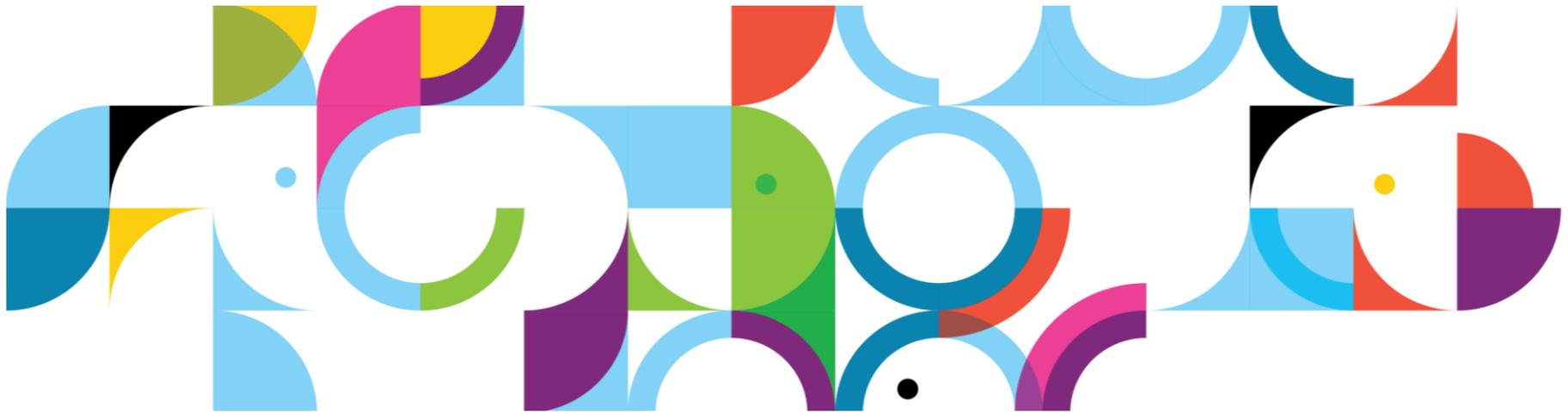


David Strachan, IBM Software Services for Collaboration

With material from Barry Pellas, WebSphere Portal Configuration Architect

Migrating to WCM & Portal v8





David Strachan

Social and Web Experience Architect at IBM

Edinburgh, City of Edinburgh, United Kingdom | Information Technology and Services

Current **Solution Architect, Europe Centre of Excellence at IBM United Kingdom Ltd**

Recommendations **4** people have recommended David

Connections **359** connections

David Strachan's Summary

I design and lead the delivery of social and web experience solutions using IBM Connections, IBM Web Content Manager and WebSphere Portal.

My focus is on delivering exceptional social and web experiences to our customers, designed from the outside in to satisfy users. I've a solid technical background too.

Specialties

Solution architecture, IBM Connections, WebSphere Portal, Web Experience, WebSphere Process Server, EC2, IBM, technical sales, Collaboration.



David Strachan

@circularlizard

Social and Web Experience Architect at IBM Europe. Keen cook, devoted Dad. Views are all my own...

Edinburgh

Edit your profile

2,202 TWEETS

172 FOLLOWING

152 FOLLOWERS

Tweets >

Following >

Followers >

Favorites >

Lists >

Recent images >



Similar to you >



Daniel Viner @danviner
Follow



Catherine Nottage @catnot
Follow

Tweets



David Strachan @circularlizard

18m

Taking a leaf out of @jonmell 's book, I've opted for the black-n-white profile picture.

Expand



David Strachan @circularlizard

3h

@tony_hickman the morning's run away from me and I've realised I've not had my coffee. Shall I hang on for you?

Expand



David Strachan @circularlizard

13h

@jockking Indeed - being a good idea doesn't guarantee success.

View conversation



David Strachan @circularlizard

14h

@jockking I bought the physical book, so I can lend it to you if it is any good.

View conversation

Plan your migration

1

Steps to migrate

2

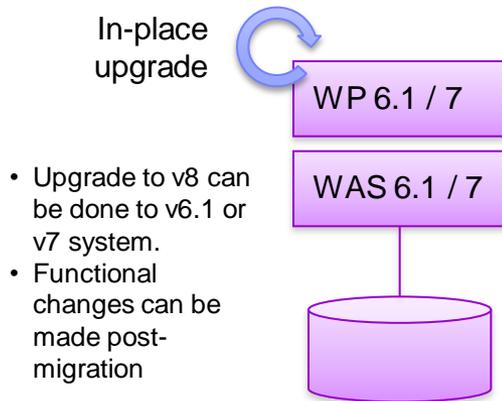
Using new features

3

Operating model update

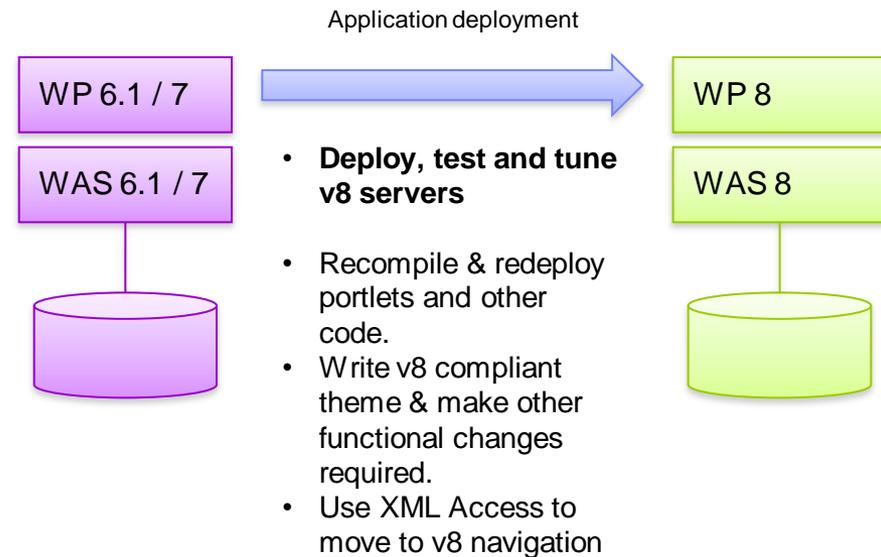
4

Two basic migration approaches



“Upgrade”

- Use migration tools to upgrade existing configuration
- Any rework happens after migration
- Keeps the good, and the bad, in the initial configuration



“Redeploy”

- Create new deployment and redeploy initial configuration
- More rework during migration, but immediate access to new features
- Opportunity to drop baggage

Tools for “redeploy” approach

XMLAccess can be used to export configuration between versions

- Java level changes between WAS v6.1 or v7 and WAS v8

WCM library export and import can be used between versions

WCI can be used if co-existence is required for a period of time

Direct upgrade paths supported by IBM tooling

| | | Target version | | |
|---------------------|--------|----------------|----|--|
| | | V6.1 | V7 | V8 |
| Source version * | V5.1** | | No | No |
| | V6.0** | | | No |
| | V6.1 | | | 6.1.0.5 6.1.0.6 6.1.5.1 6.1.5.2 |
| | V7 | | | 7.0.x |

If you are running an old version of WCM or Portal for which there is no direct migration path, talk to IBM. There are options to smooth this process:

- Use of WCI
- WCM Library Export / Import
- XML Access Export / Import

*Migration generally requires application of one of the two most recent fixpacks to the source system.

** Out of support.

Full documentation here:

http://www-10.lotus.com/ldd/portalwiki.nsf/dx/Supported_migration_paths_wp8

IBM Product Version Support Information

Red text indicates out of support – Green text indicates most recent version.

This page quotes from [IBM Software Support Lifecycle website](#). Please refer to it for definitive support policy information.

| Product | V | Start | End |
|------------------|-------|-------------|-------------|
| WebSphere Portal | 5.1 | 20 Dec 2004 | 30 Sep 2008 |
| | 6.0 | 24 Aug 2006 | 30 Apr 2012 |
| | 6.1.x | 14 Jul 2008 | |
| | 6.1.5 | 11 Dec 2009 | |
| | 7 | 24 Sep 2010 | |
| | 8 | 25 May 2012 | |
| | | | |

- End of life dates available here: <http://www-01.ibm.com/software/websphere/support/lifecycle/>
- **“Enhanced Support”**: “A minimum of five full years of standard support from the date the product release was made generally available by IBM, with the option to get support extensions for at least an additional three years following a product’s EOS date for an extra charge”
- “April and September are the **effective dates** that products will be withdrawn from support. IBM will announce the withdrawal **at least** twelve months in advance of this effective date.”
- Portal on z/OS is subject to different terms

Planning

Consider your environment(s)

- Apply APAR prereqs if you're doing an in-place migration

Create a timeline

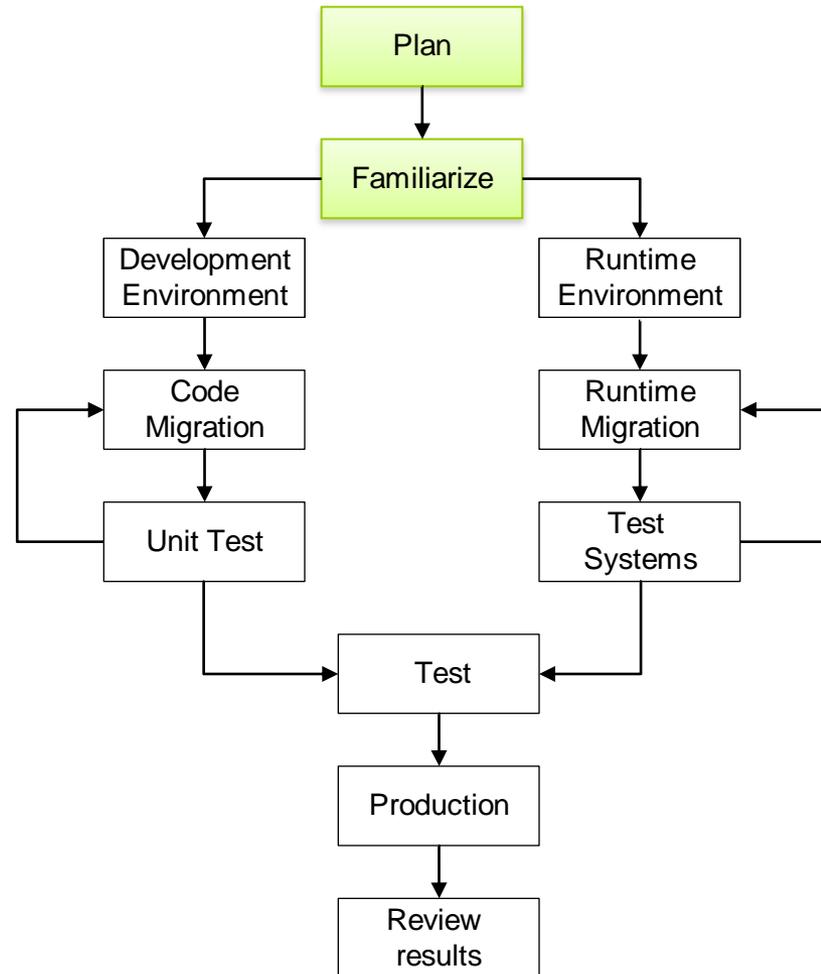
Backup Everything

- File system
- Database
- Applications

Practice the process

Learn the new version (v8)

Define "complete"



