OFTP2 kurs

Odette File Transfer Protocol 2

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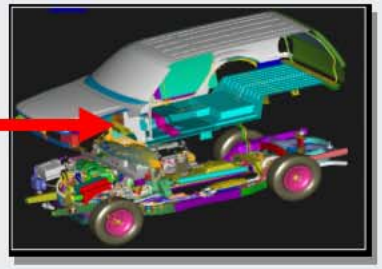
Version 0.8

Data Exchange in the automotive industry

Inbound logistics

Component manufacturing

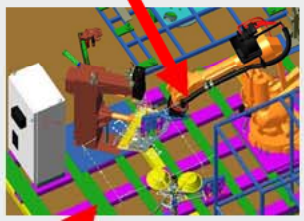
Product development



Goods reception

Final Assembly

Sales



Repair shops

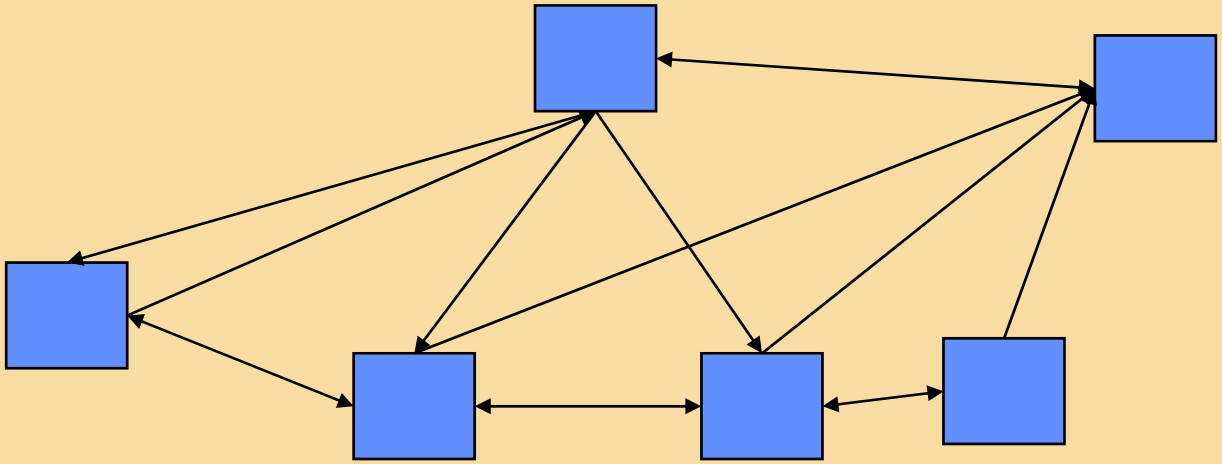
Dealers

Logistics

Main data flows in between Trading Partners in various Business structures

Bilateral

Value chain



Value network

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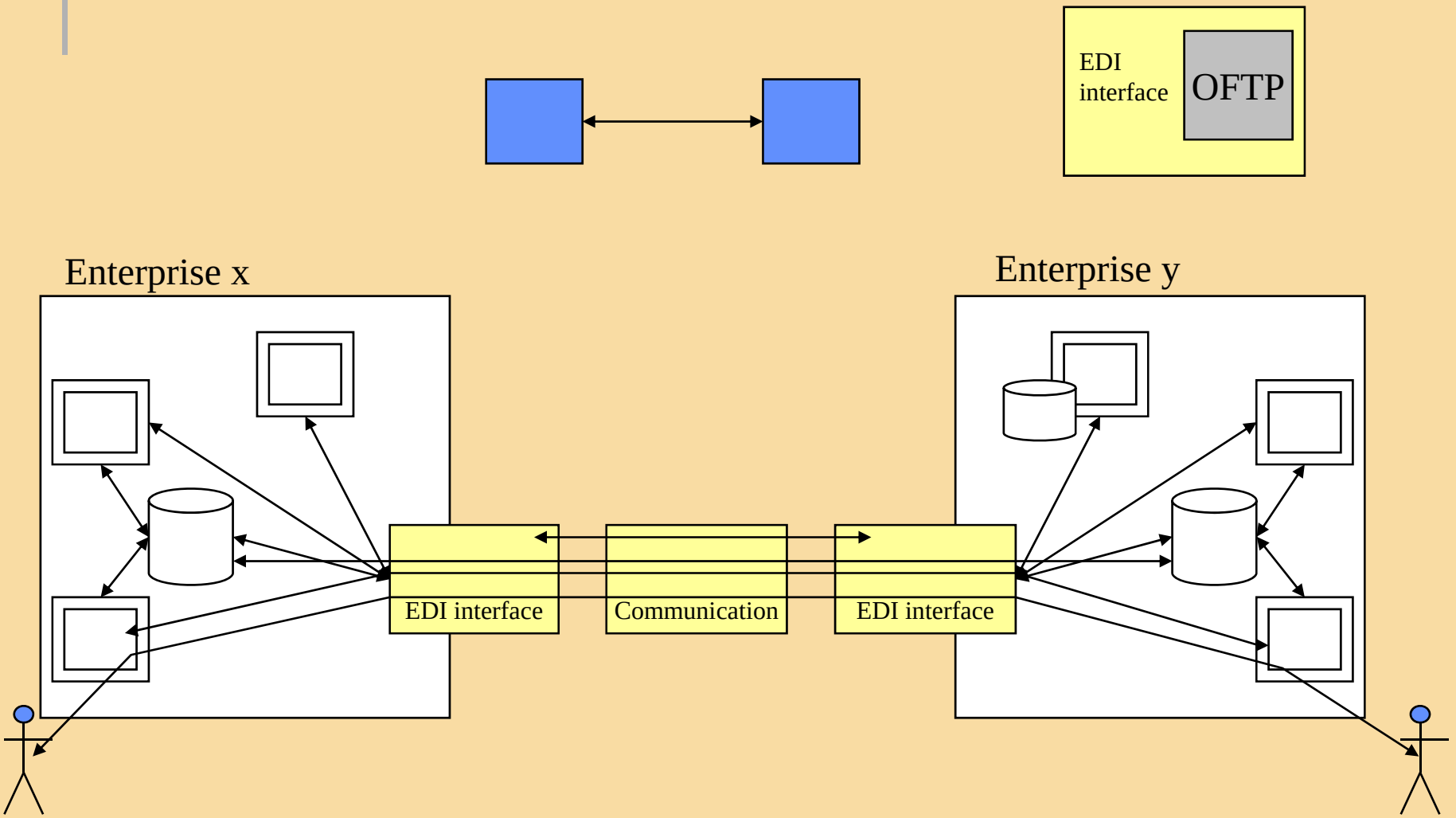
Flow of files in B2B EDI, sketch



