

SEMPER

Secure Electronic Marketplace for Europe



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Project overview

1. Project Overview

Project Objectives

Establish an open and generic security architecture for the global marketplace

- ◆ **Define a model of the marketplace**
- ◆ **Specify an architecture and associated services**
- ◆ **Evaluate the architecture and the services**
 - ◆ Develop a prototype
 - ◆ Run realistic trials
 - ◆ Evaluate security and consumer response
- ◆ **Disseminate the results**
 - ◆ Publish architecture and specifications
 - ◆ Contribute to standardisation efforts
- ◆ **Exploit project results**

1. Project Overview

Consortium

Service provision

- Otto Versand
- Eurocom
- Fogra
- Maris

Banking

- Europay
- Commerzbank

Telecom operators

- France Télécom
- KPN Research
- Intracom

Social sciences

- Freiburg Univ.

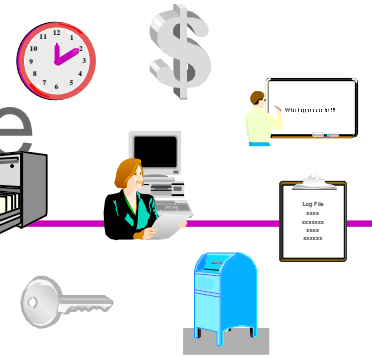
Security engineering

- Cryptomathic
- CWI
- Digicash
- GMD
- IBM
- r³
- SINTEF
- Dortmund Univ.
- Hildesheim Univ.
- Saarbrücken Univ.



