

L'infrastruttura applicativa WebSphere, 15 anni al servizio delle aziende IT



Agenda:

- Introduction
 - IBM
- The Evolution
 - The IT Evolution
 - From traditional computing to the Cloud
- WebSphere Application Server
 - Application Infrastructure for Web Applications
 - What's new in WAS
- Expert Integrated System
 - IBM PureApplication System





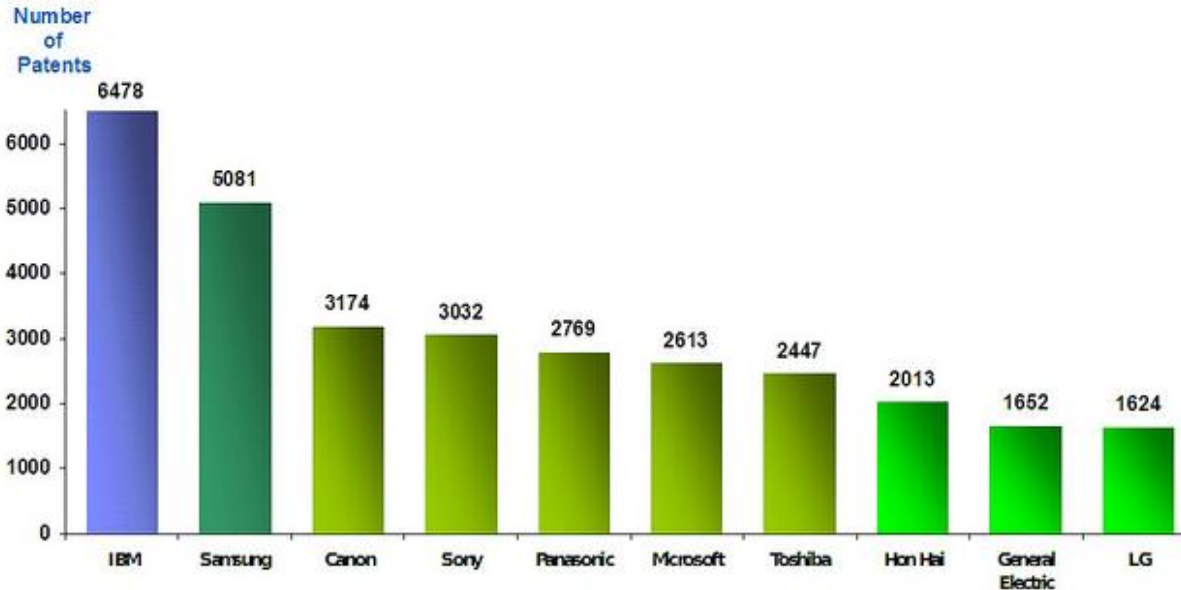
Over the past 100 years, hundreds of millions of IBMers, clients, customers and business partners all over the globe have helped IBM make the world work better.

To every single individual, thank you.

We pledge boldness in IBM's second century to create a company that never stops moving toward the future. *Ever onward.*

In 2012 IBM was awarded the most U.S. patents for the 20th year in a row

- In the last 20 years, IBM inventors received nearly 67,000 U.S. patents
 - IBM's 2012 patent count exceeded the combined totals of Accenture, Amazon, Apple, EMC, HP, Intel, Oracle/Sun, and Symantec
- 6478 patents issued to IBM in 2012 will enable advancements in established and emerging areas, such as analytics, Big Data, cloud and mobile computing, as well as industry solutions for retail, banking healthcare, and more



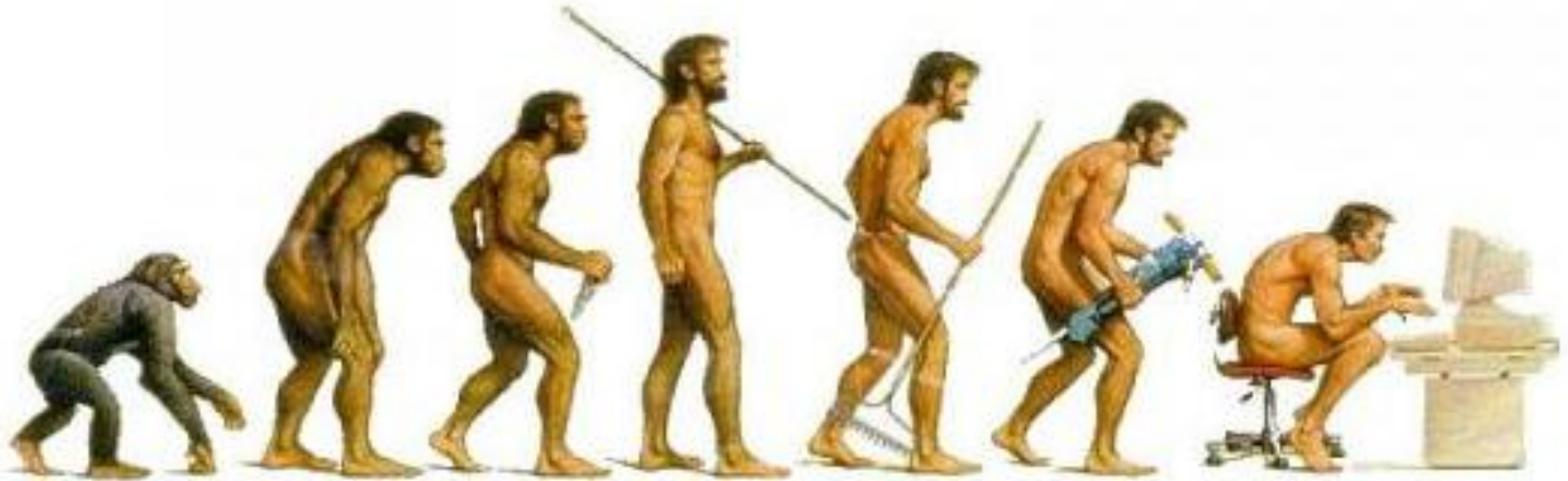
Source:
IFI CLAIMS Patent Services

Agenda:

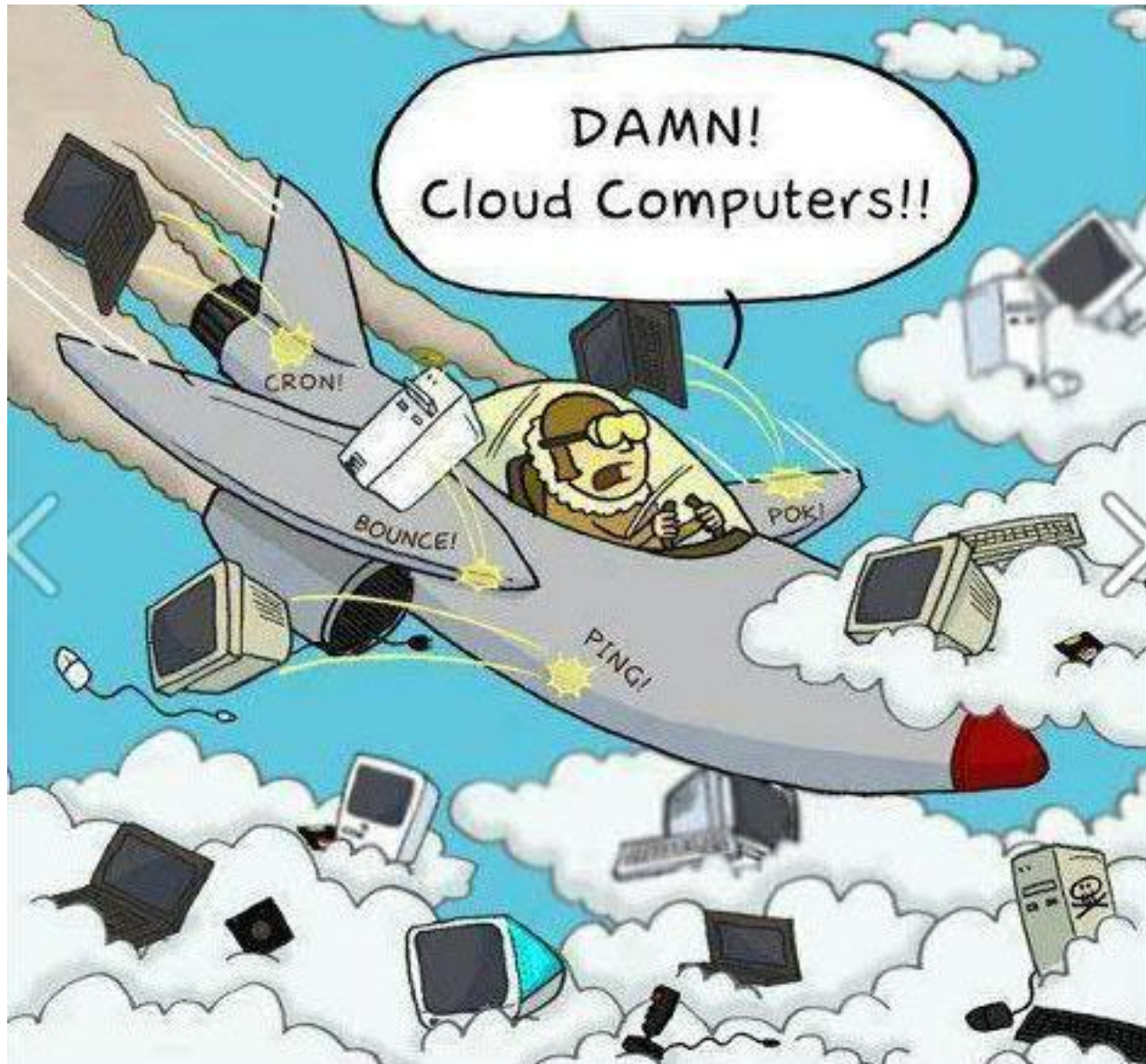
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The Evolution



The IT Evolution



Pressures like workforce mobility and increasing productivity are placing greater demands on IT systems.

