

IT solutions in **FADN HRV**

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Current (old) IT system

- FADN data - privacy and confidentiality
- Based on *open source* technologies – **costs!**
 - Php, GTK+ php-GTK, xml/xsd, mySQL, GUI glade builder
- FADN IT system:
 1. Off-line application
 2. Database
 3. Web application



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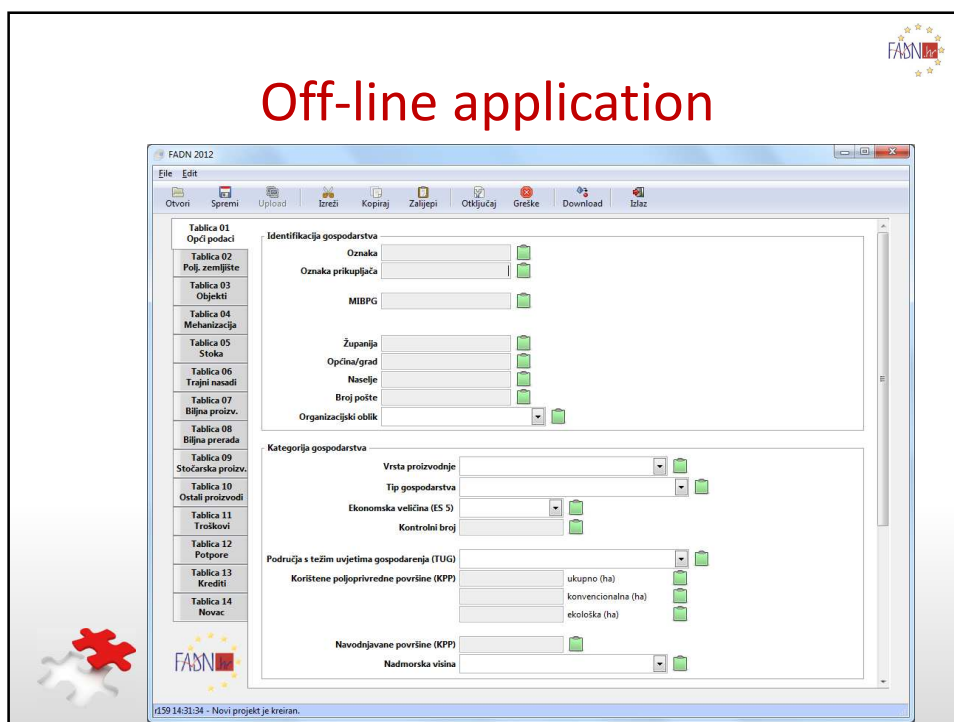
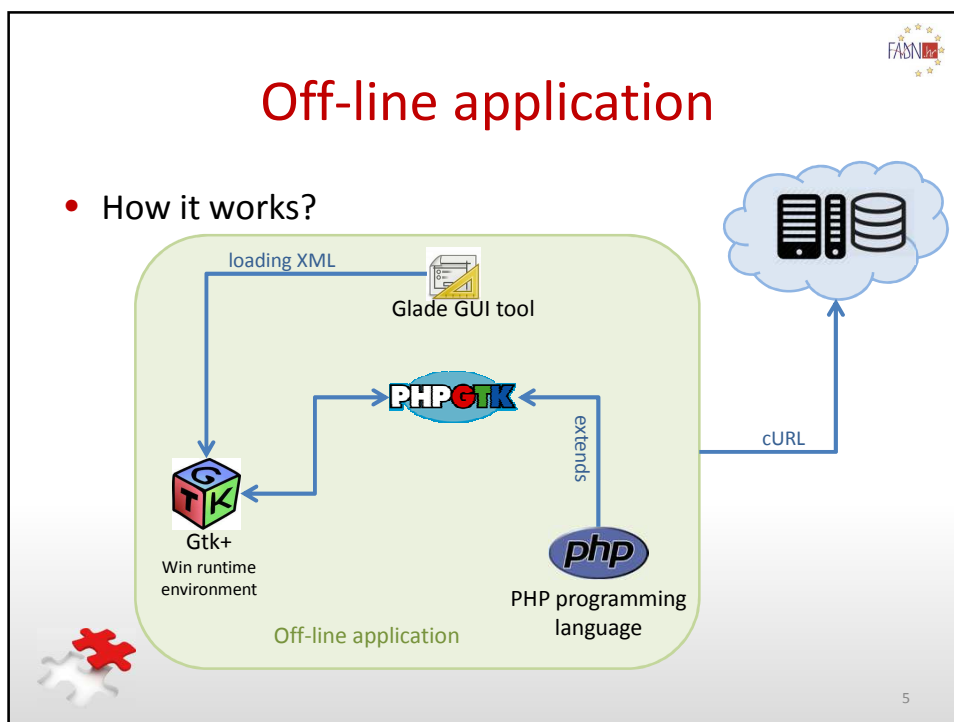


