IBM**SoftwareNetwork**2013

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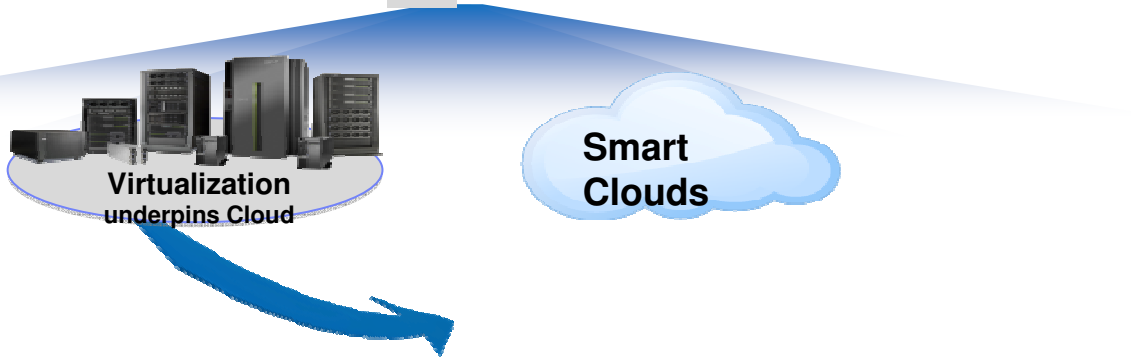
# SmartCloud: Rethink IT

IBM

# As enterprises move beyond **virtualization** to higher value stages of Cloud, having Cloud Management is critical to their success.

## Organizations need progressive capabilities as they manage their Clouds

| | Key Entry Points | | Extended Value |
|---|---|---|---|
| 1. | Virtualization Optimization | + | Get Maximum value out of your VMware or other virtualized environment. |
| 2. | Cloud Enabled Data Center | + | Enable Infrastructure Agility and Automate cross domain service delivery across your entire data center |
| 3. | Continuous Delivery | + | Accelerate software delivery for higher quality |



# Virtualization Optimization

Get Maximum value out of your virtualized

# You have virtualized, but **have you optimized?**

1. ***How do you know what is running in your Images? Which ones have critical security vulnerabilities? Which ones have blown up your license counts?***

2. ***Can you achieve 98.5% first pass patch compliance across 250K images with 1 server using 1 console?***

3. ***Can you monitor physical and virtual resources from Storage and VMs up to the application?***

4. ***Can you run capacity analytics to reduce bottlenecks and improve utilization by 75%?***

5. ***Can you back up 1000 VMs in 34 mins?***

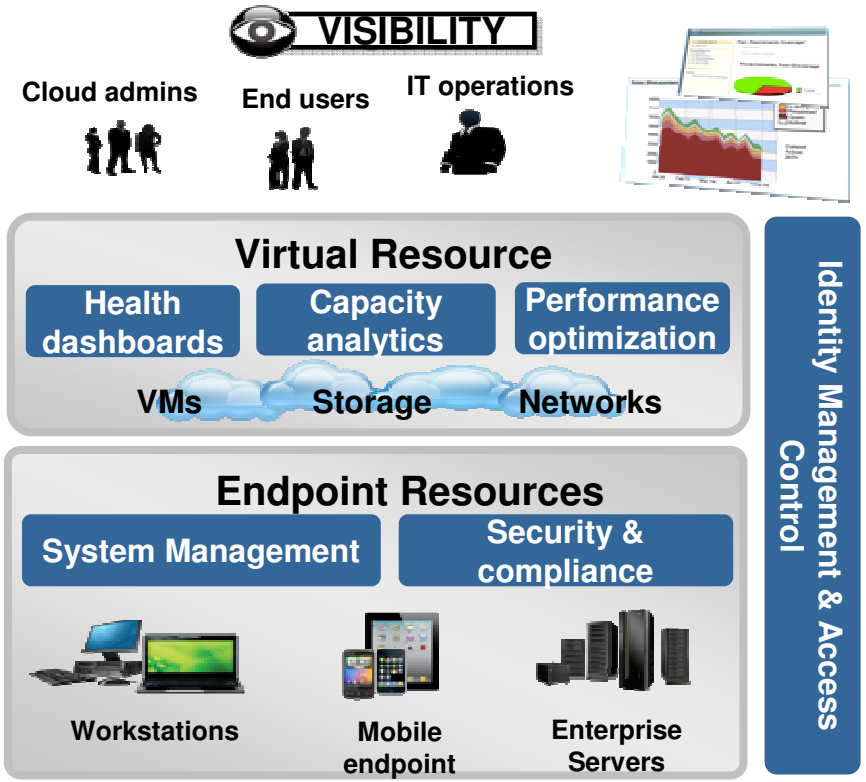
6. ***Can you create and standardize application patterns to reduce application deployment time by 99%?***

