

Administrating applications through Ant

Overview

You can administer MobileFirst applications through the **mfpadm** Ant task.

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Comparison with other facilities

You can execute administration operations with IBM MobileFirst Foundation in the following ways:

- The MobileFirst Operations Console, which is interactive.
- The **mfpadm** Ant task.
- The **mfpadm** program.
- The MobileFirst administration REST services.

The **mfpadm** Ant task, **mfpadm** program, and REST services are useful for automated or unattended execution of operations, such as:

- Eliminating operator errors in repetitive operations, or
- Operating outside the operator's normal working hours, or
- Configuring a production server with the same settings as a test or preproduction server.

The **mfpadm** Ant task and the **mfpadm** program are simpler to use and have better error reporting than the REST services. The advantage of the **mfpadm** Ant task over the **mfpadm** program is that it is platform independent and easier to integrate when integration with Ant is already available.

Prerequisites

The **mfpadm** tool is installed with the MobileFirst Server installer. In the rest of this page, **product_install_dir** indicates the installation directory of the MobileFirst Server installer.

Apache Ant is required to run the **mfpadm** task. For information about the minimum supported version of Ant, see System requirements.

For convenience, Apache Ant 1.9.4 is included in MobileFirst Server. In the **product_install_dir/shortcuts/** directory, the following scripts are provided.

- ant for UNIX / Linux
- ant.bat for Windows

These scripts are ready to run, which means that they do not require specific environment variables. If the environment variable **JAVA_HOME** is set, the scripts accept it.

You can use the **mfpadm** Ant task on a different computer than the one on which you installed MobileFirst Server.

- Copy the file **product_install_dir/MobileFirstServer/mfp-ant-deployer.jar** to the computer.
- Make sure that a supported version of Apache Ant and a Java runtime environment are installed on the computer.

To use the **mfpadm** Ant task, add this initialization command to the Ant script:

```
<taskdef resource="com/ibm/mfp/ant/deployers/antlib.xml">
  <classpath>
    <pathelement location="product_install_dir/MobileFirstServer/mfp-ant-deployer.jar"/>
  </classpath>
</taskdef>
```

Other initialization commands that refer to the same **mfp-ant-deployer.jar** file are redundant because the initialization by **defaults.properties** is also implicitly done by **antlib.xml**. Here is one example of a redundant initialization command:

```
<taskdef resource="com/ibm/mfp/ant/defaults.properties">
  <classpath>
    <pathelement location="product_install_dir/MobileFirstServer/mfp-ant-deployer.jar"/>
  </classpath>
</taskdef>
```

For more information about running the MobileFirst Server installer, see [Running IBM Installation Manager \(../../installation-configuration/production/installation-manager/\)](#).

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Calling the mfpadm Ant task

You can use the **mfpadm** Ant task and its associated commands to administer MobileFirst applications. Call the **mfpadm** Ant task as follows:

```
<mfpadm url=... user=... password=...[passwordfile=... [secure=...]>
  some commands
</mfpadm>
```

Attributes

The **mfpadm** Ant task has the following attributes:

Attribute	Description	Required	Default
url	The base URL of the MobileFirst web application for administration services	Yes	
secure	Whether to avoid operations with security risks	No	true
user	The user name for accessing the MobileFirst administration services	Yes	
password	The password for the user	Either one is required	
passwordfile	The file that contains the password for the user	Either one is required	
timeout	Timeout for the entire REST service access, in seconds	No	
connectTimeout	Timeout for establishing a network connection, in seconds	No	
socketTimeout	Timeout for detecting the loss of a network connection, in seconds	No	
connectionRequestTimeout	Timeout for obtaining an entry from a connection request pool, in seconds	No	
lockTimeout	Timeout for acquiring a lock	No	

url The base URL preferably uses the HTTPS protocol. For example, if you use default ports and context roots, use the following URL.

