HP Cloud Map for Oracle Fusion Architecture

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Oracle Fusion Architecture provides a high-performance, highly available computing environment that delivers a rich catalog of standard business processes in a wide range of areas such as CRM, ERP, and supply chain management.

Oracle Fusion Applications provide a dynamic business process portfolio that can evolve as a business evolves.

Oracle Fusion Applications also have extensibility for integrating industry- or process-specific functionality from third-party, custom, and legacy applications.

Oracle Fusion Architecture principles

Oracle Fusion Architecture (OFA) is a standards-based technology reference architecture or blueprint for building applications.

Oracle Fusion Architecture is based on the following core principles

Model Driven: For applications, business processes and business information

Service & Event- enabled: For extensible, modular, flexible applications and processes

Information Centric: For complete and consistent, actionable, real-time intelligence

Grid-Ready: Must be scalable, available, secure, manageable on low-cost hardware

Standards-based: Must be open, pluggable in a heterogeneous environment

Key components of model driven approach

Visual tools that enable business analysts to effect changes to business processes, business rules, or event application functionality

A declarative development environment that includes tools that understand business language instead of specialized technical knowledge

Systematic application extensibility to provide underlying applications and the business processes with a standard mechanism for extensibility and modification

Lifecycle and change management so that any changes in business operations enacted by business analysts will have simple and effective versions control, change tracking, approval processes, and testing processes.

Key components of Service and Event Enabled approach (SaaS)

Enterprise application functionality delivered as Web services—virtually any enterprise application can be designed as a collection of Web services. Thus, Oracle Fusion Applications can expose their capabilities as services that can run as global standard business processes, or they can be extended with industry- or process-specific functionality.

Modular application and business process design—by creating applications in a modular fashion, business analysts can then use an ever-increasing catalog of process functionality to tailor business operations as circumstances dictate.

Web services and SOA infrastructure—In order for a service-oriented approach to succeed, the underlying Web services and SOA infrastructure must be robust, scalable, and secure.

Unified event management—Businesses must have a standard programmatic method of dealing with events of all types. This requires a standardized event-driven architecture (EDA) that can be used by both Oracle Applications and custom or third-party applications or Web services.

Information-Centric approach requirements

Analytic and collaborative context at the point of action—Effective business processes are the result of the performance and productivity of the information workers that execute them

Insight-driven user - the flexibility to add analytics, group collaboration, audio/video aids, and Web conferencing provides a much richer user experience and subsequently make for more self-sufficient employees.

Effective business activity monitoring—organizations need real-time access to critical business performance indicators.

Common data management of operational, analytical, and collaborative information - a single definition layer for all enterprise data in order to minimize data integration headaches is a prerequisite here.

Unified, consensus-driven data -- the establishment of a transparent information quality service built on a standardized data model and consensus-based master data lists.

Grid Ready

Applications must be designed in a modular fashion so that individual data management or business logic execution can be assigned to pools of database or middleware servers for maximum performance, flexibility, and stability.

Application developers must avoid "hard-coding" applications to specific server addresses or narrowly specified hardware characteristics.

Applications must be based on open standards for security, management, and Web services functionality so that the performance and integrity of the applications can be tracked, audited, and verified using tools available from Oracle or third-party developers.

Standards-Based - some examples

Web services—widely adopted Web services standards such as SOAP, WSDL, and XML have greatly contributed to the rapid acceleration of adoption of a service-oriented approach to applications and IT services.

Business process—to achieve some level of standardization in business process automation, the Business Process Execution Language (BPEL) has been developed and is rapidly becoming a key standard in the definition of an industry-standard approach to creating service-oriented applications.

Integration—Integration standards are emerging both as horizontal specifications, such as OAGIS and UN/CEFACT, for large scale enterprise application integration, and as industry or functional specifications such as RosettaNet (for high tech industry), HL7 (for healthcare), and HR-XML (for human resources).

Security and identity—Reliance on security standards such as Secure Socket Layer (SSL), Security Assertion Markup Language (SAML), and Security Provisioning Markup Language (SPML) ensure that security and privacy can be both established and verified by internal and external auditors.

The Oracle Fusion Architecture provides a way for information resources to be "joined" with related information resources to greater exploit the value of the inherent relationships among information, and then for new connections to be made as situations change.
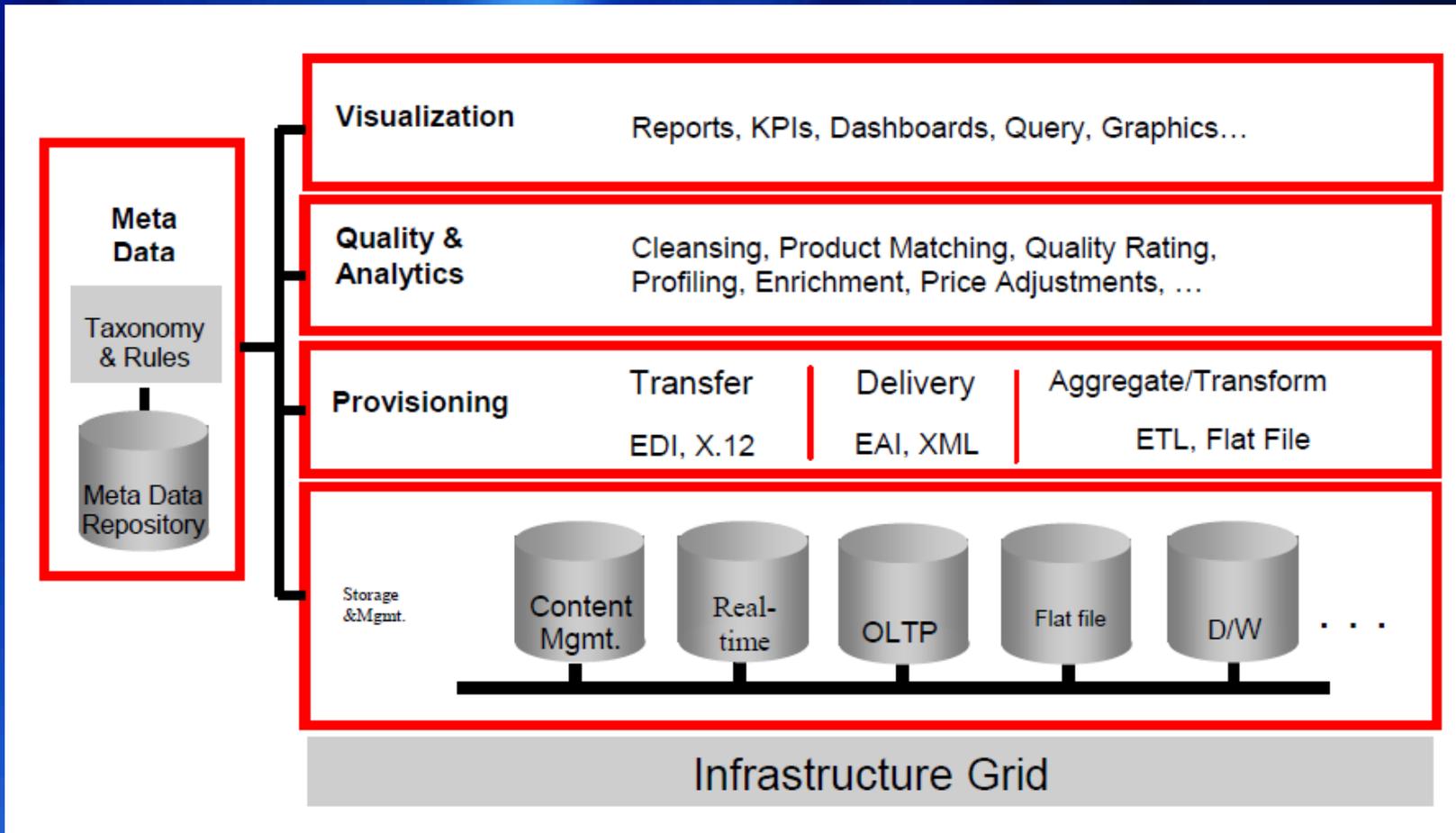
Cloud Maps: More than a deployment model

