



IBM Software Group

WebSphere CloudBurst

雲端環境快易通

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WebSphere software

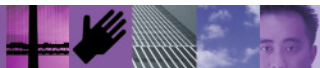


Agenda

IBM Cloud Computing

**Reduce costs.
Improve service delivery.
Enable business innovation.**

- ▶ **Characteristic of Cloud Computing**
- ▶ **Introduction of WebSphere CloudBurst Appliance**
- ▶ **Customer References and Benefits**
- ▶ **Demonstration**
- ▶ **Q&A**

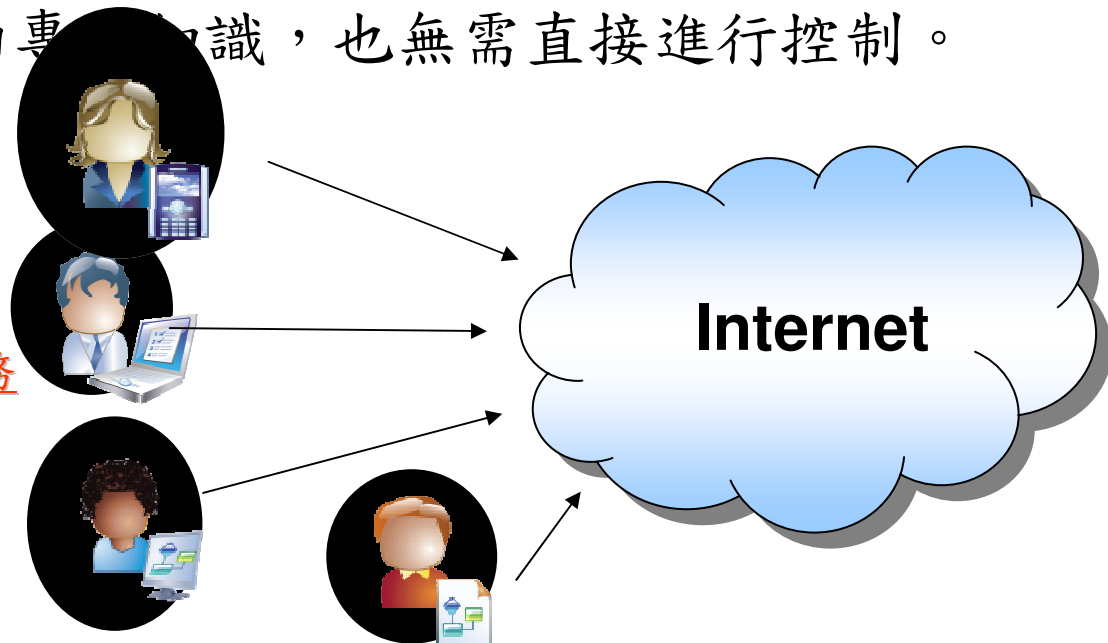


What is Cloud Computing

- 繪製網路配置示意圖時(Computer Network Diagrams)，習慣將網際網路(Internet)用一朵雲(Cloud)來表示。
- 根據中文Wiki百科全書的解釋，雲端運算是一種運算方式，運算資源是動態易擴充而且虛擬化的，往往透過網際網路提供。使用者不需要了解「雲端」中基礎設施的細節，不必具有相應的專業知識，也無需直接進行控制。

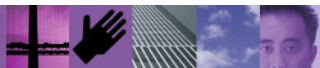
- 特徵：

- ▶ 標準化的服務
- ▶ 按需擴充套件和使用
- ▶ 快速部署資源以獲得服務
- ▶ 運用虛擬化技術
- ▶ 按使用量計費



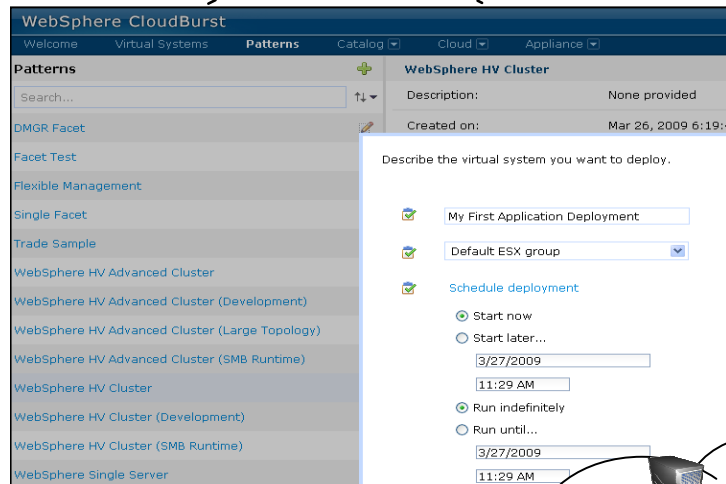
現行架構可能面臨的問題

- The average lead time to get a new application environment up and running is 4-6 weeks
 - Approvals, procurement, shipment, HW installation, license procurement, OS installation, application installation, configuration
- 30% of bugs are introduced by inconsistent configurations
 - They often emerge when moving between dev/test, QA, production
- 根據IDC的報告指出有 40% 的使用者能源的耗損超過了實際的需求，平均 X86 硬體使用率只有 10-15% (IDC and vmware.com)