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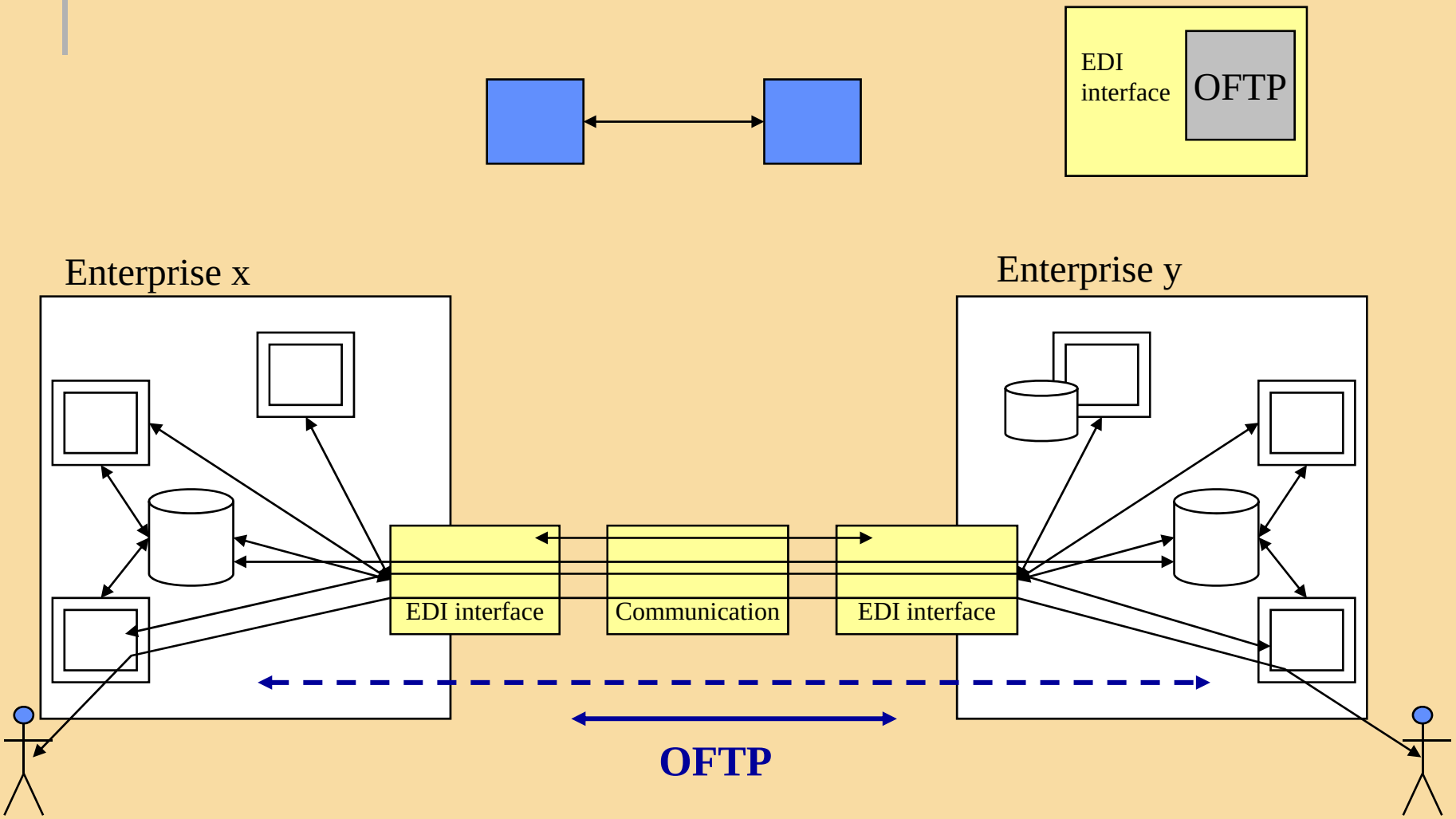
Flow of files in B2B EDI, sketch