Development

Assume application compatibility

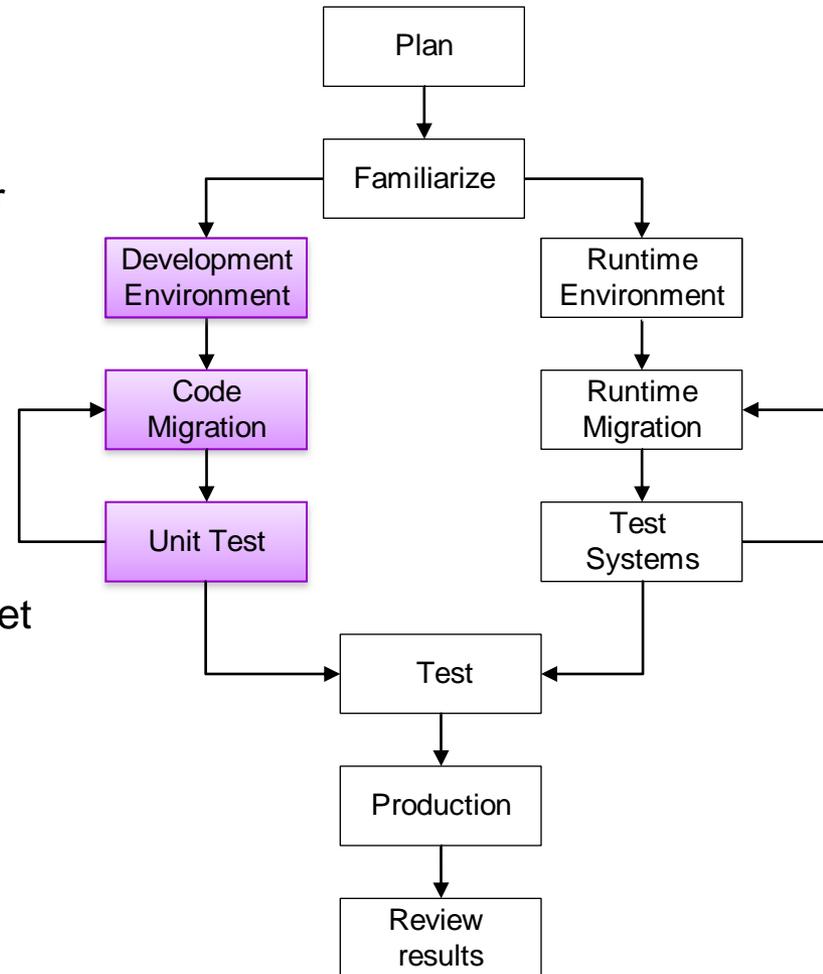
- If issues arise do only what's required for Migration
- May require updates to latest standards

After migration “complete”

- Update existing function
- Enable new function

Update deprecated code

In ‘Redeploy’ pattern, plan and implement target functionality



Runtime

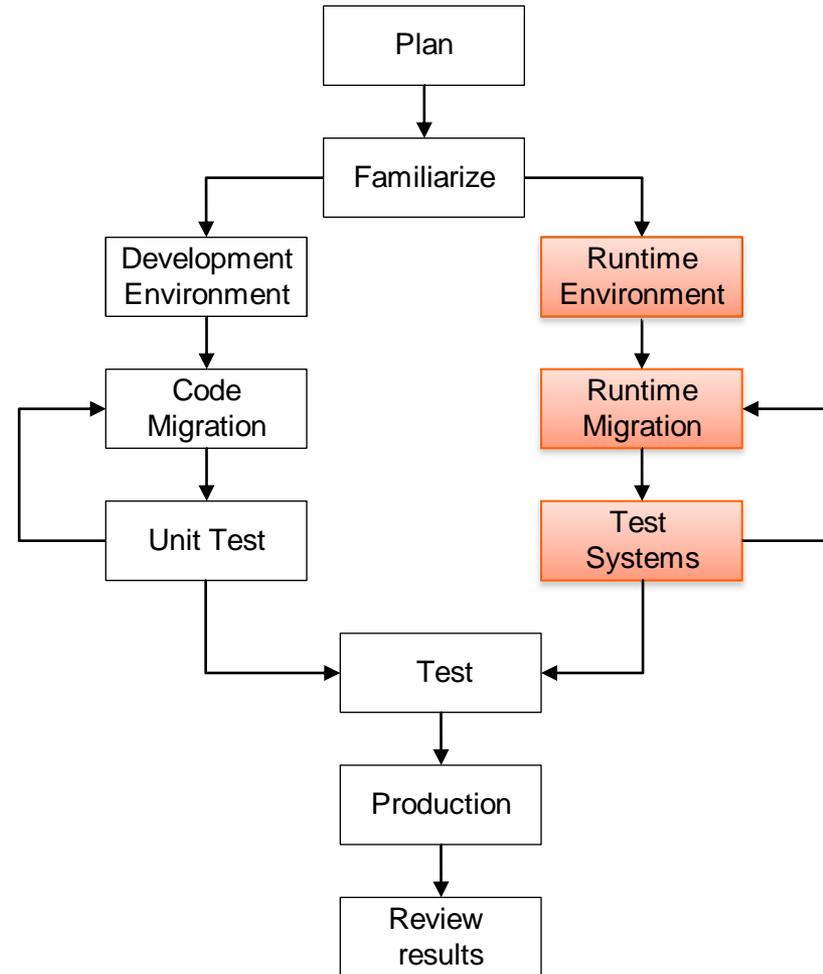
Once approach proven in development environment

Iteratively migrate each environment

- Development, Integration, Staging, Production

Ensure each environment is “complete”

- Test functionality and deployment
- Enable new function



Production & Review

“Practice Run”

- Done 1-2 wks ahead of live migration

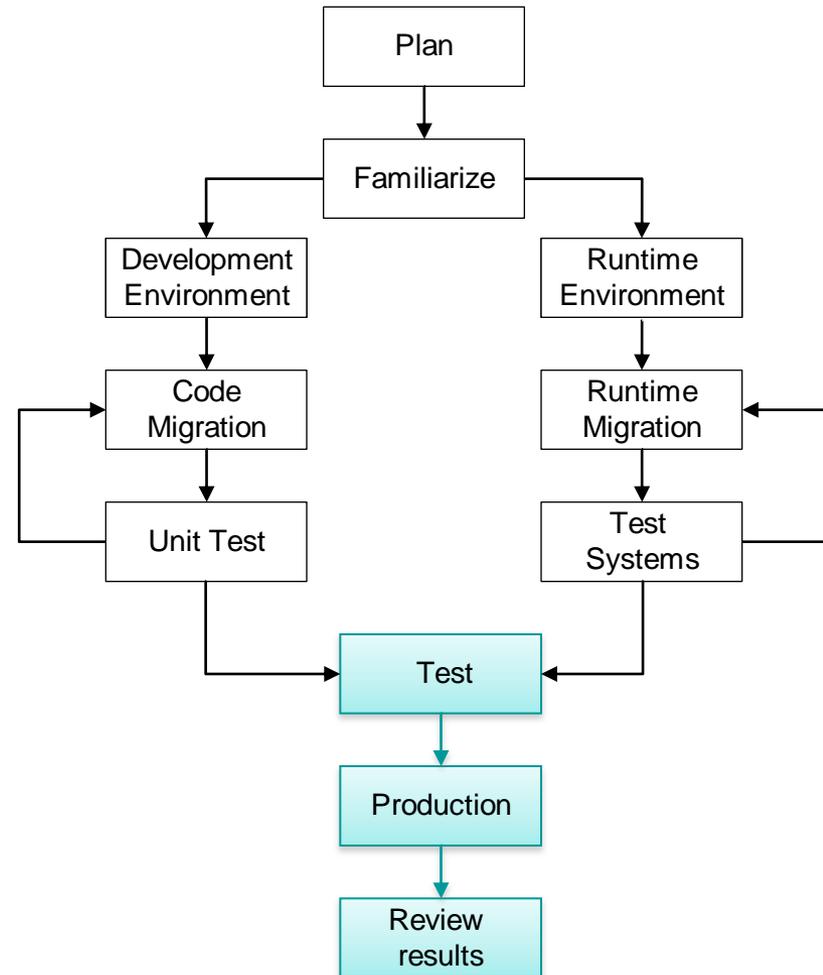
Run standard regression tests

Measure performance

- Compare to previous release
- Tune for the new JDK & Environment

Have a roll-back plan

Review



Plan your migration

1

Steps to migrate

2

Using new features

3

Operating model update

4

In this section

What's new in Portal installation

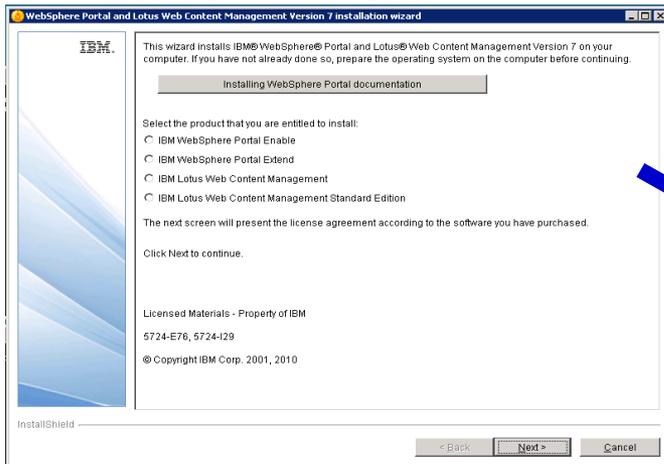
General in-place upgrade approach

Upgrading a cluster

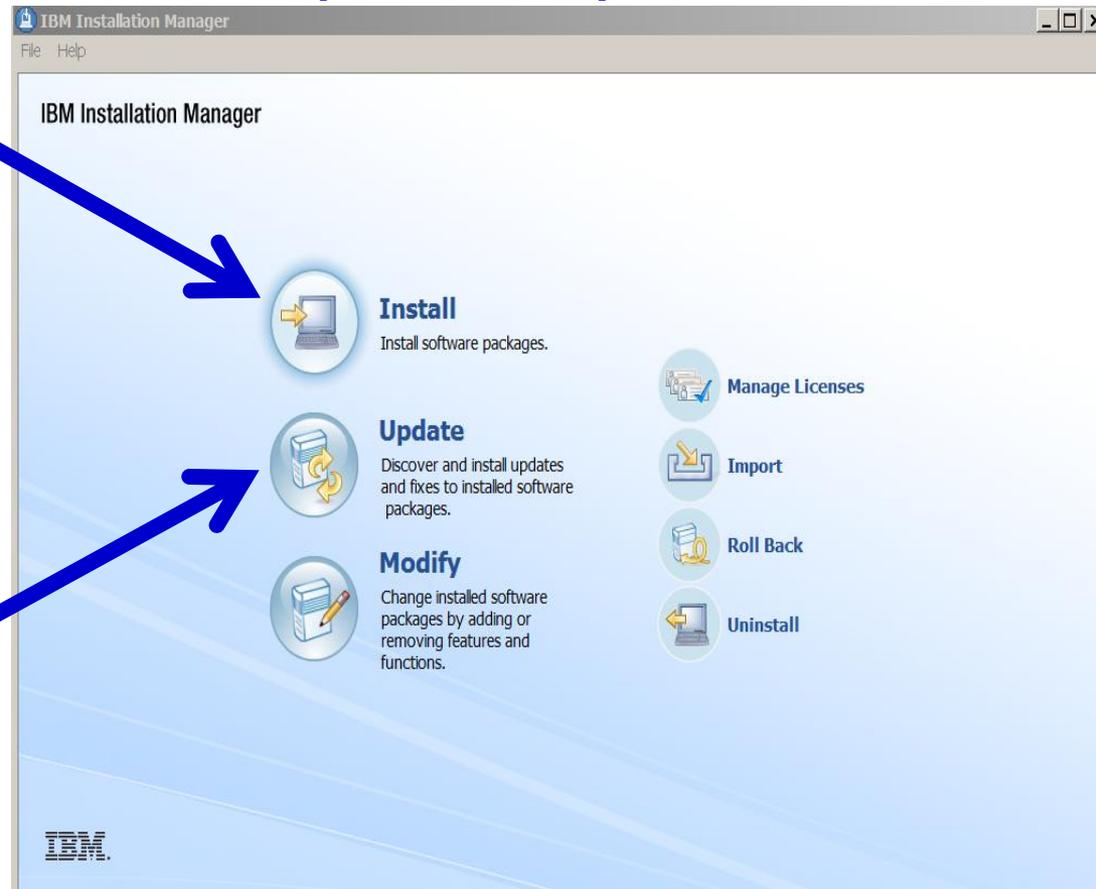
Upgrading databases

IBM Installation Manager manages the product life cycle

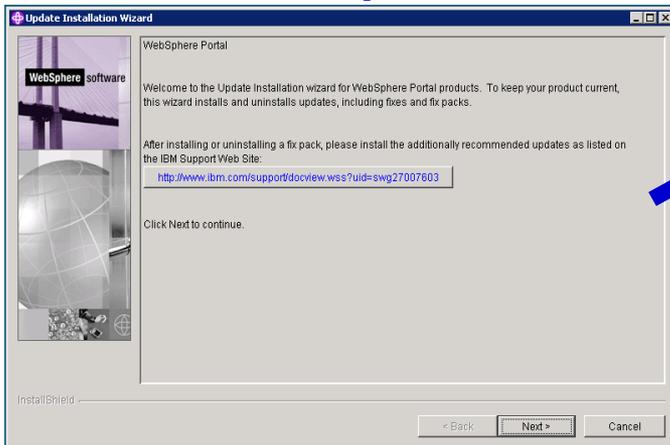
WP 7.0 ISMP install



WP 8.0 IM replaces multiple tools



WP 7.0 Portal Update Installer



Functional Comparison between WP7 & WP8 installation

| | WP7 | WP8 |
|---|------|-----|
| Default Configuration | ✓ | ✓ |
| Advanced Configuration | | ✓ |
| Switch Full/Base after the initial install | | ✓ |
| Dmgr profile creation | | ✓ |
| Dmgr profile augmentation | | ✓ |
| Allow users to use custom profile templates | | ✓ |
| Binary Install | flag | ✓ |
| Up-sell to the Content offerings | | ✓ |
| Refresh Portal profile without reinstallation | | ✓ |
| Install iFix & Fixpack at the same time | | ✓ |
| Clean up at install failure | | ✓ |