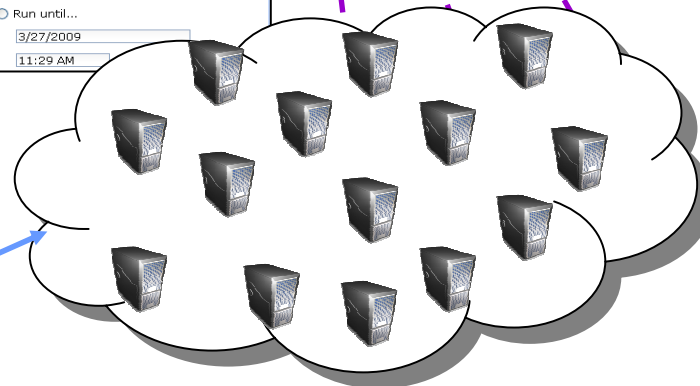


Two new WebSphere Cloud Products

1) WebSphere CloudBurst Appliance
(hardware/firmware: manages/dispenses stored images)



2) CloudBurst dispenses WAS HV Servers

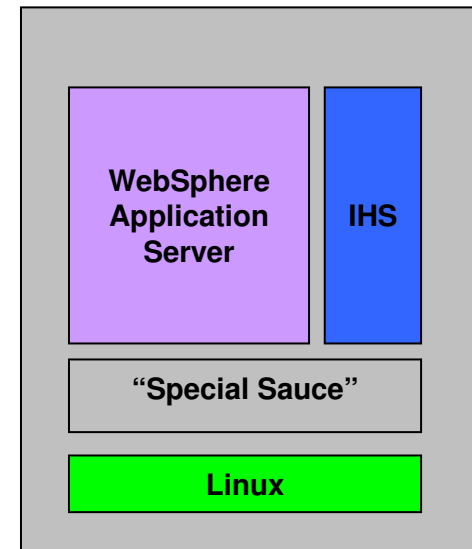


1) User requests WAS Environment to be dispensed

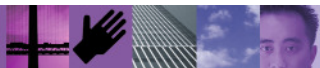


3) User can access WAS Hypervisor Servers (Virtual Image)

2) WAS HyperVisor Edition
(Virtual Image-software)

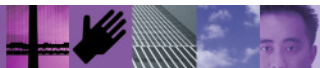
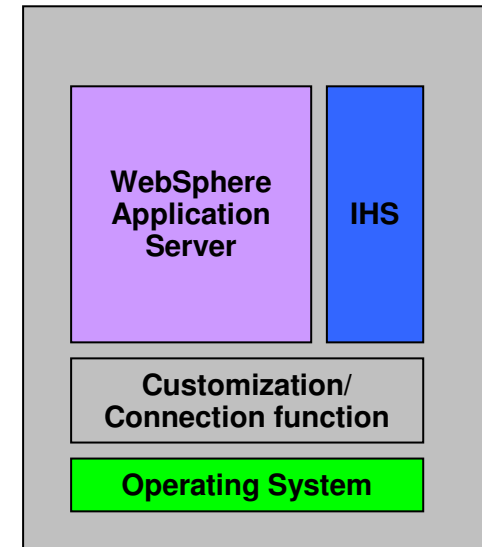


The WebSphere CloudBurst appliance dispenses these virtual images into a private cloud



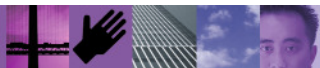
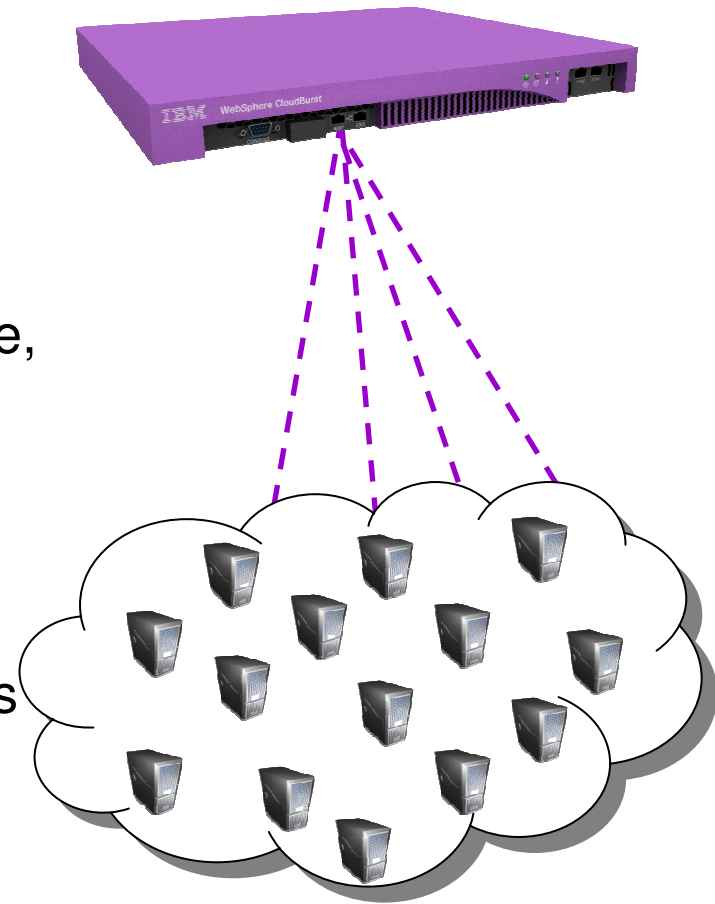
WAS HyperVisor Edition (WAS HV)