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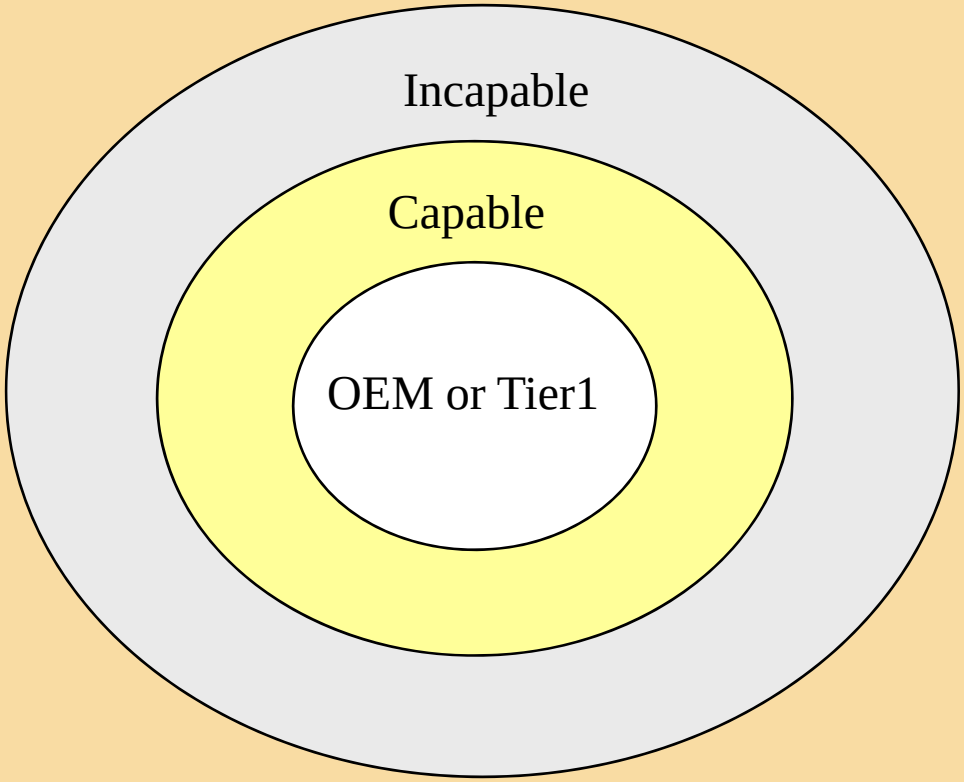
e-Business maturity among trading partners

Capable Trading Partners:
Flexible, standards based B2B gateway
Always ready to connect
Robust trading partner and community management
Examples: Bosch, SKF, ZF, DHL

Challenging Trading Partners:
Connectivity that does not require persistent Internet connections
Minimize security changes required of trading partners
Automated provisioning of End-Points
Support for non-standard and legacy communications
Examples: Medium sized manufacturing companies or forwarders, finance industry



Incapable Trading Partners:
Secure, controlled web-based messaging
Flexible and easy to use data transformation & validation
webEDI solutions
Examples: Emerging markets

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Communications services for B2B Data Exchange (EDI)

Challenges

- Handling EDI Capable trading partners
- Handling less EDI capable trading partners
- Handling trading partners in emerging countries
- EDI support for time critical processes
- Managing a large and growing number of EDI relations and growing volumes of information, with all related parameters

Taking advantage of Internet

- Gaining bandwidth and lowering cost
- Without putting the business and it s information at risk

