

Database for the clinical validation of INSIDE

Status update

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Meeting INSIDE

Lilly Luongo / Giancarlo Sportelli

Schedule as planned in the last meeting

- Mid-October: setup of the server machines at INFN-PI and CNAO
- End of October: testing of the Apache and PostgreSQL server configurations
- Mid-November: user ready prototype for data insertion testing with local-only access
- End of November: implementation of the production version of the authentication and authorization system

Current status

- Setup of the server machine at INFN-PI (→ almost done)
- Setup of the server machine at CNAO (→ work in progress, depending on support from INFN IT staff)
- Testing of the Apache server configurations (→done)
- Testing of the PostgreSQL server configurations (→ work in progress)
- User ready prototype for data insertion testing with local-only access (→done)
- Implementation of the production version of the authentication and authorization system (→ work in progress)

Development status

- INSIDE-DB back end
 - Server machine at INFN-PI
 - Server machine at CNAO
 - Application and file serving
- Data insertion
 - Administrator UI

INSIDE-DB back end

- The back end has been designed to run on two peer servers, one at CNAO and the other one at INFN
- Server machine at CNAO
 - Virtual machine: VMware
 - Number of processors: 2
 - RAM size: 8 GB
 - HD size: 100 GB
- INFN IT staff will setup the VM and the CNAO IT staff will import the VM in the CNAO computing infrastructure
- CNAO IT staff will configure the firewall

INSIDE-DB back end

- Server machine at INFN-PI
 - Server: insidedb.pi.infn.it
 - Operating system: CentOS 7
 - HTTP server: Apache
 - Web protocol: SSL
 - In addition, we automatically redirect HTTP requests to HTTPS
 - The connections are encrypted using INFN certificates signed by a trusted certificate authority
 - Web framework for the front end application: Django 2.0
 - Web server interface: WSGI
 - It is a specification that describes how a web server communicates with web applications

DB engine

- The DB engine will run two instances, one on the server machine at INFN-PI and the other one on the CNAO server
- We will install and configure PostgreSQL to support active-active database replication
 - We will test PostgreSQL on this configuration for DB synchronization

Application and file serving

- User ready prototype for data insertion testing with local-only access
 - Administrator UI
 - <https://insidedb.pi.infn.it/admin> public url
 - Username and passwords to use test data to be provided upon request
- Users can access the INSIDE database through the Django built-in authentication and authorization system
- Users will be able to insert a trouble ticket in the application (to be implemented next)

Schedule for the next two months

- End of December: setup of the server machine at CNAO
- End of December: implementation of the trouble ticketing system
- Mid-January: testing of PostgreSQL server configuration and DB synchronization
- End of January: implementation of the production version of the authentication and authorization system
- End of February: first prototype of the custom UI