***Can you achieve these outcomes in a single, integrated, extensible, standards based solution that plugs into your existing environment?***

# SmartCloud Monitoring *

## Better see, understand and secure Cloud Infrastructures

- **Optimizes Cloud performance and availability lowering operational cost**
  - Rich analytics of Cloud services
  - Track cloud service levels and predict problems before user impact
  - Right-size VMs with built-in analytics
  - Better utilize existing HW/SW investments
  - Consolidate workloads on fewer servers
- **Better manage Cloud service endpoints** by tracking configuration compliance and secure access across mobile endpoints
- **Optimize Cloud security and compliance** by enforcing policy-based identity and access control to cloud services



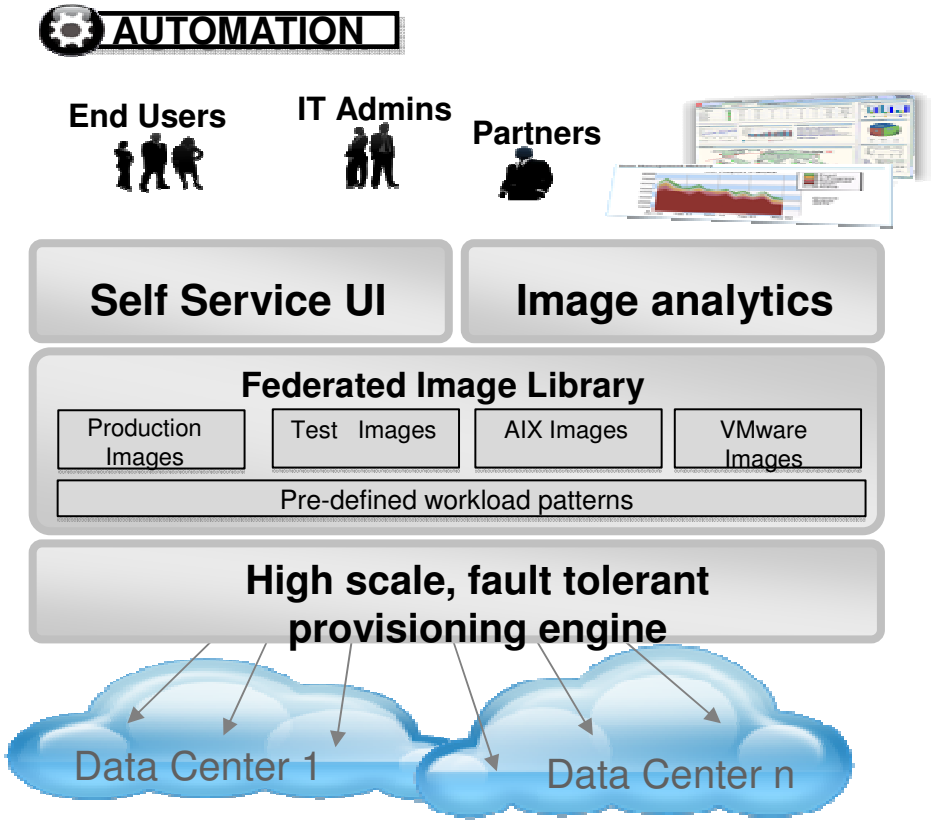

* Software products for private clouds

* *IBM SmartCloud Monitoring in partnership with IBM Endpoint Manager and IBM Security Identity/Access Assurance*