- WAS shipped ready to run on a hypervisor
- No installation required (just run and choose a profile)
- Single virtual image capable of supporting single servers or clusters
- WAS v6.1 and v7 available at GA
- Full support for WAS Feature Packs
- Images supported and maintained by IBM
- Based on OVF standard



WebSphere CloudBurst Appliance

- Reduce setup time for WebSphere environments
- Codify your infrastructure for reduced risk
- Simplified maintenance and management
- Dispenses WebSphere virtual image software, e.g. VMWare, PowerVM, z/VM
- Secure, self-service cloud management device
- Enables consistent & repeatable deployment of application environments based on patterns
- Integrates with existing infrastructure through programmable REST APIs



Working Together

At end of reservation,
remove virtual image(s)
from cloud

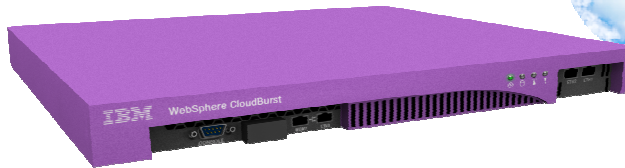


Return capacity
to available pool



Out of the box:

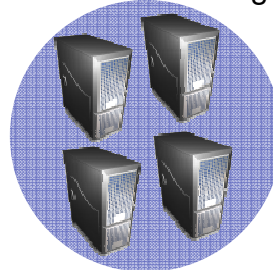
- WAS 6.1 Hypervisor Edition
- WAS 7.0 Hypervisor Edition
- Management console
- Pre-defined patterns



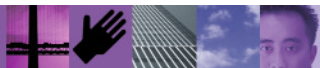
Run in cloud computing
environment

Custom:

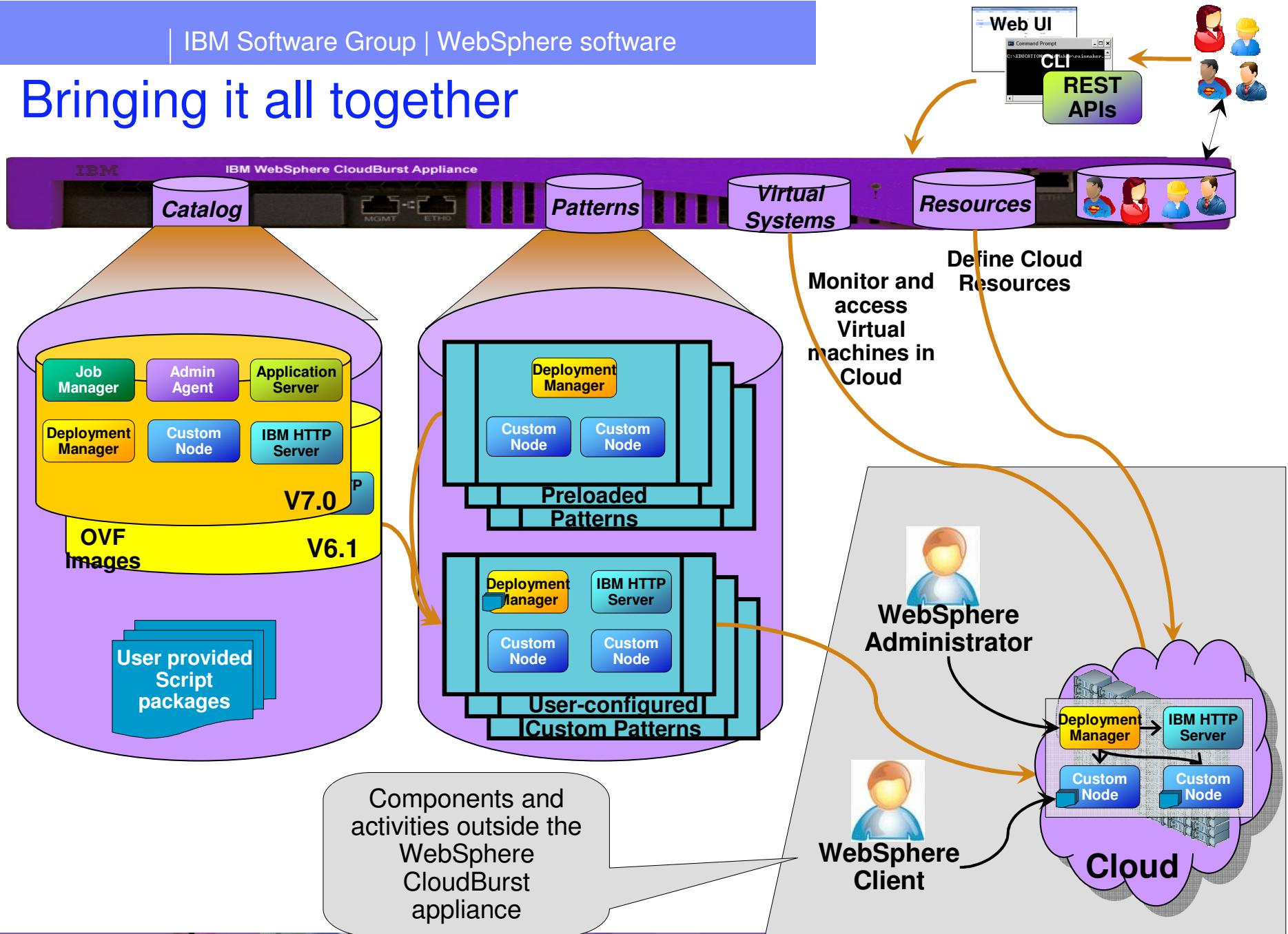
- Customer-defined configurations



Dispense single virtual image
or customer environment



Bringing it all together



Components and activities outside the WebSphere CloudBurst appliance

Catalog

- IBM provided Virtual Images of WebSphere Application Server Hypervisor Edition

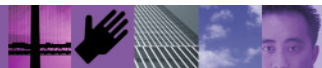
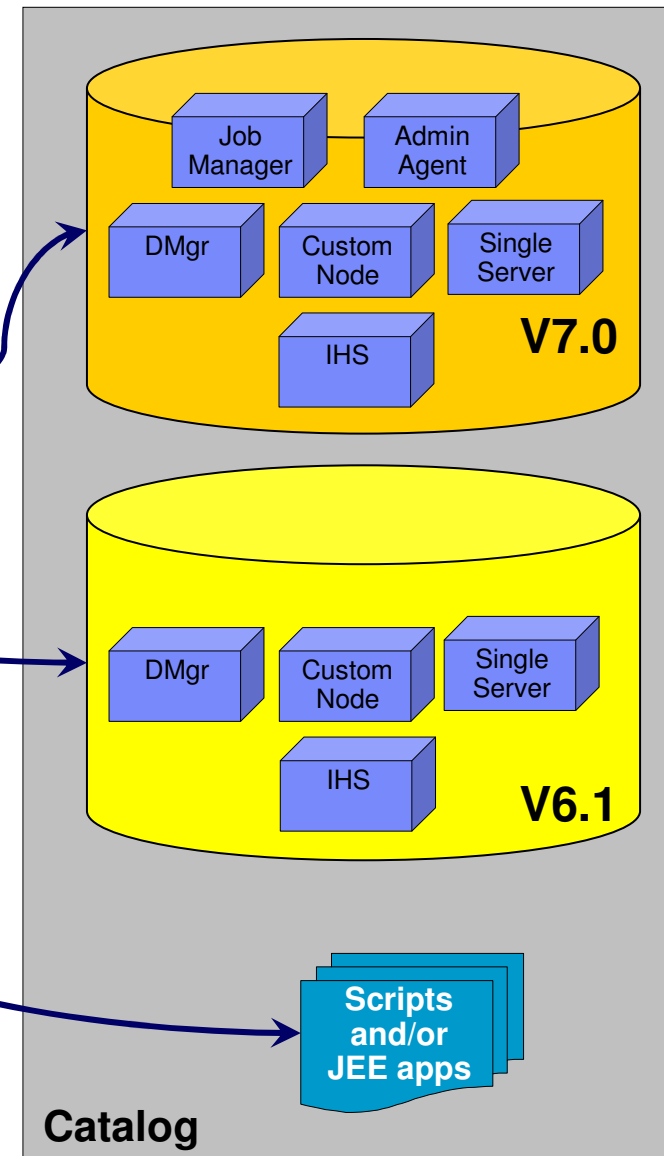
- ▶ V7.0.0.3