Off-line application

- Collecting FADN data (*once per year*)
- Users: data collectors (employees of AAS)
- Technologies:
 - Php, GTK+, php-GTK
 - GUI – glade builder
 - XML – storing data locally
- **On-line module: update, download, upload**
- Data are encrypted
- Backup on save event



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Web application

- User administration:
 - Creating and managing users, adding roles and privileges
- Updating off-line application
- Generating reports
 - Farm return, farm report, standard reports, half-full questionnaires
- Control tests (RI/CC 1350)
- Secure communication – https



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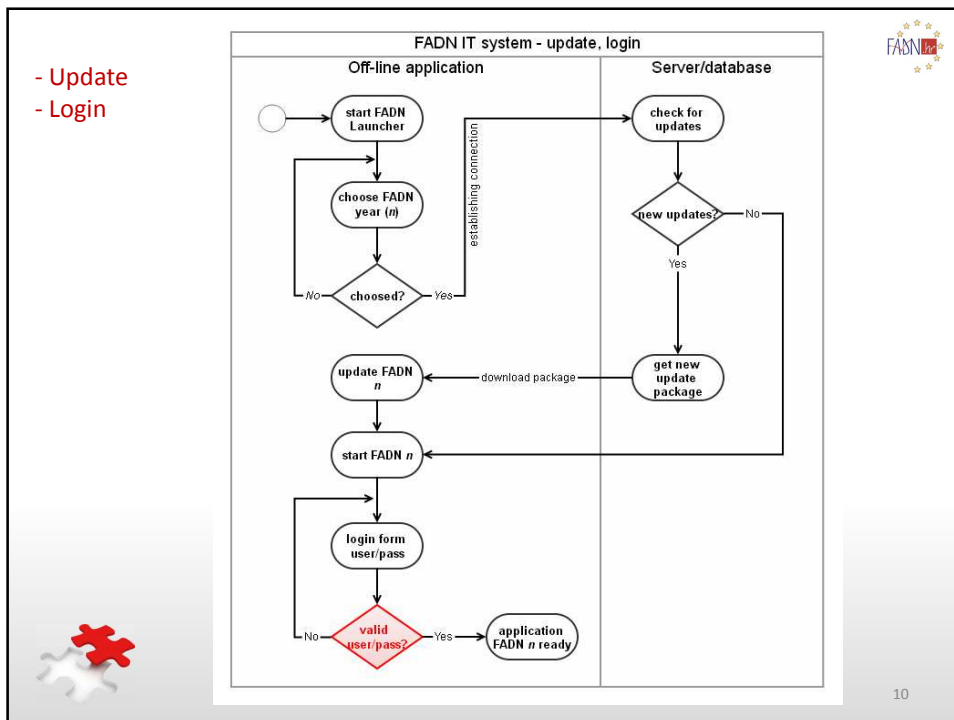
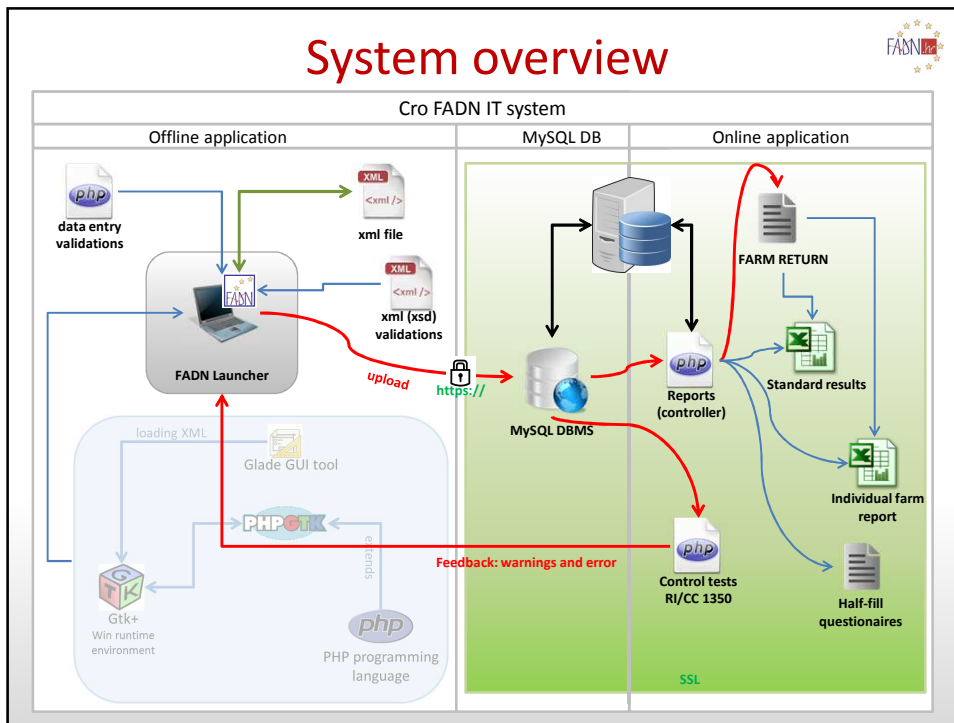


