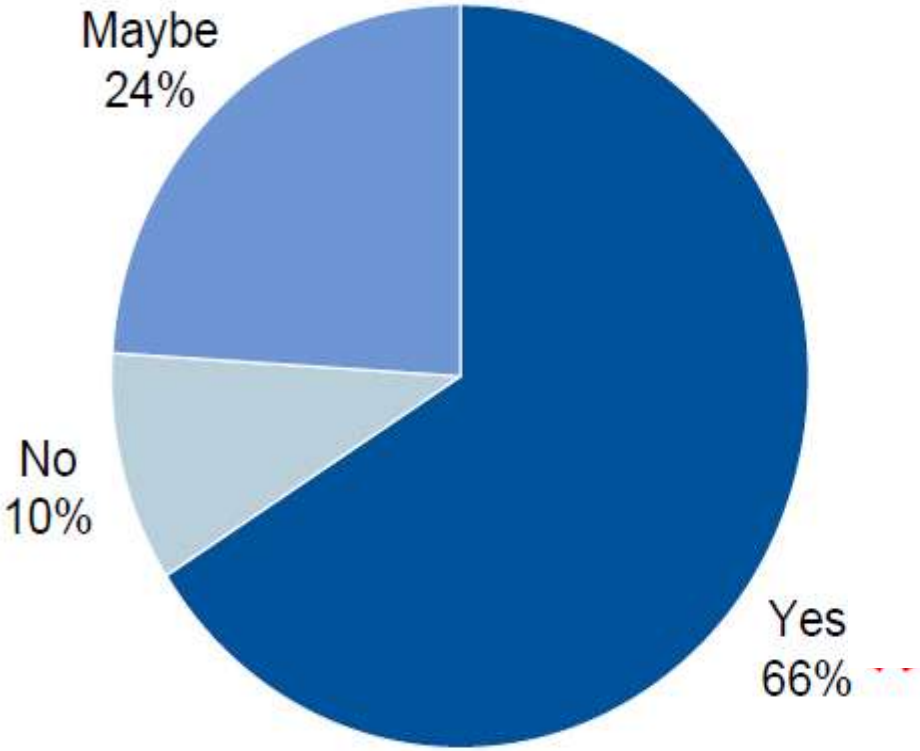
ISV customers are adopting “private clouds” first...



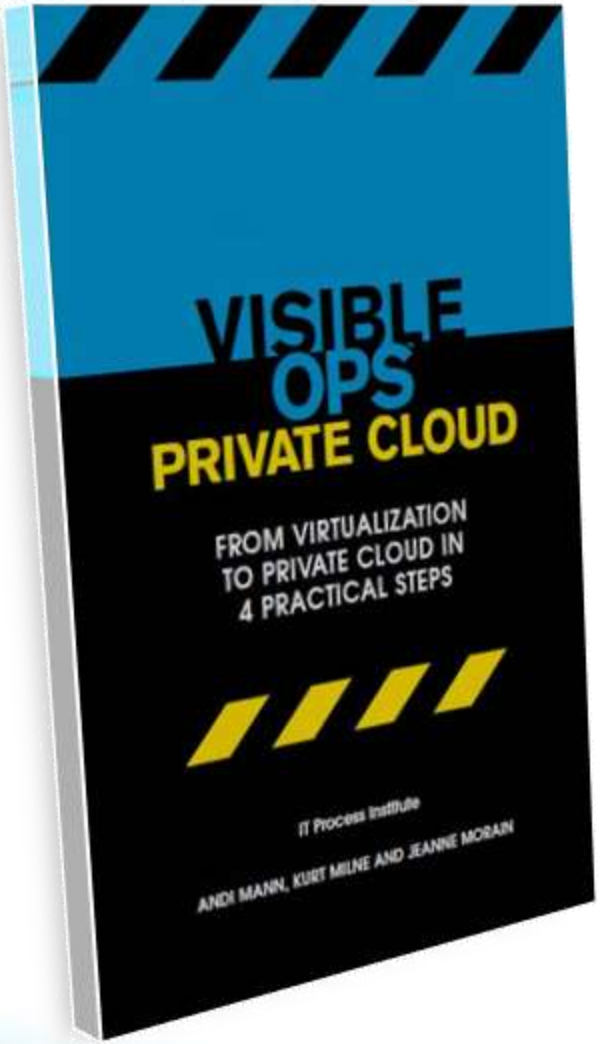
Gartner Data Center Conference Poll, December 2010:

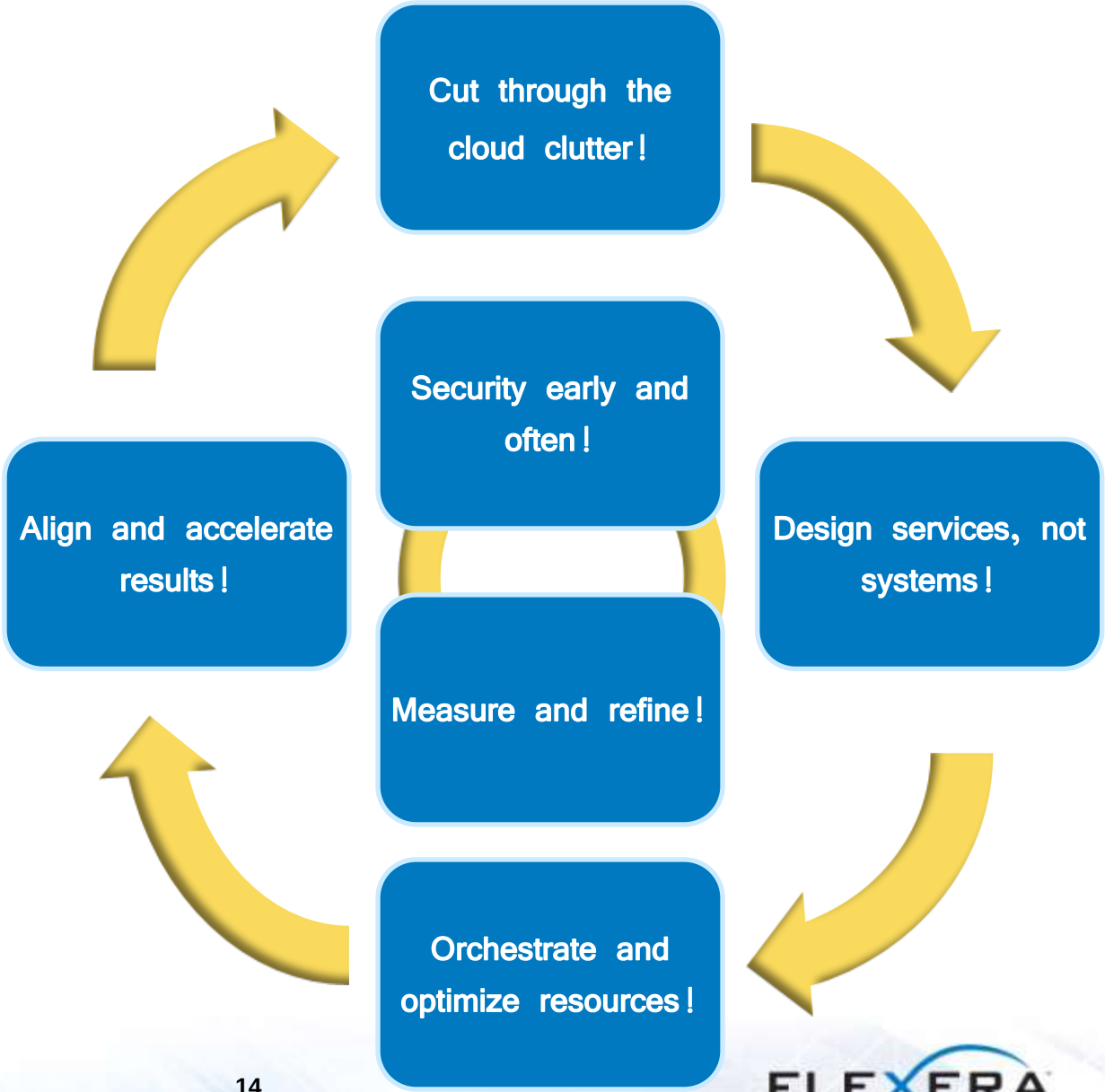
Will your enterprise be pursuing a private cloud computing strategy by 2014? (n=655)

