



Presented by D. Porte

Current IT support for users coming for an experiment

SMIS



Beamline Control Unit

Data collection & processing & backup (NICE)
750 T (rolling on 30 days)

Software application for the ESRF User Office

SMIS (Scientific Management Information System) or ESRF User Portal

List of features

- Management of users (name, surname, email, affiliation, date of birth, ...)
- Management of laboratories/affiliations (addresses)
- Management of proposals (proposers, subject, objectives, experiment description, scientific fields...)
- Management of publications
- Management of samples (characteristics, composition,...)
- Parameters for experiments (used to set up experiments)
- Safety (safety courses)
- Relationship with committees (web interfaces for committees)
- Experiment organization
- Scheduling of experiments
- Report on experiment results
- Statistics (tools for User Office to produce statistics)
- Report on experiment course
- Report on local contact interventions
- Data collection & treatments
- Remote control (manage remotely experiments)
- Workshops & conferences (organization & follow-up including the payment)
- Management of equipments (internal loan of equipments)
- Crystallography with ISPyB (software application developed by ESRF)
- Access control system (card)

New Proposal

Proposals In progress

Proposals with Final Number/Previous Proposals

In progress, as Co-Proposer

Information for users

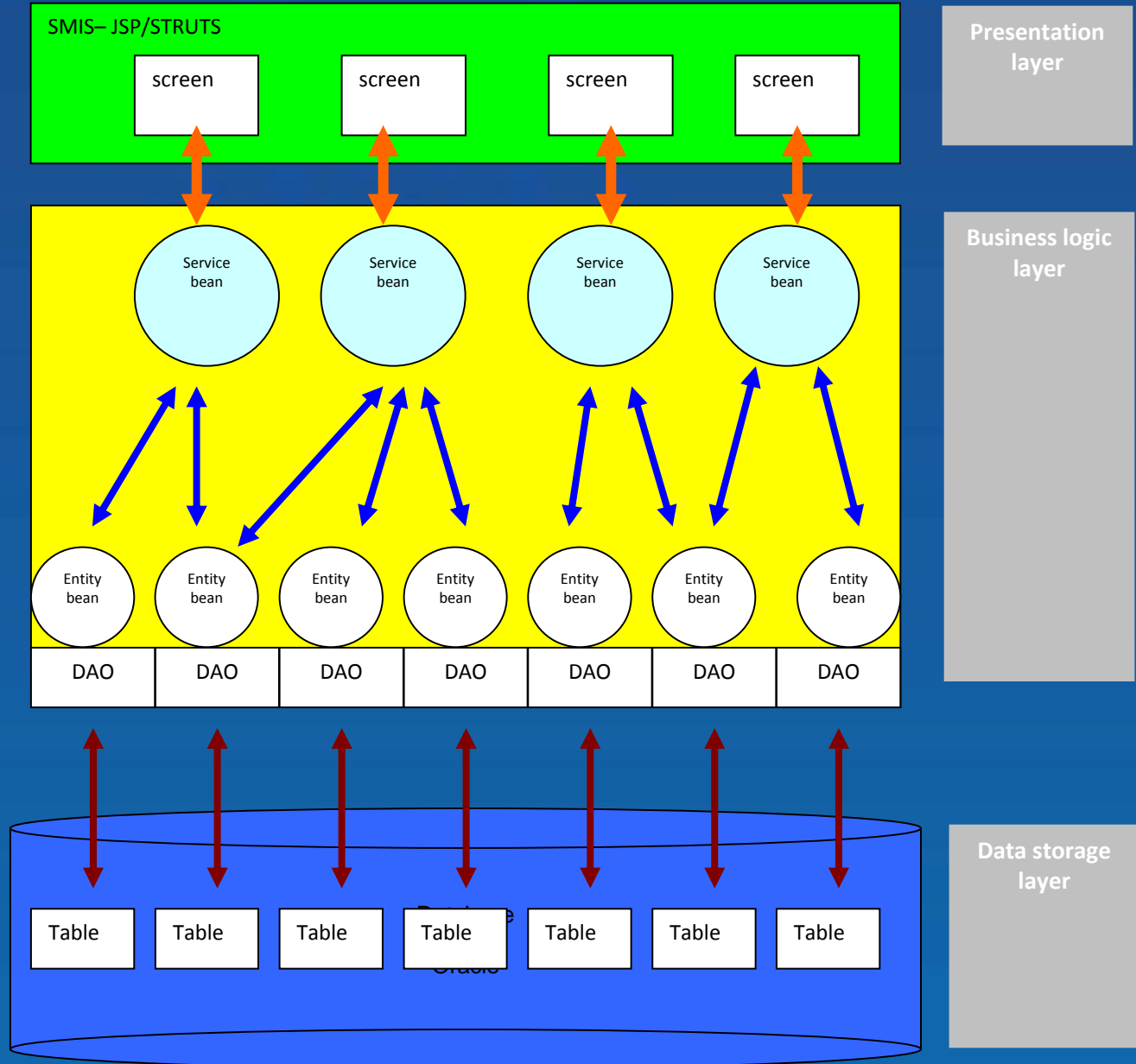
- The next Deadline for the submission of proposals is: **Thursday, September 01 2011** (inclusive)
- The next Deadline for the submission of Long Term Project proposals is: **Sunday, January 15 2012** (inclusive)
- Before creating your proposal, make sure that each co-proposer has created his(her) account.

