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Is there an elegant way to clone a Keycloak realm with all its configurations (clients and roles) for a multitenant application?

Asked 2 years, 8 months ago Modified 4 months ago Viewed 8k times



I'm building a multitenant application and I'm using Keycloak for authentication and authorization.

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Foreach each tenant, the idea is to have a dedicated Keycloak realm. Each tenant will have exactly the same roles and clients.



I have tried to export one existing realm, use it as template and import it for new tenant. Problem: I'm facing database constraint violation due to internal id.



Question: Is there an elegant way to achieve this, having a template to create a new realm ?

keycloak

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asked Nov 26, 2021 at 12:43



[Youssouf Maiga](#)

7,471 ● 7 ● 27 ● 44


- 2 If you are in kubernetes you could use the KC Operator, otherwise just remove all the ids from your .json template – [dreamcrash](#) Nov 26, 2021 at 12:59

You could also use the Keycloak Terraform Provider, however this of course increases complexity at other places. – [Philipp](#) Nov 27, 2021 at 16:57

Is there any tool that could remove all IDs from .json? instead of doing it manually. Also, there are roles references by ID, I assume they should not be deleted. Which means, you can't just delete all IDs. Any advances on this question? – [Kostanos](#) Nov 9, 2022 at 13:08

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3 Answers

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9



- Be sure that the feature for uploading script is enabled. For a deployment with a docker-compose just add this:

```
command: -Dkeycloak.profile.feature.upload_scripts=enabled
```

- Export your realm (the one to be used as model)
- Remove all lines containing `"id":`, `"_id":` and `"containerId":`
- Search and replace template realm name by the new realm name
- In Keycloak UI admin console, Add new realm, provide the file and that is all.

You can use the cleaned exported file as template.

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edited Mar 11 at 9:43


[demoncodemonkey](#)

11.9k ● 10 ● 62 ● 105

answered Nov 29, 2021 at 14:07

[Youssouf Maiga](#)

7,471 ● 7 ● 27 ● 44

quick followup on your guidance/ans Do we have to literally delete lines in the exported realm (that is being cloned with a different name) eg "id": "f52d991d-0d10-412f-ad53-14e3cfe4f468", and "id:" "old_name", etc ? How to troubleshoot if it gives parse error? Thanks in advance – [tech_geek](#) Nov 21, 2022 at 13:10 

- 2 Be aware of "containerId" id. I have changed it by "incrementing given uuid" and it worked. – [Lubo](#) Jun 15, 2023 at 8:56
- 2 If you have identity providers configured, then also look out for "internalId". The "id" in the first line was mandatory (for me at least). – [dnl.re](#) Oct 5, 2023 at 15:53



2

Can't comment due to rep, but I'd like to add to @Youssouf Maiga's answer, that you should also modify any fields that contain values under **"authenticationFlowBindingOverrides"**:

Replace any entries that have values assigned under "direct_grant" or "browser" i.e



```
"authenticationFlowBindingOverrides": {  
  "direct_grant": "f5d1wb45e-27eb-4466-937439-9cc8a615ad65e",  
  "browser": "5b23141a1c-7af8d-410e-a9b451f-0eec12039c72e9"  
},
```

replaced with

```
"authenticationFlowBindingOverrides": {},
```

I tried cloning my realm based on this and got an error saying:

```
"Unable to resolve auth flow binding override for: direct_grant" when importing the  
modified realm export.
```

Keycloak version 16.1.1

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answered Mar 3, 2022 at 12:18



The7thNoodle

21 ● 1



What you could do is configure everything using the Keycloak Terraform provider. That way you only have to define the configuration once, in code, and then apply it using Terraform.

1

See for the documentation:

<https://registry.terraform.io/providers/mrparkers/keycloak/latest/docs>

An advantage of this is that you can put your code in an SCM tool (e.g. git), so you can track your changes, and go back to a previous version if necessary.

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answered Aug 19, 2022 at 10:56



Arnold Obdeijn

146 ● 3