IBM WebSphere CloudBurst Appliance showcase in Rome SOA Leadership Center

What is WebSphere CloudBurst?
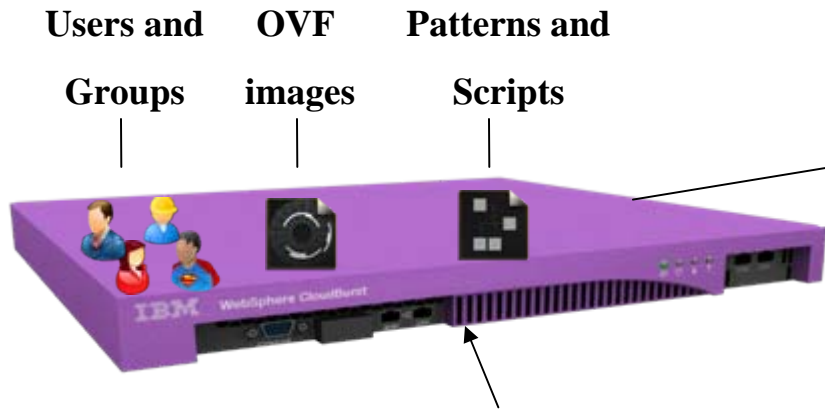
1. An appliance from IBM...

Includes

- hardware

- WebSphere CloudBurst function

- *WebSphere Application Server images*
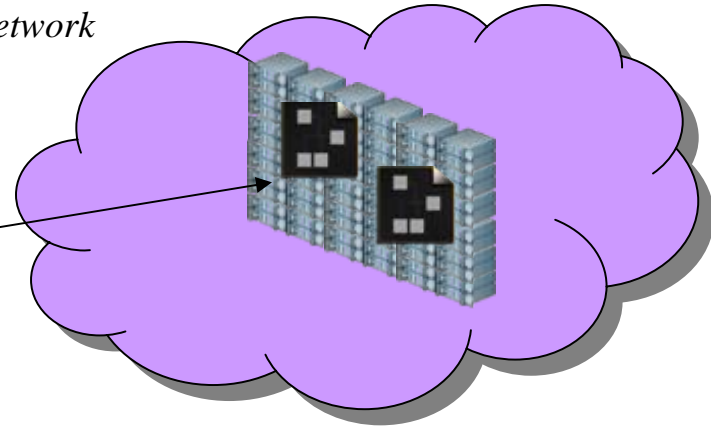
- *WebSphere Application Server patterns*

Users and

Groups

OVF

images

Patterns and

Scripts

Web Browser, CLI, Web 2.0 UI

2. ...that manages your on-premise cloud...

Bring your own Enterprise cloud

- hypervisors

- *storage*

- *network*

3. ... comprising WebSphere Virtual Systems

- Customize and extend images and patterns for your applications

- Dispense and run in the cloud

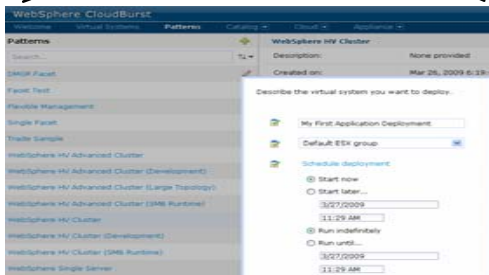*- Life-cycle management and optimization*

WebSphere CloudBurst Appliance & WAS Hypervisor Edition

1) WebSphere CloudBurst Appliance (hardware)

2) WAS HV (Virtual Image-software)

