## Should I explicitly verify Keycloak token or this is done by Keycloak adapter?

Asked 4 years, 8 months ago Modified 4 years, 8 months ago Viewed 4k times



There is a Spring-boot REST API, that needs to be secured by Keycloak, the application is using Keycloak-Spring-Security adapter (6.0.1).





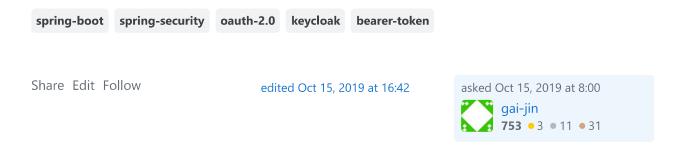
A call to an API endpoint, carries along the bearer token, obtained from Keycloak (currently through postman).



I'm able to perform a successful REST endpoint call, but other thing is troubling me - should I explicitly verify the token against the public key?



- 1 Is the adapter performing verification of the token against the public key, or should I implement it?
- 2 If the adapter is doing this can you point out in which classes is this getting done?
- 3 If not how should this verification be implemented? Are there any Keycloak libraries that I can use to verify the token?



## 1 Answer

Sorted by: Highest score (default)



Well, after a few days of searching the web for answer - I got it. I looked into the code of Keycloak-spring-security-adapter and found it.



First of all I got the logging lever for keycloak to DEBUG:



logging.level.org.keycloak=DEBUG



Then I tried to access my endpoint with bad token (I expected that this is going to produce an exception, i.e. more visible trace; and it did):



2019-10-17 10:18:57,905 | 30860 | http-nio-8081-exec-2 | I DEBUG org.keycloak.adapters.PreAuthActionsHandler | adminRequest http://localhost:8081/error 2019-10-17 10:18:57,906 | 30860 | http-nio-8081-exec-2 |

```
org.keycloak.adapters.springsecurity.filter.KeycloakAuthenticationProcessingFilter
Request is to process authentication
   2019-10-17 10:18:57,906 | 30860 | http-nio-8081-exec-2 | | | | DEBUG |
org.keycloak.adapters.springsecurity.filter.KeycloakAuthenticationProcessingFilter
Attempting Keycloak authentication
   2019-10-17 10:18:57,906 | 30860 | http-nio-8081-exec-2 | | | | DEBUG |
org.keycloak.adapters.BearerTokenRequestAuthenticator | Found [1] values in
authorization header, selecting the first value for Bearer.
    2019-10-17 10:18:57,906 | 30860 | http-nio-8081-exec-2 | | | | DEBUG |
org.keycloak.adapters.BearerTokenRequestAuthenticator | Verifying access_token
   2019-10-17 10:18:57,908 | 30860 | http-nio-8081-exec-2 | | | | DEBUG |
org.keycloak.adapters.BearerTokenRequestAuthenticator | Failed to verify token
   2019-10-17 10:18:57,908 | 30860 | http-nio-8081-exec-2 | | | | DEBUG |
org.keycloak.adapters.RequestAuthenticator | Bearer FAILED
   2019-10-17 10:18:57,908 | 30860 | http-nio-8081-exec-2 | | | | DEBUG |
org.keycloak.adapters.springsecurity.filter.KeycloakAuthenticationProcessingFilter
Auth outcome: FAILED
   2019-10-17 10:18:57,925 | 30860 | http-nio-8081-exec-2 | | | | DEBUG |
org.keycloak.adapters.springsecurity.filter.KeycloakAuthenticationProcessingFilter |
Authentication request failed:
org.keycloak.adapters.springsecurity.KeycloakAuthenticationException: Invalid
authorization header, see WWW-Authenticate header for details
org.keycloak.adapters.springsecurity.KeycloakAuthenticationException: Invalid
authorization header, see WWW-Authenticate header for details
org.keycloak.adapters.springsecurity.filter.KeycloakAuthenticationProcessingFilter.at
org.springframework.security.web.authentication.AbstractAuthenticationProcessingFilte
org.springframework.security.web.FilterChainProxy$VirtualFilterChain.doFilter(Filter(
```

From then on it is clear that the token is being verified, if you look into the classes that take part, you'll see that it is getting verified against the public key in certain situations.

Classes that take part in this authentication & verification are, in my case ( <code>bearer-only</code> ) are:

```
org.keycloak.adapters.springsecurity.filter.Keycloak Authentication Processing Filter org.keycloak.adapters.Bearer Token Request Authenticator\\
```

Hopefully this can help other people like me to find their way in Keycloak.

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