IBM PureApplication System

A new Expert Integrated System

Manny Arino, Especialista Worldwide en
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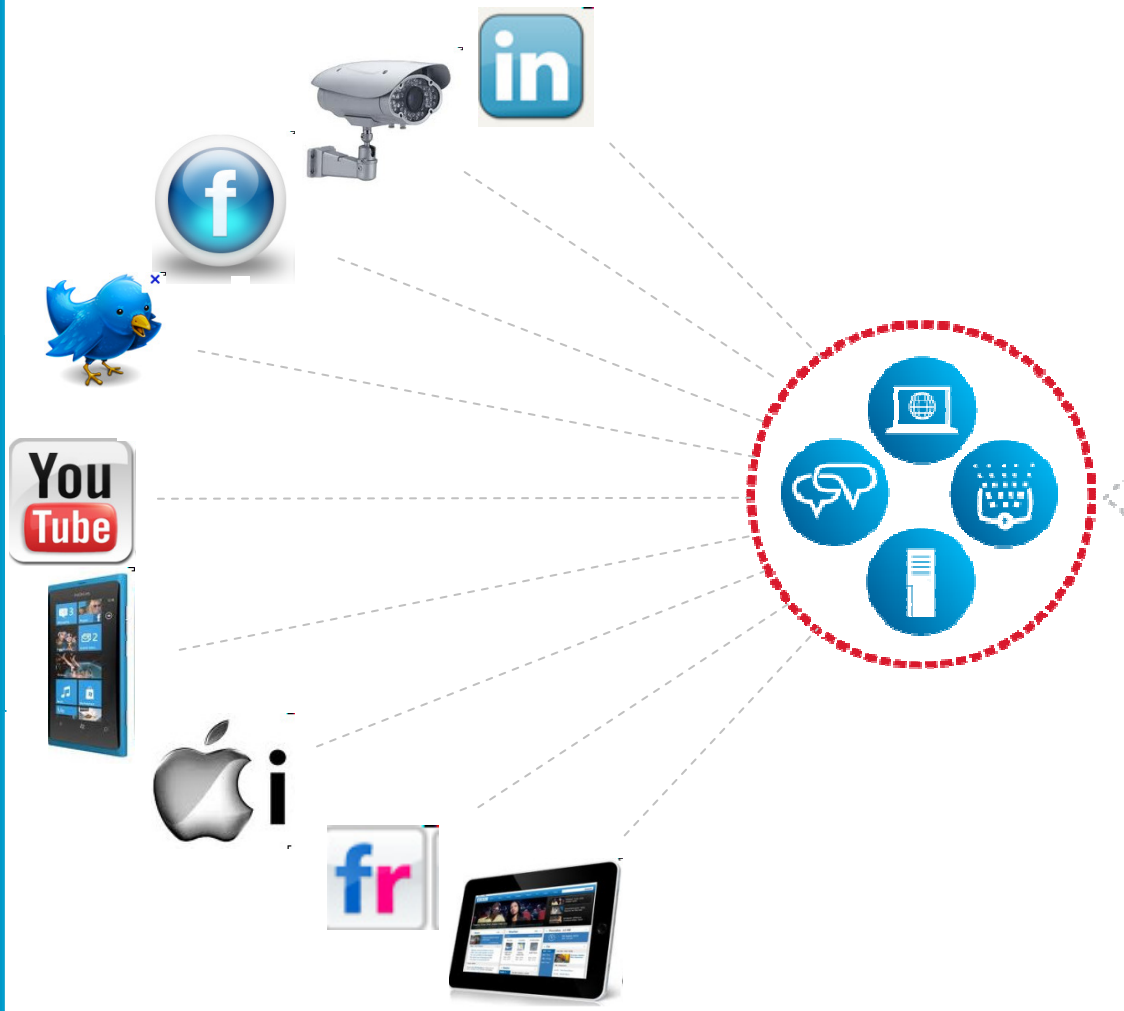
On a Smarter Planet, technology innovation redefines industries