Secure Electronic Commerce

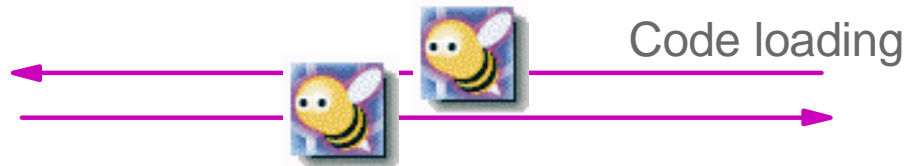
Third Parties



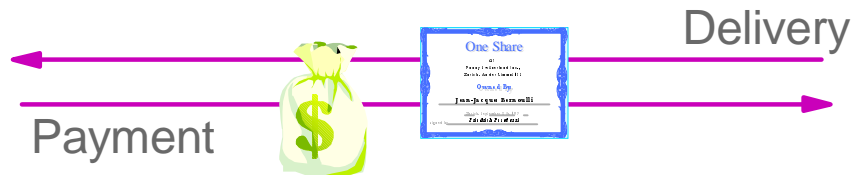
Buyer



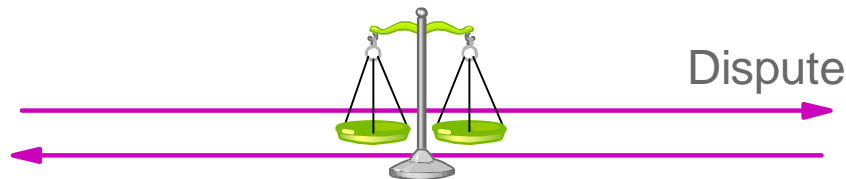
Merchant



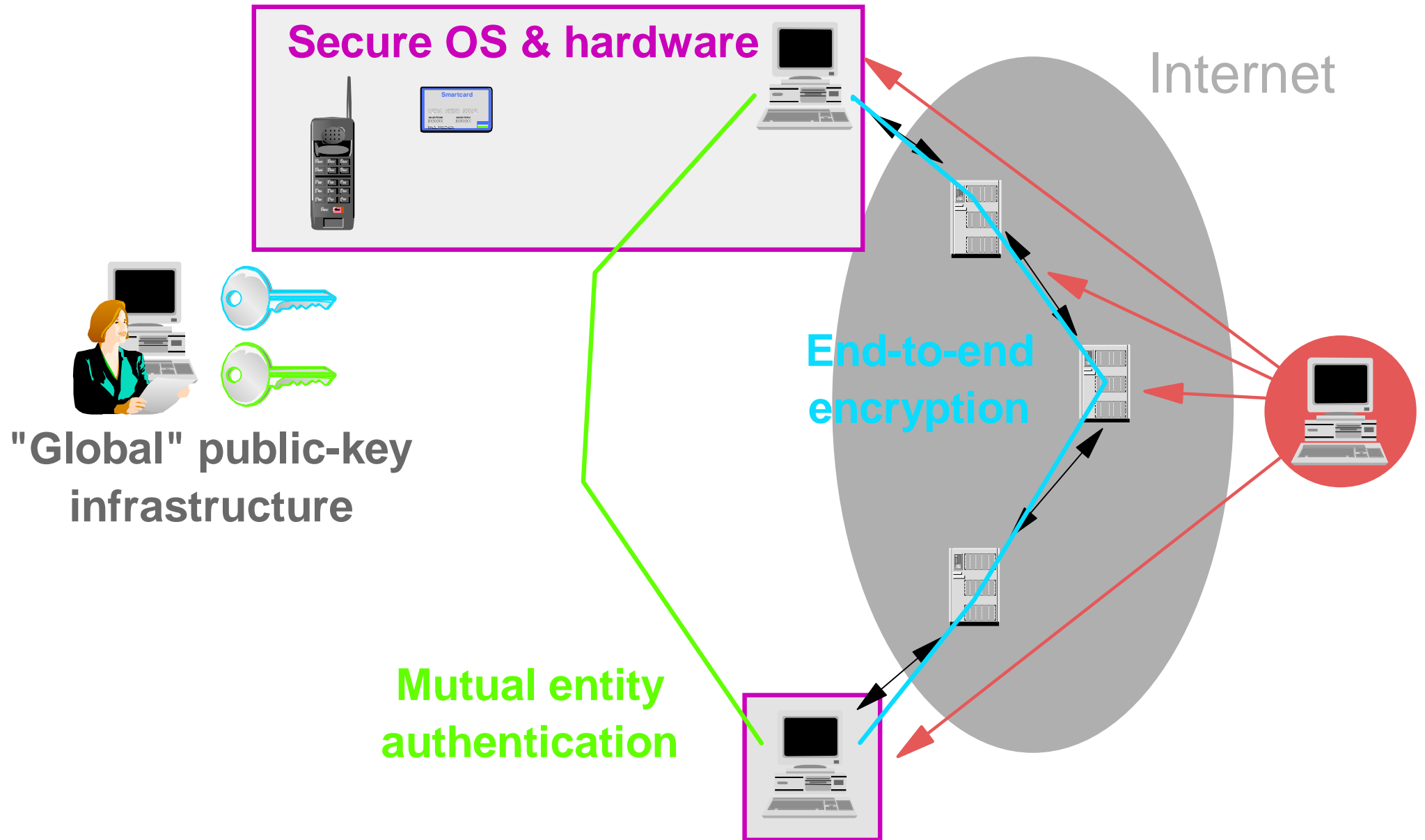
Contract



Payment



Internet Security: Goal

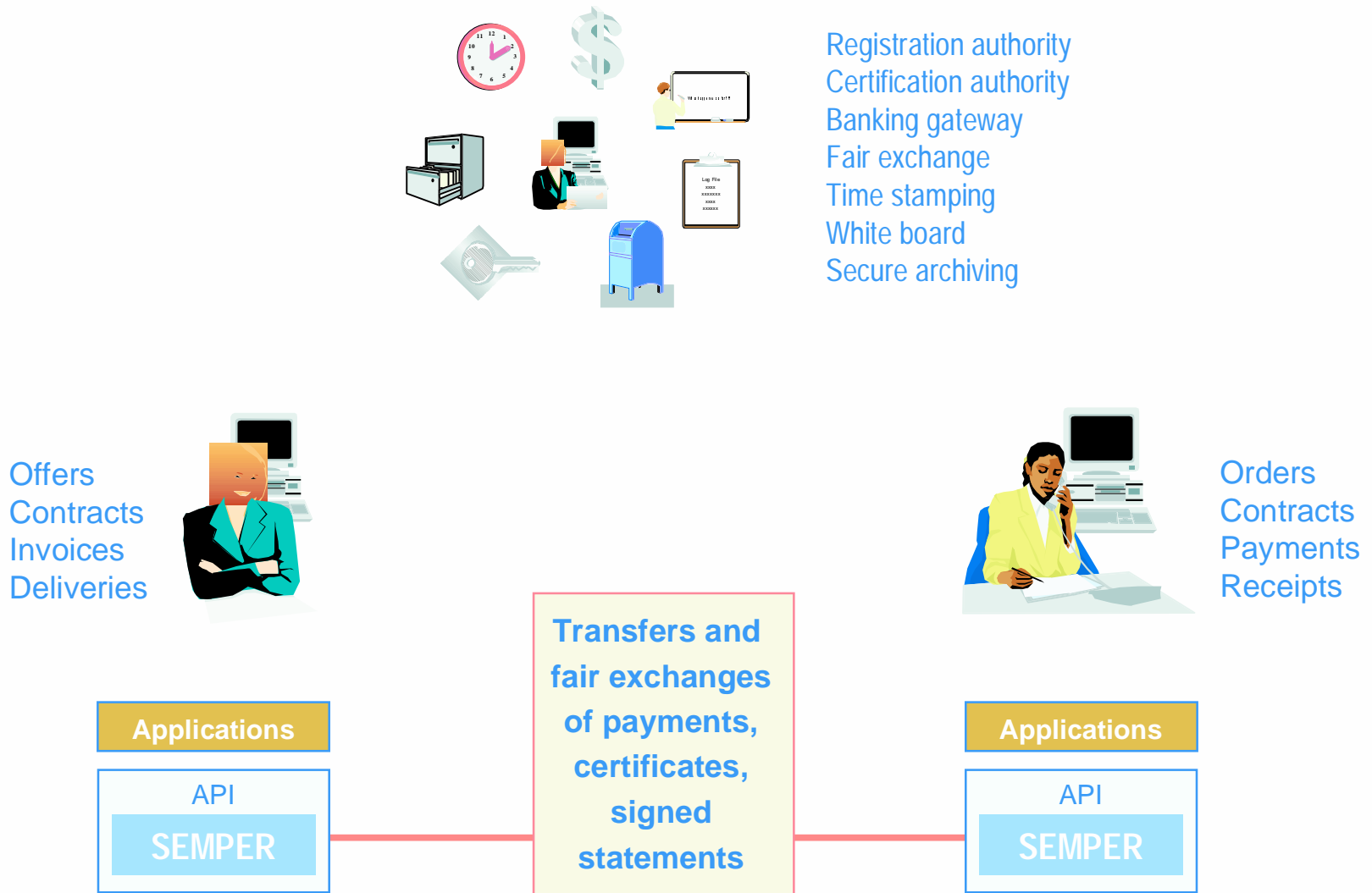


Secure Electronic Commerce

- **More than Secure Communication**
 - Multi-party problems: payments, notarized contract signing, auctioning, copy protection, ...
 - Multi-party security: limited trust in others
 - Processes: Systems must be securely linked, e.g., contract with payment with delivery
- **More than electronic payments**
- **More than just integrity**
 - Privacy and anonymity; availability; accountability
- **More than just a technical question**
 - A lot of open legal questions ...

2. Achievements

Model



2. Achievements

Service Architecture

Commerce Layer

Generic and standard business processes

Transfers & fair exchanges

Documents, fair contract signing, certified mail, etc.

