

EHTEL

EUROPEAN HEALTH TELEMATICS ASSOCIATION

Interoperability with Health Cards

State of Affairs and perspectives

INCO-Health - Milan

3 December 2004

State of affairs in interoperability of cards

▶ EU funded projects

- MEDITRAV, NETC@RDS, INCO-HEALTH, I2-HEALTH,
- eEPOCH, GUIDE, INSPIRED, FASME, SMARTCITIES

▶ Other European input

- Action Plan of the European Commission on eHealth,
- Report of the CEN/ISS eHealth Focus Group,
- Draft CEN Workshop Agreement on eAuthentication
- MODINIS studies on patient identification and eID (to be launched)

State of affairs in card deployment

Countrywide smart card deployment for either HISS or eID or both:

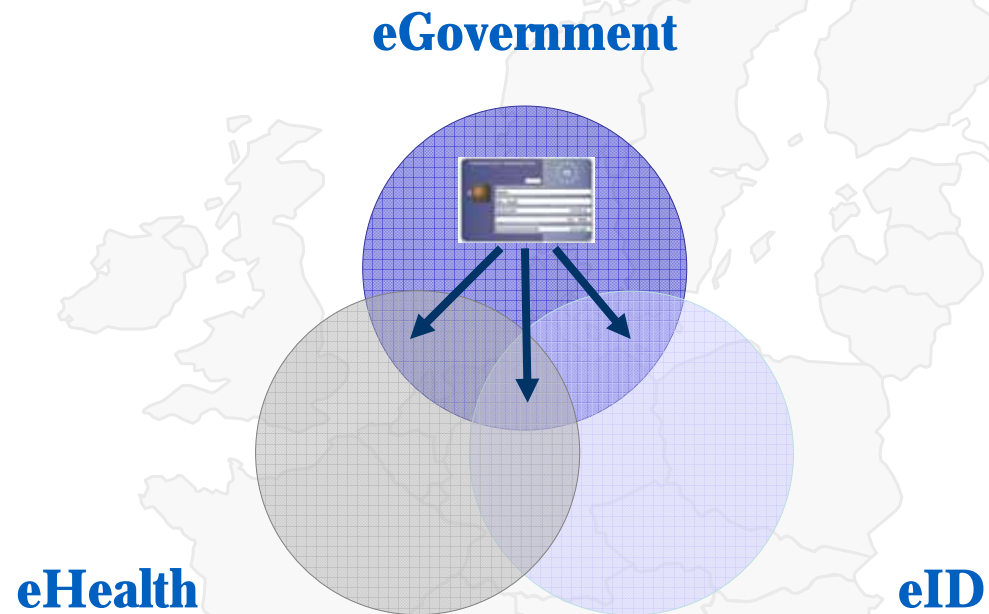
- ▶ 16 countries out of 29 are deploying or have at least agreed upon deployment plans
- ▶ 3 other countries are discussing such a plan
 - PT, UK, CH
- ▶ 7 countries have no plans at all
 - DK, LV, LT, LU, MA, SE, NO
- ▶ 3 countries are still to provide information
 - CY, SK, LI,

Pre-analysis

- ▶ Technical orientations on a set of issues are required first
 - On-card & on-line data
 - Card/reader interoperability
 - Interoperability of communication infrastructure
 - Cross-border access to on-card & on-line personal data

- ▶ Card projects and operational systems provide the necessary input for deciding upon these technical orientations

Case study: eEHIC



Note:

- Health Insurance & Social security (HISS) is part of the eGovernment domain
- EHIC will be deployed in 29 countries, i.e. the EU Member States, the EFTA ones as well as Switzerland

On-card & on-line data

▶ On-card identification data

- See EHIC dataset and a pre-standard ISO/IEC 21549-5
- But there is some key messages
 - Some data, when in electronic format, may be subject to access restrictions in some MS by PIN and/or health professional card
 - Interoperability of patient identifiers seems to be an open issue

▶ Other on-card data

- There are always on-card additional data
- Their interoperability is studied by
 - Netc@rds, for what concerns entitlement data
 - ISO/IEC 21549-3, for what concerns a basic health dataset
 - CWA on eAuth. and subsequent standardisation work, for what concerns eAuthentication

On-card & on-line data ...

