WP 16 CRISP

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Contents todays presentation

Part 1: Intro Umbrella

Part 1: Umbrella Status

Part 2: Status Bridging of Umbrella to other federations

Umbrella is the Authentication and Authorisation Infrastructure (AAI) concept for the Photon and Neutron community

It is the first time that such a kind of IT environment is offered

- **European wide (not restricted to the EU)**

- **Community overlapping**

- **Shared between different EU projects**

Umbrella is part of several FP7 projects:

- **EuroFEL- ESFRI project Free Electron Lasers of Europe**

- **PaNData-Europe, PaNData ODI- FP7 projects**

- **CRISP – Cluster project of different ESFRI projects**

- **CALIPSO – I3 synchrotron community**

- **NMI3 - I3 neutron community**

- **BioStruct-X – renewal of I3 ELISA FP7 (only struct. biol)**

- **Instruct – ESFRI project**

Umbrella within CRISP

WP16: Common User Identity Systems

No redundancies between the projects, so therefore division of tasks

Task 1 WP3 PaNdata ODI: deployment of the Umbrella platform.
Lead PSI

Task 2 WP16 CRISP WP16: new developments for the Umbrella platform. **Lead** PSI; **Partners:** ESRF, ESS, GSI, ILL, XFEL

Future user operation at large scale facilities

What are the present and upcoming user needs?

a. 40% of the users do experiments at different facilities, transfacility access for users.
b. Acces to and management of experimental data (also within the collaboration).
c. Online entry mode: remote experiment access
d. Access to efficient data analysis tools.
e. Minimal administration load for users.
f. Remote file access.

At the end all this needs a unique persistent user identification to have unified access to these tools.