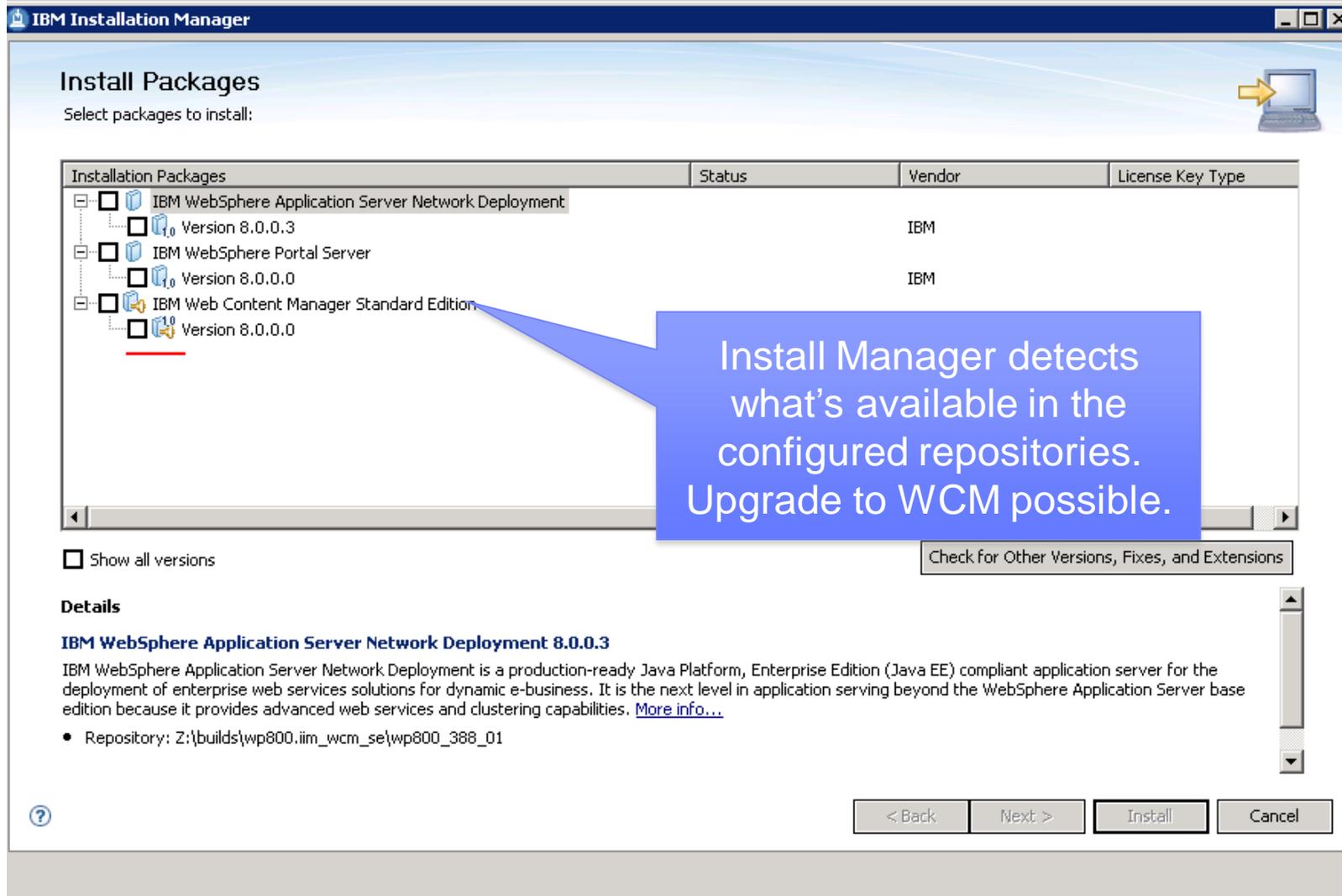
Install Manager connects to an installation repository

The screenshot shows the 'Preferences' dialog box in Install Manager, specifically the 'Repositories' tab. A red circle highlights 'Passport Advantage' in the left-hand navigation pane. A red arrow points from this circle to a specific repository entry in the table below. A blue callout box with white text says 'Direct connection to Passport Advantage'. The table lists several repositories, with the selected one being a local file path. A 'Password Required' dialog box is overlaid on top, asking for IBM ID and password to connect to the site.

| Location | Connection |
|--|------------|
| <input type="checkbox"/> https://constellation.beaverton.ibm.com/CICO/HEAD/I/com.ibm.package.developer/ | ? |
| <input checked="" type="checkbox"/> C:\wp8svr\im\wp\code\wp.im.install\com.ibm.websphere.portal\output\repository.config | ? |
| <input type="checkbox"/> https://ausgsa.ibm.com/gsa/ausgsa/projects/w/was.build/botp/WASX.IM/daily/xx1206.04.linu... | ? |
| <input type="checkbox"/> https://constellation.beaverton.ibm.com/IM/HEAD/I/cic-offering/ | ? |
| <input type="checkbox"/> C:\test\WASND_IIM_8.0.0.2.cf021147.04.patch | ? |
| <input checked="" type="checkbox"/> C:\test\WAS8003\repository.c... | ? |

Direct connection to Passport Advantage

Single install process for WAS, WP & WCM



| Installation Packages | Status | Vendor | License Key Type |
|--|--------|--------|------------------|
| [-] <input type="checkbox"/> IBM WebSphere Application Server Network Deployment | | | |
| <input type="checkbox"/> Version 8.0.0.3 | | IBM | |
| [-] <input type="checkbox"/> IBM WebSphere Portal Server | | | |
| <input type="checkbox"/> Version 8.0.0.0 | | IBM | |
| [-] <input type="checkbox"/> IBM Web Content Manager Standard Edition | | | |
| <input type="checkbox"/> Version 8.0.0.0 | | | |

Show all versions

Check for Other Versions, Fixes, and Extensions

Details

IBM WebSphere Application Server Network Deployment 8.0.0.3

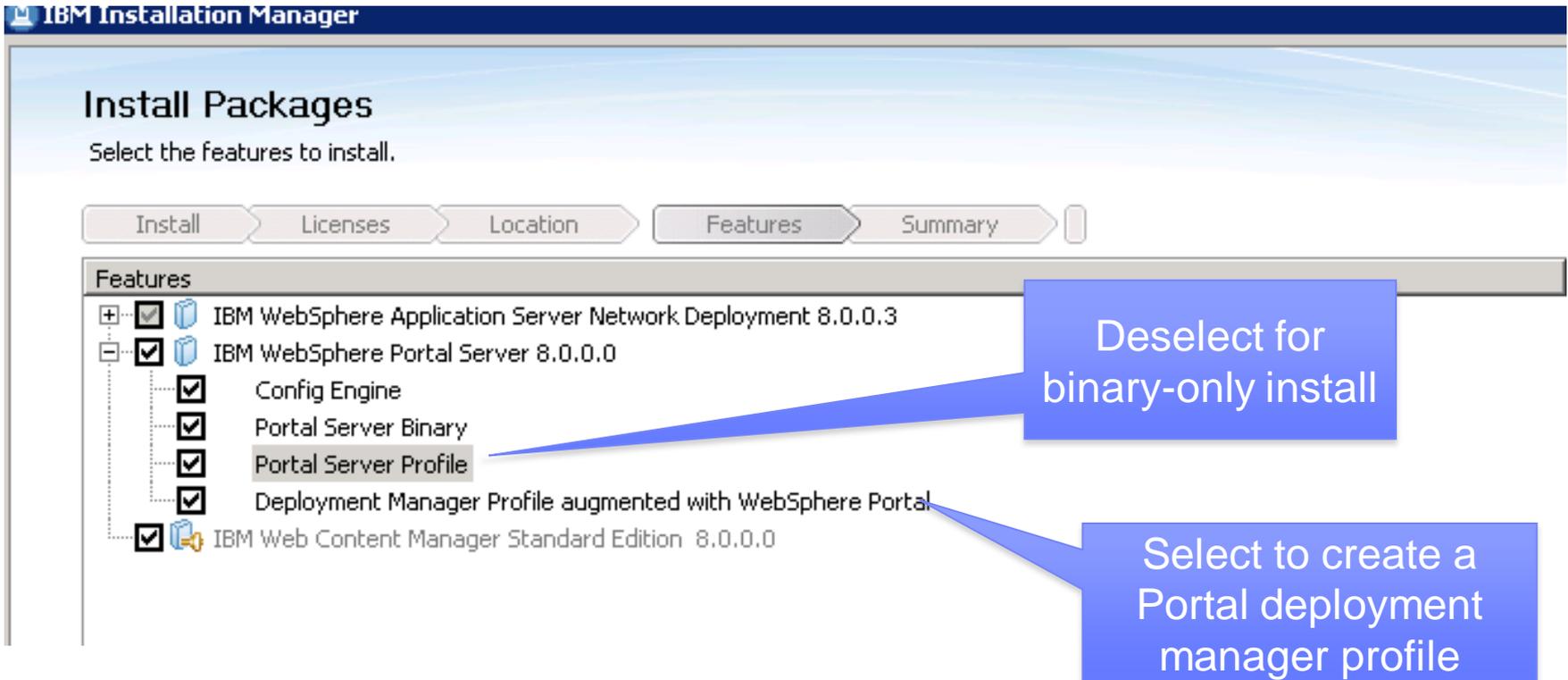
IBM WebSphere Application Server Network Deployment is a production-ready Java Platform, Enterprise Edition (Java EE) compliant application server for the deployment of enterprise web services solutions for dynamic e-business. It is the next level in application serving beyond the WebSphere Application Server base edition because it provides advanced web services and clustering capabilities. [More info...](#)

