

How we created a Documentation Framework that works across a group of vendors in the Sovereign Cloud Stack community.

A journey from single documentation files to a meaningful information architecture.

@maxwolfs

Knowledge Management Engineer at **Sovereign Cloud Stack**

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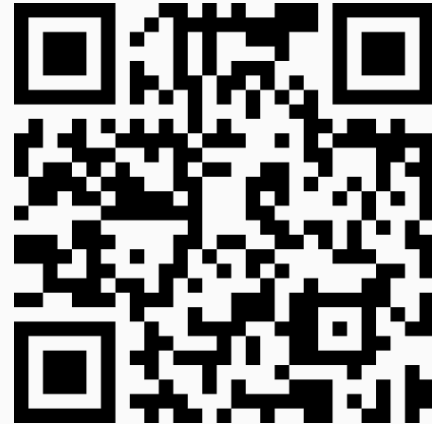
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tl;dr

What is it?

A set of github action workflows to copy markdown files and folders from many A's to a single B. Once that's done, B is being built into a single page application resulting in the Sovereign Cloud Stack documentation at

<https://docs.scs.community>



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Sovereign Cloud Stack

What is it?

The Sovereign Cloud Stack combines the best of Cloud Computing in one unified standard. SCS is built, backed, and operated by an active open-source community worldwide.

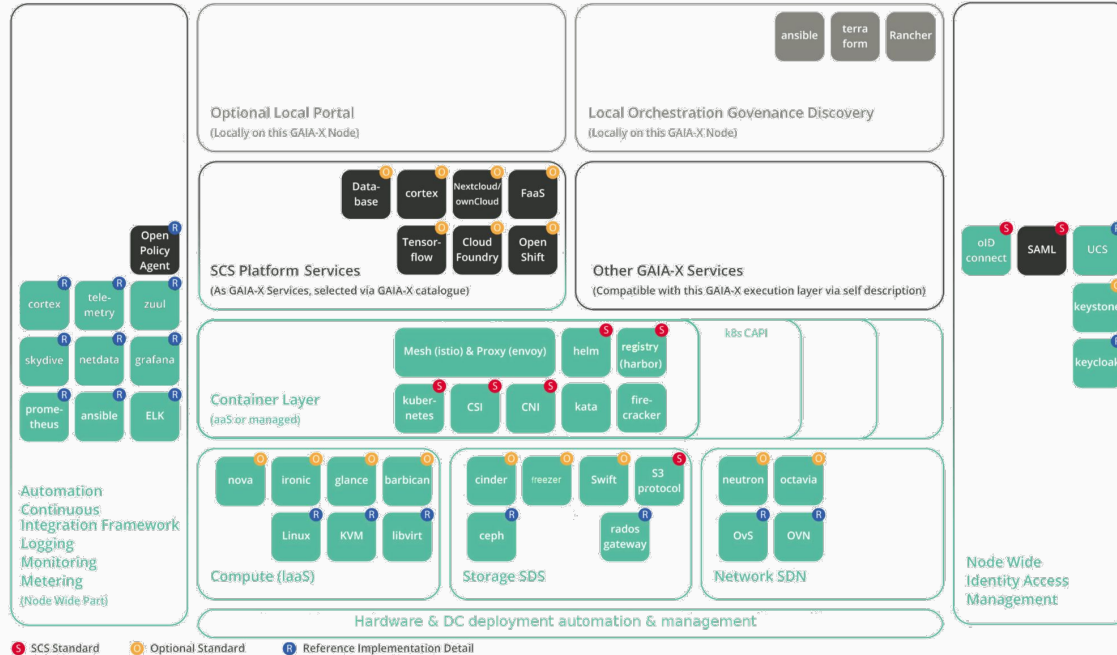


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The SCS Stack is made up from many modules, the docs are heavily distributed



