IDABC eLink:
Towards a middleware for European administrations

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IDABC eLink
Agenda

1. Introduction
2. The eLink project history
3. Architecture and technology overview

4. The Open Source requirement
5. IDABC eLink and market trends
6. Implementing an eLink infrastructure: options and questions

7. Conclusions

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1. Introduction

- The context: IDA(BC) programmes
  - Goal: identify, support and promote the development and establishment of eGovernment services for public administrations, businesses and citizens.

- What is IDABC eLink?
  - Standard-based message-oriented middleware for A2A application communication. Offering:
    - Reliable and secure message transfer,
    - Synchronous and asynchronous mode of operation
    - Service identification
    - Agreement handling

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2. History

- Origin: Swedish generic specifications for A2A(BC) exchanges.
- 2002: study showed the concept could apply in the European context.
- Pilot project on 2003-2004:
  - Requirements gathering and specifications (2003 Q1-Q2)
  - Decision on which pilots to implement (2003 Q3)
  - Development of the IDA eLink toolkit (2003 Q4-2004 Q1)
  - Pilot running phase (2004 Q2-Q3)
  - Refinement of the eLink specifications and toolkit (2004 Q3)
  - Assessment of the pilot operation and suggestions on the future of IDA eLink (2004 Q4)
- The eLink II Support and Maintenance project in 2005: consultancy, support and toolkit maintenance.

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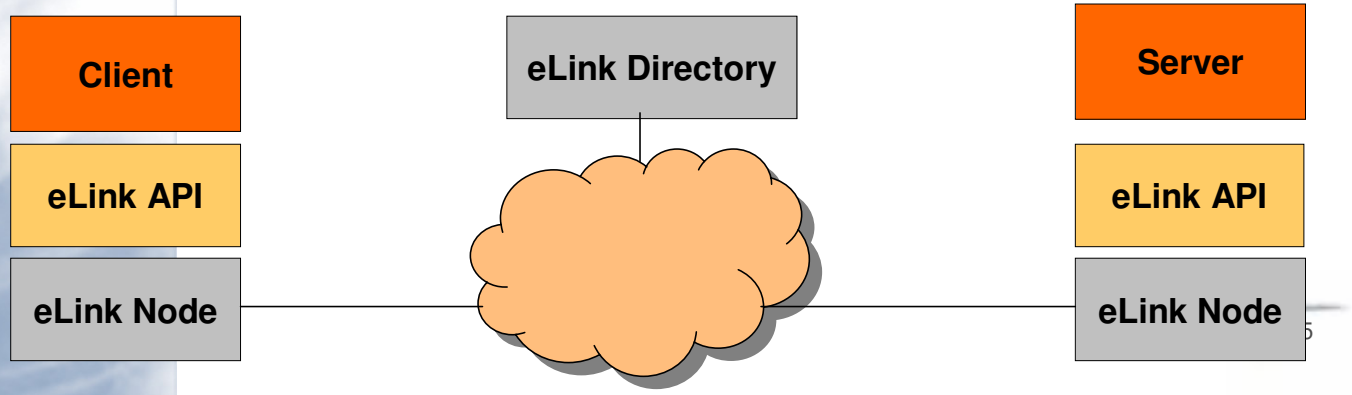
3. Architecture and technology overview

- eLink provides the main following services:
  - Reliable and secure message transfer
  - Synchronous and asynchronous mode of operation
  - Service identification
  - Agreement handling
- eLink is based on:
  - Web Services Architecture
  - XML and SOAP



