

ZENworks Mobile Workspace Analytics

September 2017

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1 OVERVIEW

ZENworks Mobile Workspace has an embedded search and analytics engine that enables administrators to analyze the behavior of users and helps developers to enhance the performance of the application.

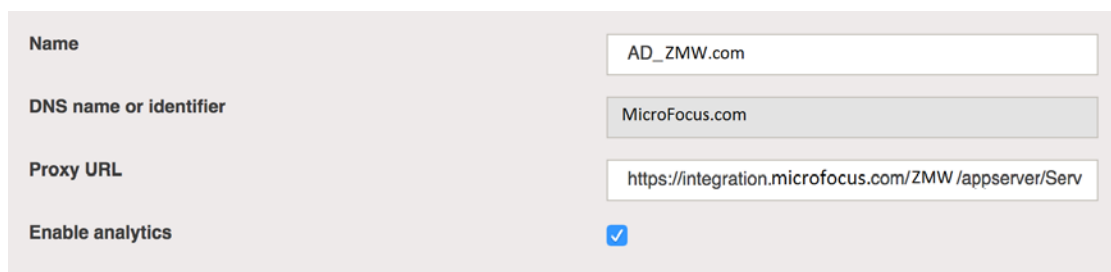
This configuration guide will help the integrator to install tools required to connect and monitor the analytics engine.

2 ENABLING THE ANALYTICS ENGINE

2.1 Enabling the collection of data

Even if the database is common to all domains, activation must be done on a domain basis. To enable the collection of data, you must to have super admin rights:

1. Log into the security server with the super admin credentials.
2. Browse to SERVER -> Domains and select the domain on which you want to enable analytics.
3. Select the **Enable analytics** checkbox.



Name	<input type="text" value="AD_ZMW.com"/>
DNS name or identifier	<input type="text" value="MicroFocus.com"/>
Proxy URL	<input type="text" value="https://integration.microfocus.com/ZMW/appserver/Serv"/>
Enable analytics	<input checked="" type="checkbox"/>

As soon as this option is selected, ZENworks Mobile Workspace will start collecting data related to user and application activity.

2.2 Active Analytics Engine Listener

To process the data, a remote tool such as Kibana should be connected to the analytics engine. For that, we must configure ZENworks Mobile Workspace to listen to inbound connections from such a tool. This will allow connections from anywhere by anyone. Please contact the ZENworks Mobile Workspace specialist to apply the best security practices based on your environment.

2.2.1 Windows

If you have installed ZENworks Mobile Workspace on a Windows server:

1. Stop the SENSE –SERVER service.
2. Start ZENworks Mobile Workspace (ZENworksMobileWorkspace_HOME/services/SENSE-SERVER_service_manager.bat)
3. In the Java tab, add the following lines:
-Dspring.data.elasticsearch.properties.http.enabled=true
-Dspring.data.elasticsearch.properties.http.bind_host=0.0.0.0
4. In the command line tool, run *sense-server_service.bat remove* and then *sense-server_service.bat install*
5. Apply and start the SENSE-SERVER service.

2.2.2 Linux

If you have installed ZENworks Mobile Workspace on a Linux server:

1. Stop the tomcat service.
2. Edit the file SENSE_HOME/bin/setenv.sh
3. Add the following lines:
JAVA_OPTS="\$JAVA_OPTS -Dspring.data.elasticsearch.properties.http.enabled=true"
JAVA_OPTS="\$JAVA_OPTS -Dspring.data.elasticsearch.properties.http.bind_host=0.0.0.0"
4. Start the tomcat service.

3 INSTALLING THE VISUALIZATION TOOL

The elastic search database used to collect data can be interfaced with many tools. This chapter will explain how to install the most commonly used one, Kibana.

3.1 Installing Kibana

You must not install Kibana on the same virtual machine as that on which the ZENworks Mobile Workspace server is installed, as it is resource consuming.

