dCache-view

Olufemi S. Adeyemi

On behalf of the project team

INDIGO DataCloud
<table>
<thead>
<tr>
<th>Name</th>
<th>Size</th>
<th>Last Modified</th>
</tr>
</thead>
<tbody>
<tr>
<td>disk</td>
<td></td>
<td>Sat Apr 09 13:04:02 CEST 2016</td>
</tr>
<tr>
<td>lost+found</td>
<td></td>
<td>Sat Apr 09 13:03:46 CEST 2016</td>
</tr>
<tr>
<td>private</td>
<td></td>
<td>Sat Apr 09 13:04:02 CEST 2016</td>
</tr>
<tr>
<td>public</td>
<td></td>
<td>Sat Apr 09 13:04:02 CEST 2016</td>
</tr>
<tr>
<td>replica</td>
<td></td>
<td>Sat Apr 09 13:04:02 CEST 2016</td>
</tr>
<tr>
<td>reserved</td>
<td></td>
<td>Sat Apr 09 13:04:02 CEST 2016</td>
</tr>
<tr>
<td>resilient</td>
<td></td>
<td>Sat Apr 09 13:04:02 CEST 2016</td>
</tr>
<tr>
<td>tape</td>
<td></td>
<td>Sat Apr 09 13:04:02 CEST 2016</td>
</tr>
</tbody>
</table>
Useful flow chart

Should I continue to use the **webdav** webpage?
No
But what if ...
OMG
No!
Use the “new” user interface
Noticeable Changes

1. The Name
The name

dCache Face ≠ dFace
Noticeable Changes

2. Cleaner Interface
This image cannot currently be displayed.

Hover context menu
<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Creation time</th>
<th>File location</th>
<th>Size</th>
</tr>
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<tbody>
<tr>
<td>disk</td>
<td></td>
<td>5/28/2017, 2:05:54 PM</td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
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<td></td>
<td></td>
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<tr>
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<td></td>
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<td></td>
<td>5/28/2017, 2:05:54 PM</td>
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</tr>
</tbody>
</table>
Noticeable Changes

3. In-house Third Party Components

See: https://github.com/dcache-elements
dcache-view

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Umea

30 May 2017

**dcache-namespce Element**

Represent the namespace operation

```html
<dcache-namespce id="namespace"></dcache-namespce>
```

```javascript
let namespace = document.createElement('dcache-namespce');
let listResult;
namespace.auth = window.btoa('anonymous:nopassword');
namespace.promise.then((req)=>{
  listResult = req.response;
}).catch((err)=>{
  console.log(err.message);
});
namespace.ls({
  url: 'https://prometheus.desy.de:3880',
  path: '/Users',
  children: true
});
```
Setting Up dcache-view

dcache-view is part of frontend service

Add frontend service to a dCache domain

[SomeDomain/frontend]

frontend.dcache-view.org-name=DESY
frontend.dcache-view.endpoints.webdav=
  https://example.org:3769/
frontend.authz.anonymous-operations=
  (one-of?NONE|READONLY|FULL)
frontend.authn.protocol= https
frontend.authn.basic=true
Features

- **Login** — with username and password
- **List directories** — including home and root
- Rename
- Download
- Move
- Create
- File metadata
Newly added Features

• Context menu
• OpenID Connect
• Bulk Operation (?)
• User Info
• Upload
• Drag and Drop
• Quality of Service:
  – Get backend info
  – Change
Highlighting Some of the features
OpenID Connect

See Anupam Ashish last year talk for details
https://indico.desy.de/contributionDisplay.py?contribId=8&confId=13786
OpenID Connect is a simple identity layer on top of OAuth 2.0 protocol (Authorisation framework).

It allows Clients to verify the identity of the End-User based on the authentication performed by the Authorisation Server.

Source: http://openid.net/connect/
OpenID Connect with dCache - Configuration

1. Register (or set-up) OpenID Provider
2. webdav
   - `webdav.oidc.client.ids!provider.hostname`
     - `webdav.oidc.client.id!accounts.google.com = <client id>`
   - `webdav.oidc.client.secrets!provider.hostname`
     - `webdav.oidc.client.secret!accounts.google.com = <client secret>`
3. dcache-domain -> gPlazma
   - `dcache.oidc.hostnames = accounts.google.com`
4. gplazma.conf
   - `auth optional oidc`
   - `map optional multimap`

➤ Read more:
How does it work with dcache-view? - Implicit Flow

GET Resource with my OpenID Acct.

End-User

Permission Granted

Allow?

Yes.

1. Redirect User to

OpenID Provider Server

Like: Google, indigo, etc.

dcachview

dCache.org
OpenID Connect & Frontend Service</Setup>

1. frontend.dcache-view.oidc-provider-name-list
   
   frontend.dcache-view.oidc-provider-name-list=google ebay

2. frontend.dcache-view.oidc-client-id-list
   
   frontend.dcache-view.oidc-client-id-list=<clientID1> <clientID2>

3. frontend.dcache-view.oidc-authz-endpoint-list
   
   frontend.dcache-view.oidc-authz-endpoint=<client_EndPoint1> <client_EndPoint2>
Authentication & Authorisation with OpenID Connect
Uploads and Downloads in dCache-View
Files Upload and Download in dcache-View

At the moment, dCache-view uses the webdav door for downloading and uploading files.

Hence, both need to know how to talk to each other
Configuration for Download and Upload

1. Frontend Service Configuration
   - `frontend.dcache-view.endpoints.webdav=
     http://webdav.example.org:3335/`

2. Webdav Service Configuration
   - `webdav.allowed.origins=
     http://dcache-view.example.org:3335`

Cross-Origin Resource Sharing (CORS)
1. Uploads Files (using a button)
2. Uploads Files (using a drag and drop)
3. Downloads
</Demo>

Change Quality of Service

in dCache-View

See Marina Sahakyan talk for details
in dCache-View

Other Stuff