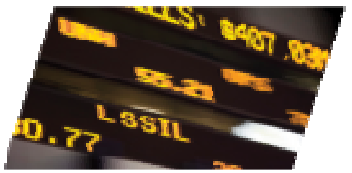


Law Enforcement

Fraud Prevention

Traffic Control

Trading



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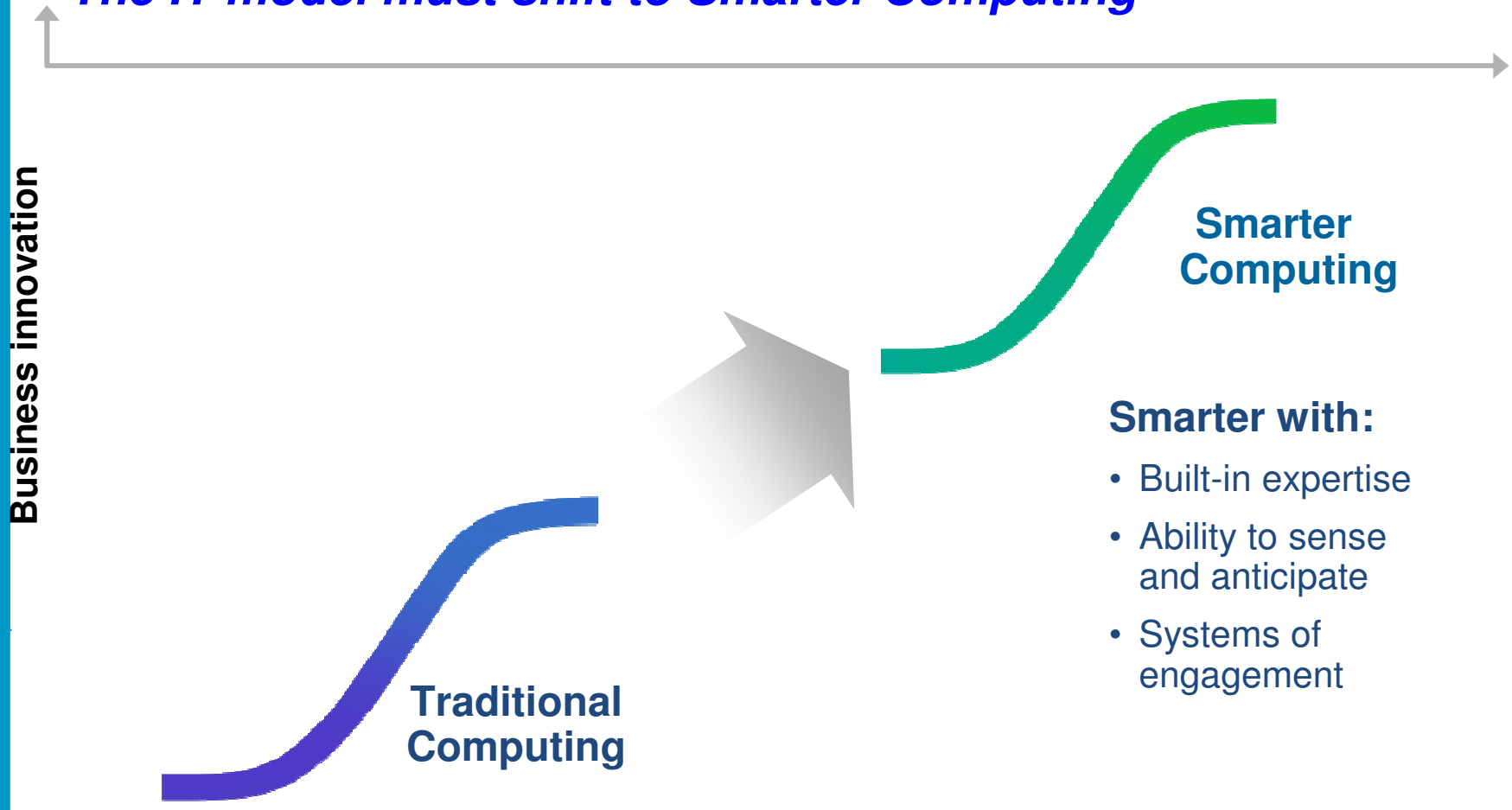
As Technology moves to the strategic center of business