Download the ZENworks Mobile Workspace compatible version from the following location:
<https://www.elastic.co/downloads/past-releases/kibana-4-5-4>

1. Extract the package and edit the `KIBANA_HOME/config/kibana.yml` file.
2. Remove `#` from the `elasticsearch.url` parameter and set your ZENworks Mobile Server IP address.
3. Run `KIBANA_HOME/bin/kibana.bat` (kibana on Linux).
4. Connect to <http://localhost:5601/>

3.2 Configure Kibana

1. Browse to Settings and select the Indices tab.
2. Configure an index pattern as shown below:

The screenshot shows the Kibana Settings page for configuring an index pattern. It includes the following elements:

- Index contains time-based events**
- Use event times to create index names** [DEPRECATED]
- Index name or pattern**
Patterns allow you to define dynamic index names using * as a wildcard. Example: logstash-*
-
- Do not expand index pattern when searching** (Not recommended)
By default, searches against any time-based index pattern that contains a wildcard will automatically be expanded to the currently selected time range.
Searching against the index pattern `logstash-*` will actually query elasticsearch for the specific matching index range.
- Time-field name** ⓘ [refresh fields](#)
-
- Create** button

3. Select the Objects tab and click Import.
4. Select the ZENworks Mobile Workspace configuration file provided by Micro Focus.
5. You should see imported dashboards and visualizations.

3.3 Pre-defined Dashboards

The following dashboards are provided with the analytics engine:

- **Default:** Provides generic information about the ZENworks Mobile Workspace server usage such as requests-per-day or processing time.
- **Device centric:** Provides device centric information such operating system used or bandwidth usage.
- **HTTP proxy:** Provides HTTP proxy usage information.

4 AVAILABLE DATA

This section lists all the data that can be collected by ZENworks Mobile Workspace and used for analytics.

4.1 Generic

- **_type (Text):** ZENworks Mobile Workspace component that collect the following data:
 - **session:** Data collected when a request is sent to the security server.
 - **proxy-http:** Data collected when a request is processed by the ZENworks Mobile Workspace HTTP proxy.
 - **proxy-component:** Data collected when a request is completed by the workspace.
- **timestamp (Date):** Date on which the data is collected.

4.2 Application

- **applicationIdentifier (Text):** Bundle ID on iOS and Package name on Android.
- **applicationInstanceIdentifier (Text):** Unique ID per application instance.
- **applicationRef (Text):** Workspace only. The application name within the workspace.
- **applicationVersion (Text):** Version of the application.
- **serviceName (Text):** Workspace only. The service used by an application.

4.3 Device

- **deviceModel (Text):** Model of the device.

- **deviceName (Text):** Name of the device as entered by the user (optional)
- **deviceOperatingSystem (Text):** ZENworks Mobile Workspace code for iOS (IPHONE3) and Android (ANDROID)
- **deviceOsVersion (Text):** Version of the operating system.

4.4 Device context

- **clientTime (Date):** Time on the device
- **clientTimeZone (Text):** Time zone of the device
- **ipAddress (Address IP):** IP Address as seen by the ZENworks Mobile Workspace server. Should be the device IP address but if ZENworks Mobile Workspace is behind a proxy, this address will be the one from the proxy.
- **ipCountry (Text):** Computed country based on the IP address.
- **location (GPS location):** GPS location of the device.

4.5 User

- **domainName (Text):** Domain of the user
- **userName (Text):** Name of the user

4.6 Session

- **sessionStartTime (Date):** Date on which a user starts a ZENworks Mobile Workspace session
- **sessionEndTime (Date):** Date on which a user logs out or when the ZENworks Mobile Workspace session expires
- **sessionDuration (Date):** Duration of the ZENworks Mobile Workspace session
- **sessionId (Text):** Unique ID of the ZENworks Mobile Workspace session

4.7 HTTP proxy

- **requestContentLength (Number):** Length of the request's content sent by the mobile
- **requestMethod (Text):** HTTP request method (GET, POST, HEAD, etc)
- **requestPath (Text):** Path to the requested resource (e.g. /favicon.ico)
- **requestPort (Number):** Port on which the request has been done
- **requestProtocol (Text):** Protocol used by the request (http or https)
- **requestProtocolVersion (Text):** HTTP protocol version (e.g 1.1)
- **requestServer (Text):** Hostname or IP address of the targeted backend server (e.g. microfocus.com)
- **responseCode (Number):** HTTP response code (e.g. 200)
- **responseContentLength (Number):** Length of the response's content sent to the mobile
- **responseContentType (Text):** Content type of the response (example: image/x-icon)
- **responseDelay (Number):** Request processing time
- **responseMessage (String):** HTTP response message (e.g. OK)