Fornyings- og administrasjonsdepartementet
Akersgata 59
Postboks 8004 Dep
0030 Oslo

Nasjonalt kompetansesenter for fri programvare
Grønnland 58 Papirbredden
3040 Drammen

Innspill til høring - Forslag om innføring av obligatorisk elektronisk faktura i staten

Rapportens anbefaling om å innføre obligatorisk efaktura til staten vil uten tvil gi store gevinster. Med bakgrunn i erfaringer fra både Danmark og Sverige kan man med stor grad av sikkerhet si at også kvaliteten og effektiviteten i transaksjonshåndteringen vil bedres radikalt. Friprogsenteret mener et slikt system med obligatorisk elektronisk faktura med fordel bør innføres i hele offentlig sektor, da det vil gi fornyingsgevinster og ikke minst vil være positivt i et miljøperspektiv.

Rapporten viser i kapittel 10 til erfaring utvikling i både Sverige og Danmark samt andre europeske land. Arbeidet med å hente kunnskap og erfaringer fra andre land blir også viktig i det videre arbeidet. Danmark har utviklet programvare som er fritt tilgjengelig for å forenkle innføringen både for offentlige virksomheter og leverandører av fakturagrunnlag. Rapporten viser til en mulig offentlig fakturaportal som vil dekke noe av dette funksjonelle området. Friprogsenteret mener man må vurdere utvikling av lignende løsninger for efakturaer som skal gå fra maskin til maskin, i praksis en integrasjonstjeneste. I tillegg vil vi påpeke at det vil gi store samfunnsøkonomiske gevinster om man benytter allerede eksisterende eFaktureringssystem og tilpasser dette til norske forhold. I så måte vil vi anbefale at den danske modellen og løsningen Nemhandel benyttes også i Norge. Friprogsenterets klare anbefaling er at man benytter denne løsningen, da det også vil være kostnadsbesparende i tillegg til at det vil gi en gjenbrukseffekt av allerede utviklet løsning.

Vi mener arbeidet for å gjøre ordningen obligatorisk for kommunesektoren blir viktig. Kommunene står alene for et stort antall transaksjoner med et betydelig potensiale for innsparinger. Utvikling av programvare som gjør overgangen enklere vil for kommunesektoren være et sentralt element for å gjøre en slik overgang på best mulig måte, dette med bakgrunn i at den enkelte kommuner skal slippe å utvikle eller kjøpe lisenser på en programvare som vil være standard for alle kommunene.

Når man fra statens side skal utvikle programvare, vil det i de fleste tilfeller være naturlig å vurdere fri programvare. Når man skal spesielt utvikle en løsning, som i dette tilfellet, vil både plattformvalg og sluttproduktet være naturlig å vurdere opp mot fri programvare. Det bør samtidig være en forutsetning at systemet dokumenteres for reellt gjenbruk og at systemet og koden i ettertid deles på en offentlig delingsplattform, eksempelvis delingsbazaren.no. Slik kan andre offentlige etater og organisasjoner, nasjonalt og lokalt, få nytte av hele eller deler av tjenesten. Slik oppnås også samfunnsøkonomisk lønnsom drift av offentlig sektor.

Vedlagt følger en presentasjon av den danske løsningen Nemhandel som Friprogsenteret mener FAD bør vurdere å oversette til norske forhold.

Med vennlig hilsen

Heidi A. Austlid/s/
Direktør

Christer Gundersen/s/
Utviklingsleder

The eFaktura case: 200 billions EUR saved by using a repository style development

Morten Kristoffer Hansen

Head of section, National Software Knowledge Centre, National IT & Telecom Agency

Open Nordic Conference

June 19th 2008

- This is the story about what is probably the largest open-source software project in the public sector anywhere

- This is not only a story about deploying open-source, but also about engaging and developing it and working with the global OSS community along the way

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Background

Electronic invoicing in the public sector a key driver for the initiative

Suppliers required by law to send all invoices to the public sector electronically (approx. 1.3 mill. invoices per month)

Infrastructure also open to private companies for B2B exchange of business messages

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Project scope

Users:

- 200.000 small and medium sized companies
- All public sector institutions
- 15 European countries in 2012

Business case:

- Est. savings DK public sector 2008: 10m €
- Est. savings DK private sector: 133m € per year (600m € in 2012)
- Est. Savings 200b € in PEPPOL in 2012

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Requirements

Primary focus in development process was company needs – not public sector needs

"It has to be easy,

very easy.

As easy as sending email!"

But it must also be secure, flexible, compatible with international standards and free from it-vendor lock-in.

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So why haven’t you heard about it?

1) Enterprise software isn’t sexy

3) Middleware is even less sexy

5) Microsoft and IBM is not fighting each other on this one

The Mission:

A national Internet based infrastructure will be established. It will make it possible for companies to exchange business documents (for instance electronic invoices) in a simple, inexpensive and secure way - via the Internet. The infrastructure must be build in open collaboration with private IT-suppliers. The infrastructure must be ready for use in 2007.

Launched, 8th October 2007

But that wasn't quite challenging enough

- So we decided, that the infrastructure should be build completely around open-standards and OSS components
  - And supported by all the major it-vendors
- Utilizing state-of-the-art Service Oriented Architecture and web-services
  - Adding SMTP into the mix, for the first time ever in SOA
- Using a new type of digital certificates validating and authenticating all transactions
- And finally be as easy to use as e-mail for the average small and medium sized Danish company

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But why middleware and e-business?

- Because the infrastructure for business is the single most important channel for the Danish economy
- We have 95% small and medium sized companies in Denmark, if we don't create open standards for trade and b2b e-business Walmart will help them out and it will not be open
- Every year Danish companies transfer half a billion business invoices and orders, the estimated savings is 600m € to switch to electronic business documents
- We want everybody to be able to participate in the electronic economy, what better way than open-source and open-standards?

