Authentication Concepts

Overview

The OAuth 2.0 (http://oauth.net/) protocol is based on the acquisition of an access token, which encapsulates the authorization that is granted to the client. In that context, IBM MobileFirst Platform Server serves as an authorization server and is able to generate such tokens. The client can then use these tokens to access resources on a resource server, which can be either MobileFirst Server itself or an external server. The resource server checks the validity of the token to make sure that the client can be granted access to the requested resource. This separation between resource server and authorization server in the new OAuth-based model allows you to enforce MobileFirst security on resources that are running outside MobileFirst Server.

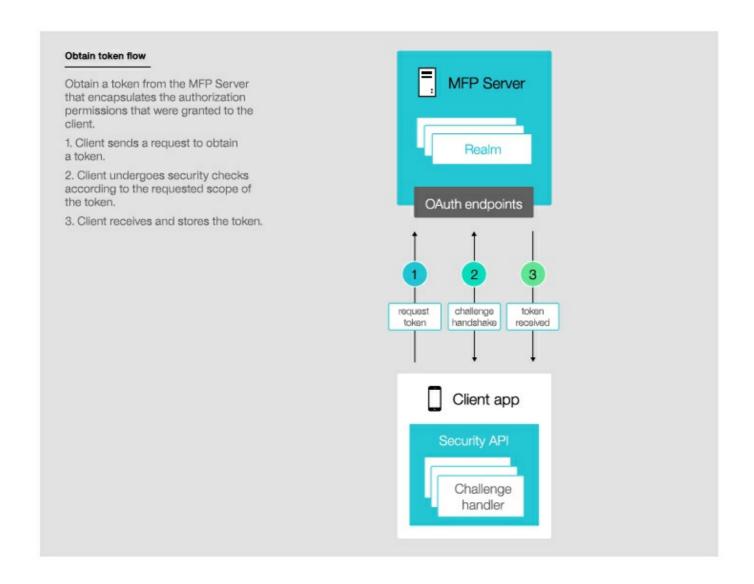This tutorial covers the following topics:

- Authorization flow
- Authorization entities
  - SecurityCheck
  - SecurityCheckConfiguration
  - Scope
  - Scope Token
  - Security Adapter
- Protecting resources
  - Java adapters
  - JavaScript adapters
  - External resources
- Configuring Authentication from the MobileFirst Console
- Further reading

Authorization flow

The new MobileFirst end-to-end authorization flow has two phases: the client acquires the token and then uses it to access a protected resource.
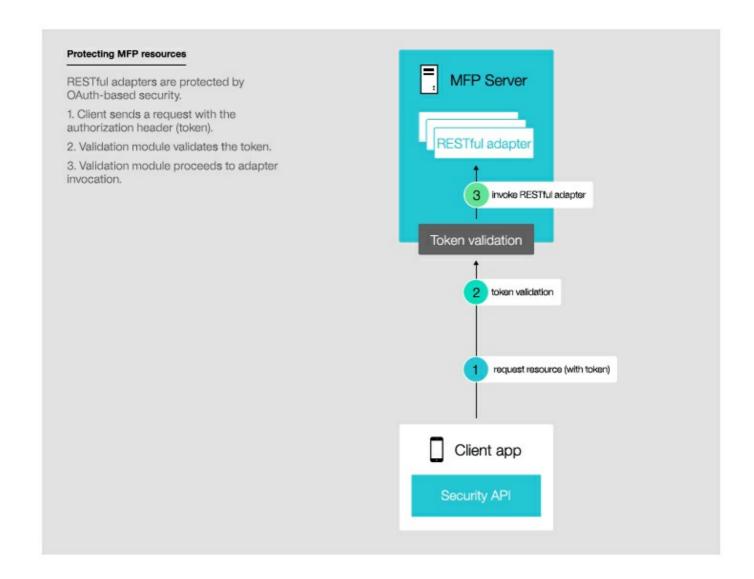
Acquiring a token

In this phase, the client undergoes security checks in order to receive an access token. These security checks use authorization entities, which are described in the next section.

Obtain token flow

Obtain a token from the MFP Server that encapsulates the authorization permissions that were granted to the client.

1. Client sends a request to obtain a token.

2. Client undergoes security checks according to the requested scope of the token.

3. Client receives and stores the token.

MFP Server

Realm

OAuth endpoints

1   2   3

request token   challenge handshake   token received

Client app

Security API

Challenge handler

Using a token to access a protected resource

It is possible to enforce MobileFirst security both on resources that run on MobileFirst Server, as shown in this diagram, and on resources that run on any external resource server as explained in tutorial Using MobileFirst Server to authenticate external resources (../../using-mobilefirst-server-authenticate-external-resources/).

Protecting MFP resources

RESTful adapters are protected by OAuth-based security.

1. Client sends a request with the authorization header (token).

2. Validation module validates the token.

3. Validation module proceeds to adapter invocation.

MFP Server

RESTful adapter

3 invoke RESTful adapter

Token validation

2 token validation

1 request resource (with token)

Client app

Security API

Authorization entities

SecurityCheck

SecurityCheckConfiguration

Scope

Scope Token

Security Adapter

Protecting resources

Java adapters

JavaScript adapters

External resources

Configuring Authentication from the MobileFirst Console

Further Reading