2) CloudBurst dispenses WebSphere Application Server Hypervisor Edition Servers
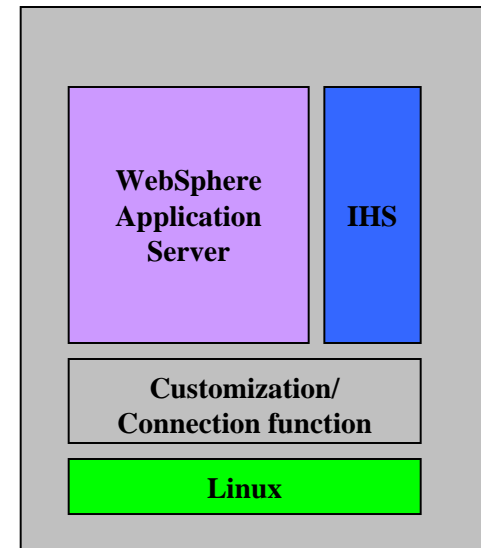
1) User requests WebSphere Application Server Hypervisor Edition Environment to be dispensed
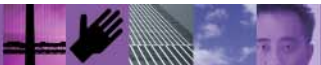
3) User can access WebSphere Application Server Hypervisor Edition Servers (Virtual Image)

WebSphere Application Server

IHS

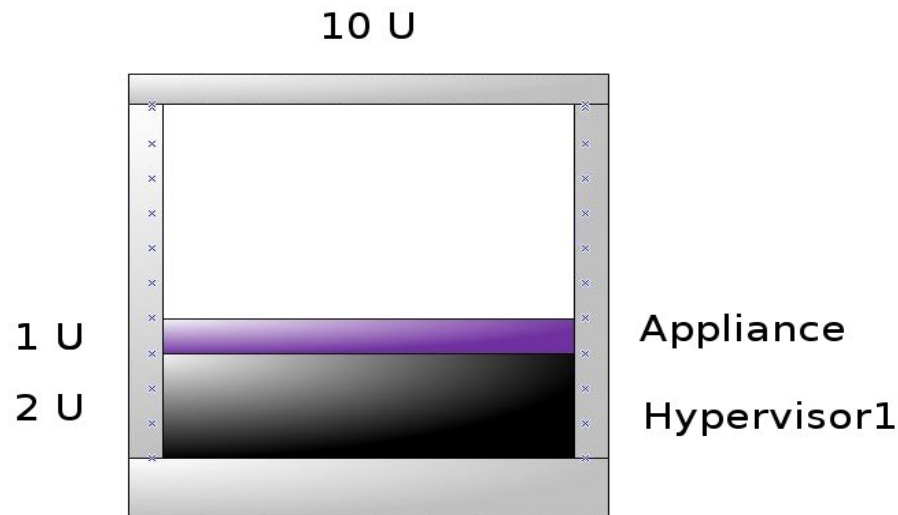**Customization/ Connection function**

Linux

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

Rome Installation Unit

- One WCA appliance

- One x3650 esx 3.5 hypervisor with 4 core Xeon 3.5Ghz 32Gb Ram 2Tb HDD

- Both devices have been addictionally configured to access IBM NCO 9.x network (in order to access them Rome Lab Firewall logon is required)
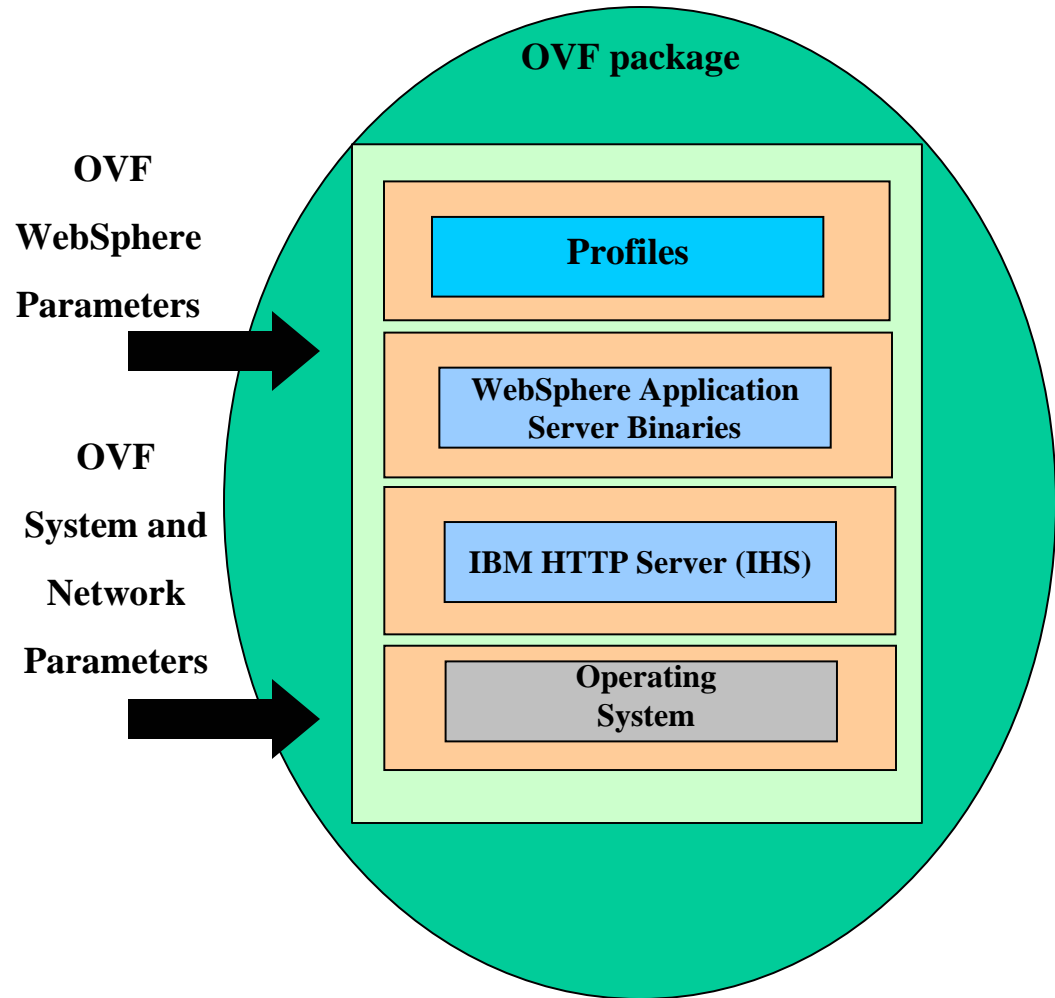
WebSphere CloudBurst Capabilities and Features

- **Delivers as an appliance form factor**
  - Secure platform including catalog of images, pre-defined patterns, and cloud management capabilities
  - Access via Web 2.0 User Interface, Command Line Interface, or REST APIs

- **Define one or more internal clouds from your existing hardware resources**
  - VMware ESX 3.0.2, ESX 3.5, or ESX3i hypervisor support, , pSeries, z/VM beta
  - User and group permissions with fine-grained access control for images, patterns, and virtual systems
  - Authentication with existing LDAP directory

- **Create a set of reusable patterns specific for your company**
  - WebSphere Application Server Hypervisor versions 6.1 and 7.0
    - Images include SLES 10.2 operating system, or create your own image using RedHat.5.2
  - Multiple pre-defined pattern topologies (from standalone to highly available cluster patterns)
  - Tools to support image customization
  - Tools to create and modify patterns and add your own applications and scripts
  - Supports maintenance of images and patterns

- **Provide a self-service platform to deploy and use the patterns**
  - Deploy, start, stop, store, snap-shot, restore, delete, and apply maintenance

- **Manage your shared resource pool**
  - Intelligent placement to optimize resource utilization
  - Cloud resource utilization monitoring and reporting
  - Data on users and group usage of virtual systems and cloud resources for charge back
  - Integration with IBM License Metric Tool for sub-capacity license tracking

- **Integrate with existing solutions**
  - Use TPM workflows to initiate WebSphere CloudBurst operations via the APIs
  - Integrate RAFW to install and configure applications as part of pattern deployment