The IT model must shift to Smarter Computing



Smarter with:

- Built-in expertise
- Ability to sense and anticipate
- Systems of engagement

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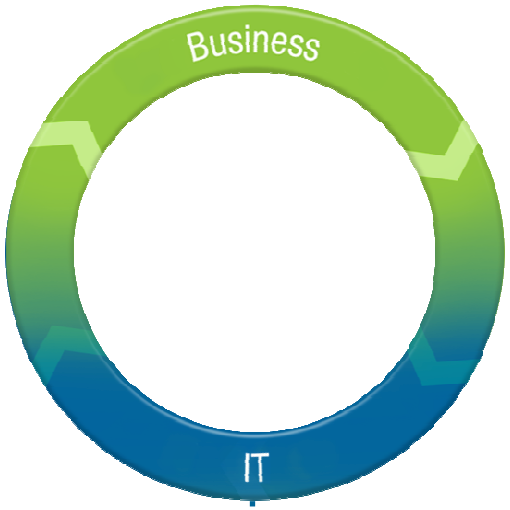
IT must break through budget and resource barriers

Aligning IT and business goals

Business Goals

Grow top and bottom line by:

- Driving business innovation
- Make new markets
- Respond to competitive threats
- Enhance the customer experience



IT Reality

Getting Up and Running

- 2-3 months to specify and procure
- 2-3 months to integrate, configure and deploy

Development Operations

- 3-6 months to go from development to production

Ongoing Effort

- 1-3 months to troubleshoot and tune
- Ongoing effort and downtime to maintain, scale and upgrade

Typical Results:

- 34% of new IT projects (US) deploy late
- 55% experience application downtime for major infrastructure upgrades once deployed

From a commissioned study conducted by Forrester Consulting on behalf of IBM

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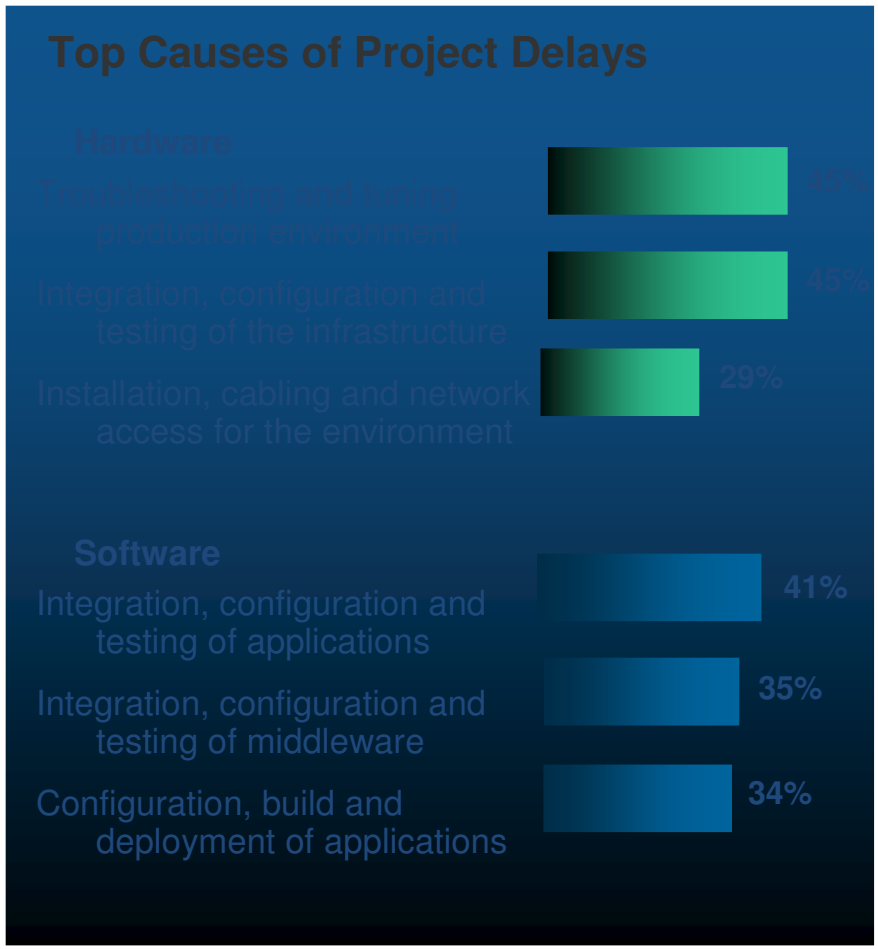
Clients struggle to overcome barriers of time, cost and risk