Cloud computing is not just another application deployment model, and it is not just computing on demand, it is much more than that. The ability to request an IT service or process and have it deployed and operational within minutes is revolutionary.

Another use case is moving processes and services to the location of the information.

With the massive amounts of information stored in our data warehouses, moving that quantity of data around the globe can be challenging,

Rather than moving data around the globe to be processed, HP Cloud Maps reverse the equation and enable us to move processing to the data.

HP Cloud Maps simplify complex services

HP Cloud Maps for Oracle

HP has prepared several Cloud Maps for Oracle products to assist DBAs in rapid deployment of solutions in the datacenter.

HP Cloud Maps provide white papers, templates, workflows, and scripts that are configurable and customizable; varying levels of configuration and customization are required depending upon your requirements and the type of software being deployed.

These maps have been developed, reviewed, and tested by engineering teams to assure validity of the reference architecture and implementations. HP Cloud Maps for Oracle are available at http://www.hp.com/go/cloudmaps/oracle.

A list of available HP Cloud Maps for Oracle:

Oracle Retail Predictive Application Server 13.2.2 on Linux

Oracle Single Instance Database for CloudSystem

Oracle RAC for HP-UX and Oracle Fusion Middleware SOA Suite for Linux

Oracle Fusion Middleware SOA Suite for Linux

Oracle E-Business Suite R12.1 on HP-UX

Oracle E-Business Suite on HP-UX

PeopleSoft Enterprise Applications

Oracle Fusion Middleware SOA Suite for HP-UX

Oracle Fusion Architecture

Oracle RAC

Oracle Single Instance Database

PeopleSoft Enterprise Human Capital Management 9.0 (HCM)

HP Cloud Maps for Oracle - Windows Internet Explorer

EN English (United States)

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McAfee

Convert   Select

http://pro-aq-sama.houston.hp.com/enterprise/us/en/partners/cloudmaps-oracle.html

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HP Cloud Maps for Oracle

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HP Cloud Maps for Oracle

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» Business Technology
» Media Center & Library

Command the cloud
» Start now

HP Cloud Maps Webinar
» Listen to the replay!

NAVIGATE the steps to create a service catalog yourself, quickly & consistently

Workflows
Sizers
Deployment scripts
Best practice templates
Whitepapers

Service Catalog

HP Cloud Maps accelerate the automation of key business applications so you can deploy your cloud faster and with more confidence

» Introduction to HP Cloud Maps for Oracle

Click on the links below to view and download the contents of the Cloud Maps for these Oracle applications to quickly add them to your HP BladeSystem Matrix service catalog.

HP Cloud Maps

Oracle PeopleSoft Human Resources Management System 9.1 (HRMS) for mixed platform
» Template
» White paper: Deploying a mixed platform infrastructure for Oracle PeopleSoft HRMS 9.1 using HP CloudSystem Matrix

Oracle Siebel
» Templates, planning guide worksheet, bill of materials (BOM)
» White paper: HP Private Cloud Solution for Oracle Siebel

Oracle RAC and Fusion Middleware on VMware
» Template, workflows, and scripts
» White paper: HP Cloud Map for Oracle RAC and Fusion

What's new

» Deploying an HP Cloud Map for a cloned Oracle E-Business Suite NEW!
» Webinar: AllianceONE Cloud Maps: Deployment and Customization Basics - Listen to the replay NEW!
» HP & Alliance Partner Solutions NEW!
» HP Launches CloudStart to Fast Track Private Clouds Company partners NEW!