- For WebSphere® Application Server: `https://server:9443/worklightadmin` (`https://server:9443/worklightadmin`)
- For Tomcat: `https://server:8443/worklightadmin` (`https://server:8443/worklightadmin`)

secure

The default value is **true**. Setting **secure="false"** might have the following effects:

- The user and password might be transmitted in an unsecured way, possibly even through unencrypted HTTP.
- The server's SSL certificates are accepted even if self-signed or if they were created for a different host name than the specified server's host name.

password Specify the password either in the Ant script, through the **password** attribute, or in a separate file that you pass through the **passwordfile** attribute. The password is sensitive information and therefore needs to be protected. You must prevent other users on the same computer from knowing this password. To secure the password, before you enter the password into a file, remove the read permissions of the file for users other than yourself. For example, you can use one of the following commands:

- On UNIX: `chmod 600 adminpassword.txt`
- On Windows: `cacls adminpassword.txt /P Administrators:F %USERDOMAIN%\%USERNAME%:F`

Additionally, you might want to obfuscate the password to hide it from an occasional glimpse. To do so, use the **mfpadm** `config password` command to store the obfuscated password in a configuration file. Then, you can copy and paste the obfuscated password to the Ant script or to the password file.

The **mfpadm** call contains commands that are encoded in inner elements. These commands are executed in the order in which they are listed. If one of the commands fails, the remaining commands are not executed, and the **mfpadm** call fails.

Elements

You can use the following elements in **mfpadm** calls:

Element	Description	Count
show-info	Shows user and configuration information	0..∞
show-global-config	Shows global configuration information	0..∞
show-diagnostics	Shows diagnostics information	0..∞
show-versions	Shows versions information	0..∞
unlock	Releases the general-purpose lock	0..∞
list-runtimes	Lists the runtimes	0..∞
show-runtime	Shows information about a runtime	0..∞
delete-runtime	Deletes a runtime	0..∞
show-user-config	Shows the user configuration of a runtime	0..∞
set-user-config	Specifies the user configuration of a runtime	0..∞
show-confidential-clients	Shows the configurations of confidential clients of a runtime	0..∞
set-confidential-clients	Specifies the configurations of confidential clients of a runtime	0..∞
set-confidential-clients-rule	Specifies a rule for the confidential clients configuration of a runtime	0..∞
list-adapters	Lists the adapters	0..∞
deploy-adapter	Deploys an adapter	0..∞
show-adapter	Shows information about an adapter	0..∞
delete-adapter	Deletes an adapter	0..∞
adapter	Other operations on an adapter	0..∞
list-apps	Lists the apps	0..∞
deploy-app	Deploys an app	0..∞
show-app	Shows information about an app	0..∞
delete-app	Deletes an app	0..∞
show-app-version	Shows information about an app version	0..∞
delete-app-version	Delete a version of an app	0..∞
app	Other operations on an app	0..∞
app-version	Other operations on an app version	0..∞
list-devices	Lists the devices	0..∞
remove-device	Removes a device	0..∞
device	Other operations for a device	0..∞
list-farm-members	Lists the members of the server farm	0..∞
remove-farm-member	Removes a server farm member	0..∞

XML Format

The output of most commands is in XML, and the input to specific commands, such as `<set-accessrule>`, is in XML too. You can find the XML schemas of these XML formats in the `product_install_dir/MobileFirstServer/mfpadm-schemas/` directory. The commands that receive an XML response from the server verify that this response conforms to the specific schema. You can disable this check by specifying the attribute `xmlvalidation="none"`.

Output character set

Normal output from the mfpadm Ant task is encoded in the encoding format of the current locale. On Windows, this encoding format is the so-called "ANSI code page". The effects are as follows:

- Characters outside of this character set are converted to question marks when they are output.
- When the output goes to a Windows command prompt window (cmd.exe), non-ASCII characters are incorrectly displayed because such windows assume characters to be encoded in the so-called "OEM code page".

To work around this limitation:

- On operating systems other than Windows, use a locale whose encoding is UTF-8. This locale is the default locale on Red Hat Linux and macOS. Many other operating systems have the en_US.UTF-8 locale.
- Or use the attribute `output="some file name"` to redirect the output of a mfpadm command to a file.

