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EIDAS – OPPORTUNITIES AND RISKS IN INTERNATIONAL COMPETITION FOR TSP_s



Leslie Romeo

Head of De-Mail & Trust Services

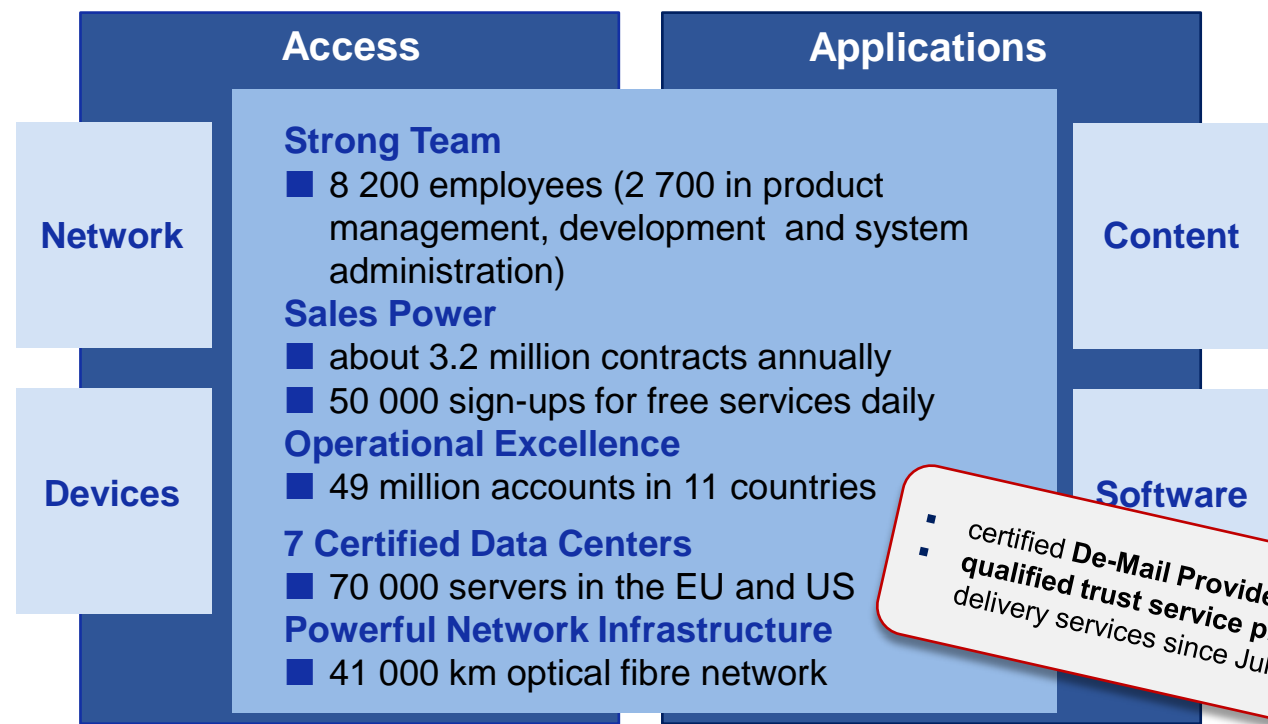
1&1 De-Mail GmbH – Member of United Internet



Agenda

- 1&1 – Member of United Internet AG
- Requirements according to eIDAS
(for qualified electronic registered delivery services)
- De-Mail (vs. / =) eIDAS?
- Opportunities without risks?
- Avoiding risks, making it work!