Typical IT Project Time and Budget

Phase	Time (days)	Budget
Specify/design	73 - 96	14% - 16%
Procure	57 - 112	19% - 21%
Implement	74 – 93	12%
Configure/test	74 – 80	10% - 11%
Cluster & HA	66 – 104	11% - 12%
Backup	44 – 108	10%
Tune	89 – 98	9% - 10%
Management	67 – 110	9 – 10%

Top Causes of Project Delays



34% *of new IT projects (US)* ***deploy late***

From a commissioned study conducted by Forrester Consulting on behalf of IBM

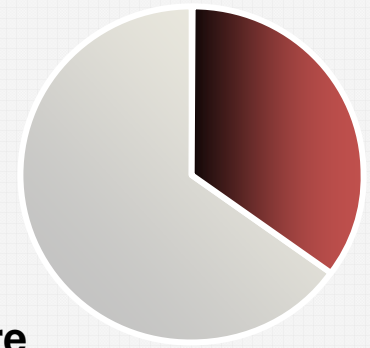
Only 1 in 5 can allocate more than half their IT budget to innovation

Least efficient data centers

Use of new technology:

43% first and fast technology adoption
1% move virtual machines to meet desired outcomes
21% use storage virtualization
3% use a storage service catalog (tiered storage)

Results:

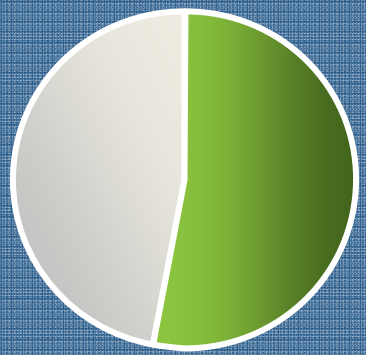


Most efficient data centers

Use of new technology:

86% first and fast technology adoption
58% move virtual machines to meet desired outcomes
93% use storage virtualization
87% use a storage service catalog (tiered storage)

Results



Source: 2012 IBM Data Center Study: www.ibm.com/data-center/study (http://www.ibm.com/data-center/study)

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Clients have tried various approaches to close the gap

	Client-tuned Systems	Appliances	Cloud
Benefits	Flexibility Control	Simplicity Rapid Deployment	Agility Elasticity
Challenges	Time and Expense Required	Single Purpose	Shared Dependence