Commands for general configuration

When you call the `mfpadm` Ant task, you can include various commands that access the global configuration of the IBM MobileFirst Server or of a runtime.

The `show-global-config` command

The `show-global-config` command shows the global configuration. It has the following attributes:

Attribute	Description	Required	Default
output	Name of the output file.	No	Not applicable
outputproperty	Name of the Ant property for the output.	No	Not applicable

Example

```
<show-global-config/>
```

This command is based on the Global Configuration (GET) (http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_global_configuration_get.html?view=kc#Global-Configuration--GET-) REST service.

The `show-user-config` command

The `show-user-config` command, outside of `<adapter>` and `<app-version>` elements, shows the user configuration of a runtime. It has the following attributes:

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
format	Specifies the output format. Either json or xml.	Yes	Not available
output	Name of the file in which to store the output.	No	Not applicable
outputproperty	Name of an Ant property in which to store the output.	No	Not applicable

Example

```
<show-user-config runtime="mfp" format="xml"/>
```

This command is based on the Runtime Configuration (GET) (http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_runtime_configuration_get.html?view=kc#Runtime-Configuration--GET-) REST service.

The `set-user-config` command

The `set-user-config` command, outside of `<adapter>` and `<app-version>` elements, specifies the user configuration of a runtime. It has the following attributes for setting the entire configuration.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
file	Name of the JSON or XML file that contains the new configuration.	Yes	Not available

The `set-user-config` command has the following attributes for setting a single property in the configuration.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
property	Name of the JSON property. For a nested property, use the syntax prop1.prop2.....propN. For a JSON array element, use the index instead of a property name.	Yes	Not available
value	The value of the property.	Yes	Not available

Example

```
<set-user-config runtime="mfp" file="myconfig.json"/>
```

```
<set-user-config runtime="mfp" property="timeout" value="240"/>
```

This command is based on the Runtime configuration (PUT)
(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_runtime_configuration_put.html?view=kc#Runtime-configuration--PUT) REST service.

The `show-confidential-clients` command

The `show-confidential-clients` command shows the configuration of the confidential clients that can access a runtime. For more information about confidential clients, see Confidential clients ([../authentication-and-security/confidential-clients](http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_confidential_clients_get.html?view=kc)). This command has the following attributes:

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
format	Specifies the output format. Either json or xml.	Yes	Not available
output	Name of the file in which to store the output.	No	Not applicable
outputproperty	Name of an Ant property in which to store the output.	No	Not applicable

Example

```
<show-confidential-clients runtime="mfp" format="xml" output="clients.xml"/>
```

This command is based on the Confidential Clients (GET)
(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_confidential_clients_get.html?view=kc) REST service.

The `set-confidential-clients` command

The `set-confidential-clients` command specifies the configuration of the confidential clients that can access a runtime. For more information about confidential clients, see Confidential clients ([../authentication-and-security/confidential-clients](http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_confidential_clients_put.html?view=kc)). This command has the following attributes:

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
file	Name of the JSON or XML file that contains the new configuration.	Yes	Not available

Example

```
<set-confidential-clients runtime="mfp" file="clients.xml"/>
```

This command is based on the Confidential Clients (PUT)
(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_confidential_clients_put.html?view=kc#Confidential-Clients--PUT) REST service.

The `set-confidential-clients-rule` command

The `set-confidential-clients-rule` command specifies a rule in the configuration of the confidential clients that can access a runtime. For more information about confidential clients, see Confidential clients ([../authentication-and-security/confidential-clients](http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_confidential_clients_put.html?view=kc#Confidential-Clients--PUT)). This command has the following attributes:

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
id	The identifier of the rule.	Yes	Not available
displayName	The display name of the rule.	Yes	Not available
secret	The secret of the rule.	Yes	Not available
allowedScope	The scope of the rule. A space-separated list of tokens.	Yes	Not available

Example

```
<set-confidential-clients-rule runtime="mfp" id="push" displayName="Push" secret="lOa74Wxs" allowedScope="**"/>
```

This command is based on the Confidential Clients (PUT)
(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_confidential_clients_put.html?view=kc#Confidential-Clients--PUT) REST service.