- Repository: Z:\builds\wp800.iim_wcm_se\wp800_388_01

< Back Next > Install Cancel

WP 8 Dmgr Profile Creation

- Select the Dmgr Profile



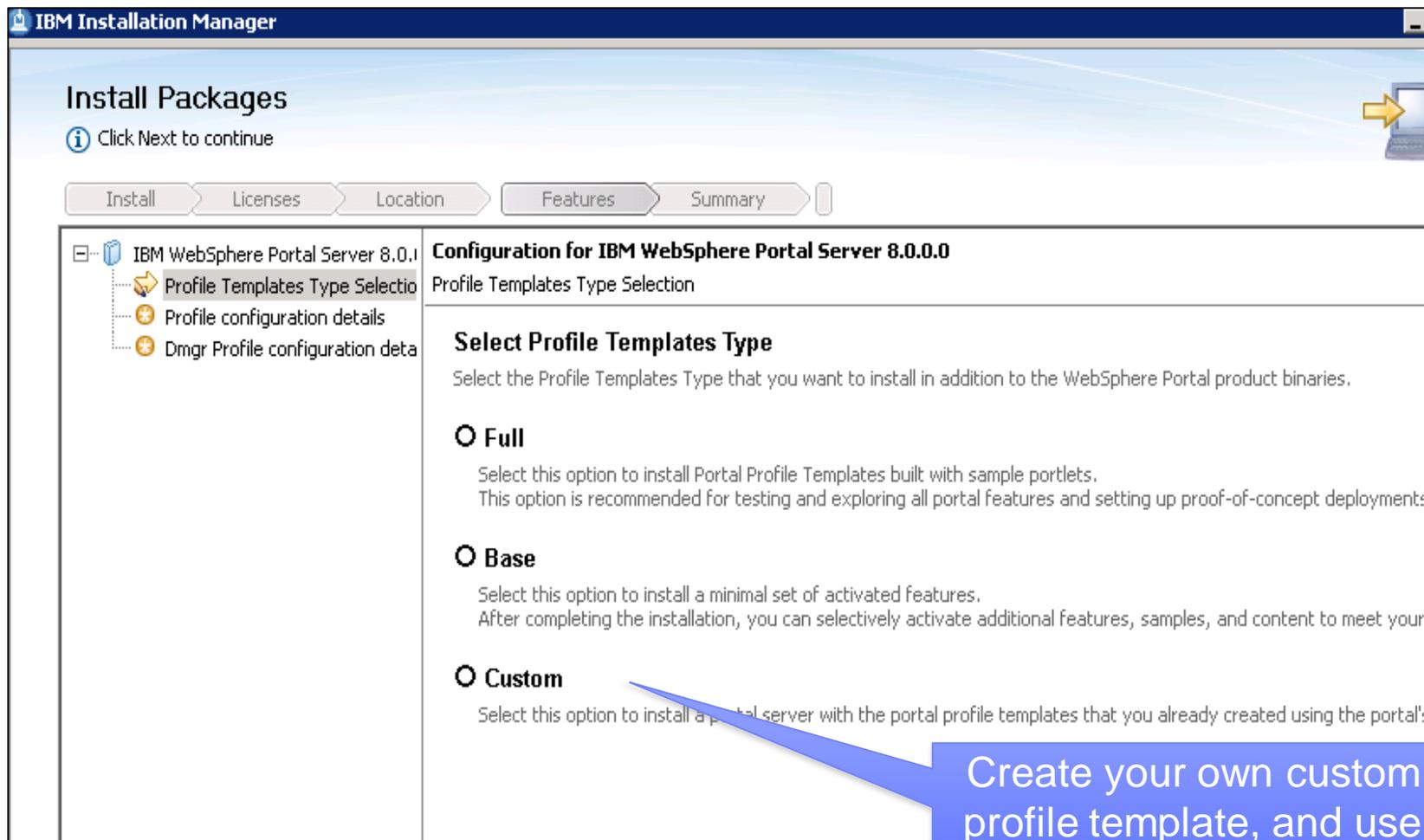
The screenshot shows the 'Install Packages' dialog in IBM Installation Manager. The 'Features' tab is active, and the following features are listed with their selection status:

- IBM WebSphere Application Server Network Deployment 8.0.0.3
- IBM WebSphere Portal Server 8.0.0.0
 - Config Engine
 - Portal Server Binary
 - Portal Server Profile
 - Deployment Manager Profile augmented with WebSphere Portal
- IBM Web Content Manager Standard Edition 8.0.0.0

Two callout boxes provide instructions:

- A blue callout box points to the 'Portal Server Profile' checkbox with the text: "Deselect for binary-only install".
- A blue callout box points to the 'Deployment Manager Profile augmented with WebSphere Portal' checkbox with the text: "Select to create a Portal deployment manager profile".

WP 8 Profile Templates Type



IBM Installation Manager

Install Packages

Click Next to continue

Install Licenses Location **Features** Summary

IBM WebSphere Portal Server 8.0.0.0

- Profile Templates Type Selection
- Profile configuration details
- Dmgr Profile configuration details

Configuration for IBM WebSphere Portal Server 8.0.0.0

Profile Templates Type Selection

Select Profile Templates Type

Select the Profile Templates Type that you want to install in addition to the WebSphere Portal product binaries.

- Full
Select this option to install Portal Profile Templates built with sample portlets.
This option is recommended for testing and exploring all portal features and setting up proof-of-concept deployments.
- Base
Select this option to install a minimal set of activated features.
After completing the installation, you can selectively activate additional features, samples, and content to meet your
- Custom
Select this option to install a portal server with the portal profile templates that you already created using the portal:

Create your own custom profile template, and use it here

WP 8 Server Install – Summary

IBM Installation Manager

Install Packages
Review the summary information.

Install | Licenses | Location | Features | **Summary**

Target Location
Shared Resources Directory: C:\Program Files (x86)\IBM\IMShared

Packages

| Packages | Installation Directory |
|---|---------------------------------------|
| IBM WebSphere Application Server Network Deployment V8.0 | C:\Program Files (x86)\IBM\WebSphe... |
| 8.0.0.3-WAS-WAS-TFPM59935 8.0.3.20120309_1201 | |
| 8.0.0.3-WAS-WAS-TFPM60670 8.0.3.20120319_1949 | |
| 8.0.0.3-WAS-WASProd-TFPM60134 8.0.3.20120312_1656 | |
| EJBDeploy tool for pre-EJB 3.0 modules | |
| Stand-alone thin clients, resource adapters and embeddable containers | |
| IBM Software Development Kit | |
| IBM WebSphere Portal Server V8 | C:\Program Files (x86)\IBM\WebSphe... |
| IBM WebSphere Portal Server 8.0.0.0 | |
| Config Engine | |
| Portal Server Binary | |
| Portal Server Profile | |
| Deployment Manager Profile augmented with WebSphere Portal | |
| IBM Web Content Manager Standard Edition 8.0.0.0 | |

Environment
English

Disk Space Information

| | Total Available Space |
|--------------------------|-----------------------|
| C: | 108.92 GB |
| Total Download Size: | 2.41 GB |
| Total Installation Size: | 5.83 GB |

Repository Information

Callouts:

- Required WAS iFixes** (points to 8.0.0.3-WAS-WAS-TFPM59935)
- WP8** (points to IBM WebSphere Portal Server V8)
- Deployment manager** (points to Deployment Manager Profile augmented with WebSphere Portal)
- WCM** (points to IBM Web Content Manager Standard Edition 8.0.0.0)

In this section

What's new in Portal installation

General in-place upgrade approach

Upgrading a cluster

Upgrading databases

Notes and Considerations

Migration of WebSphere is a side-by-side operation

- An additional WebSphere installation is required to complete migration
- Can be remote or local

WebSphere Portal profile migration will be done in place on the target system

- Migration requires a new installation of the Portal binaries
- Migration will act in place on the database and profile information

Ensure that “Automatic Synchronization” is disabled!

Avoid changes to the environment or system until migration is complete

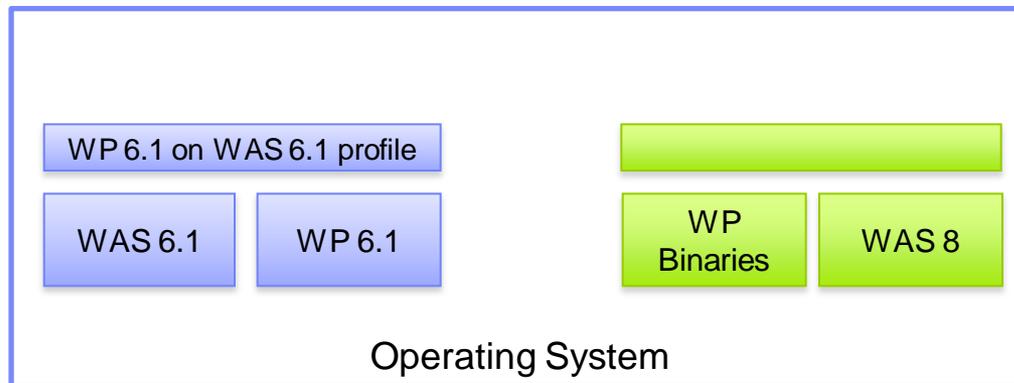
Database copies are required to avoid data loss

- Migration will act on the database so plan accordingly
- Carefully read the planning and prerequisite information for the JCR migration

Migrating a Standalone Environment

Install Portal 8.0.0.x in binary only mode

Apply any required Portal 8.0.0.x migration APARs



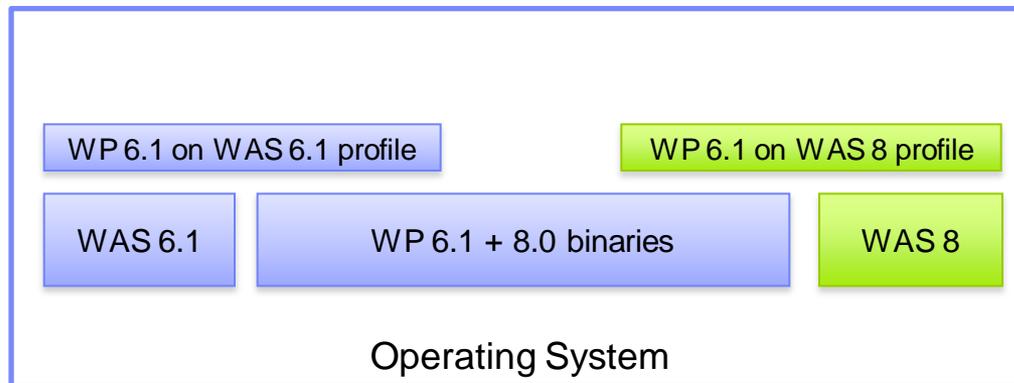
Migrating a Standalone Environment

Install Portal 8.0.0.x in binary only mode

Apply any required Portal 8.0.0.x migration APARs

Migrate the WebSphere profile using the WebSphere tooling

Upgrade the ConfigEngine tool



Migrating a Standalone Environment

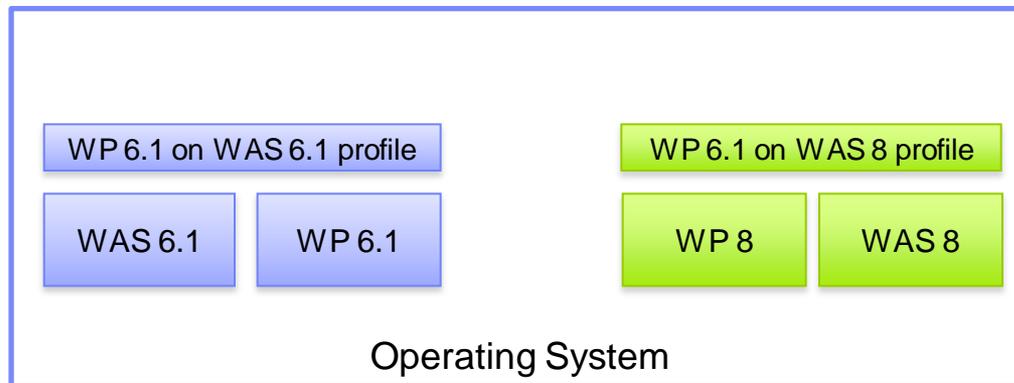
Install Portal 8.0.0.x in binary only mode