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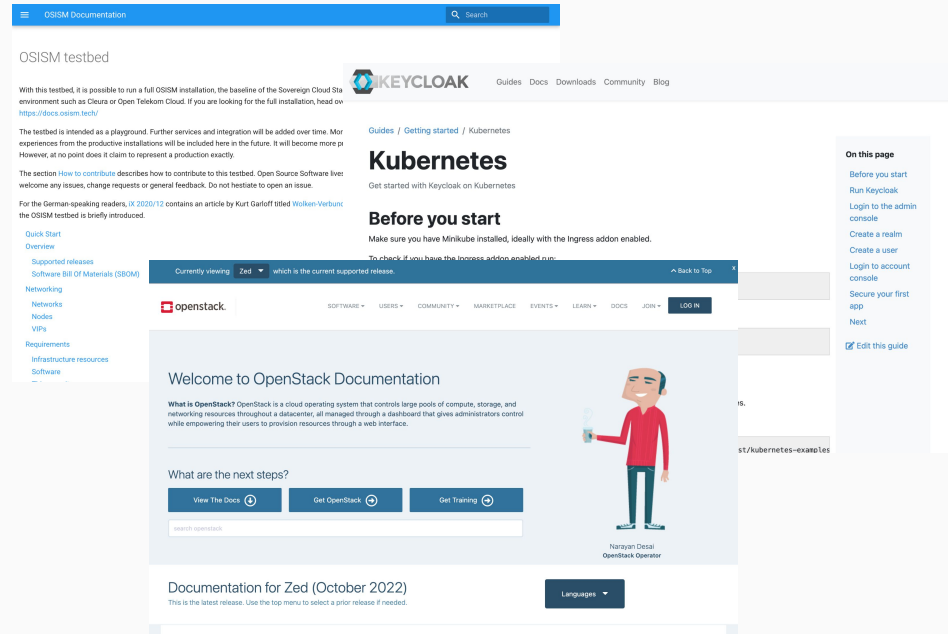
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The Challenge

Integrators and Operators have to manage different documentations with different git repos and different docs.

It would be nice to have them within one platform!

But how?



The screenshot shows the OpenStack documentation website. The main heading is "Kubernetes" with a sub-heading "Before you start". The page content includes a "Welcome to OpenStack Documentation" section with a cartoon character and a "What are the next steps?" section with buttons for "View The Docs", "Get OpenStack", and "Get Training". The page also features a search bar and a "Languages" dropdown menu. The sidebar on the right contains a "On this page" section with links to "Run Keycloak", "Login to the admin console", "Create a realm", "Create a user", "Login to account console", "Secure your first app", "Next", and "Edit this guide".

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Aim and Requirements to the documentation

- minimal ruleset where approval is *nobrainier*
- all doc files in one place
- low entry hurdle for companies with existing repositories – no one has to make any major changes

git submodules? ❌

git subtree? ❌

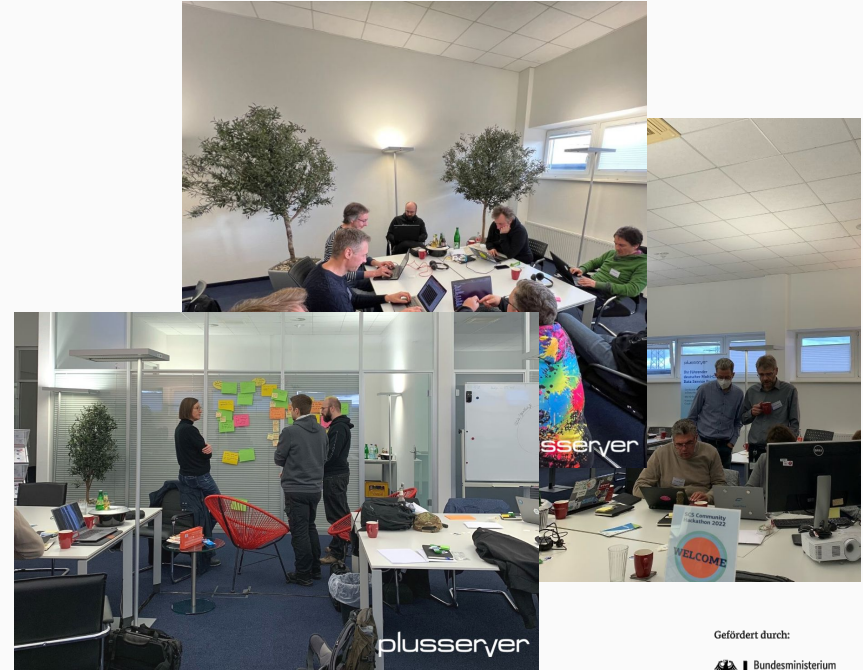
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Unleashing community superpowers