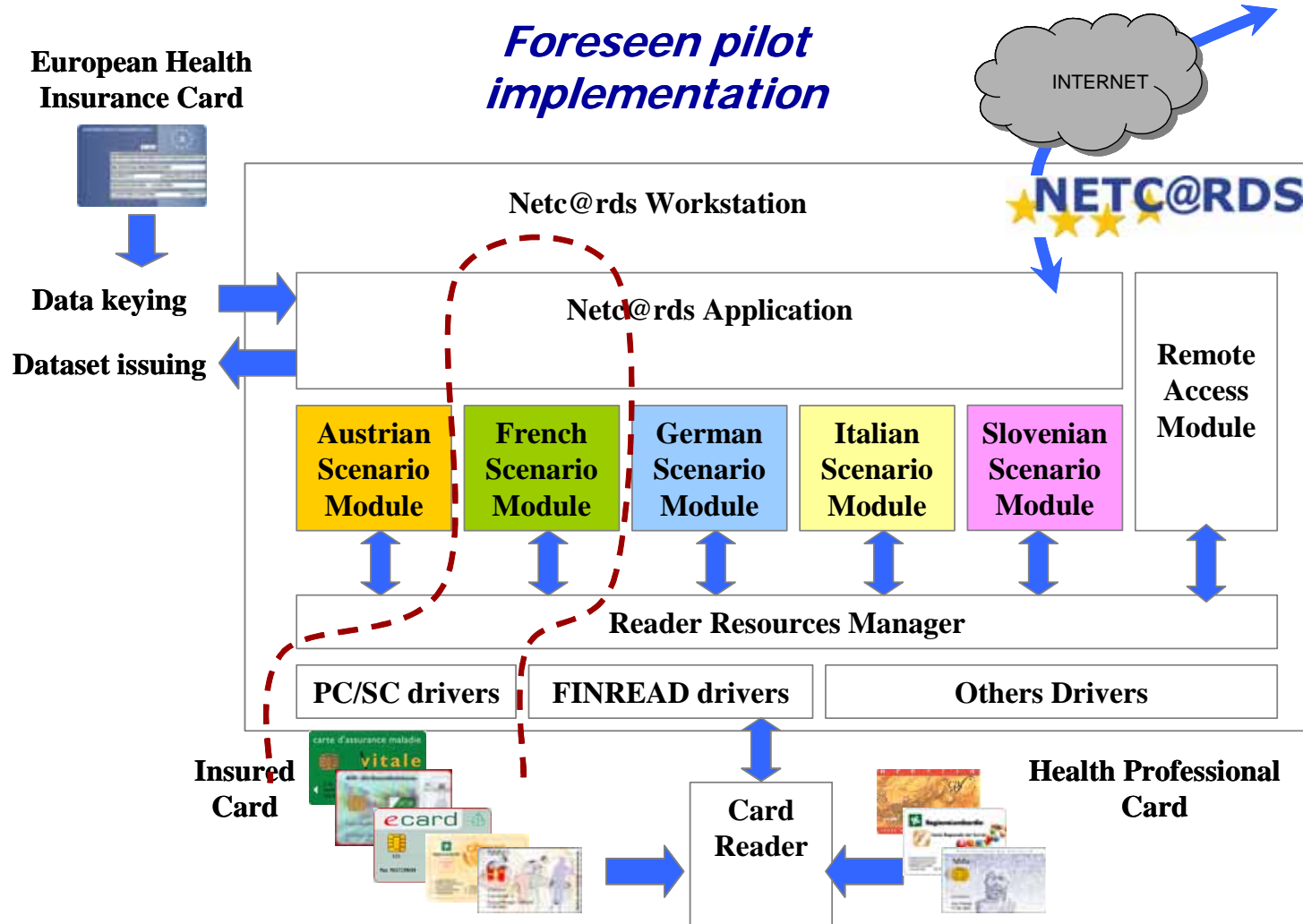
▶ On-line data

- This is a rather new trends to be considered for eEHIC
- To be further studied through an extension of the comparative inventory
- This offers cards with different content to be interoperable by combining on-card and on-line data but this requires
 - The on-line data to be made available
 - Who hold them, under which conditions can they be made available ...
 - Other interoperability problems to be solved
 - Linking mechanism between the card and the on-line data
 - Interoperability of a secure communication infrastructure