Commands for adapters

When you call the **mfpadm** Ant task, you can include various commands for adapters.

The `list-adapters` command

The `list-adapters` command returns a list of the adapters deployed for a given runtime. It has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
output	Name of output file.	No	Not applicable
outputproperty	Name of Ant property for the output.	No	Not applicable

Example

```
<list-adapters runtime="mfp"/>
```

This command is based on the Adapters (GET)
(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_adapters_get.html?view=kc#Adapters--GET) REST service.

The `deploy-adapter` command

The `deploy-adapter` command deploys an adapter in a runtime. It has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
file	Binary adapter file (.adapter).	Yes	Not available

Example

```
<deploy-adapter runtime="mfp" file="MyAdapter.adapter"/>
```

This command is based on the Adapter (POST)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_adapter_post.html?view=kc#Adapter--POST-) REST service.

The `show-adapter` command

The `show-adapter` command shows details about an adapter. It has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
name	Name of an adapter.	Yes	Not available
output	Name of output file.	No	Not applicable
outputpropertyName	Name of Ant property for the output.	No	Not applicable

Example

```
<show-adapter runtime="mfp" name="MyAdapter"/>
```

This command is based on the Adapter (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_adapter_get.html?view=kc#Adapter--GET-) REST service.

The `delete-adapter` command

The `delete-adapter` command removes (undeploys) an adapter from a runtime. It has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
name	Name of an adapter.	Yes	Not available

Example

```
<delete-adapter runtime="mfp" name="MyAdapter"/>
```

This command is based on the Adapter (DELETE)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_adapter_get.html?view=kc#Adapter--GET-) REST service.

The `adapter` command group

The `adapter` command group has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
name	Name of an adapter.	Yes	Not available

The `adapter` command supports the following elements.

Element	Description	Count
get-binary	Gets the binary data.	0..∞
show-user-config	Shows the user configuration.	0..∞
set-user-config	Specifies the user configuration.	0..∞

The `get-binary` command

The `get-binary` command inside an `<adapter>` element returns the binary adapter file. It has the following attributes.

Attribute	Description	Required	Default
tofile	Name of the output file.	Yes	Not available

Example

```
<adapter runtime="mfp" name="MyAdapter">  
  <get-binary tofile="/tmp/MyAdapter.adapter"/>  
</adapter>
```

This command is based on the Adapter (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_adapter_get.html?view=kc#Adapter--GET-) REST service.

The `show-user-config` command

The `show-user-config` command, inside an `<adapter>` element, shows the user configuration of the adapter. It has the following attributes.

Attribute	Description	Required	Default
format	Specifies the output format. Either json or xml.	Yes	Not available
output	Name of the file in which to store the output.	No	Not applicable
outputproperty	Name of an Ant property in which to store the output.	No	Not applicable

Example

```
<adapter runtime="mfp" name="MyAdapter">
  <show-user-config format="xml"/>
</adapter>
```

This command is based on the Adapter Configuration (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_adapter_configuration_get.html?view=kc#Adapter-Configuration--GET-) REST service.

The `set-user-config` command

The `set-user-config` command, inside an `<adapter>` element, specifies the user configuration of the adapter. It has the following attributes for setting the entire configuration.

Attribute	Description	Required	Default
file	Name of the JSON or XML file that contains the new configuration.	Yes	Not available

The command has the following attributes for setting a single property in the configuration.

Attribute	Description	Required	Default
property	Name of the JSON property. For a nested property, use the syntax prop1.prop2.....propN. For a JSON array element, use the index instead of a property name.	Yes	Not available
value	The value of the property.	Yes	Not available

Examples

```
<adapter runtime="mfp" name="MyAdapter">
  <set-user-config file="myconfig.json"/>
</adapter>
```

```
<adapter runtime="mfp" name="MyAdapter">
  <set-user-config property="timeout" value="240"/>
</adapter>
```

This command is based on the Application Configuration (PUT)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_application_configuration_put.html?view=kc) REST service.

Commands for apps

When you call the `mfpadm` Ant task, you can include various commands for apps.

