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# Digital Identities for Networks and Convergence

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# Target: Identity Convergence for NGN+

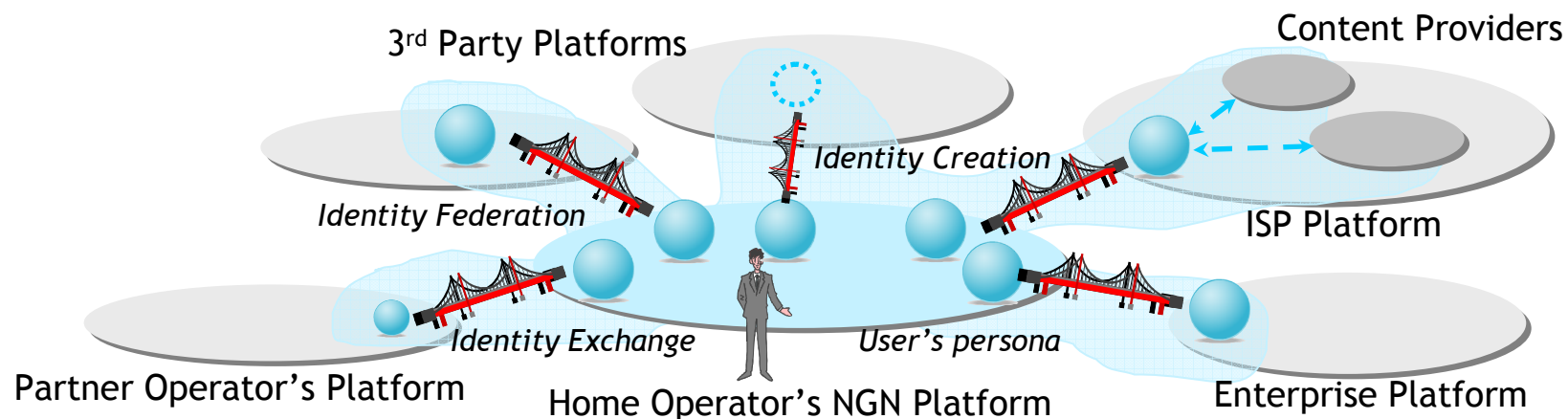
## ► Solve identity fragmentation of today:

→ Make a bridge between platforms

- **introduction of multi-personas per user**
- **transcend layers from network to services / applications**

→ Filter flow of identity info across the bridge

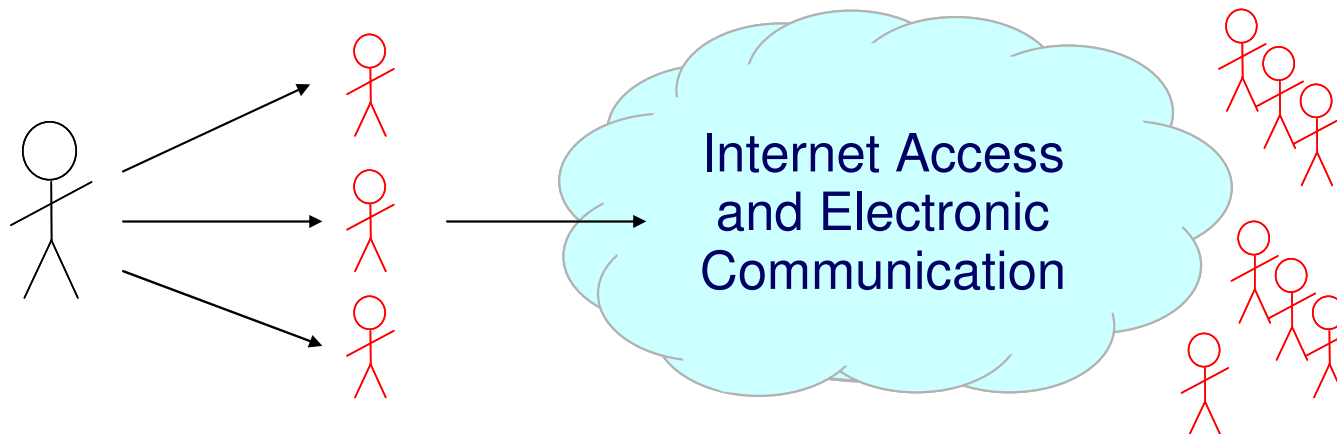
- **minimization of identity info disclosure from user's viewpoint**
- **limit information at provider to what is needed to deliver**