At the SCS Hackathon in November 22 in Cologne hosted by plusserver we have developed a working Prototype of a custom workflow. 🚀

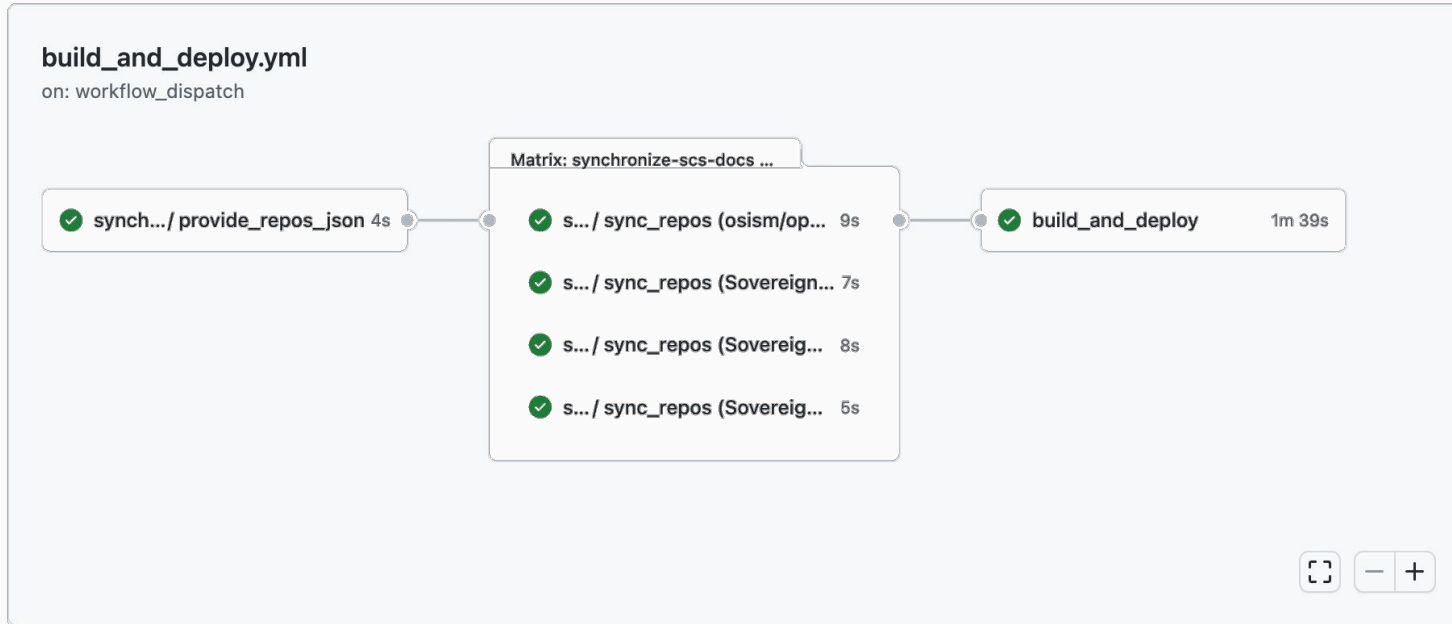


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How does it work?