The `list-apps` command

The `list-apps` command returns a list of the apps that are deployed in a runtime. It has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
output	Name of the output file.	No	Not applicable
outputproperty	Name of the Ant property for the output.	No	Not applicable

Example

```
<list-apps runtime="mfp"/>
```

This command is based on the Applications (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_applications_get.html?view=kc#Applications--GET-) REST service.

The `deploy-app` command

The `deploy-app` command deploys an app version in a runtime. It has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
file	The application descriptor, a JSON file.	Yes	Not available

Example

```
<deploy-app runtime="mfp" file="MyApp/application-descriptor.json"/>
```

This command is based on the Application (POST)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_application_post.html?view=kc#Application--POST-) REST service.

The `show-app` command

The `show-app` command returns a list of the app versions that are deployed in a runtime. It has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
name	Name of an app.	Yes	Not available
output	Name of output file.	No	Not applicable
outputproperty	Name of Ant property for the output.	No	Not applicable

Example

```
<show-app runtime="mfp" name="MyApp"/>
```

This command is based on the Application (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_application_get.html?view=kc#Application--GET-) REST service.

The `delete-app` command

The `delete-app` command removes (undeploys) an app, with all its app versions, for all environments for which it was deployed, from a runtime. It has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
name	Name of an app.	Yes	Not available

Example

```
<delete-app runtime="mfp" name="MyApp"/>
```

This command is based on the Application Version (DELETE)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_application_version_delete.html?view=kc#Application-Version--DELETE-) REST service.

The `show-app-version` command

The `show-app-version` command shows details about an app version in a runtime. It has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
name	Name of the app.	Yes	Not available
environment	Mobile platform.	Yes	Not available
version	Version number of the app.	Yes	Not available

Example

```
<show-app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1"/>
```

This command is based on the Application Version (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_application_version_get.html?view=kc#Application-Version--GET-) REST service.

The `delete-app-version` command

The `delete-app-version` command removes (undeploys) an app version from a runtime. It has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
name	Name of the app.	Yes	Not available
environment	Mobile platform.	Yes	Not available
version	Version number of the app.	Yes	Not available

Example

```
<delete-app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1"/>
```

This command is based on the Application Version (DELETE)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_application_version_delete.html?view=kc#Application-Version--DELETE-) REST service.

The `app` command group

The `app` command group has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
name	Name of the app.	Yes	Not available

The `app` command group supports the following elements.

Element	Description	Count
show-license-config	Shows the token license configuration.	0..
set-license-config	Specifies the token license configuration.	0..
delete-license-config	Removes the token license configuration.	0..

The show-license-config command

The `show-license-config` command shows the token license configuration of an app. It has the following attributes.

Attribute	Description	Required	Default
output	Name of a file in which to store the output.	Yes	Not available
outputproperty	Name of an Ant property in which to store the output.	Yes	Not available

Example

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <show-license-config output="/tmp/MyApp-license.xml"/>
</app-version>
```

This command is based on the Application license configuration (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_application_license_configuration_get.html?view=kc) REST service.

The set-license-config command

The `set-license-config` command specifies the token license configuration of an app. It has the following attributes.

Attribute	Description	Required	Default
appType	Type of app: B2C or B2E	Yes	Not available
licenseType	Type of application: APPLICATION or ADDITIONAL <i>BRAND</i> DEPLOYMENT or NON_PRODUCTION.	Yes	Not available

Example

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <set-license-config appType="B2E" licenseType="APPLICATION"/>
</app-version>
```

This command is based on the Application License Configuration (POST)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_application_license_configuration__post.html?view=kc) REST service.

The delete-license-config command

The `delete-license-config` command resets the token license configuration of an app, that is, reverts it to the initial state.