Increased expectations

52% CAGR growth in self-service channels

Increased demands

10x growth in digital data from 2007 to 2011.

Increased competition

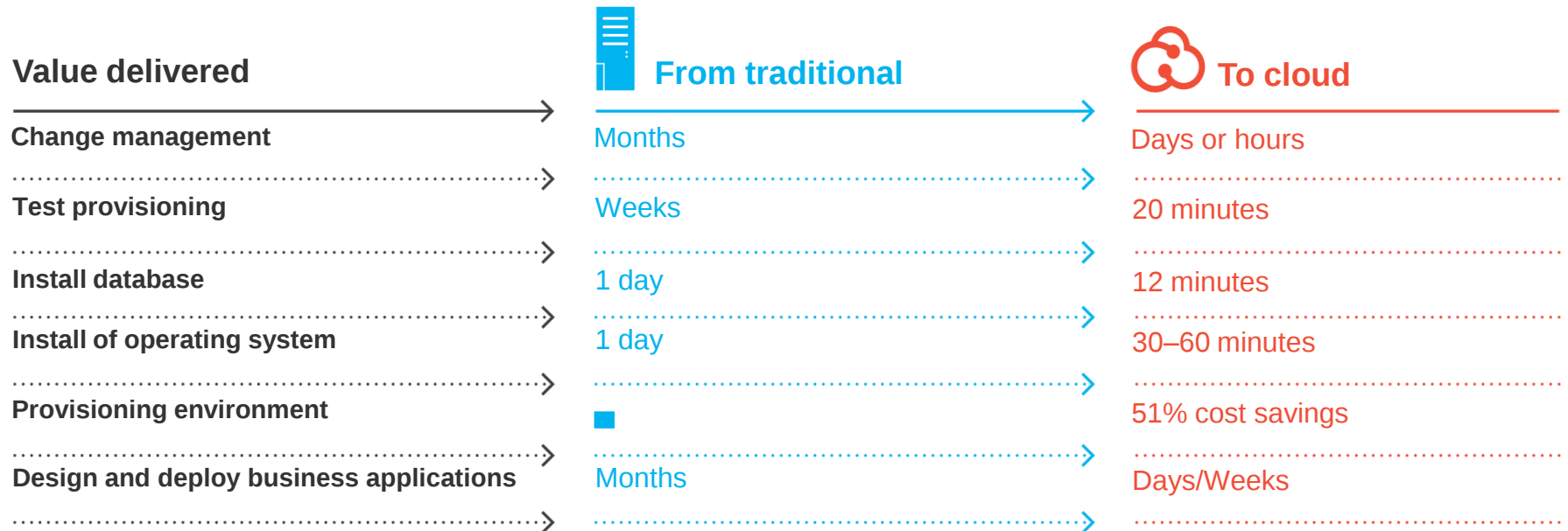
2/10 of the world's largest companies in 2000 remain on that list today.

54%

of surveyed enterprise IT budgets in 2010 were spent on ongoing operations and maintenance costs.*

*Source: Forrester Research, Inc. "2011 IT Budget Planning Guide," October 7, 2010 by Craig Symons

As a result, cloud is an increasingly attractive means of creating and delivering IT services.



Cloud helps business and IT create and deliver value in fundamentally new ways

Deliver IT without boundaries

Enable new IT and business processes that break down traditional silos and simplify access to information in order to deliver better business outcomes.



Improve speed and dexterity

Speed the delivery of new offerings and services by creating new models of self-service and deployment.

Create new business value

Empower internal and external communities to define and create new offerings and services.

Businesses are choosing a variety of cloud models to meet their unique needs and priorities.



Private cloud

On or off premises cloud infrastructure operated solely for an organization and managed by the organization or a third party



Public cloud

Available to the general public or a large industry group and owned by an organization selling cloud services.



Hybrid IT

Traditional IT and clouds (public and/or private) that remain separate but are bound together by technology that enables data and application portability



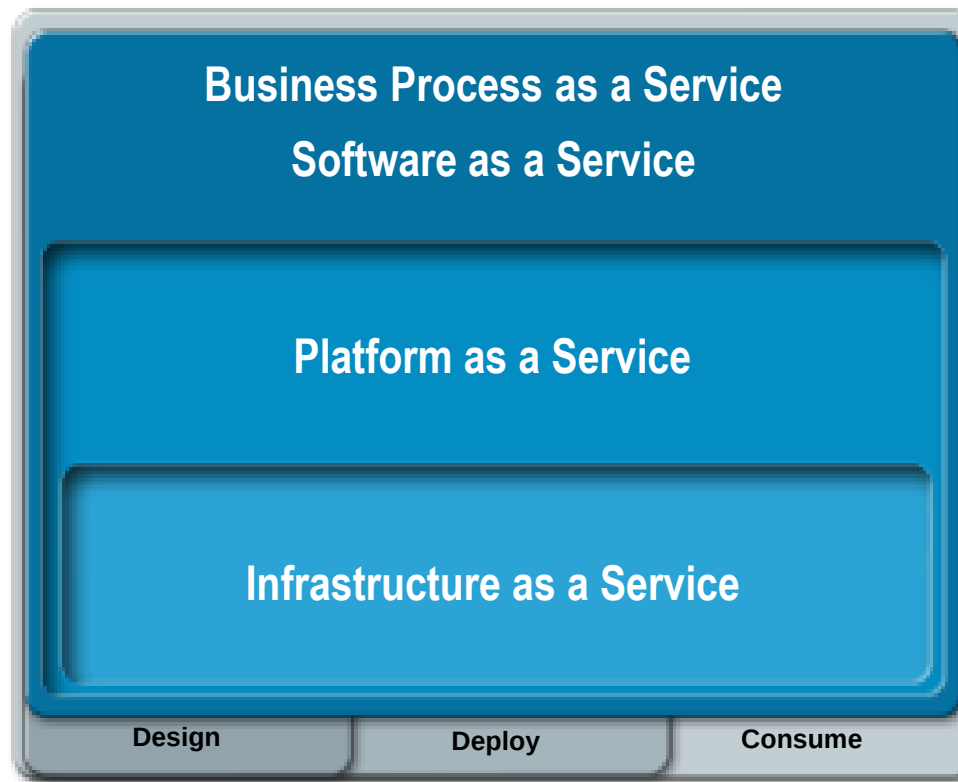
Traditional IT

Appliances, pre-integrated systems and standard hardware, software and networking.

Adoption patterns are emerging for successfully beginning and progressing cloud initiatives

PaaS: Accelerate time to market with cloud platform services

IaaS: Cut IT expense and complexity through a cloud enabled data center



BPaaS: Innovate business models by becoming a cloud service provider

SaaS: Gain immediate access to business solutions on cloud

Easily build and rapidly scale private cloud environments with unparalleled time-to-market, integration and management

Platform as a Service Technologies



Application Lifecycle



Application Resources



Application Environments



Application Management



Integration

Infrastructure as a Service Technologies



Infrastructure Platform



Management and Administration



Availability and Performance



Security and Compliance



Usage and Accounting

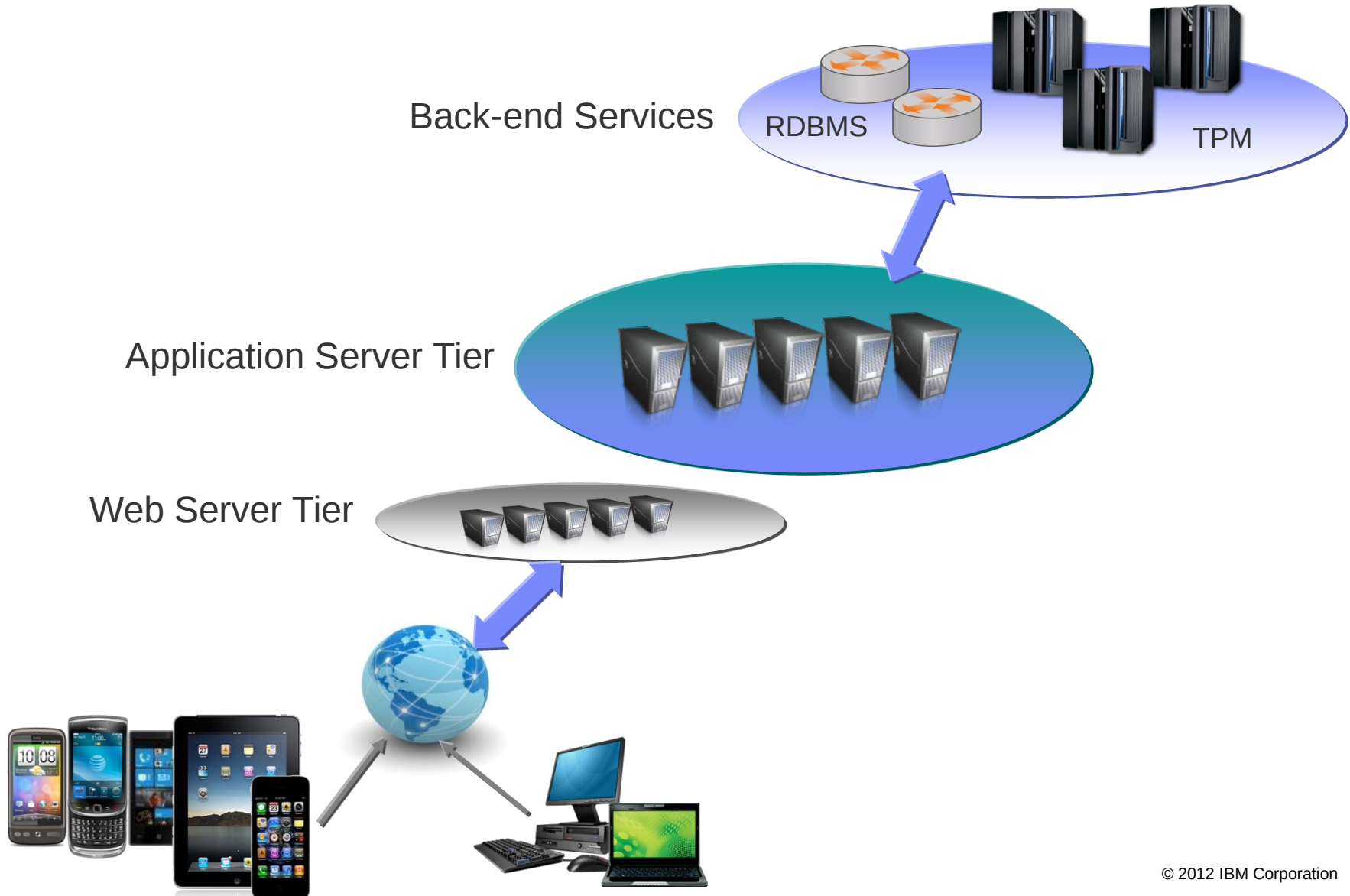
Virtualization, Standardization, Automation

