About the presenters

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Advanced Services
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- SURFnet Organization
- The CIFC project
- The CIFC results
SURFnet, Pioneering Network for Higher Education and Research
- Develops and operates a network for education and research and develops innovative services such as security, authentication and collaboration
- Unique example of public/private partnership
- More than 160 not-for-profit organizations have joined, 1 million users
- Financing
  Innovation: 50%/50% by government/businesses
  Operations: user fee
- One of the fastest and most advanced networks in the world
- More than 8000 km of dark-fibre pairs that reach all the way into the institutions
- Own photonic network
- Hybrid network services: Internet connection and lightpaths
Thanks to SURF, Amsterdam has Europe’s main Internet exchange.
Security

**SURF’s view:**
Help users make secure use of network services

**Initiative:**
- Researches security breaches
- Coordinates introduction of solutions
- Provides information on security
Identity management

SURF’s view:
Help users gain secure and easy access to sources of information

Initiative:
- Access to information and services from various different providers
- Based on own organisation’s account
**SURF’s view:**
Encourage users to use advanced ICT services

**Initiatives:**
- SURFgroepen: online collaboration
- SURFmedia: simple and secure live and on-demand streaming to play, save and share media files
Cycle of innovative services

When services are offered by the market, SURF gradually withdraws them

Based on operations

Based on innovation projects (GigaPort, SURFworks, SURFnet/Kennisnet)

Technology development

Customer requirements

Feedback

1. Technology Scouting
2. Feasibility study
3. Service development
4. Encouraging Use & Support
5. Production
6. Phasing out

Plan for feasibility study
Business case & SD plan
Introduction of service
Large-scale service provision
Phasing out of service
Ceasing service
The CIFC Project

Canadian Ice Fishing Championship
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>CIFIC</td>
<td>Canadian Independent Film Caucus</td>
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<td>CIFIC</td>
<td>Center for Informed Food Choices</td>
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<tr>
<td>CIFIC</td>
<td>Cost, Insurance, Freight and Commissio</td>
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<tr>
<td>CIFIC</td>
<td>Canadian Investment Funds Course</td>
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<td>CIFIC</td>
<td>Commander’s Information Fusion Cell</td>
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<td>CIFIC</td>
<td>Christian Inter-Fellowship Council</td>
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<td>CIFIC</td>
<td>Canadian Ice Fishing Championships</td>
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<td>CIFIC</td>
<td>Chinese Internet for Christ</td>
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<td>CIFIC</td>
<td>Cortes Island Forest Committee</td>
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<td>CIFIC</td>
<td>C Is For Cookie (<em>Sesame Street</em>)</td>
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<tr>
<td>CIFIC</td>
<td>Central Illinois Fuel Company</td>
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<tr>
<td>CIFIC</td>
<td>Combined Intelligence Fusion Center</td>
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Overview

Technologie Scouting Collaboration Infrastructure & Federated Collaboratories

- Collaboration Infrastructure
- Federated Collaboratories

Proof of Concept Collaboration Infrastructure

Service Development
- federated group management across services
- Generic provisioning, deprovisioning and directories
Goal

• Create a coherent infrastructure of loosely coupled collaborative services, based on (emerging) Open Standards and enabled by access federations

• Investigate how to create such a infrastructure:
  ➢ Gather functional requirements
  ➢ Define governing principals
  ➢ Propose architecture
  ➢ Investigate Open Standards
Results

- Report Collaboration Infrastructure
- Advise (go/no-go) Proof of Concept fase
- Report federated group management across services
- Report generic provisioning, deprovisioning and directories
- Advise (go/no-go) Service development
Organisation

Program management SURFworks

Steering Committee CIFC

Projectmanager

Projectteam

Advisory board

Program / projectsupport
## Steering Committee

### Program management

<table>
<thead>
<tr>
<th>Names</th>
<th>Role</th>
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<tr>
<td>Erwin Bleumink</td>
<td>Program mananger</td>
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### Program / project support

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<tr>
<th>Names</th>
<th>Role</th>
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<tr>
<td>Manon Esmyer</td>
<td>Program secretary / Projectbureau</td>
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### Steering Committee

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<thead>
<tr>
<th>Names</th>
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<tbody>
<tr>
<td>Floor Jas</td>
<td>Business Executive</td>
</tr>
<tr>
<td>Roel Rexwinkel</td>
<td>Senior User</td>
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<tr>
<td>Harold Teunissen</td>
<td>Senior Supplier</td>
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## Projectteam

<table>
<thead>
<tr>
<th>Names</th>
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<tbody>
<tr>
<td>Frank Pinxt</td>
<td>Projectmanager</td>
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<tr>
<td>Niels van Dijk</td>
<td>Technical Product Manager (TPM)</td>
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<tr>
<td>Paul van Dijk</td>
<td>Product Manager</td>
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<tr>
<td>Alexander Blanc</td>
<td>Product Manager</td>
</tr>
<tr>
<td>Maarten Kremers</td>
<td>Future TPM (together with Niels van Dijk)</td>
</tr>
<tr>
<td>Frank Hogenkamp</td>
<td>Uitvoering workshopprogramma</td>
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<tr>
<td>Roland van Rijswijk / Hans Zandbelt</td>
<td>Technical specialist middleware applications</td>
</tr>
<tr>
<td>Mark de Jong (Infotectuur)</td>
<td>Architect / specialist education / sharepoint</td>
</tr>
<tr>
<td>Peter Clijsters (Everett)</td>
<td>Architect / specialist middleware toepassingen</td>
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<tr>
<td>Okke Harsta (Gartner)</td>
<td>Architect / senior consultant</td>
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# Advisory Board