- ▶ V6.1.0.23

- User supplied Script packages

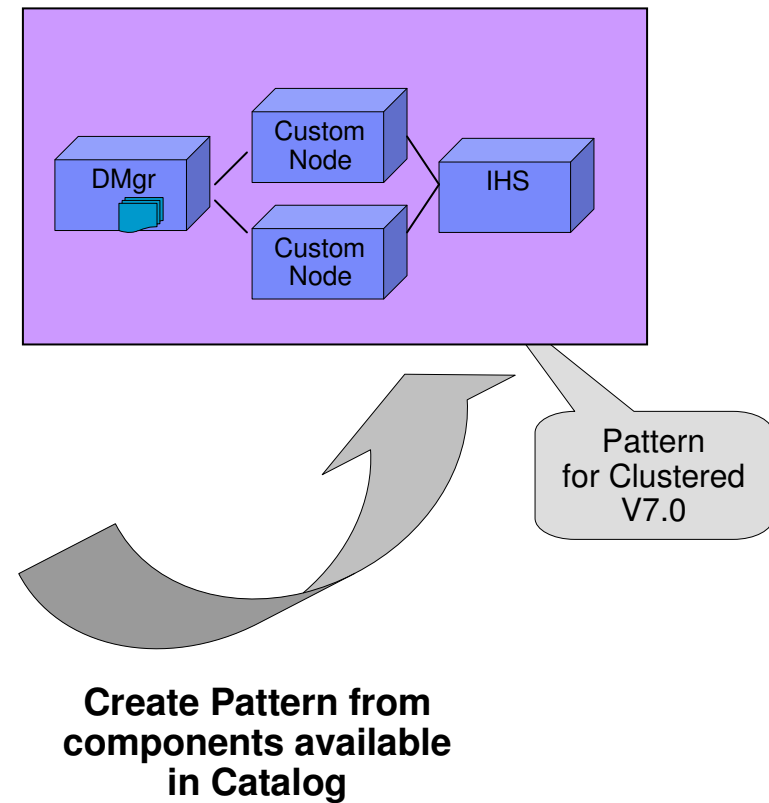
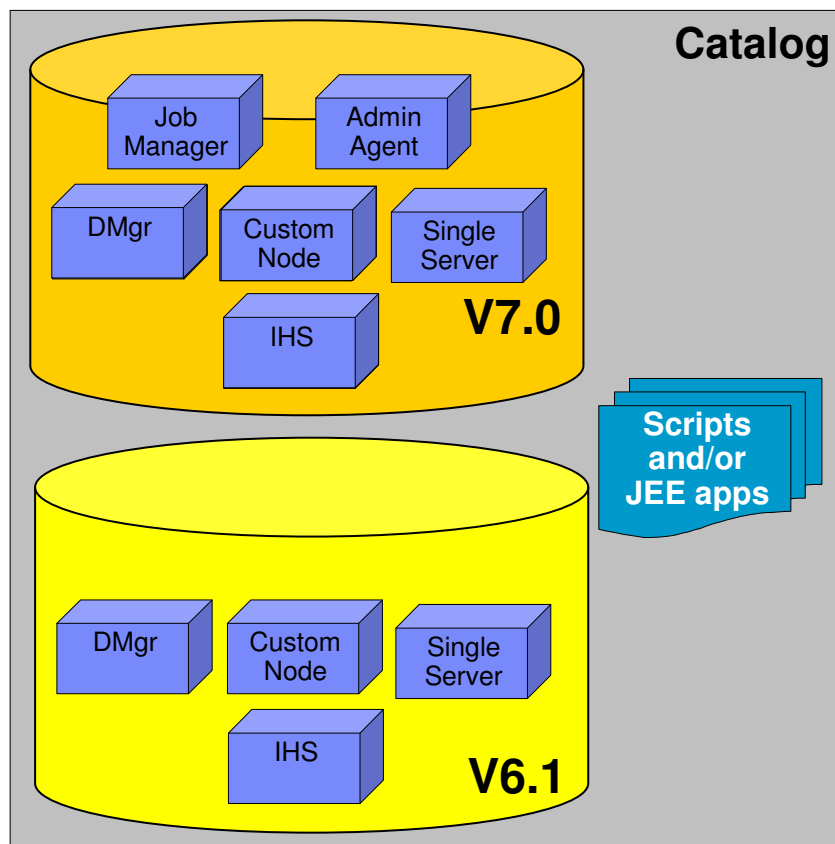
- ▶ wsadmin or other scripts

- ▶ JEE applications



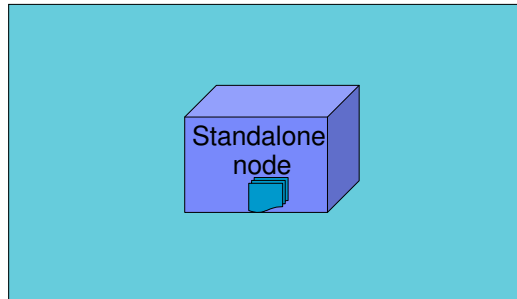
Patterns

- Pattern is one or more virtual images and script packages from the catalog to satisfy a certain deployment topology
- Example: Creating pattern of WebSphere V7.0 Clustered topology