Apply any required Portal 8.0.0.x migration APARs

Migrate the WebSphere profile using the WebSphere tooling

Upgrade the ConfigEngine tool

Migrate the Portal profile



In this section

What's new in Portal installation

General in-place upgrade approach

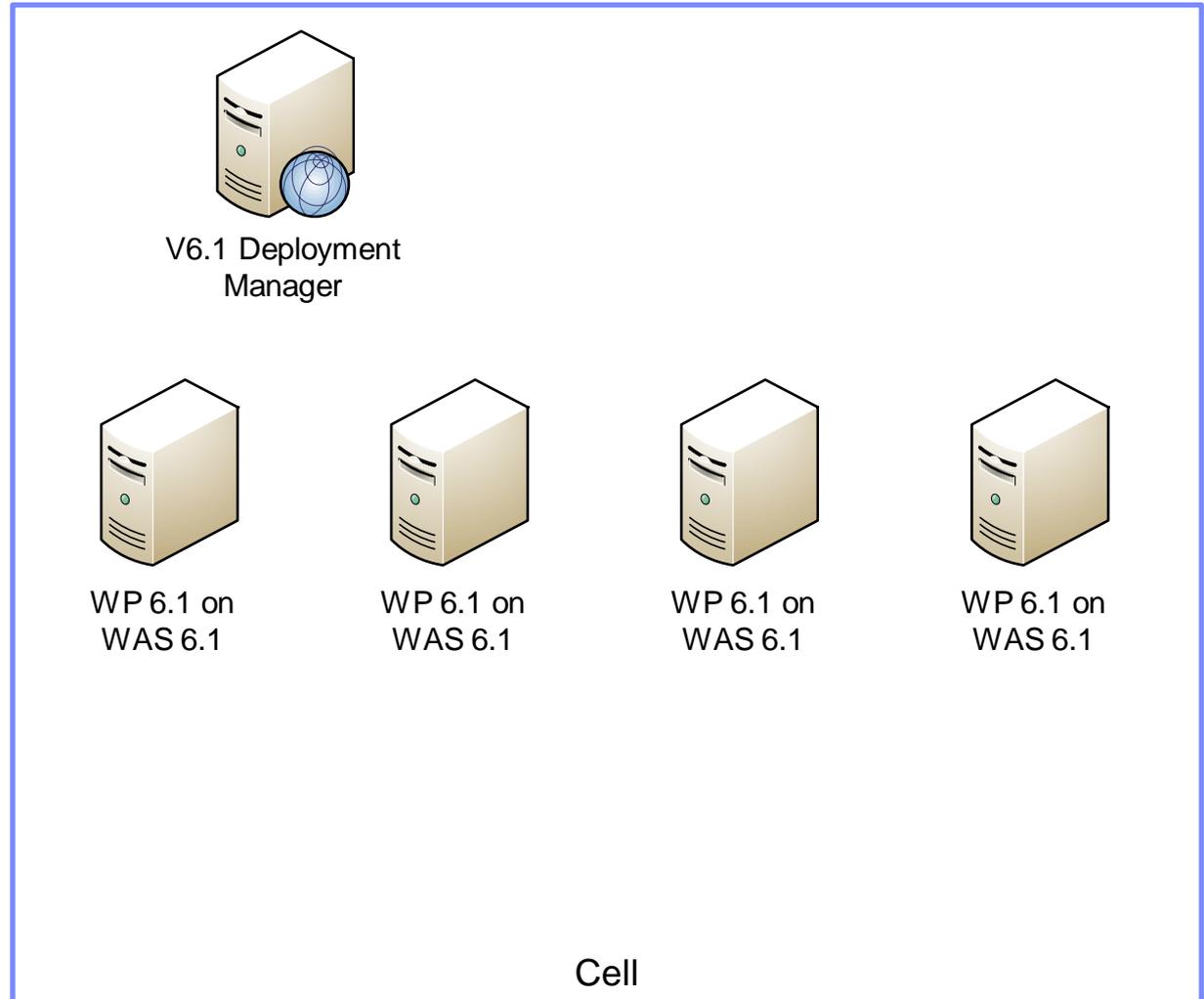
Upgrading a cluster

Upgrading databases

Migrate a clustered environment

Step 0

- Initial configuration



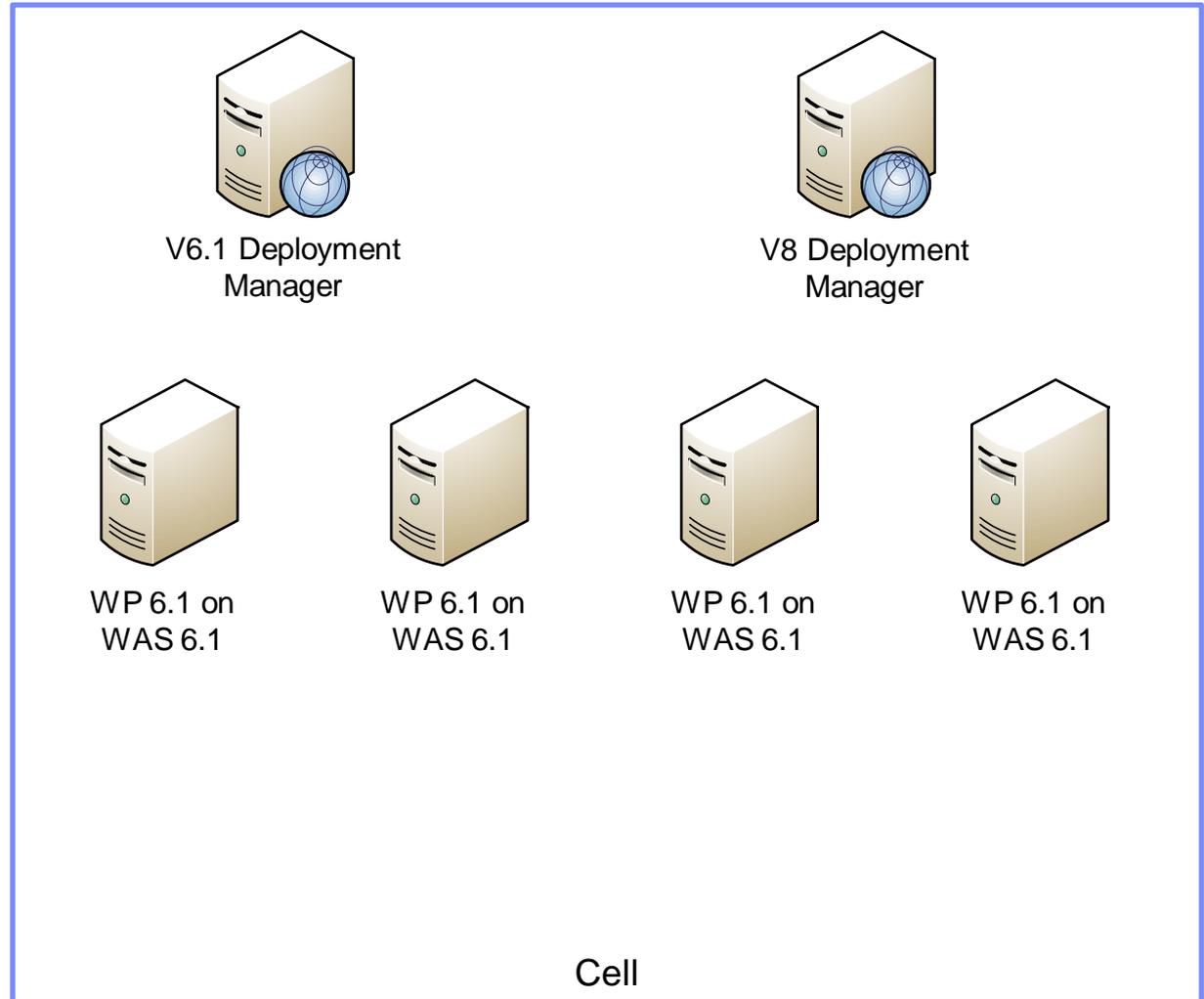
Migrate a clustered environment

Step 0

- Initial configuration

Step 1

- Install v8 DMGR



Migrate a clustered environment

Step 0

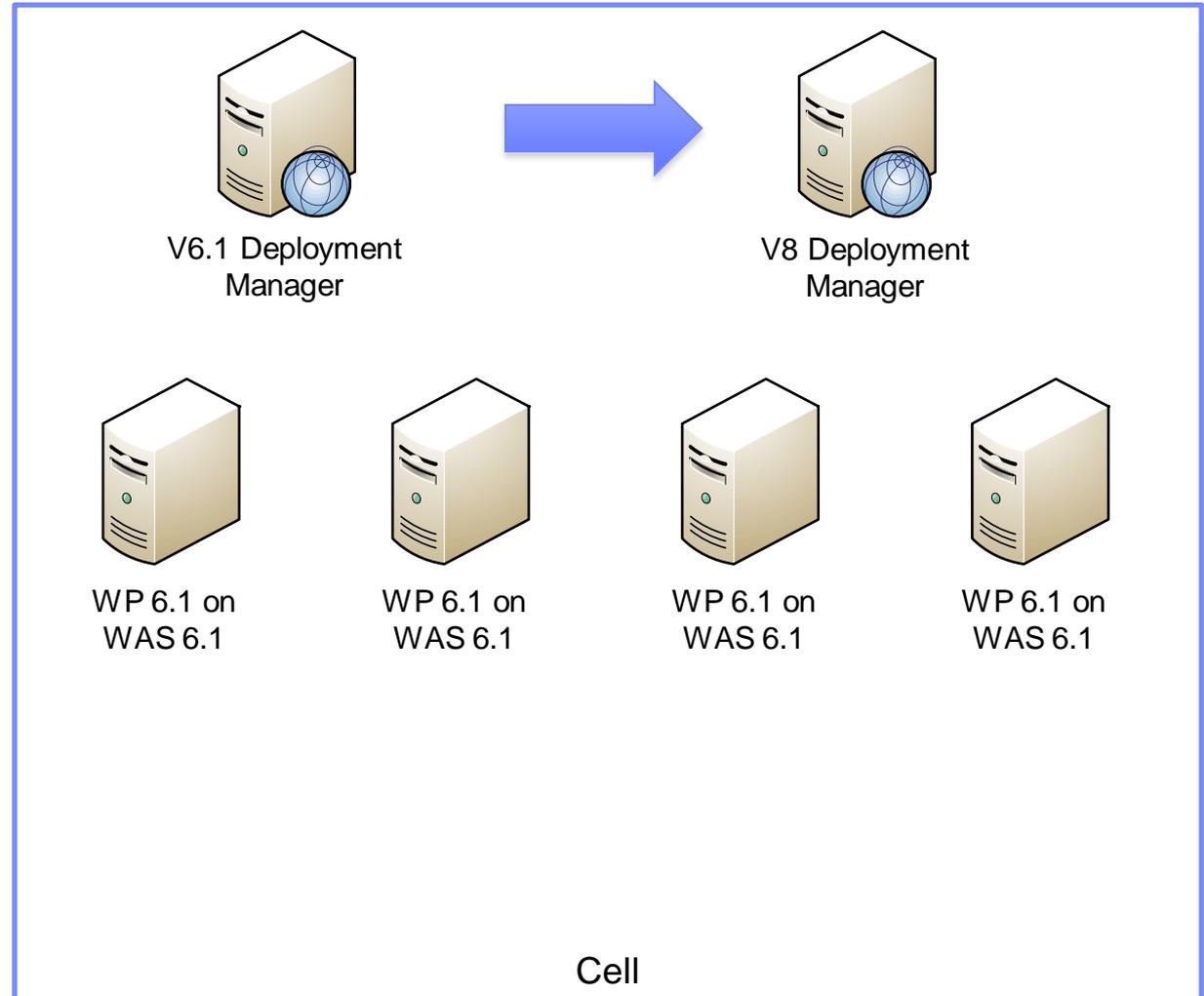
- Initial configuration

Step 1

- Install v8 DMGR

Step 2

- Migrate 6.1 Dmgr to v8.0



Migrate a clustered environment

Step 0

- Initial configuration

Step 1

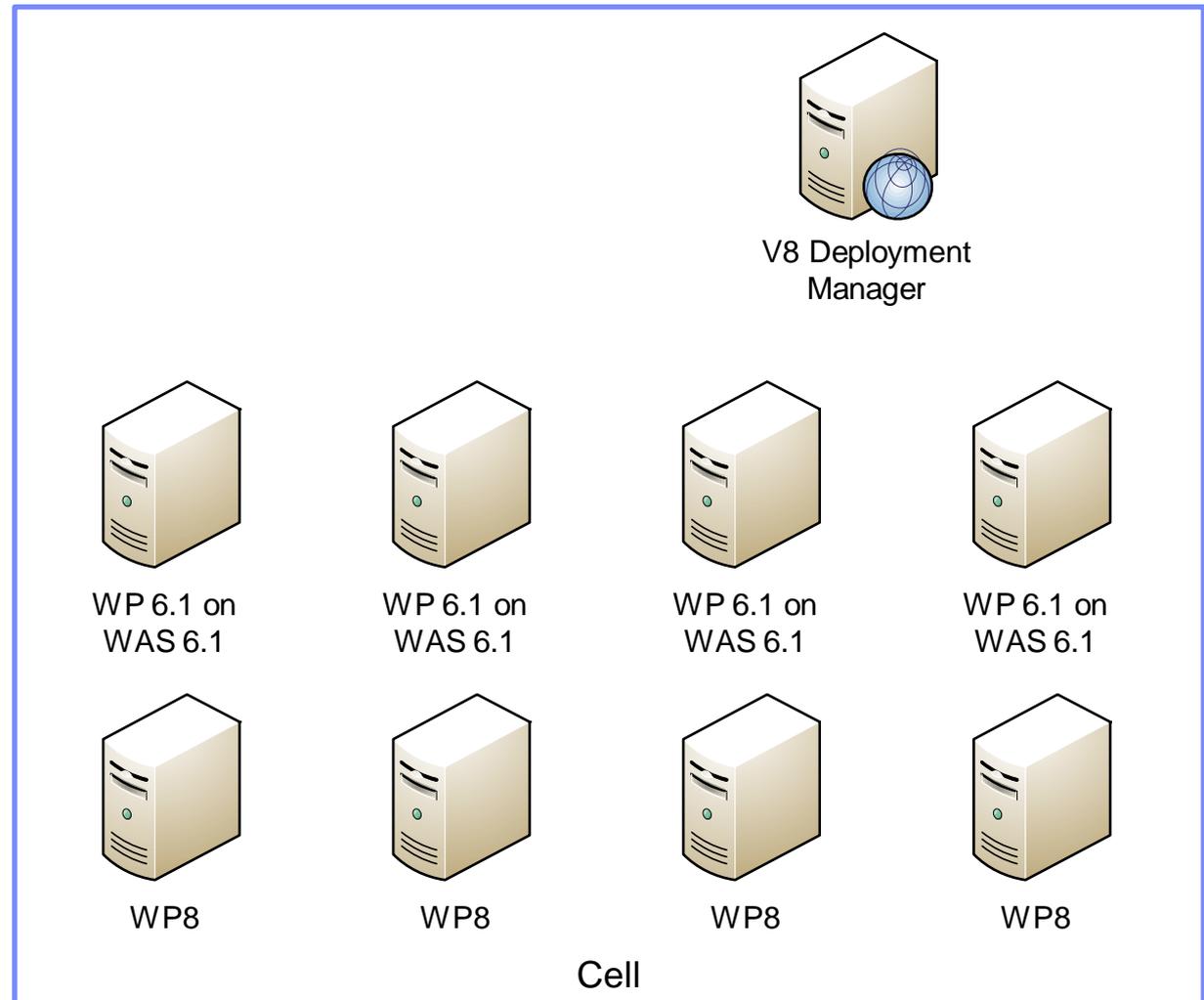
- Install v8 DMGR

Step 2

- Migrate 6.1 Dmgr to v8.0

Step 3

- Install WP v8.0