Source: NEC

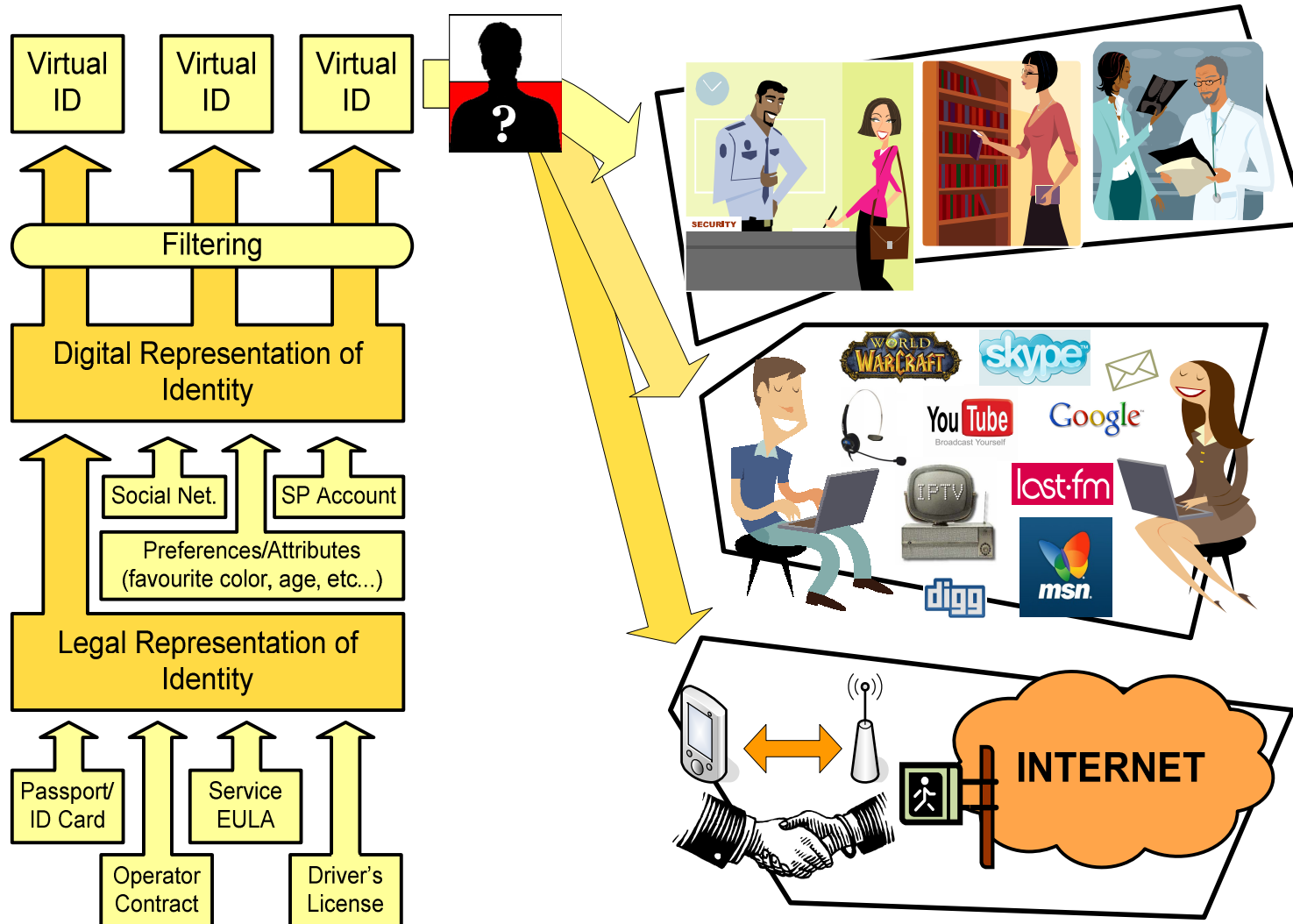
# Research approach, Methodology

- ▶ Virtual Identities concept adapted from the EU Daidalos project supports privacy of the user



- ▶ Many “faces” for transactions to separate roles or for privacy reasons
- ▶ These “personalities” or “avatars” or Virtual Identities (VIDs) must be unlinkable even though some attributes may be shared between them
- ▶ The user must control the data revealed