- Submit New Proposal -

To create your Beamtime Application Form, select the appropriate Proposal by clicking on the corresponding button.

- Standard ESRF Proposal [?](#)
- Macromolecular Crystallography Rolling Proposal [?](#)
- Macromolecular Crystallography BAG Proposal [?](#)
- Long-Term Project [?](#)
- CRG Proposal [?](#)
- Industrial Experiment (Non Macromolecular Crystallography) [?](#)
- Industrial Experiment (Macromolecular Crystallography) [?](#)
- Test Crystal [?](#)

Software architecture

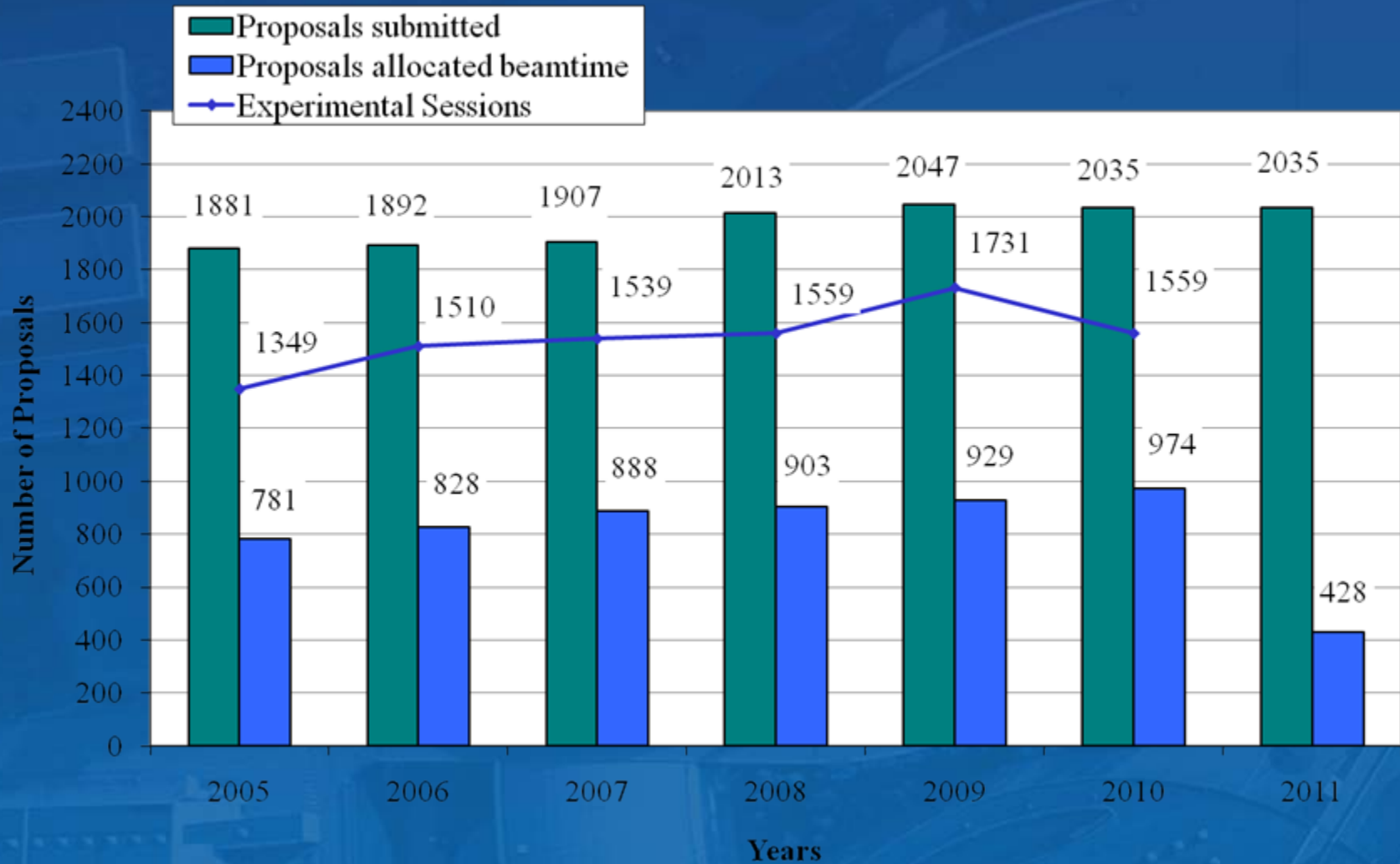


A new data centre

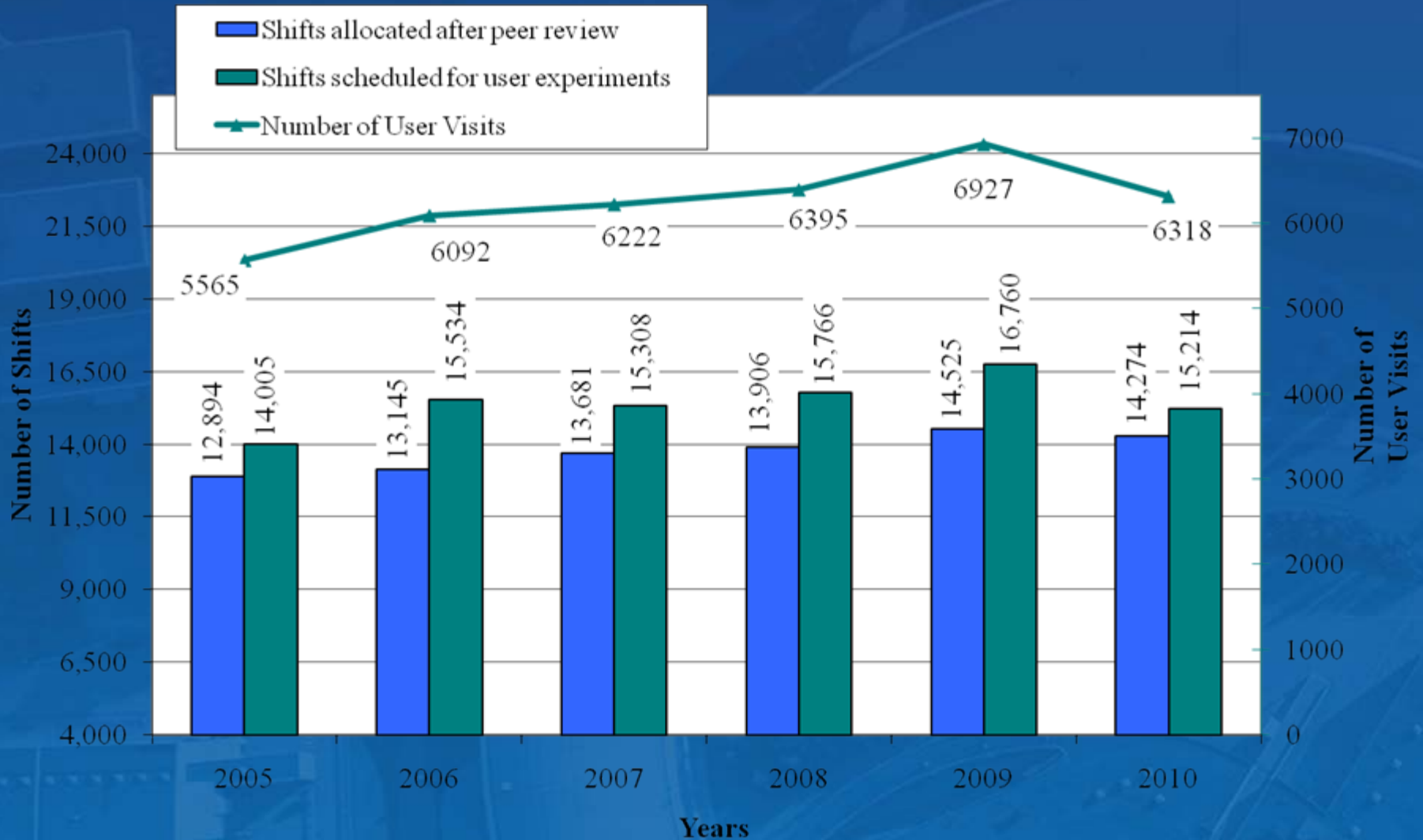
- 10 months of work
- 100 -> 300 square meters
- 2 Uninterruptible power supply
- Smoke extraction
- 75 -> 370 KW
- 2 power supplies for each computer
- Redundant air cooling system
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Proposals submitted and allocated beamtime, 2005-2011