Collaborate

» Visit the AllianceONE Community Cloud Maps forum NEW!
» Eye of Blades Blog

Solutions components

» HP BladeSystem Matrix

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» Template

» White paper: HP Cloud Map for Oracle E-Business Suite on HP-
   UX: Importing the template

PeopleSoft Enterprise Applications

» Template

» White paper: HP Cloud Map for Oracle PeopleSoft Enterprise
   Applications: Importing the template

Oracle Fusion Middleware SOA Suite for HP-UX

» Template, workflow, and scripts

» White paper: HP Cloud Map for Oracle Fusion Middleware SOA
   Suite for HP-UX: Importing the template

» White paper: Inside the HP Cloud Map for Oracle Fusion
   Middleware SOA Suite for HP-UX

Oracle Fusion Architecture

» Template

» White paper: HP Cloud Map for Oracle Fusion Architecture:
   Importing the template

Oracle RAC

» Template, workflow, and scripts

» White paper: HP Cloud Map for Oracle 11gR2 RAC: Importing
   the template

» White paper: Inside the HP Cloud Map for Oracle 11gR2 RAC

Template download and import

Thank you for downloading the HP Cloud Map for Oracle Fusion Architecture.
HP Cloud Maps can provide a valuable head start and help you get more from HP BladeSystem Matrix.
The template, workflows, and other contents are reference examples designed by experts to provide a model for deploying applications in your HP BladeSystem Matrix environment.
The templates included are specifically designed to provision the server, storage, and network infrastructure resources necessary to support a complete Oracle Fusion Architecture deployment utilizing physical server resources. The templates include the resources to provision the database, and WebLogic with Oracle SOA Suite and Oracle HTTP servers. The associated white paper details some specific areas of the template that customers will need to modify in order to successfully import the template into the HP IO designer interface. This HP Cloud Map does not include workflows specific to the actual Oracle RAC or Middleware software installation. Please ensure that you also download the associated white paper from www.hp.com/go/cloudmaps/oracle under the Oracle Fusion Architecture header.
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Download and import → HP CloudSystem Matrix

HP CloudSystem Matrix is a fully integrated infrastructure designed for cloud computing that helps accelerate business service delivery while reducing up-front and long-term costs.

It unites the tools, processes, and architecture of physical and virtual worlds and enables pools of network, storage, and power capacity to be dynamically provisioned to run applications on up to 1,000s physical or virtual servers, all managed as one environment.

Matrix is a cloud platform for simplifying consolidation initiatives, enabling disaster recovery protection for all applications, and accelerating the deployment of production environments.

It is built with HP BladeSystem, HP Virtual Connect, HP Insight Software, HP StorageWorks, and fulfillment capabilities (factory integration and onsite services).

HP Cloud Map for Oracle Fusion Architecture:

How do HP Cloud Maps make a cloud?

HP Cloud Maps are not a cloud, or a cloud provider.
They are resources available to assist in the deployment of applications, operating systems, and other infrastructure software.
User may customize these templates, workflows, and scripts to ensure seamless operation within environment.
 Using HP Cloud Maps in this way reduces uncertainty because of the tested reference architecture as described in the HP Cloud Map. Time from concept to functional deployment is reduced because of the foundation HP Cloud Maps provide to user.

Before you can utilize HP IO to deploy an application service such as Oracle Fusion Architecture, an HP IO template must be built to describe the specific details of the service that will be deployed. This includes details around the server, storage and network requirements for the service. For example, the number of servers required, type of servers, and various processor and memory requirements for each of the servers. Once the application requirements have been gathered, this information can be used to build and publish the representative HP IO template. The Oracle Fusion Architecture can be modified to include application provisioning. Application provisioning can be performed by creating and attaching HP Operations Orchestration (OO) workflows or, if HP Cloud Service Automation (CSA) is available, by selecting Server Automation software deployment policies. Once the HP IO template is completed and published, you can login to the self-service portal and select to provision the service.

The production configuration consists of a clustered 2-node database (Oracle Real Application Clusters (RAC)), three WebLogic application servers with Oracle SOA Suite, two web host servers, and a backup server.

The non-production configuration consists of a clustered 2-node database (RAC), a WebLogic application server with SOA Suite, and a web host server.

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How to utilize this HP BladeSystem Matrix template?

To utilize this template, first download the HP Cloud Map for Oracle Fusion Architecture templates from the HP Cloud Maps site at

www.hp.com/go/cloudmaps

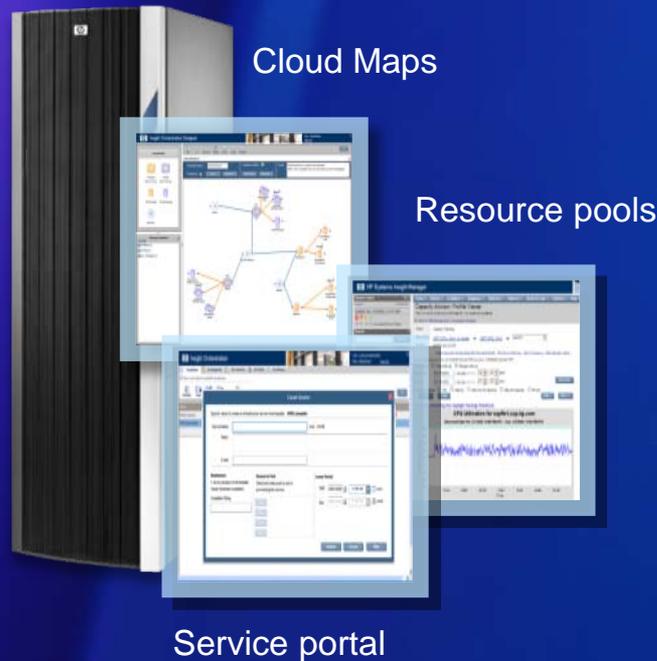 The package is formatted as a zip file. The file will contain:

The HP Insight Dynamics infrastructure orchestration templates:

– OracleFusionArchitectureProduction.xml
– OracleFusionArchitectureNonProd.xml

A readme file

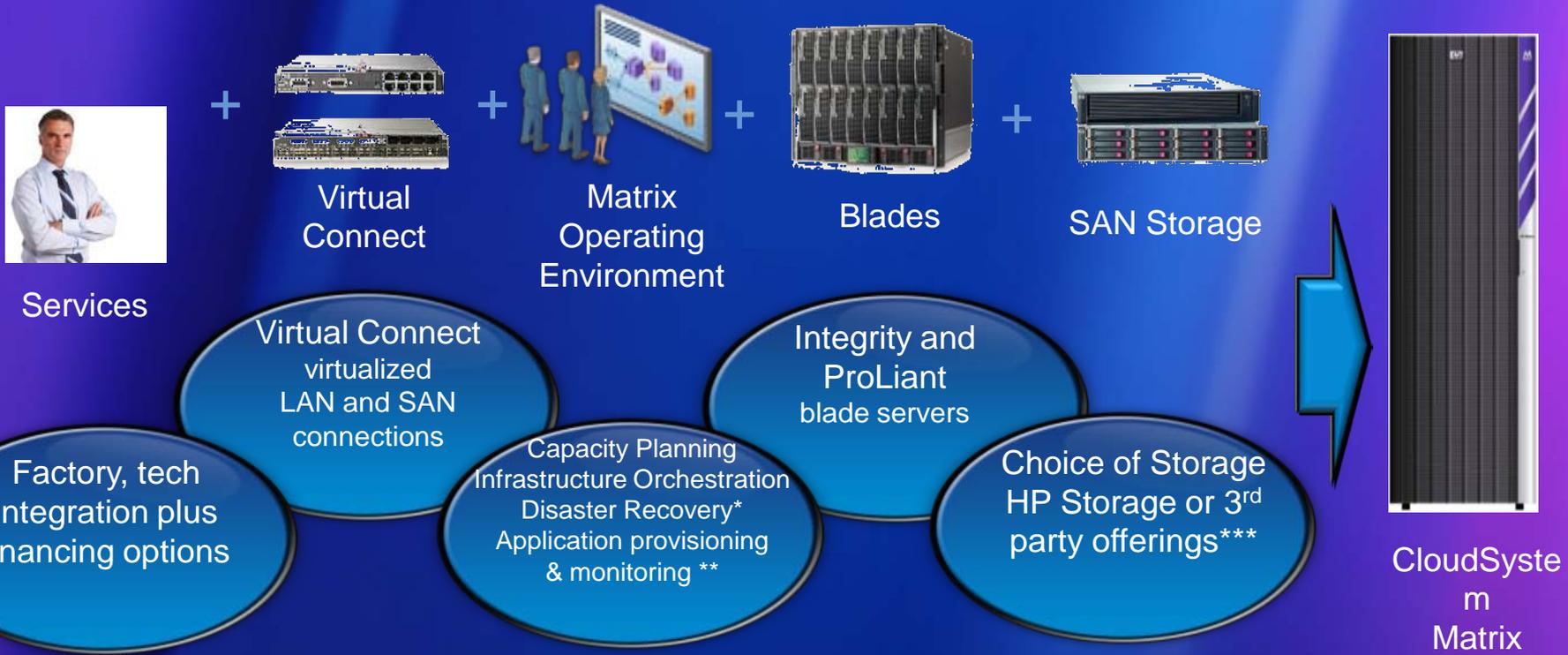# HP CloudSystem Matrix

Cloud Maps

Resource pools

Provision infrastructure and applications in minutes for physical and virtual.

Reduce TCO with built-in infrastructure life-cycle management.

Accelerate deployment with a unified end-to-end experience and integrated heterogeneous environments.

Service portal

Built on HP BladeSystem technologies

HP CloudSystem Matrix components

Services

+

Virtual
Connect

+

Matrix
Operating
Environment

+

Blades

+

SAN Storage

CloudSystem
Matrix

Factory, tech integration plus financing options

Virtual Connect virtualized LAN and SAN connections

Capacity Planning Infrastructure Orchestration Disaster Recovery* Application provisioning & monitoring **

Integrity and ProLiant blade servers

Choice of Storage HP Storage or 3rd party offerings***

Enables fast implementation and support of one integrated private cloud solution

*Matrix recovery management bundled for ProLiant. For HP-UX customers optional: HP Serviceguard and Metrocluster.
** Application provisioning and monitoring is delivered optionally for CloudSystem Matrix through Server Automation and SiteScope.
***FC SAN storage required for physical & virtual environments. iSCSI SAN for VM data stores. HP storage provides more integrated support of recovery & storage pool mgmt.
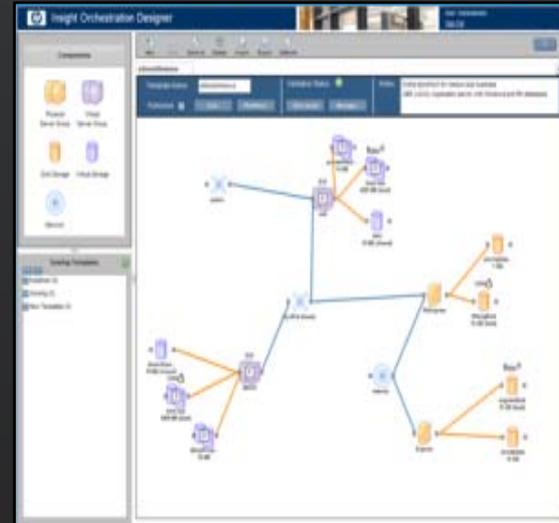
Build and manage IaaS

HP Matrix Operating Environment

Provision infrastructure and applications in minutes with one touch automated provisioning of servers, storage and networking for physical and virtual.