# SmartCloud Provisioning

## Reduces complexity of Cloud delivery and image management

- **Eases service deployment** while rapidly scaling to the dynamic needs of users
- **Advanced image management** leveraging rich analytics, image versioning and federated libraries
- **Easily customize** with design and deployment patterns improving efficiency
- **Greater reliable**, by automatically tolerating and recovering from infrastructure failures
- **Save IT labor cost** by enabling self-service requests and automated operations (no manual configuration)



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# Cloud Enabled Data Center

Enable Infrastructure Agility and Automate cross domain service delivery across your entire data center

# You optimized your virtual environment, but do you have dynamic infrastructure agility?

1. ***How can you automate and orchestrate services across Intel, Power, and System Z running a mix of ESXi, KVM, PowerVM, Xen, HyperV, and z/VM?***

2. ***How can you reduce effort and time to deploy an application and automate its attachment to your management systems by 95%, by employing self service capabilities?***

3. ***How can you respond faster to business needs by reducing storage and networking provisioning by 85% ?***

4. ***How can you analyze capacity to reduce bottlenecks and improve utilization by 75%?***

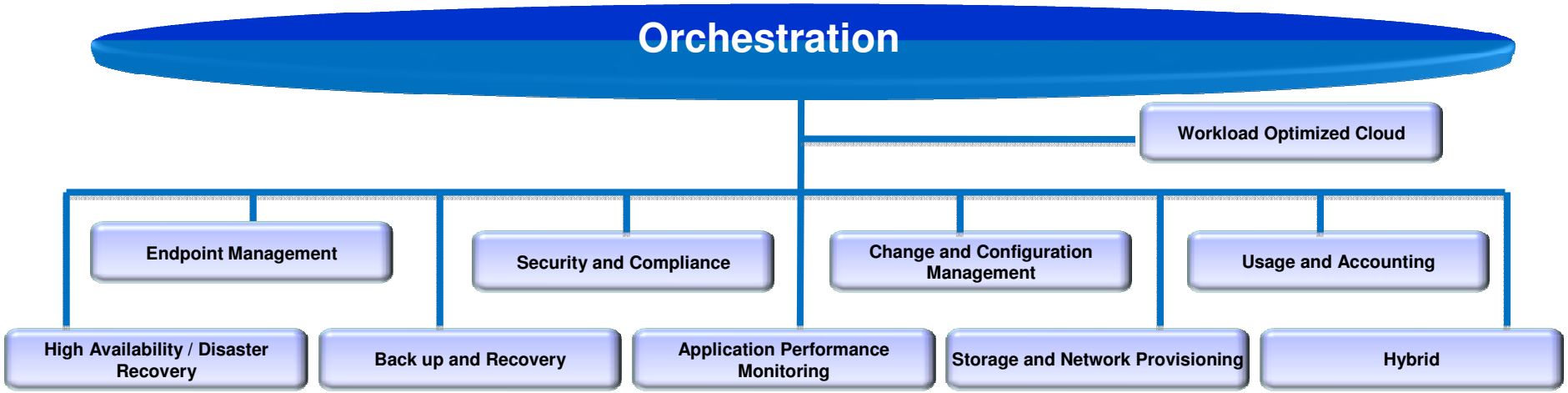
5. ***How can you improve reuse with public cloud services by reducing hybrid integration time by 80%?***

6. ***Is your metering framework extensible enough for predicting and measuring storage and networking usage and costs?***