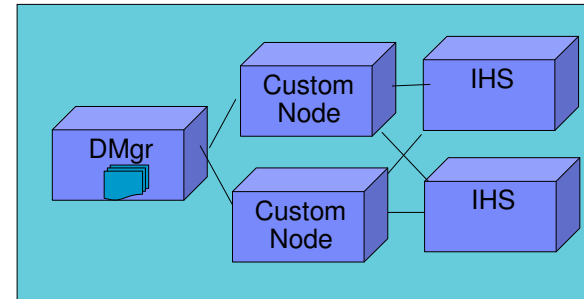


Preloaded Patterns

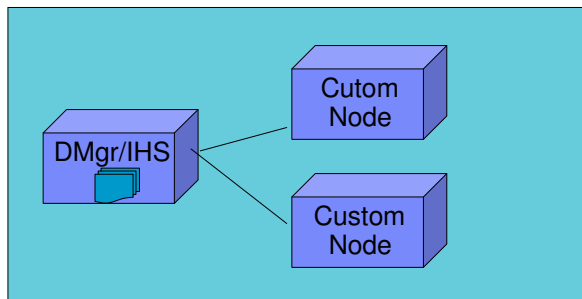
Single Server



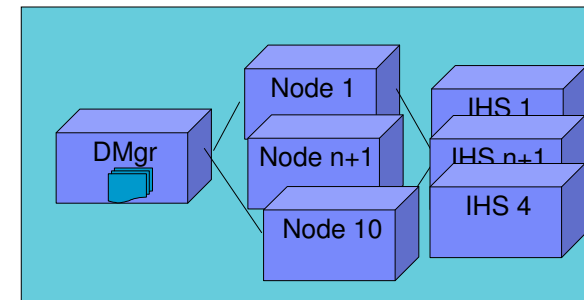
WebSphere cluster



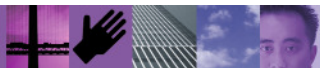
WebSphere cluster (dev)



WebSphere cluster (large)

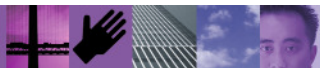
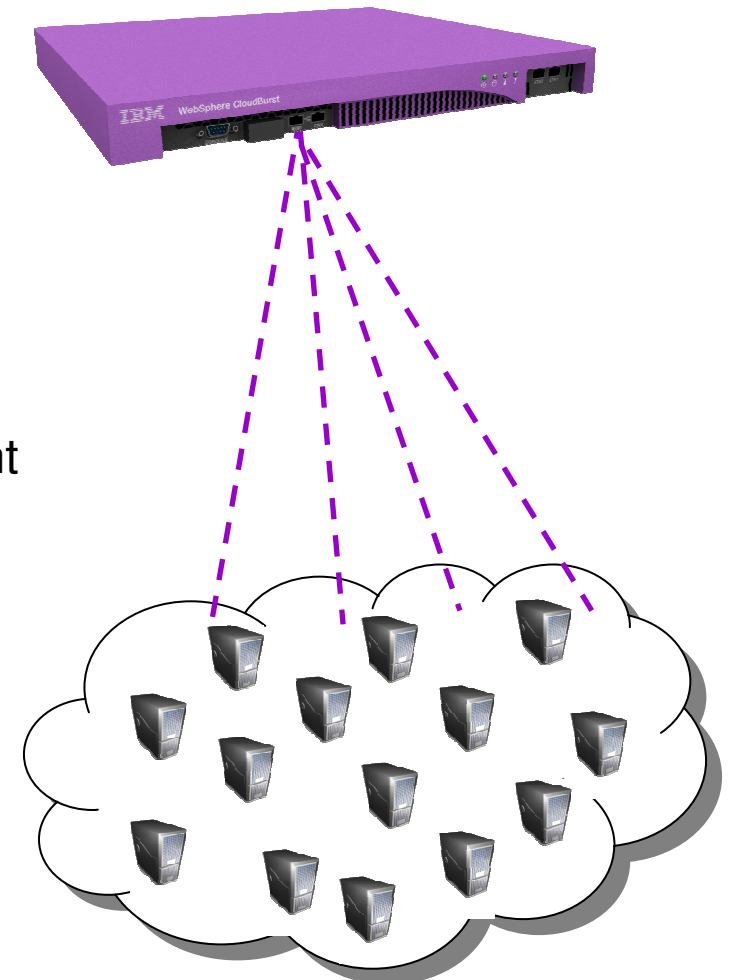


Advanced Options for Messaging, Session Persistence, and Global Security



What's new in WebSphere CloudBurst Appliance V2.0?