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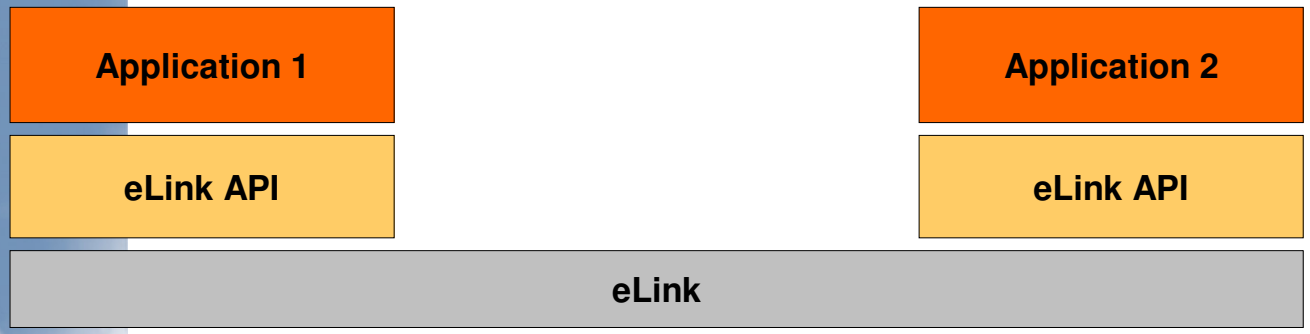
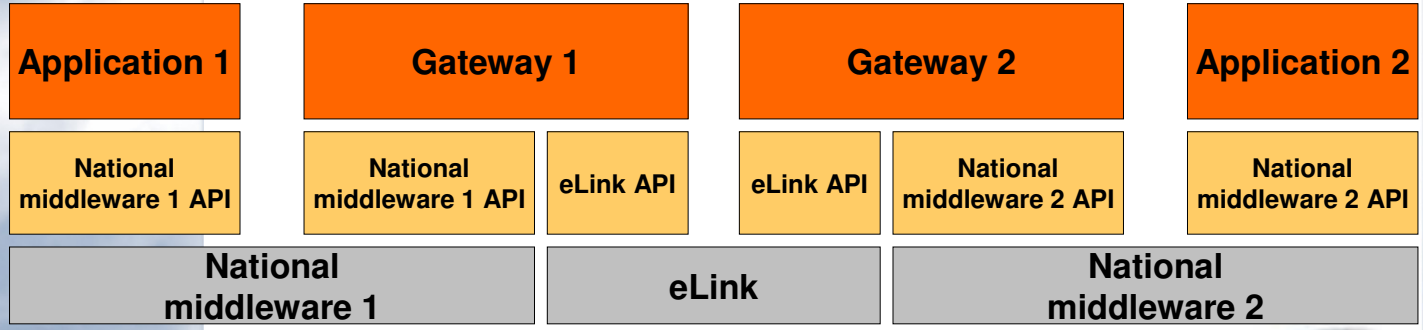
3. Architecture and technology overview



- End-to-end middleware or middleware of middlewares



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4. The Open Source requirement

- Double-sided requirement:
  - Use Open Source components only
  - Under a Open Source license
- Open Source requirement pointed out at project beginning, based on:
  - Policy aspects
  - Financial aspects
  - Legal aspects
  - Organisational aspects

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5. eLink and market trends

- From the beginning: attach eLink standard to industry efforts and re-use OS market products whenever possible.

- Today: eLink and ebMS2 are very close and aim at being generic solutions and application neutral. The functional approach differs:
  - ebMS2 : Only the messaging layer
  - eLink : The messaging layer + High level API

- Tomorrow: towards harmonisation with ebMS2 in the medium term. Retaining maximum compatibility with existing MS middlewares.

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6. Implementation: options & questions

- Operation services spectrum targeting Administrations in EU:
  - Distribution services
    - License, packaging, distribution, tools, documentation, Web site, training, consulting…
  - Maintenance services
    - Preventive and corrective maintenance, Evolutions, Versions,
    - Releases and patch management
    - Technologies and market watch
  - Support services
    - Call center
    - Internet support site
    - Manage the problem reports and change requests
  - Infrastructure operation services
    - Directory Services, Gateways Services
    - Developments / Test / Integration Systems
    - Agreements management
    - PKI infrastructure and certificates management

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6. Implementation: options & questions

- Facing the large operation services spectrum:
  - Which business model to ensure sustainability?
  - How to support eLink adoption?
  - How to integrate Member States initiatives?
  - Making eLink into a standard?

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6. Implementation: options & questions

- Orientations:
  - distribution, maintenance, support and infrastructure run by third party contractor
  - Infrastructure will grow as successive pilots are added

- To support eLink adoption:
  - Core infrastructure costs paid by EC
  - EC Contractor can provide consultancy support to MS to develop GW or adapt applications
  - Gateways development and operation under MS responsability
  - Convergence with ebMS2 and/or standardisation
  - Information and marketing

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6. Implementation: options & questions

- Integration of MS initiatives:
  - Already many exchanges with MS (in particular on existing national middlewares).
  - Importance of information, documentation, training and consultancy
  - Standardisation and/or convergence with ebMS2

- Would making eLink into a standard help?
  - Easier adoption by MS administrations
  - More interest from market to develop implementations of a standard, especially if EU-wide in administrations
  - Time-consuming process

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6. Implementation: options & questions

- Business model:
  - Few elements besides the OS policy and orientations given above
  - observation of national middleware business model solutions: OSCI, FAST, SHS, X-road, …
  - Consultancy study to come up with a proposal by 2006 Q3

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7.Conclusions

- IDABC project at crossroads now with many pending questions on how to implement and operate an eLink infrastructure.
- Clearer picture expected by 2006 Q3
- MS willingness to have and use a A2A middleware infrastructure will be the key factor to success.

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- Questions & Answers

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