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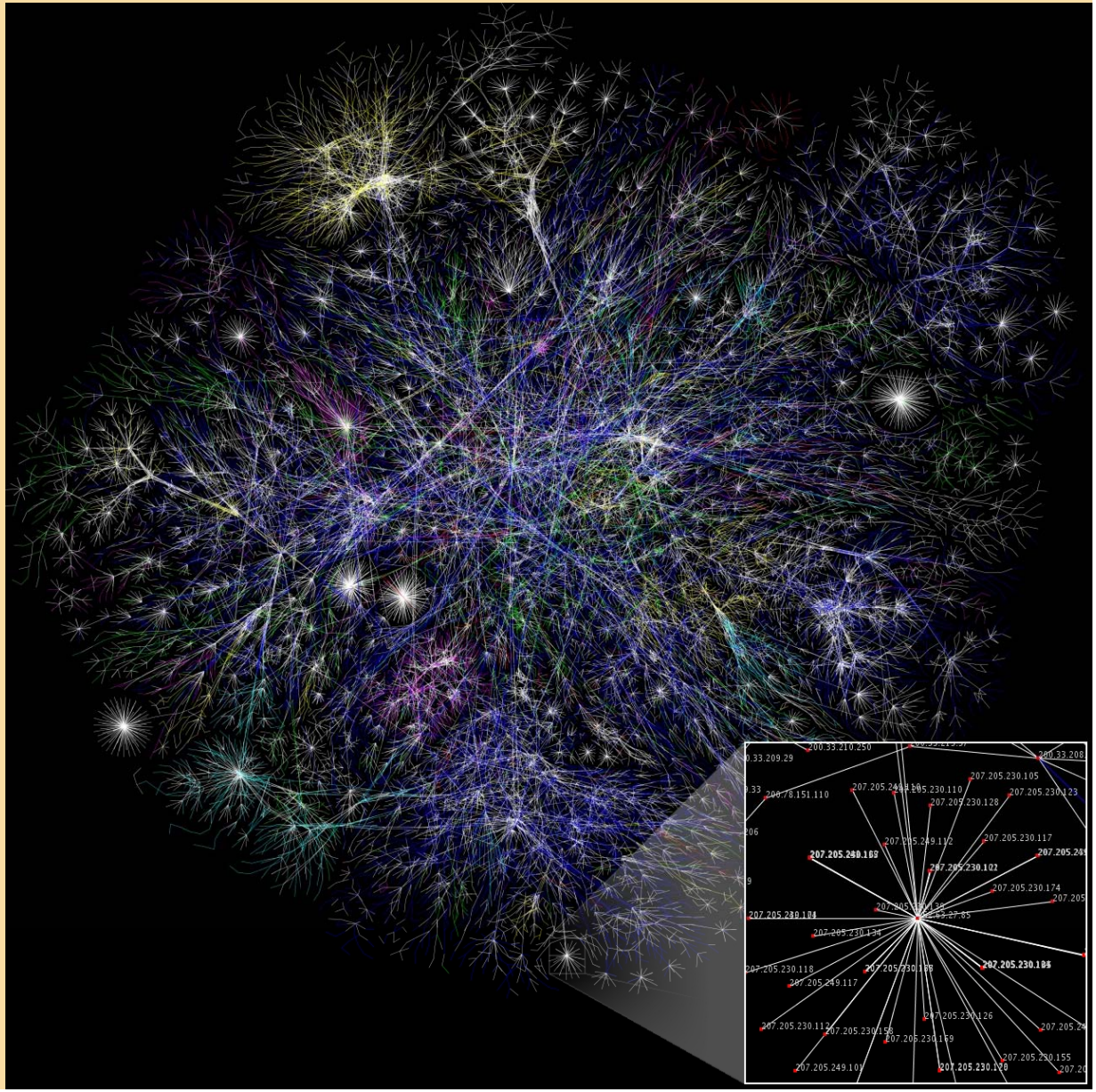
Internet Backbone

http://en.wikipedia.org/wiki/Internet_backbone

The **Internet backbone** refers to the main "trunk" connections of the Internet. It is made up of a large collection of interconnected commercial, government, academic and other high-capacity data routes and core routers that carry data across the countries, continents and oceans of the world.

The resilience of the Internet is due to its core architectural feature of storing as little as possible network state in the network elements and rather relying on the endpoints of communication to handle most of the processing to ensure data integrity, reliability, and authentication. In addition, the high level of redundancy of today's network links and sophisticated real-time routing protocols provide alternate paths of communications for load balancing and congestion avoidance.



