

**IBM SolutionsConnect 2013**

Turning Opportunity into Outcomes.

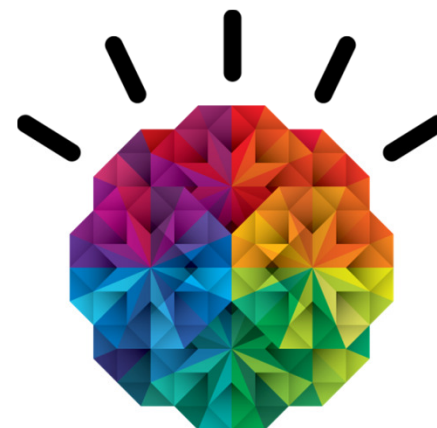


Infrastructure expertise made easy:  
Capture expertise from your ISV with the  
PureFlex System

Tom Sluys



# Topics



- **IBM PureSystems Family Review**
- **A closer look at PureFlex System and Flex System**
- **Cloud Enablement**
- **ISV expertise**

## Which issues does IT organization face today?

- Maintaining uptime is unrelenting – customers have no tolerance for downtime
- Difficulty taking solutions and putting them in a secure, multi-tenant infrastructure
- Lack of consistency across their infrastructure, having to bridge the gaps
- Shrinking margins on traditional, non-cloud IT managed services
- Traditional licensing doesn't work for me, it doesn't fit my business model
- Lack of marketing know-how and resources, including staff and budget

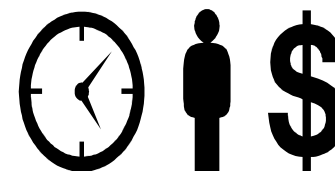


# Simplifying the entire IT project lifecycle.



*Expert Integrated System*

*Reduced Time, Cost and Risk*



**Built for Cloud**

**Clean slate design**

**Patterns of expertise**

**Optimized for data**

**Scale-in Architecture**

**Integrated management**

**PureSystems**



# PureSystems

- Integration by Design
- Built-In Expertise
- Simplified Experience

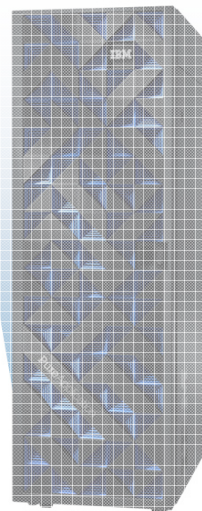
## PureFlex



Infrastructure

*Delivering Cloud  
Infrastructure Services*

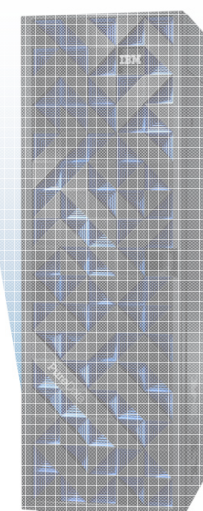
## PureApplication



Application Platform

*Delivering Cloud Application  
Platform Services*

## PureData

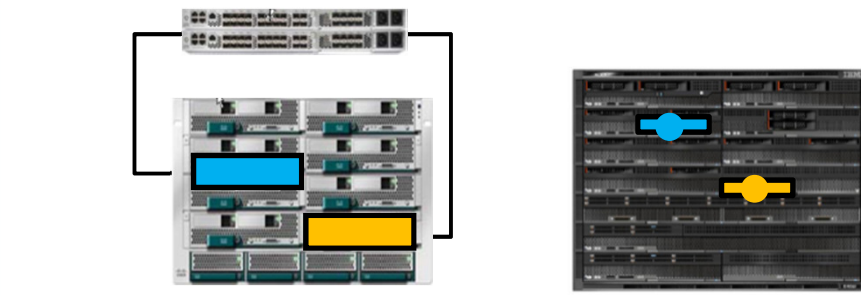
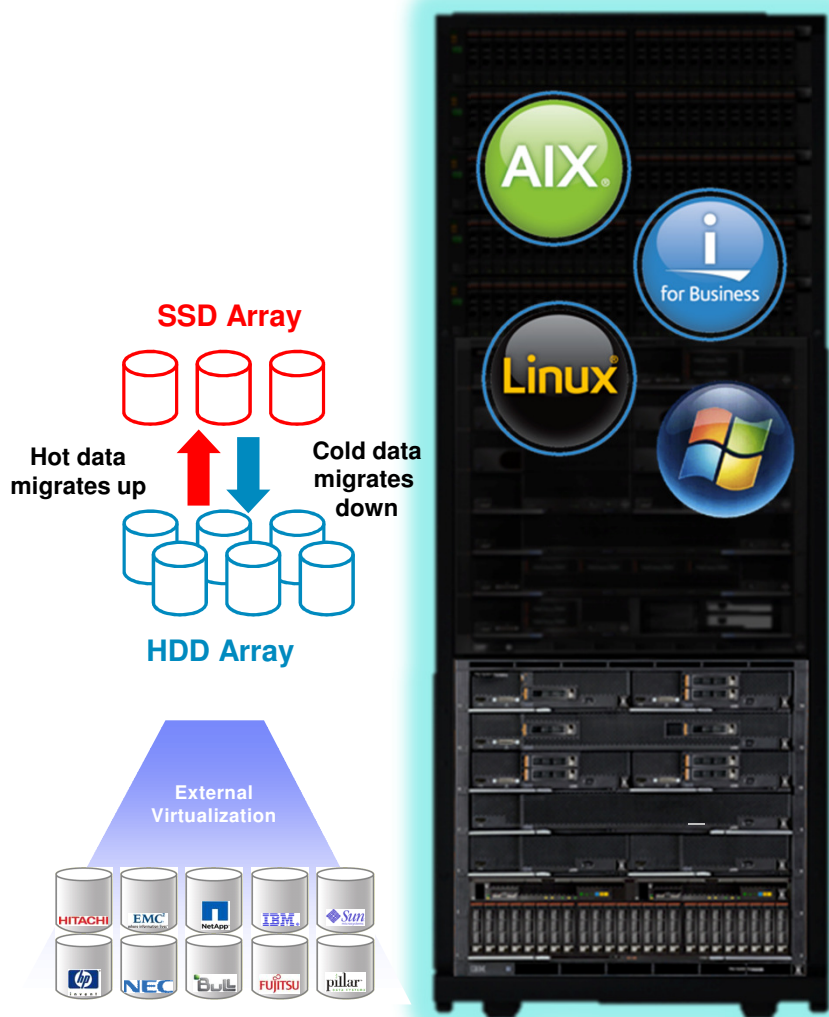