Agenda:

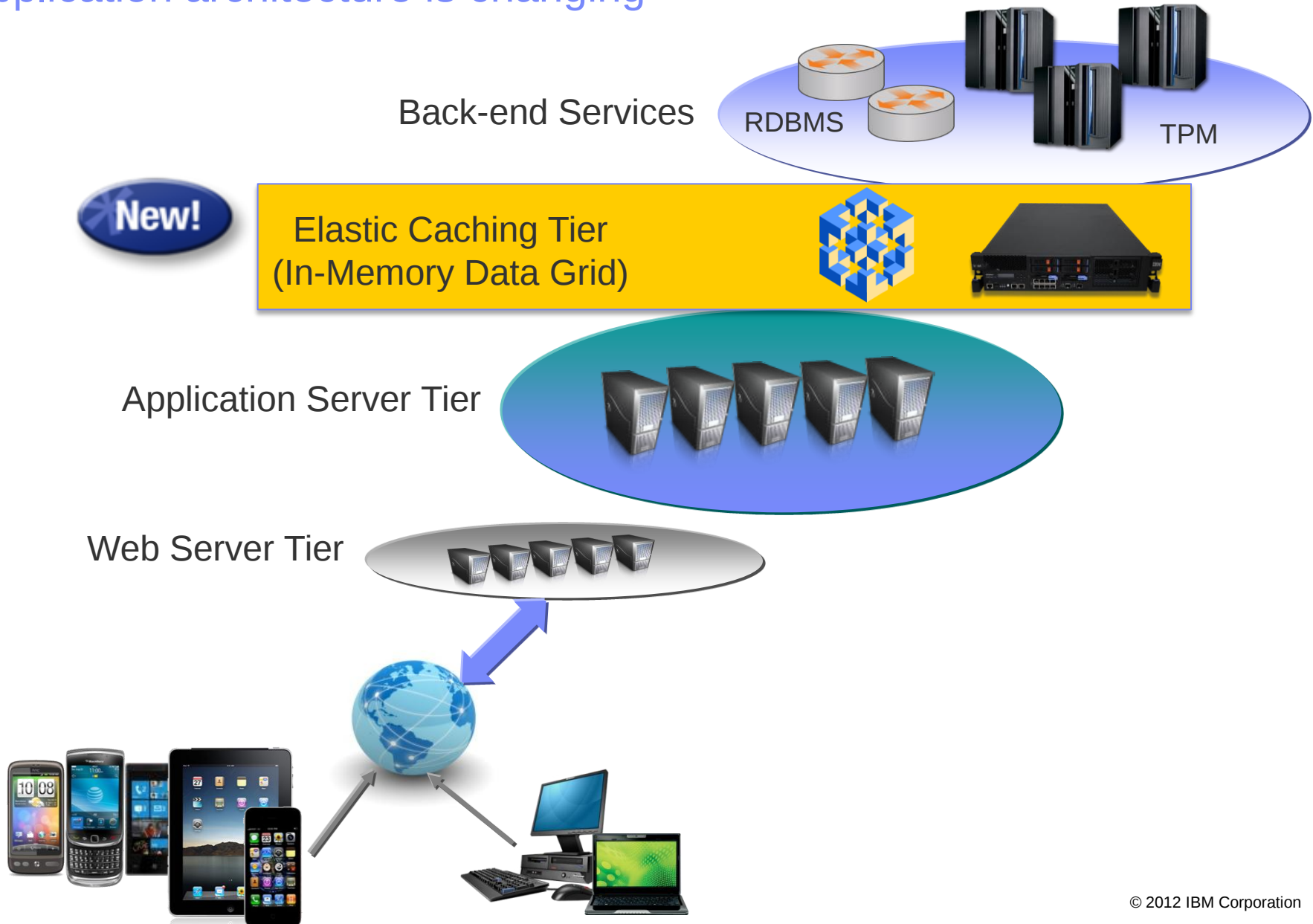
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Application architecture is changing



Application architecture is changing



WebSphere Application Infrastructure

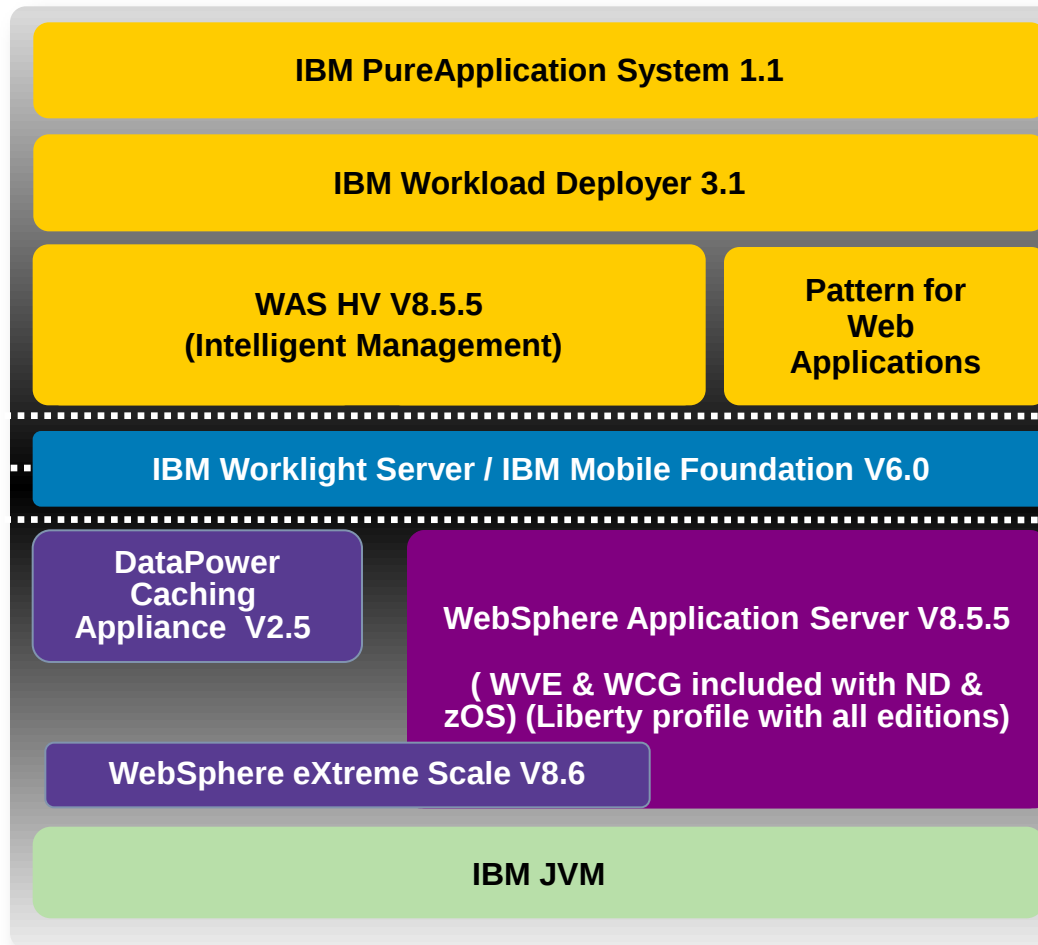
Runtime

Tools

Cloud &
Operational
Management
& Efficiency

Mobile Apps
(Web, Hybrid,
Native)

Fit for
Purpose
Application
Foundation



WAS V8.5 Delivers

Unparalleled Application Development and Management Environment, Rich User Experiences...Faster

Developer Experience



Fast, flexible, and simplified application development

- Liberty Profile
- Expanded Tooling and WAS Tooling Bundles
- OSGi programming model enhancements
- EJB support in OSGi apps
- JDK7 Support
- Migration toolkit
- Web 2.0 & Mobile Toolkit; IBM Worklight Integration
- SCA OASIS programming model