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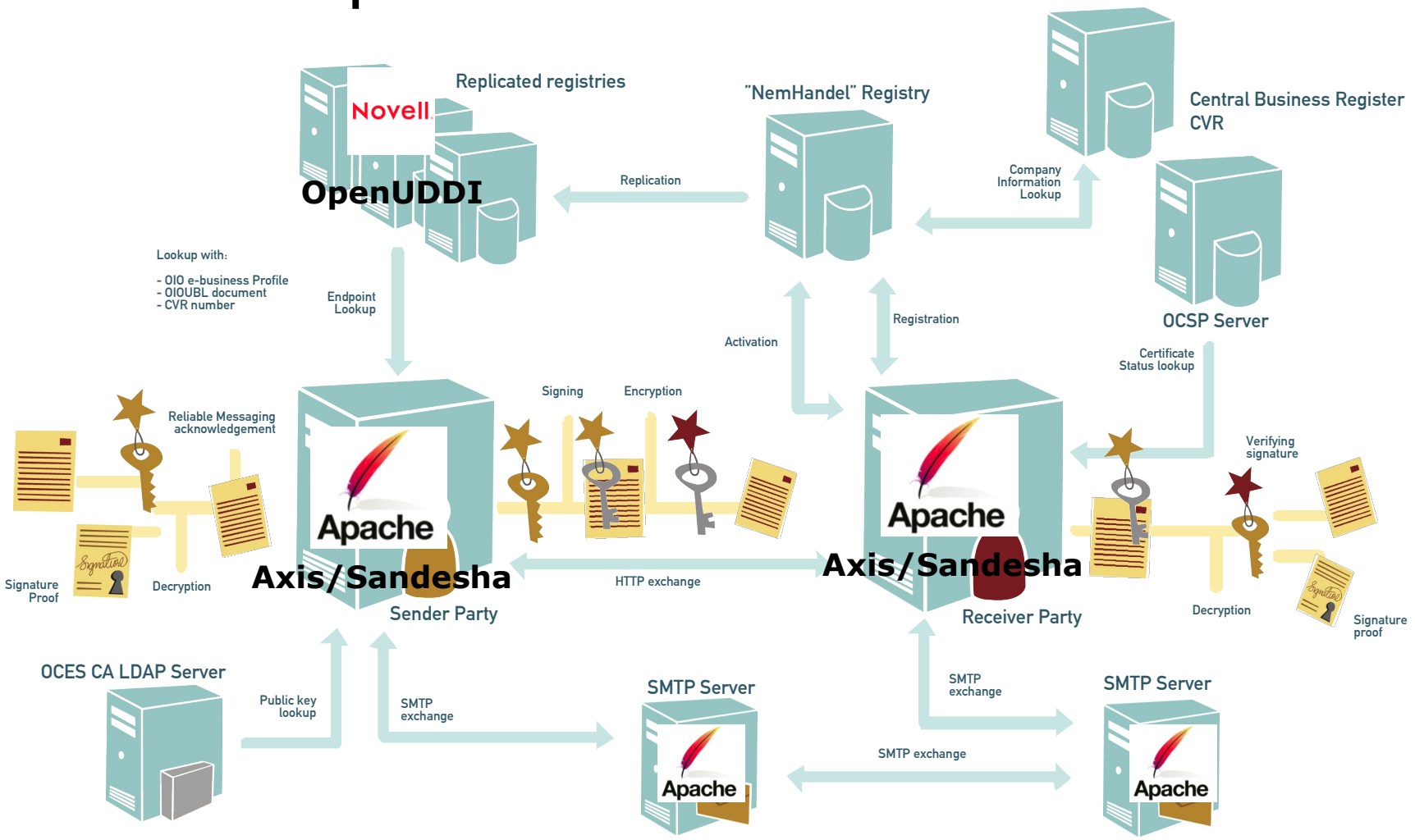
The open e-business framework



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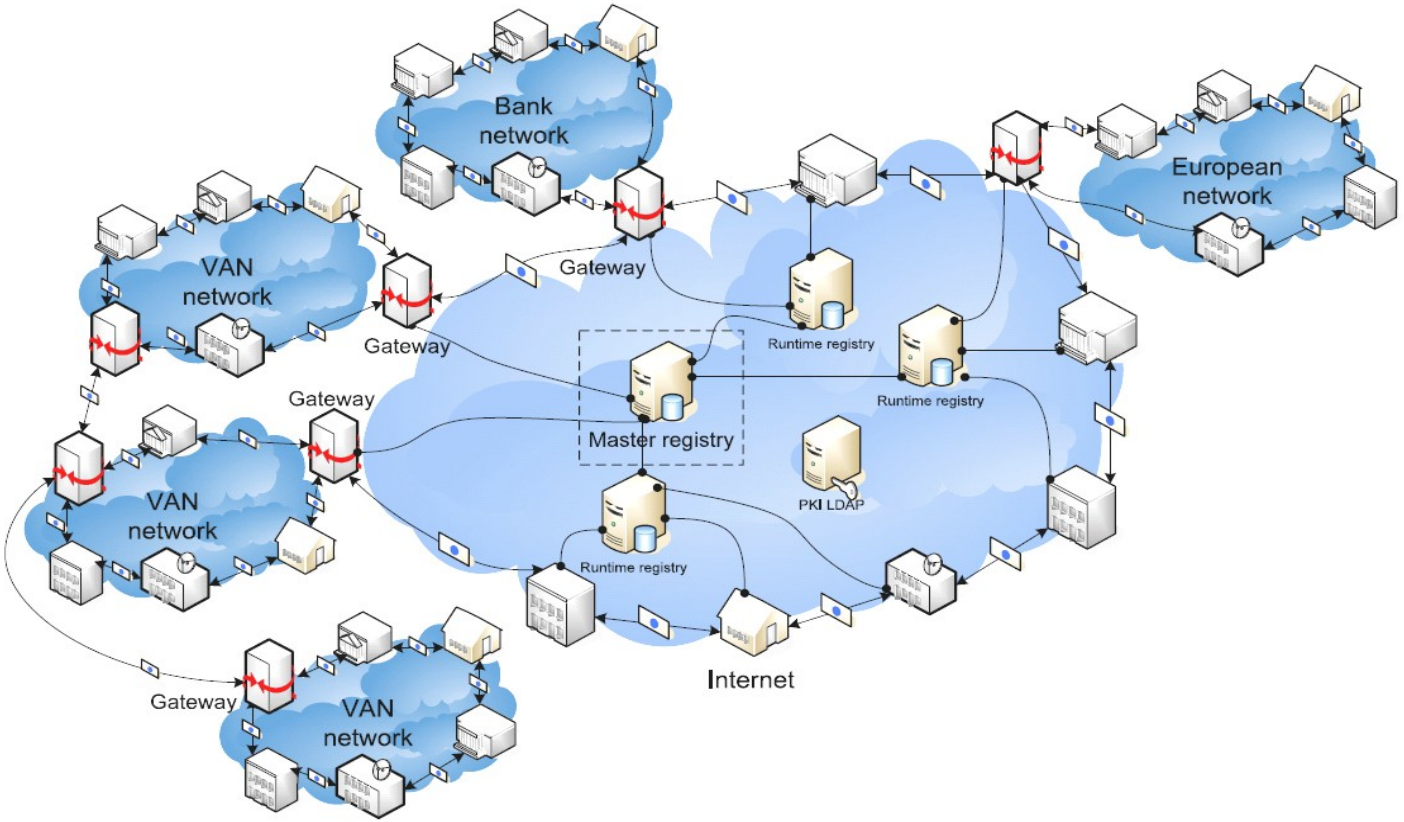
The infrastructure



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The components:

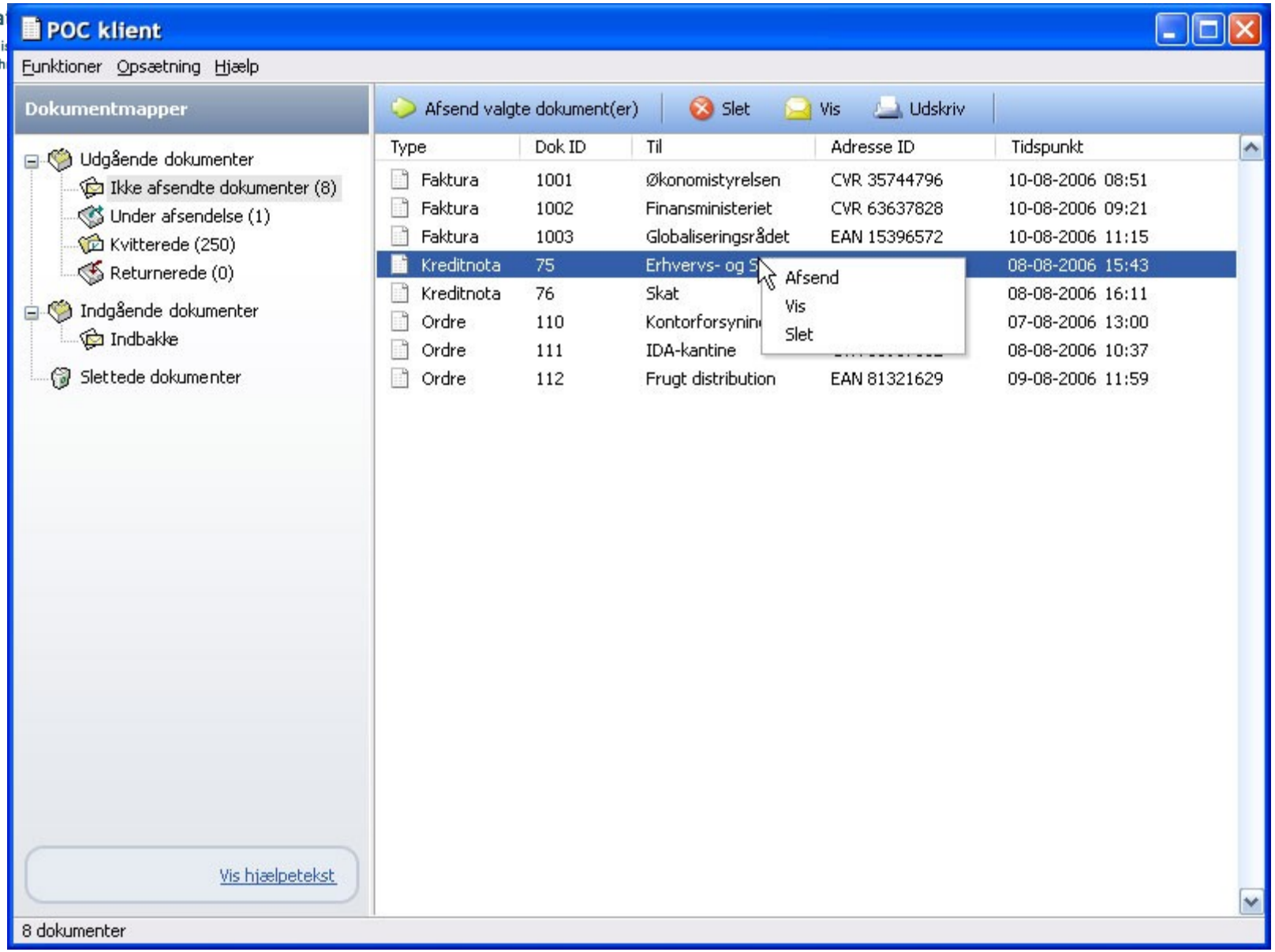
- OpenUDDI developed in partnership with Novell and EOS Trifork, released as open-source on the MPL license
- The Apache Sandesha/.NET message handler developed in partnership with Apache and WSO2, released as open-source on the MPL license
- The reference client built on .NET WCF released as open-source on the BSD license
-
- A Java based reference client, to be released under the BSD license

The standards:

- RASP: Reliable Asynchronous Secure Profile, the first web-service profile able to use both HTTP and SMTP(email) as transport layer, effectively turning SMTP into a giant enterprise service bus for a whole country

- UBL: Universal Business Language, a new XML dialect co developed with Sun, SAP, IBM, China, USA and all the North European countries – with Denmark as one of the main contributors and headed by XML guru Jon Bosak, Danish version released under CC.

The reference client



The Java reference client

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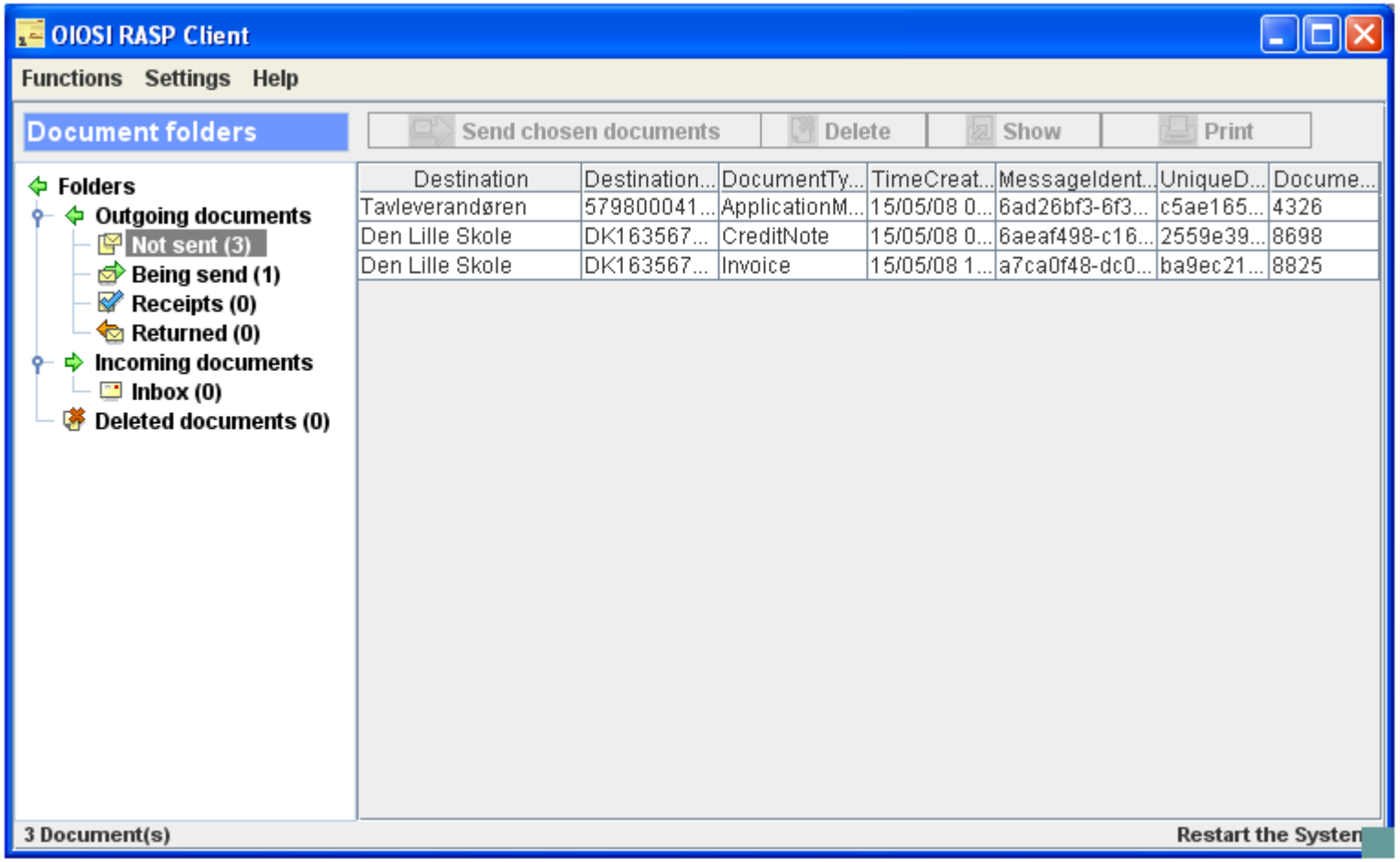

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So why didnt this giant project fail?