***Can you achieve these outcomes in a single, integrated, extensible, standards based orchestration engine?***

# Manage your Cloud Enabled Data Center for Infrastructure Agility

***Integrated, optimized, extensible platform for designing and automating workflows across domains***



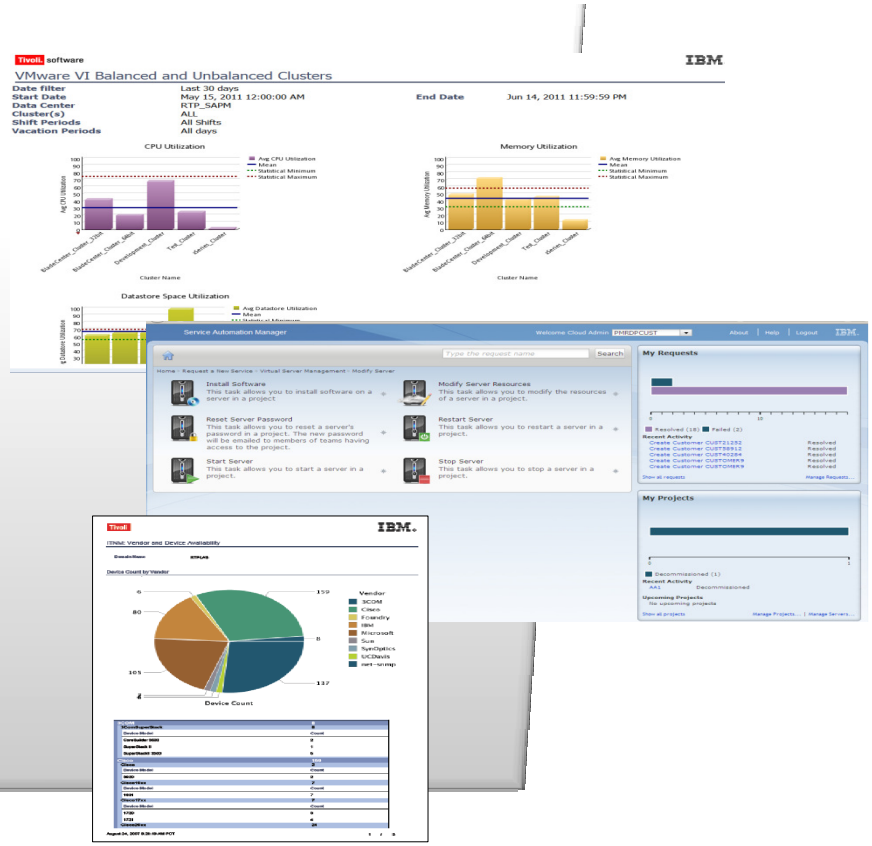

***ONLY IBM CAN DELIVER:***

- ***Heterogeneous management*** - X86, Power, System z, Vmware, KVM, Hyper-V, Xen, PowerVM, z/VM
- ***Improved compliance and change management*** with enterprise-wide image repository and version tracking
- ***Reduce licensing costs*** by managing VMware without vCenter
- ***Excellent network management***: Network configuration, Network provisioning
- ***Broader, more detailed monitoring***: physical, virtual, all the way up to the application layer with capacity planning
- ***Scalable, dynamic, optimized application deployments*** with standardized, virtual system and application patterns
- ***Extensible, open integration*** to IBM and third party infrastructure and platform services

# IBM Service Delivery Manager (ISDM)

*Self-contained, software-based service delivery platform for Advanced Clouds*

- Integrated service management software solution delivered as virtual images
- Fast installation and rapid time to value
- Self-service portal interface for reservation of computer, storage, and networking resources
- Built-in monitoring and analysis
  - Real time hypervisors and application monitoring
  - Workload Forecasting and Capacity planning
  - What-if analysis
- Usage and Accounting for customer billing
- Cloud Management high availability