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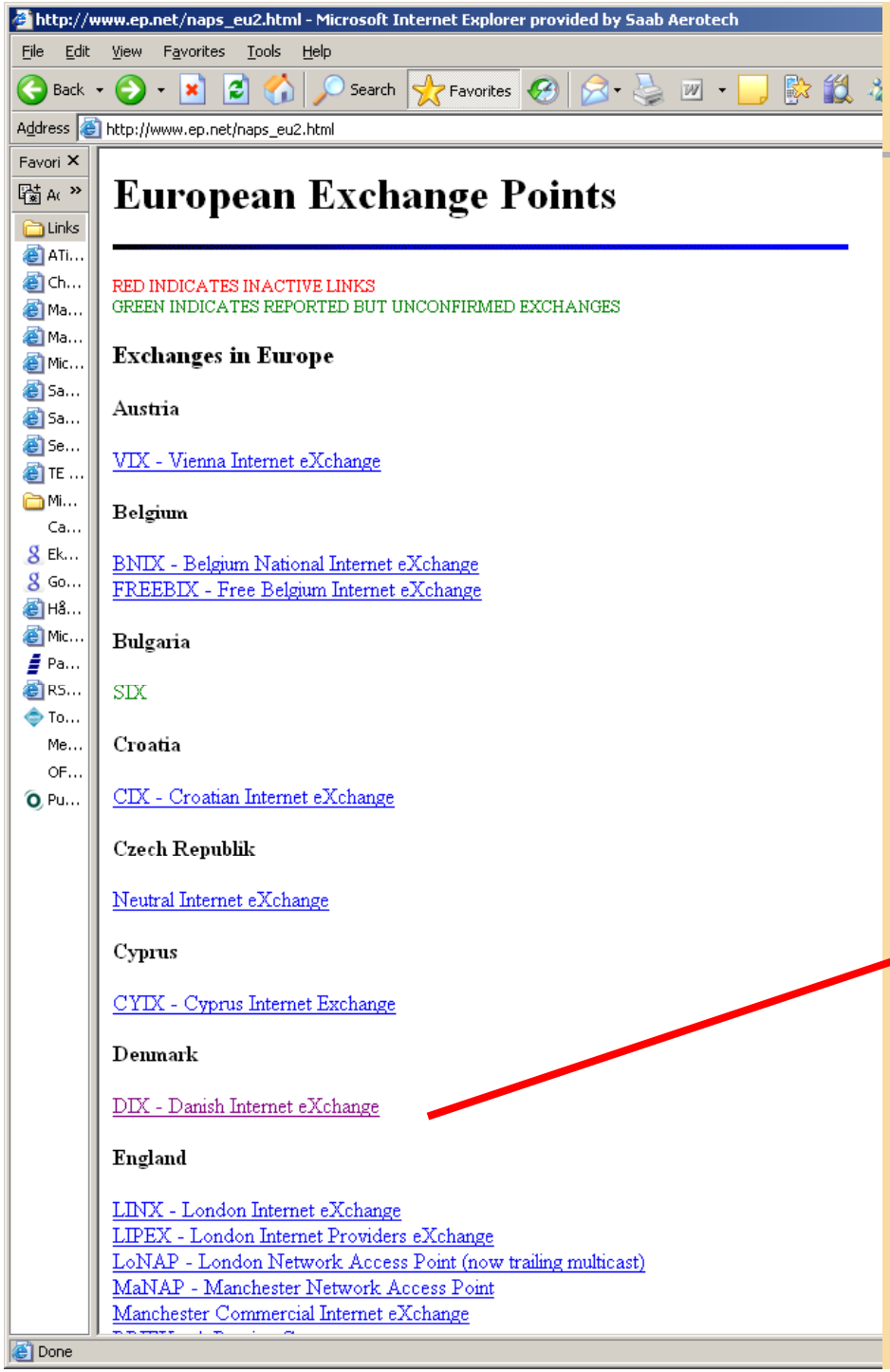