Application Resiliency



Intelligent Management & Enhanced Resiliency

- Application Edition Management
- Application Server Health Management
- Dynamic Clustering
- New Intelligent Routing capabilities
- Messaging infrastructure resiliency
- Memory leak detection & protection in WAS

Operations and Control

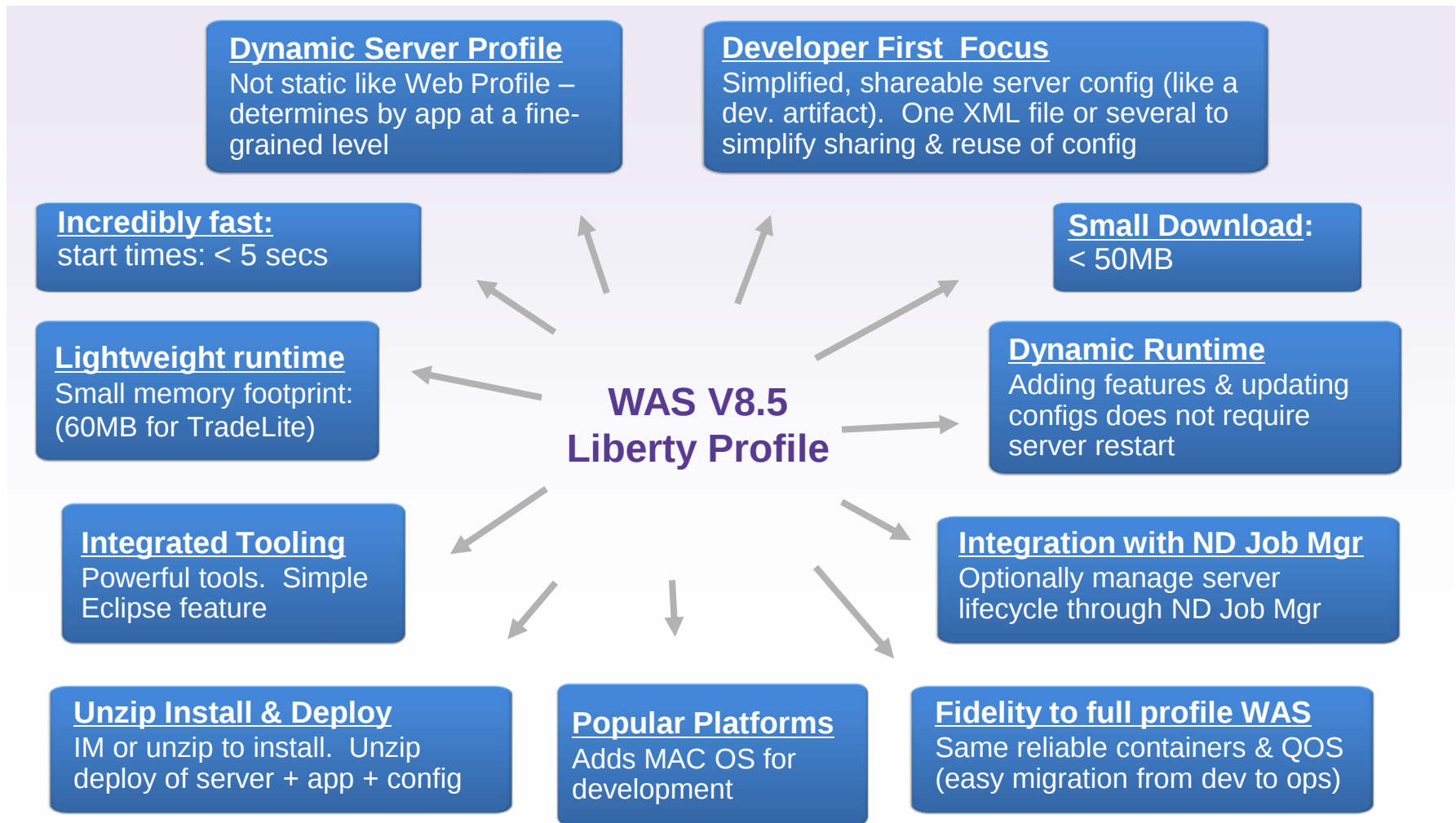


Improved Operations, Security, Control & Integration

- Selectable JDK
- WebSphere Batch enhancements
- Admin Security Audit
- OSGi Blueprint security improvements
- Cross Component Trace (XCT)
- Enhanced IBM Support Assistant
- Better log and trace filtering

WAS V8.5 introduces the lightweight Liberty profile – *For web, OSGi, and mobile apps*

A highly composable, dynamic server profile

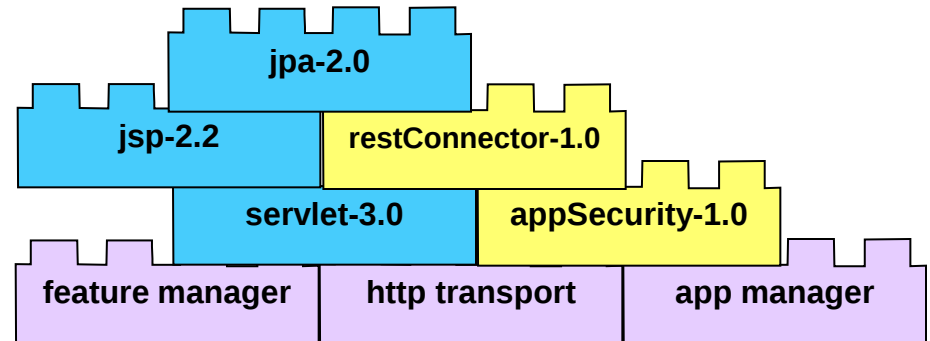


Highly composable feature-based runtime

Example:



Full WAS Profile

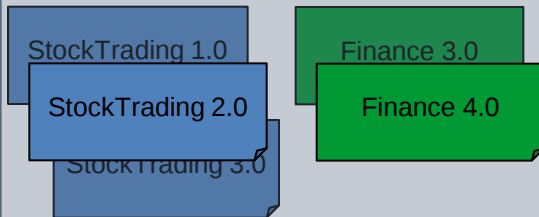


**WAS V8.5
Liberty Profile**

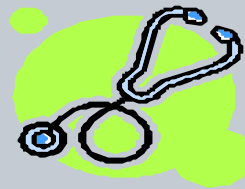
Intelligent Management

Extending QoS through autonomic computing

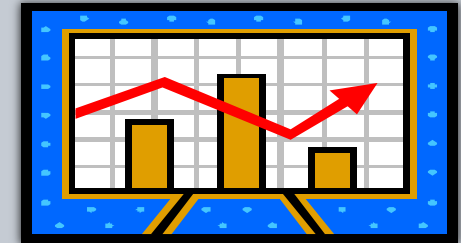
Application Edition Management *Self-Managing*



Health Management *Self-Protecting Self-Healing*



Dynamic Clustering *Self-Optimizing*



Intelligent Routing



Application Edition Management

Applications can be upgraded without incurring outages

- Upgrade Applications without interruption to end users
- Concurrently run multiple editions of an applications
 - Automatically route users to a specific application
- Multiple editions can be activated for extended periods of time
- Rollout policies to switch from one edition to another without service loss
- Easily update OS or WebSphere without incurring down time
- Easy-to-use edition control center in admin console, plus full scripting support

**Validation
Mode**



**Rollout
Policies**



**Concurrent
Activation**



Health Management

Sense and respond to problems before end users suffer an outage

- Automatically detect and handle application health problems
 - Without requiring administrator time, expertise, or intervention
- Intelligently handle health issues in a way that will maintain continuous availability
- Each health policy consists of a condition, one or more actions, and a target set of processes
- Includes health policies for common application problems
- Customizable health conditions and health actions

**Comprehensive
Health Policies**



**Customizable
Health
Conditions**



**Customizable
Health
Actions**



Health Management – Health Policies

Helps mitigate common health problems before outages occur

- Health policies can be defined for common server health conditions
- When a health policy's condition is true, corrective action execute automatically or require approval
 - Notify administrator (send email or SNMP trap)
 - Capture diagnostics (generate heap dump, java core)
 - Restart server
- Excessive response time means you are monitoring what matters most: your customer's experience!
- Application server restarts are done in a way that prevent outages and service policy violations
- Each health policy can be in supervise or automatic mode. Supervise mode is like training wheels to allow you to verify that a health policy does what you want before making it automatic.