Migrate a clustered environment

Step 0

- Initial configuration

Step 1

- Install v8 DMGR

Step 2

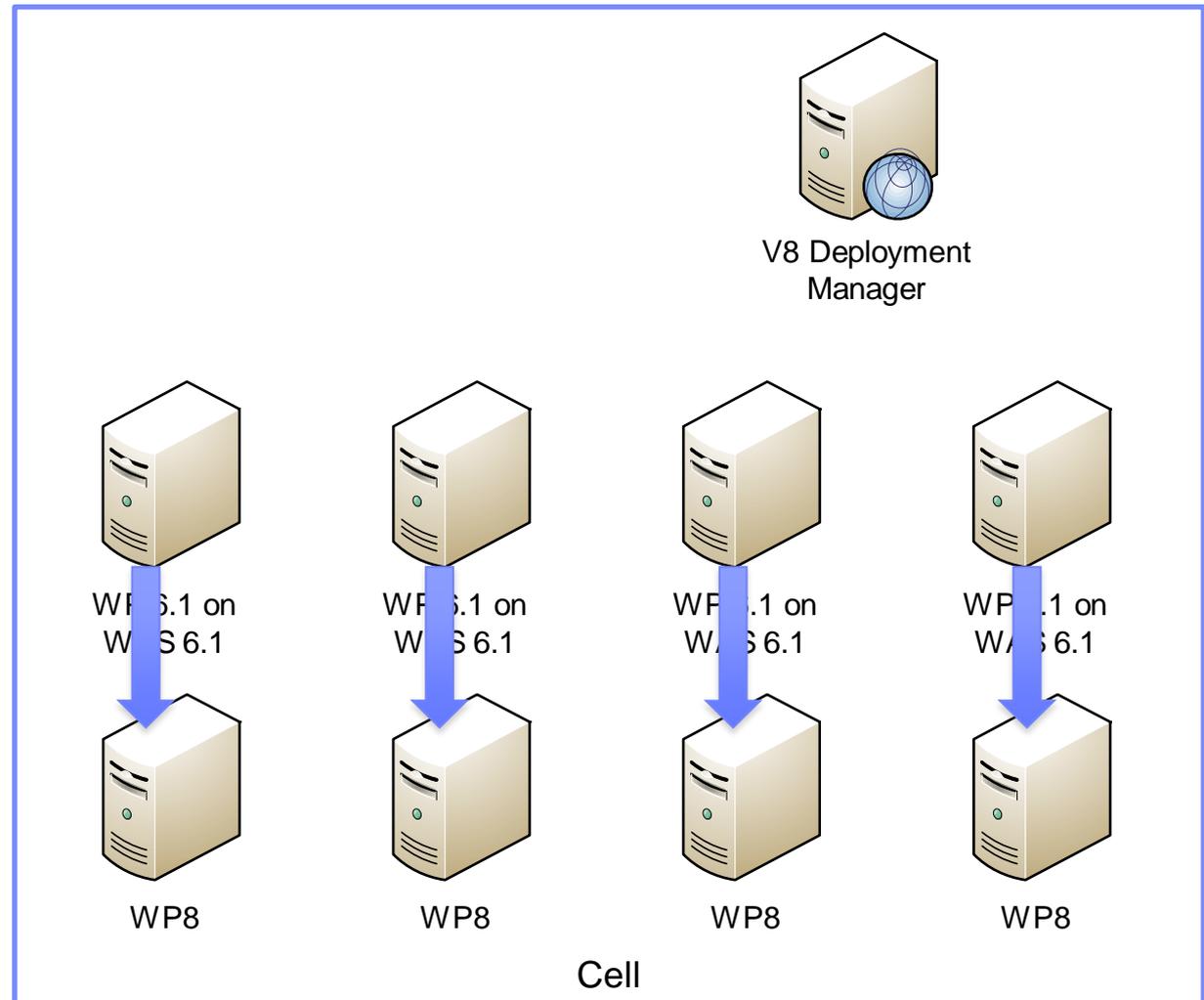
- Migrate 6.1 Dmgr to v8.0

Step 3

- Install WP v8.0

Step 4

- Run WAS migration tasks on each Profile and Portal upgrade profile tasks



In this section

What's new in Portal installation

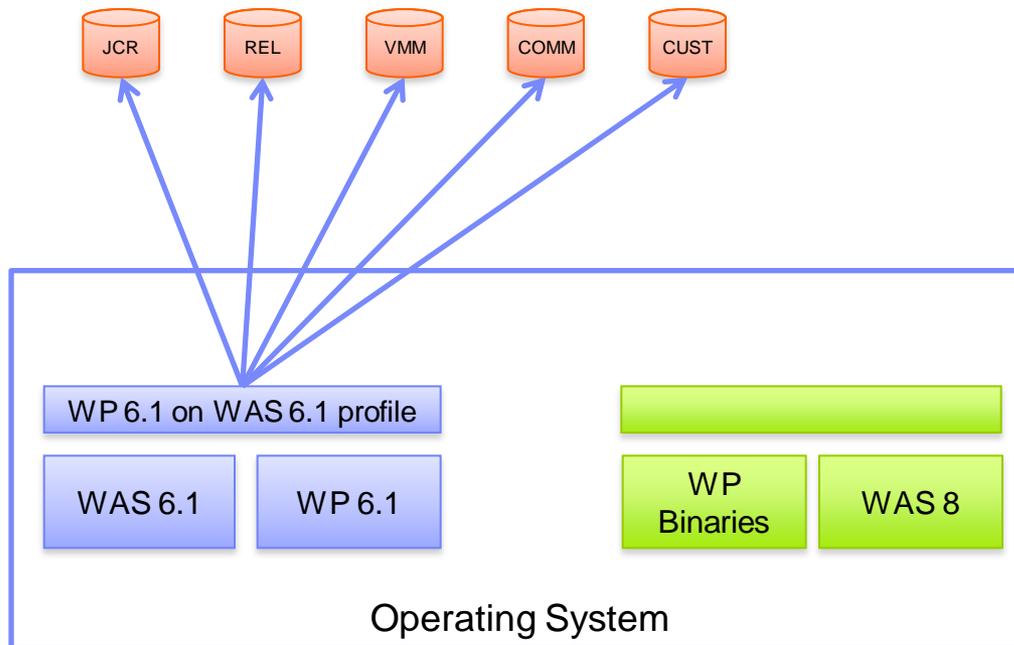
General in-place upgrade approach

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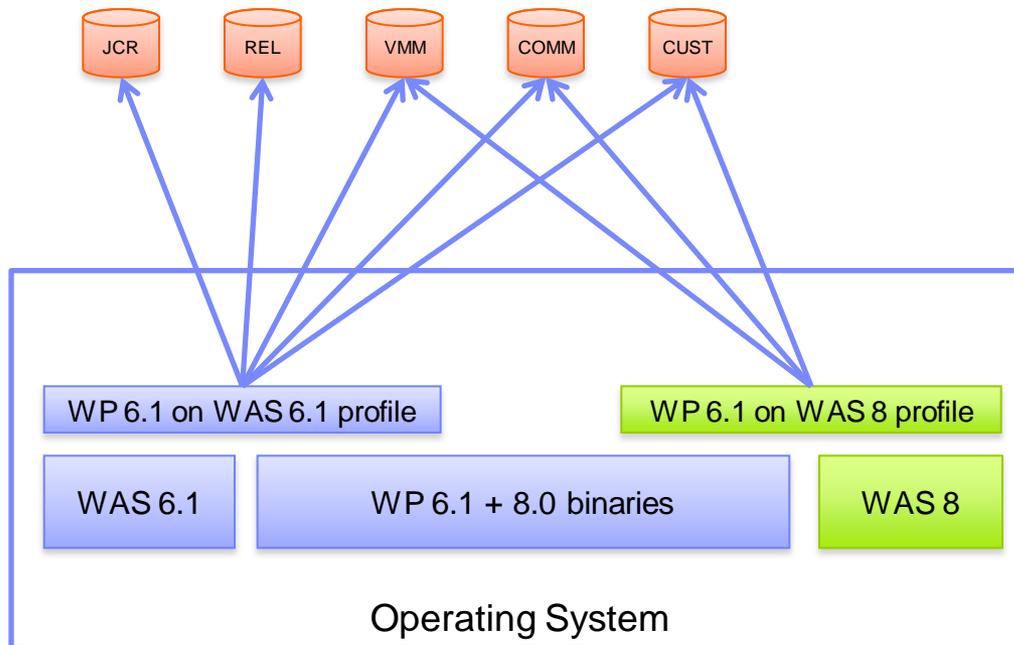
Reusing the previous databases

Make copies of the Release & JCR (or all) domains to ensure working 6.1 environment
Connect the new Portal to the copies prior to upgrade-profile



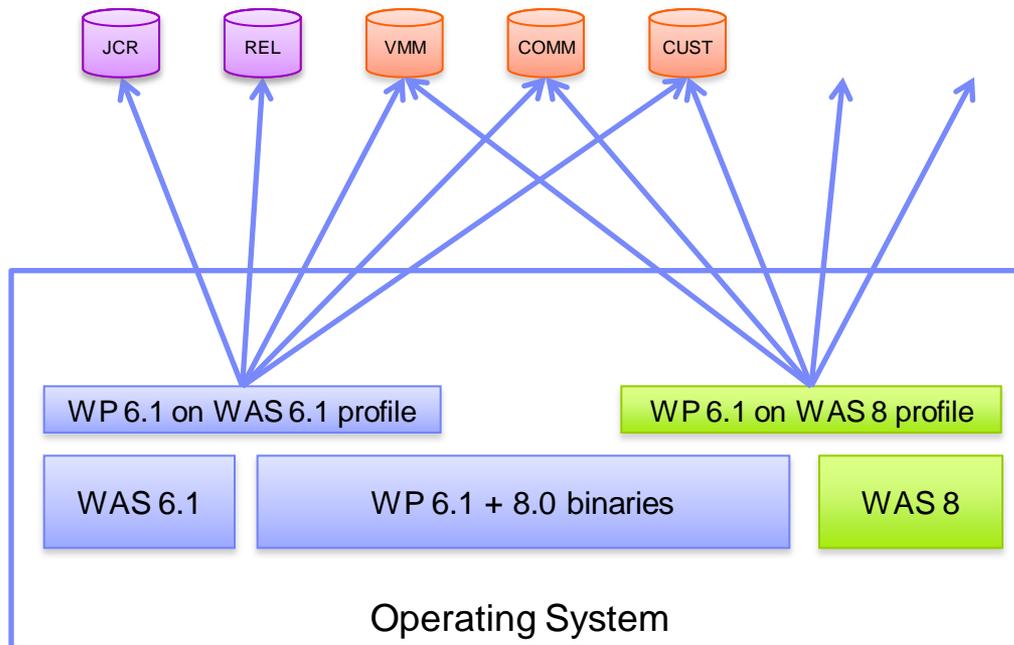
Reusing the previous databases

Make copies of the Release & JCR (or all) domains to ensure working 6.1 environment
Connect the new Portal to the copies prior to upgrade-profile