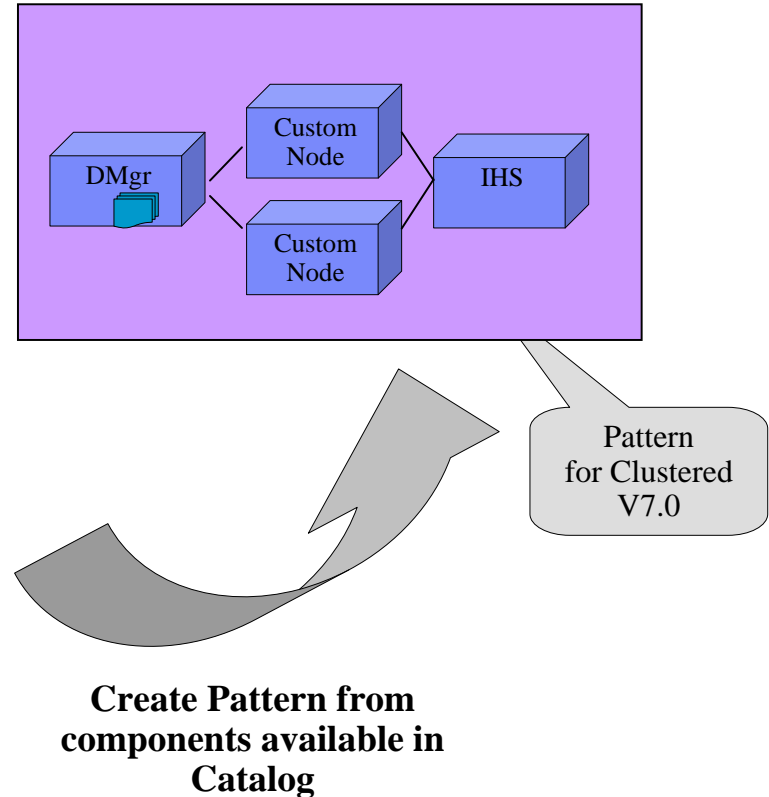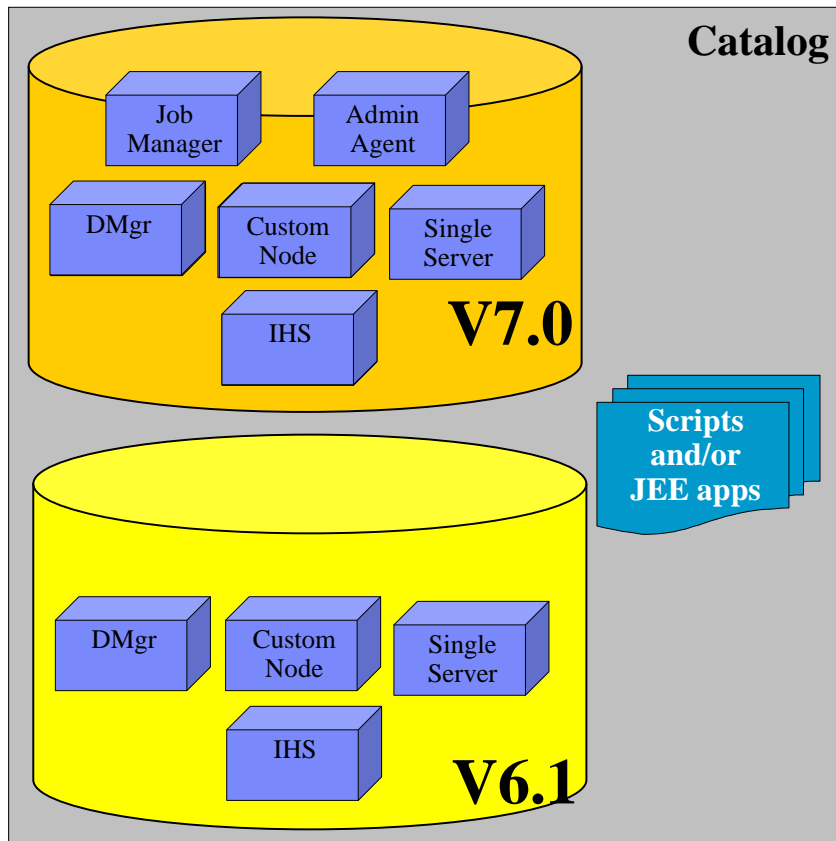# *IBM® WebSphere Application Server Hypervisor Edition*