Data Platform

*Delivering Big Data  
Platform Services*

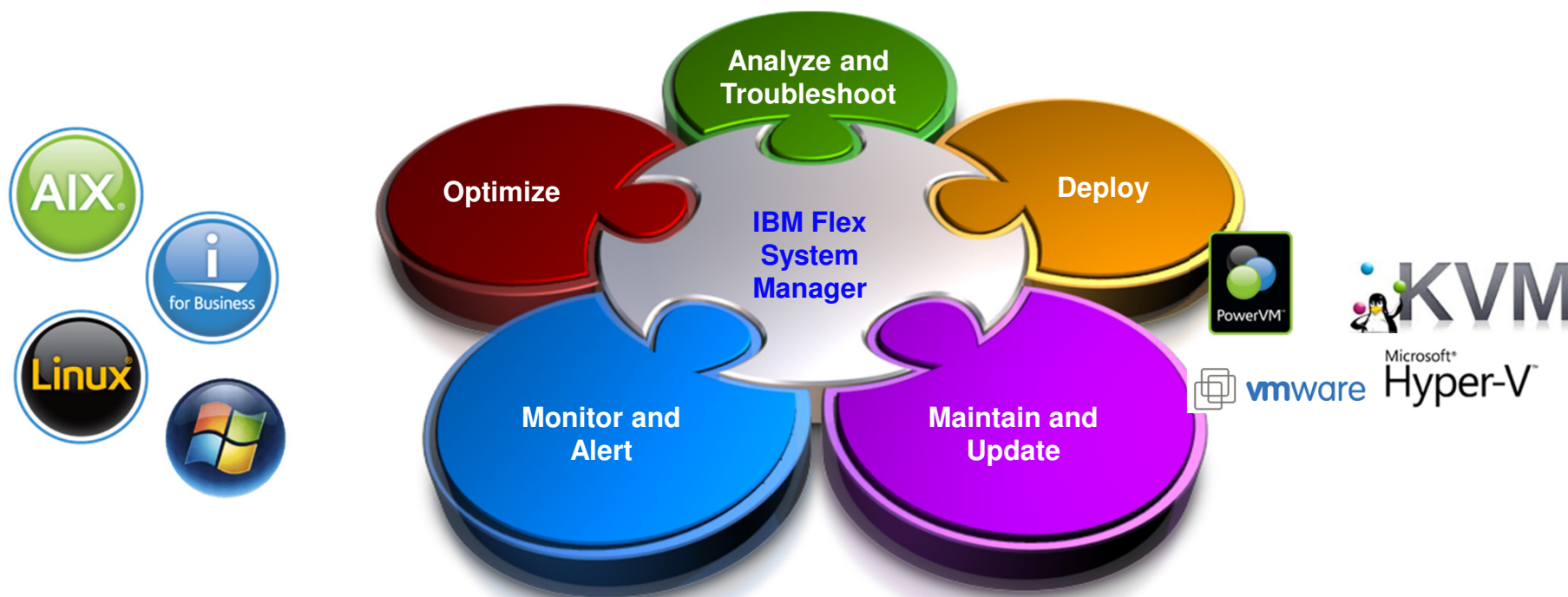
# What's inside?

No compromise designs for full performance





# IBM PureFlex System



Secure

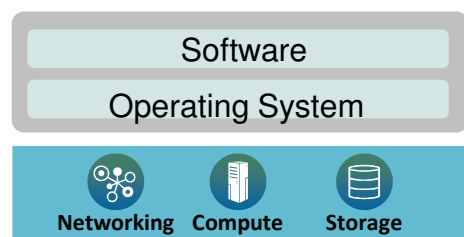
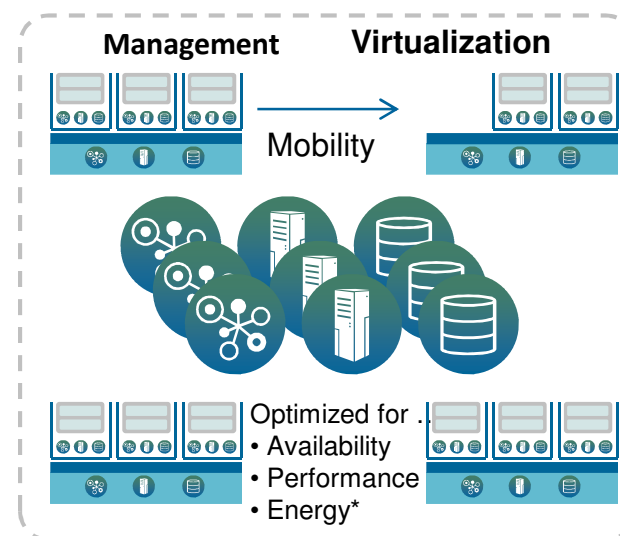
Easy to Use