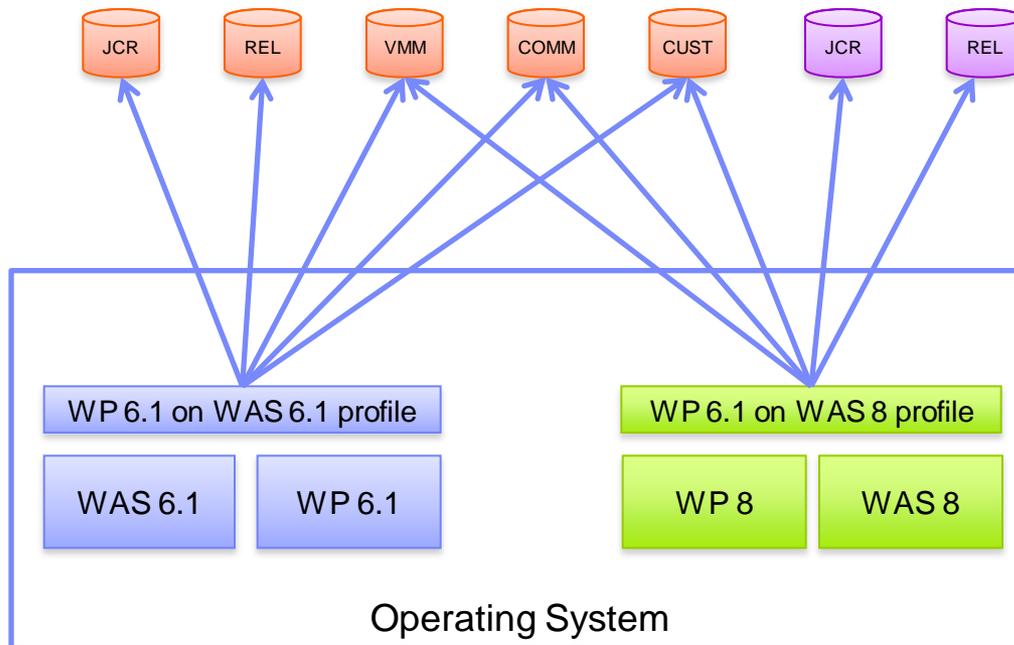
Reusing the previous databases

Make copies of the Release & JCR (or all) domains to ensure working 6.1 environment
Connect the new Portal to the copies prior to upgrade-profile



Reusing the previous databases

Make copies of the Release & JCR (or all) domains to ensure working 6.1 environment
Connect the new Portal to the copies prior to upgrade-profile



JCR Database Migration Considerations

The JCR schema has been updated in version 8.0

- Table count reduced significantly
- Drastically reduced complexity
- Appropriate runtime permission

Dynamic table creation has been replaced by rows in “wide tables”

Conversion requires resources

- Algorithms are provided to estimate the transaction logging space required for large datasets

[http://www-](http://www-10.lotus.com/ldd/portalwiki.nsf/dx/Portal_V6.1.x_on_application_server_V6.1_standalone_Configuring_transaction_logging_space_wp8)

[10.lotus.com/ldd/portalwiki.nsf/dx/Portal_V6.1.x_on_application_server_V6.1_standalone_Configuring_transaction_logging_space_wp8](http://www-10.lotus.com/ldd/portalwiki.nsf/dx/Portal_V6.1.x_on_application_server_V6.1_standalone_Configuring_transaction_logging_space_wp8)

- Plan appropriate time for the process to complete

WCM data can be remigrated after migration has completed

Plan your migration

1

Steps to migrate

2

Using new features

3

Operating model update

4

In addition to upgrading the platform, your applications may need to be updated

Java & J2EE changes may require code change in custom portlets

- Important API levels summarized in the table below
- At both v8, IBM portlet API is deprecated but still supported

At both v7(.0.0.2) and v8, there is a completely new theme architecture

- V6-style themes will still run on v7 and v8 (assuming custom java updated for API changes)
- JSP server-side theme will need to be rewritten to capitalize on new features

| API | WAS 5.1 | WAS 6 | WAS 7 | WAS 8 |
|----------------|---------|-------|-------|-------|
| J2SE / Java SE | 1.4 | 1.4 | 6 | 6 |
| J2EE / Java EE | 1.3 | 1.4 | 5 | 6 |
| Servlet | 2.3 | 2.4 | 2.5 | 3.0 |
| JSP | 1.2 | 2.0 | 2.1 | 2.2 |
| EJB | 2.0 | 2.1 | 3.0 | 3.1 |
| JDBC | | 3.0 | 4.0 | 4.0 |

Post-migration activities

Page templates

- WCM 8 Page Templates are not completely set up by migration process, and must be manually configured post-migration

Enable impersonation

- May not be enabled, especially if migrating from pre-6.1.5
- Users may need to be updated with appropriate Delegator roles

Enable new WCM features, including new theme

- Web Content Viewer replaces legacy local rendering portlet

Enable managed pages

Update blog & wiki templates

Enable sample web content – and consider deploying Content Template Catalog

Enable new person card (v7)

Install removed portlets from catalog

Post Migration Considerations (ConfigEngine)

Moving hidden pages for better performance

- Person tag hidden pages will generate errors in portal logs

Enabling WCI

- Manually create WCI pages in portal admin

Virtual Portal update

- Shared settings – Virtual Portal default content scripts
- Old features
 - Seedlist portlet
 - Remove pages with old references
- WCM Authoring portlet theme update to v8

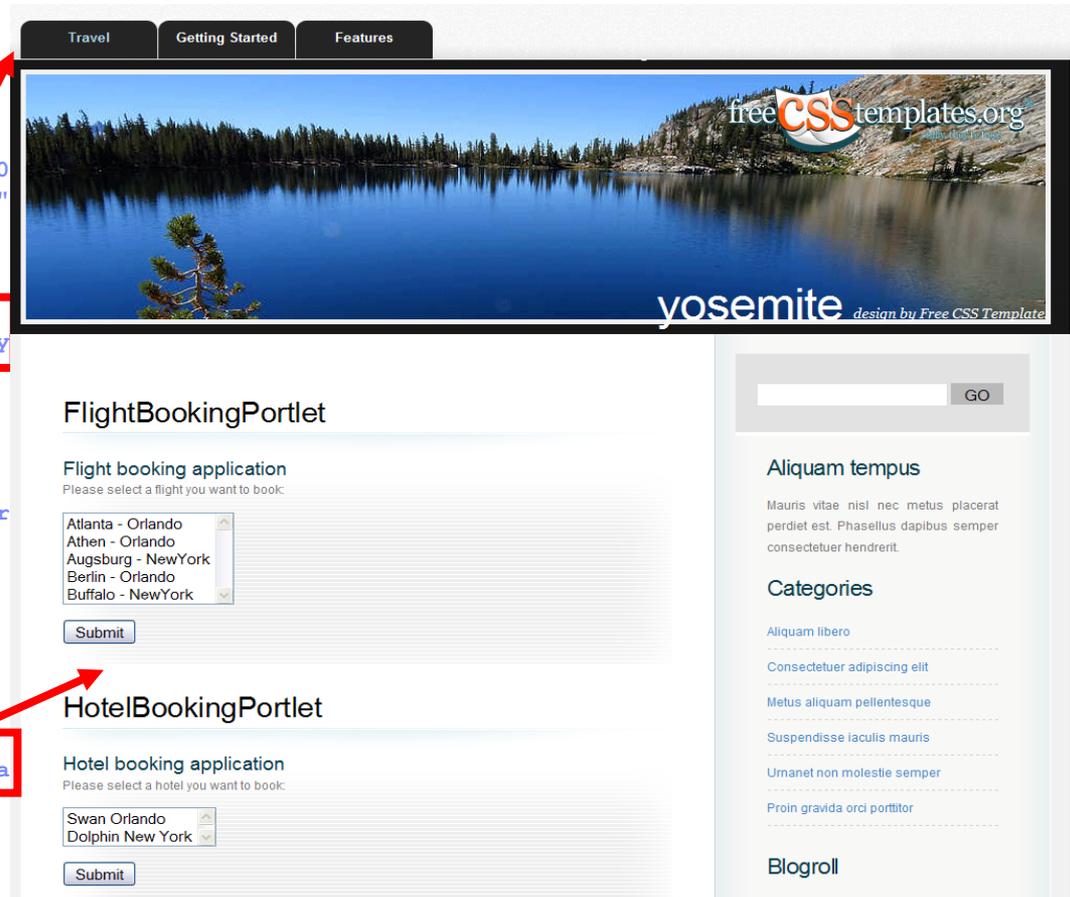
New theme architecture

Page is constructed from HTML with references to dynamic content spots

- Editing of themes using HTML Design tools possible – key file is theme.html
- Support for changing themes on **running development system** using WebDAV

```

<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>Yosemite by Free CSS Templates</title>
<link href="http://wpsvm084.boeblingen.de.ibm.com:100
type1/themes/PageBuilder2/style.css" rel="stylesheet"
</head>
<body>
<div id="wrapper">
<a rel="dynamic-content"
href="res:/PageBuilder2/themes/html/PageBuilder2/My
<!-- end #menu -->
<div id="header">
<div id="logo">
<h1><a href="#">Yosemite </a></h1>
<p> design by <a href="http://www.freecsstemplates.or
</div>
</div>
<!-- end #header -->
<div id="page">
<div id="page-bgtop">
<div id="page-bgbtm">
<div id="content">
<a rel="dynamic-content"
href="dyn-cs:id:layout@tl:oid:csa2.theme"></a>
<div style="clear: both;">&nbsp;</div>
</div>
<div style="clear: both;">&nbsp;</div>
    
```



Using the new theme

Portal keeps the default themes from the version you migrated from

- These will continue to work, but access to new function (e.g. managed pages) will be limited
- ConfigEngine tasks to enable new WP8 themes:
 - action-upgrade-theme-admin-oob
 - action-upgrade-wcm-theme-admin-oob
- May need to implement new customizations

Default Dojo context root is /WpsContextRoot/portal_dojo – some themes may need an update

- Up-to-date Dojo version is anyway required for new theme features

Site analytics requires a post-migration ConfigEngine task to enable Active Site Analytics tags