Payments

Certificates

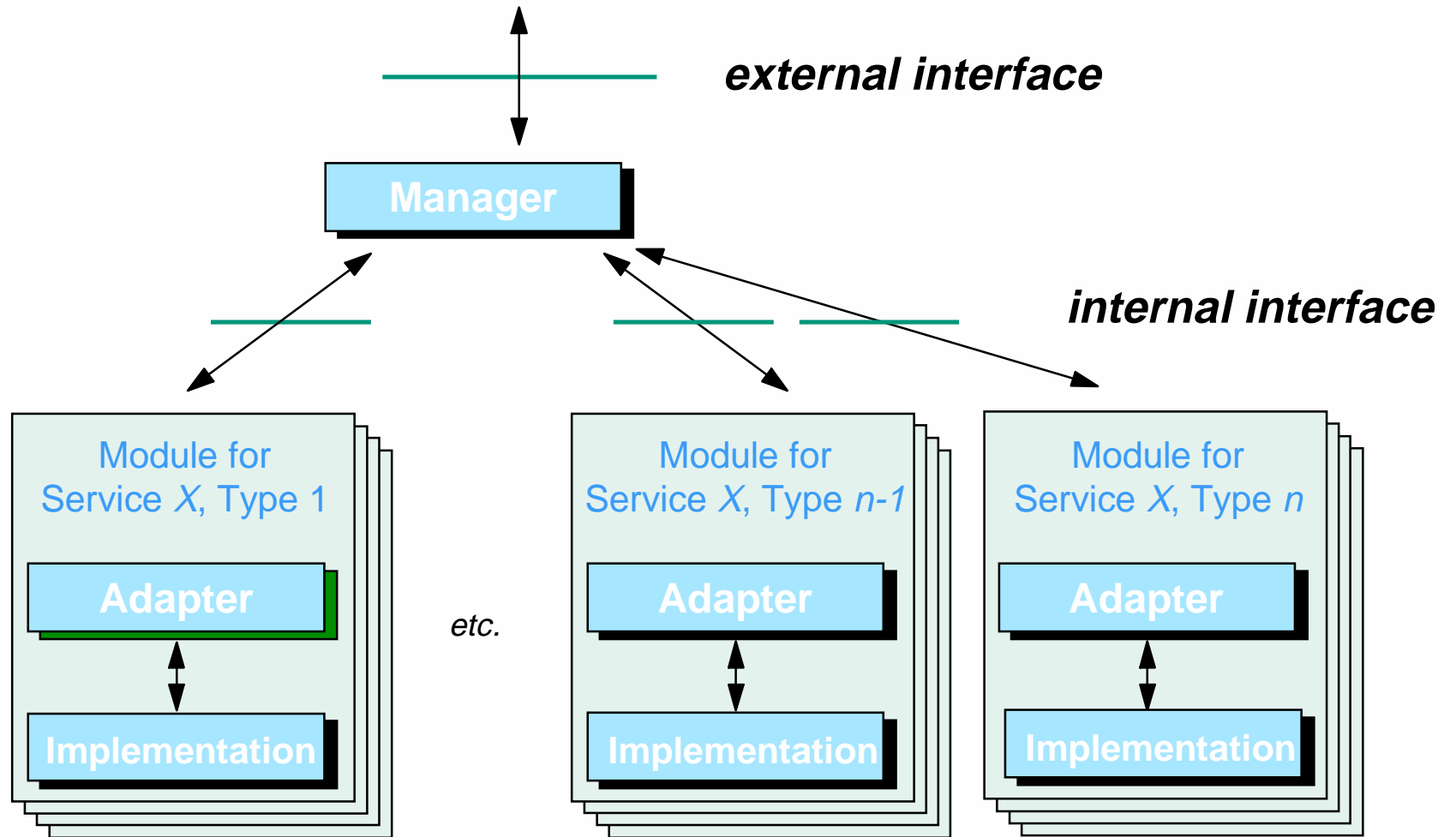
Statements

Supporting services

Communication, crypto engine, trusted user I/O (TINGUIN),
archive, preferences, access control