Shifts allocated and delivered for experiments, User visits, 2005-2010



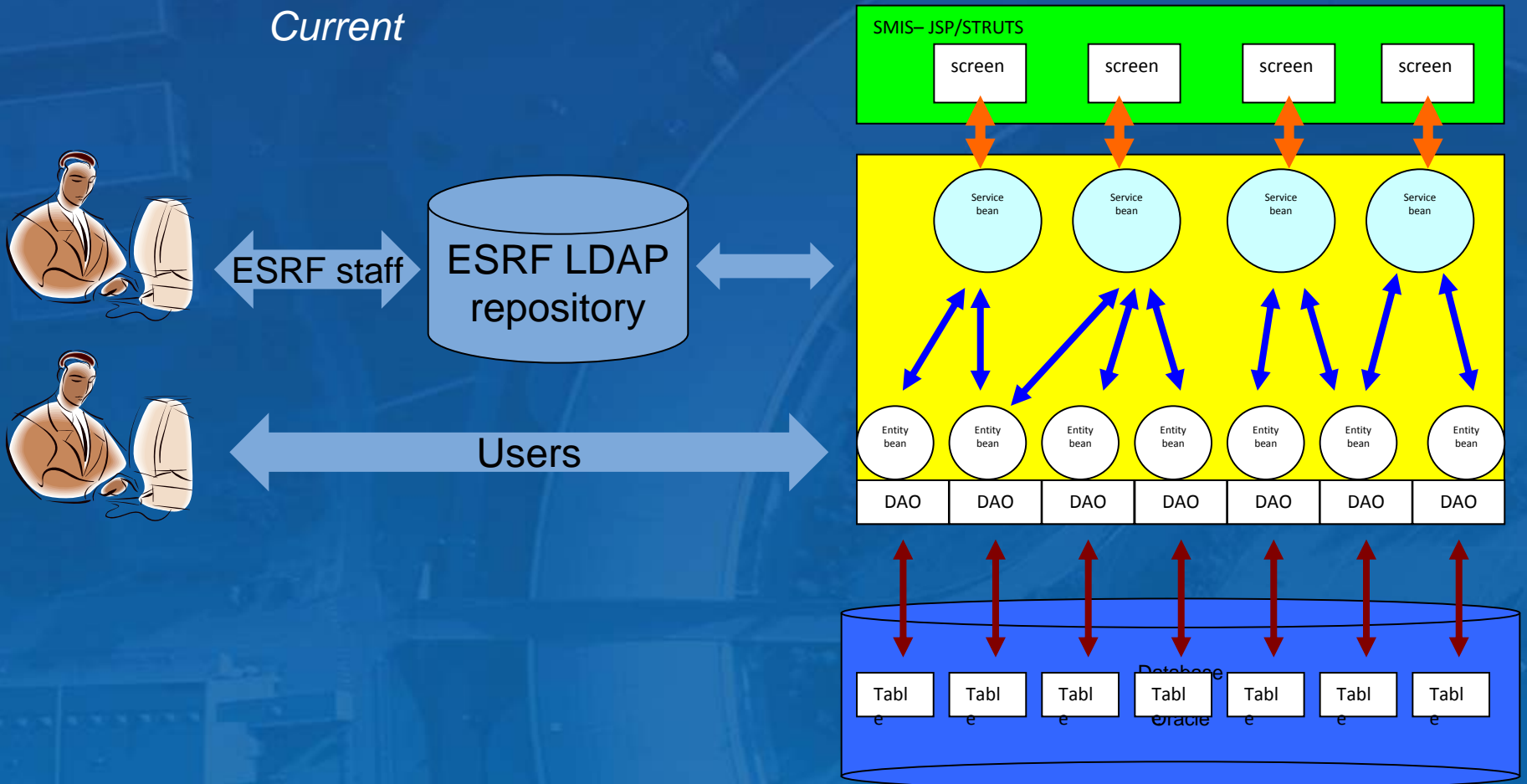
Future needs

SMIS improvements:

- Federated identity system
- Common affiliation database

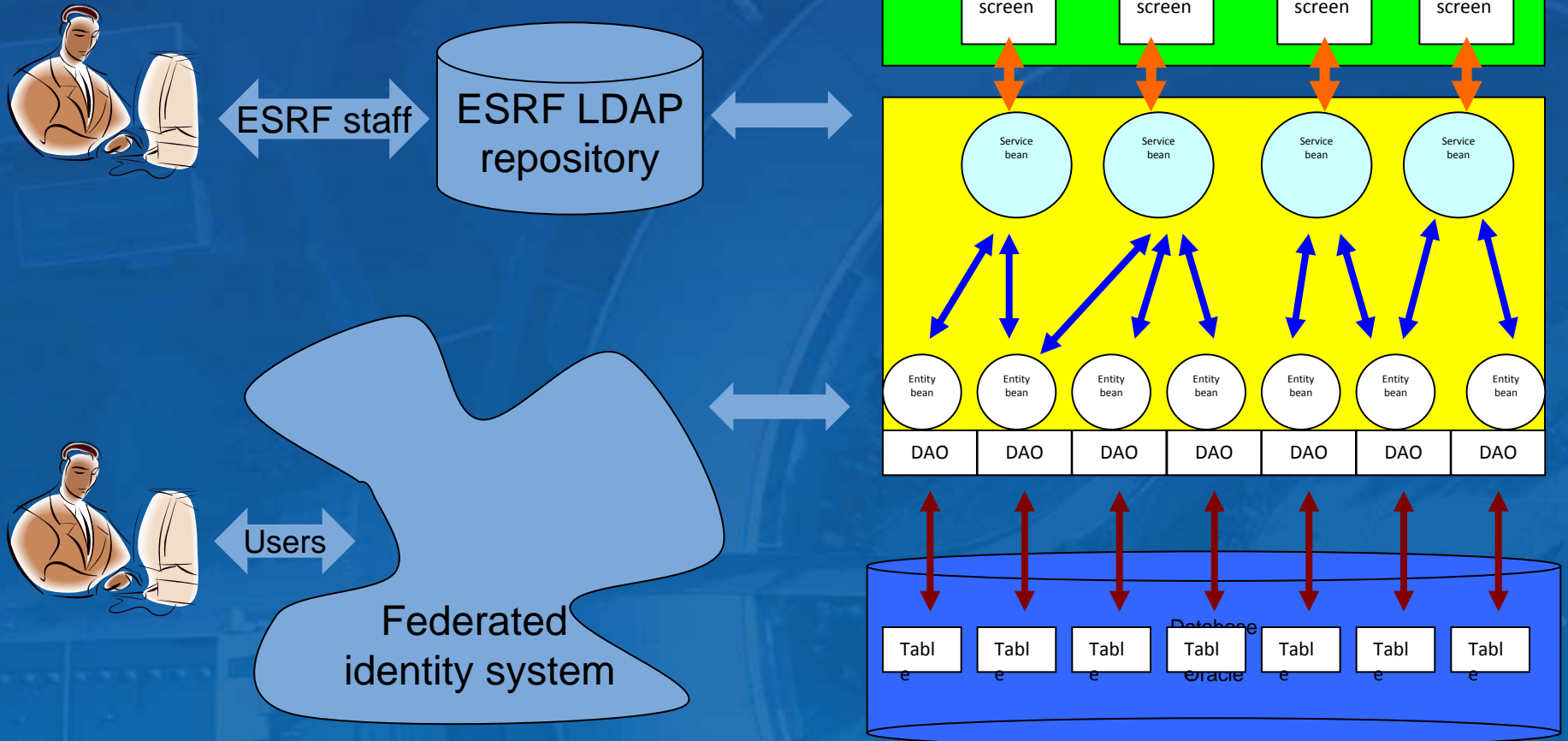
Federated identity system for a single authentication mechanism

