

request, obtain and install
grid user certificates in a friendly way

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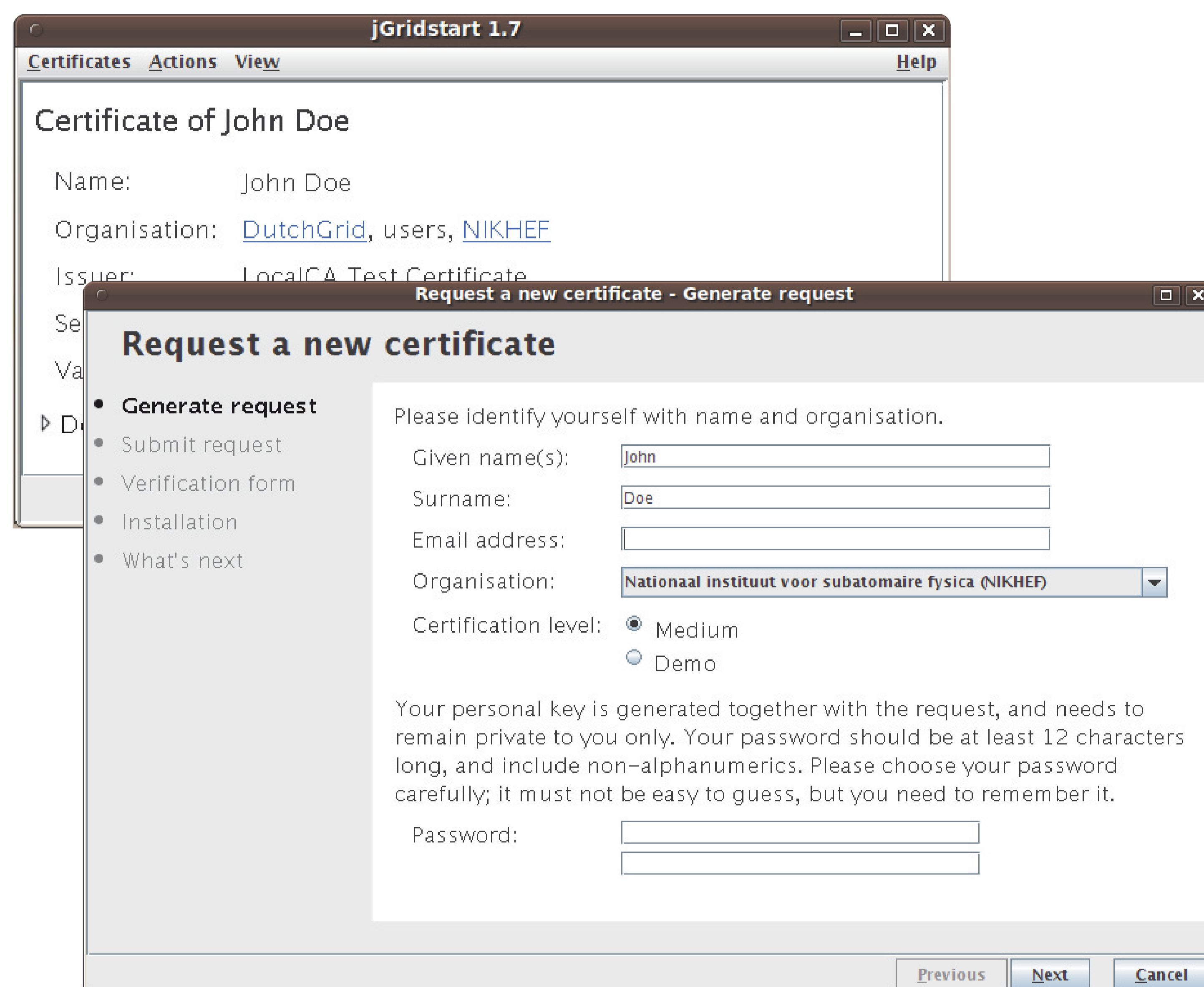
Certificates made easy

One of the first experiences of a user on the grid is requesting and installing a grid certificate. While the use of keys and certificates is good practice from a security standpoint, managing them is far from trivial. jGridstart lowers the hurdle by providing a friendly graphical interface to guide the user in requesting, renewing, and installing user certificates.