Example

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <delete-license-config/>
</app-version>
```

This command is based on the License configuration (DELETE)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_license_configuration_delete.html?view=kc#License-configuration--DELETE-) REST service.

The app-version command group

The `app-version` command group has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
name	Name of an app.	Yes	Not available
environment	Mobile platform.	Yes	Not available
version	Version of the app.	Yes	Not available

The `app-version` command group supports the following elements:

Element	Description	Count
get-descriptor	Gets the descriptor.	0..
get-web-resources	Gets the web resources.	0..
set-web-resources	Specifies the web resources.	0..
get-authenticity-data	Gets the authenticity data.	0..
set-authenticity-data	Specifies the authenticity data.	0..
delete-authenticity-data	Deletes the authenticity data.	0..
show-user-config	Shows the user configuration.	0..
set-user-config	Specifies the user configuration.	0..

The get-descriptor command

The `get-descriptor` command, inside an `<app-version>` element, returns the application descriptor of a version of an app. It has the following attributes.

Attribute	Description	Required	Default
output	Name of a file in which to store the output.	No	Not applicable
outputproperty	Name of an Ant property in which to store the output.	No	Not applicable

Example

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <get-descriptor output="/tmp/MyApp-application-descriptor.json"/>
</app-version>
```

This command is based on the Application Descriptor (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_application_descriptor_get.html?view=kc#Application-Descriptor--GET-) service.

The get-web-resources command

The `get-web-resources` command, inside an `<app-version>` element, returns the web resources of a version of an app, as a .zip file. It has the following attributes.

Attribute	Description	Required	Default
tofile	Name of the output file.	Yes	Not available

Example

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <get-web-resources tofile="/tmp/MyApp-web.zip"/>
</app-version>
```

This command is based on the Retrieve Web Resource (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_retrieve_web_resource_get.html?view=kc#Retrieve-Web-Resource--GET-) REST service.

The set-web-resources command

The `set-web-resources` command, inside an `<app-version>` element, specifies the web resources for a version of an app. It has the following attributes.

Attribute	Description	Required	Default
file	Name of the input file (must be a .zip file).	Yes	Not available

Example

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <set-web-resources file="/tmp/MyApp-web.zip"/>
</app-version>
```

This command is based on the Deploy a web resource (POST)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_deploy_a_web_resource_post.html?view=kc#Deploy-a-web-resource--POST-) REST service.

The get-authenticity-data command

The `get-authenticity-data` command, inside an `<app-version>` element, returns the authenticity data of a version of an app. It has the following attributes.

Attribute	Description	Required	Default
output	Name of a file in which to store the output.	No	Not applicable
outputproperty	Name of an Ant property in which to store the output.	No	Not applicable

Example

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <get-authenticity-data output="/tmp/MyApp.authenticity_data"/>
</app-version>
```

This command is based on the Export runtime resources (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_export_runtime_resources_get.html?view=kc) REST service.

The set-authenticity-data command

The `set-authenticity-data` command, inside an `<app-version>` element, specifies the authenticity data for a version of an app. It has the following attributes.

Attribute	Description	Required	Default
Name of the input file:			
file	<ul style="list-style-type: none"> Either a <code>authenticity_data</code> file, or a device file (.ipa, .apk, or .appx file), from which the authenticity data is extracted. 	Yes	Not available

Examples

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <set-authenticity-data file="/tmp/MyApp.authenticity_data"/>
</app-version>
```

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <set-authenticity-data file="MyApp.ipa"/>
</app-version>
```

```
<app-version runtime="mfp" name="MyApp" environment="android" version="1.1">
  <set-authenticity-data file="MyApp.apk"/>
</app-version>
```

This command is based on the Deploy Application Authenticity Data (POST)
(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_deploy_application_authenticity_data_post.html?view=kc) REST service.

The delete-authenticity-data command

The `delete-authenticity-data` command, inside an `<app-version>` element, deletes the authenticity data of a version of an app. It has no attributes.

Example

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <delete-authenticity-data/>
</app-version>
```

This command is based on the Application Authenticity (DELETE)
(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_application_authenticity_delete.html?view=kc) REST service.

The show-user-config command

The `show-user-config` command, inside an `<app-version>` element, shows the user configuration of a version of an app. It has the following attributes.