Define health policy general properties

* Name

Description

Health condition

Age-based condition

Excessive request timeout condition

Excessive response time condition

Memory condition: excessive memory usage

Memory condition: memory leak

Storm drain condition

Workload condition

Health Conditions

- Excessive request timeouts:** % of timed out requests
- Excessive response time:** average response time
- Excessive garbage collection:** % of time spent in GCs
- Excessive memory:** % of maximum JVM heap size
- Age-based:** amount of time server has been running
- Memory leak:** JVM heap size after garbage collection
- Storm drain:** significant drop in response time
- Workload:** total number of requests

Dynamic Clustering

Proactively provision and start or stop application servers based on workload demands to meet Service Level Agreements

- Associate service policies with your applications
 - Let WebSphere manage to the service goals
- Programmatically respond to spikes in demand
 - Add or reduce application server instances as appropriate
- Automatically recover from infrastructure problems
- Includes automatic start and stop of cluster members based on load for MQ-driven applications
- Decrease administrative overhead required to monitor and diagnose performance issues



Intelligent Routing

Improves business results by ensuring priority is given to business critical applications

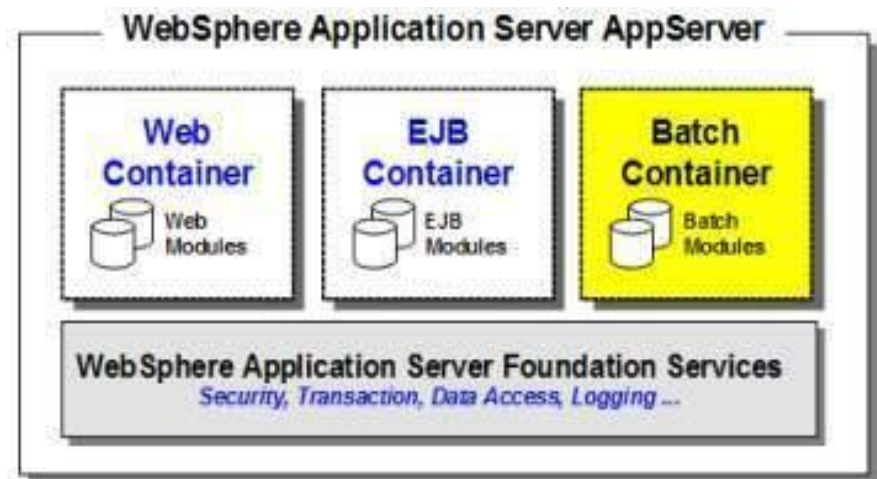
- Requests are prioritized and routed based upon administrator defined rules
 - Flexible policy-based routing and control
- On Demand Router (ODR) is the focal point for Intelligent Routing
- A routing tier that's aware of what's happening on the application server tier
 - Application server utilization, request performance, etc...
- Route work to the application server that can do it best
- Provide preference for higher priority requests
- Integrates with Health Management and Dynamic Clustering



WebSphere Batch

Quickly develop and deploy batch applications and dramatically reduce infrastructure and operational costs

- **Lower TCO:** Concurrent execution of batch & online transaction processing (OLTP) workloads using shared business logic on a shared infrastructure; Higher throughput and lower resource consumption on z/OS when colocated with data subsystems
- **Enhanced Developer Productivity:** Pre-integrated application framework, Java batch programming model and tools
- **Automation & Admin:** Container managed services for checkpoint and restart capabilities. Integrated administration of OLTP applications and batch jobs
- **Packaging utility:** Utility to package batch application that can be deployed using JEE runtime



Cross-Component Trace (XCT) for Problem Determination

Improve your ability to diagnose & debug SW problems in order to minimize and eliminate application downtime

- XCT log viewer - available for the IBM Support Assistant, can render log and trace content from multiple log / trace files grouped by request
 - View that detailed information on HTTP and JMS requests and responses to easily debug complicated application problems.
- High Performance Extensible Logging (HPEL) now has log / trace entry extensions
 - Filter entries by application name, by request ID or by other custom fields

Cross-Component Trace (XCT)

- XCT enables correlation of log and trace entries created by multiple threads and/or processes on behalf of the same request
 - XCT can augment log / trace entries with a requestID which you can view and filter using HPEL

```
[3/18/11 14:50:17:391 EDT] 00000018 W UOW= source=com.ibm.somelogger.QuickLogTest org= prod= component=
thread=[WebContainer : 1] requestID=AAP+k9s6JZ9-AAAAAAAAAAAA
hello world
```

- XCT can add records to your log / trace files so you can see how work related to each request branched between all involved threads / processes.

```
[3/23/12 14:01:40:615 CDT] 00000032 XCT I BEGIN AAP+k9s6JZ9-AAAAAAAAAAAA 00000000000-cccccccccc2
HTTPCF(InboundRequest /HelloWorld/ RequestContext(828937987))
[3/23/12 14:01:40:678 CDT] 00000032 XCT I END AAP+k9s6JZ9-AAAAAAAAAAAA 00000000000-cccccccccc2
HTTPCF(InboundRequest RC=200 RequestContext(828937987))
[3/23/12 14:01:50:381 CDT] 00000032 XCT I BEGIN AAP+k9s6JZ9-AAAAAAAAAAB 00000000000-cccccccccc2
HTTPCF(InboundRequest /HelloWorld/ RequestContext(435283455))
[3/23/12 14:01:50:443 CDT] 00000032 XCT I END AAP+k9s6JZ9-AAAAAAAAAAB 00000000000-cccccccccc2
HTTPCF(InboundRequest RC=200 RequestContext(435283455))
```

- XCT can store data snapshots, for example the complete text of a JMS/HTTP request, to facilitate in-depth problem determination

```
[1/17/12 16:58:46:765 EST] 0000001c XCT I BEGIN AAP+k9s6JZ9-AAAAAAAAAAB 00000000000-cccccccccc2
MyAnnotation(Attachment(MyRequest.txt))
```

Cross-Component Trace (XCT)

- XCT log viewer, available for the IBM Support Assistant, can render log and trace content from multiple log / trace files grouped by request

The screenshot displays the IBM Support Assistant's XCT log viewer. The interface includes a toolbar with icons for Build Activities, Properties, Problems, Servers, Console, and Server Logs. The main window shows a filtered log file path: `C:\xct\...\server1\SystemOut_08.10.30_06.48.01.log; C:\xct\...\server1\SystemOut_08.10.30_09.04.56.log`. Below the path, it indicates 'Show All Record Types (Hierarchical) > with only Server State, Error and Warning Contents (Page 2 of 24)'. The log content is presented in a table with four columns: Type, Time, Thread ID, and Contents.

Type	Time	Thread ID	Contents
Invocation sequence (imap/FlightBookingInf_To_FlightBookingInfWithTrgAny:bookFlight)	Oct 30, 2008 09:32:04.921	0000037b	
Start invoke (imap/FlightBookingInf_To_FlightBookingInfWithTrgAny:bookFlight)	Oct 30, 2008 09:32:04.921	0000037b	Start of the asynchronous invocation of operation imap/FlightBookingInf_To_FlightBook
Start component (imap/FlightBookingInf_To_FlightBookingInfWithTrgAny:bookFlight)	Oct 30, 2008 09:32:04.968	00000378	Start of the component processing of operation imap/FlightBookingInf_To_FlightBooking
Start invoke (imap/FlightBookingInfWithTrgAny_To_AnyInterface1:operation1)	Oct 30, 2008 09:32:04.968	00000378	Start of the asynchronous invocation of operation imap/FlightBookingInfWithTrgAny_To
Start component (imap/FlightBookingInfWithTrgAny_To_AnyInterface1:operation1)	Oct 30, 2008 09:32:05.218	00000377	Start of the component processing of operation imap/FlightBookingInfWithTrgAny_To_A
Start invoke (FlightResModSRPWithAny:operation4)	Oct 30, 2008 09:32:05.218	00000377	Start of the invocation of operation FlightResModSRPWithAny:operation4 in module Flig
Start component (FlightResModSRPWithAny:operation4)	Oct 30, 2008 09:32:05.234	00000377	Start of the component processing of operation FlightResModSRPWithAny:operation4 in
Start invoke (SearchFlightInfWIDImport1:findFlight)	Oct 30, 2008 09:32:05.328	00000377	Start of the invocation of operation SearchFlightInfWIDImport1:findFlight in module Flig
End invoke (SearchFlightInfWIDImport1:findFlight)	Oct 30, 2008 09:32:05.406	00000377	End of the invocation of operation SearchFlightInfWIDImport1:findFlight in module Flig
Start invoke (SearchFlightInfWIDImport2:findFlight)	Oct 30, 2008 09:32:05.421	00000377	Start of the invocation of operation SearchFlightInfWIDImport2:findFlight in module Flig
End invoke (SearchFlightInfWIDImport2:findFlight)	Oct 30, 2008 09:32:05.500	00000377	End of the invocation of operation SearchFlightInfWIDImport2:findFlight in module Flig
Start invoke (imap/SearchFlightInfWid_To_SearchFlightInf:findFlight)	Oct 30, 2008 09:32:05.500	00000377	Start of the invocation of operation imap/SearchFlightInfWid_To_SearchFlightInf:findFlig
Start component (imap/SearchFlightInfWid_To_SearchFlightInf:findFlight)	Oct 30, 2008 09:32:05.500	00000377	Start of the component processing of operation imap/SearchFlightInfWid_To_SearchFlig
Log message	Oct 30, 2008 09:32:05.500	00000377	EClassifier "http://www.opentravel.org/OTA/2003/05/beta#OTA_AirAvailRQ" not not f
Log message	Oct 30, 2008 09:32:05.500	00000377	EClassifier "http://www.opentravel.org/OTA/2003/05/beta#OTA_AirAvailRQ" not not f
Start invoke (DeltaHttpImport:findFlight)	Oct 30, 2008 09:32:05.515	00000377	Start of the invocation of operation DeltaHttpImport:findFlight in module FlightRe
Start import (DeltaHttpImport:findFlight)	Oct 30, 2008 09:32:05.515	00000377	Start of the import processing of operation DeltaHttpImport:findFlight in module FlightRe
Log message	Oct 30, 2008 09:32:05.515	00000377	CW5CA6048W: The HTTP Import received a request with DynamicOverrideURL set. Plea
Fail import (DeltaHttpImport:findFlight)	Oct 30, 2008 09:32:05.562	00000377	A failure occurred during the import processing of operation DeltaHttpImport:findFlight i
Exception	Oct 30, 2008 09:32:05.578	00000377	CNTR0020E: EJB threw an unexpected (non-declared) exception during invocation of m
Fail invoke (DeltaHttpImport:findFlight)	Oct 30, 2008 09:32:05.578	00000377	A failure occurred during the invocation of operation DeltaHttpImport:findFlight in modu
Exception	Oct 30, 2008 09:32:05.578	00000377	CNTR0020E: EJB threw an unexpected (non-declared) exception during invocation of m
Fail component (imap/SearchFlightInfWid_To_SearchFlightInf:findFlight)	Oct 30, 2008 09:32:05.578	00000377	A failure occurred during the component processing of operation imap/SearchFlightInfW
Exception	Oct 30, 2008 09:32:05.578	00000377	CNTR0020E: EJB threw an unexpected (non-declared) exception during invocation of m
Fail invoke (imap/SearchFlightInfWid_To_SearchFlightInf:findFlight)	Oct 30, 2008 09:32:05.578	00000377	A failure occurred during the invocation of operation imap/SearchFlightInfWid_To_Searc
Log message	Oct 30, 2008 09:32:05.593	00000377	isAAReturned in Snippet 8:true
Log message	Oct 30, 2008 09:32:05.593	00000377	Catching runtime exception and terminating