Gartner

Source: Gartner Research Webinar, *Private Cloud Computing: Driving a Strategy*, Tom Bittman, March 31, 2011

‘Visible Ops - Private Cloud’ – prescriptive guidance





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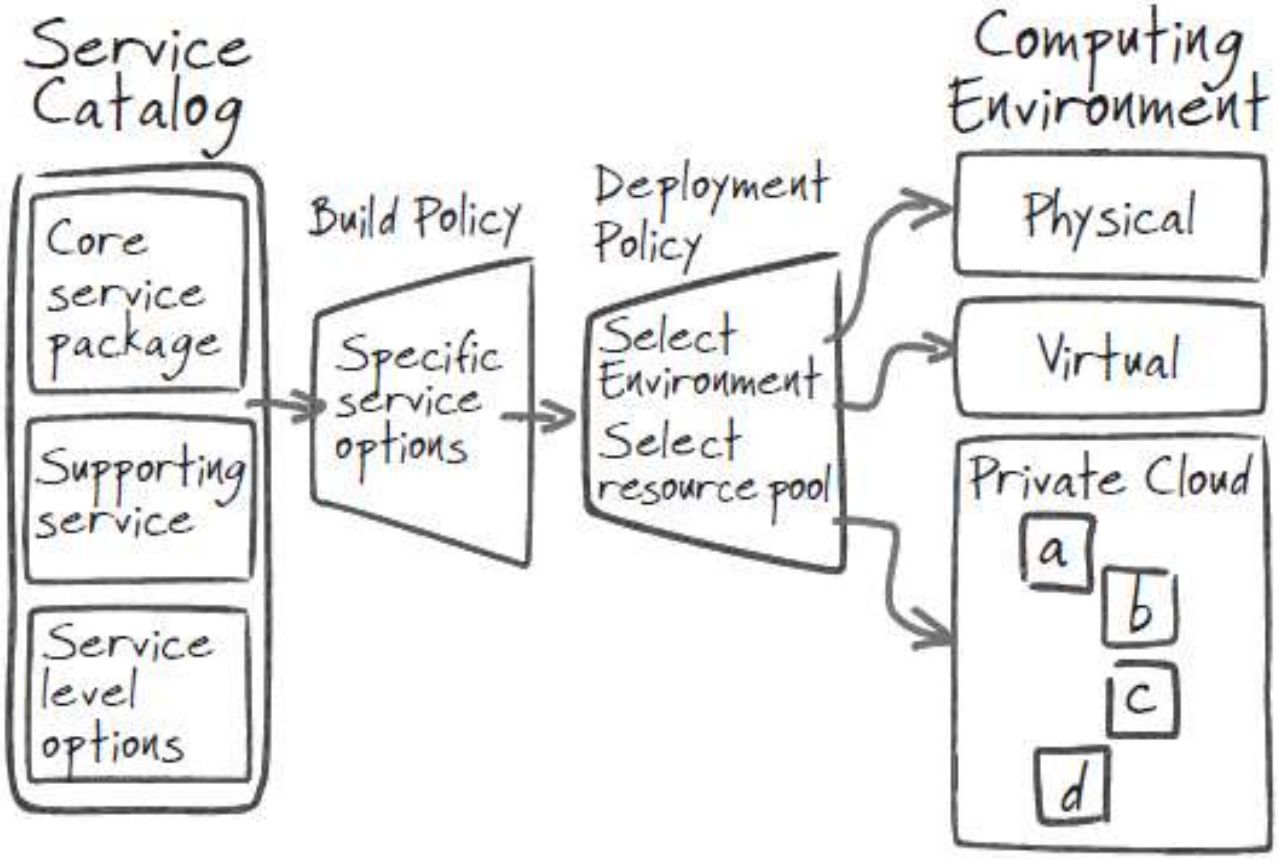
Private cloud defined

- Shared resources (server, network, storage)
- Dynamic on demand
- Self-service – by user from catalog

- Policy automated provisioning
- Metered – chargeback/showback
- Pay-per-use or consumption