Card/reader interoperability

- ▶ Generic interoperability between cards and readers can be solved either
 - By using the same standards for all cards and readers or
 - By using readers which supports cards applying different standards
- ▶ This is not mainly a technical but a financial problem
- ▶ Cross-border application-specific interoperability is studied by projects such as Netc@rds, eEPOCH and Meditrav ...

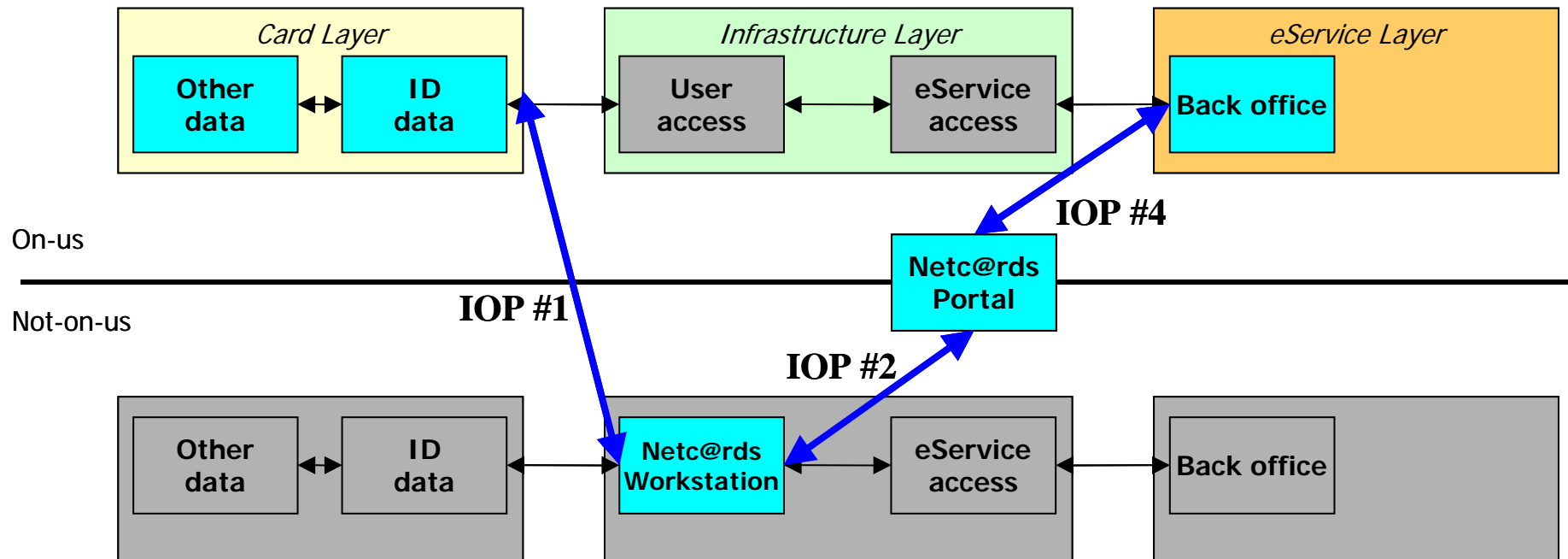
Card/reader interoperability ...