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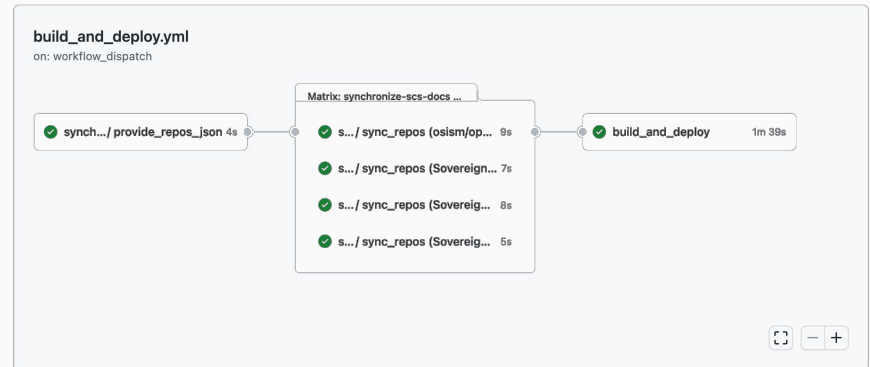
How does it work?

docusaurus as react based static site
generator with some GitHub Actions

Magic ✨🪄

3 GitHub Actions Workflows:

- Collecting
- Distilling
- Building



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Defining a package.docs.json in the root directory of the docs-page

docs.package.json

```
[
  {
    "repo": "SovereignCloudStack/docs",
    "source": "community/contribute",
    "target": "community",
    "label": ""
  },
  {
    "repo": "SovereignCloudStack/docs",
    "source": "operations",
    "target": "docs",
    "label": ""
  },
  {
    "repo": "SovereignCloudStack/release-notes",
    "source": "*.md",
    "target": "docs",
    "label": "release-notes"
  },
  {
    "repo": "osism/openstack-image-manager",
    "source": "doc/*.md",
    "target": "docs",
    "label": "openstack-image-manager"
  }
]
```

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1. Reading the docs.package.json and defining a matrix strategy

```
provide_repos_json
```

```
runs-on: ubuntu-latest
outputs:
  matrix: ${ steps.set-matrix.outputs.matrix }}
steps:
  - name: Checkout the docusaurus repo (B)
    uses: actions/checkout@v3

  - name: Set Matrix
    id: set-matrix
    run: |
      REPOS=$(echo $(cat ../docs.package.json) | sed 's/ //g' )
      echo "::set-output name=matrix::$REPOS"
```

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2. Synchronizing and distilling workflow

sync_repos

```
needs: provide_repos_json
runs-on: ubuntu-latest
strategy:
  max-parallel: 1
  matrix:
    repos: ${{ fromJson(needs.provide_repos_json.outputs.matrix) }}
steps:
  - name: checkout the docusaurus repo (B)
    uses: actions/checkout@v3
    with:
      token: ${{ secrets.PAT }}

  - name: remove previous docs for clean install
    if: ${{matrix.repos.label != null }}
    run: |
      rm -rf $(pwd)/${{matrix.repos.target}}/${{matrix.repos.label}}

  - name: remove previous docs for clean install
    if: ${{matrix.repos.label == null }}
    run: |
      rm -rf $(pwd)/${{matrix.repos.target}}/${{matrix.repos.source}}
      rm -rf $(pwd)/${{matrix.repos.source}}

  - name: clone repo A which is about to be synchronized
    uses: sudosubin/git-clone-action@v1.0.1
    with:
      repository: ${{matrix.repos.repo}}
      path: 'repo_to_be_edited'
```

```
- name: remove git folders from A
run: |
  rm -rf $(pwd)/repo_to_be_edited/.git

- name: remove README.md files from A
run: |
  find $(pwd)/repo_to_be_edited -name "README.md" | xargs rm -f

- name: create docusaurus subdirectory
run: |
  mkdir $(pwd)/${{matrix.repos.target}}/${{matrix.repos.label}} || true

- name: copy docs content from A to B
run: |
  cp -r $(pwd)/repo_to_be_edited/${{matrix.repos.source}}
$(pwd)/${{matrix.repos.target}}/${{matrix.repos.label}}

- name: remove repo A
run: |
  rm -rf $(pwd)/repo_to_be_edited/

- name: commit and push B
uses: EndBug/add-and-commit@v9
with:
  author_name: 'bot@gcs'
  committer_name: Action Bot
  commit: --signoff
  message: "distill ${{matrix.repos.repo}}"
  push: true
  pull: --rebase --autostash
```