# The Vertical Axis



## Goal 1: Enhance Ubiquity and Experience

- ▶ Liberate user from device(s) by enabling use of several interchangeable devices
- ▶ Ownership of the device should be independent of who uses it → hiring (embedded) devices becomes part of the model
- ▶ Facilitate discovery and service usage respecting the user's privacy options
- ▶ Network access is automatically made available based on service requested
- ▶ Invisible co-ordination of network and resources

Supported by the Identity Backbone

## Goal 2: Enable Convergence

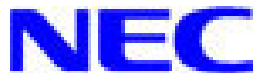
- ▶ Identity can form the bridge between networks, services, content and arbitrary offerings → it becomes a convergence technology
- ▶ Currently a vast range of solutions exist that need to be brought together → This includes SIM and USIM solutions
- ▶ Central will be to also impact emerging NGN architectures → 3GPP, ITU-T, ETSI
- ▶ A key problem to solve will be to bridge the independently existing Identity solutions (SAML, OpenID, CardSpace, ...) → SWIFT will develop solutions for this
- ▶ Privacy: Limit to need to know under user control

Identity as the convergence enabler

- ▶ Bringing Identity Management to the network
  - Enable access and reachability across domains
  - Make Identities of people, services, things, software modules a part of the future Internet architecture
- ▶ The Future Internet will be the .... **identiNET**
- ▶ Identity as the future end point of communication
  - whether user, service, thing, device or software module
- ▶ Support access, (non-) reachability, ubiquity
- ▶ Protect data / ID information related to entities
- ▶ Privacy can be dealt with vertically and to reduce the danger of conflicting policies & mechanisms

# SWIFT for Convergence: Overview

- ▶ Duration: January 2008 – June 2010
- ▶ Consortium: 9 partners from Industry and Academia (see below)
- ▶ Project Co-ordinator: FhG SIT, Technical Leader: NEC
- ▶ Focus
  - Identity & privacy *across layers* → vertical approach
  - Develop Identity as a key enabling technology for convergence
  - Combined user / operator control on information exchange
  - Optimize user/service/network-centric IdM with network focus
  - Develop Identity Oriented Services
  - Build on R&D from Daidalos & other FCT projects

 University of Murcia

Portugal Telecom

Fraunhofer

Institut  
Sichere Informations-  
TechnologieUniversity  
of Stuttgart

# SWIFT Website <http://www.ist-swift.org>

**Swift** **SEVENTH FRAMEWORK PROGRAMME**

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SWIFT is a EU project Partners Duration WP1 WP2 WP3 WP4 WP5

**EU IST FP7 Project SWIFT**

SWIFT (Secure Widespread Identities for Federated Telecommunications) is a European Union funded project of the 7th Framework Programme. The project leverages identity technology as a key to integrate service and transport infrastructures for the benefit of users and the providers. It focuses on extending identity functions and federation to the network while addressing usability and privacy concerns.

**Welcome to the SWIFT Project Pages!**

Thanks for visiting our web pages. They are intended to give you an overview of the challenges related to Identity Management that our project is addressing. We have picked up on key research done in previous EU IST projects to apply the concept of what we term "Virtual Identities" to the network, and to bridge this to other domains. Privacy as well as new opportunities for operators are two of our key interests.

Identity Management is considered key to private, legal and business transactions as in the European eIDM2010. IDM frameworks are however currently confined to the web services domain. SWIFT goes beyond this by including user centricity and network operators as additional interdependent domains with IDM at the core.

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Last Updated ( Tuesday, 25 March 2008 )

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**IDABC eID interoperability architecture published**

The EC's IDABC eID interoperability project that is one of the architecture related to SWIFT architecture has published the architecture for identity management in pan-European government services. The document is titled [Common specifications for eID interoperability in the eGovernment context](#). The architecture makes use of SAML2 and they propose a Pan-European Proxy Service (PEPS), either a centralised one or each member state having a PEPS of its own.

**Bled Conference 2008**

The overall theme of the conference is *The Future of the Internet - Perspectives emerging from R&D in Europe*. The conference was held on 31 March 2008 in Bled, Slovenia, followed by a two-day technical workshop starting from 1 to 2 April 2008 attended by representatives of over 60 EU projects, mainly FP7. The first day was attended by 340 participants, the 2 days of the workshop were attended by 220 participants.

Highlights of the conference were the announcement of the *Bled Declaration* and the establishment of a *Future Internet Assembly (FIA)* to progress work.

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