Overview

Umbrella Characteristics
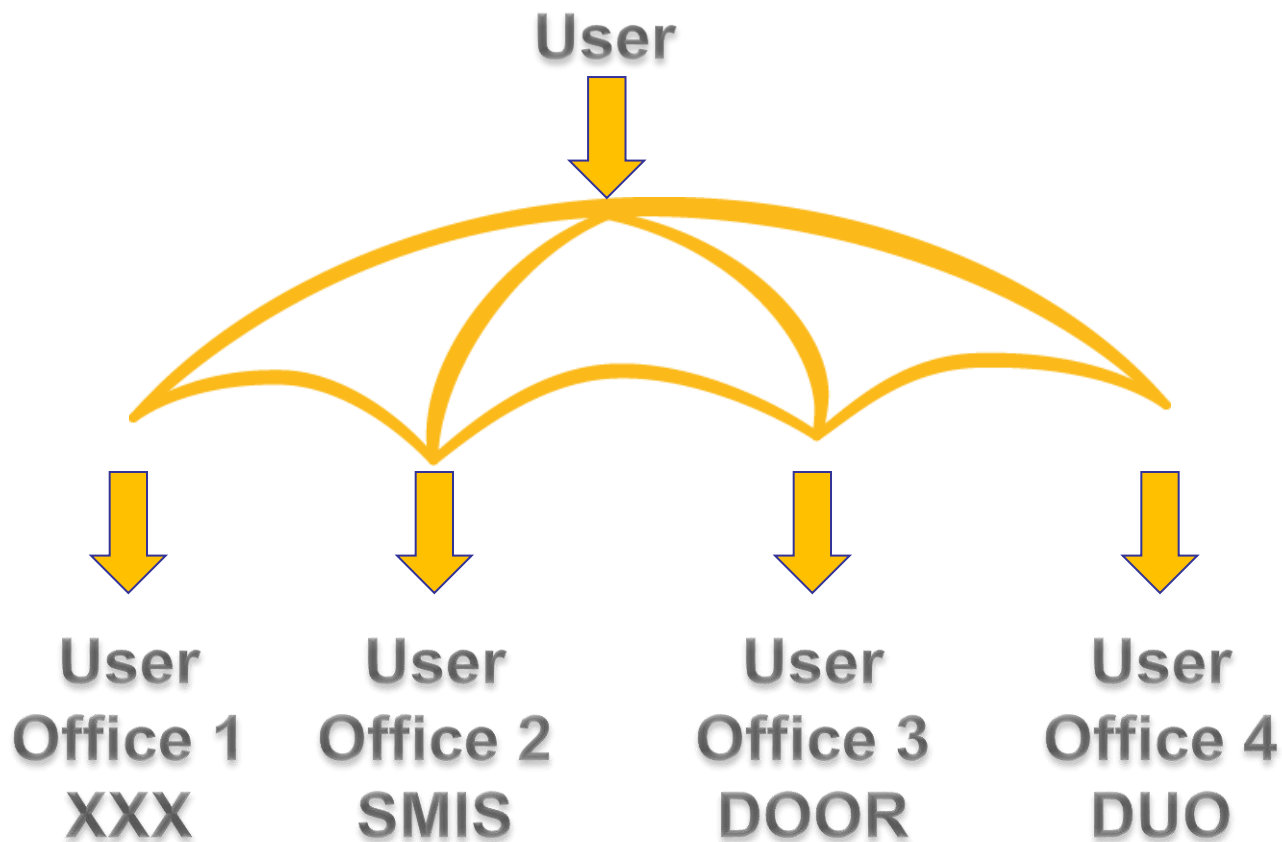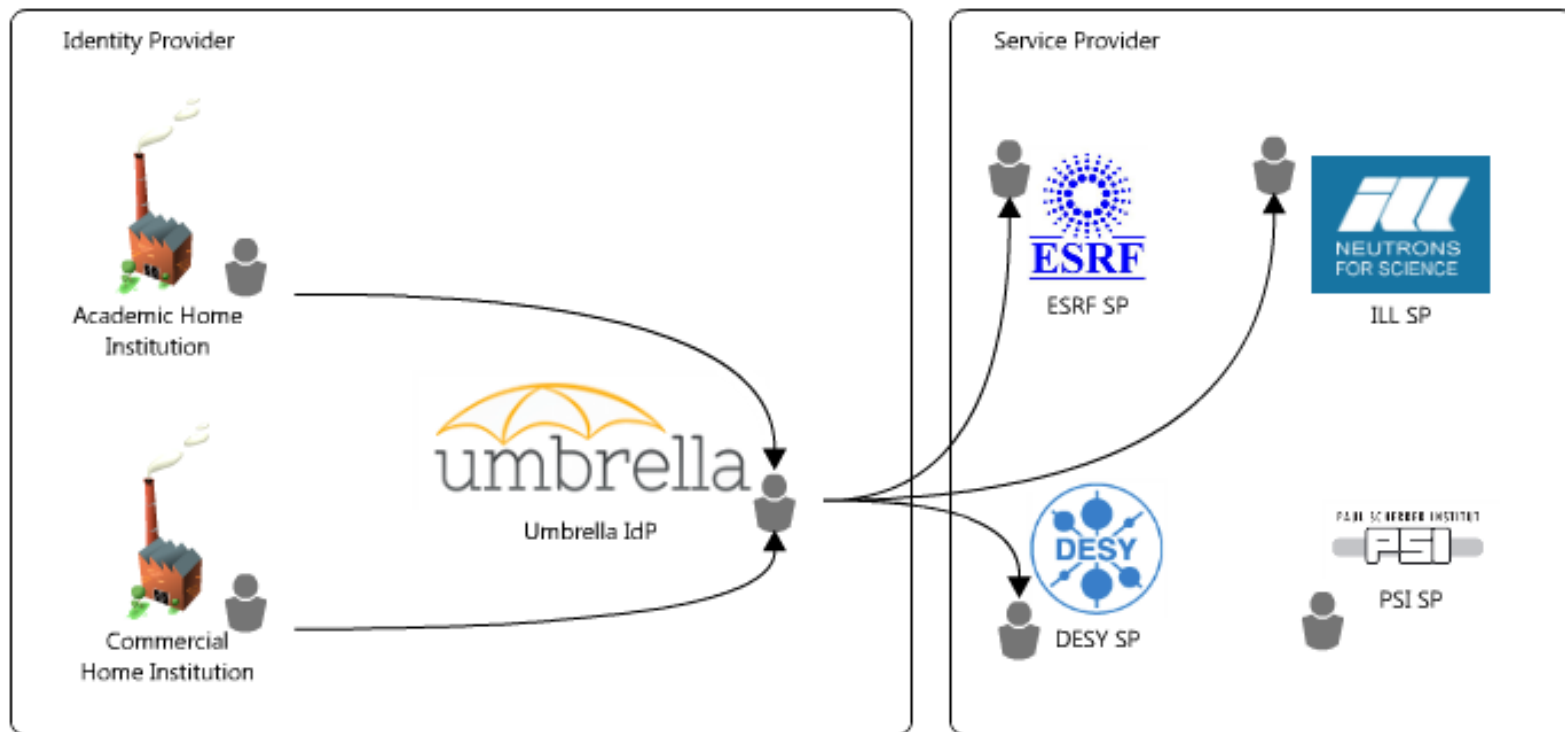
Umbrella is the basis for various user services under development