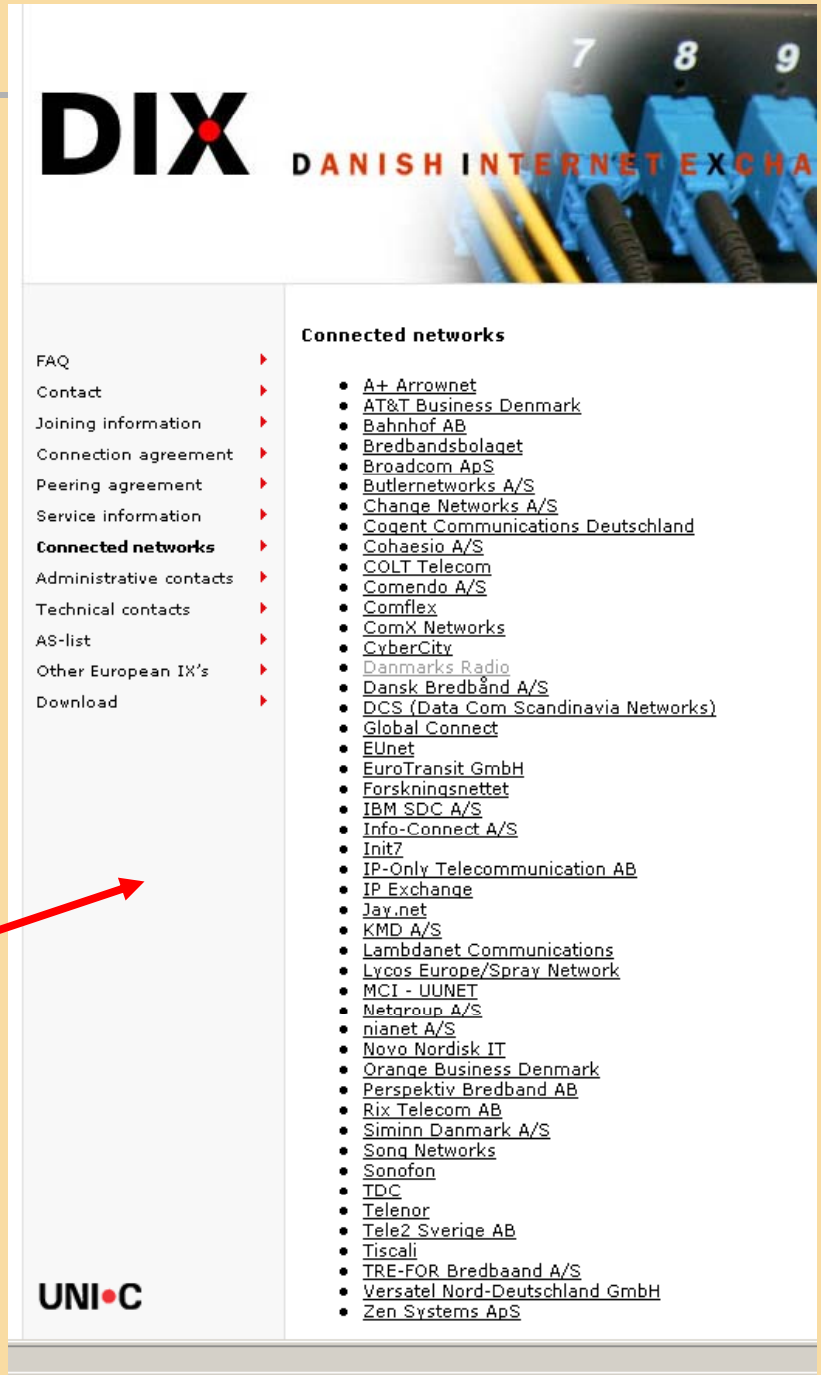
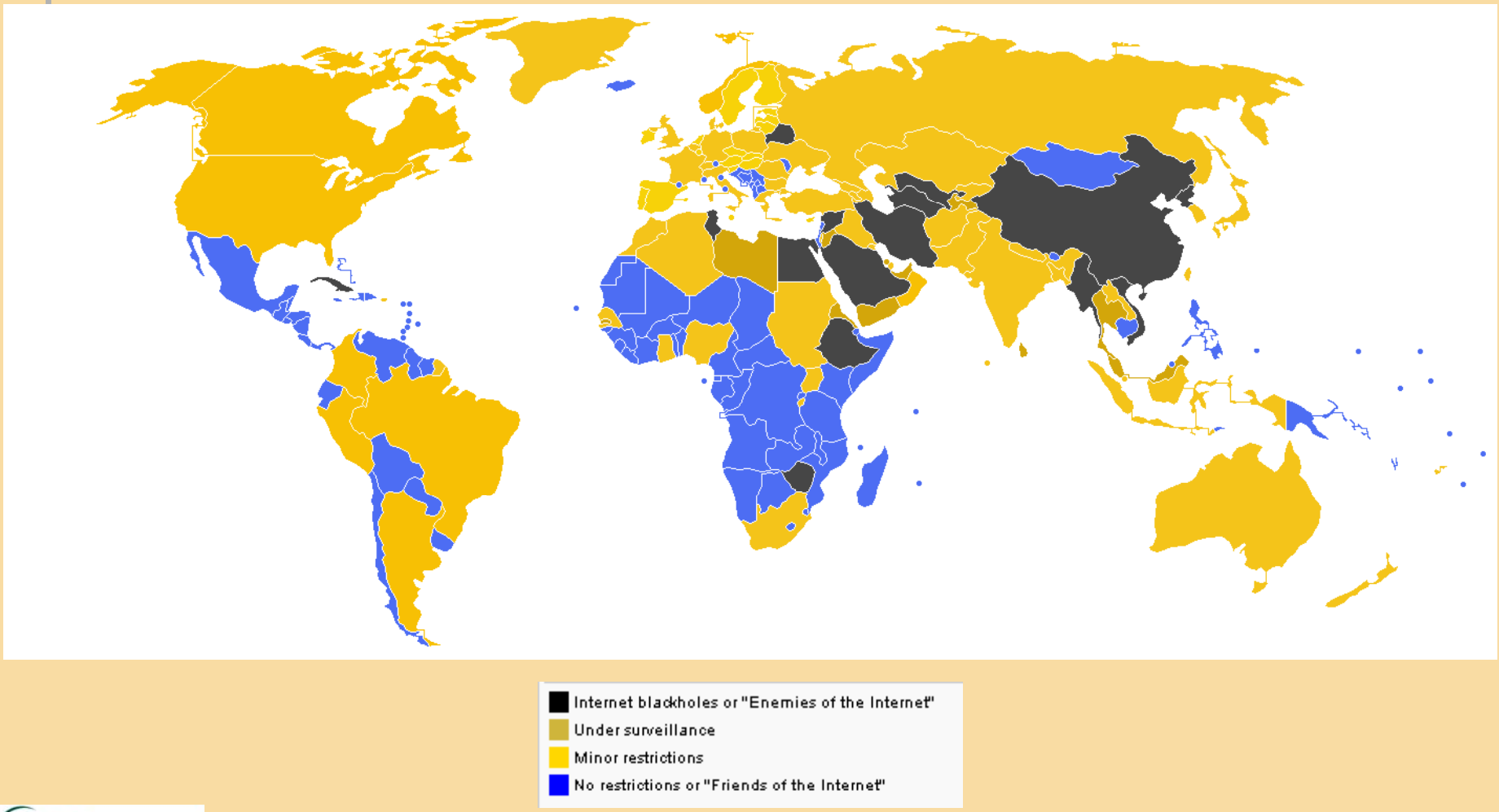