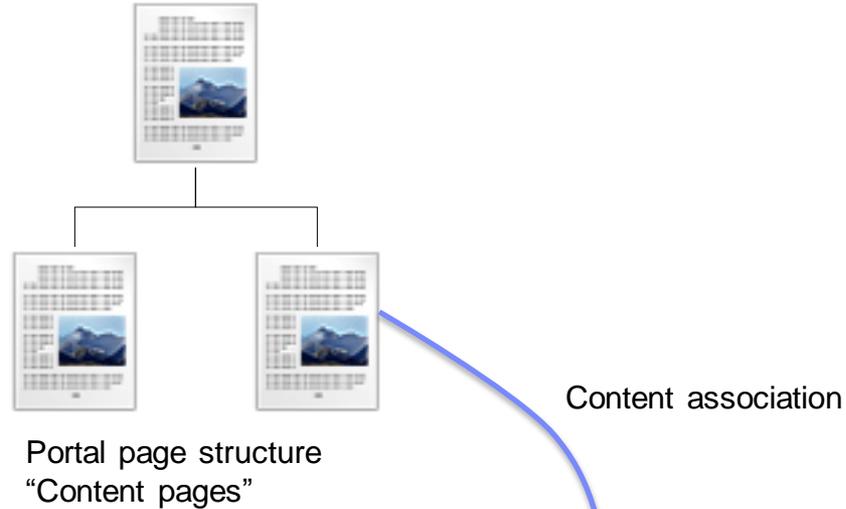
Mashup integration is disabled. ConfigEngine task to re-enable it

action-create-ear-wp.mmi.deploy

More on managed pages

Enable Managed Pages

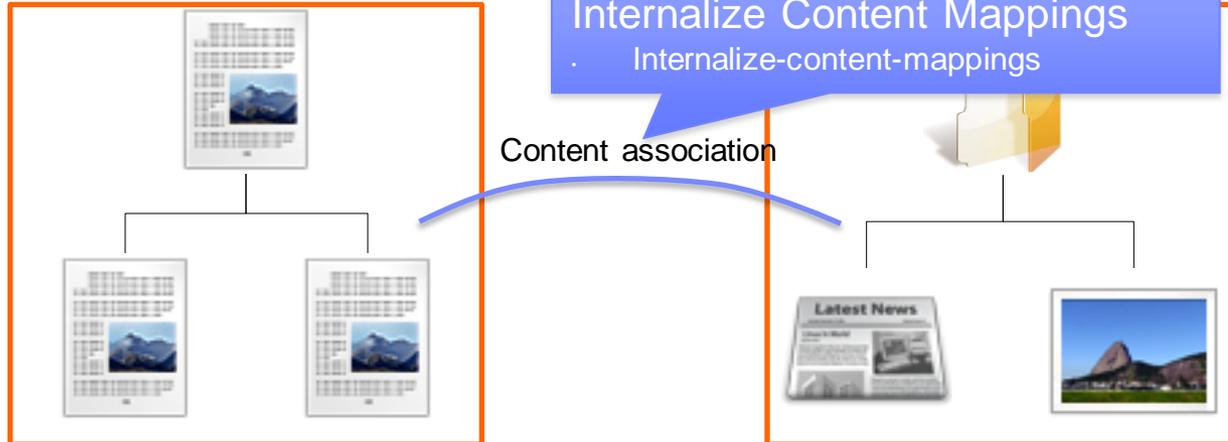
- enable-managed-pages
- create-virtual-portal-site-nodes
- create-page-nodes



Portal page structure
"Content pages"

Internalize Content Mappings

- Internalize-content-mappings



"Portal Site Library"
Managed pages.

WCM library, associated
site areas & content

Plan your migration

1

Steps to migrate

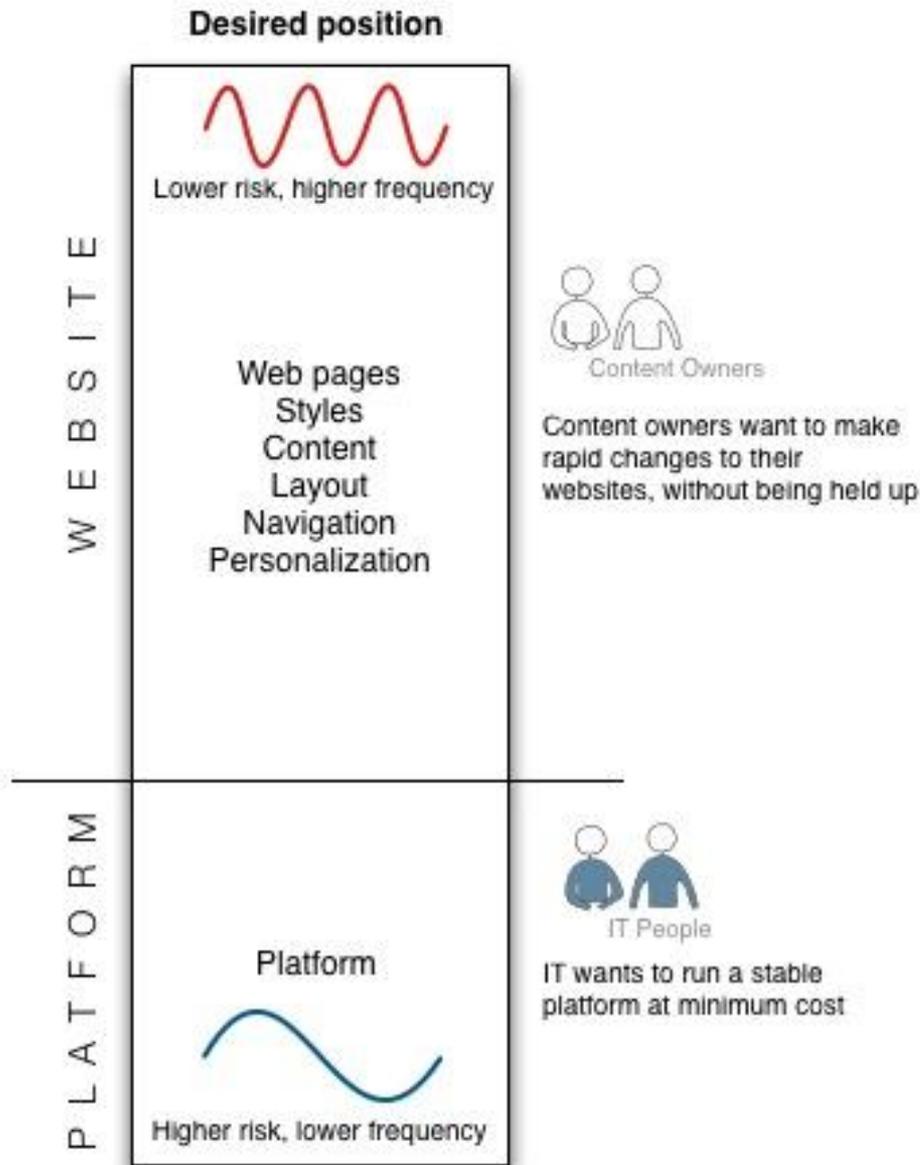
2

Using new features

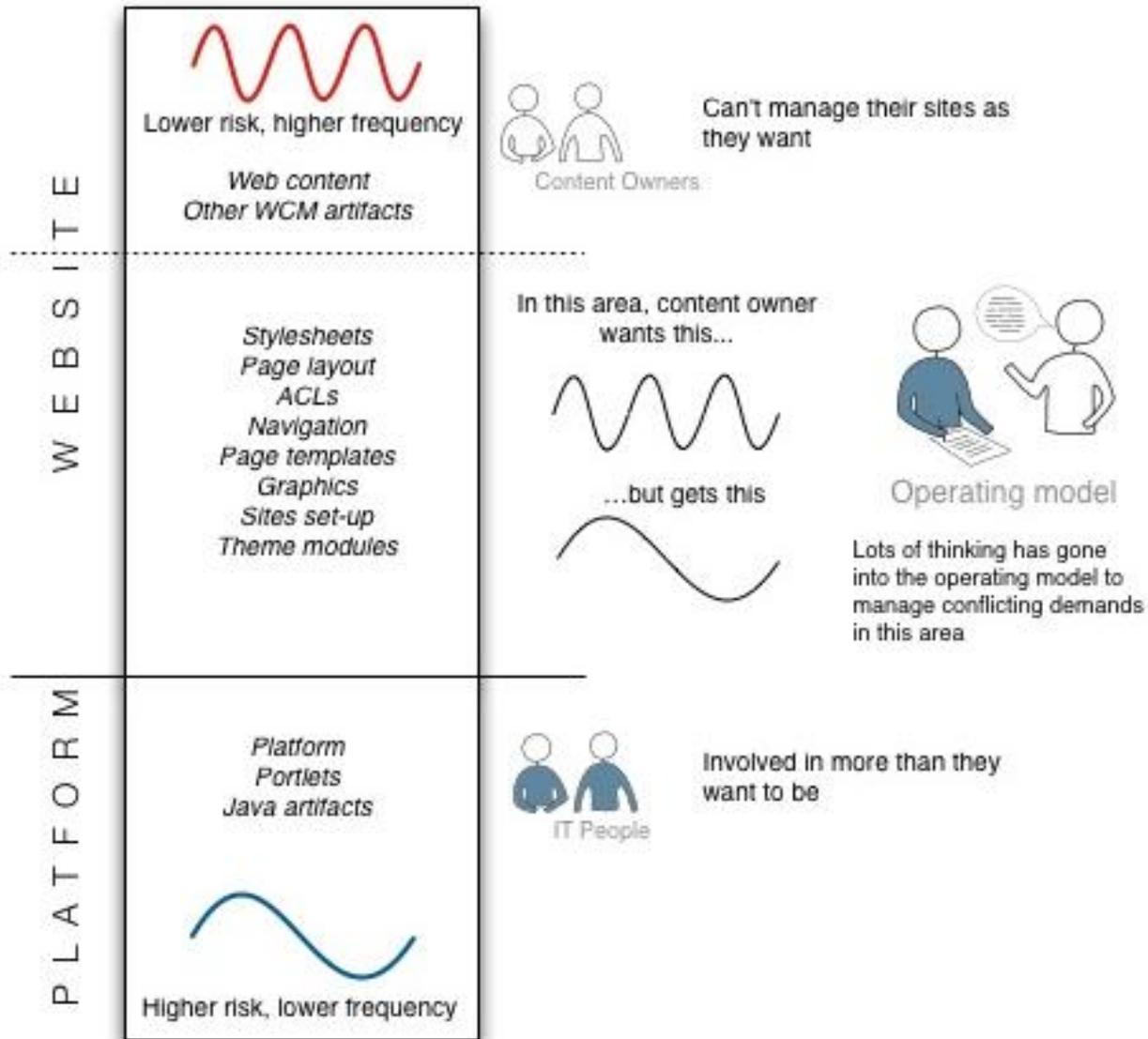
3

Operating model update

4



v6.1.5 position



v8 position

T E

P L A T F O R M



Lower risk, higher frequency

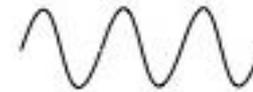


Content Owners

Much more in control

Web content
Stylesheets
Page layout
ACLs
Navigation
Page templates
Graphics

In this area, content owner wants this...



... and gets it



HTML/CSS skills to manage website

Theme modules
Sites setup

Area of painful overlap much reduced

Middleware
Portlets
Java artifacts



IT People

Can focus on platform - some code deployments still to manage



Higher risk, lower frequency

WCM 8 is much simpler to operate than previous versions

Plan your migration

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Commands

WASPreUpgrade – Exports the Portal and custom WAS configurations from the Previous WAS profile. This includes portlets, ears, variables, datasources, etc...

WASPostUpgrade – Imports the exported WAS configurations into the WAS v8.0 profile, effectively moving Previous profile into a WAS v8.0 profile

upgradeConfigEngine - Upgrades the ConfigEngine in the migrated profile to allow the execution of the WP v8.0 profile upgrade tasks.

genRemMigPkg – Gathers file required to be added to the WAS supplements CD for remote migration.

ConfigEngine commands

- **upgrade-profile** – Converts a v6.1 Portal configuration on a WAS v8.0 profile into a WP v8.0 configuration
- **generate-db-migration-scripts**
- **upgrade-database** – Upgrade the database (z/OS only)

Logs

Log files are created using the command line scripts

The logs created by the command line script help you debug migration process failures. The following log files are useful for debugging issues

V6.1 to WP v7.0

- <wp_profile_root>/PortalServer/log/UpgradeConfigEngineTrace.log
- <wp_profile_root>/PortalServer/log/Uninstall_Engine.log
- <wp_profile_root>/PortalServer/log/Install_Engine.log
- <wp_profile_root>/ConfigEngine/log/ConfigTrace.log
- <wp_profile_root>/ConfigEngine/log/failure<time-stamp>.log

For More Information

IBM Customer Experience Suite, WebSphere Portal and Web Content Manager Software and Solutions

- <http://www-01.ibm.com/software/info/customerexperience/>

WebSphere Portal and IBM Web Content Manager Information Center

- <http://www-10.lotus.com/ldd/portalwiki.nsf>
- http://www-10.lotus.com/ldd/portalwiki.nsf/dx/Migrating_wp8
- http://www-10.lotus.com/ldd/portalwiki.nsf/dx/Updating_a_Page_Builder_theme_to_use_Dojo_1.6_wp8
- http://www-10.lotus.com/ldd/portalwiki.nsf/dx/Enabling_managed_pages_wp8

IBM Web Experience Fast Track Offerings

- <http://www-01.ibm.com/software/genservers/portal/fasttrack/>

WebSphere Portal Business Solutions Catalog

- https://greenhouse.lotus.com/catalog/home_full.xsp?fProduct=WebSphere%20Portape
your text here