a. Info & service portal
b. European proposal support (NMI3 & CALIPSO)
c. Remote experiment access
d. Remote file access
e. Metadata catalogue (iCAT)

Without a unique identifier it will not be possible to have unified access and work with these tools.

Umbrella Characteristics

Concept

- Unique + persistent user identification on EU scale
- Single sign-on
- No possibility for cross-facility information pull
- Waterproof but slim data protection system

Incorporate confidentiality aspects

- High competition, especially structural biology
- Time-window-structured access to experiments and data.

Rely on existing local user office structure

- Great experience
- DIY (Do It Yourself) operation
    - Users: manage their personal entries
    - User offices: supervising; manage authorizations
    - Principal investigators: have responsibility for their teams and can handle authorization within their group

Base system on professional authentication standard

- Shibboleth, federated Single-Sign-On System (SAML), widely used
- Special photon / neutron user federation
- Supervising by local User Offices

Roadmap for Umbrella deployment

Project end PaNdata 30.09.2014	Project end CRISP 30.09.2014	MoU between partners

Status of implementation

Full deployment end of September 2014

1st wave:

ILL, ESRF, PSI online since August 2013

Elettra October 2013

2nd wave:

DESY, ISIS, Diamond (Nov 2013 – Jan 2014)

Status of Service Provider deployment

Facility	Status	SP installed	WUO adapted	Production
ESRF	OK	OK	OK	OK
ILL	OK	OK	OK	OK
PSI	OK	OK	OK	OK
Elettra	OK	OK	OK	OK
ISIS	OK	OK	OK	OK
Diamond	OK	OK	OK	OK
DESY	OK	OK	OK	OK

Deployment planning Umbrella	Umbrella Deployment	CRISP	PaNData	NMI3	CALYPSO	Others
ESRF	implemented	x	x		x	
ILL	implemented	x	x	x		
DESY	implemented	x	x		x	
Diamond	implemented	x	x		x	
ISIS	implemented		x	x		
Elettra	implemented		x		x	
MaxLab	2nd half 2014		x		x	
HZB	when GATE in operation		x	x	x	
Soleil	2nd half 2014		x		x	
Alba	2nd half 2014		x		x	
EUXFEL	at start of user operation	x	x			
ESS	at start of user operation	x				
GSI	at start of user operation	x				
PSI	implemented	x	x	x	x	
FELBE	2nd half 2014				x	
CLIO	No Umbrella				x	
FELIX	2nd half 2014				x	
KIT	Connection prepeared 2014					