Attribute	Description	Required	Default
format	Specifies the output format. Either json or xml.	Yes	Not available
output	Name of the output file. No	Not applicable	
outputproperty	Name of the Ant property for the output.	No	Not applicable

Examples

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <show-user-config format="json" output="/tmp/MyApp-config.json"/>
</app-version>
```

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <show-user-config format="xml" output="/tmp/MyApp-config.xml"/>
</app-version>
```

This command is based on the Application Configuration (GET)
(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_application_configuration_get.html?view=kc#Application-Configuration--GET-) REST service.

The set-user-config command

The `set-user-config` command, inside an `<app-version>` element, specifies the user configuration for a version of an app. It has the following attributes for setting the entire configuration.

Attribute	Description	Required	Default
file	Name of the JSON or XML file that contains the new configuration.	Yes	Not available

The `set-user-config` command has the following attributes for setting a single property in the configuration.

Attribute	Description	Required	Default
property	Name of the JSON property. For a nested property, use the syntax prop1.prop2.....propN. For a JSON array element, use the index instead of a property name.	Yes	Not available
value	The value of the property.	Yes	Not available

Examples

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <set-user-config file="/tmp/MyApp-config.json"/>
</app-version>
```

```
<app-version runtime="mfp" name="MyApp" environment="iphone" version="1.1">
  <set-user-config property="timeout" value="240"/>
</app-version>
```

Commands for devices

When you call the **mfpadm** Ant task, you can include various commands for devices.

The `list-devices` command

The `list-devices` command returns the list of devices that have contacted the apps of a runtime. It has the following attributes:

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
query	A friendly name or user identifier to search for. This parameter specifies a string to search for. All devices that have a friendly name or user identifier that contains this	string (with case-insensitive matching) are returned.	No
output	Name of output file.	No	Not applicable
outputproperty	Name of Ant property for the output.	No	Not applicable

Examples

```
<list-devices runtime="mfp"/>
```

```
<list-devices runtime="mfp" query="john"/>
```

This command is based on the Devices (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_devices_get.html?view=kc#Devices--GET-) REST service.

The `remove-device` command

The `remove-device` command clears the record about a device that has contacted the apps of a runtime. It has the following attributes:

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
id	Unique device identifier.	Yes	Not available

Example

```
<remove-device runtime="mfp" id="496E974CCEDE86791CF9A8EF2E5145B6"/>
```

This command is based on the Device (DELETE)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_device_delete.html?view=kc#Device--DELETE-) REST service.

The `device` command group

The `device` command group has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
id	Unique device identifier.	Yes	Not available

The `device` command supports the following elements.

Element	Description	Count
set-status	Changes the status.	0..∞
set-appstatus	Changes the status for an app.	0..∞

The `set-status` command

The `set-status` command changes the status of a device, in the scope of a runtime. It has the following attributes:

Attribute	Description	Required	Default
status	New status.	Yes	Not available

The status can have one of the following values:

- ACTIVE
- LOST
- STOLEN
- EXPIRED
- DISABLED

Example

```
<device runtime="mfp" id="496E974CCEDE86791CF9A8EF2E5145B6">  
  <set-status status="EXPIRED"/>  
</device>
```

This command is based on the Device Status (PUT)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_device_status_put.html?view=kc#Device-Status--PUT-) REST service.

The `set-appstatus` command

The `set-appstatus` command changes the status of a device, regarding an app in a runtime. It has the following attributes:

Attribute	Description	Required	Default
app	Name of an app.	Yes	Not available
status	New status.	Yes	Not available

The status can have one of the following values:

- ENABLED
- DISABLED

Example

```
<device runtime="mfp" id="496E974CCED86791CF9A8EF2E5145B6">  
  <set-appstatus app="MyApp" status="DISABLED"/>  
</device>
```

This command is based on the Device Application Status (PUT)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_device_application_status_put.html?view=kc#Device-Application-Status--PUT-) REST service.

Commands for troubleshooting

You can use Ant task commands to investigate problems with MobileFirst Server web applications.

The `show-info` command

The `show-info` command shows basic information about the MobileFirst administration services that can be returned without accessing any runtime nor database. Use this command to test whether the MobileFirst administration services are running at all. It has the following attributes:

Attribute	Description	Required	Default
output	Name of output file.	No	Not applicable
outputproperty	Name of Ant property for the output.	No	Not applicable

Example