- We used the open-source method:
  - Early end-user involvement
  - Many iterations
  - Agile development teams
  - Engaging the community
    - Talking to OSS people all over the world
    - Going straight to the source, instead of middlemen: Apache, Novell, Microsoft, Sun, IBM etc.
    - Making sure that our suggestions and changes flowed back into the core OSS products
- We found common ground for both commercial and OSS groups, showing both parties, that it isn't about ”OSS *or* commercial software” but ”OSS *is* commercial software”

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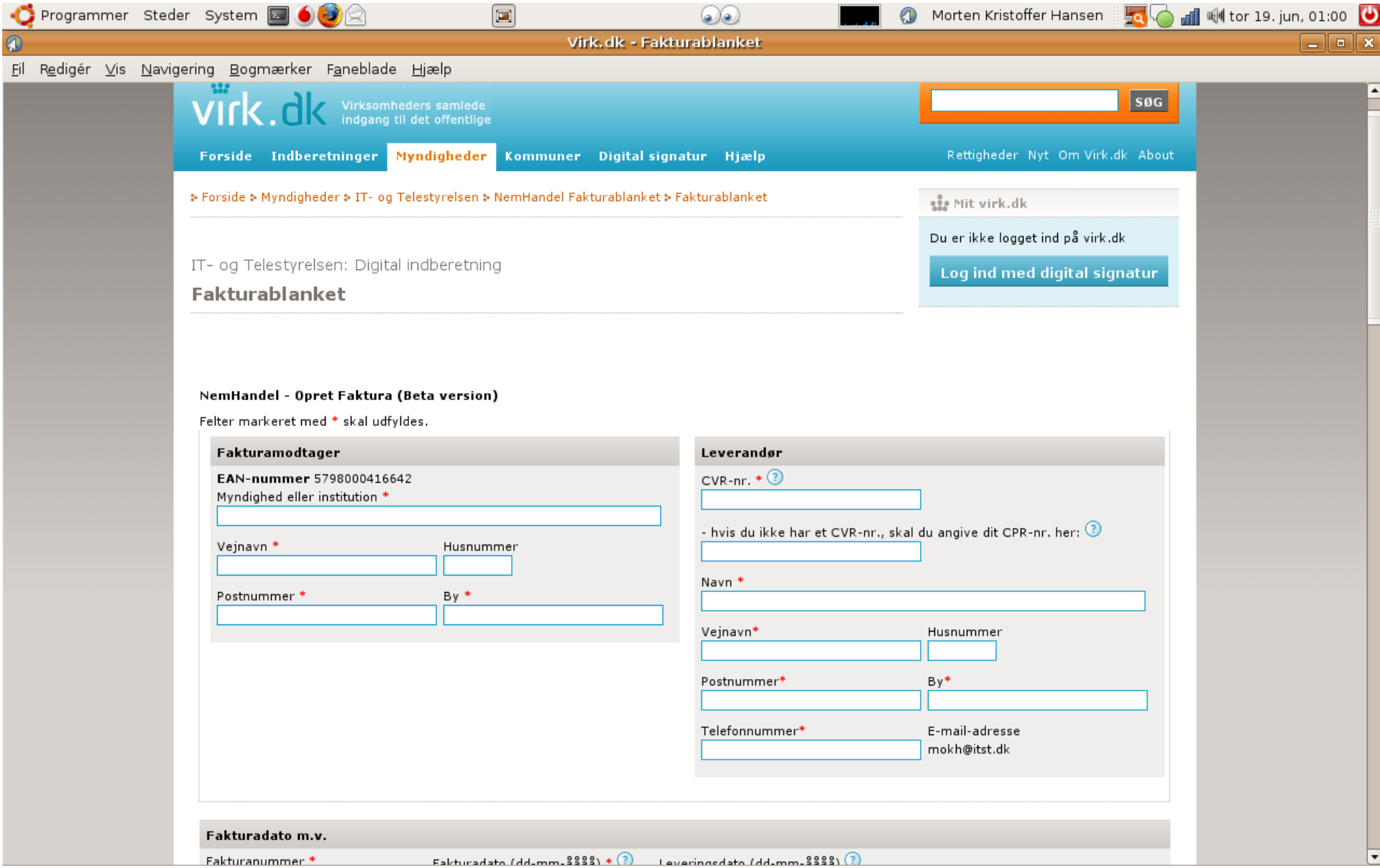
Extending engagement: Ibiz-center.dk

- It is not enough to deliver the core technology, companies need help and guidance in regard to e-business and OSS
- The Ibiz centre is tasked with:
  - Helping and guiding Danish companies about e-business
  - Helping IT-vendors to understand and implement our OSS components in their products
  - Tracking which IT-vendors have successfully implemented and interoperability tested their solution with our reference client

Extending even further



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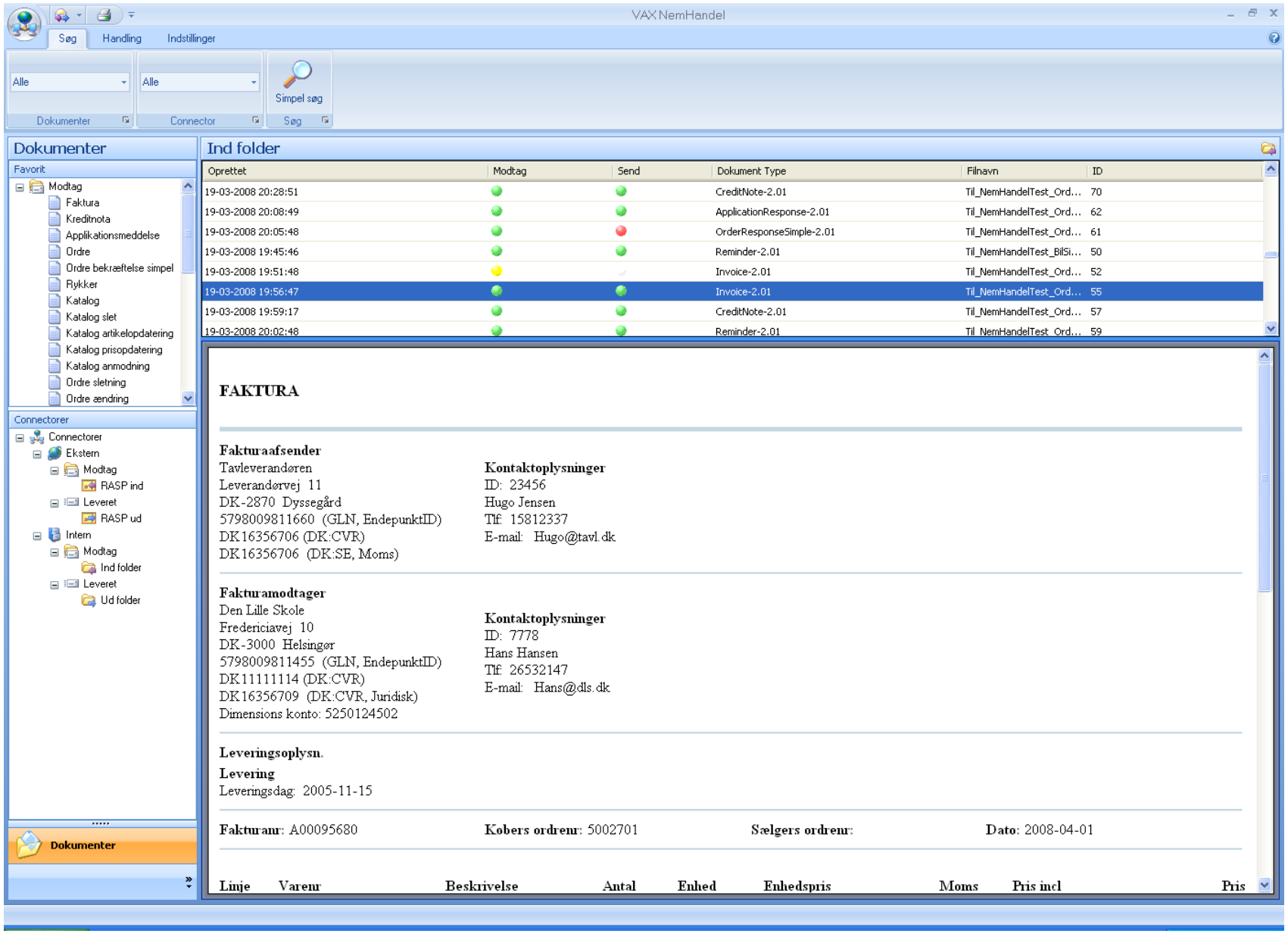
The Fakturablanket / Invoice Form

- 3 months in development
- 300.000,- DKK
- The 3rd largest service on virk.dk
-
- Useful for occasional trade with the public sector

Extending it even more?