# Service Mgnt Extensions for Hybrid Cloud

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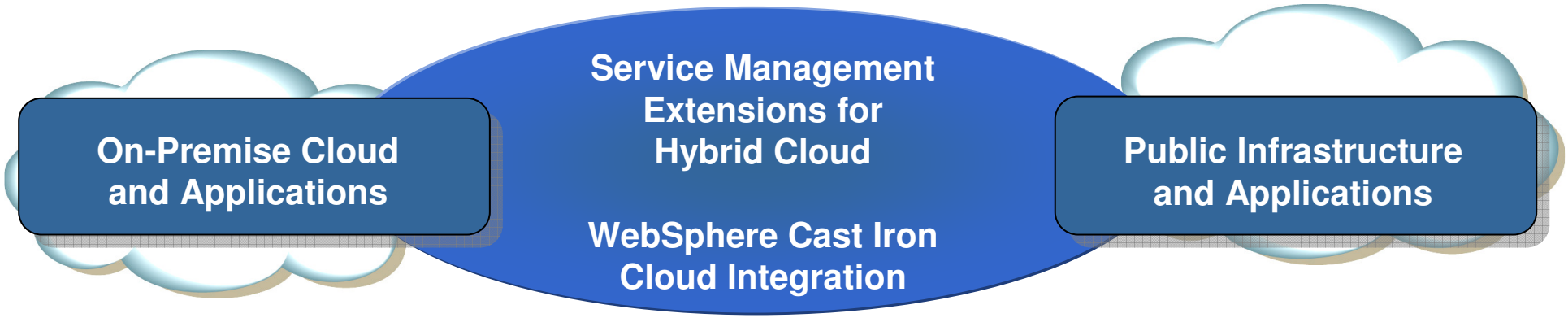
NEW

## Integrate clouds with centralized monitoring, security and automation




- **Visibility across all resources**
- **Control system and security management**
- **Automate workload flows across clouds**

# DevOps

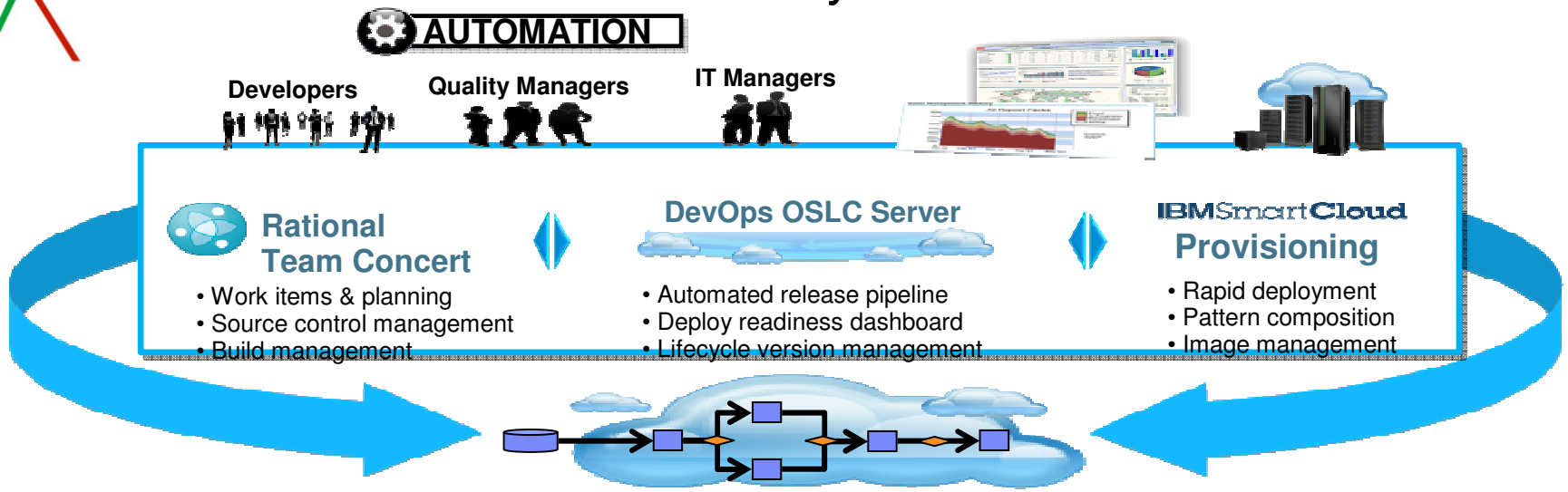
Accelerate application updates to respond faster to stakeholder demands and competitive threats