Database and HW

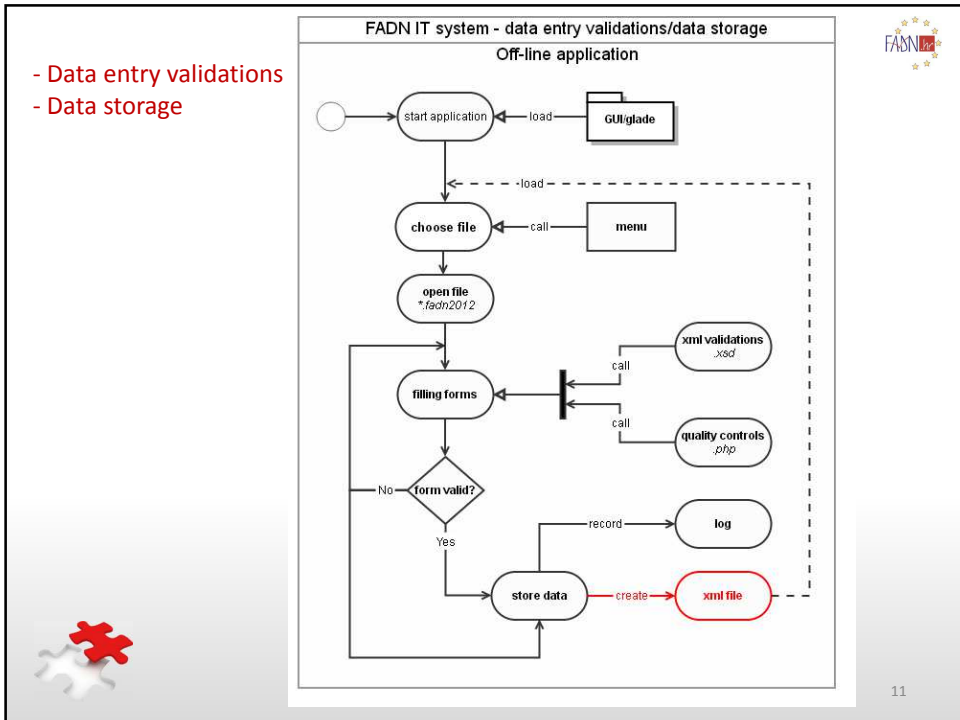
- Database:
 - **mySQL**, db users with different levels of access
 - recording log changes
 - daily backup
- Hardware:
 - FADN server – outsourcing
 - FTP access – Key-based SSH login
 - OS – Linux CentOS
 - Web server: Apache



