Netzausweis @ T-Online

Putting Identity Management into practice for our partners and customers

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Putting Identity Management into practice

Agenda

- T-Online International AG
- Netzausweis@T-Online
- Putting into practice
- Conclusion
Putting Identity Management into practice

Agenda

- T-Online International AG:
  - The company
  - Our customers and our range
  - Our network of partners

- Netzausweis@T-Online

- Putting into practice

- Conclusion
T-Online International AG
The company

- With about 13.82 million registered customers (per 09-30-2005) in the major European markets and revenue of more than EUR 2 billion in the 2004 financial year, T-Online International is one of the largest European Internet service providers.

- High-performance, low-cost Internet access available - primarily to private customers and medium-sized business customers

- Broad range of complementary added value services: web hosting, e-mail services, online banking, international roaming, ...

- Leading topic portals and special interest portals in their respective categories

- Leading brands for special interests: music, games, ...
T-Online International AG
Our customers and our range

- 13.82 million customers: (as per 09-30-2005)
- 9.4 billion page impressions (IVW ranking 1-12/2004)
- www.t-online.de has one of the farthest reach of any German-speaking Internet portal, reach of nearly 40% of german Internet users (Source: “Arbeitsgemeinschaft Online-Forschung/AGOF”)
T-Online International AG
Our network of partners

T-Online content and services – a continuing success story

Leading market brands...

More than 100 services

...thanks to successful partnerships.
Putting Identity Management into practice

Agenda

- T-Online International AG

  - Netzausweis@T-Online:
    - The package
    - Benefits

- Putting into practice

- Conclusion
Netzausweis @ T-Online
The package

“Netz – Ausweis” (german)  <=>  (english) “Net - ID Card”

**Simplified login…**

...and more!

- **Netzausweis - for a simplified usage of the Internet**
  - providing unique login credentials
  - spreading a growing number of different services and content

- **Netzausweis - a complete package**
  - not only about login (authentication)
  - also including a number of value added services
Netzausweis @ T-Online
The package

Enabling services to simplify Internet usage

- Single Login / SignOn
- Overview
- Data Vault
- Age Verification
Netzausweis @ T-Online
Single Login / Sign On

Enabling services to simplify Internet usage

One Login for the whole Internet – independent of supplier

Overview

Single Login / SignOn

Data Vault

Age Verification

T-Online
Netzausweis @ T-Online
Single Login / SignOn – the problem

„Password? … Which one? … I can’t remember!?!“

From Login hell ...

$x$ different usernames and
$y$ forgetable passwords for
$z$ various usages
Netzausweis @ T-Online
Single Login / SignOn – the solution

„My Password? ... Here it is!!!“

... to Login heaven !!!!
Netzausweis @ T-Online
Single Login / SignOn – major attributes

- **Single Login**
  Unique login credentials to enter a large range of Internet sites.

- **Single Sign On**
  After login to one site/application the user is able to enter other Netzausweis enabled sites without renewing the login.

- **Automatic identification (based on Internet dial-up)**
  A user can be automatically identified and logged in.

- **Login Status (on T-Online Portals and within services)**
  The actual login status is transparent to the user.

- **Single Logout**
  A user can initiate a Logout – spanning all Netzausweis enabled sites.
Netzausweis @ T-Online
Overview

Enabling services to simplify Internet usage

Single Login / SignOn
Data Vault
Overview
Age Verification

Account aggregation and starting point for traffic feeding
Netzausweis @ T-Online
Overview – the problem

„Are there news on my accounts today?“

From endless browsing ...

no overview
many different links
perhaps nothing new

new mail?
new shop offers?
Netzausweis @ T-Online
Overview – the solution

“There’s something new for me !!!“

...just 1 mouseclick away !

Relevant information...

... to complete overview !!!

1 aggregated overview
all relevant information
just 1 mouseclick away
Netzausweis @ T-Online
Overview – major attributes

- **Overview page**
  Giving the user an aggregated overview of his data/status at all Netzausweis partners.

- **Notification**
  Any new information can be indicated directly on T-Online Portals (blinking icon).

- **Just one mouseclick away**
  Netzausweis overview can be directly reached from any T-Online Portal page (always visible after login).
  Aggregated Netzausweis partner sites can be reached directly from the Overview page.
Netzausweis @ T-Online
Data Vault

Enabling services to simplify Internet usage

Overview
Single Login / SignOn
Data Vault
Age Verification

Easy and secure fill-in of web based forms
Netzausweis @ T-Online
Data Vault – the problem
„My street ? My zip code ? …“

It types you crazy …
many always perhaps
different webforms typing the same misspelled
Netzausweis @ T-Online
Data Vault – the solution

„My personal data? ... OK – here it is!“

...and then just verify...

...just verify and transfer!

Type in once ...