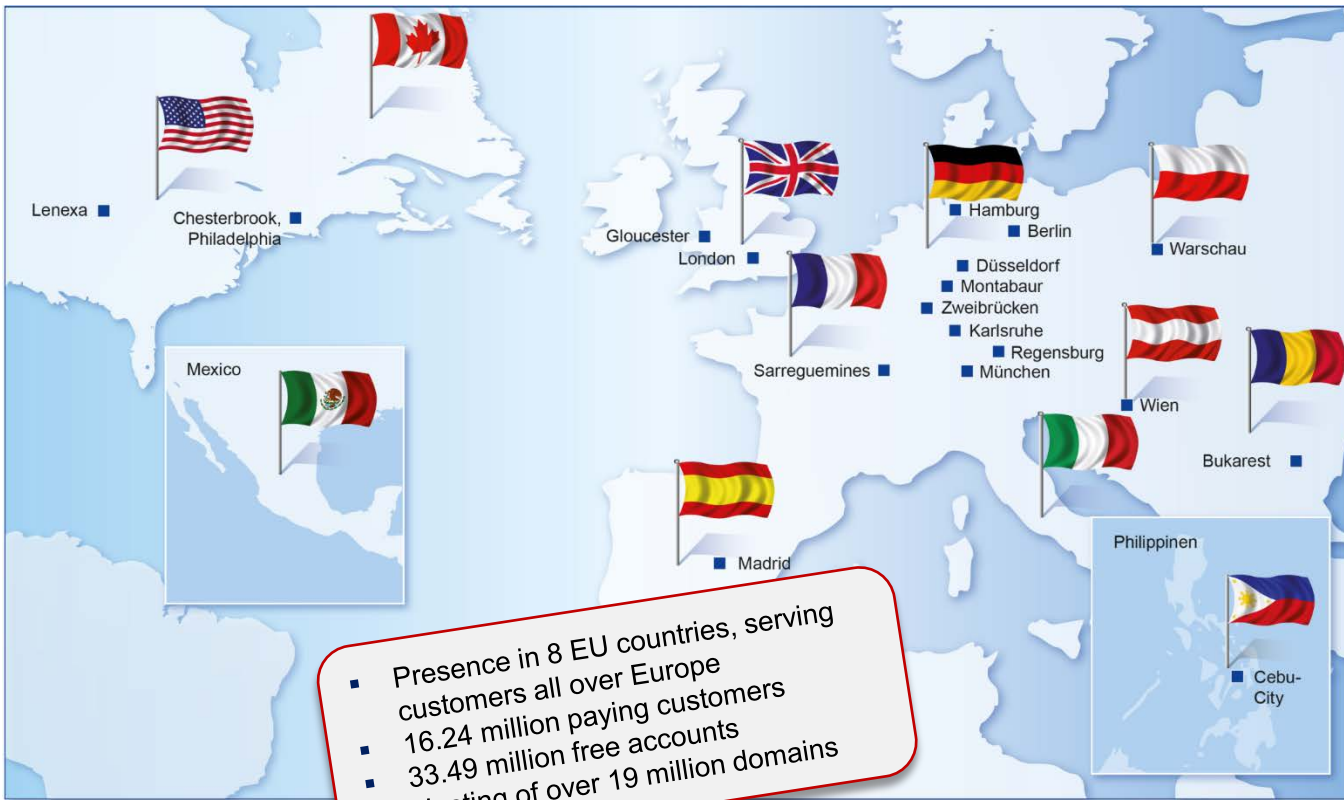
1&1 - Member of United Internet AG



■ certified **De-Mail Provider** since March, 3rd 2013
 ■ **qualified trust service provider** for registered delivery services since July, 1st 2016



1&1 - Member of United Internet AG



- Presence in 8 EU countries, serving customers all over Europe
- 16.24 million paying customers
- 33.49 million free accounts
- Hosting of over 19 million domains

Requirements for qual. electr. registered delivery services

■ Legal effect (Art. 43)

“1. (...) using an electronic registered delivery service shall not be denied legal effect and admissibility as evidence in legal proceedings solely on the grounds that it is in an electronic form (...)”

⇒ Same legal effect as paperbased transactions

“2. (...) using a qualified electronic registered delivery service shall enjoy the presumption of the integrity of the data, the sending of that data by the identified sender, its receipt by the identified addressee and the accuracy of the date and time of sending and receipt indicated by the qualified electronic registered delivery service.”

⇒ Legal effect as qualified electronic signature, for that the effect of an actual signature

■ Requirements (Art. 44)

- Certification: „(...) provided by (...) qualified trust service providers;“
- Identification: „(...) high level of confidence the identification of the sender / addressee
- Integrity Protection: „(...) secured by an advanced electronic signature (...) or seal (...)“
- Qualified electronic time stamp: „(...) Date and time of sending, receiving and any change of data are indicated by a qualified electronic time stamp.“

⇒ Certification, Identification, Integrity Protection, Qualified Signature lead to the legal effects by proven privacy, integrity, authenticity and liability

De-Mail vs. eIDAS? Comparison of Standards - The facts:

Target: Digital Transformation of paper mail.

Facts De-Mail (§§ 1ff. De-Mail G)

- Accredited De-Mail service provider
- Identification beyond a reasonable doubt of all Users as foundation of a De-Mail account (LOA 4)
- Continuous Integrity Protection
- Qualified signed received receipt, delivery receipt, and read receipt including time stamp.