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2.1. Synchronizing and distilling workflow in Detail

sync_repos

```
needs: provide_repos_json
runs-on: ubuntu-latest
strategy:
  max-parallel: 1
  matrix:
    repos: ${{ fromJson(needs.provide_repos_json.outputs.matrix) }}
steps:
  - name: checkout the docusaurus repo (B)
    uses: actions/checkout@v3
    with:
      token: ${{ secrets.PAT }}
```

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2.2. Synchronizing and distilling workflow in Detail

```
- name: remove previous docs for clean install
if: {{matrix.repos.label != null }}
run: |
    rm -rf $(pwd)/${{matrix.repos.target}}/${{matrix.repos.label}}

- name: remove previous docs for clean install
if: {{matrix.repos.label == null }}
run: |
    rm -rf $(pwd)/${{matrix.repos.target}}/${{matrix.repos.source}}
    rm -rf $(pwd)/${{matrix.repos.source}}

- name: clone repo A which is about to be synchronized
uses: sudosubin/git-clone-action@v1.0.1
with:
    repository: ${{matrix.repos.repo}}
    path: 'repo_to_be_edited'
```

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2.3. Synchronizing and distilling workflow in Detail

```
- name: remove git folders from A
run: |
    rm -rf $(pwd)/repo_to_be_edited/.git

- name: remove README.md files from A
run: |
    find $(pwd)/repo_to_be_edited -name "README.md" | xargs rm -f

- name: create docusaurus subdirectory
run: |
    mkdir $(pwd)/${matrix.repos.target}/${matrix.repos.label} || true

- name: copy docs content from A to B
run: |
    cp -r $(pwd)/repo_to_be_edited/${matrix.repos.source}}
$(pwd)/${matrix.repos.target}/${matrix.repos.label}}
```

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2.4. Synchronizing and distilling workflow in Detail

```
- name: copy docs content from A to B
run: |
    cp -r $(pwd)/repo_to_be_edited/${{matrix.repos.source}}
    $(pwd)/${{matrix.repos.target}}/${{matrix.repos.label}}

- name: remove repo A
run: |
    rm -rf $(pwd)/repo_to_be_edited/

- name: commit and push B
uses: EndBug/add-and-commit@v9
with:
    author_name: 'bot@scs'
    committer_name: Action Bot
    commit: --signoff
    message: "distill ${{matrix.repos.repo}}"
    push: true
    pull: --rebase --autostash
```

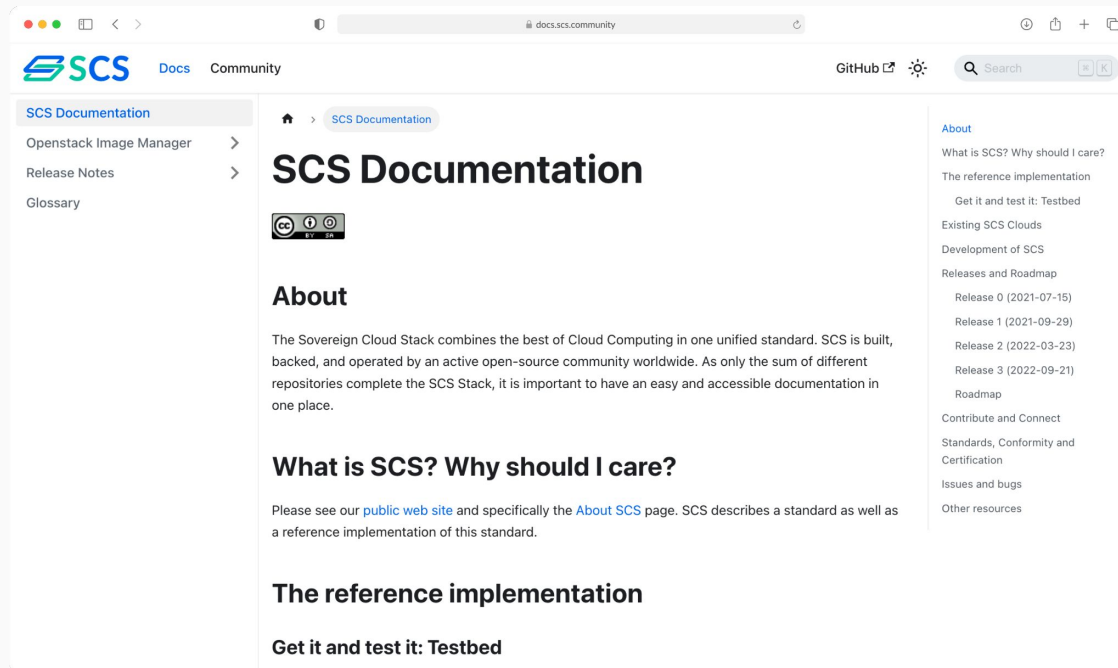
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The Result: <https://docs.scs.community>