Optimize infrastructure confidently
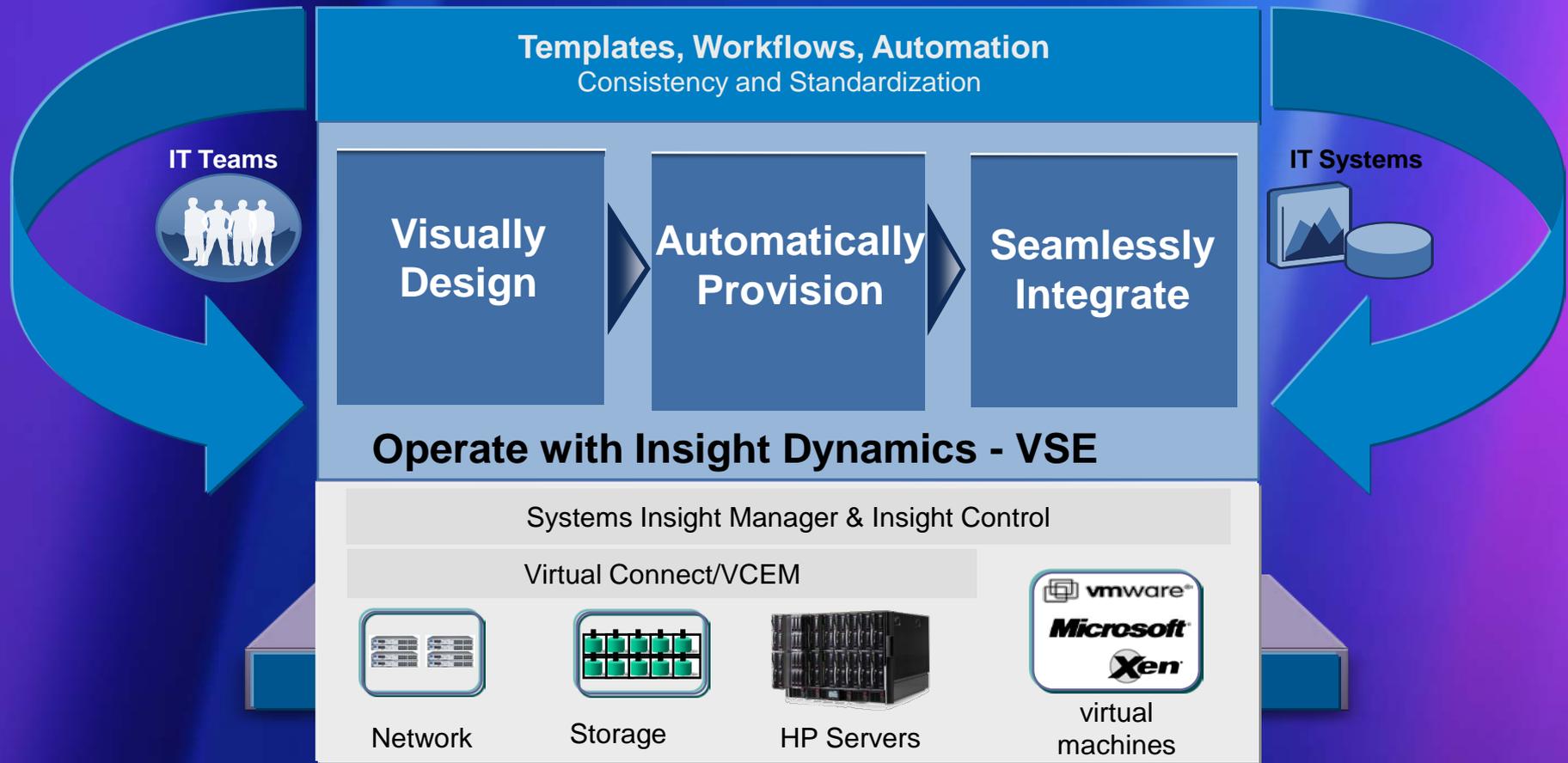with built-in capacity planning, monitoring, and rebalancing tools.

Protect continuity of services
with automated, cost-effective failover.

