

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.

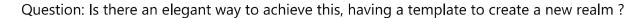
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Foreach each tenant, the idea is to have a dedicated Keycloak realm. Each tenant will have exactly the same roles and clients.



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.



keycloak

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If you are in kubenetes 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 asume 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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• Be sure that the feature for uploading script is enabled. For a deployment with a docker-compose just add this:

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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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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
- If you have identity providers configured, then also look out for "internalld". The "id" in the first line was mandatory (for me at least). dnl.re Oct 5, 2023 at 15:53



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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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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. 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