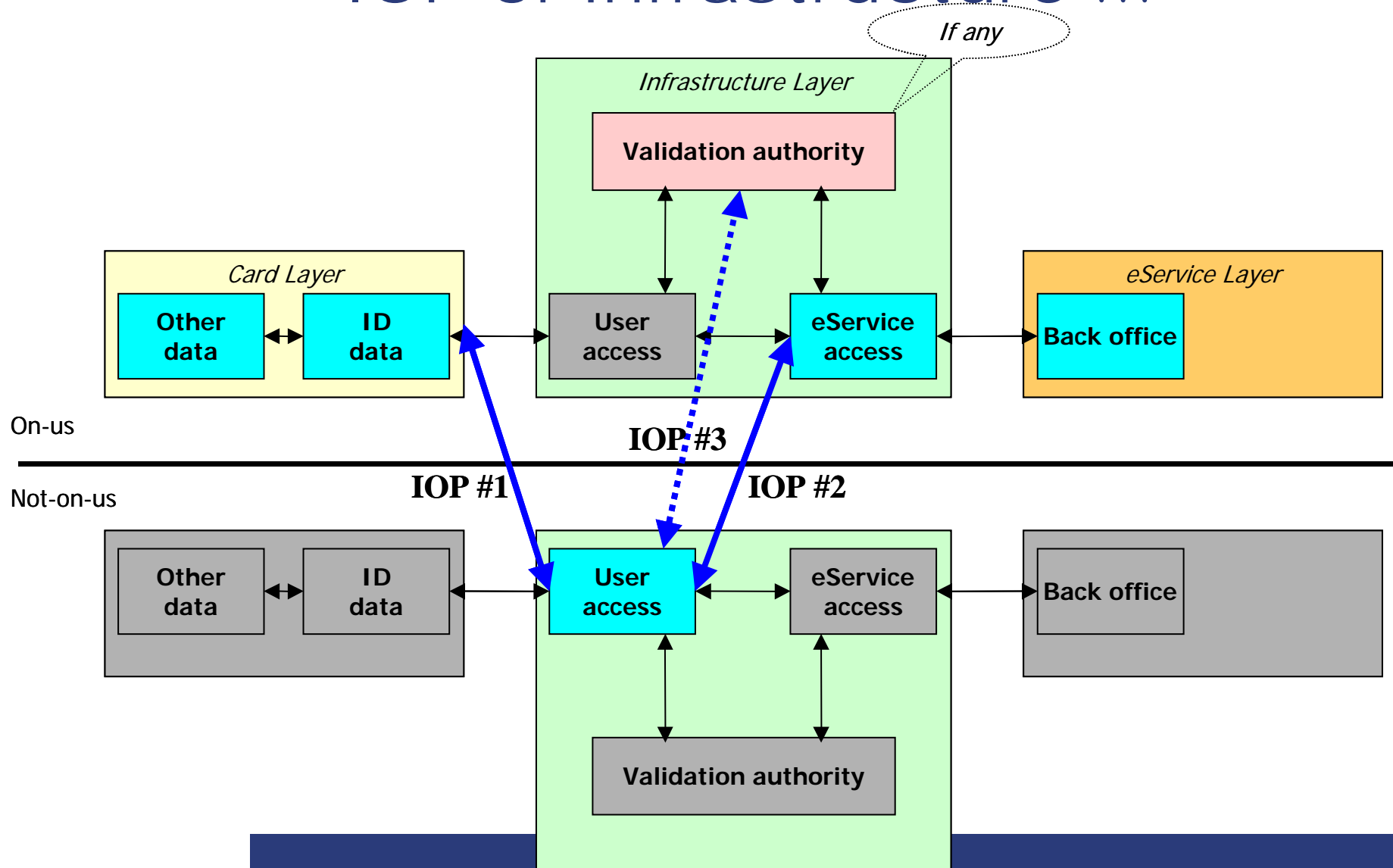
IOP of communication infrastructure

- ▶ The communication network used for connecting readers and back office applications may be
 - A private secure network as in some MS
 - A secure channel through the Internet as in other MS
 - Secure interoperability between private network is achieved by TESTA
- ▶ There is a need for intermediary system(s) between the reader and the back-office application
 - In charge of routing, access control and interoperability problems
 - Implemented centrally or decentrally, under the responsibility of the home or host country
 - This can be cross-border added value services offered by TESTA