Focus on usability

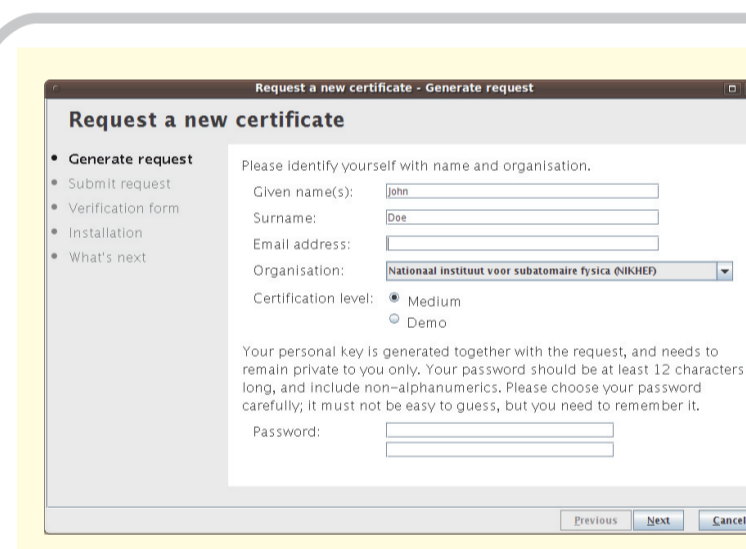
jGridstart was designed with a focus on usability. Requesting or renewing a certificate is done only once a year for most users, so the interface was designed to be intuitive and self-explanatory.

- No grid knowledge or instruction required for user
- Detect state of affairs, present sensible options
- Single place for certificate management
- Easy installation / deployment (java web start) 



Certification authority requirements

- Webservice to submit request and retrieve certificate
- Information on associated organisations and their registration authorities
- Website hosting jGridstart and a custom JNLP file



Generates key & request from user details
Submits request to certification authority



Instructions for user identity verification





Downloads certificate to <home>/.globus
Install certificate into web browser  and more ...

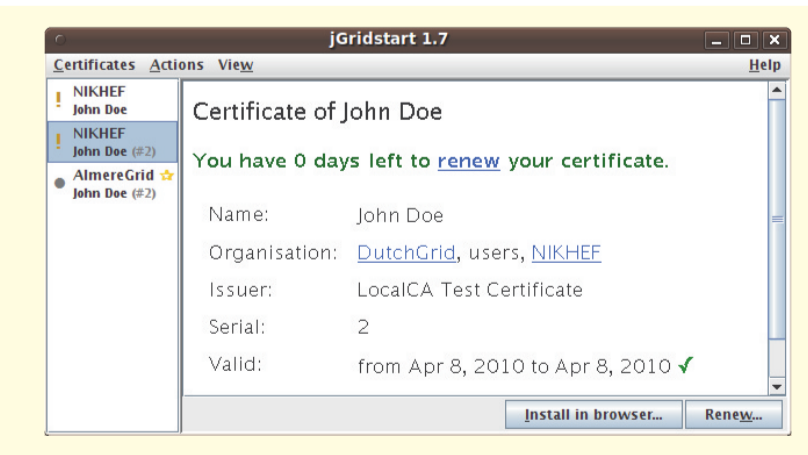
Some issues tackled

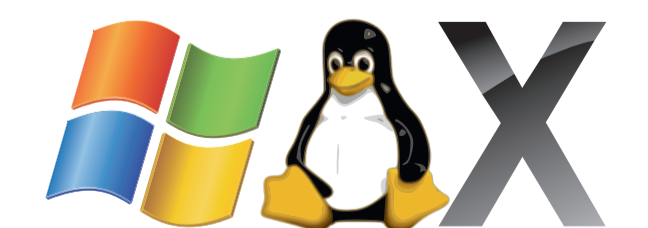
- Circumvention of Java security policy restrictions to avoid installation of unlimited strength crypto policy.
- Detection of installed browsers and default browser
- Installation of PKCS#12 file into different browsers

Future work / in progress

- Confusa as a certificate authority
- delegated credentials for online user identity verification 
- More flexibility for certification authorities
- Better handling of multiple and expired certificates

Import / export of certificate backup (PKCS#12 and PEM) 

Work with multiple certificates
Renew a certificate (request signed by existing key) 

Runs on all major platforms 

DutchGrid certification authority

In the first four months since its introduction in December, 2009, jGridstart has served some 60 certificate requests.

<http://ca.dutchgrid.nl/> 

More information

jGridstart <http://jgridstart.nikhef.nl/>
DutchGrid CA <http://ca.dutchgrid.nl/>
The user's bill of rights [doi:10.1145/290133.290144](http://doi.org/10.1145/290133.290144)

Acknowledgements

jGridstart is supported by the dutch project BiG Grid.