Integrated

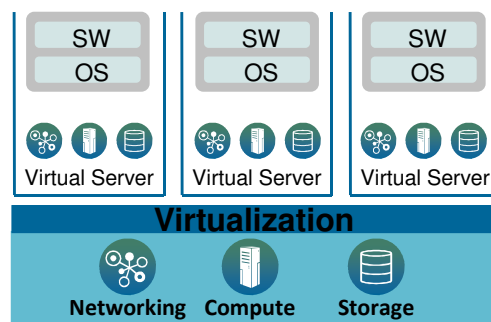
# Advanced virtualization

*Expertise through resource pooling and policies*

- **Manage Services** instead of components
- **System Pools:** resources acted upon as a group
- **Automatic** virtual machine placement & optimization
- **Policy optimized** performance, utilization or energy pooling



**Systems**



**Virtual Systems**

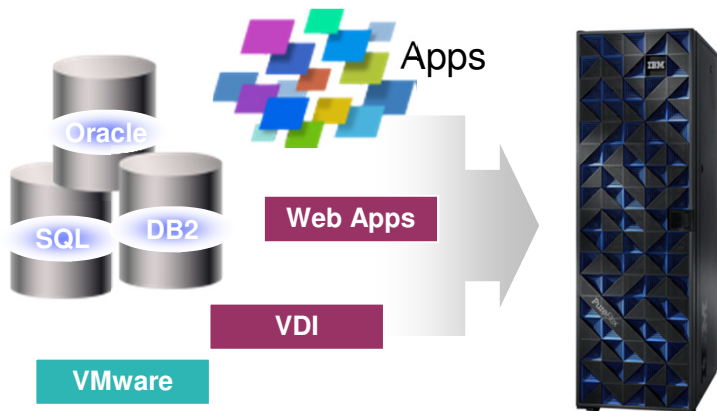
Manage a pool of system resources or a cloud as simply as managing a single system

**System Pools / Cloud**

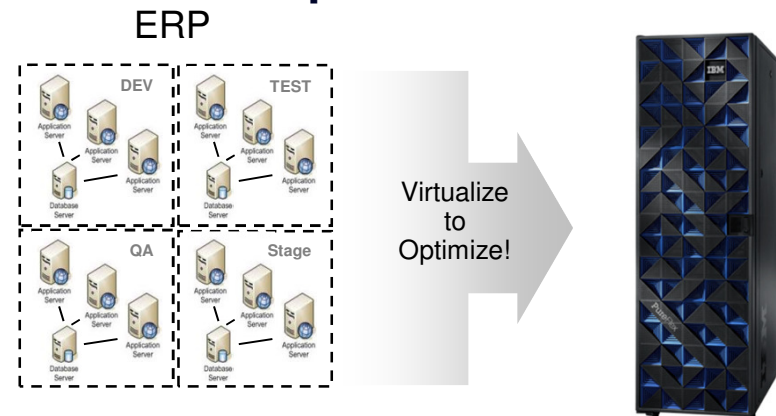


# Client Cases

## Consolidate



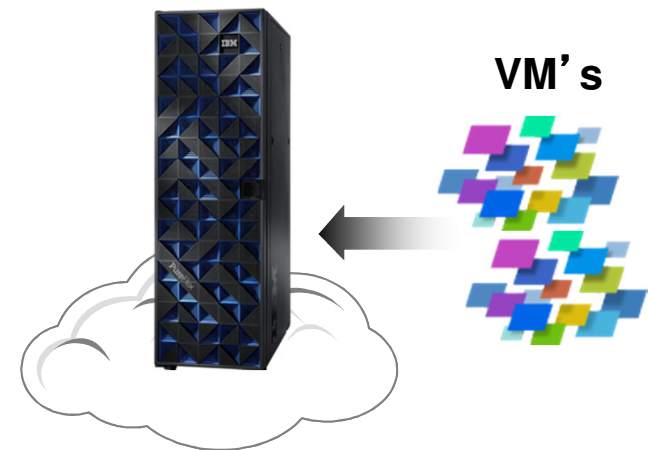
## Optimize



## Innovate



## Cloud





# PureSystems Centre – Broad Open Ecosystem

## IBM PureSystems Centre:

- Gain access to a broad community of IBM and certified partner expertise
- Download optimized, deployable application patterns from 275 leading ISV partners
- Search by solution area, industry or system

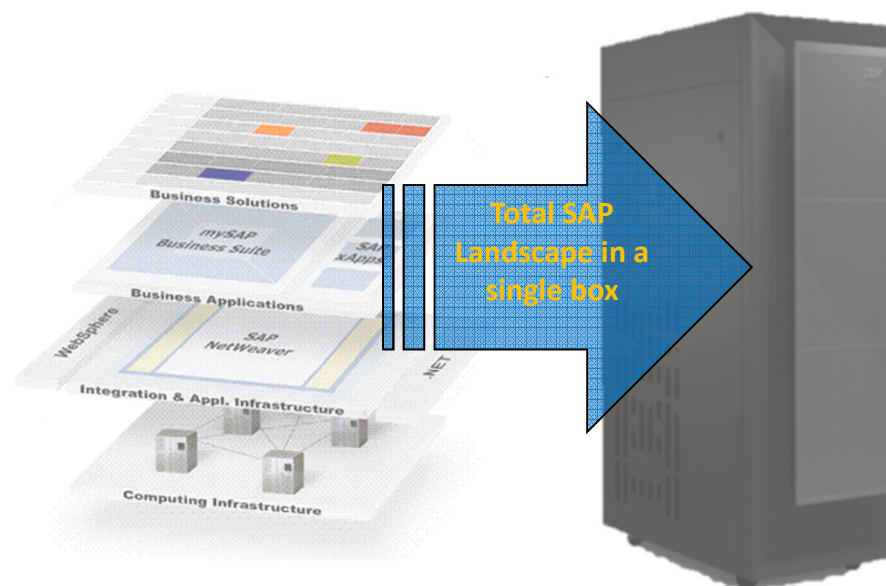


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# How Does IBM PureSystems inject SAP Expertise