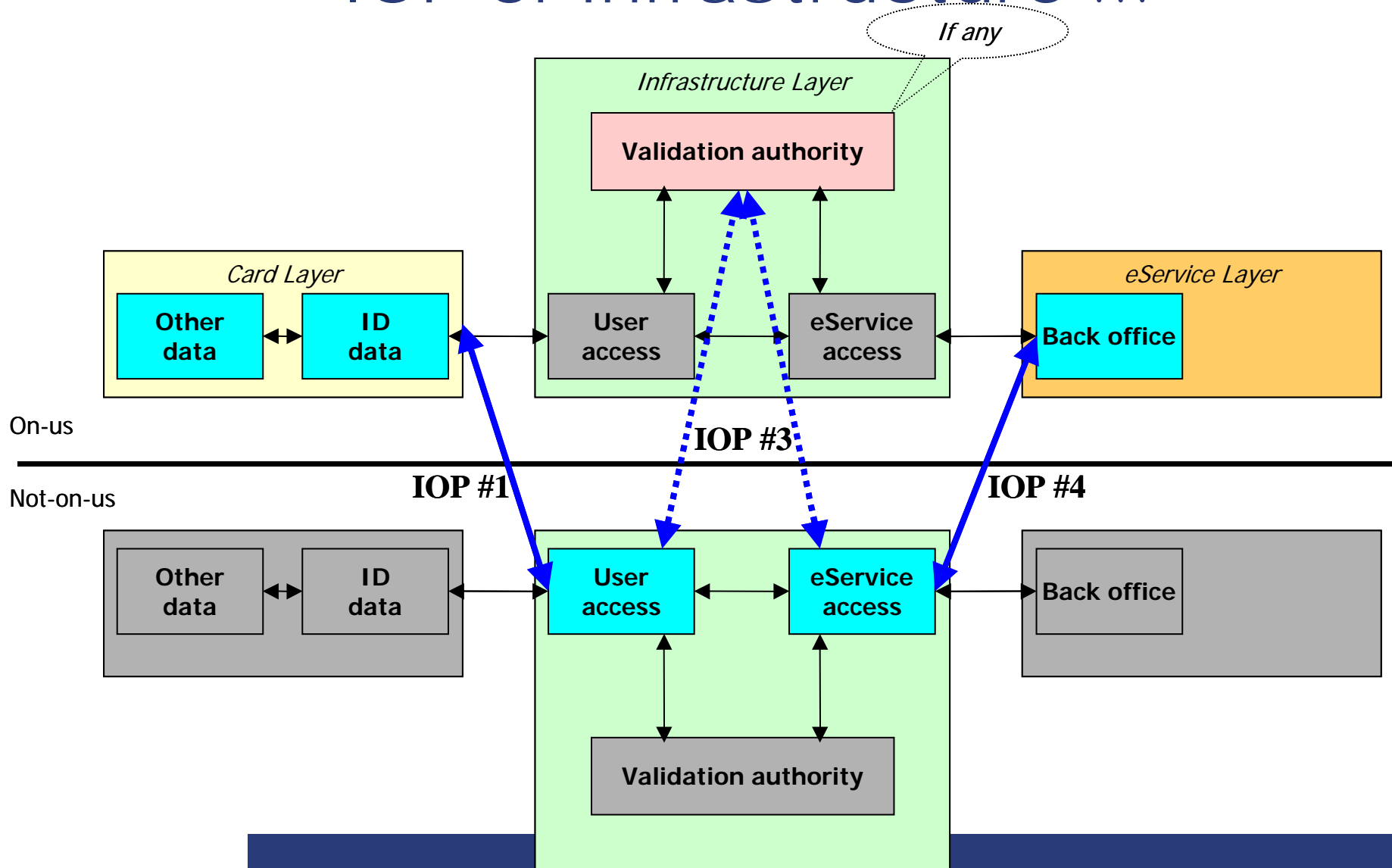
IOP of infrastructure ...



IOP of infrastructure ...



IOP of infrastructure ...



Cross-border access to personal data

- ▶ Security measures aiming at restricting access to some data to only authorised persons may be
 - A PIN code under the sole control of the cardholder
 - The mutual recognition of the patient and health professional cards
 - A strong authentication (PKI-based) mechanism
- ▶ The interoperability problem
 - Some data may be of restricted access in some MS while of open access in others
 - Access restrictions may be subject to different level of security
 - Interoperability agreements are necessary for managing security gaps
- ▶ Technical interoperability for
 - Strong authentication is in progress