...just verify and transfer!  filling a webform verify and transfer any misspelling
Netzausweis @ T-Online
Data Vault – major attributes

- **T-Online Data Vault**
  User has to type in personal data only once – to store it within the personal T-Online Data Vault. (e.g. billing and shipping addresses, credit card data, bank account information)

- **Easy fill-in**
  When entering information in forms located at pages of Netzausweis partners, the user can choose to transmit personal data to the Netzausweis partner. (e.g. click on button „Import from Netzausweis Data Vault“)

- **Secure fill-in**
  Only the appropriate data will be transmitted. (Netzausweis partner will only receive specified data, previously verified by the user, via secure communication.)
Netzlausweis @ T-Online
Age Verification

Enabling services to simplify Internet usage

Single Login / SignOn

Overview

Data Vault

Age Verification

Law-abiding access to age restricted content and services
Netzausweis @ T-Online
Age Verification – the problem

„Register ? ... I’ve registered a thousand times before... !?!“

Register — be verified ...
...be checked — use

Register everywhere, what a waste of time...

\( x \) different registrations and
\( y \) differing systems for
\( z \) various content
Netzausweis @ T-Online
Age Verification – the solution

„My age? ... Of course, I’m over 18!“

Register once … be checked and just use it !!!

...be checked... ...use !!!!
Netzausweis @ T-Online
Age Verification – major attributes

- Initial Age Verification
  User has to run through a verification procedure only once (based on PostIdent® or presence at DTAG-Shop “T-Punkt”). This can increase the usages significantly, as no more time has to be wasted for additional verification procedures.

- Comfortable access to age restricted services and content
  With Netzlausweis AVS a user can access age sensitive content or services without special software/hardware (e.g. dialers).

- Controlling access to age restricted services and content
  Netzlausweis partners can assure* that age sensitive content or services are only supplied according to strict german youth protection laws (§ 4 Abs.2 JMSV).

* The possible integration into Netzlausweis for 3rd party usage is currently in legal examination and certification process.
Netzausweis @ T-Online
The package

Enabling services to simplify Internet usage

One Login for the whole Internet – independent of supplier

Single Login / SignOn

Overview

Account aggregation and starting point for traffic feeding

Data Vault

Easy and secure fill-in of web based forms

Age Verification

Law-abiding access to age restricted content and services
## Netzausweis @ T-Online

**Benefits – for the customers**

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- Remember just **unique login credentials** for all logins.
- **Login only once** to browse a large range of Internet sites...
- ...or **be even identified automatically**.
- **View all** interesting information in one place – and navigate through your personal Internet with fewer clicks.
- **Type in** personal information only once – and distribute it as you like and need.
- **Access age sensitive content or services** registering only once and using a known system - without special software/hardware.
- **View** your actual login status – anytime.
- **Logout secure** – spanning all Netzausweis sites.

„With one Login...  
...everything will be just a mouseclick away!“
Netzausweis @ T-Online
Benefits – for our partners

- **Customer** ownership **stays 100% at the partner.**
  (Every end user who wishes to use Netzausweis functionality remains a valid partner’s customer.)
- T-Online kick-starts with **more than 11 mio. Netzausweis users.**
  Participate in that reach.
- **Additional and highly qualified traffic** to the partners through the subportal “Netzausweis Overview”. (Intended action of customer and optionally his identity are already known.)
- **T-Online’s experience in Partner Integration:**
  The technical solution and the integration procedures are the base of already more than 100 successful integrated services.

„Start partnership with experience...
...gain higher revenue (due to reach, traffic, usability)!”
Netzausweis @ T-Online
Benefits – for our partners and customers

- **T-Online quality image**
  T-Online’s brand has a high reputation for quality, security and reliability.

- **Security**
  Guaranteed by reliable, up-and-running backend services of T-Online - backed by years of experience as a leading Internet Service Provider (ISP) in Germany.

- **Open standards**
  The Netzausweis authentication module and interface is designed with conformity to Liberty Alliance standards: Safe, transparent, documented and future-proof.

„Imperative requirements for an independent Enabling Service - like Netzausweis“
Putting Identity Management into practice

Agenda

- T-Online International AG
- Netzausweis@T-Online
- Putting into practice:
  - System architecture T-Online
  - Integration into system architecture
  - Partner Integration
- Conclusion
Putting into practice
System architecture T-Online


Standardized AAA platform
- AAA user management
- Single Login/SignOn/Logout
- Real-time provisioning
- Flexible bundling of products and services
- Defined “reference points” between the 3 layers
- Binding architecture guidelines

Putting into practice
System architecture T-Online

Putting into practice
Integration into system architecture

Technology-standards increase reach – by enabling interoperability.