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Many ways of using NemHandel

1. Fully integrated in ERP system

2. Partly integrated in ERP system
   – message handler can be used to send invoices.

3. Not integrated in ERP system
   - invoices can be generated using spreadsheet solution and sent using message handler,

   OR

   - invoices can be generated and sent using web-based invoice form.

But do you we get any users?

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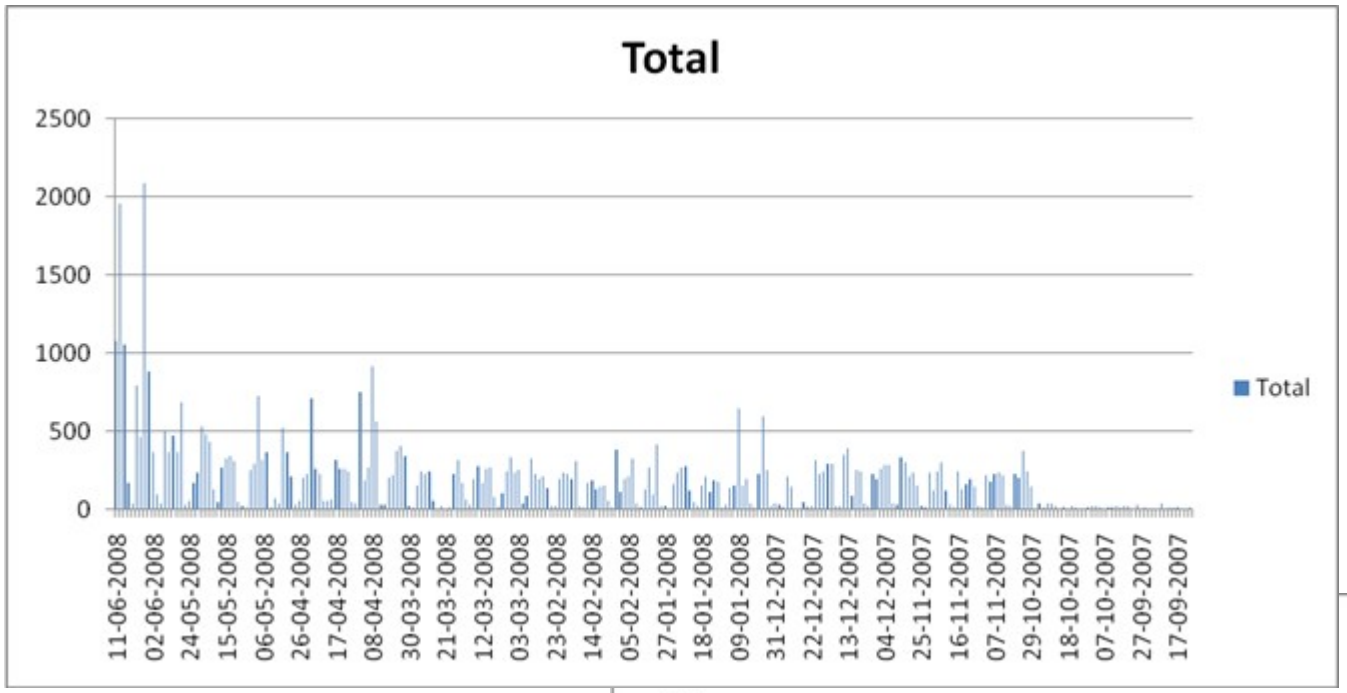

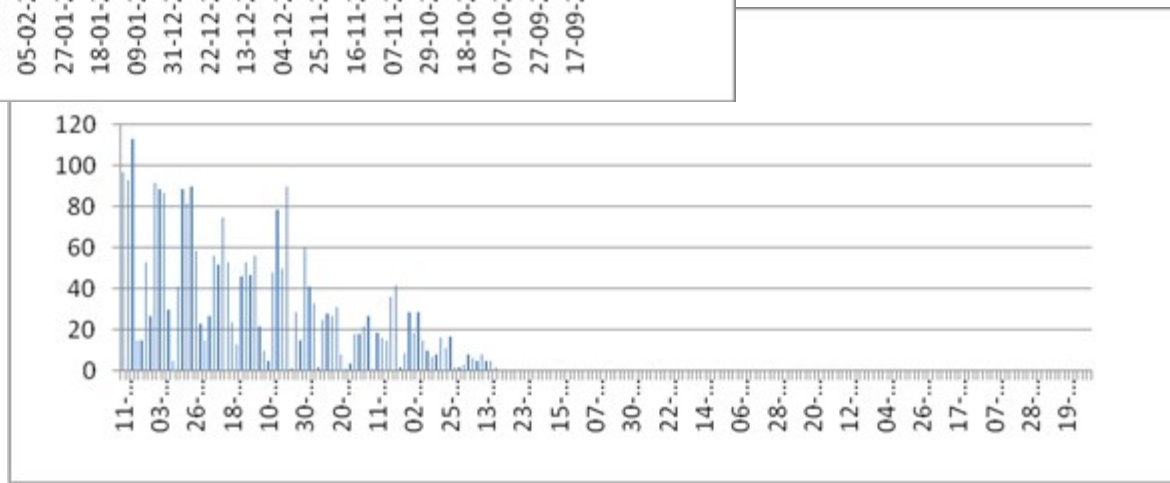

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More information:

- National IT & Telecom Agency (Strategy and policy)
  - www.itst.dk (English and Danish)
- Open e-business framework:
  - www.softwarebørsen.dk (in Danish – soon in English too – all technical information in English)
- E-business centre for aiding Danish companies
  - www.ibiz-center.dk (currently Danish)
- Danish version of UBL standard for e-business documents:
  - www.oioubl.info (English and Danish)
- North European version of UBL
  - www.nesubl.eu (English only)
- Sourceforge soon to come...