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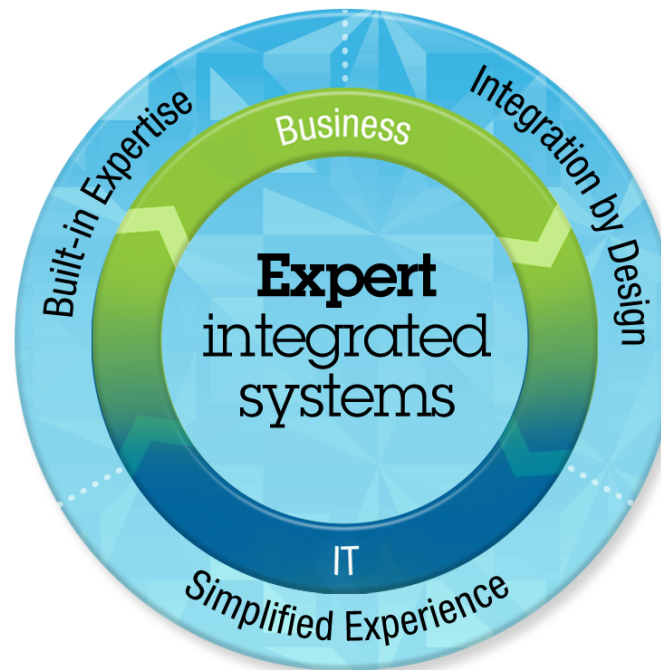


The time has come for a new breed of systems

Systems with integrated expertise and built for cloud

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

IBM PureApplication System

Built-in Expertise

Capture and automate what experts do – infrastructure and application expertise enhance application time to value

- ‘Patterns of Expertise’ pre-integrated, out-of-the box IBM and Partner patterns for deploying application workloads based on proven best practices and expertise
- Open and extensible with tools to capture your own patterns of expertise, designed to deploy new applications 20-30X faster* than traditional approaches
- Application patterns can encapsulate failover, load balancing, and security features, reducing security management by 51% and change management by 53%*

Integration by Design

Deeply integrate and tune hardware and software – a secure, built for cloud, ready-to-go workload optimized platform system

- ‘Scale in’ integrated provisioning, elasticity and virtualization reduces cost and required management time by up to 55%
- Zero system downtime for capacity upgrades, system maintenance, software updates can result in 98% fewer unplanned outages*
- Integrated analytics to optimize database query performance and adaptive database compression that can provide 7x or greater overall space savings*

Simplified Experience

Make every part of the IT lifecycle easier - integrated management and an open solution ecosystem broadens choice

- ‘Single pane of glass’ view from the infrastructure up through the application platform – designed to be up & running in 4 hours*, not 4 months
- Online catalog with 80+ certified, optimized pattern solutions from a broad, open ecosystem
- Built-in workload management, integrated system monitoring and maintenance can drive up to 55% reduction in operation costs*

* Based on internal test and client experiences of existing IBM capabilities leveraged in PureApplication Systems. Results may not be typical and will vary based on actual configuration, applications, and other variables in a production environment.

Faster Set Up and Deployment

PureApplication

IBM
PureApplication
System



IBM PEP Team
+ Customer



<4 hours

Includes (at no additional cost):

- ✓ Hardware set-up and configuration
- ✓ Software set-up and configuration
- ✓ First workload deployment

Pre-
integrated
System



Competitor HW
Engineer

Hardware
Set-Up and
Configuration
(2 days*)



Competitor SW
Engineer

Software
Set-Up and
Configuration
(2 days*)



Customer

First
Workload
Deployment
(1 day*)

5 days*

*Actual times reported by customer working with competitor setup team

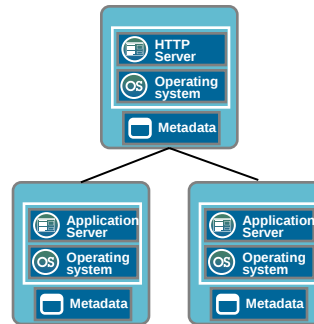
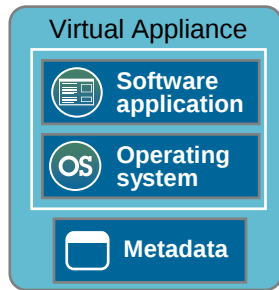
IBM PureApplication System integration by design



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

Multiple pattern types to enable open ecosystem



Virtual Appliances

- Standard software installation and configuration on OS
- Images created through extend/capture
- Traditional administration and management model
- Infrastructure driven elasticity

Virtual Appliances

Standard TCO
existing applications

Virtual System Patterns

- Automated deployment of middleware topologies
- Traditional administration and management model
- Application and infrastructure driven elasticity

Virtual System Patterns

Improved TCO
virtualized applications

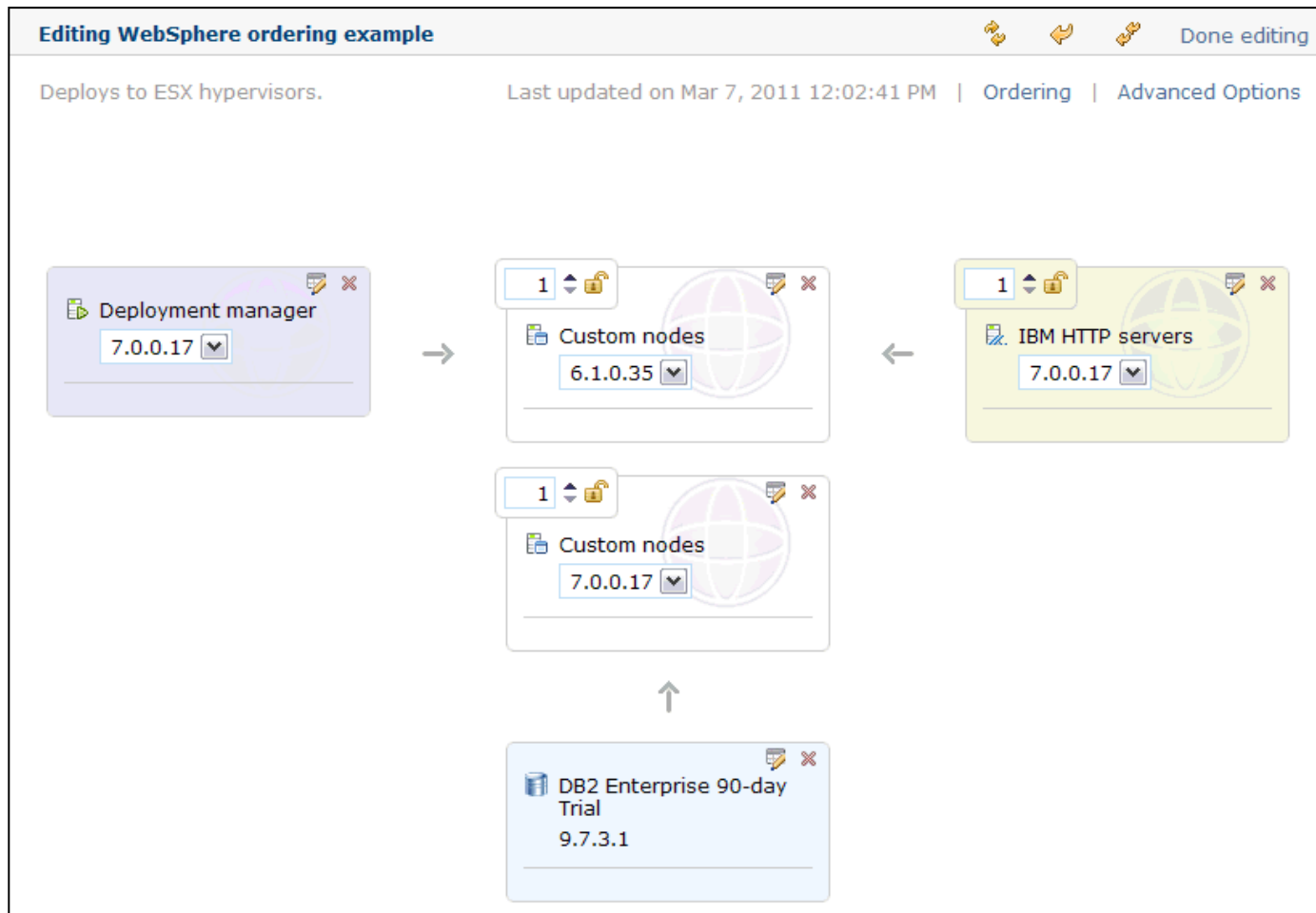
Virtual Application Patterns

- Highly automated deployments using expert patterns
- Business policy driven elasticity
- Built for the cloud environment
- Leverages elastic workload management services