Current



Federated identity system for a single authentication mechanism

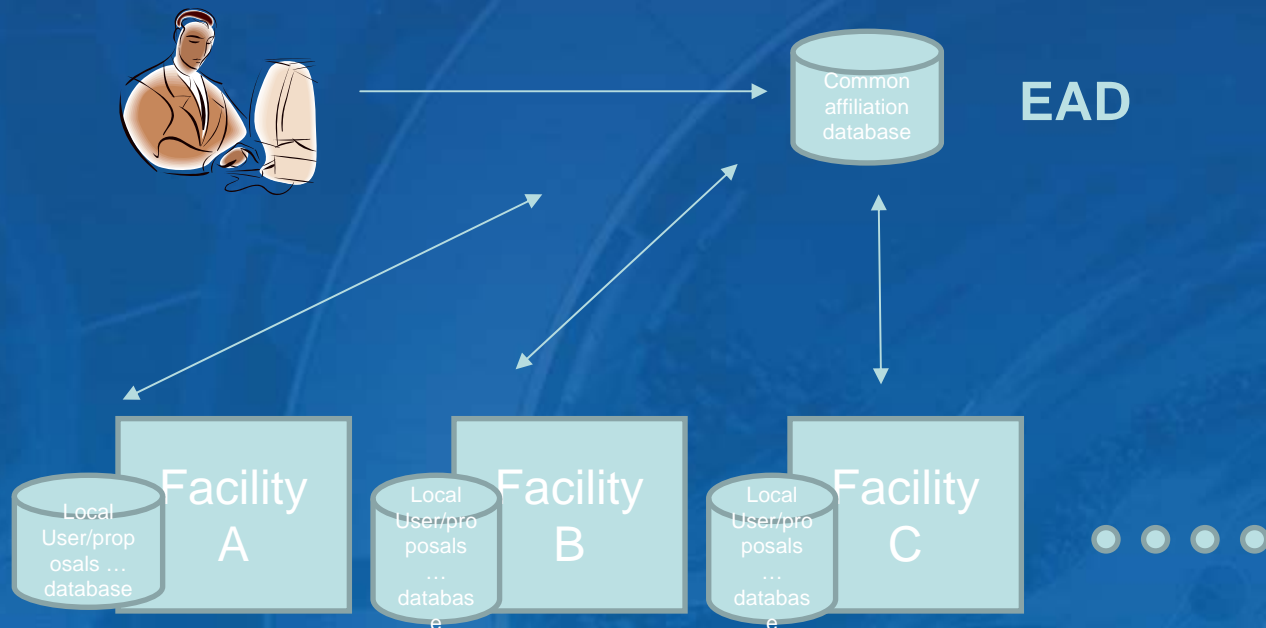
Future



Common affiliation database

Advantages of a common Affiliation database:

- The user records his affiliation only once
- The affiliation is checked and polished only once.
- When the user moves from a laboratory to another, he changes his affiliation only once
- When the affiliation changes, it is automatically replicated to all facilities



Even more:

- Data Analysis as a service
- Common data format
- Meta data
- Remote experiment access
- Remote data access

ESRF metadata situation

- Metadata stored only in special cases
 - Protein crystallography + Tomography
- Need to generalise to other techniques
- Store meta data in a database

- Goal of PanData / Crisp : Generate + manage metadata on all beamlines

ESRF data format situation

- HDF5 as container
 - Nexus where appropriate
 - In favour of the CDM approach
 - Goal is to share data for analysis
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- Convert existing applications to support HDF5

Implementation

Recruitment of two Engineers working on:

- Implementation of the federated identity system
- Implementation of the common affiliation database
- Implementation of the common data format
- Implementation of the ESRF Meta data
- Implementation of a remote data access
- Implementation of a remote experiment access