
Glassfish V3 Prelude - QA

Deployment Test Plan

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1.0 Introduction

This test plan describes test approach for deployment area in Glassfish V3 Prelude. It is based on feature list as noted in Deployment Functional Specification at <http://wiki.glassfish.java.net/Wiki.jsp?page=Deploymentv3PreludeOnePager>. It covers functionality that is new in V3 as well as old V2 features that need to be tested since they were re-written.

2.0 Test Methodology

Deployment is a primary functionality of an application server and thus is usually tested implicitly by other modules. Also, traditionally user interfaces are tested separately. Thus testing of deployment will fall into these areas:

1. Deployment CLI Commands - existing Tonga test framework will be used for old and new features.
2. Deployment via Admin GUI - existing Silk test framework will be used for old and new features.
3. Core functionality - existing ant test framework will be used for old and new features

All tests will use WAR archive.

The following describes automated tests execution:

- **Test environment:** tests will be performed on single server instance only.
- **Test harness:** Tonga, Silk, ant and java frameworks.
- **Test execution matrix:** tests will be executed as part of the Admin and Core Team's execution.
- **Hardware:** TBD.
- **Software:** TBD.

3.0 Feature set covered by QA

3.1 New features in V3 Prelude

- **CLI**
 - New command: redeploy - new tests will be written for CLI covering all redeploy options: name, path, upload, virtualservers, contextroot, precompilejsp, enable, libraries, deploymentplan (contact: Sankar). In particular the following scenarios need to be covered:
 - Redeploy and preserve previous context root for WAR (simple redeploy).
 - Redeploy with a different context root specified via `contextroot` option (WAR).
 - Redeploy using directory deployment (exercise path parameter).
 - CLI commands via HTTP - covered by Admin Team (contact: Judy).

- **Admin GUI**
 - Application management - Tests will need to verify that two entries from deployment descriptors can be modified: env-entry and context-param. This feature will be covered by Admin Team, within Admin GUI testing (contact: Yifeng).
- **Core**
 - Redeploy - the following scenarios will be covered (contact: Lidia):
 - Redeploy app with different context root in sun-web.xml (WAR). - new tests added
 - Redeploy and preserve previous context root for ejb inside WAR. - new tests added

3.2 Existing V2 Features

- **CLI - covered by Admin Team (contact: Sankar)**
 - Commands: deploy, undeploy, deploydir, deployment plan, disable, enable - Existing CLI tests will be executed. For scenarios that are covered only by deploying EAR, tests will be ported to use WAR. A good example of covered scenarios are at <http://appserver-sqe.red.iplanet.com/SQEAdmin81/81se/website/testareas/admincli/testspecifications/deployment/deployment-front-end-test-spec.html>. Specifically the following scenario needs to be covered:
 - No two applications deployed with same context root (WAR) on one virtual server.
 - Library support: - this is also testing classloader. Libraries referenced with the `--libraries` option during deployment should be available to the deployed application. This is already covered extensively by Admin Team CLI testing (see http://appserver-sqe.red.iplanet.com/twiki/pub/SQEAdmin90/AdminCliComponent/TestSpec_deployment9.0.html). Tests may need porting to WAR.
- **Core (covered by Lidia)**

The functionality/test scenarios below are in the order of importance and will be covered in this order.

 - Dynamic reloading - Existing tests packaging EAR will not be ported, since they are not simple tests (e.g. they use JMS - not supported in V3 Prelude, webservices, etc.). Therefore new tests will be developed covering the following scenarios:
 - Change class functionality, copy to `domain-dir/applications/<application-name>`, touch `.reload` file and verify changes took effect. - new tests added.
 - Change application deployment descriptors, copy to `domain-dir/applications/<application-name>`, touch `.reload` file and verify changes took effect. - new tests added
 - Deployment of EJBs inside WAR - Feature covered in core EJB test area by the following tests (jpa tests with Entity Beans):
 - `ejb31/war/annotation`

Also see redeploy section above - the application in those tests is first deployed.

Reference only: core deployment tests executed against V3 TP2 and carried over to Prelude:

- `as9/simple/basic/servlet` - One test case: WAR deployment, accessing a servlet. Uses `contextroot`, `upload=true`, `force=true`.
- `as9/simple/intermediate/web-persistence` - Two test cases, both have a servlet talking to a POJO:
 - WAR deployment
 - Autodeployment of WAR

4.0 Feature set not covered by QA

The following features will not be tested for this release:

- **Extensibility/pluggability framework - new feature for V3 Prelude**
 - No tests are needed for this release according to Hong.
- Autodeployment - already covered for WAR by web-persistence test mentioned above. Need to add test for autodeployment of ejb inside WAR - may have no time to cover this.
- Classloader testing: put the library jar in the glassfish lib directory and see if application can access it during deployment. - may have no time to cover this.

5.0 Schedule, Responsibilities, and Deliverables

5.1 Schedule

Deliverable	Date
Test Plan (this document)	2008/08/12
Test Development	2008/08/27
Tinderbox Delivery	2008/08/29

5.2 Responsibilities

Area	Owner
Deployment commands via HTTP	Judy Tang
CLI commands	Sankar Neelakandan
Libraries support	Sankar Neelakandan
Application Management	Yifeng Luo
Deployment of EJBs inside WAR	Sherry Shen/Lidia Marchioni
Autodeploy, dynamic reloading	Lidia Marchioni

5.3 Deliverables

- Test Plan (this document)
- Automated Test Cases - developed in java in the existing QA ant test framework.

6.0 Assumptions/Risks

Due to the time constraint not all scenarios will be tested.

7.0 Compatibility

No tests will be developed for compatibility testing. Existing tests will be executed as much as possible to verify compatibility with prior releases, i.e. V2.

8.0 Approvals/Reviewers

Name	Function	Date	Approval/Reviewer
Hong Zhang	Deployment Developer	2008/08/21	Approved
Sankar Neelakandan	CLI QA Lead	2008/08/20	Approved
Sherry Shen	Core QA Lead		

9.0 References

- <http://wiki.glassfish.java.net/Wiki.jsp?page=Deploymentv3PreludeOnePager>
- <http://wikihome.sfbay.sun.com/CentralSWIQA/Wiki.jsp?page=Link>

10.0 Revision History

Editor	Version	Date	Comments
Lidia Marchioni	0.1	2008/08/04	Created initial document.
Lidia Marchioni	0.2	2008/08/05	Revised features section, divided into CLI, GUI and core areas.
Lidia Marchioni	0.3	2008/08/11	Revised features sections

			based on Deployment Testing meeting. Added scenarios requested by Hong.
Lidia Marchioni	1.0	2008/09/05	Updated test case creation status, approvals and added redeploy of directory deployment under CLI testing.