Virtual Application Patterns

Best TCO
cloud applications

Virtual System Pattern



Default constraints (startup order)

Constraints define the order in which the parts will be started and are defined in terms of X starts before Y

Default constraints cannot be deleted

Highlighting a constraint highlights the parts involved in the constraint

The screenshot shows the 'Editing WebSphere ordering example' interface. At the top, it says 'Deploys to ESX hypervisors.' and 'Last updated on Mar 7, 2011 12:34:56 PM'. There are links for 'Topology' and 'Advanced Options', and a 'Done editing' button. Below this, the 'Part order constraints' section is highlighted with a red box. It contains three constraints: 'Custom nodes start after Deployment manager', 'Custom nodes start after Deployment manager', and 'IBM HTTP servers start after Deployment manager'. A tooltip over the first constraint states: 'This constraint is automatically generated and cannot be deleted'. To the left of the constraints, a large yellow arrow points upwards with the text 'Default constraints'. To the right, a yellow arrow points to the right with the text 'Parts involved In highlighted constraint'. The parts involved are listed on the right side of the interface: 'DB2 Enterprise 90-day' (clock icon 1), 'Deployment manager' (clock icon 2), 'Custom nodes' (clock icon 3), and 'IBM HTTP servers' (clock icon 4). Each part has a small icon and a lock icon. At the bottom left, the 'Script order constraints' section is visible, with the text 'Drag and drop scripts to create constraints'.

Editing WebSphere ordering example Done editing

Deploys to ESX hypervisors. Last updated on Mar 7, 2011 12:34:56 PM | Topology | Advanced Options

Part order constraints

- Custom nodes start after Deployment manager
- Custom nodes start after Deployment manager
- IBM HTTP servers start after Deployment manager

This constraint is automatically generated and cannot be deleted

Default constraints

Parts involved In highlighted constraint

Script order constraints
Drag and drop scripts to create constraints

1 DB2 Enterprise 90-day

2 Deployment manager

3 Custom nodes

4 IBM HTTP servers

Virtual system pattern deployment steps

From the pattern attribute window, click on the “**Cloud**” button to deploy the Virtual System pattern



Virtual system pattern deployment steps

1. Specify a unique name for the virtual system to be created
2. Choose an existing cloud group or environment profile to deploy your pattern into
3. Schedule a deployment time – now or at a future time
4. Configure virtual image parts and script packages (if not already configured during pattern creation)

Describe the virtual system you want to deploy.

☒	Virtual system name:
☒	Choose Environment
☒	Schedule deployment
☐	Configure virtual parts

OK Cancel

Check mark indicate configuration is complete unless you need to modify

No check mark indicate more configuration needed

Schedule a virtual system pattern deployment

Deploy immediately

Deploy at some later date and time

Run forever or until some later date and time

Default option is to start now and run indefinitely

The image displays two screenshots of the IBM deployment wizard interface. The left screenshot shows the 'Describe the virtual system you want to deploy.' dialog with the 'Virtual system name' field, a dropdown menu for 'vCenter Cloud Group', and a list of options including 'Schedule deployment', 'Configure virtual parts', 'Deployment manager', and 'Custom nodes'. A red box highlights the 'Schedule deployment' option, and a yellow callout bubble points to it with the text 'Click to schedule deployment'. A red dashed arrow points from this callout to the right screenshot. The right screenshot shows the same dialog with the 'Schedule deployment' option selected and highlighted by a red rounded rectangle. This section contains four radio button options: 'Start now' (selected), 'Start later...' (with date and time fields set to 5/25/2010 and 9:23 AM), 'Run indefinitely' (selected), and 'Run until...' (with date and time fields set to 5/25/2010 and 9:23 AM). A yellow callout bubble points to the 'Start now' option with the text 'Start deployment now or later'. Both screenshots have 'OK' and 'Cancel' buttons at the bottom.

Describe the virtual system you want to deploy.

Virtual system name

vCenter Cloud Group

Schedule deployment

Configure virtual parts

Deployment manager

Custom nodes

OK Cancel

Describe the virtual system you want to deploy.

Virtual system name

aimcp157.cloudGroup

Schedule deployment

Start now

Start later...

5/25/2010

9:23 AM

Run indefinitely

Run until...

5/25/2010

9:23 AM

OK Cancel

Click to schedule deployment

Start deployment now or later

Configure a virtual system pattern deployment

Configuration updates are specific to this deployment (virtual system)

Values for “root” and “virtuser” passwords are required by the user

Describe the virtual system you want to deploy.

 Virtual system name

 vCenter Cloud Group

 Schedule deployment

 Configure virtual parts

 Deployment manager

 Custom nodes

OK Cancel

Click each part to configure

Fill in the required values for this part of the pattern.

Name: DMGRPart

* Virtual CPUs: 1

* Memory size (MB): 2048

* Reserve physical CPUs: False

* Reserve physical memory: False

* Cell name: CloudBurstCell

* Node name: CloudBurstNode

* Feature packs: ☒ none

Fill in the required values for this part of the pattern.

☐ osgi

☐ sca

☐ sdo

☐ xml

* Password (root):

* Verify password:

* WebSphere administrative user name: virtuser

* WebSphere administrative password:

* Verify password:

* ihs: true

OK Cancel

Configurable options

Virtual Application Pattern

IBM PureApplication System - [Pattern Type: Web Application Pattern Type 2.0] Virtual Application Builder - [DayTrader] *

Diagram | List View | Source

Save | Save As | Layout | Undo | Redo

Assets

Asset name

Application Components

- Additional archive file
- Enterprise Application
 - WebSphere Application Server
- Existing Web Service Provider Endpoint
- Policy set
- Web Application
 - WebSphere Application Server

Database Components

- Data Studio web console
- Database
 - DB2
- Existing Database
 - DB2
- Existing Database
 - Informix
- Existing Database
 - Oracle
- Existing IMS Database

Messaging Components

- Existing Messaging Service
 - WebSphere MQ
- Queue
 - WebSphere MQ
- Topic
 - WebSphere MQ

OSGi Components

- Existing OSGi Bundle Repository
- OSGi Application
 - WebSphere Application Server

Transaction Processing Components

- Existing CICS Transaction Gateway
- Existing IMS TM

Layers

Add policy for application

Enterprise Application

Scaling Policy

Routing Policy

TradeLite

Database

TradeDB

▼ Scaling Type

Response Time Based

Scaling in/out when Web response time is out of threshold range(ms):

0 10000

Range: 1000 - 5000

Instance number range of scaling in/out: *

1 50

Range: 1 - 10

Minimum time (sec) to trigger add/remove: *

120

Enterprise Application

WebSphere Application Server

Name:

TradeLite

EAR file:

artifacts/tradelite.ear Edit Delete

Total transaction lifetime timeout (seconds):

Async response timeout (seconds):

Client inactivity timeout (seconds):

Maximum transaction timeout (seconds):

Interim fixes URL:

Click select button to update

Select

Ignore inapplicable ifix updates:

Maximum Session Count:

Scaling Policy

Web/Enterprise Application

Enable session caching: ☒

Maximum Session Cache Grid Size:

UNCAPPED

▼ Scaling Type

Response Time Based

Scaling in and out when Web response time is out of threshold range(ms):

0 10000

Range: 1000 - 5000

* Instance number range of scaling in/out:

1 50

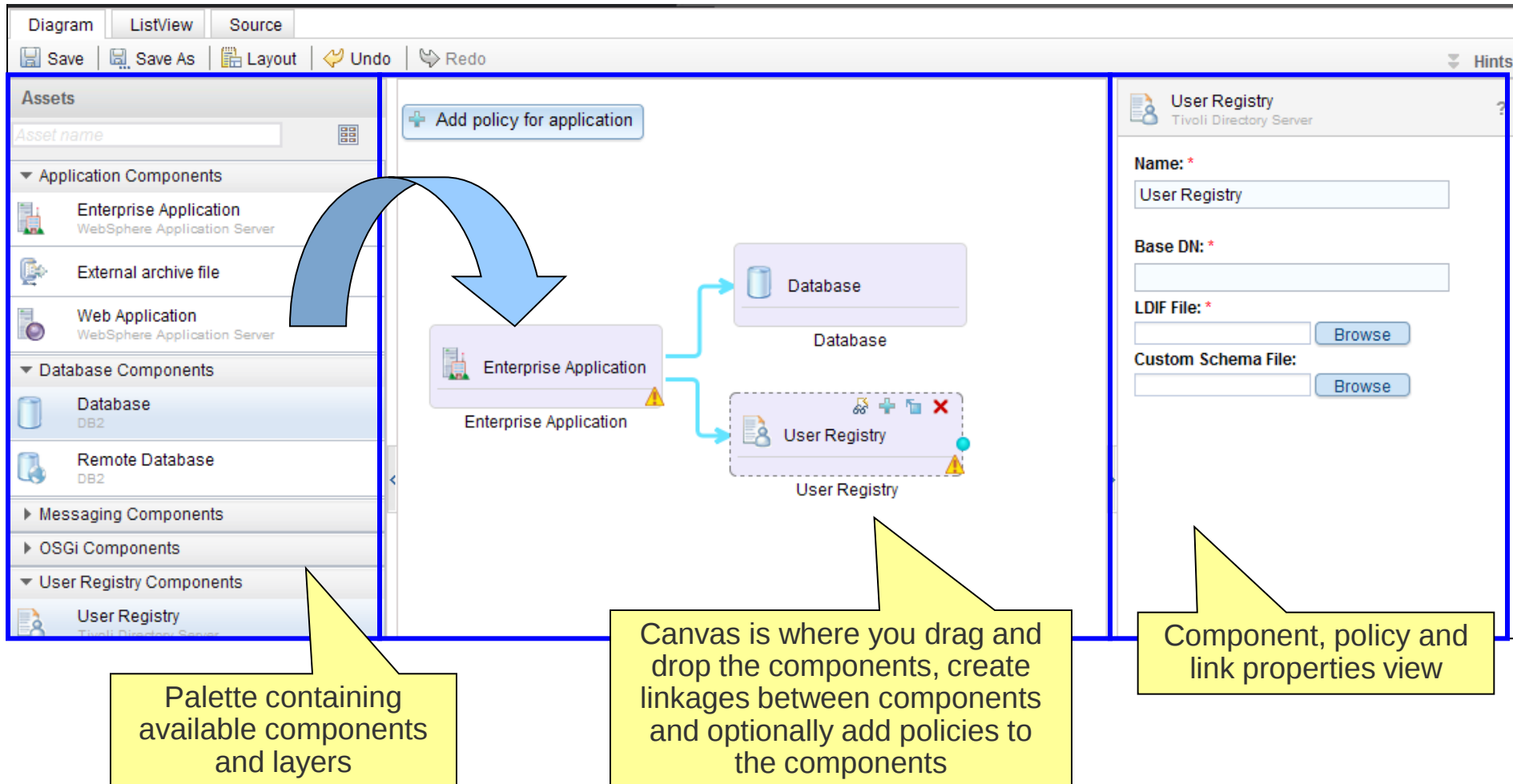
Range: 1 - 10

* Minimum time (seconds) to trigger add or remove:

120

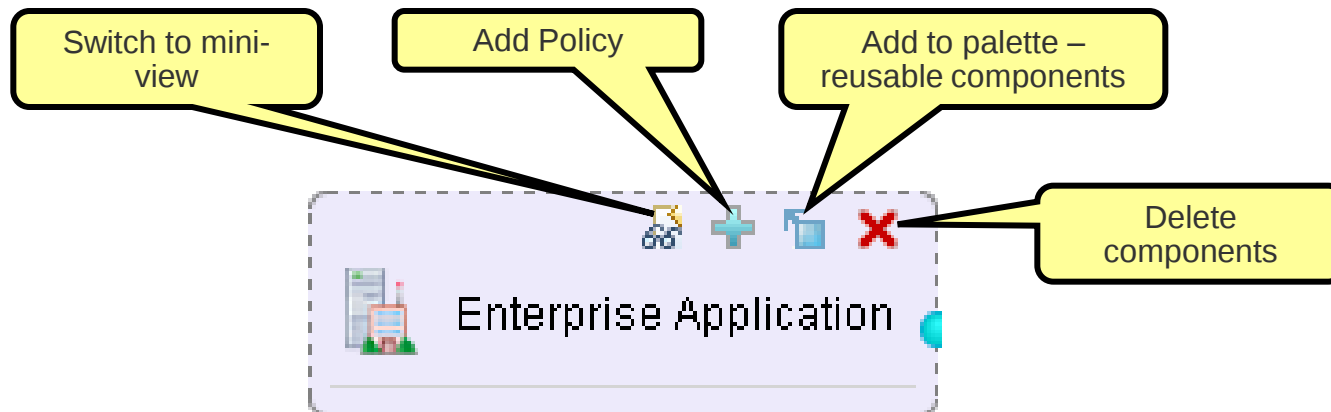
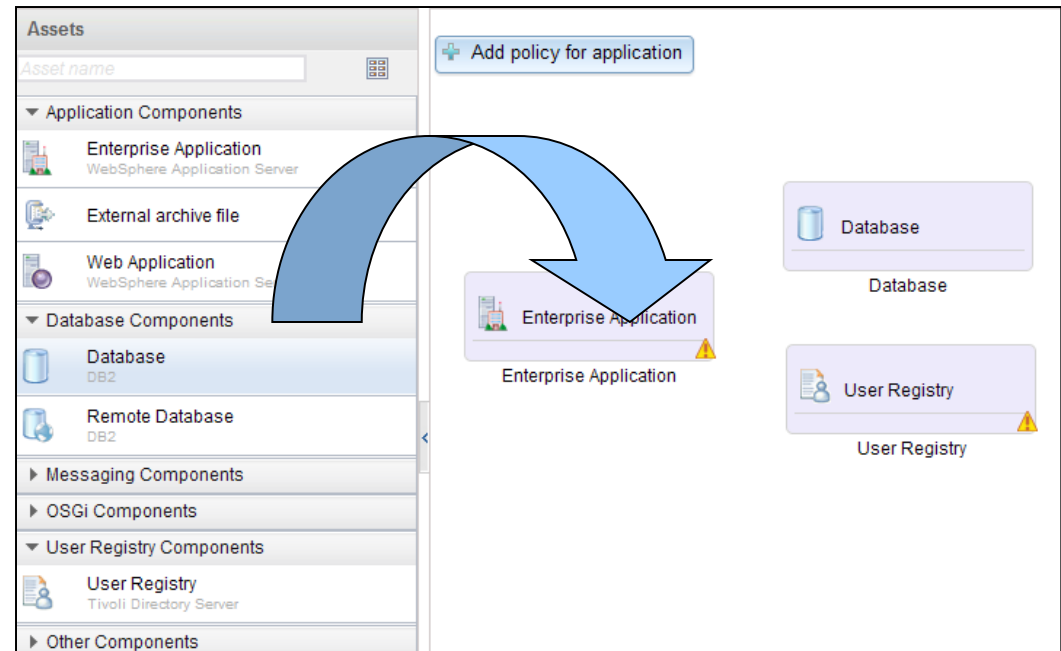
Virtual Application Builder

- **Virtual Application Builder** - graphically assemble your virtual application



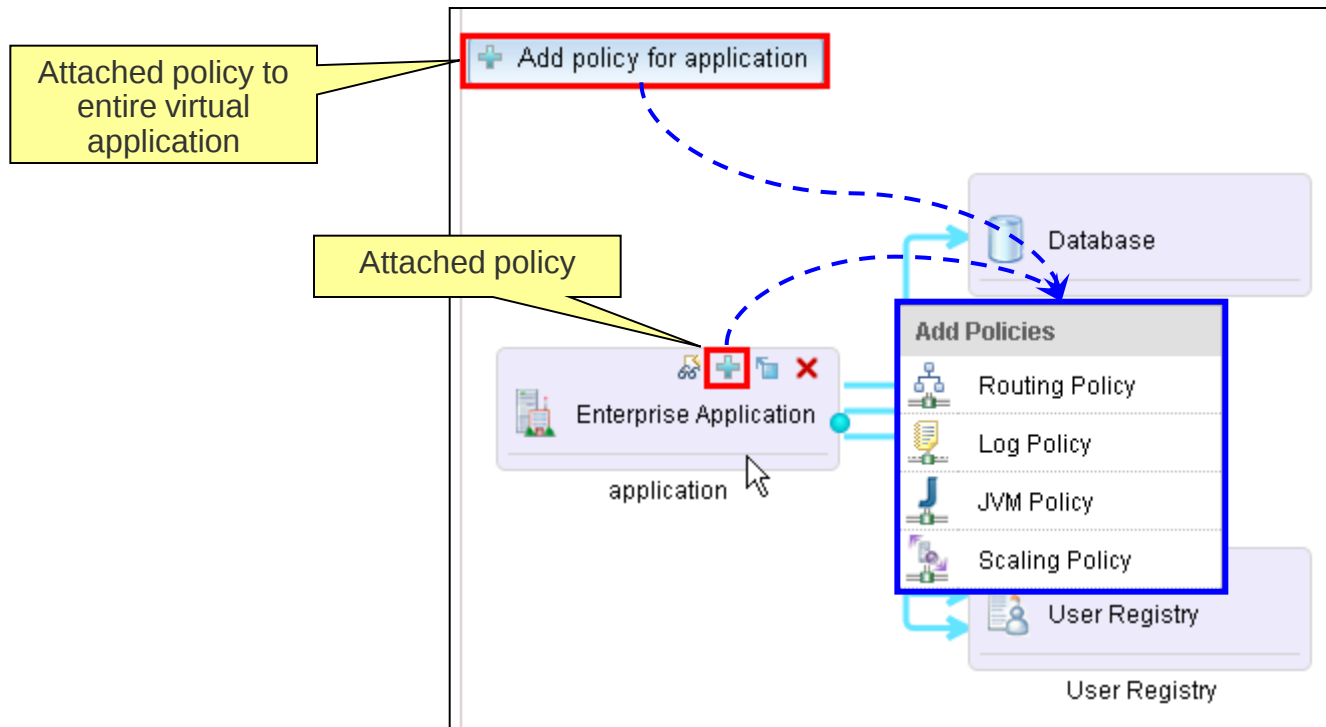
Drag and drop components

- Drag and drop the components
- The palette consists of component templates and predefined components



Add and configure policies

- Configure application components with different policies to add or enhance functionality
 - Policies can be applied to Enterprise, Web or OSGI applications only
- Policies can be attached at the virtual application level
 - Applies to all relevant components in the pattern
 - Component level policy takes precedence over virtual application level policy



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