In operation

1. Basic Umbrella https://umbrellaid.org/euu/

2. Geo DNS (server Umbrella distributed between different facilities)

3. Access to iCAT metadata catalogue via Umbrella

WP 16 bridging of Umbrella to other federations
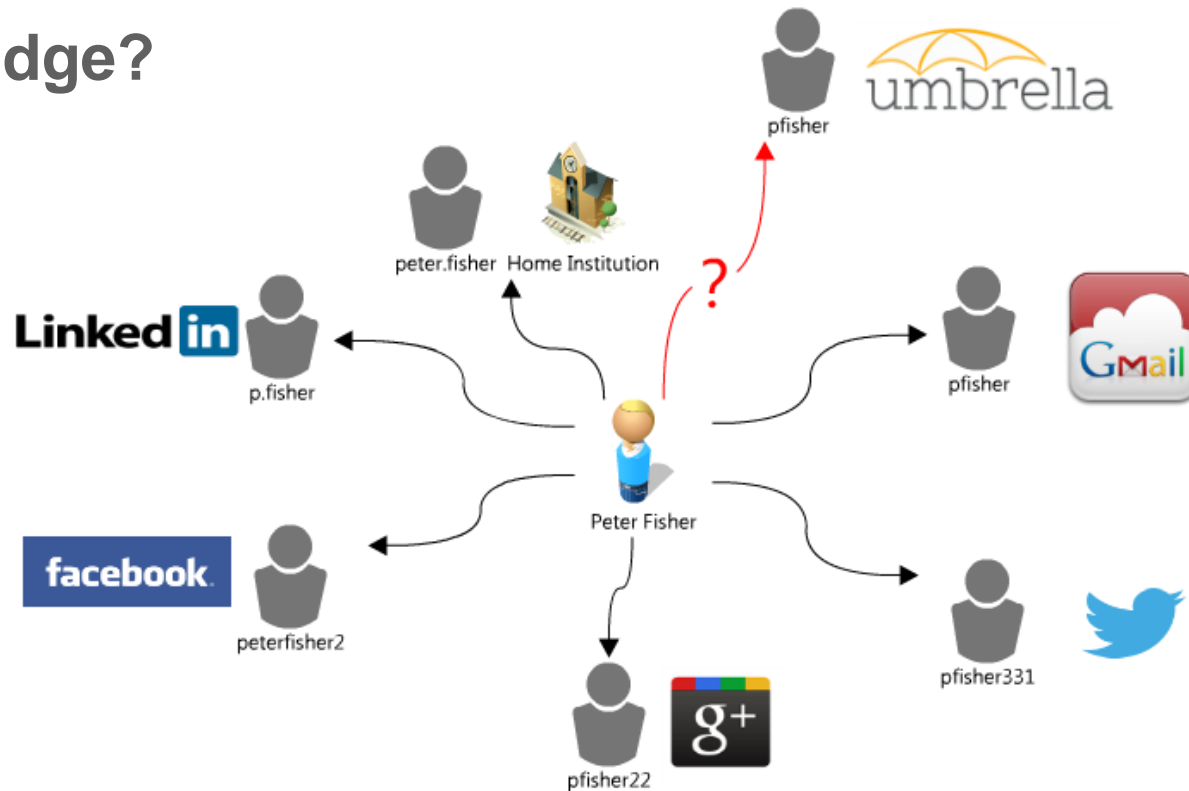
Part 1: Why to bridge?

Part 2: What to bridge?

Part 3: How to bridge?

# Umbrella within CRISP

Why bridging?:

- Expand the scope of the Umbrella in enabling Umbrella to provide services to other federations.

- Various research communities have different needs one FIM solution for all is impossible.

- We want to offer the users a homogeneous efficient easy to use platform.

- Therefore bridging between the different research federations (future also: social media, cloud) became a main development within the CRISP project.

Why to bridge?