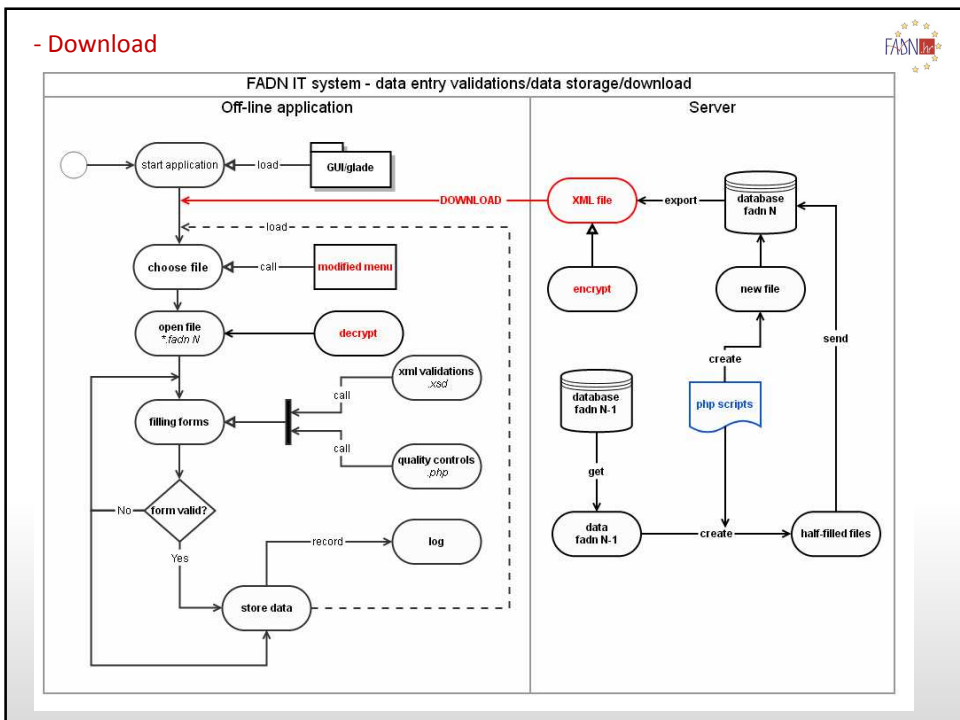
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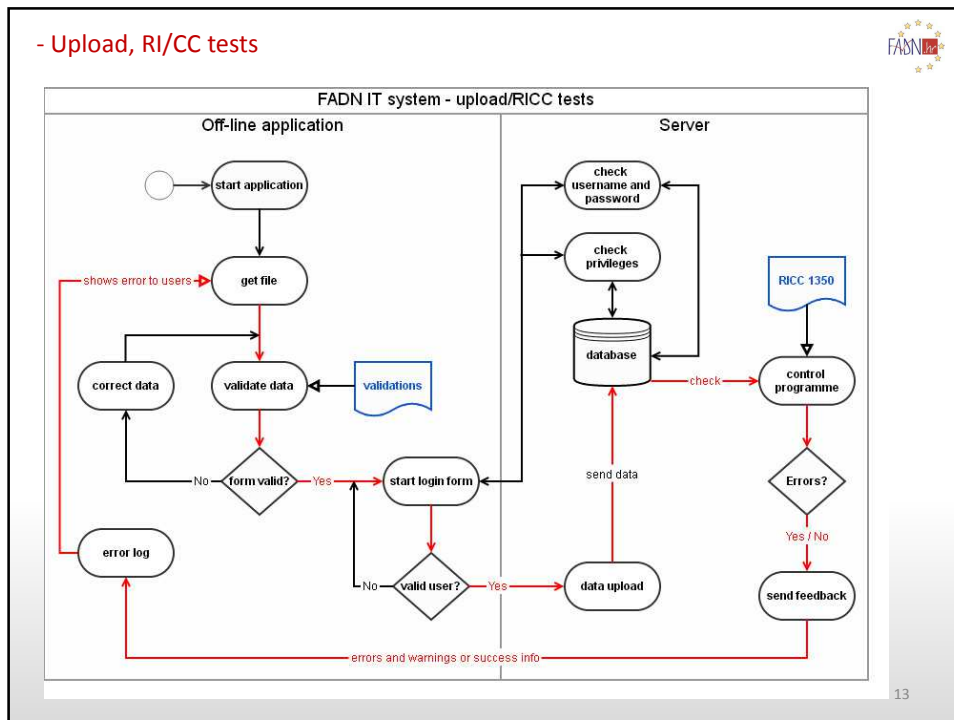
- Data entry validations
- Data storage



- Download



- Upload, RI/CC tests



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New system



- In development stage (testing)
- Web application
- **Yii framework (php)**
 - MVC architecture
 - Input validations, output filtering
 - AJAX-enabled widgets
 - Built-in authentication and authorization
 - Localization (message translation, formatting, interface)
 - SQL injection and Cross-site scripting prevention included
- Error handling, unit testing, **detailed documentation**, ...



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Comparison: old SW vs. new SW

Old SW	New SW
Combination of off-line and on-line applications	On-line
Outdated technology	Updated (all important features included)
Open source	Open source
Data stored locally (xml) + MySQL DB	MySQL DB
Security?	Built-in security protocols and mechanisms
Partially object-oriented	Fully object-oriented
The system is running	First stage (testing)



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Thank you!

Questions?



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