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Questions?

nemhandel@itst.dk

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NemHandel – literally 'EasyTrade'

An open national e-business framework

Cathrine Lippert, Communications Adviser
Centre for Service-Oriented Infrastructure (CSI)
Danish National IT & Telecom Agency

Background

Uses a national shared Service-Oriented Infrastructure based on open standards

Based on government controlled replicated UDDI registries and interoperability profiles

Will support reliable, secure and asynchronous exchange of messages across heterogeneous networks, including the internet

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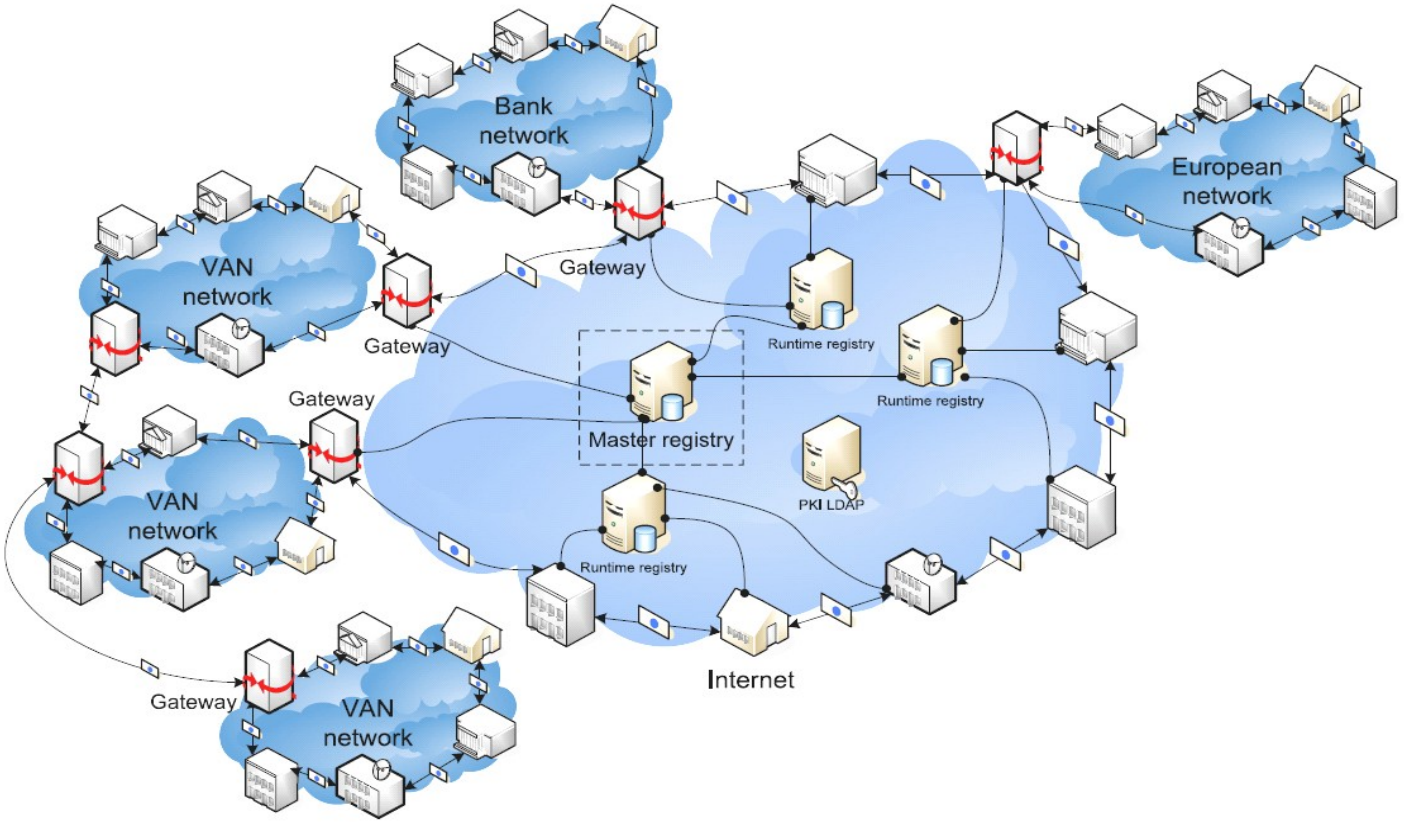
The infrastructure



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Electronic Invoicing

Electronic invoicing in the public sector a key driver for the initiative

Suppliers required by law to send all invoices to the public sector electronically (approx. 1.3 mill. invoices per month)

Infrastructure also open to private companies for B2B exchange of business messages

Recent report from KPMG demonstrates total economic potential of 630 mill. Euro through digitalisation of business processes in small and medium-sized companies

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Requirements

Primary focus in development process was company needs – not public sector needs

"It has to be easy, very easy. As easy as sending email!"

But it must also be secure, flexible, compatible with international standards and free from it-vendor lock-in.

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Result

The result was NemHandel - literally, 'EasyTrade'

- As easy to use as sending email
- Secure – electronically signed and encrypted documents
- Flexible – can be integrated in other IT systems
- Compatible with international standards
- Open standards – no IT vendor lock-in

NemHandel is a **method** of business document exchange based on open standards.

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Key elements

Open national e-business framework, NemHandel, built around 5 key elements:

- An addressing mechanism for service lookup
- A web service profile of standards
- An Open Source software toolkit
- A reference implementation of a message handler
- A legal framework

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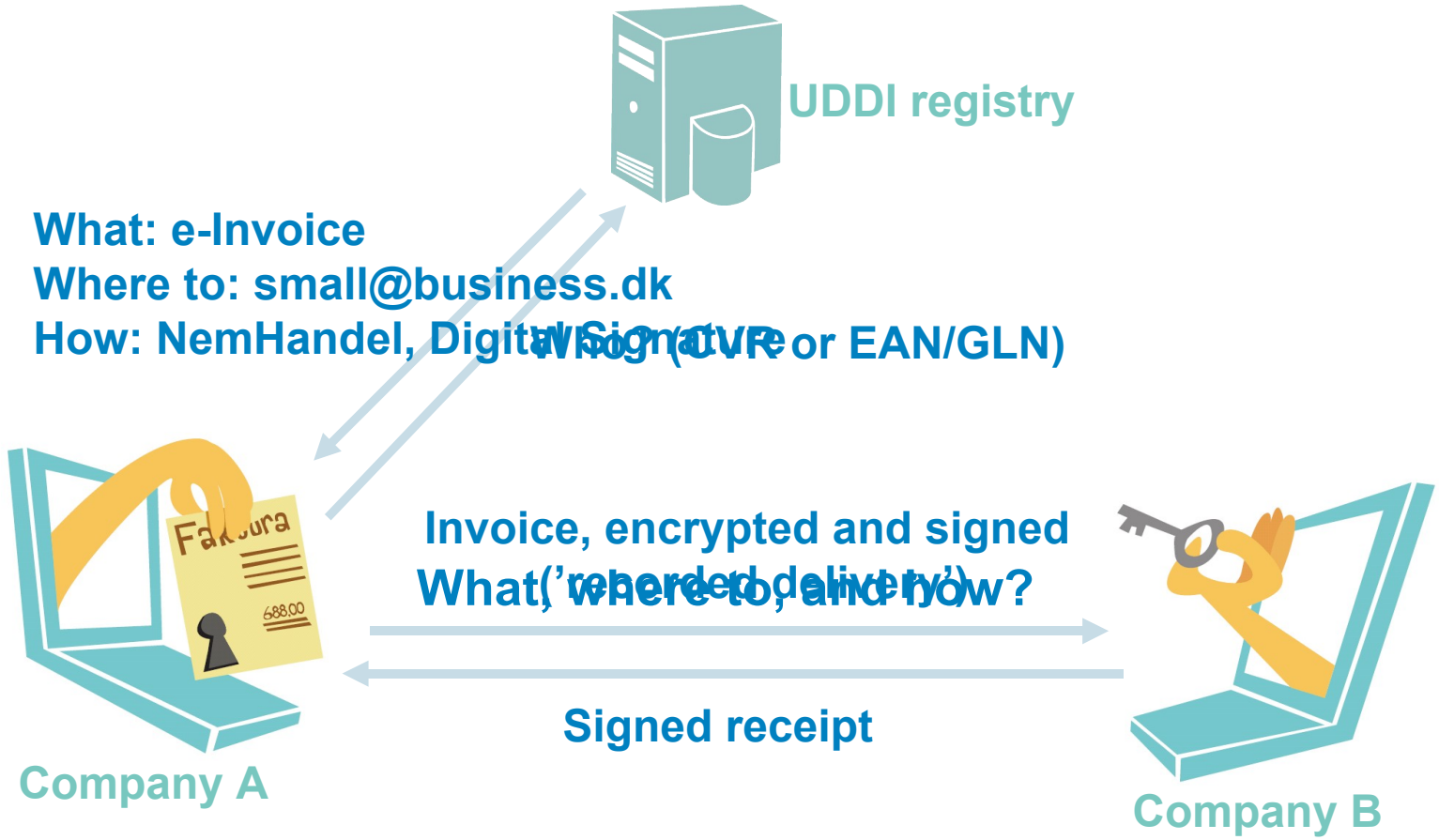
NemHandel – how it works