- **Compactness and Consolidation**
- **Flexibility and Simplicity**
- **Agility to drive business velocity**
- **Control that provides a better experience**



# Expanding IT Management to SAP Application Management

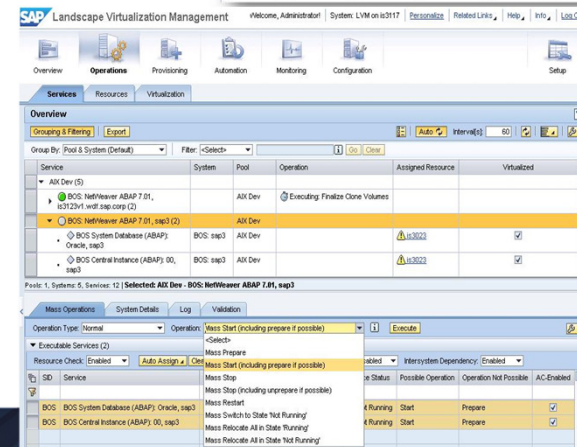
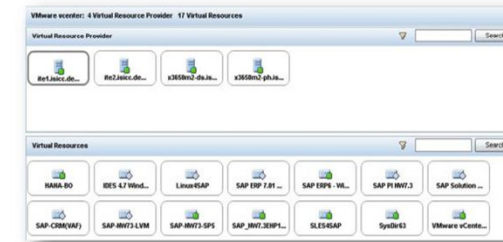
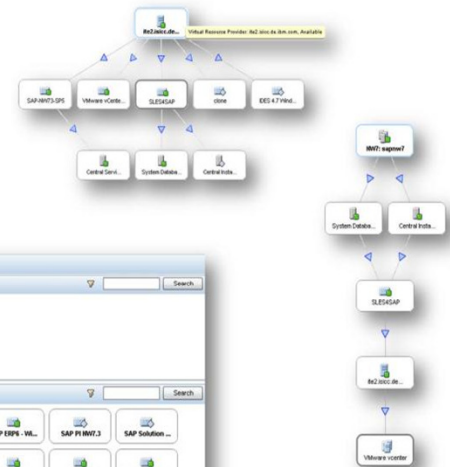
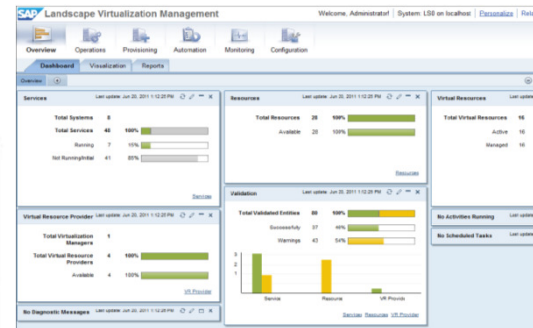
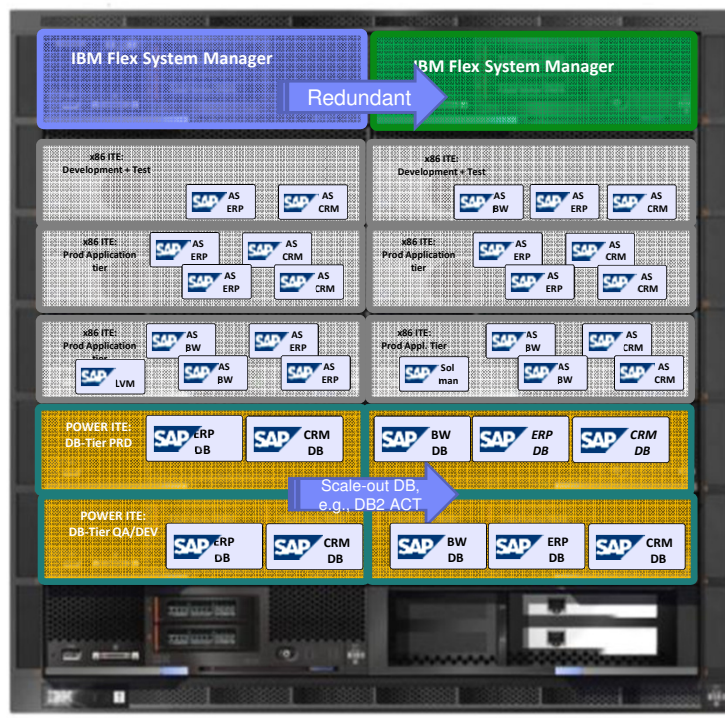
## PureSystem platform Integration with SAP Landscape Virtualization Management

- Improve collaboration
- Maintain transparency
- Functional integration
- Service automation
- Excellent Integration





# Deployment Case: SAP DB Tier on Power ITE and Application Tier on x86 ITE



# Simplifying cloud

## Cloud infrastructure and application platforms

### PureFlex



- Virtual servers
- Managed storage
- Backup/disaster recovery
- Image catalog and lifecycle management

Cloud Infrastructure

### PureFlex

- Days to minutes for virtual machine deployment time<sup>1</sup>
- 72% lower systems costs over 3 years<sup>2</sup>
- VDI reference architectures

Cloud Infrastructure (IaaS)

1. Based upon comparisons to previous generation blade servers. Specific client environments and results may vary.  
 2. Based on IBM Research and Development testing estimating common user environments and manual tasks of selecting server for hosting the vm, allocating storage and networking resources and the virtual machine, compared with PureFlex System achievement of these tasks with existing resource pools. Specific client environments may vary.  
 3. Estimate based upon the PureFlex System Consolidation Tool leveraging the 3<sup>rd</sup> party ALINEAN methodology. Specific client environments and results may vary.



# Leveraging built-in expertise for cloud

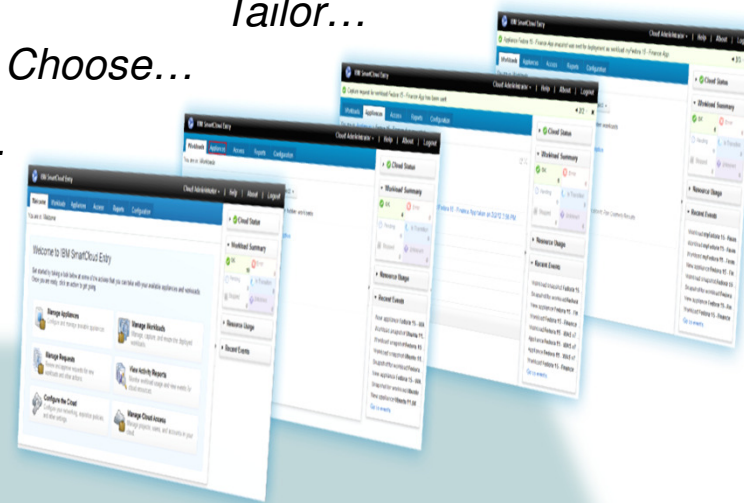
Deploy Workload...

Simple, Rapid Deployment

Tailor...

Choose...

SmartCloud Entry...



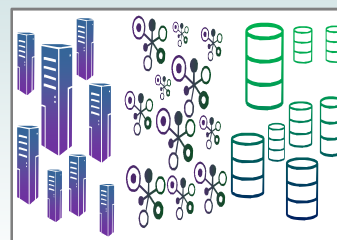
Leveraging Built-in Expertise



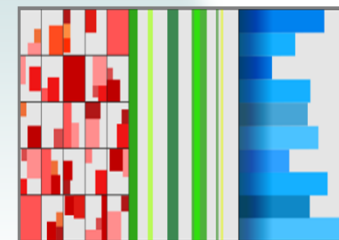
*Image Library of Available Workloads*



*System Pools*



*Policy Driven Optimization with Built-in Expertise*



PureFlex

IBM SolutionsConnect 2013



# SmartCloud Entry 4 Click Deploy

The screenshot shows the IBM SmartCloud Entry interface. The top navigation bar includes 'Workloads', 'Appliances' (highlighted with a red box), 'Access', 'Reports', and 'Configuration'. Below the navigation, there are buttons for 'Capture', 'Start/Stop', 'Hide/Show', 'Delete', and 'Move To Project'. A filter section shows 'Project: All Projects' and 'Architecture: All Architectures'. A table lists four appliances, all with a status of 'OK'.

Name	Status	Architecture	Description
Fedora 15	OK	x86	...
Ubuntu 11.04 with IDE	OK	x86	...
Windows 7	OK	x86	...
Windows 7- IDE	OK	x86	...

On the right side, there is a 'Cloud Status' section showing a summary of workload states: 4 OK, 0 Error, 0 Pending, 0 In Transition, 0 Stopped, and 0 Unknown. Below this is a 'Recent Events' list with several entries related to appliance snapshots and new appliance creation.



# SmartCloud Entry 4 Click Deploy

The screenshot shows the IBM SmartCloud Entry interface. The 'Appliances' tab is highlighted in the top navigation bar. Below the navigation bar, there are buttons for 'Capture', 'Start/Stop', 'Hide/Show', 'Delete', and 'Move To Project'. A search bar shows 'Project: All Projects' and 'Architecture: All Architectures'. A table lists several appliances, all with a status of 'OK':

Name	Status	Architecture	Description
Fedora 15	OK	x86	...
Ubuntu 11.04 with IDE	OK	...	...
Windows 7	OK	...	...
Windows 7- IDE	OK	x86	...

On the right side of the interface, there is a sidebar with sections: 'Cloud Status', 'Workload Summary', 'Resource Usage', and 'Recent Events'. The 'Workload Summary' section shows a table of status counts:

Status	Count	Status	Count
OK	4	Error	0
Pending	0	In Transition	0
Stopped	0	Unknown	0

The 'Recent Events' section lists several events, including 'New appliance Fedora 15 - WA...', 'Workload snapshot Ubuntu 11...', and 'New appliance Ubuntu 11.04 ...'. A 'Go to events...' link is at the bottom of this section.

A callout box with a green border and a green arrow pointing to the 'Appliances' tab contains the text: **1. Click Appliances Tab**

# SmartCloud Entry 4 Click Deploy

IBM SmartCloud Entry Cloud Administrator | Help | About | Logout

✓ Capture request for workload *Fedora 15 - Finance App* has been sent. ◀ 2/2 ▶ ✕

**Workloads** | **Appliances** | Access | Reports | Configuration

You are in: *Appliances*

Project: Public | Architecture: All Architectures | Delete | Move To Project

🔍 | 1-5 of 5

<input type="checkbox"/> Name ▲	Status	Version	Architecture	Description
<input type="checkbox"/> <b>Fedora 15 - Finance App</b>	✓ OK	...	x86	Appliance created as a snapshot of workload Fedora 15 - Finance App taken on 2/2/12 3:58 PM.
<input type="checkbox"/> MyApp on SUSE Image	✓ OK	1.0	x86	My application running on SUSE 10.
<input type="checkbox"/> Ubuntu 11.04 with IDE	✓ OK	...	x86	Appliance created as a snapshot of workload Ubuntu 11.04 with IDE taken on 2/2/12 2:51 PM.
<input type="checkbox"/> Ubuntu 11.04 with IDE	✓ OK	...	x86	Appliance created as a snapshot of workload Ubuntu 11.04 with IDE taken on 2/2/12 2:51 PM.
<input type="checkbox"/> Windows 7	✓ OK	...	x86	Appliance created as a snapshot of workload Windows 7 taken on 2/2/12 2:50 PM.

Show: 10 | 20 | 50 | All items

**2. Click Desired Appliance**

▶ **Cloud Status**

▼ **Workload Summary**

✓ OK	5	✕ Error	0
⌚ Pending	0	⌚ In Transition	0
⏹ Stopped	0	⚠ Unknown	0

▶ **Resource Usage**

▼ **Recent Events**

- Workload snapshot **Fedora 15** ..
- Snapshot for workload **Fedora** ..
- New appliance **Fedora 15 - Fin** ..
- Workload **Fedora 15 - Finance** ..
- Workload **Fedora 15 - WAS v7** ..
- Appliance **Fedora 15 - WAS v7** ..
- Appliance **Fedora 15 - WAS v7** ..
- Workload **Fedora 15 - Finance** ..

[Go to events...](#)

# SmartCloud Entry 4 Click Deploy

IBM SmartCloud Entry Cloud Administrator | Help | About | Logout

✓ Capture request for workload *Fedora 15 - Finance App* has been sent. 2/2 x

Workloads **Appliances** Access Reports Configuration

You are in: [Appliances](#) > *Fedora 15 - Finance App snapshot*

**Deploy** Configure

**Fedora 15 - Finance App**

State: ✓ OK

Description: Appliance created as a snapshot of workload *Fedora 15 - Finance App* taken on 2/2/12 3:58 PM.

Project: Public [Move To Project](#)

Last modified: Today 3:58 PM

Version:

Specification version:

Revision comments:

Logs: [VMControl] Image captured.

Close

**3. Click Deploy**

**Cloud Status**

**Workload Summary**

✓ OK	5	✗ Error	0
⌚ Pending	0	⌚ In Transition	0
⏹ Stopped	0	⚠ Unknown	0

**Resource Usage**

**Recent Events**

- Workload snapshot *Fedora 15 - Finance App* taken on 2/2/12 3:58 PM.
- Snapshot for workload *Fedora 15 - Finance App* taken on 2/2/12 3:58 PM.
- New appliance *Fedora 15 - Finance App* taken on 2/2/12 3:58 PM.
- Workload *Fedora 15 - Finance App* taken on 2/2/12 3:58 PM.
- Workload *Fedora 15 - WAS v7* taken on 2/2/12 3:58 PM.
- Appliance *Fedora 15 - WAS v7* taken on 2/2/12 3:58 PM.
- Appliance *Fedora 15 - WAS v7* taken on 2/2/12 3:58 PM.
- Workload *Fedora 15 - Finance App* taken on 2/2/12 3:58 PM.

[Go to events...](#)

# SmartCloud Entry 4 Click Deploy

IBM SmartCloud Entry Cloud Administrator | Help | About | Logout

✓ Capture request for workload *Fedora 15 - Finance App* has been sent. 2/2 x

Workloads | **Appliances** | Access | Reports | Configuration

You are in: Appliances > Fedora 15 - Finance App snapshot > Deploy

Deploying *Fedora 15 - Finance App*

\*Name: myFedora 15 - Finance App

Description: Application to Run Quarterly Results

Project: Public New Project

Expiration Period  Set an expiration date

**Basic Settings**

CPU: 1

RAM: 512

**Deploy** Save Cancel

Enter Information &  
**4. Click Deploy**

Cloud Status

Workload Summary

OK	5	Error	0
ending	0	In Transition	0
opped	0	Unknown	0

Resource Usage

Recent Events

- New appliance Fedora 15 - Fin...
- Workload snapshot Fedora 15 ..
- Snapshot for workload Fedora ..
- New appliance Fedora 15 - Fin...
- Workload Fedora 15 - Finance ..
- Workload Fedora 15 - WAS v7 ..
- Appliance Fedora 15 - WAS v7 ..
- Appliance Fedora 15 - WAS v7 ..

[Go to events...](#)

# SmartCloud Entry 4 Click Deploy

IBM SmartCloud Entry Cloud Administrator | Help | About | Logout

✓ Appliance *Fedora 15 - Finance App* snapshot was sent for deployment as workload *myFedora 15 - Finance App*. ◀ 3/3 ▶ ✕

**Workloads** | Appliances | Access | Reports | Configuration

You are in: *Workloads*

Project:  Architecture:   Include hidden workloads

🔍 | 1-5 of 5

Name ▲	Status	Architecture	Description
<input type="checkbox"/> Fedora 15	✓ OK	x86	...
<input type="checkbox"/> Ubuntu 11.04 with IDE	✓ OK	x86	...
<input type="checkbox"/> Windows 7	✓ OK	x86	...
<input type="checkbox"/> Windows 7- IDE	✓ OK	x86	...
<input type="checkbox"/> <b>myFedora 15 - Finance App</b>	✓ OK	x86	...

Show: 10 | 20 | 50 items

Deployed!!

▶ ✓ **Cloud Status**

▼ **Workload Summary**

✓ OK	6	✕ Error	0
⌚ Pending	0	⌚ In Transition	0
⏹ Stopped	0	⚠ Unknown	0

▶ **Resource Usage**

▼ **Recent Events**

- Workload myFedora 15 - Finan..
- Workload myFedora 15 - Finan..
- Workload myFedora 15 - Finan..
- New appliance Fedora 15 - Fin..
- Workload snapshot Fedora 15 ..
- Snapshot for workload Fedora ..
- New appliance Fedora 15 - Fin..
- Workload Fedora 15 - Finance ..

[Go to events...](#)



# IBM SmartCloud Entry for SAP on PureFlex System

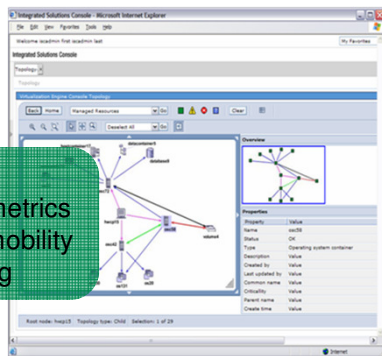
IT ADMIN



SAP BASIS

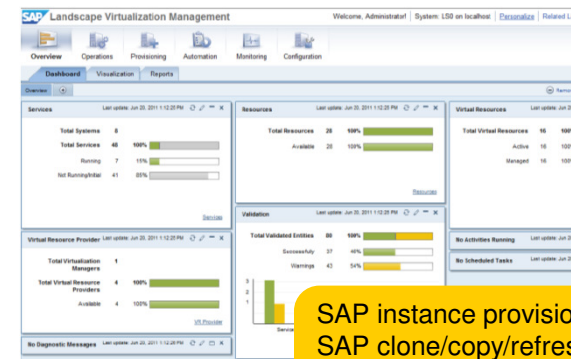
*Integrated Application and Infrastructure Management*

## IBM Flex System Manager

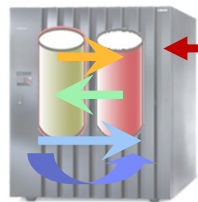


Topology view  
Virtualization metrics  
Live partition mobility  
OS provisioning

## SAP Landscape Virtualization Management

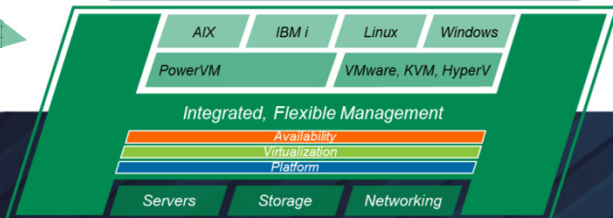


SAP instance provisioning  
SAP clone/copy/refresh  
SAP rename  
SAP post-copy automation



