

IBM Workload Deployer V3.0

Maintenance



This presentation will cover IBM Workload Deployer V3.0 maintenance.

Agenda

- Overview
- Applying maintenance
- Pattern type upgrade
- Firmware upgrade
- Summary

The agenda for this presentation will cover applying maintenance, pattern type upgrade and firmware upgrade.

Section

Overview

This section will cover an overview.

Overview

- Three types of maintenance available in Workload Deployer V3
 - Emergency fixes (WebSphere Application Server)
 - Pattern type upgrade
 - Firmware upgrade

There are three types of maintenance available in Workload Deployer V3. Type one, emergency fixes, which is applied to the middleware level. Type two, firmware upgrade, which is applied to the appliance. Type three, pattern type upgrade, which is applied to the pattern type. Emergency fixes and firmware upgrades are not new functions, but they have been enhanced to support virtual applications and DBaaS.

Section

Applying maintenance

This section will cover applying maintenance.

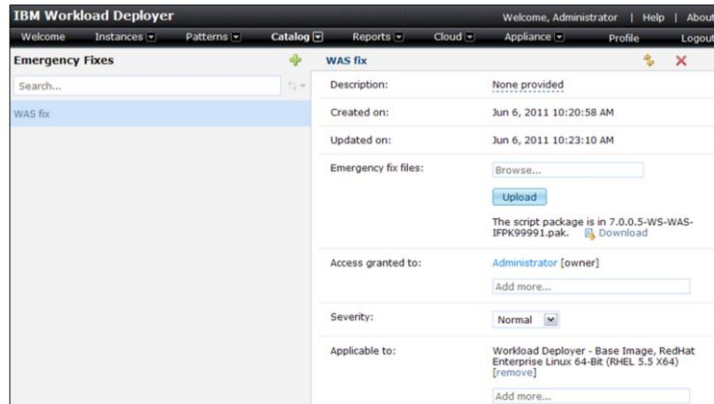
Maintenance process

- Maintenance is **only supported** against WebSphere Application Server based components in Workload Deployer V3
- Two ways to apply maintenance:
 - Update virtual application pattern **pre-deployment**
 - Update virtual application instance **post-deployment**

Virtual application interim fix support is only supported against the WebSphere Application Server based components: Enterprise Application and Web Application. There are two ways to apply maintenance. One, apply it to the pattern and two, apply it against the instance. Each approach has its own benefits which you will see.

Create emergency fix

- Create an emergency fix under **Catalog > Emergency Fixes**
 - Set **Applicable to** field to “Workload Deployer - *”



7

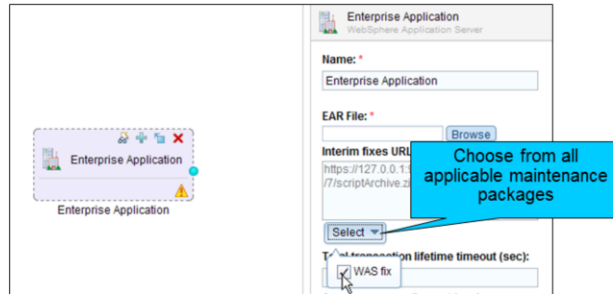
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Before you apply maintenance you must create an emergency fix in Workload Deployer. To create an emergency navigate to Catalog > Emergency Fixes. Upload your WebSphere Application Server iFix and mark it applicable to the Workload Deployer virtual image.

Update pattern pre-deployment

- Apply maintenance to WebSphere Application Server middleware components using Virtual Application Builder tool:
 - Enterprise Application
 - Web Application
- Applied to all future deployments



8

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Using the Virtual Application Builder tool you apply maintenance against the application hosting components: Enterprise Application and Web Application. To apply maintenance highlight either the Enterprise Application or Web Application component and click the drop down under the “Interim fixes URL” field to choose an applicable maintenance package.

Applying maintenance to the pattern results in all virtual application instances based on the pattern having the maintenance applied.

Update instance post-deployment

- Apply maintenance against the virtual application instance's **application-was.WAS** role
- Applied to current deployment only

The screenshot shows the IBM Workload Deployer interface for a deployment named 'My JEE web application'. The 'Operations' tab is active, and the 'application-was.WAS' role is selected. The 'Install WebSphere Application Server Updates' operation is configured with the following fields:

- Description:** Install updates or interim fixes to WebSphere Application Server. A text box contains the instruction 'Click select button to update'.
- Interim fixes URL:** A dropdown menu is set to '(Select)'. A blue callout box points to this dropdown with the text 'Choose from all applicable maintenance packages'.
- Submit:** A button to execute the operation.

At the bottom of the page, the number '9' is on the left, 'Maintenance' is in the center, and '© 2011 IBM Corporation' is on the right.

Using the Virtual Application Console you apply maintenance against the 'application-was.WAS' role. To apply maintenance open up the Virtual Application Console, click Operation, highlight the 'application-was.WAS' role and choose the maintenance to apply.

Applying maintenance to the virtual application instance will update the instance only. Future pattern deployments that this instance was derived from will not contain the maintenance.

Section

Pattern type upgrade

This section will cover pattern type upgrade.

Pattern type upgrade

- Requires **Cloud administration** (Full permissions) permission
- Pattern types packaged as a .tgz file and downloaded from **IBM Fix Central**
- New workloads based on upgrade
 - **Locked** virtual application and database patterns not effected
 - Existing virtual application and database instances not effected

A pattern type is a logical grouping of plug-ins that work together to provide a complete solution. Upgrading a pattern type is really an upgrade to one or more of its associated plug-ins. Once a pattern type is upgraded it can be use like any other pattern type.

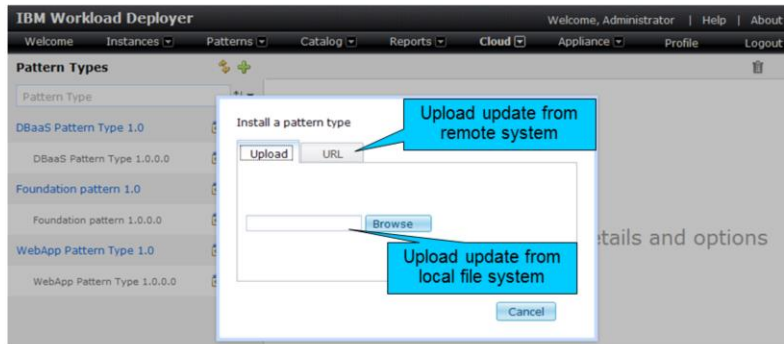
Existing locked virtual application and database patterns are not effected, also existing instances are not effected by the upgrade. New virtual application and database patterns will be based on the upgrade.

Upgrading a pattern type is an administrative level activity that requires Cloud administration permission.

Pattern type updates are packaged as a .tgz file and are downloaded from IBM Fix Central.

User interface

- 2 GB max size limit using user interface
- Pattern type upload options:
 - Local file system
 - Remote system



12

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To upgrade a pattern type using the administrative console navigate to Cloud > Pattern Types and click the green plus icon to bring up the pattern type installation panel. From here you have two options: option one, upload a pattern type from your local file system. Option two, upload a pattern type from a remote location.

The user interface has a two gigabyte size limit. If the pattern type package exceeds this limit you must use the command-line interface.

Command-line interface

- Required for pattern type upgrade packages that exceed 2 GB in size

```
Welcome to the IBM Workload Deployer CLI. Enter 'help' if you
need help getting started.
>>> deployer.patterntypes.create("/tmp/20110606-1323/webapp-1.0.0.1.tgz")
{
  "description": "DESCRIPTION",
  "name": "NAME",
  "required": (nested object),
  "shortname": "webapp",
  "status": "accepted",
  "version": "1.0.0.1"
}
>>> deployer.patterntypes.create("/tmp/20110606-1323/foundation-1.0.0.1.tgz")
{
  "description": "DESCRIPTION",
  "name": "NAME",
  "shortname": "foundation",
  "status": "accepted",
  "version": "1.0.0.1"
}
>>> deployer.patterntypes.create("/tmp/20110606-1323/dbaas-1.0.0.1.tgz")
{
  "description": "DESCRIPTION",
  "name": "NAME",
  "required": (nested object),
  "shortname": "dbaas",
  "status": "unaccepted",
  "version": "1.0.0.1"
}
>>> █
```

13

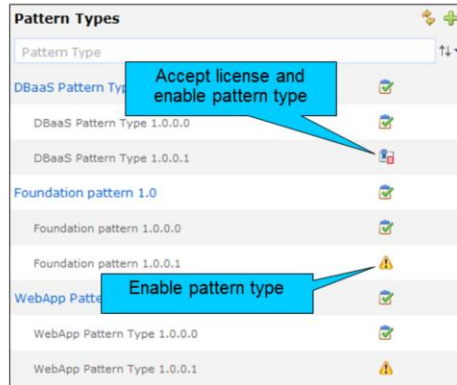
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It is required that you use the command-line interface if the pattern type upgrade package exceeds two gigabytes.

Pattern type enablement

- After pattern type upgrade has been uploaded:
 - Accept pattern type licenses
 - Enable pattern types



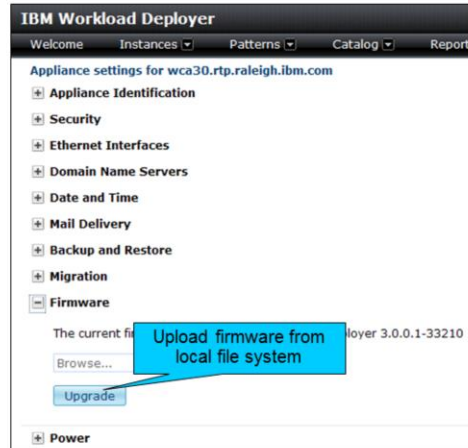
Once the pattern type upgrade package has been uploaded you need to accept the license and enable it prior to use. The old pattern type can be deleted if it is no longer being used by a locked pattern or active deployment.

Firmware upgrade

This section covers firmware upgrade.

Firmware upgrade

- Firmware upgrade updates appliance based artifacts (for example SSH access to VMs)



Firmware upgrade is not new. What is new, is that now it updates artifacts on the appliance specific to virtual applications and DBaaS.

Section

Summary

This section will cover the summary.

Summary

- Three types of maintenance available in Workload Deployer V3
 - Emergency fixes (WebSphere Application Server only)
 - Pattern type upgrade
 - Firmware upgrade
- Pattern type upgrade is the new upgrade feature for V3

There are three types of maintenance in V3. They are emergency fixes, firmware upgrade and pattern type upgrade. Out of the three types of maintenance available in V3, only pattern type upgrade is new, the other two were enhanced to support virtual applications and DBaaS.

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