```
<show-info/>
```

The `show-versions` command

The `show-versions` command displays the MobileFirst versions of various components:

- **mfpadmVersion**: the exact MobileFirst Server version number from which the *mfp-ant-deployer.jar* file is taken.
- **productVersion**: the exact MobileFirst Server version number from which the **mfp-admin-service.war** file is taken.
- **mfpAdminVersion**: the exact build version number of **mfp-admin-service.war** alone.

The command has the following attributes:

Attribute	Description	Required	Default
output	Name of output file.	No	Not applicable
outputproperty	Name of Ant property for the output.	No	Not applicable

Example

```
<show-versions/>
```

The `show-diagnostics` command

The `show-diagnostics` command shows the status of various components that are necessary for the correct operation of the MobileFirst administration service, such as the availability of the database and of auxiliary services. This command has the following attributes.

Attribute	Description	Required	Default
output	Name of output file.	No	Not applicable
outputproperty	Name of Ant property for the output.	No	Not applicable

Example

```
<show-diagnostics/>
```

The `unlock` command

The `unlock` command releases the general-purpose lock. Some destructive operations take this lock in order to prevent concurrent modification of the same configuration data. In rare cases, if such an operation is interrupted, the lock might remain in locked state, making further destructive operations impossible. Use the unlock command to release the lock in such situations. The command has no attributes.

Example

```
<unlock/>
```

The `list-runtimes` command

The `list-runtimes` command returns a list of the deployed runtimes. It has the following attributes:

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
output	Name of output file.	No	Not applicable
outputpropertyName	Name of Ant property for the output.	No	Not applicable

Examples

```
<list-runtimes/>
```

```
<list-runtimes inDatabase="true"/>
```

This command is based on the Runtimes (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_runtimes_get.html?view=kc#Runtimes--GET-) REST service.

The `show-runtime` command

The `show-runtime` command shows information about a given deployed runtime. It has the following attributes:

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
output	Name of output file.	No	Not applicable
outputpropertyName	Name of Ant property for the output.	No	Not applicable

Example

```
<show-runtime runtime="mfp"/>
```

This command is based on the Runtime (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_runtime_get.html?view=kc#Runtime--GET-) REST service.

The `delete-runtime` command

The `delete-runtime` command deletes the runtime, including its apps and adapters, from the database. You can delete a runtime only when its web application is stopped. The command has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
condition	Condition when to delete it: empty or always. Attention: The always option is dangerous.	No	Not applicable

Example

```
<delete-runtime runtime="mfp" condition="empty"/>
```

This command is based on the Runtime (DELETE)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_runtime_delete.html?view=kc#Runtime--DELETE-) REST service.

The `list-farm-members` command

The `list-farm-members` command returns a list of the farm member servers on which a given runtime is deployed. It has the following attributes:

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
output	Name of output file.	No	Not applicable
outputpropertyName	Name of Ant property for the output.	No	Not applicable

Example

```
<list-farm-members runtime="mfp"/>
```

This command is based on the Farm topology members (GET)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_farm_topology_members_get.html?view=kc#Farm-topology-members--GET-) REST service.

The `remove-farm-member` command

The `remove-farm-member` command removes a server from the list of farm members on which a given runtime is deployed. Use this command when the server has become unavailable or disconnected. The command has the following attributes.

Attribute	Description	Required	Default
runtime	Name of the runtime.	Yes	Not available
serverId	Identifier of the server.	Yes	Not applicable
force	Force removal of a farm member, even if it is available and connected.	No	false

Example

```
<remove-farm-member runtime="mfp" serverId="srvlx15"/>
```

This command is based on the Farm topology members (DELETE)

(http://www.ibm.com/support/knowledgecenter/en/SSHS8R_8.0.0/com.ibm.worklight.apiref.doc/apiref/r_restapi_farm_topology_members_delete.html?view=kc) REST service.