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Many ways of using NemHandel

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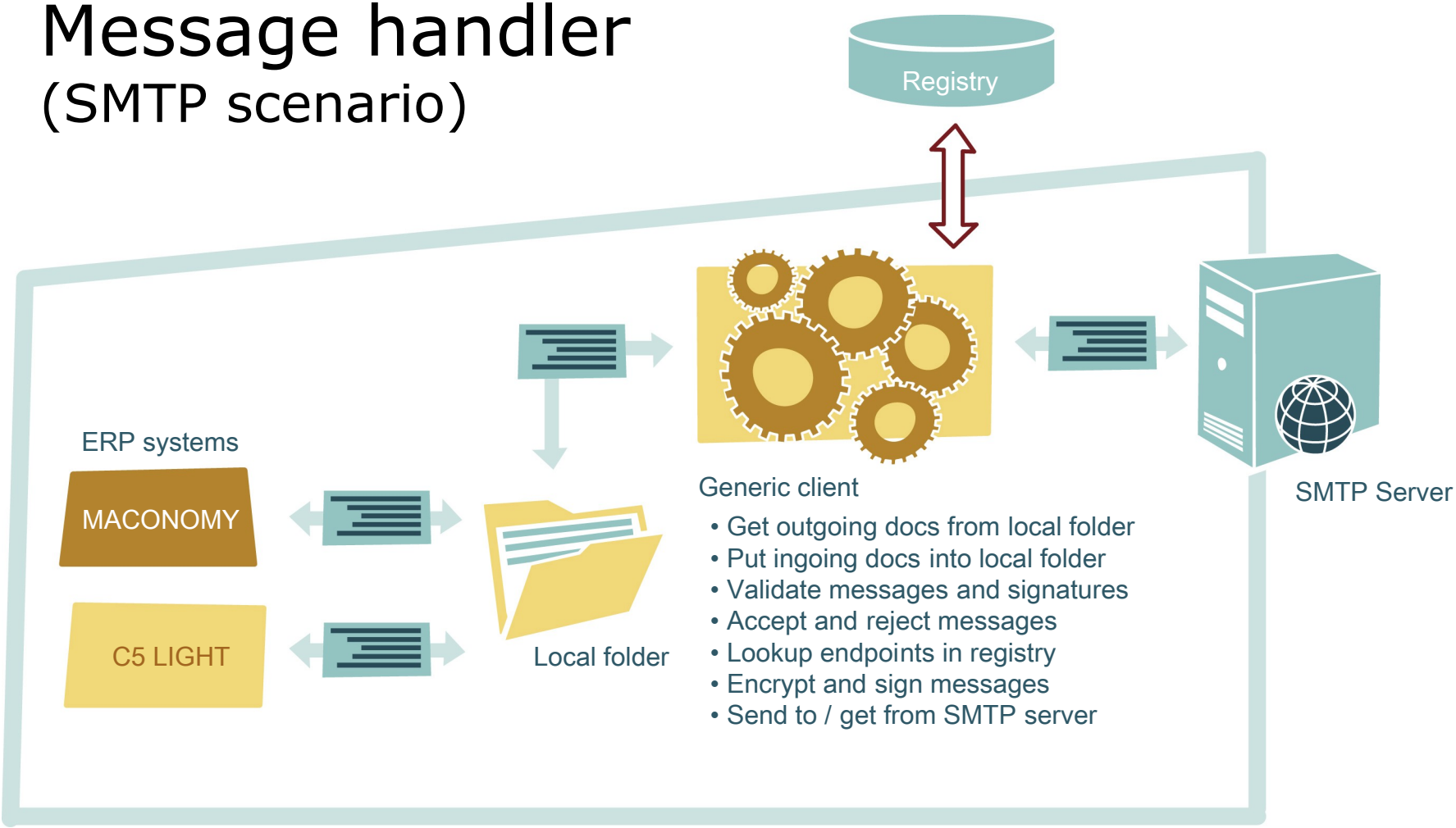
Message handler
(SMTP scenario)



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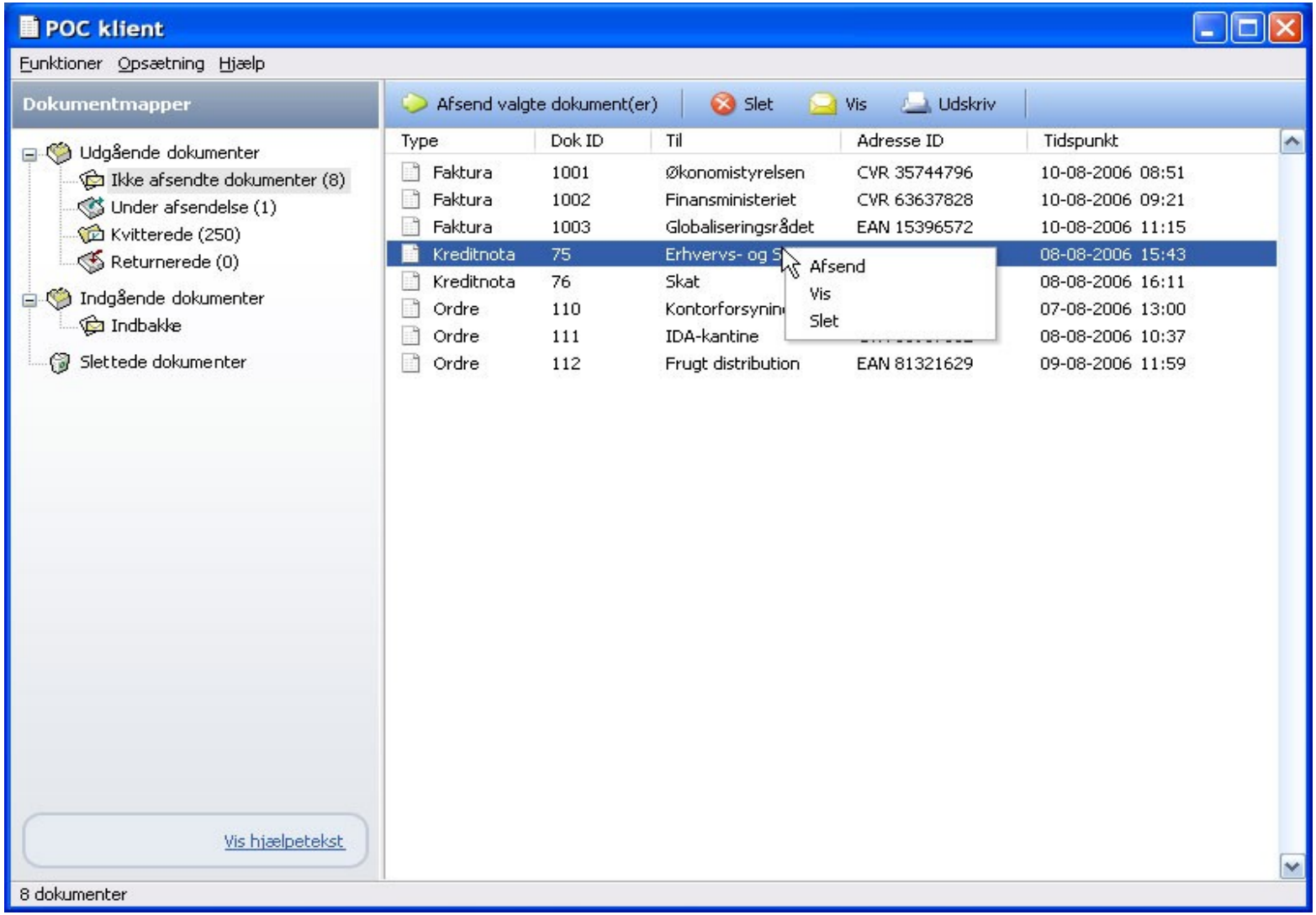
Message handler - a simple client