# Are you able to improve delivery efficiency, application quality, and performance of your application lifecycle?

1. ***Can you deliver updates to your key applications every day?***
2. ***Can you reduce the application environment deployment time by 50%?***
3. ***Can you reduce outages caused by production roll-outs by 40%?***

***Can you achieve these outcomes in a single, integrated, extensible, standards based solution that facilitates continuous feedback and automation between development and operations?***

# SmartCloud Continuous Delivery




- Customizable common service delivery workflow spanning Dev, Test and Ops teams
- Automated release management for highly scalable, ultra-fast application deployments
- Continuous integration and testing of in production-like environments leveraging **Green Hat**
- Release readiness dashboard provides visibility and enables collaboration between DevOps
- Integrated suite built upon Rational Team Concert & SmartCloud Provisioning

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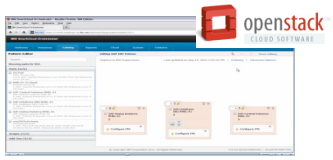
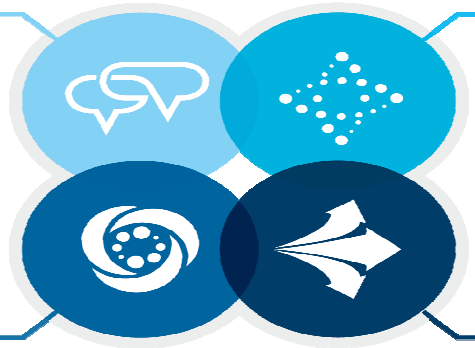
# SmartCloud Orchestrator

Architecture, Benefits and Upgrade

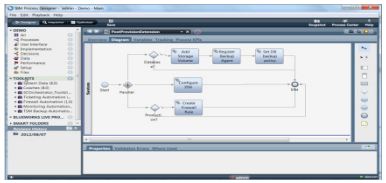
# What is SmartCloud Orchestration?

An open and scalable cloud platform

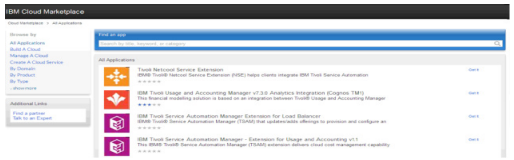


**An easy to use** orchestrator for **cloud service automation**



**A marketplace for content sharing and re-use**



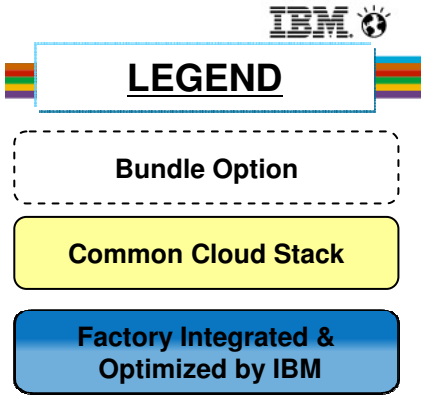
**A rich set of ready to use automations**