Creating a new account is often criticized

Why to bridge?
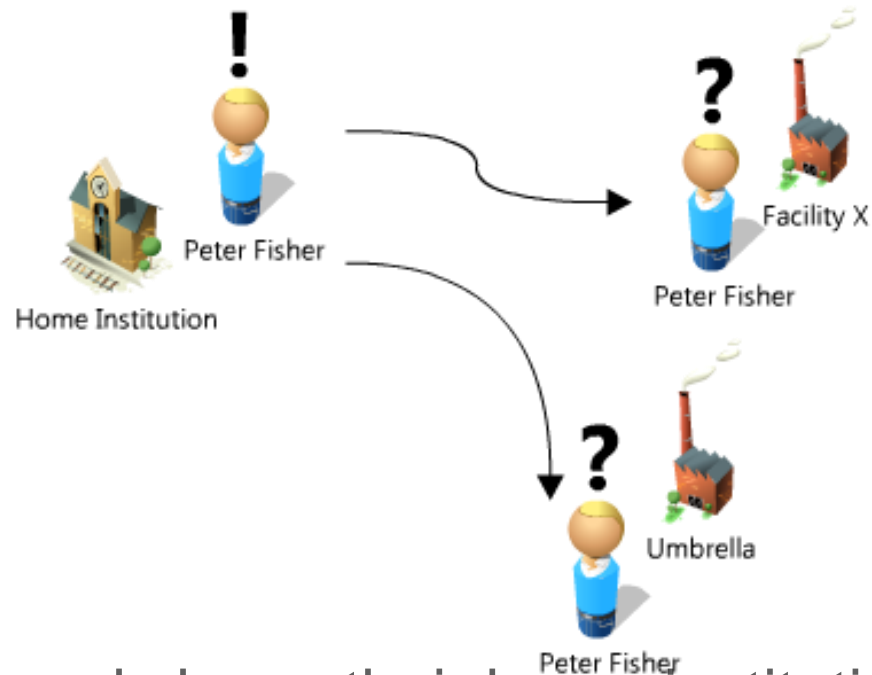
User already know their home institution credentials

Why to bridge?

- Bring people together from different federations (cultures)
- Not yet another account
- People already know their home institution account

What to bridge?

• National research and education networks (NRENs)
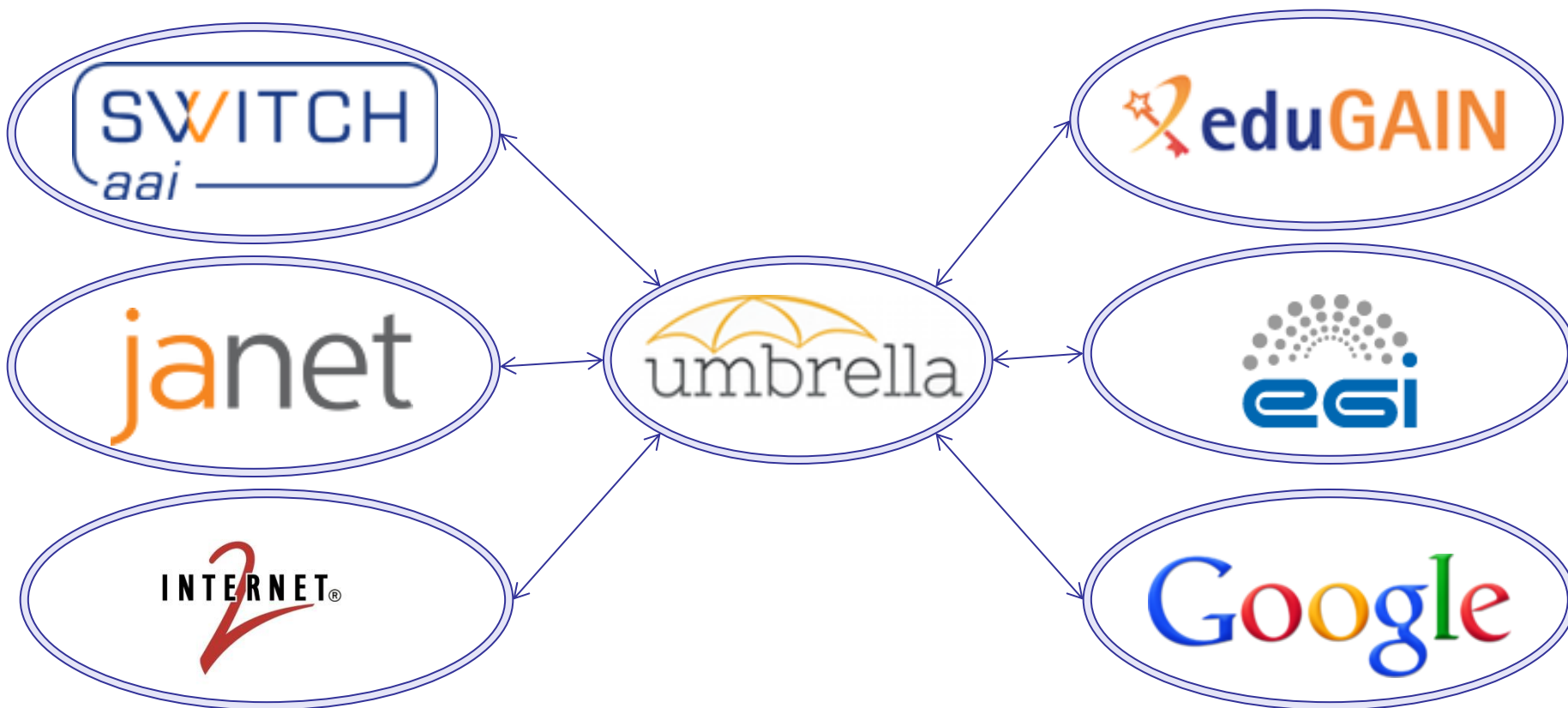
What to bridge?