Interoperability => Reach

T-Online within Liberty Alliance:
- Associate member: since January 2004
- Sponsor member: since December 2005
Adding Liberty-Alliance conformity
In 2005 the authentication functionalities at T-Online (productive since 2002) were enhanced according to

Liberty Alliance standard: ID-FF 1.2

Project duration: 9 months total
- Concept: 3 months
- Implementation: 3 months
- Testing: 2 months
- Sample integrat.: 1 month

Production dates: “Launch”
- Interfaces: May 2005
- 1st integration: October 2005

§ Identity Federation Framework
Putting into practice
Integration into system architecture

- **T-Online supports the following profiles with ID-FF 1.2[^1]**:
  - Single Sign On (Artifact)
  - Register Name Identifier (IdP and SP initiated, SOAP)
  - Federation Termination Notification (IdP and SP init., SOAP)
  - Single Logout (IdP initiated, SOAP)
  - Single Logout (SP initiated, http)

- **T-Online itself is using the following technologies**:  
  - Intel based server with Debian linux  
  - SourceID.Liberty from PingID[^2]
  - JBoss
  - MySQL 4.1

- **Security – keeping information to where they belong**:  
  - A data request is only possible after successful authentication between partner and T-Online.  
  - Data requests use anonymous ID’s (“opaque handles”) for user identity specification.

[^1]: Identity Federation Framework
[^2]: patched. Documentation is available.
Putting into practice
Integration into system architecture

Technology-standards like Liberty Alliance enable supplier independent interoperability

Standardized authentication functionalities
Service integration (so far more than 100)

**Associate member**
ID-FF conform interfaces
Joining Plenary Meeting
1st ID-FF conform service integration
Further ID-FF conf. service integrat.

**Sponsor member**
Presentation Deployment Workshop
Enhancing IDM functionalities

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Putting into practice
Partner Integration

- **T-Online’s experience in Partner Integration:**
  The technical solution and the integration procedures are the base of successfully integrated services.

- **Up-and-running implementation:**
  The T-Online AAA platform and its Liberty-Alliance conform interfaces are not just a concept or prototype – they’re real.

- **Security – built-in and verified:**
  The T-Online AAA platform is periodically verified by independent security audits.

Experience in integration...
...linked with up-and-running technical solution.
Putting Identity Management into practice

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Conclusion

Roadmap

Existing T-Online AAA platform
Integrating over 100 services

Adding Liberty Alliance ID-FF conform interfaces
Launching Netzausweis
Gaining experience by integrating own services

Integrating more and more external partners
Integrating our international subsidiaries
Enhancing Netzausweis IDM-functionalities

Time
... 2004 and before 2005 2006 and afterwards...

Reach

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Conclusion

Summary

- **T-Online Netzausweis – an innovative IDM-solution package:** Enabling major benefits of Identity Management for our partners and customers. Up-and-running at T-Online – not just a concept or a prototype. Backed by T-Online’s experience in partner integration.

- **Liberty Alliance – an easy-to-implement standard:** Helping T-Online’s partners and itself to manage identities in distributed environments.

Putting Identity Management into practice for our partners and customers
Participate in the Netzausweis community ... 
... with more than 11 million users.

- **Info:**
  [www.netzausweis.info](http://www.netzausweis.info)

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Putting Identity Management into practice
User View / Example

- Netzausweis@T-Online:
  - User View
  - Example
Netzausweis @ T-Online
User View: Single Login @ T-Online Portal Network

Initiate a “Netzausweis Login” from any T-Online Portal site ...

... login ...

... or be identified automatically ...

... see your actual login status on any T-Online portal site ...
... and use many services and content without further login.
Netzausweis @ T-Online
User View: Overview @ T-Online Portal Network

Access your “Overview” from T-Online Portal site ...

... see if there are news on your accounts ...

... and navigate to your accounts – with just one click on the mouse.
Netzausweis @ T-Online
User View: Link “Netzausweis” to partner site account

Login for the first time at an enabled partner site ...

... using your “Netzausweis” ...

... link (“federate”) your “Netzausweis” with your partner site account ...
Netzausweis @ T-Online
User View: Transfer personal data to partner site

... verify and transfer data without typing or misspelling ...

... to use your “Netzausweis” for all future logins at the enabled partner site.
Netzausweis @ T-Online
User View: Access age restricted content

Access age restricted content (e.g. 18+ games) ...

... be checked by a known procedure
without special hard- or software ...

... and just use various services and content *

* The possible integration into Netzausweis for 3rd party usage is currently in legal examination and certification process.
Netzausweis @ T-Online

Example: Partner Integration of “T-Pay”

Access payed content (e.g. music) …

… acknowledge once that you want to pay using T-Pay (telephone bill) and …

Opening T-Pay to more than 11 mio. T-Online customers

… use your “Netzausweis” for all future payments at T-Pay enabled partner sites.