- ▶ **Expanding platform support**
 - System Z support (z/Linux on z/VM) – delivered in March 2010
 - Support for Red Hat Enterprise Linux on X86 – **NEW!**
- ▶ **Expanding product support (beyond WebSphere Application Server and DB2)**
 - Policy-based management support (Intelligent Management Pack) – **NEW!**
 - WebSphere Process Server Virtual Image - **NEW!**
- ▶ **Mission-critical management**
 - Elasticity of dispensed environments – **NEW!**



Insurance Company Improves fix management - Nationwide



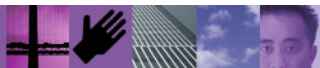
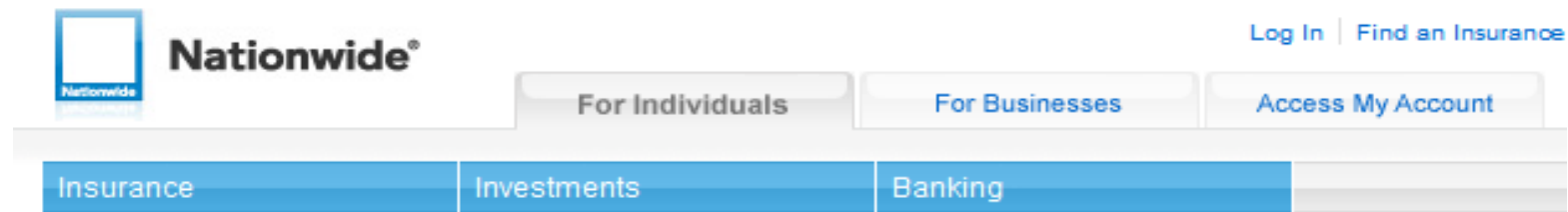
Nationwide®

Industry Pains

- Deployment of maintenance takes approx. 30 minutes
- Deployment of maintenance is a manual process, often executed in the middle of the night

Smarter Business Outcomes

- Deployment took 4 minutes!
- Deployment was automated
- Deployment was able to be scheduled, so no one had to wait up to kick off the process



IBM Lab Increases Productivity and Agility



Industry Pains

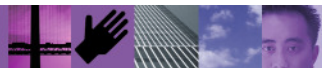
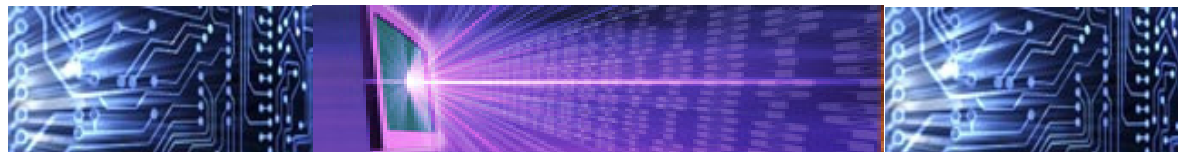
- OS security compliance issues due to virtualization
- Low rates of hardware utilization
- Agile development requires high quality and broader testing

Smarter Business Outcomes

- No OS security compliance violations in 4 months
- Increased server utilization up to 90%
- Reduced standardized topology deployment from over 2 hours down to 18 minutes
- Leveraged existing hardware and software assets

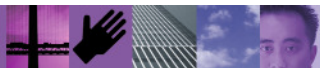
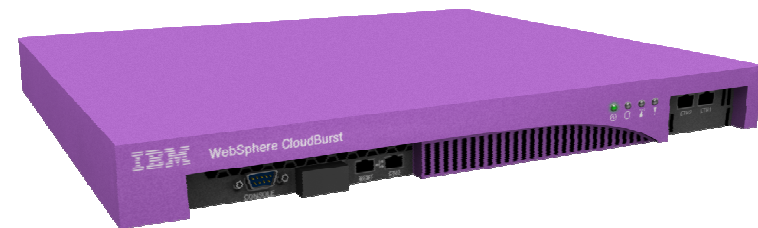
Why Smart SOA Infrastructure?

“The ability to provide compliant patterns and images in our public lab while leveraging the speed and rapid deployment of virtualization is significant for our efforts to consolidate hardware, and reduce costs while at the same time providing onDemand access to development and test environments necessary for Agile development”. **Frank Varone, Test and Quality Manager for WebSphere Application Server**