- eduGain

- Grid solutions

- Commercial federations

What to bridge?

Prototypes ready described in D16.2

1. Access to Grid federation; bridging to X509 certificate (CRISP)

   • Login to Grid

2. Access to Umbrella via EduGain (CRISP, Geant 3+, Switch)

   • Login with account home institution (Universities etc.)

3. Link of Umbrella to Moonshot (CRISP, Geant 3+ , non web based access)

   • Remote experiment access

Umbrella Status

Meetings with partners of Umbrella federation and other federations

1. Harmonisation Meeting CRISP/PaNdata June 2013 HZB.
2. Umbrella meeting Barcelona September 2013.
3. FIM4R meeting Helsinki October 2013
4. Umbrella meetinf with user offices Nov. 2013
5. Harmonisation meeting Dublin March 2014
6. FIM4R interest group meeting RDA March 2014
7. FIM4R Meeting Rome April 2014

Umbrella Status

Meetings with partners of Umbrella Federation >30000 users

Next harmonisation meeting

- Umbrella harmonisation meeting September 2014, Amsterdam after RDA conference.

Umbrella collaborators

ALBA: Daniel Salvat

DESY: Frank Schluenzen, Rolf Treusch, Jan-Peter Kurz, Ulrike Lindemann

Fermi/Elettra: Cecilia Blasetti, Ornela Degiacomo, Giorgio Paolucci, Roberto Pugliese

ESRF: Rudolf Dimper, Dominique Porte, Julien Savoyet, Stefan Schulze

European XFEL: Krzysztof Wrona, Frederic Le Pimpec

GSI: Peter Malzacher, Almudena Montiel Gonzalez, Kilian Schwarz

HZB: Thomas Gutberlet, Dietmar Herrendoerfer

ILL: Jean-Francois Perrin

ISIS: Tom Griffin

MaxLAB: Krister Larsson, Ulf Johansson

PSI: Bjoern Abt, Stephan Egli, Stefan Janssen, Markus Knecht, Mirjam van Daalen, Heinz Weyer

Soleil: Frederique Fraissard

STFC: Bill Pulford

Thank you for your attention!