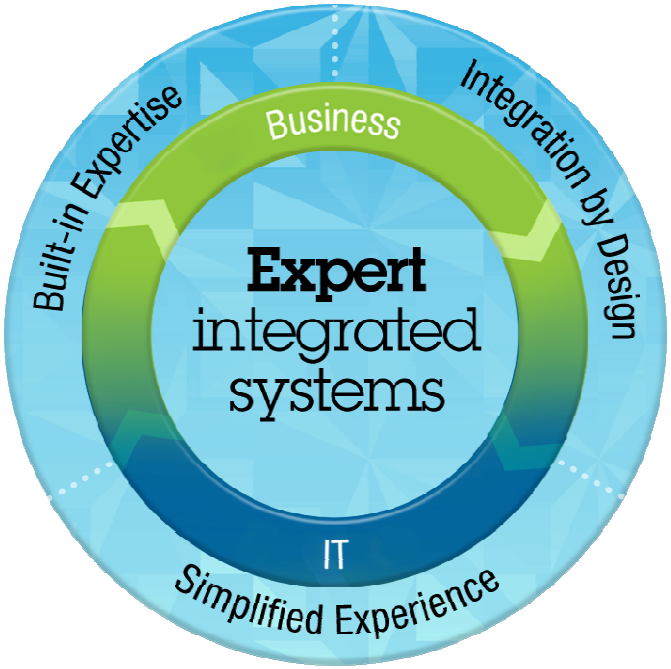
What if you could have the best of all three?

The time has come for a new breed of systems

A system with integrated expertise . . .

Built-in Expertise

Capturing and automating what experts do – from the infrastructure patterns to the application patterns



Integration by Design

Deeply integrating and tuning hardware and software – in a ready-to-go workload optimized system

Simplified Experience

Making every part of the IT lifecycle easier - *with integrated management of the entire system and a broad open ecosystem of optimized solutions*

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IBM PureApplication System: the expert integrated platform system

PureApplication

Built-in Expertise

Patterns of expertise built from decades of experience extend business value

Integration by Design

Resource and workload optimized with complete platform-as-a-service cloud capabilities built-in

Simplified Experience

An open, integrated system enabling business model and ecosystem flexibility with a single pane of glass to manage both the infrastructure and application platform

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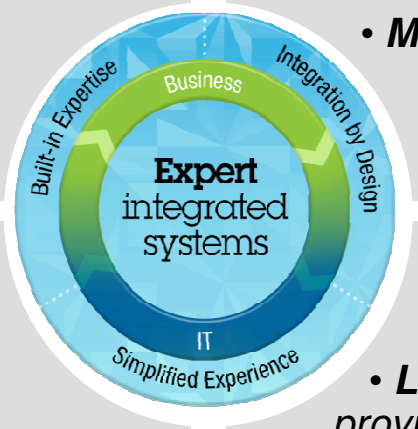
What does it mean for you?

Agility

- ***Get up and running in hours***, *cutting months off deployment time of new application projects.*
- ***Accelerate industry capabilities*** *with solutions from a broad open ecosystem*
- ***Elastically adapt*** *to workload spikes without overbuying*

Efficiency

- *Deploy* ***twice as many applications per square foot*** *of data center space*
- ***Reduce lifecycle maintenance and minimize downtime.***
- ***Manage all physical and virtual resources from a single user interface***



Simplicity

- ***Free up time*** *from procuring, supporting, testing & deploying assets*
- ***Avoid delays*** *due to limited IT skills or complex integration with factory integration and built-in expertise*
- ***Maintain more quickly and easily*** *with integrated system patches*

Control

- ***Lower risk and costs*** *with automated provisioning and seamless scalability with security and resiliency*
- ***Maximize flexibility*** *with choice of architectures, and open standards*
- ***Intelligently manage cloud*** *environments*

