

# Setting logging and tracing for Application Center on the application server

## Overview

You can set logging and trace parameters for particular application servers and use JNDI properties to control output on all supported application servers.

You can set the logging levels and the output file for tracing operations for Application Center in ways that are specific to particular application servers. In addition, IBM MobileFirst Foundation provides Java™ Naming and Directory Interface (JNDI) properties to control the formatting and redirection of trace output, and to print generated SQL statements.

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## Enabling logging and tracing in WebSphere Application Server full profile

You can set the logging levels and the output file for tracing operations on the application server.

When you try to diagnose problems in the Application Center (or other components of IBM MobileFirst Foundation), it is important to be able to see the log messages. To print readable log messages in log files, you must specify the applicable settings as Java™ virtual machine (JVM) properties.

1. Open the WebSphere® Application Server administrative console.
2. Select **Troubleshooting → Logs and Trace**.
3. In **Logging and tracing**, select the appropriate application server and then select **Change log detail levels**.
4. Select the packages and their corresponding detail level. This example enables logging for IBM MobileFirst Foundation, including Application Center, with level **FINEST** (equivalent to **ALL**).

```
com.ibm.puremeap.*=all
com.ibm.worklight.*=all
com.worklight.*=all
```

Where:

- **com.ibm.puremeap.\*** is for Application Center.
- **com.ibm.worklight.\*** and **com.worklight.\*** are for other MobileFirst components.

The traces are sent to a file called **trace.log**, not to **SystemOut.log** or to **SystemErr.log**.

## Enabling logging and tracing in WebSphere Application Server Liberty

You can set the logging levels and the output file for tracing operations for Application Center on the Liberty application server.

When you try to diagnose problems in the Application Center, it is important to be able to see the log messages.

To print readable log messages in log files, you must specify the applicable settings.

To enable logging for IBM MobileFirst Foundation, including Application Center, with level **FINEST**(equivalent to **ALL**), add a line to the server.xml file. For example:

```
<logging traceSpecification="com.ibm.puremeap.*=all:com.ibm.worklight.*=all:com.worklight.*=all"/>
```

In this example, multiple entries of a package and its logging level are separated by a colon (:).

The traces are sent to a file called **trace.log**, not to **messages.log** or to **console.log**.

For more information, see Liberty profile: Logging and Trace  
([http://www.ibm.com/support/knowledgecenter/SSEQTP\\_8.5.5/com.ibm.websphere.wlp.doc/ae/rwlp\\_logging.html?cp=SSEQTP\\_8.5.5%2F1-16-0-0&view=kc](http://www.ibm.com/support/knowledgecenter/SSEQTP_8.5.5/com.ibm.websphere.wlp.doc/ae/rwlp_logging.html?cp=SSEQTP_8.5.5%2F1-16-0-0&view=kc)).

## Enabling logging and tracing in Apache Tomcat

You can set the logging levels and the output file for tracing operations undertaken on the Apache Tomcat application server.

When you try to diagnose problems in the Application Center, it is important to be able to see the log messages. To print readable log messages in log files, you must specify the applicable settings.

To enable logging for IBM MobileFirst Foundation, including Application Center, with level **FINEST** (equivalent to **ALL**), edit the **conf/logging.properties** file. For example, add lines similar to these lines:

```
com.ibm.puremeap.level = ALL
com.ibm.worklight.level = ALL
com.worklight.level = ALL
```

For more information, see Logging in Tomcat (<http://tomcat.apache.org/tomcat-7.0-doc/logging.html>).

## JNDI properties for controlling trace output

On all supported platforms, you can use Java™ Naming and Directory Interface (JNDI) properties to format and redirect trace output for Application Center and to print generated SQL statements.

The following JNDI properties are applicable to the web application for Application Center services (**applicationcenter.war**).

Property settings	Setting	Description
ibm.appcenter.logging.formatjson	true	By default, this property is set to false. Set it to true to format JSON output with blank spaces, for easier reading in log files.
ibm.appcenter.logging.tosystemerrortrue		By default, this property is set to false. Set it to true to print all log messages to system error in log files. Use the property to turn on logging globally.
ibm.appcenter.openjpa.Log	DefaultLevel=WARN, Runtime=INFO, Tool=INFO, SQL=TRACE	This setting prints all the generated SQL statements to the log files.