http://www.ep.net/naps_eu2.html



Internet censorship

December 2008



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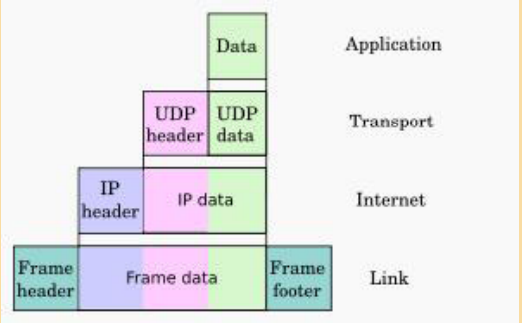
http://en.wikipedia.org/wiki/Internet_censorship

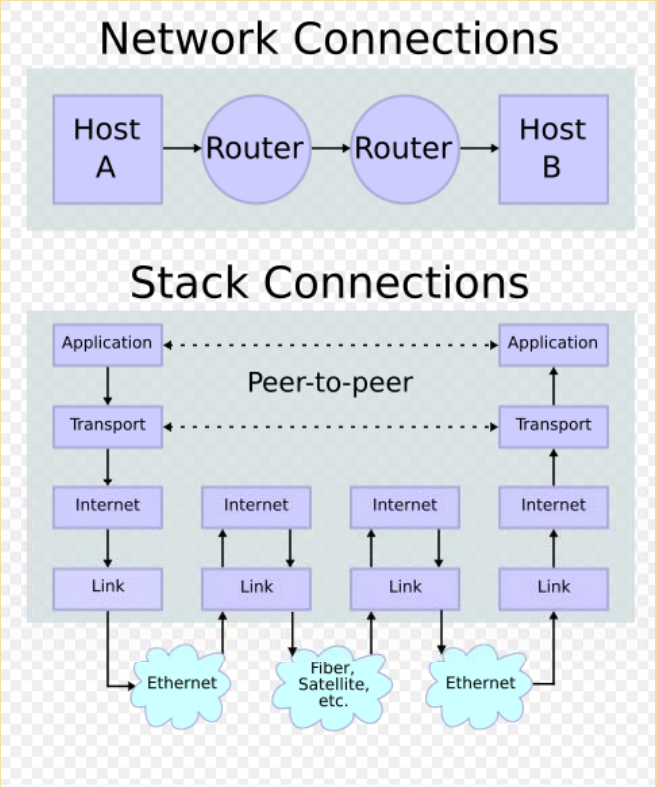
Internet stack and protocols

Encapsulation of application data descending through the protocol stack



The IETF has repeatedly stated that Internet protocol and architecture development is not intended to be OSI-compliant.

Application	DNS, TFTP, TLS/SSL, FTP, Gopher, HTTP, IMAP, IRC, NNTP, POP3, SIP, SMTP, SNMP, SSH, Telnet, Echo, RTP, PNRP, rlogin, ENRP Routing protocols like BGP and RIP which run over TCP/UDP, may also be considered part of the Internet Layer.
Transport	TCP, UDP, DCCP, SCTP, IL, RUDP, RSVP
Internet	IP (IPv4, IPv6) ICMP, IGMP, and ICMPv6 OSPF for IPv4 was initially considered IP layer protocol since it runs per IP-subnet, but has been placed on the Link since RFC 2740.
Link	ARP, RARP, OSPF (IPv4/IPv6), IS-IS, NDP



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Issues (Challenges) (Pros and Cons) when running EDI over Internet

- Multi-purpose network
- Global coverage
- Reliability
- Security
- Cost-effectiveness

Reduced traffic costs
X25: 16 KSEK/year plus volume fee, low for national traffic and high for international traffic
ISDN: 6 KSEK/year (more for X.31) + normal traffic fee nationally and internationally

HW/SW costs
X25 card 10 KSEK, Router 25 KSEK
ISDN: HW modem for one station 0,6 KSEK, Router 12 KSEK

Company usage of Internet
Cost shared with many in a company, EDI/B2B
Exchange very small part of total usage