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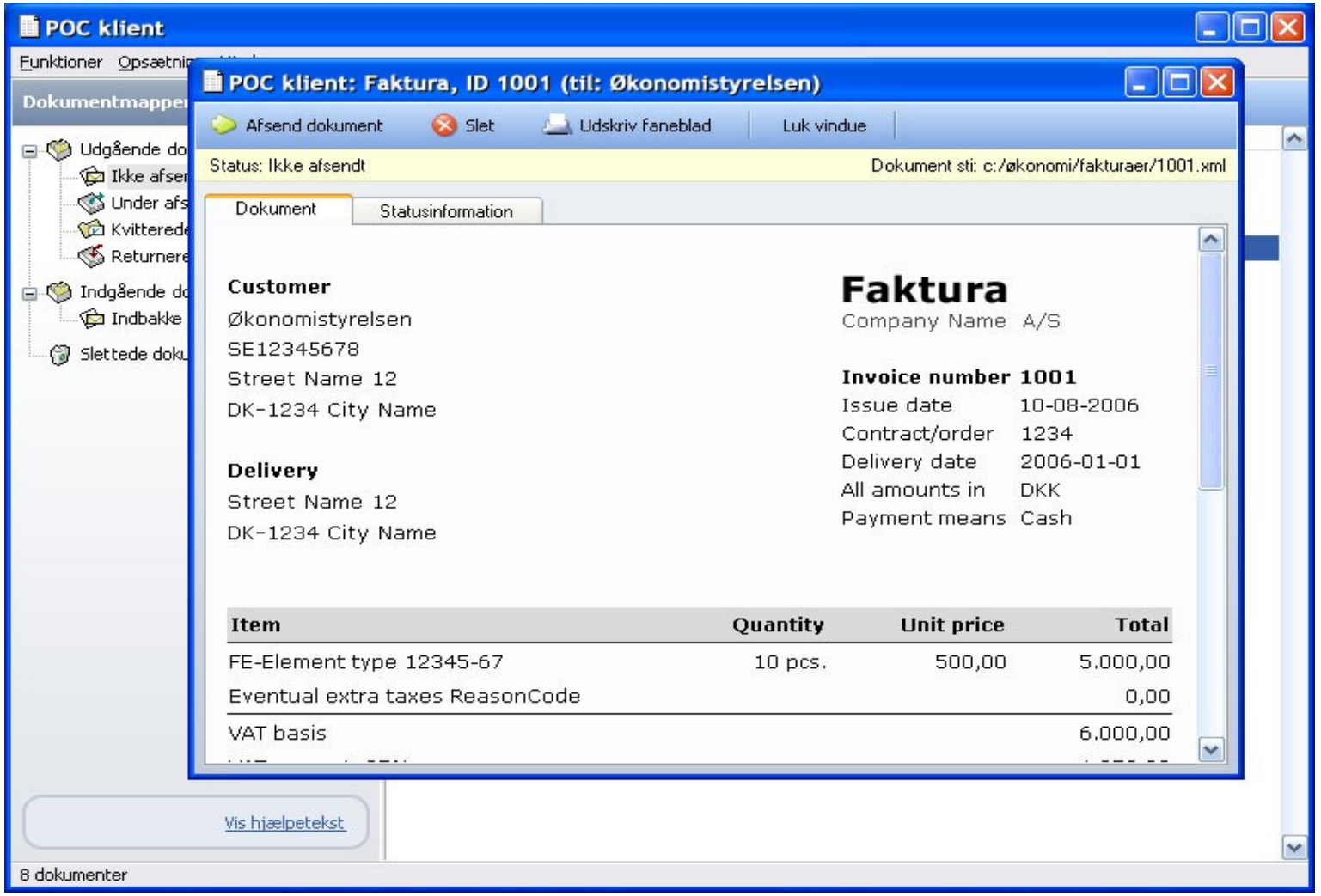
Invoice with stylesheet



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Uses of NemHandel

- Send electronic invoices to any public authority or institution.
- Send electronic invoices to any private company which also uses NemHandel.
- Receive electronic invoices from any private company which also uses NemHandel.

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Major advantages

- Invoices comply with NemHandel standards and will be understood by other NemHandel users' systems.
- Invoices are encrypted prior to sending.
- Senders receive a receipt when invoices have reached their destination – similar to recorded delivery.
- Binary state exchange – invoices cannot get lost in transit.

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The future of NemHandel

More IT vendors support and integrate NemHandel into their solutions.

Companies may also exchange electronic orders and other business documents using NemHandel.

The Danish National IT and Telecom Agency continues to support NemHandel.

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How we did it …

- **Technical**
  - National authoritative service registry
  - Standardisation of a web service profile
  - Development of an OSS toolkit which supports the profile
  - Reference implementation
- **Organisational**
  - Public sector as a locomotive
  - Take advantage of the current window of opportunity
- **Legal / Legislative**
  - Umbrella multilateral contract signed when registering
  - Legislation: mandatory electronic invoicing
- **Cost vs. Benefit**
  - Start with business transactions that have a good balance between cost and benefit

Communication, Vision, Cooperation, Information, Passion

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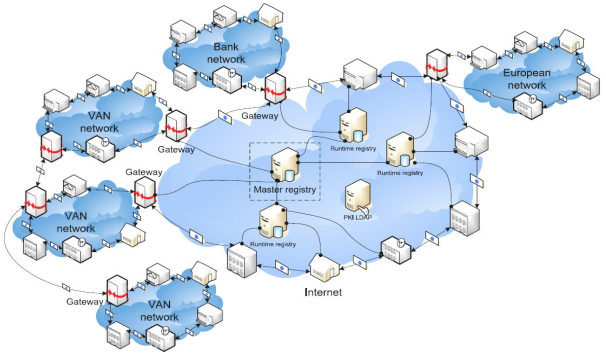

Centre for Service-Oriented Infrastructure (CSI) was established 1 December 2006.

CSI is responsible for managing and facilitating the establishment of an open national service-oriented infrastructure.