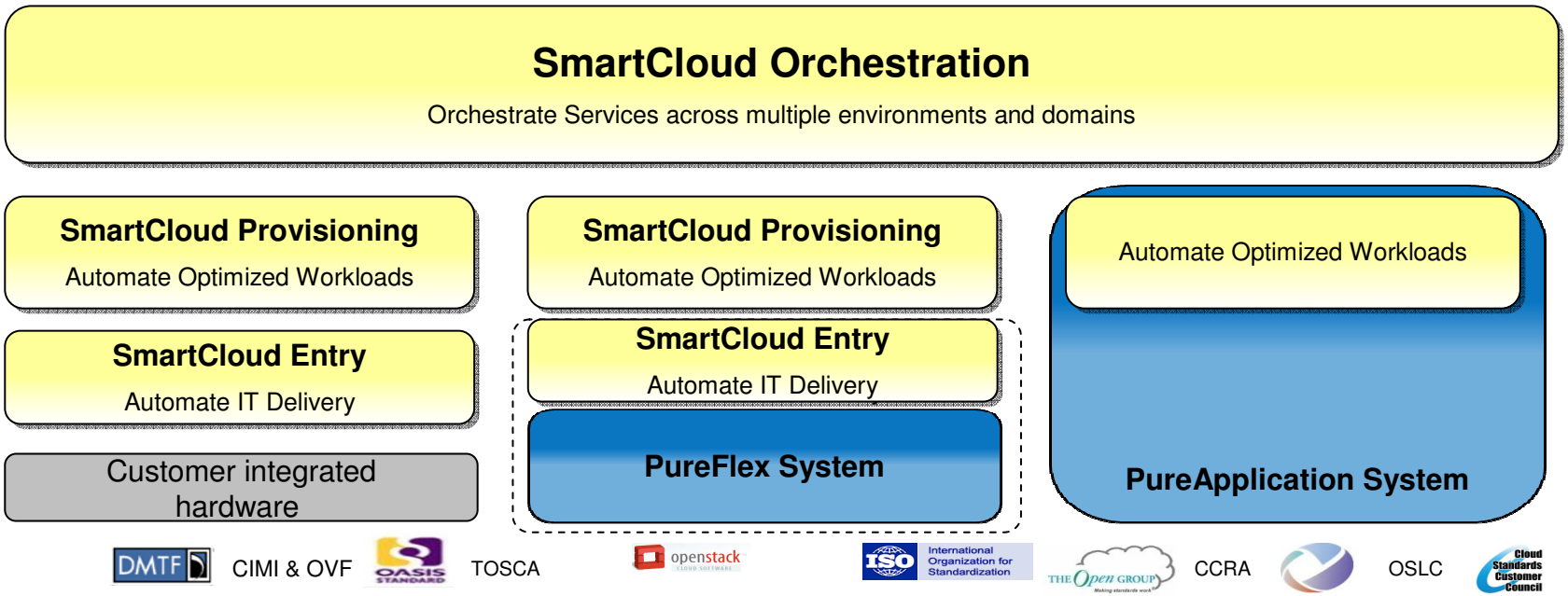
# SmartCloud Orchestrator Architecture – How do Clients Benefit?

| | |
|---|---|
| Marketplace | Gives them access to a library of pre-built automation – speed their delivery and save significant labor<br>§Thru: Publicly accessible, updated regularly, one-click download access to pre-built images, patterns, process automation, and configuration automation, including content from across IBM and Partners |
| Orchestration | Makes orchestration possible for the people they have – using skills and artifacts they know how to build<br>§Thru: Visual, drag/drop style orchestration designer – no programming skills required – and supporting techniques like shell scripts, Chef recipes, Java programs, TPM workflows… |
| Mgmt Tool Integration | Makes it possible to really host Production applications (not just dev/test) – and speed delivery<br>§Thru: Plug-n-play integration of management tools (like Monitoring, Backup/Restore, Endpoint Management) with VM guest OS and workloads |
| Dev Tool Integration | Makes it possible to enhance their applications in near real time<br>§Thru: Automates the ability to promote application changes – from build, to test deployment, to automated testing, to production deployment |
| Patterns | Allows the deployment of applications, not just servers<br>§Thru: Automated deployment of middleware clusters and configurations or multi-tiered applications…all with a single click or command |
| Image Mgmt | Keeps them out of "compliance jail", since Images hold "invisible demons"<br>§Thru: Ability to inspect, version control, and report on the software content of images, even when they are not running, so issues such as critical patches needed or licenses used can be quickly found |
| IaaS (openstack) | Gives them broader and more current support for the infrastructure that they choose to run<br>§Thru: OpenStack ecosystem provides a wide choice of hypervisors, storage and networking equipment (since vendors such as NetApp and Cisco support directly); it also provides a much simplified, multi-node, high scale, high resiliency infrastructure necessary to keep a Cloud running 24x7 |