Sample "e-shopping" application infrastructure template

Insight Orchestration

Templates, Workflows, Automation
Consistency and Standardization

IT Teams

IT Systems

Visually Design → **Automatically Provision** → **Seamlessly Integrate**

Operate with Insight Dynamics - VSE

Systems Insight Manager & Insight Control

Virtual Connect/VCEM

vmware
Microsoft
Xen

Network   Storage   HP Servers   virtual machines

27

Components

Physical Server Group   Virtual Server Group

Physical Storage   Virtual Storage

Network
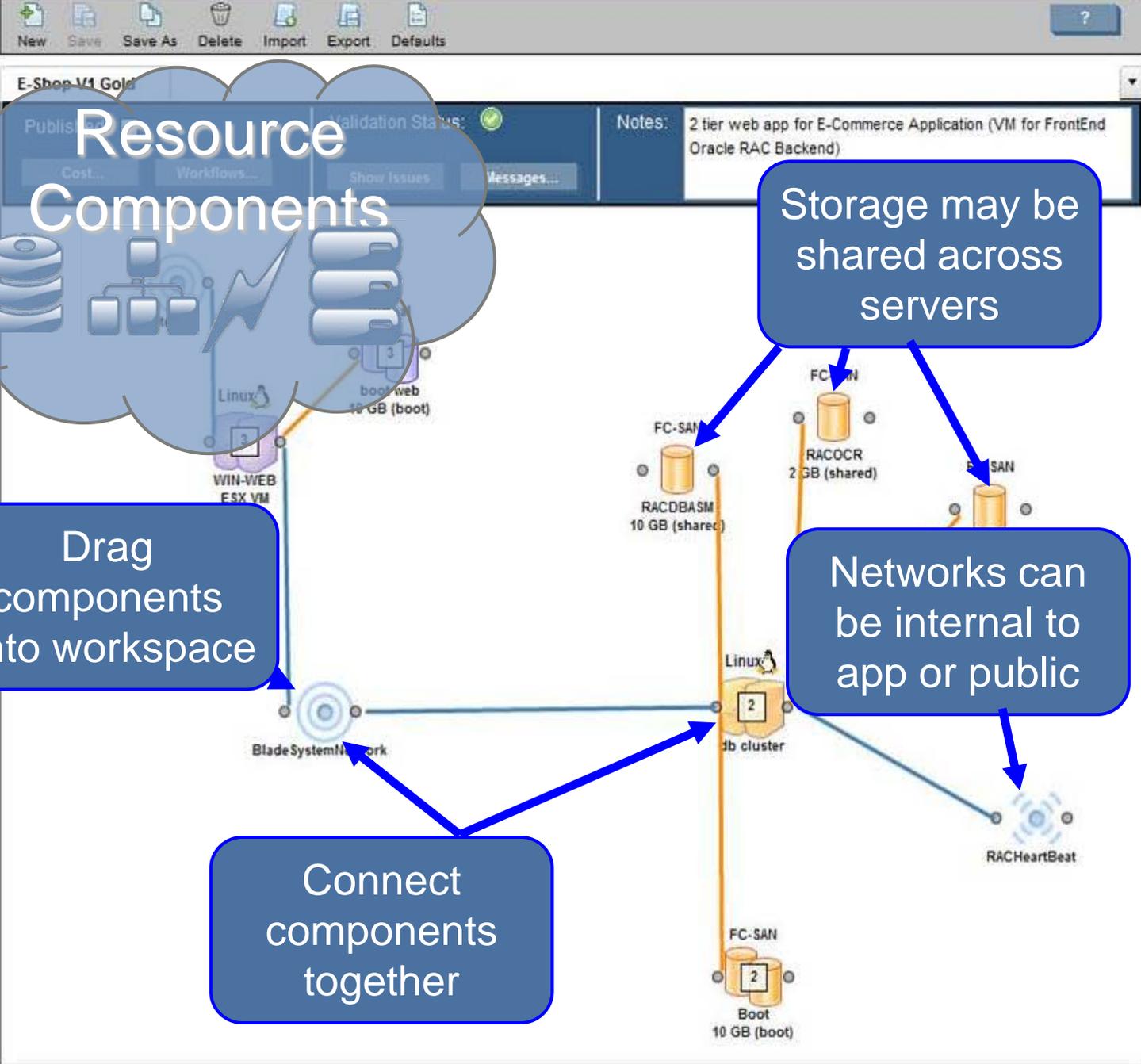
Existing Templates

Published (9)
1 phys man os dhcp (06/10/10 12:4...
1 phys man os priv net auto (06/11/10...
E-Shop V1 Gold (06/11/10 11:22)
mixed stor tags (06/10/10 09:28)
SA Satellite - TC-16 (06/10/10 16:53)
SA Satellite - TC-16 - Only Vlan51 (06/11...
SA Satellite - TC-16 - Vlan51 Primary (06...
SA Satellite - TC-23 (06/10/10 12:50)
vmHostTaggingExample (06/10/10 09:38)

Working (0)
New Templates (0)

New   Save   Save As   Delete   Import   Export   Defaults   ?

E-Shop V1 Gold

Resource Components

Publish   Validation Status: ✓

Cost...   Workflows...   Show Issues   Messages...

Notes: 2 tier web app for E-Commerce Application (VM for FrontEnd Oracle RAC Backend)

Linux   boot web 10 GB (boot)

WIN-WEB ESX VM

Storage may be shared across servers

FC-SAN   FC-SAN   FC-SAN

RACOCR 2 GB (shared)

RACDBASM 10 GB (shared)

Drag components onto workspace

Networks can be internal to app or public

Linux   db cluster

BladeSystemNetwork

RACHeartBeat

Connect components together

FC-SAN

Boot 10 GB (boot)

Done   ✓ Trusted sites | Protected Mode: Off   100%

Provisioning and Monitoring Applications

With HP CloudSystem Matrix

Matrix Operating Environment **with** **Cloud Service Automation for Matrix**

Initiate → Provision infrastructure → *Server Automation* Provision application → *SiteScope* Monitor applications
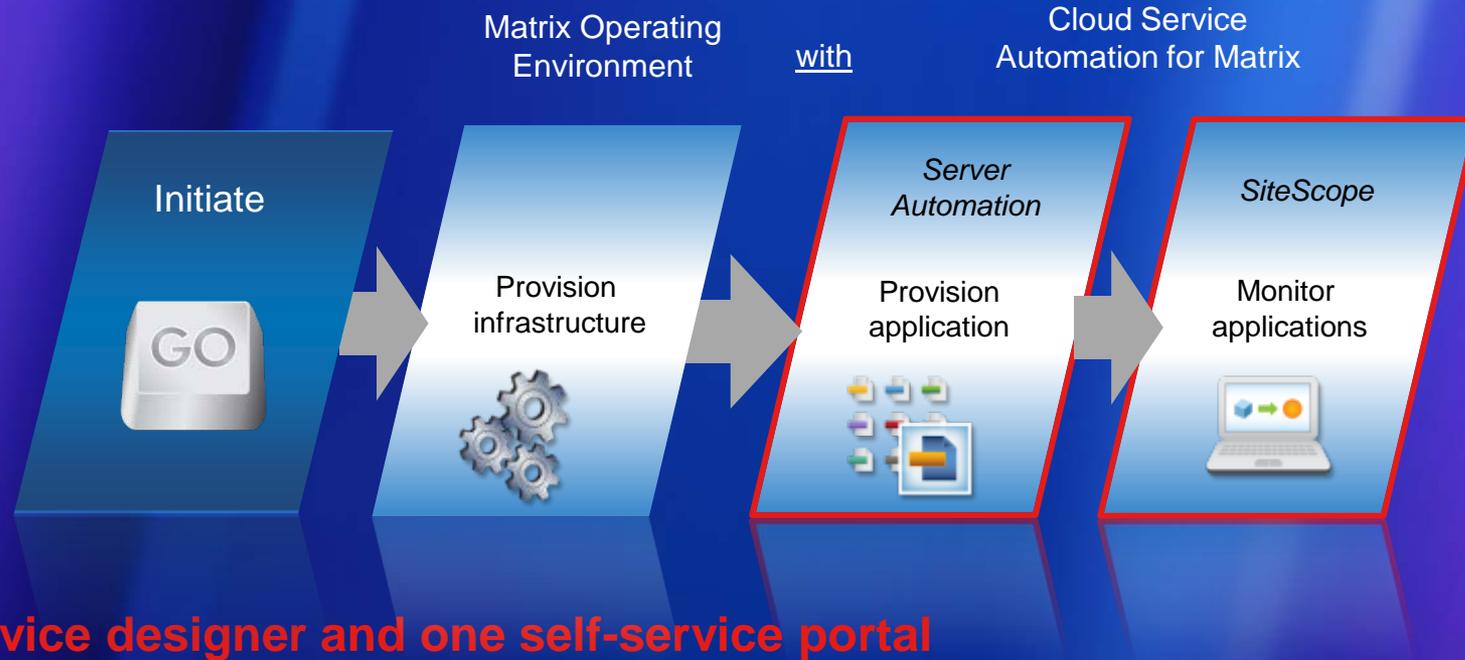
One service designer and one self-service portal

- Provision in minutes not months
- Reduce application provisioning time
- Reduce compliance management time

Matrix infrastructure portal integrated with Server Automation

- Server Automation integration extends the Matrix self-service portal & template designer from infrastructure to applications