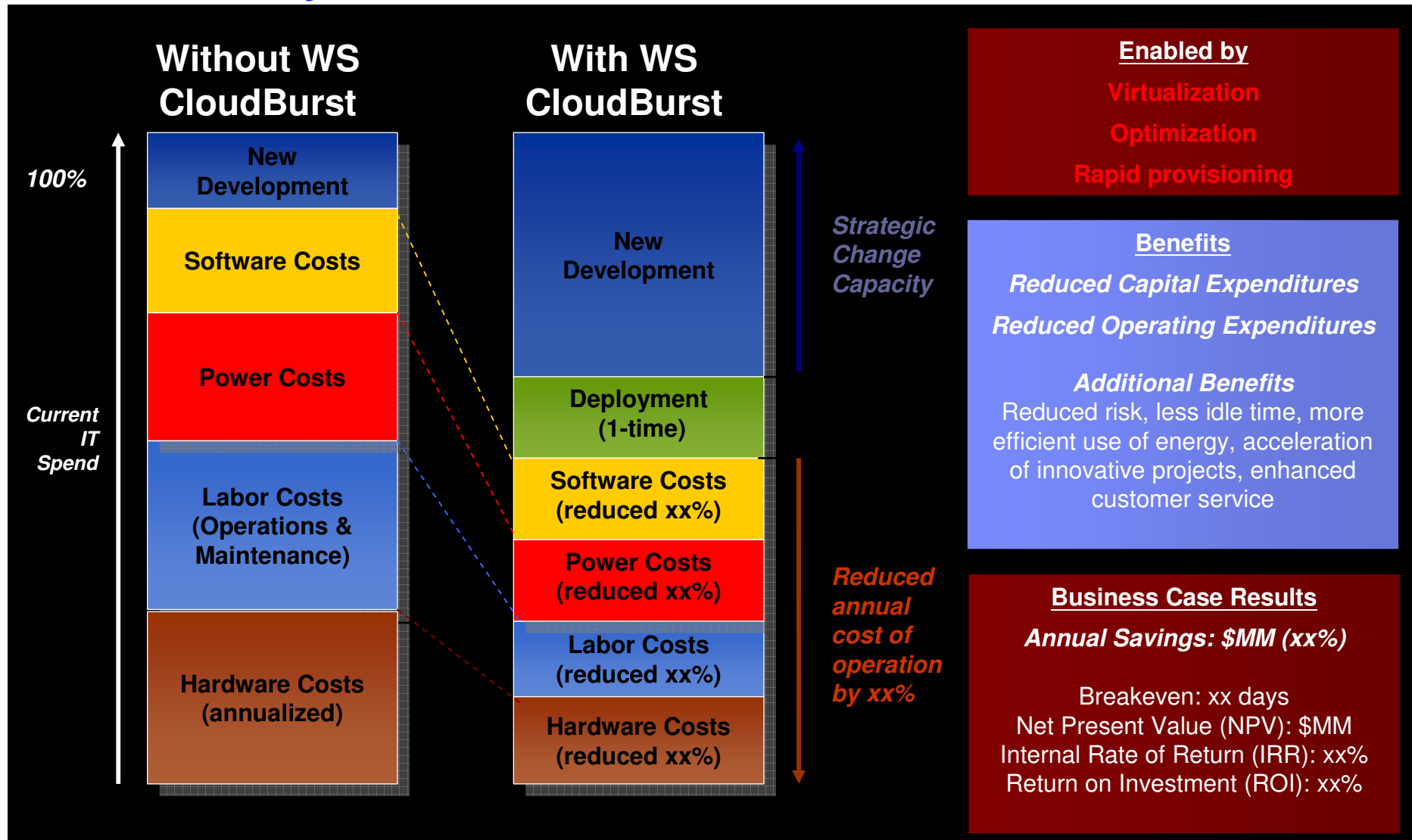


Appliance Benefits

- Enhance security
 - ▶ Tamper resistant
 - ▶ No user provided logic on the appliance
 - ▶ Root key for file encryption is tied to box, private, and protected
 - ▶ Appliance images are packaged as a signed, single unit.
- Easier maintenance
 - ▶ Software updates are provided as a complete refresh
 - ▶ Simple backup/restore functions
- Performance
 - ▶ Preload, optimized images
 - ▶ Best practice
- Consumability
 - ▶ Catalog and Pattern



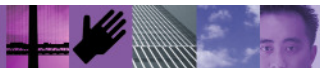
TCO Analysis - WS CloudBurst Benefits





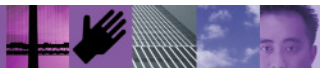
WebSphere CloudBurst Demonstration

Better, Faster, Cheaper!



For More Information

- WebSphere
 - ▶ <http://www-306.ibm.com/software/webservers/appserv/extend/>
- WebSphere Virtual Enterprise Experts Blog
 - ▶ http://www-128.ibm.com/developerworks/blogs/dw_blog.jspa?blog=779
- WebSphere Virtual Enterprise Product Forum
 - ▶ http://www-128.ibm.com/developerworks/forums/dw_forum.jsp?forum=778&cat=9
- WebSphere CloudBurst
 - ▶ <http://www-ibm.com/cloudburst>
- IBM Developerworks WebSphere
 - ▶ <http://www.ibm.com/developerworks/websphere>



Thank you for your time!

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