The screenshot shows a web browser displaying the SCS Documentation website. The page has a navigation bar with the SCS logo, 'Docs', and 'Community' links. A search bar is visible on the right. The main content area features a sidebar with 'SCS Documentation', 'Openstack Image Manager', 'Release Notes', and 'Glossary'. The main heading is 'SCS Documentation' with a Creative Commons license icon. Below this is an 'About' section with a paragraph describing the project. Further down are sections for 'What is SCS? Why should I care?' and 'The reference implementation'. A right-hand sidebar contains a table of contents with links to 'About', 'What is SCS? Why should I care?', 'The reference implementation', 'Get it and test it: Testbed', 'Existing SCS Clouds', 'Development of SCS', 'Releases and Roadmap', 'Release 0 (2021-07-15)', 'Release 1 (2021-09-29)', 'Release 2 (2022-03-23)', 'Release 3 (2022-09-21)', 'Roadmap', 'Contribute and Connect', 'Standards, Conformity and Certification', 'Issues and bugs', and 'Other resources'.

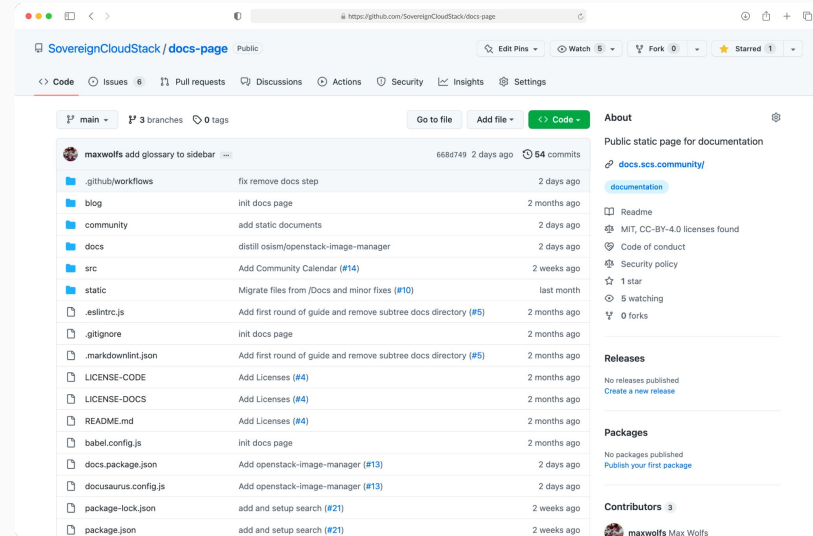
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Feedback

- Ideas, Feedback, Critics?
- Have a look at our repository
- SIG Documentation MeetUp every 2nd monday from 11:05 AM CET: [Community Calendar](#)



<https://github.com/SovereignCloudStack/docs-page>

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What is still to come

- structure wise adapting towards diataxis
- currently triggered manually, soon to be automated
- interactive overview about the standards/stack
- fancy community space

Join our community @matrix →



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