- Server Automation also provides OS and application lifecycle management, such as patching and compliance
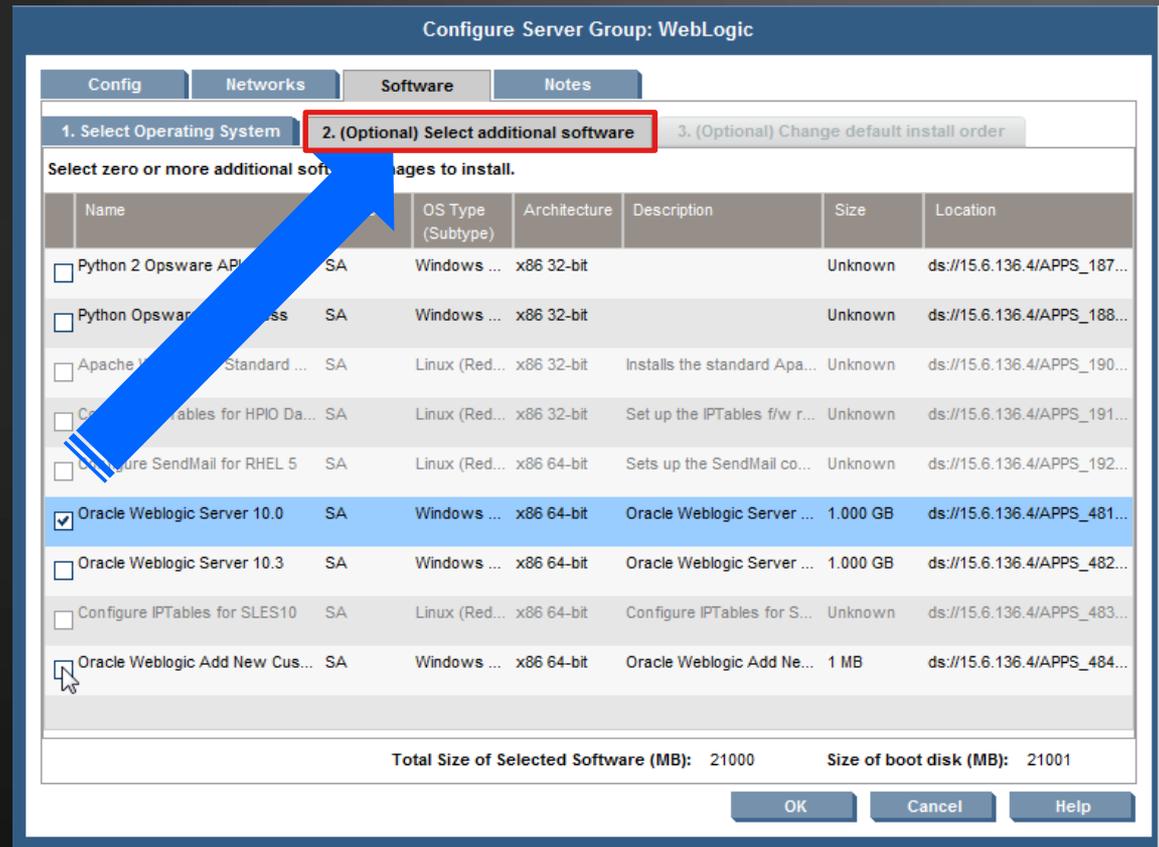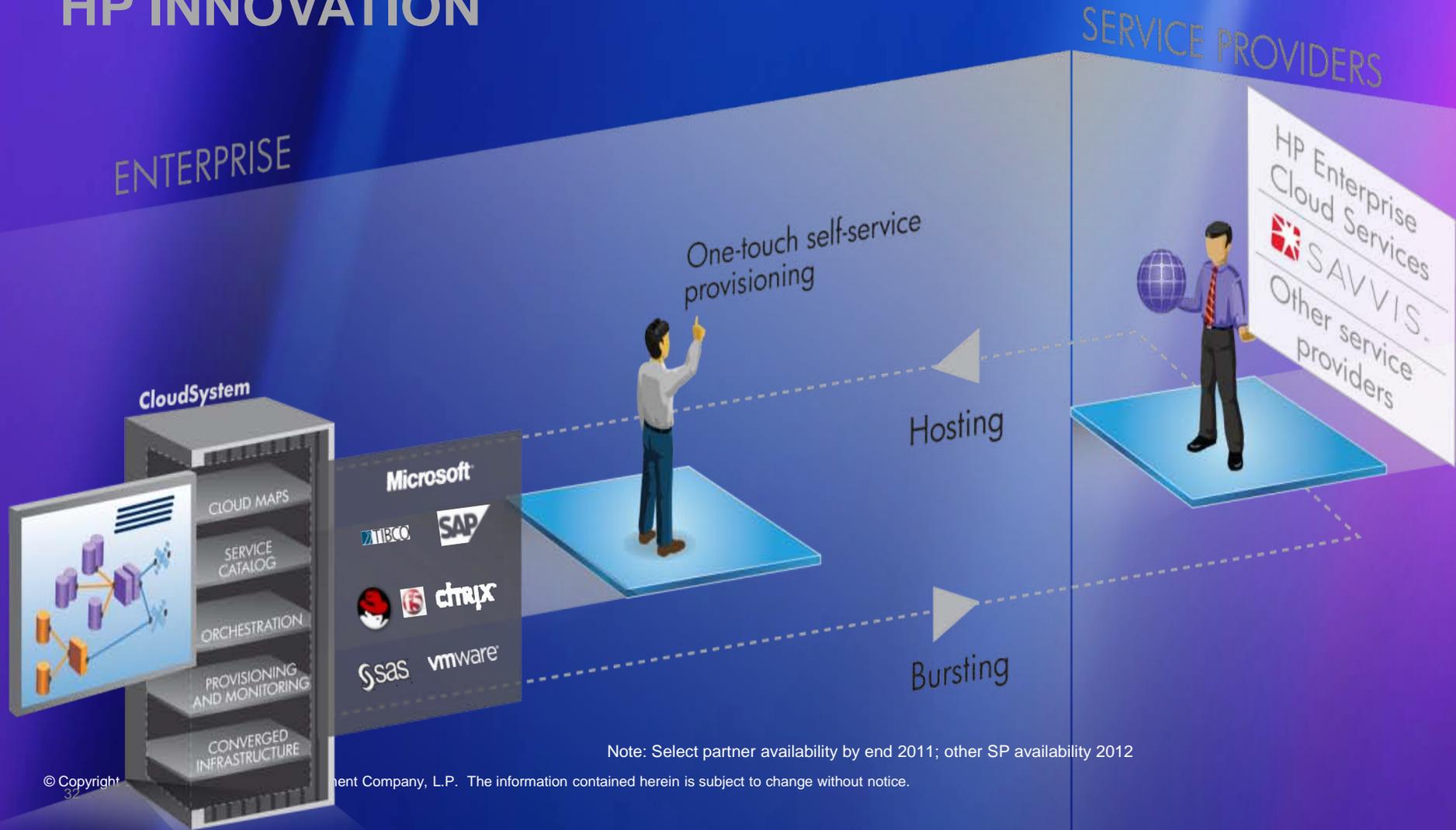