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<tr>
<th>Names</th>
<th>Organisation</th>
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<tbody>
<tr>
<td>Frank Benneker</td>
<td>UvA</td>
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<tr>
<td>Nico Juist</td>
<td>INHOLLAND</td>
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<tr>
<td>Gera Pronk</td>
<td>SURFfoundation SURFshare</td>
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<td>John Doove</td>
<td>SURFfoundation</td>
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<td>Michael van Wetering</td>
<td>Kennisnet</td>
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<td>Ken Klingenstein</td>
<td>Internet2</td>
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<td>Frederique van Til</td>
<td>JISC</td>
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<td>Peter Wittenburg</td>
<td>CLARIN</td>
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<tr>
<td>Erwin Bleumink</td>
<td>SURFnet</td>
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<tr>
<td>Henk Eertink</td>
<td>Telematica Instituut</td>
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<tr>
<td>David Groep</td>
<td>NIKHEF</td>
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<td>Arjen Barnhard</td>
<td>INHOLLAND</td>
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<tr>
<td>Hans Schaffers</td>
<td>Dialogic / Helsinki School of Economics</td>
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<tr>
<td>Maarten Korz</td>
<td>Rabobank</td>
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Januari: Initiation
Februari: Scoping
March .. May: Research + Preparation Reports
June: Project closure
Preliminary results
Topics

SURFgroepen & SURFFederatie

- SURFFederatie
- A bit on SURFgroepen

Why CICF?

Collaboration Infrastructure

- Workshop results:
  - Functional requirements
- Architecture proposal
  - Components
  - Flow

Federated Collaboratories

- Service spanning group management
Federation Models

- 1-1
  - Business US: SAML 1.x
  - de-facto

- NxN
  - *Shared trust*, pt2pt
  - Education US/Europa
  - Shibboleth

- 2xN
  - Central gateway (CFC)
  - New(?) paradigm
    - protocol translatie
  - SURFfederatie
    - SURFnet = CFC, IDP, SP
**Functionality**
- Supplies: doc. sharing, wiki, blogs, web conf., IM
- SSO + Group credentials
- Guest accounts, invitation based
- “VO as a service”

**Statistics**
- 60,000 registered users
- Institution vs. Guest usage: 60% over 40%
- 15,000 active users on a monthly basis
- 700 new users/week
- 12,000 teamsites, 30-40% in active use
Why CICF?

Current Setup: Sharepoint + Adobe Connect

Need to differentiate in:
- Functionality
- Source: SURFnet, Institutions, Third party (SAAS?)
- “Quality”: Core & Beta (labs)
- Price?
SURFgroepen weak spots

- No Open Standards
- No integration into campus infrastructure
- Custom code for integration
- No good deprovisioning
- Content lockin
- **NO federated access :(**
Functional requirements

• Results of First Workshop

• Must have:
  ➢ Groups & self-service group management
  ➢ Guest access
  ➢ Presence
  ➢ Calendaring
  ➢ Notifications
  ➢ Document sharing & versioning
  ➢ (User) Adaptable Workflow
  ➢ Search people & (distributed) content repositories
  ➢ Mashup capabilities
Architecture - Components

Security
- User Consent
- Trust
- Confidentiality
- Non-repudiation
- Authenticity

Transformation
- Service proxy
- Transformer
- Consumer proxy

Supporting services
- Identity proxy
- Group proxy
- Mashup engine
- Services directory

Consumers

Services
On every level in the infrastructure the security aspects have to be taken into account and recorded.
Service proxy

CIFC

Security
- User Consent
- Trust
- Confidentiality
- Non-repudiation
- Authenticity

Transformation
- Service proxy
- Transformer
- Consumer proxy

- Protocol conversion depending on Consumer capabilities
- Transport oriented

Group proxy
Mashup engine
Services directory
Transformer

CIFC

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Transformation
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Supporting services
- Mashup engine
- Services directory

- Enrichment of (meta)data based on context (group/consumer/service)
- Content adaption/mapping
Consumer Proxy

CIFC

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Identity Proxy

CIFC

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Supporting services
- Identity proxy
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- Services directory

- Identity determination
- Mapping alternate identity
- Access claim services
Group proxy

- Registration of Group Membership
- Conversion of Groups
- Aggregation of membership

SURFnet, Pioneering Network for Higher Education and Research
Mashup & Workflow

CIFC

Security
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- Authenticity

Transformation
- Service proxy

Supporting services
- Identity proxy
- Group proxy
- Services directory
- Mashup engine

• Server based Mashup before protocol conversion
• Multi protocol services enabled
CIFC

- Registration and publishing of available services
- Security aware services discovery

Services Directory

Security
User Consent
Trust
Confidentiality
Non-repudiation
Authenticity

Transformation
Service proxy

Supporting services
Identity proxy
Group proxy
Mashup engine
Services directory
Example - Tasks

- Browser
  - Webpart (SharePoint)
    - Task list (Exchange)
  - Portlet (WebSphere)
    - Task list (Notes)
- Browser
  - Widget (SakaiPortal)
    - Task list (SakaiTool)
Example - Tasks

Browser

Widget (SakaiPortal)

Service proxy
Consumer proxy
Adapter
Task list (Exchange)

Service proxy
Consumer proxy
Task list (Notes)

Service proxy
Consumer proxy
Task list (Sakaitool)
Federated Collaboratories

Creates ‘support’ services

- Federative group relations
  - Requires group ‘proxy’
  - Requires group manager

- Centralized provisioning / de-provisioning

- Centralized Directory
Group management

Requirements
- Self service provisioning
- Usable by many services (multi platform)
- Federated access to the group management tool

Project
- Investigate 10 potential candidates
- Grouper was found to be the most flexible product

PoC
- Setup Grouper
- Create self service Gui
- Demo
Questions?

WHO WHAT WHERE WHY WHEN & HOW