Common characteristics of top-performers

1. Use a service design approach to develop cloud services
   - User -> need -> requirements -> spec -> certify -> deliver ->optimize
2. Simplify and standardize
   - Standardize infrastructure , configurations, and processes (legacy & new)
3. Adopt a plan-build-run organization and process orientation
   - Consensus – can't deliver with traditional functional silos
4. Focus of highly skilled workers efforts on pre-production planning
   - Time spent specifying, certifying, and documenting reduces build thrash and run thrash
5. Focus on process
   - Define and refine every day work
   - Learn from mistakes and improve efficiencies
   - Foundation for automation
   - Shift work from highly skilled to lower skilled resources
6. Document and share how things get built and how work gets done

High value activities

1- Cut through the cloud clutter

Establish portfolio view of infrastructure

Establish metrics

Start POC

Target workloads

Clean house

Create competency checklists

2- Design services, not systems

Design Services

Standardize configurations

Spec and certify templates

Clarify targeting policies

One-touch order

Repeatable deploy

Explicit build IQ

3- Orchestrate and optimize resources

Expand Automation

Re-architect infrastructure

Improve monitoring and tooling

Re-optimize processes

Explicit run book IQ

4- Align and accelerate business results

Set usage targets

Re-shape consumption

Service costing model

Showback or chargeback

Resource management policies

Triggers and tracking

Phase 1 – Cut through the cloud clutter

- Goal
  - Reorient existing virtualization efforts
- Focus
  - Identify and prepare for things that will likely change with higher levels of automation
- Mantra
  - "Get ready for shared resources and dynamic workloads" – create license, discovery, and reporting that works with this model.

"Without the right set of processes, procedures, and planning, technology can open the business up to new risks. By creating a project team to discover, design, operationalize, and manage our strategic initiatives in this area, we ensure that we protect our company while enhancing overall competitive agility."

—Jeffrey D. Tibbitts , CIO Windsor Marketing Group

Phase 2 – Design services not systems

- Goal
  - Create competitive advantage by designing business-optimized cloud services
- Focus
  - Enable one-touch ordering of these services
- Mantra
  - "Simplify the service offering to make sure the right things are built the right way"

"The ideal design will incorporate not just technology but the blueprint for building new skills, processes, and technology required to deliver business-optimized services. Virtualization discussions need to be more than just a server consolidation discussion."

—Dmitry Shkliarevsky , Vice President , Professional Services , AppSense

Phase 3 – Orchestrate and optimize resources

- Goal
  - Scale in order to optimize service delivery
- Focus
  - Update infrastructure and tooling to enable low-touch management of dynamic workloads
- Mantra
  - "Automate response to optimize service levels"

"Private cloud computing is a paradigm shift that requires not only understanding new technologies but also how they impact current systems and processes around
your overall service delivery and design. Having a very clearly defined workflow that points back to measurable impact on overall return on equity for the business is imperative to determining if the new architecture is working."

—Rich McGinty , Director of IT, Metlife

Phase 4 – Align and accelerate business results

- Goal
  - Complete transition to IT as preferred provider of business-optimized services
- Focus
  - Move all targeted workload to private cloud
  - Reshape demand for IT resources using rental model
- Mantra
  - "Respond to drive business results"

"Consolidation, virtualization, automation, utility, and market model are essential ingredients of achieving success in the cloud. Successful IT shops architect for change realizing that the underlying technology is still evolving. They develop succinct processes with IT as the service broker that mediates across the various technology paradigms."

—Bryan Cinque, IT Architect , Cisco IT

Summary

- Clouds come in many shapes, sizes, and models
- Need to “think” about new consumption models
- Adapt licensing as a service for Private, Public & Hybrid
- Start with private cloud first:
  - “Services” not systems or apps.
  - Try new models - “ such as burst of use models”
  - Address how applications will fit in Application Catalog
  - Define discovery requirements
- Lay foundation to move to hybrid and/or public clouds

Questions?

Available now:

www.itpi.org

www.amazon.com

More resources:

CA.com/VisibleOpsPrivateCloud

Andi Mann
CA Technologies
Andi.mann@ca.com
Twitter @AndiMann

Jeanne Morain
Flexera Software
jmorain@flexerasoftware.com
Twitter @JeanneMorain