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| DEP Logo | **Department of Environmental Protection** |
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| **Java Application Deployment Standard** |

# Purpose

The purpose of this standard is to define the process and notification deadlines for deploying new or updated applications.

# Scope

This standard applies to setting up Java applications in development and deploying those applications to the Integration, Pre-Production and Production environments.

# Standard

## Requesting Setup for a New Application

1. Complete an Application Setup Request Form. Use the template and instructions in the ***Application Setup Request Form and Instructions.***
2. Email the completed request to the Middle Tier support group at OracleNewApprequest@dep.state.fl.us at least **5 days** before requiring access to the servers.
3. If the development team encounters issues after the application is setup, they must conduct initial troubleshooting before contacting the OTIS Middle-Tier group for assistance. Refer to the Troubleshooting and Requesting Assistance section below for details.

## Requesting migration of a New Application to Beta

1. Complete a Middle Tier Beta/Prod Migration package.
2. Ensure there are no errors in the log files on the Development platform.
3. Email the completed request to the Middle Tier support group at OracleNewApprequest@dep.state.fl.us at least **3 days** before requiring access to the servers.
4. If the development team encounters issues after the application is setup, they must conduct initial troubleshooting before contacting the Middle-Tier support group for assistance. Refer to the Troubleshooting and Requesting Assistance section below for details.

## Requesting migration of a New Application to Production

1. Complete a Middle Tier Beta/Prod Migration package.
2. Ensure there are no errors in the log files on the Beta platform.
3. Email the completed request to the Middle Tier support group at MiddleTierOracle@dep.state.fl.us at least **5 business days** before requiring access to the servers.
4. If the development team encounters issues after the application is setup, they must conduct initial troubleshooting before contacting the OTIS Middle Tier group for assistance. Refer to the Troubleshooting and Requesting Assistance section below for details.

## Scheduling Application Deployments

1. Integration Deployment: Policies and Procedures
	1. Integration deployments will be completed by the developer using the Apache Continuum application project build definition created from the ***Application Setup Request Form***.
	2. Developers may deploy an application at any time during the day in Integration.
2. Beta Deployment: Policies and Procedures
	1. Beta deployments will be completed by the project lead using the Apache Continuum application project build definition created from the ***Middle Tier Beta/Prod Migration Package*** for the application. The project lead must “release” the application using Continuum for the Beta build definition to function.
	2. Project leads may deploy an application at any time during the day to Beta.
3. Production Deployment: Policies and Procedures
	1. Production deployments are completed by the OTIS Middle Tier section following submission of a ***Middle Tier Beta/Prod Migration Package***. Deployments requiring database changes require an ***Application Database Migration Package*** as well.
	2. Production deployments requiring database changes are conducted on Thursday evening, or on Friday if system maintenance conflicts. Deployments not requiring database changes may be done any weekday. Deployments are done after 6:00 PM or between 6:00 AM and 7:00 AM. All requests for production deployments are made by sending an email to the Middle Tier email account. Requests requiring database changes must be made at least 5 business days in advance to the OTIS Data Base Administration group and the Middle Tier group and must include any database scripts to be run. Requests without database changes must be made at least **one** business day in advance.
	3. Cancellation requests must be sent to the Middle Tier account by 2:00 pm of the scheduled day of deployment.
4. An application cannot be promoted to beta or production unless it is running on the dev and beta tiers without errors, or it has been explained why any remaining errors cannot be avoided.

## Standard Application Settings

The following settings are managed at the application server level:

1. log4j settings:
	1. The number of backup logs are set to 5 on all three servers.
	2. Log file size for Integration: 10MB on all three servers.
	3. The log level setting will be set to DEBUG on Integration, WARN on Beta, and ERROR on Production.
2. The TopLink Log File for Integration parameter must be set to ***FINE***.

## Troubleshooting and Requesting Assistance

If you are encountering issues after an application has been setup or deployed to another tier, check the following items before contacting the Middle-Tier Group:

1. Check the log files and verify that procedures were followed.
2. If deployment related, redeploy the application.
3. If you are deploying a new version, try deploying the previous version.
4. Conduct the following Application Troubleshooting:
	1. Check the three log files: 2 Managed Server Logs(<servername>.out and <servername>.log) and the Application Log on the appropriate Java server.

The links for the log files are:

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| Integration: | [\\webappsdev\virtlogs](file://webappsdev/virtlogs) |
| Beta: | [\\webappsbeta\virtlogs](file://webappsbeta/virtlogs) |
| Production: | [\\webapps\virtlogs](file://webapps/virtlogs) |

|  |  |
| --- | --- |
| Integration: | [\\webappsdev\app-logs](file://webappsdev/app-logs) |
| Beta: | [\\webappsbeta\app-logs](file://webappsbeta/app-logs) |
| Production: | [\\webapps\app-logs](file://webapps/app-logs) |

* 1. If your application has incorporated the System Properties page, please verify that you can access it for your application.

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| --- | --- |
| Integration: | http://webappsdev.dep.state.fl.us/**[ApplicationName]**/jsp/SysProps.jsp |
| Beta: | http://webappsbeta.dep.state.fl.us/**[ApplicationName]**/jsp/SysProps.jsp |
| Production: | http://webapps.dep.state.fl.us/**[ApplicationName]**/jsp/SysProps.jsp |

* 1. If this is a new version on development, test your application to uncover issues.
	2. If this is a new version deployed to Beta, verify the version was tested on the Integration server prior to deployment to Beta.

## Requesting Application Assistance

If you have completed the above checks and still believe the problems is server-related, send an e-mail containing the following information to the Middle Tier group at MiddleTierOracle@dep.state.fl.us:

1. Identify all errors found in the <managed server name>.log file (examples: public\_registered.log, reporting.log, etc.). The managed server name can be found in the application pom.xml under the <targetNames> tag.
2. Identify all errors found in the <managed server name>.out file (examples: .out, public\_registered.out, etc.). The managed server name can be found in the application pom.xml under the <targetNames> tag.
3. Identify all errors found in the <application name>.log file (examples: DrpTpms.log, DepSec.log, etc.). The application name is also known as the context root, which can be found in the application.xml file.
4. Provide the URL for your application that Middle Tier can use to recreate the problem.
5. Supply a user name and password for the Middle Tier team to test with.
6. List the steps to reproduce the problem you are experiencing.
7. List the current and previous deployed version numbers.
8. Describe in detail the problem you are having.

***Note: Always use the ‘Reply to all’ option for email replies. An e-mail is required before the Middle Tier can begin working on your request. Do not send E-mails to individuals in the group as this may delay actions on your request.***

## Requesting Subversion Assistance

If you encounter problems during check-out, check-in or building an application, send an e-mail containing the following information to the Subversion administrator at sdi.requests@dep.state.fl.us:

1. Provide screen shots of any errors
2. List the steps to reproduce the problem you are experiencing
3. Supply the user name under which the errors occur
4. Describe in detail the problem you are having

***Note: Always use the ‘Reply to all’ option for email replies. An e-mail is required before the SVN team can begin working on your request. Do not send E-mails to individuals in the group as this may delay actions on your request.***

# Deviation from Use

The OTIS Application Services and Middle Tier managers must approve any exceptions to this Standard and may require additional approval by other affected parties. The Database manager must also approve any exceptions if database changes are required.

# Definitions

OEM: Oracle Enterprise Manager

Subversion: The Apache product for versioning software

# Approvals

**Approved By:** DEP Chief Information Officer

**Date Approved:** August 2014