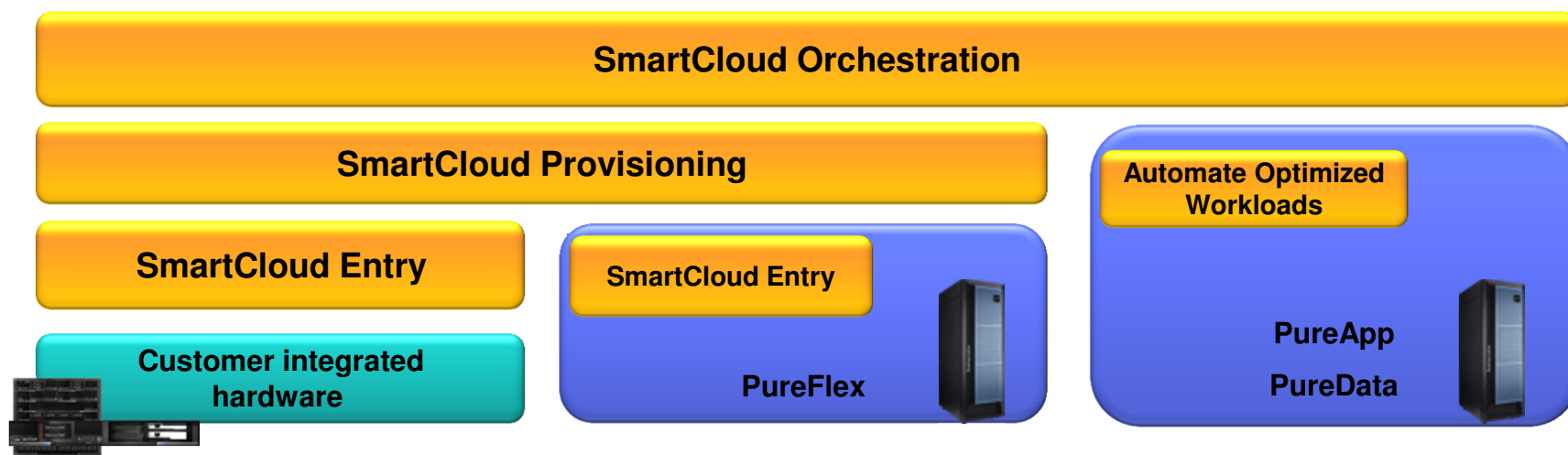
IBM Tivoli Storage  
FlashCopy Manager

Database / storage cloning





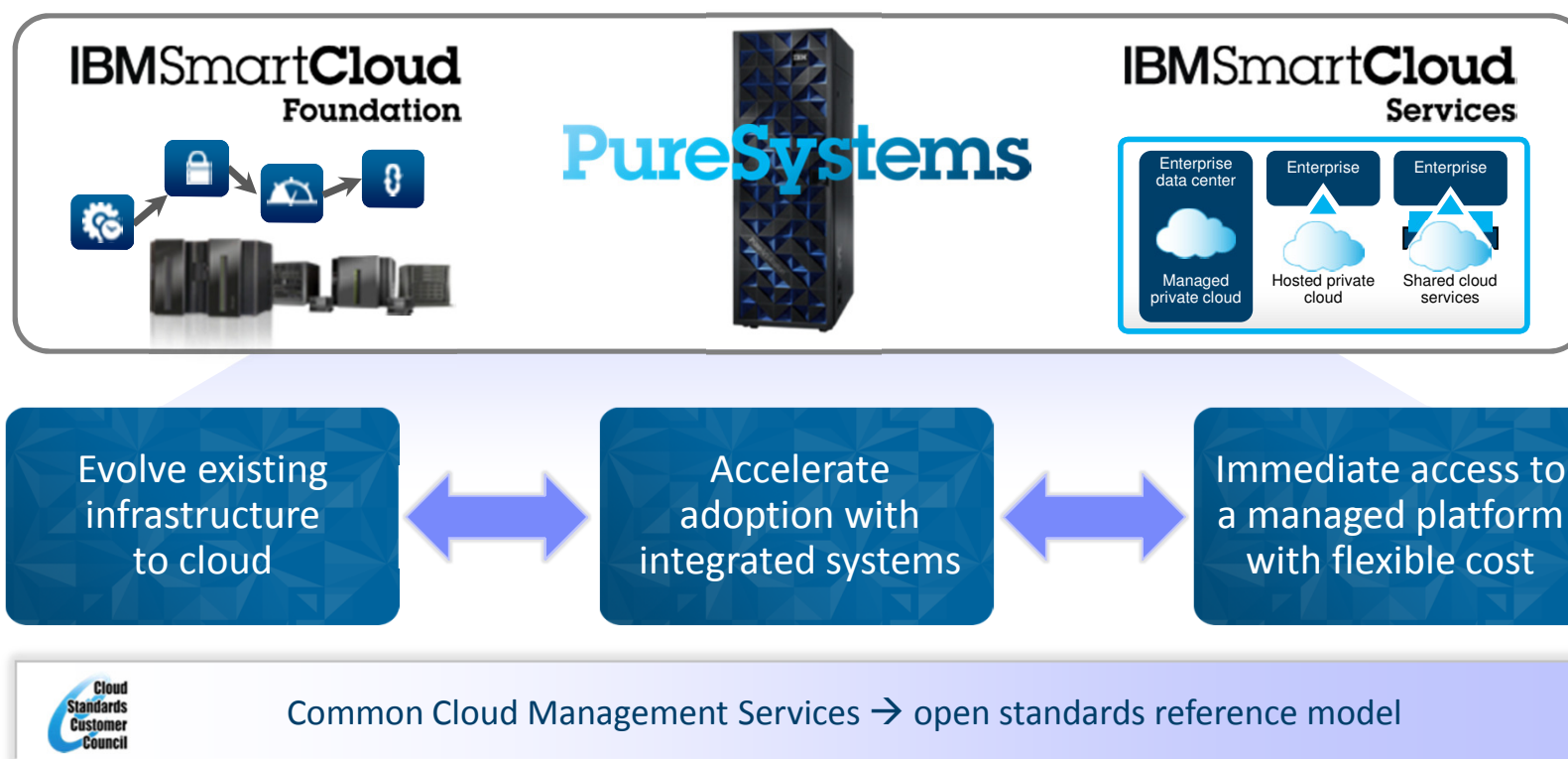
# Smart Cloud Solutions and PureSystems





# IBM PureSystems family is built for cloud

Flexible deployment options with IBM SmartCloud







# Simplifying cloud: client example

## AXIANS

### Deploying a cloud-ready platform for a fast-changing market

#### The need:

AXIANS, an ICT services provider based in the Netherlands, recognized a shift in the market from traditional reselling towards cloud-based hosting services, and decided to respond by adapting its business model. To do so, the company needed a cloud-ready, flexible computing platform with low management requirements.

#### The solution:

By selecting the IBM® PureFlex™ System, delivered with pre-integrated compute, storage, networking and management components, AXIANS gained a comprehensive cloud-ready hosting platform from a single vendor. The company deployed Intel-based IBM Flex System™ x240 compute nodes, with the option to add IBM POWER® processor architecture in the future within the same chassis, to meet varied customer needs.

#### The benefit:

- Cuts the time needed to provision new environments by 30 percent, speeding time-to-market and boosting client satisfaction.
- Minimizes management time, allowing employees to focus on adding value through the human dimension – a key company ethos.
- Offers easy scalability and fast deployment, helping AXIANS move fast on new business opportunities.

*“Our confidence in the roadmap for IBM PureFlex in the coming years, combined with its scalable, easy-to-deploy design has truly made it AXIANS’ platform for the future.”*

*— Hans Mekking, Business Unit Manager, AXIANS Eindhoven*

#### Solution components:

- IBM® PureFlex™ System
- IBM Systems Lab Services





# Thank you



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# Service providers adopting PureFlex Systems

**T-Systems transforms its Innovation Center with IBM PureSystems**



The **T-Systems** Innovation Center was dedicated NetApp FlexPod and VMware vBlock on Cisco UCS and will now be powered by IBM PureSystems technology.

T-Systems was unable to address its customers' more sophisticated demands because its existing Cisco infrastructure could not address requirements for high-scale applications due to limitations around CPU, bandwidth and RAM. The company needed an optimized and integrated solution - one that could operate on a small footprint in a standard rack, plus contain all management for the hardware in a single module.

**BinHexS S.r.l. reduces time to market by 50% with IBM PureFlex System**



In the past, **BinHexS** was unable to justify the expense of adding a new platform for only one customer. With PureSystems, the client can provide a single customer with services based on new platforms because of the efficiencies allowed by the cloud computing functionality.

The company's IT environment was becoming difficult to manage, with separate servers running three different platforms. In order to meet its service level agreements, BinHexS had to staff its data center with a skilled technician for each platform. The requirement to have three IT administrators available at all times was too costly. BinHexS needed to consolidate the systems in its data center onto one easy-to-manage platform.

**Logista anticipates reduced time to market from 1 month to 5 days with IBM PureFlex**



The ASL software bundling allowed **Logista** to purchase enterprise class software at an affordable price. IBM SmartCloud Provisioning software and the VMware hypervisor tool work together to facilitate rapid deployment of cloud resources, helping Logista satisfy both internal and customer high-availability requirements.

Logista is an IBM Business Partner but has been leading with HP for over a decade. To support its partnership with Retirement Services of Alabama on a new data center, Logista was looking to implement a cloud services infrastructure to enable commercial contracts. The company needed a solution that not only met its current needs but also those of the future.