Adding more partners
Adding more partners cheap and easy due to global Internet coverage

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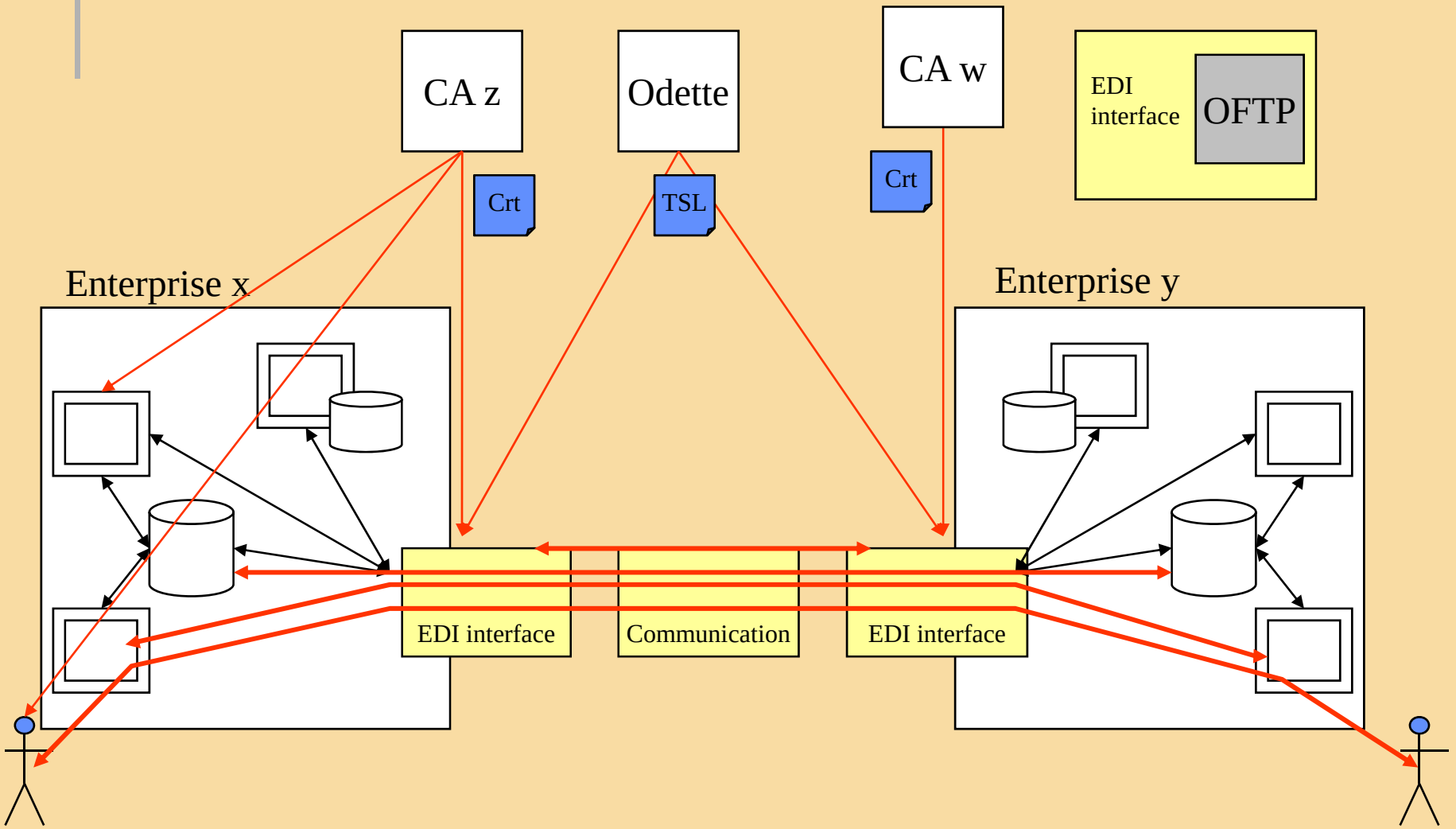
Flow of TSL, Certificates and files in secure communication



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OFTP2 Certificate Policy Version 1.0

Certificate Usage:

OFTP2 application usage for encryption, authentication and integrity.

Certificate Requirements:
Types of certificates

- TLS:
  - One for session authentication and encryption,
- OFTP protocol:
  - One for OFTP authentication (challenge encryption),
  - One for EERP signing,
- File security service (CMS):
  - One for file signature,
  - One for file encryption.

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The role of Odette as a Trust Centre

- Realised by the Odette community, i.e the Central Office and the National Organisations
- Odette has close links to the industry in our countries and can make sure the system is facilitated and maintained to fit exactly to the needs of the automotive supply chain.
- Odette is a non-profit organisation and provides the service to members free of charge

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Odette support for EDI

- Odette TSL list
- Odette CA –certificates
- Oscar codes

- Odette knowledge support regarding OFTP x and EDI in automotive

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End

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