- NREN OFFERING OF EDUCATIONAL SERVICES:

PROCURE OR NOT PROCURE?

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CARNET members

- Elementary and secondary schools
- Universities
- Higher schools
- Institutions from the government
- more than 4500 member institutions connected to CARNET network.....



CARNET specifics....

- All services are FREE to all CARNET members
- Which means CARNET is responsible for the procurement and development and lifetime maintenance of all services.....
- Also for upgrading and adding new functionalities.....



Part of the educational services that CARNET offers.....

Communication and collaboration

Distance learning

Office 365 for Schools

Google Workspace for Education

CARNET Medusa

CARNET Video Conferences

News

Digital education enablers

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e-Class v
  e- Class Register for schools
  e-Class Register for Teachers
  e-Class Register for students and parents
Loomen
e-lektire
Portal škole hr
e-Laboratory
portal Nikola Tesla
Edutorii
Digital Educational Content - e-Schools DEC
e-Schools Teaching Scenarios
Education management application - EMA
Services for e-Schools V
  CARNETAERO
  CARNET data
  CARNET Sigma
  CMS Clasroom Management System
```



CARNET process....

- Process of building new services in CARNET:
- First, we listen to the community, and with focus groups, teachers and experts from schools we find what is a priority for the community
- Experts in CARNET work on technical and functional aspects of educational tool
- Usually, we make the investigation on market to find if anyone has something similar and/or to try to estimate the price and if we have some questions about the service we ask market
- In the end, we start with the process of procurement of a tool
- We use an open procurement process



CARNET process....

- Most of our services are on open-source software
- We have a document with technical specifications about open source and the way how something will be implemented in our environment in CARNET (document is a part of public procurement documentation)
- Dedicated department of developers and other IT experts is taking care of the implementation and programming of that services
- Everything is hosted in CARNET infrastructure Software-Defined Data Center SDDC.
- CARNET SDDC components:
 - Infrastructure as a Service laaS
 - Platform as a Service PaaS
 - Software-Defined Storage SDS



CARNET own developed service

- Some services we made by ourselves from the beginning to the final service
- E-class register for schools, students and parents Through this application, the parent has been allowed access to personal information, grades, absences, notes, scheduled timetable of written assignments and other child data provided by the subject teachers and classmaster.
- Number of users (CROATIA has 3,8 M habitants):
 - 53000 teachers
 - 400 000 students
 - 11 000 parents (use e-citizen national online access)
- Dedicated team of people who takes care of service
- Developers, helpdesk, product owner,....
- We use a lot of people for this service
- One of the most important national services in elementary and secondary schools



CARNET future and dilemma

- Last few years we became aware of a big number of services we are supporting
- The issue is lack of experts and people who are educated to support services like this on market, so we started to think of buying services based on license
- Problem:
- we are limited if we want to add new features in software
- Lock-in with the specific vendor
- Open source is more easily to improve and add new features
- Mindset of people in CARNET based on years of experience



Thank you!

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CARNET