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IBM PureApplication System

A Simple, Efficient, Flexible, Virtualized Application Platform

Complete, Ready-to-Go Systems

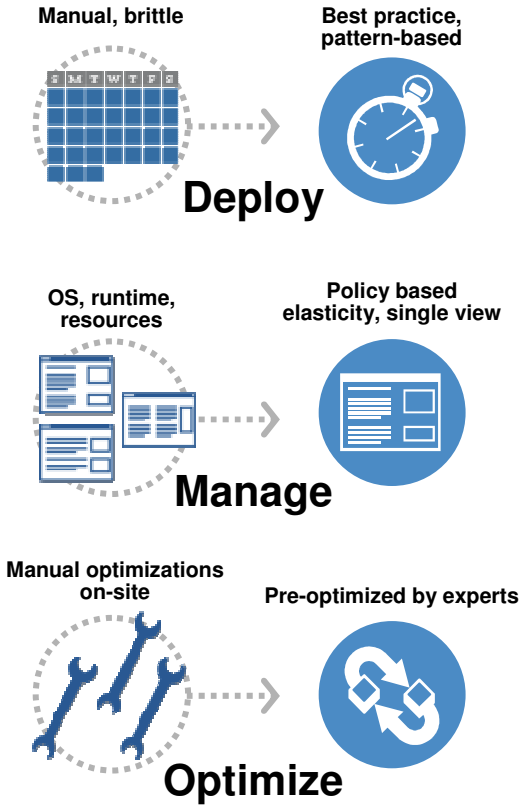
- Pre-integrated, up and running in <4 hours
- Pre-optimized for enterprise application workloads

Simplify Ongoing Tasks

- Single point of platform and application management
- Repeatable self service application provisioning

Built for Cloud

- “Platform as a Service”
- Elastic application runtimes



IBM PureApplication System built in expertise

Patterns of Expertise: Proven best practices and expertise for complex tasks learned from decades of client and partner engagements that are captured, lab tested and optimized and then built into the system

Application Patterns
Available patterns from IBM and Partners

- 100+ ISV business applications
- Business intelligence
- Business process management
- Web experience (Portal)

Available through PureSystems Centre

Platform Patterns
Expertise across the middleware and infrastructure

- Web application deployment
- Database deployment
- Cloud platform management

Infrastructure expertise across the compute resources

- Scalability
- Upgradeability
- Provisioning
- Storage optimization

Built-in with flexibility

Clients have experienced:

20-30 times faster new application deployment

Reduced time to provision from **45** days to minutes

Source: externally published customer case study data for existing capabilities that are include in PureApplication System

IBM PureApplication System integration by design

Optimizes the complete solution stack:

- All hardware and software components factory integrated and optimized
- Virtualized across the stack for efficiency
- Unified management, monitoring & maintenance
- Integrated and elastic application and data runtimes
- Application patterns allocate system and application resources for optimal performance, security and reliability

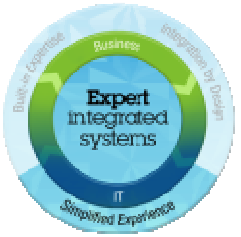
Clients have experienced:

98% fewer unplanned outages

55% reduction required management time

Source: externally published customer case study data for existing capabilities that are include in PureApplication System

IBM PureApplication System simplified experience



New client experience:

- Single product streamlines ordering, tracking, receiving, installing and running
- Factory installed, fully packaged solutions drive simple setup (pull it out of the box, plug it in and boot it up)
- Management integration across system
- Single point of contact for support
- Upgrade with zero downtime based on integrated patches and system design
- PureSystems Centre – an online catalog of applications and patterns.
- A broad open ecosystem of optimized solutions

Up to:

53% Reduction
change management

incident/capacity management
reduced by **57%**

Source: IBM internal study of IBM PureApplication System solution designed to replicate actual IBM customer usage in the marketplace