# Support an Evolutionary Approach

- Creation of **common, standards based architecture** to avoid vendor lock in
- Entry points and offering packages are **modular** serving different markets, buyers, and price points
- **Platform that "stacks"** with capabilities that build from the Entry offering
- **Clean upgrade paths** with **progression** to advance along the maturity curve



# What to Sell TODAY

## Virtualization Optimization

**Target:**
**Company with virtualization (wmware, kvm, etc) >1000 employees**
**Offerings to lead with:**
**1. Virtualization Optimization Fast Path Services Offering**
**2. Point Products:**
**-SmartCloud Provisioning**
**-SmartCloud Monitoring**
**-TSM for Virtual Environments**
**-SmartCloud Patch**

**Deal Size:**
$20-150K

## Cloud Enabled Data Center

**Target:**
**Companies with or MSP**
**Offerings to lead with:**
**1.ISDM**
- **Orchestration**
- **Cost Management**
- **Monitoring**

**2.TSAM**
- **Orchestration**

**Storage Provisioning:**
IBM Tivoli Storage Productivity Center: SoNAS, Storwize V7000 Unified, NetApp
**Network Provisioning:**
IBM Tivoli Network Configuration Mgr
**Deal Size:**
$50-150K

## DevOps

**Target:**
**Companies requiring faster application time-to-market**

**Offerings to lead with:**
**1.SmartCloud Continuous Delivery**

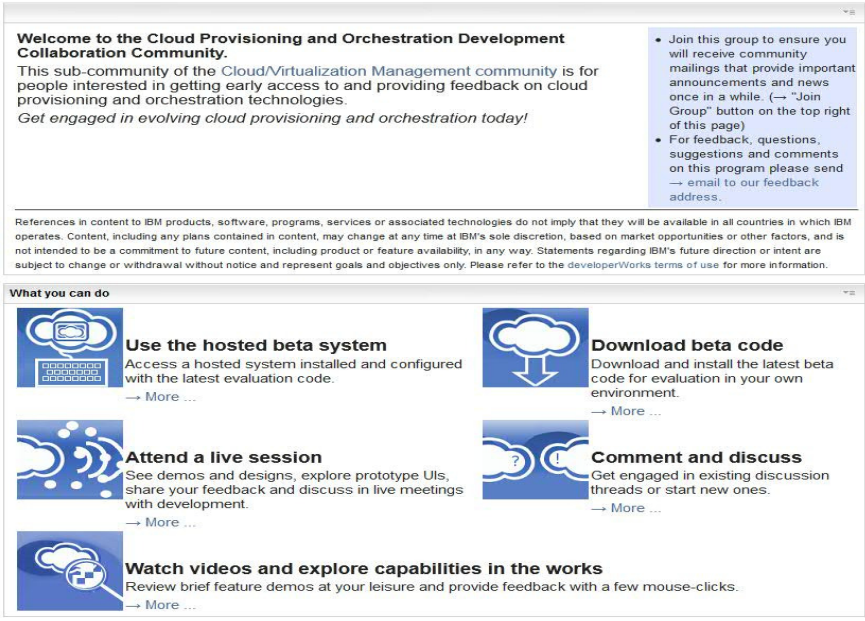
**Deal Size:**
$50-150K

# What about my client's current entitlements?

| Product | Entitlement (on SCO release) |
|---|---|
| SmartCloud Provisioning | Trade up entitlement to SCO |
| TSAM | Entitlement to Core SCO (minus Monitoring and Cost Management) |
| ISDM | Full SCO Entitlement |

# Want to know more?

Visit the SmartCloud Orchestrator beta web site at http://ibm.co/CPandO



**Welcome to the Cloud Provisioning and Orchestration Development Collaboration Community.**

This sub-community of the Cloud/Virtualization Management community is for people interested in getting early access to and providing feedback on cloud provisioning and orchestration technologies.

*Get engaged in evolving cloud provisioning and orchestration today!*

- Join this group to ensure you will receive community mailings that provide important announcements and news once in a while. (→ "Join Group" button on the top right of this page)
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→ More ...

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→ More ...

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→ More ...

**Watch videos and explore capabilities in the works**
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