Target: Trusted Services have the same legally binding status as the paper process.

Requirements for qualified electronic registered delivery services (Art. 44 (1) eIDAS)

- (...) qualified trust service provider(s)
- (...) a high level of confidence the identification of the sender;
- (...) the identification of the addressee before the delivery of the data;
- (...) preclude the possibility of the data being changed undetectably;
- the date and time of sending, receiving and any change of data are indicated by a qualified electronic time stamp.

De-Mail (=)* eIDAS!

*Confirmed by BSI, BNetzA and BfDI

⇒ In Germany the certification as De-Mail Provider is one possibility to become a qualified trust service Provider according to eIDAS. (so far the only one)

Opportunities without risks? No Way!

Opportunities

- EU-wide standardization
- Harmonization of different solutions in the member states.
- Uniform requirements
- Uniform legal effects.
- Level playing field on a european single digital market



Risks

- Only abstract rules in eIDAS Regulation for qualified electronic registered delivery services
- Missing detailed implemeting acts
- Missing use cases
- Missing interoperability

Possible and likely different interpretations of the Regulation by the member states and companies

Risks

■ The vagueness of the eIDAS Regulation leads to:

- Different requirements in conformity with a wide variation in measurement
- Different barriers for market entry for TSPs
- Different barriers of product entry for users
- Different levels of assessment in regard of security, privacy, integrity, etc.
- Impossibility of interoperability

■ Consequence:

- Market distortion
- Uncertainty of the user
- No mandatory interoperability
- Lowest assessment level will always be lowest bidder
- Security situation in EU will deteriorate overall

 the market stays as heterogeneous (and insecure) as it is now, but with a legal blessing.

Making it work

■ Ensure a level playing field

- Create implementing acts
- Reference mandatory international standards
- Ensure and enforce the same level of assesemt across the EU

■ Promote rapid dissemination across all target groups

- Visible and mandatory offer by public sector
- Mandatory usecases (at least for business users and public sector), *Modell Denmark*
- Visibility for end user
- Involvement of entities that will disseminate information.

■ Improve usage possibilities and create more incentives

- Reduce entry barriers (e.g. possibilities of identification)
- Subsidise usage

Questions?



Contact



Leslie Romeo

Head of De-Mail & Trust Services



GMX[®]



1&1 De-Mail GmbH

Ernst-Frey-Straße 10

76135 Karlsruhe

Germany

Phone +49 721 91374-3973

leslie.romeo@1und1.de

leslie.romeo@1und1.de-mail.de

www.1und1.de

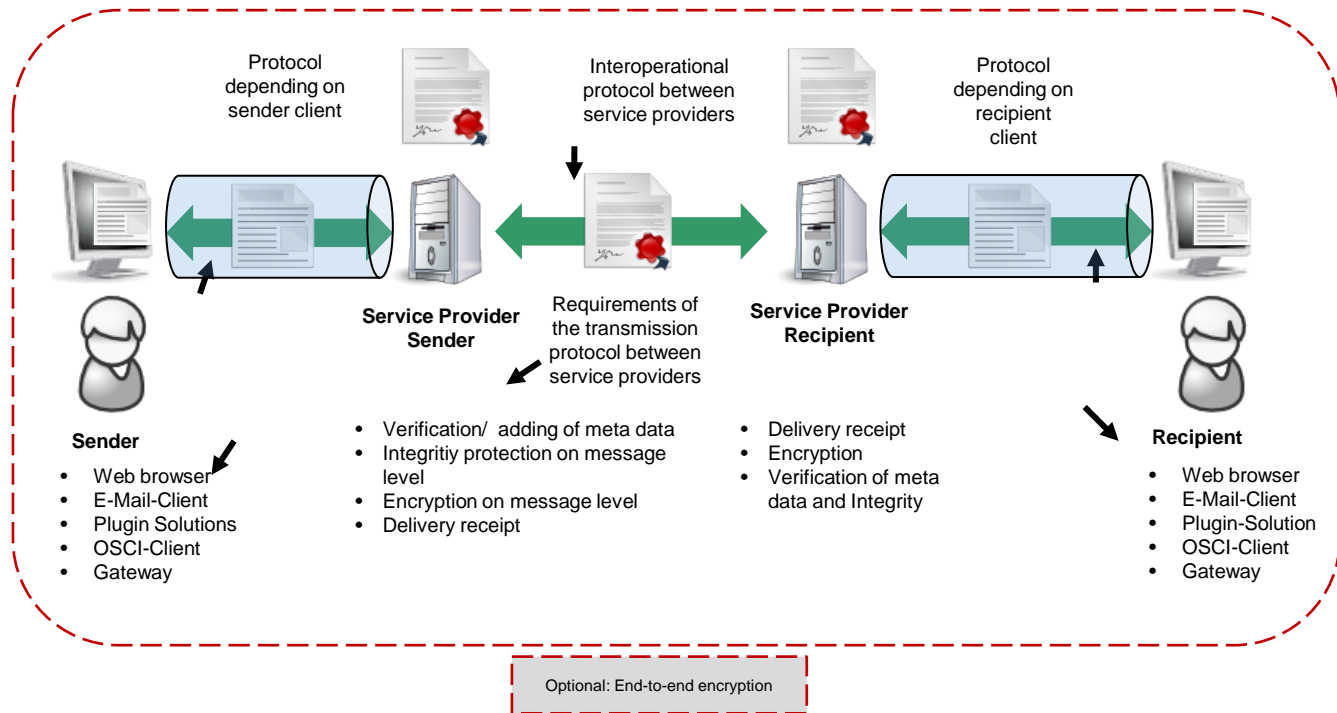
THANK YOU FOR YOUR ATTENTION!