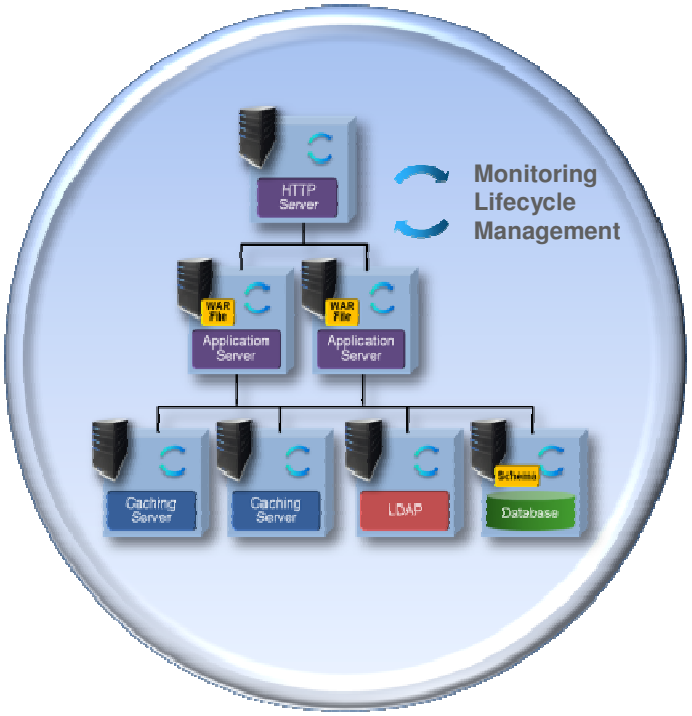
Patterns of Expertise: Proven best practices and expertise for complex tasks learned from decades of client and partner engagements that are captured, lab tested and optimized ***into a deployable form***

What is a Pattern?

- The pre-defined architecture of an application
- For each component of the application (i.e. database, web server, etc)
  - Pre-installation on an operating system
  - Pre-integration across components
  - Pre-configured & tuned
  - Pre-configured Monitoring
  - Pre-configured Security
  - Lifecycle Management

- In a **deployable form**, resulting in **repeatable deployment** with **full lifecycle management**

- **Delivering** superior results:
  - **Agility:** Faster time-to-value
  - **Efficiency:** Reduced costs and resources
  - **Simplicity:** Simpler skills requirements
  - **Control:** Lower risk and errors



Built-in Web Application Pattern delivers proven expertise

Auto Scaling	Managed environments scale up and down based upon business SLAs you specify
Failover	Failed virtual machines are replaced with new VMs which are configured with the old VM's identity
Load Balancing	Web requests are automatically load balanced across multiple virtual application servers
Security	ACL's for application sharing and management access, LDAP integration for application security
Monitoring	All components of virtual application environments are monitored by PureApplication System
Lifecycle Management	Built-in components are pre-configured, tuned, and tested to enable efficient, minimal click deployment and single point of maintenance

Three ways to get the value of patterns of expertise

Add **third-party** application patterns of expertise

Use **IBM** patterns of expertise throughout the system

Capture **your own** expertise:

- Image Construction & Composition Tool allows you to create your own custom virtual images
- Pattern Development Kit allows you to create your own virtual application patterns.
- Capture existing expertise for operating system and middleware installation
- Dynamically combine pre-defined components to build new image packages
- Create a standard VM format in Open Virtual Format

Capture 80% of today's workloads

IBM Confidential to April 11, 2012

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Extensibility from the broadest ecosystem is made easy

New IBM PureSystems Centre:

- Gain access to a broad community of IBM and certified partner expertise
- Download optimized, deployable application patterns from 100+ leading ISV partners
- Search by solution area, industry or system

Also run your existing applications today*

Premier Business Partner

Ready For
PureSystems

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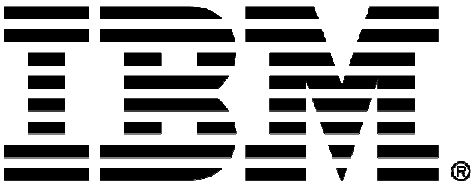
* Unix/Linux and Windows applications

PureExperience: IBM's investment to *prove it*

IBM PureExperience
Offers the following at no charge:

1. On-site installation of PureApplication System and guided demonstration of business value
2. Execution of a 10 day on-site service engagement
3. Use of the PureApplication System for 30 days
4. Lab advocate for usage questions and advice
5. Single point of IBM support and maintenance



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