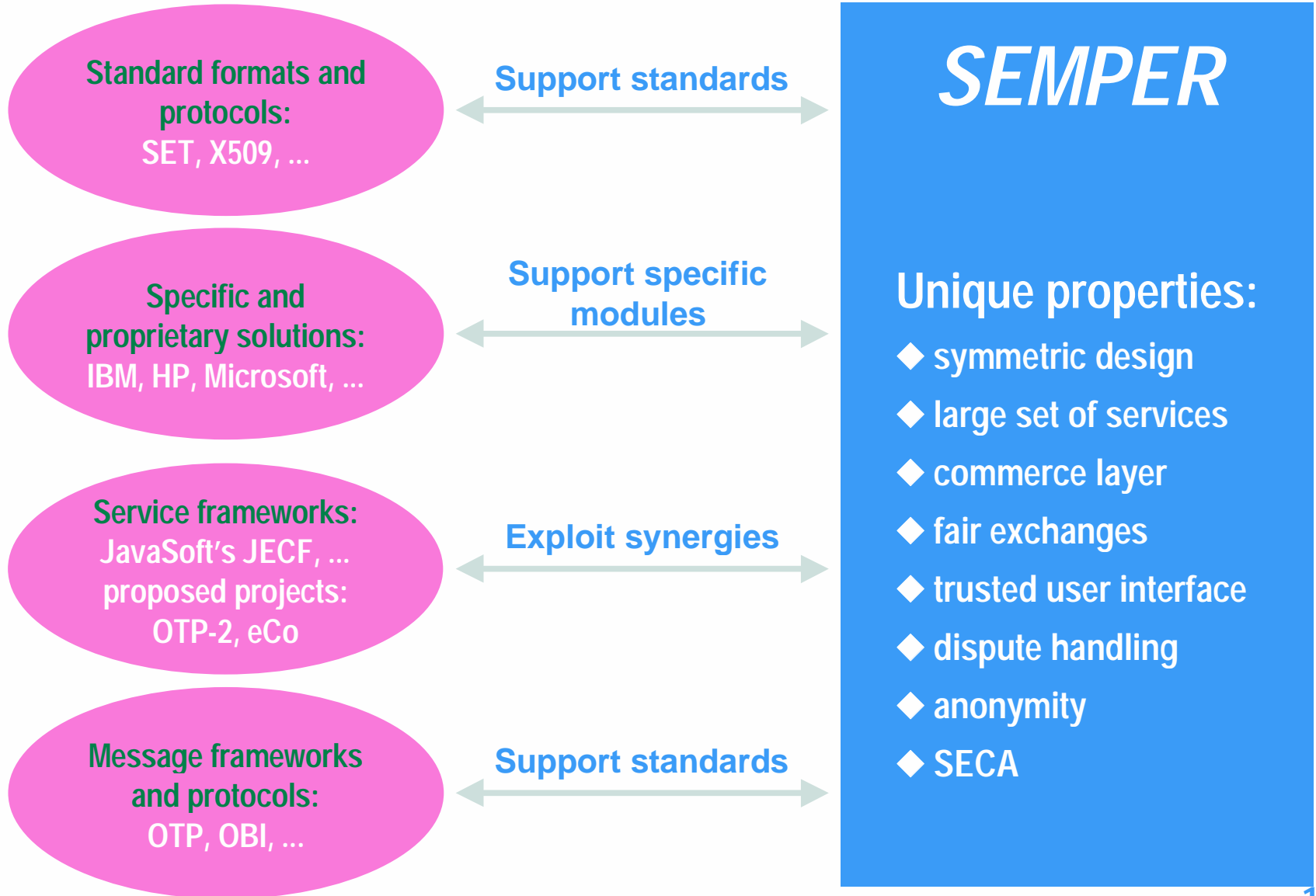
Service Blocks

2. Achievements



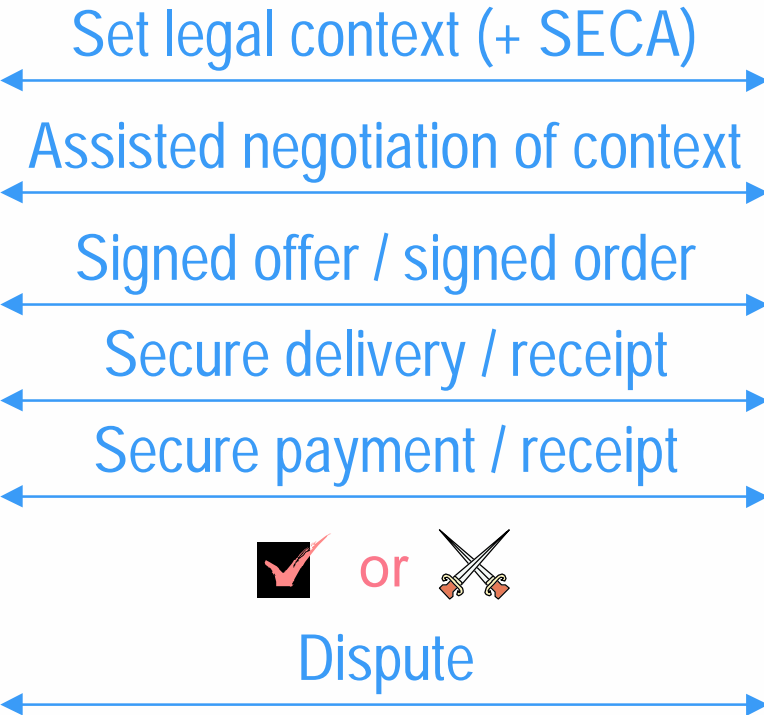
Positioning of SEMPER

3. Future Plans



Internet Bargainer

3. Future Plans



Conclusions

SEMPER:

Blue-print of the Global Secure Marketplace

- ◆ Foundations of secure electronic commerce
- ◆ Strategic contributions towards an agreed e.c. framework
- ◆ A global, open solution with a European implementation