- •**Preinstalled, configured, and tuned**

- •**Open Virtualization Format standard packaging**

- •**Attended and unattended activation**

- •**WebSphere Application Server 6.1 and 7.0**

- •**Available as a stand-alone image, or with WebSphere CloudBurst**

OVF WebSphere Parameters

OVF System and Network Parameters

OVF package

Profiles

WebSphere Application Server Binaries

IBM HTTP Server (IHS)

Operating System

Preloaded Patterns available for demos

... and more can be built on demand

- WebSphere patterns represent an entire middleware environment

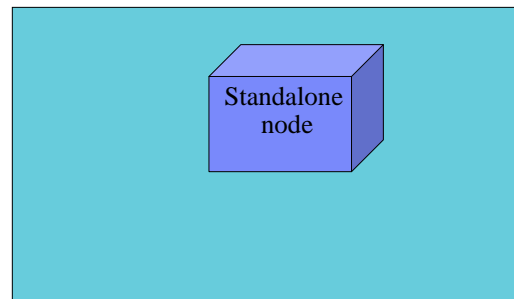- Contain both virtual image parts and script packages from the catalog

Advanced Options for messaging, session persistence, and global security available
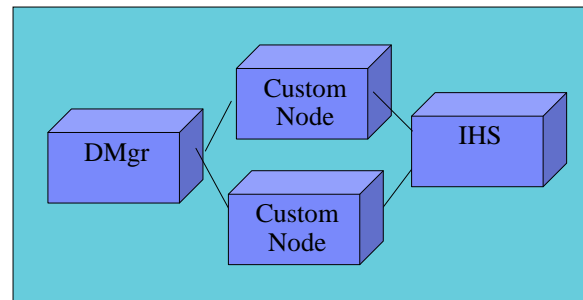
Single Server pattern

- This single node topology can be used either as a development environment or as part of a large multiple nodes production environment whose application configuration is managed (and replicated) manually.

- Optionally the same pattern can be deployed with the Plants by WebSphere example script package.
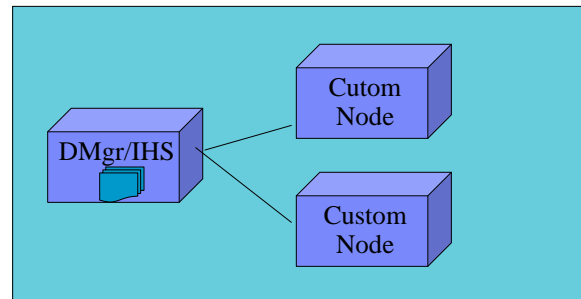
- Pattern composition:
  - 1 server node only

  Standalone node

Websphere production cluster pattern

- Cluster is a WebSphere Application Server Network Deployment topology for large scale production or development environments. IBM HTTP Server is hosted in a "not managed" dedicated node.

- Pattern composition:

  - 1 distribution node

  - 2 custom nodes

  - 1 http server node

Websphere cluster for development pattern

- Cluster (development) is a WebSphere Application Server Network Deployment topology for small development environments. The distribution manager and the http server will be hosted in the same virtual machine so to minimize the number of deployed virtual machines.

- Pattern composition:

    - 1 distribution node

    - 2 custom nodes

Websphere cluster for large production environments pattern

- This kind of cluster is a WebSphere Application Server Network Deployment topology for large scaled environments. The topology consists of 1 distribution manager, 10 replicated custom nodes (each configured with same properties) and 4 redundant http server nodes.

- Pattern composition:

  - 1 distribution node

  - 10 custom nodes

  - 4 http server nodes