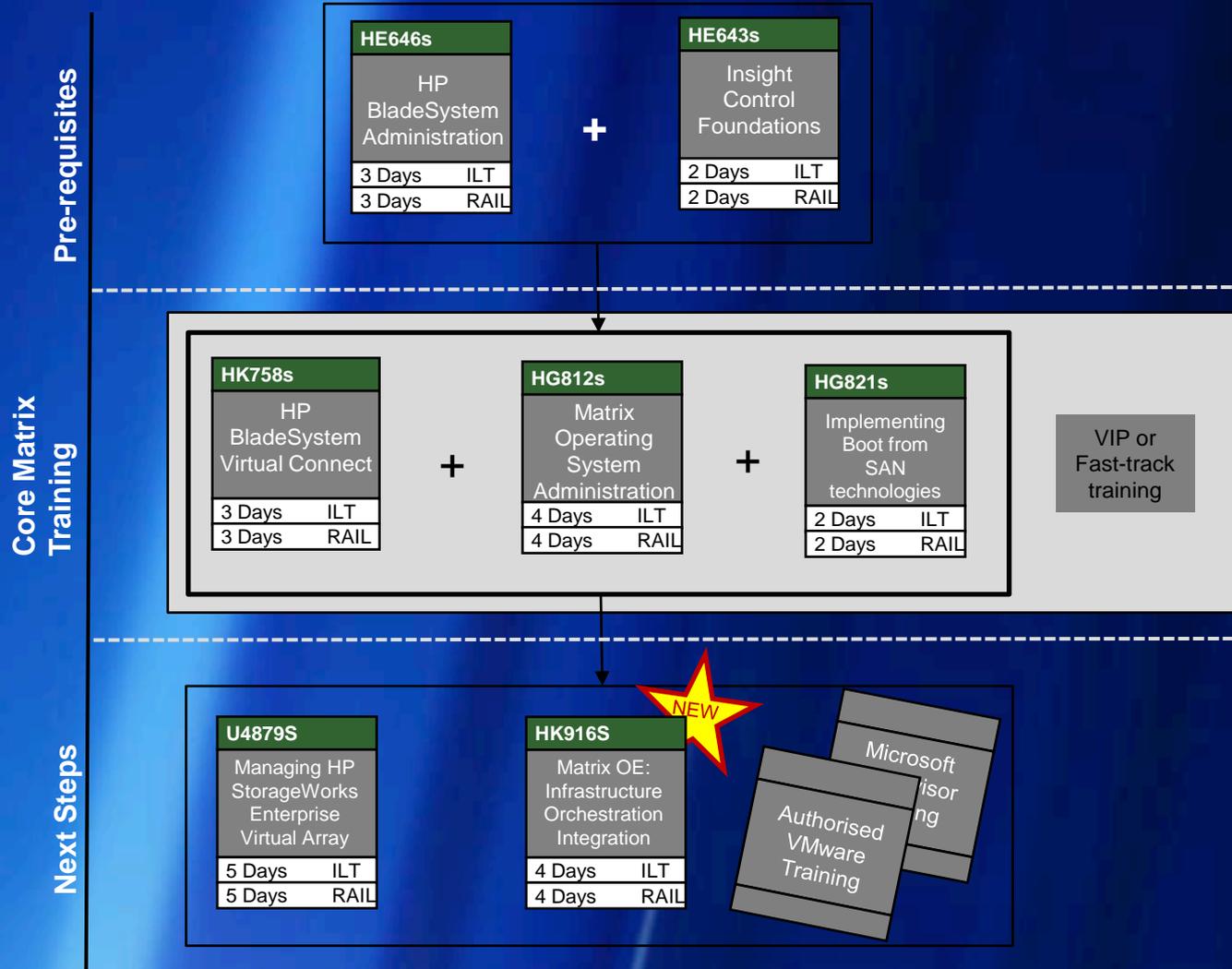**Infrastructure and applications up and running in minutes**

HP CloudSystem unique bursting capability

HP INNOVATION

Note: Select partner availability by end 2011; other SP availability 2012

HP BladeSystem Matrix Curriculum ProLiant chart

Pre-requisites

HE646s
HP BladeSystem Administration
| 3 Days | ILT |
| 3 Days | RAIL |

+

HE643s
Insight Control Foundations
| 2 Days | ILT |
| 2 Days | RAIL |

Core Matrix Training

HK758s
HP BladeSystem Virtual Connect
| 3 Days | ILT |
| 3 Days | RAIL |

+

HG812s
Matrix Operating System Administration
| 4 Days | ILT |
| 4 Days | RAIL |

+

HG821s
Implementing Boot from SAN technologies
| 2 Days | ILT |
| 2 Days | RAIL |

VIP or Fast-track training

Next Steps

U4879S
Managing HP StorageWorks Enterprise Virtual Array
| 5 Days | ILT |
| 5 Days | RAIL |

HK916S
Matrix OE: Infrastructure Orchestration Integration
| 4 Days | ILT |
| 4 Days | RAIL |

NEW

Microsoft Hypervisor Training

Authorised VMware Training

demo