Backup



De-Mail = eldas! Overview of Functions:



Certified Infrastructure in EU

- ❑ 1&1 IT infrastructure is certified according to the De-Mail standard (BSI and BfDI) and intends to be recognized as a qualified eIDAS trust service (process pending) by July, 1st.
- ❑ The infrastructure is based on widely used and recognized international standards in the E-Mail environment (SMTP, S/MIME, SSL, etc.) and it is globally adaptable.
- ❑ Technical specifications of the De-Mail standard have already been introduced in international standardisation bodies.

➔ possible next steps to offer and implement eIDAS compliant qualified trustservices:

Interoperability



- The **SPOCS project**, sponsored by the EU commission, has drawn up procedures for the interoperability of systems operating according to the De-Mail standard with systems of other member states.
- De-Mail based systems are an integrated part of the **eSense project** in regards to the cross-border legally binding communication with France, Austria, Slovenia and Greece.

Scope Expansion / Scalability

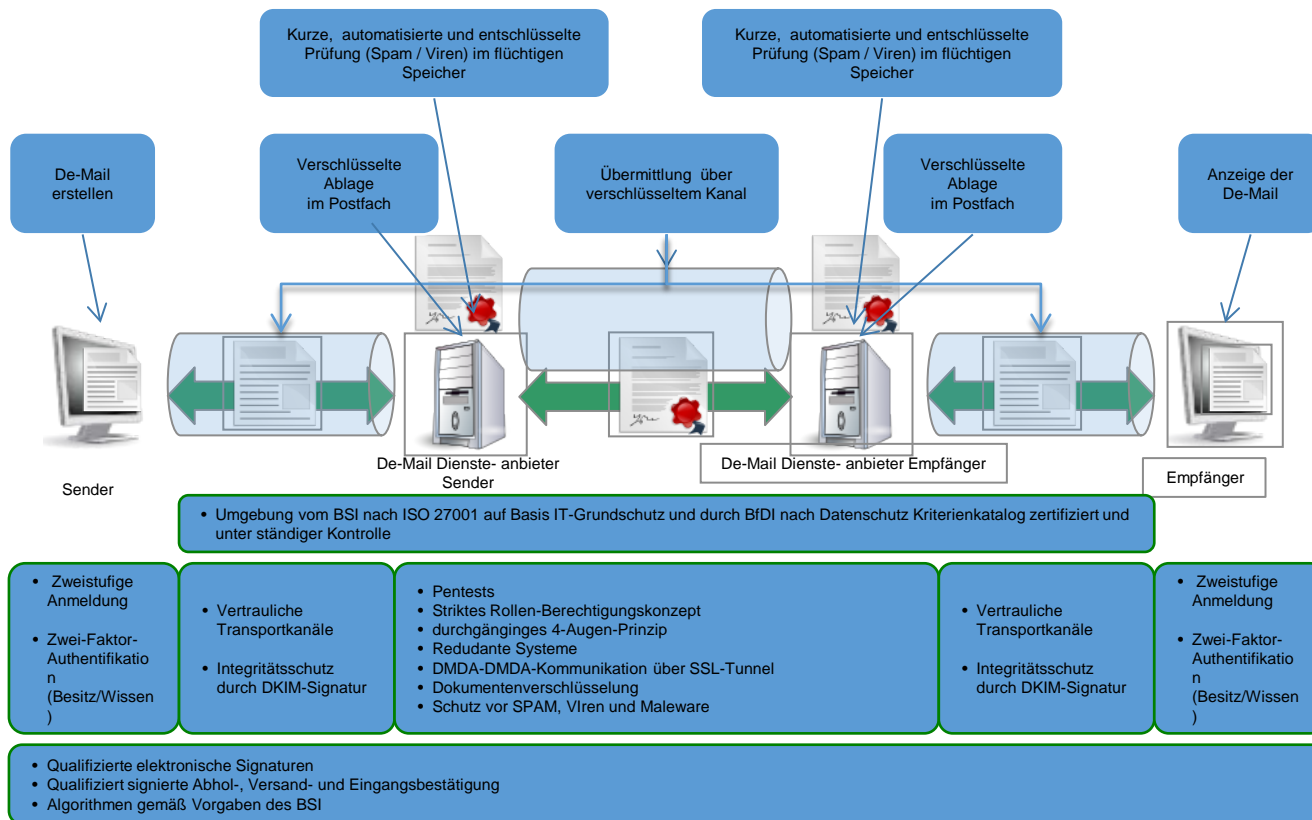


The 1&1 infrastructure can thus be implemented as **already certified** cost-saving **white label solution** („SAAS“/„managed“/“on premise“).

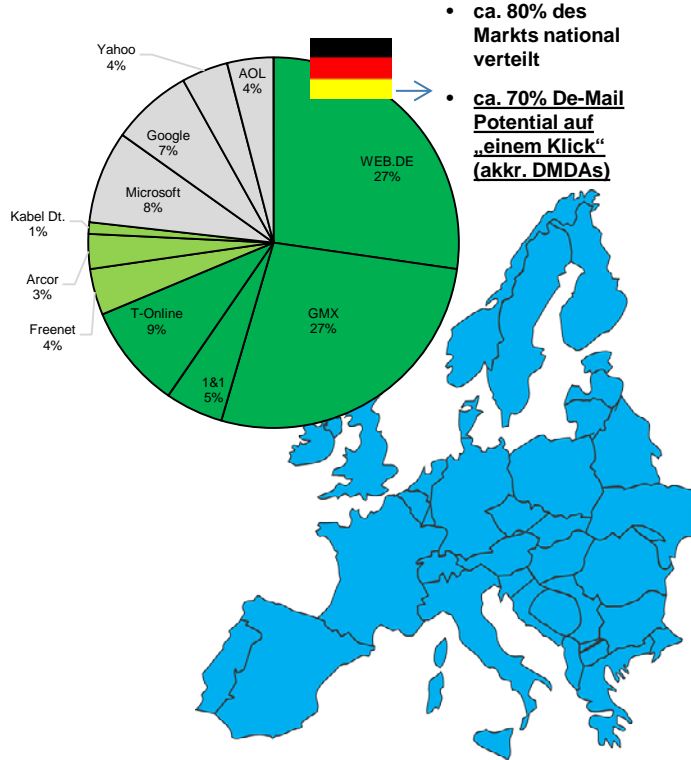
Operating for EU memberstates as nationwide or distributed system..

Highly scalable (from 1-10 million users upwards).

Absicherungsübersicht



De-Mail gut gestartet, aber noch kein Durchbruch



- ca. 80% des Markts national verteilt
- ca. 70% De-Mail Potential auf „einem Klick“ (akkr. DMDAs)

Situation De-Mail (07/2014):

- 70% aller privaten Mailnutzer werden durch akkreditierte DMDAs direkt erreicht und haben De-Mail „auf einen Klick“ verfügbar.
- ca. 1 Mio. Endnutzer verbindlich unter Vertrag (50% identifiziert)
- ca. 50.000 Unternehmen mit De-Mail Domain unter Vertrag
- Erleichterung der Ende-zu-Ende Verschlüsselung durch die Integration von PGP in De-Mail per Ende 2014

■ Nationale Anbieter mit rechtssicherer Lösung:
■ Nationale Anbieter:
■ US-Provider: