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# BPM, SOA and Event Processing Enabling Key Government Processes in Croatia



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# Agenda

- ❑ What is OIB? (our Business Case! 😊)
- ❑ Our SOA Experience
- ❑ How we implemented OIB
- ❑ Project collaboration

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# "OIB" - Our Business Case



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## OIB = PERSONAL IDENTIFICATION NUMBER

- Permanent identification tag for each person in Croatia
- Determinated and assigned by Tax Administration, for:
  - Croatian citizens – by birth/by registration into Register of citizenship
  - Legal entities with headquarters in the Republic of Croatia - by their establishment
  - Foreign persons - at the moment of emergance of the reason for monitoring in the Republic of Croatia
- Determining and assigning of personal identification number without direct cost of those being awarded

## OIB – reasons for introduction

### Difficulties in administrative and criminal proceedings:

- Data dispersed among large number of government bodies
- unique identification did not exist
- Real-time electronic data interchange not implemented

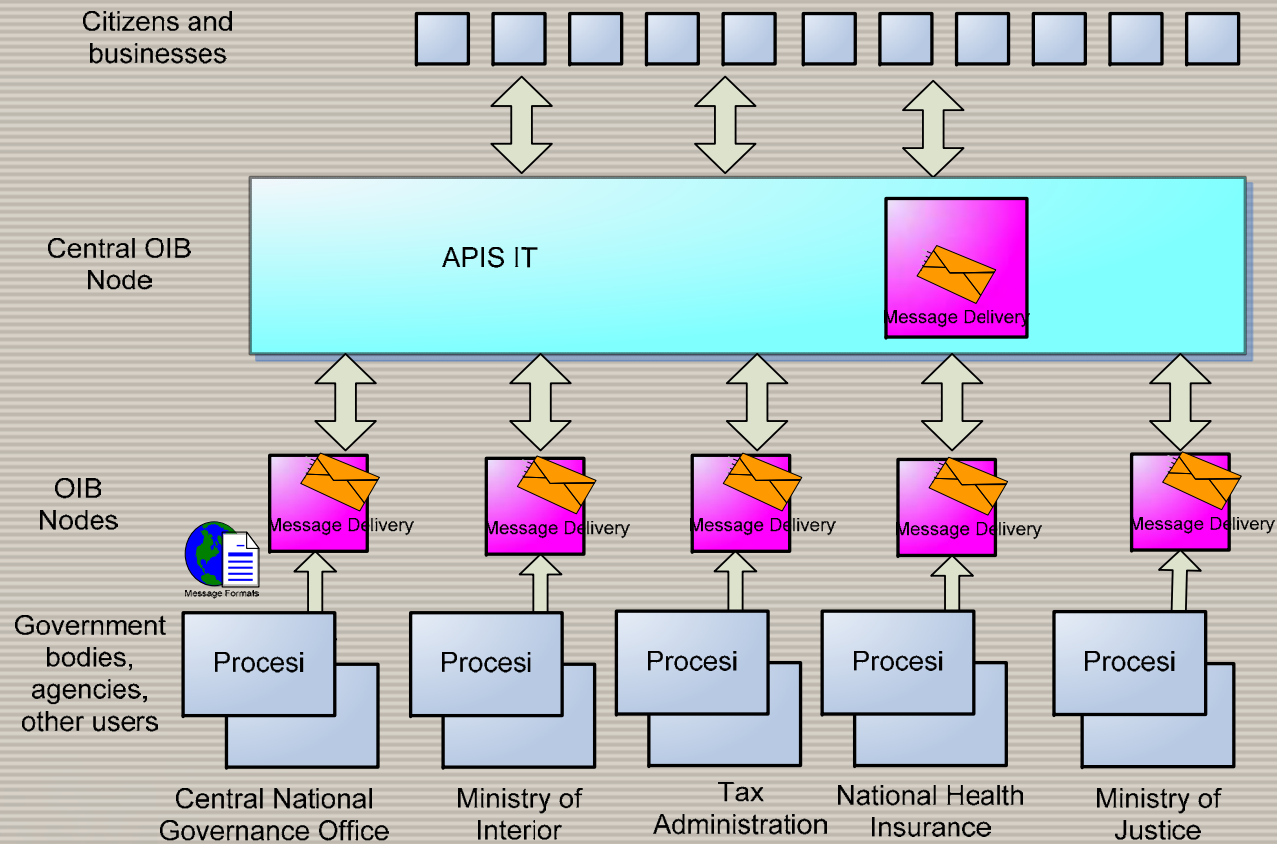
### Consequences:

- Time-consuming and bureaucratic state administration
- Citizens' distrust in the functioning of legal system

## OIB – purpose of introduction

1. Fighting corruption
2. Increasing the efficiency of the tax system
3. Achieving more effective system of social contributions
4. Better functioning of the legal system
5. Harmonizing Croatian tax legislation with EU *acquis communautaire*

# OIB – Public Services



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# SOA in APIS IT



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# Our SOA journey

- Basic (non-functional) requirements
  - Modern and open architecture, modular, flexible and reliable
  - Complete and standardized development process
  - Business process management (modeling and simulation, development, deployment, management)
  - Use of existing IT infrastructure (IBM mainframe)
  - Reuse of legacy business logic (CICS)

# Our SOA journey

- 2004-2006 – introduced RUP
- H2/2006 – decision to begin with preparations for “**The implementation of SOA architecture**” project
- Project started in H1/2007
- Cca 70 people from APIS IT side
- Partners
  - CROZ (IBM Premier Business Partner)
  - IBM Global Technology Services (GTS)

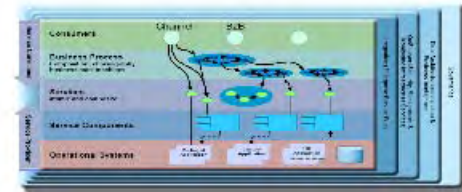
# Our SOA journey

Define SOA Reference Architecture

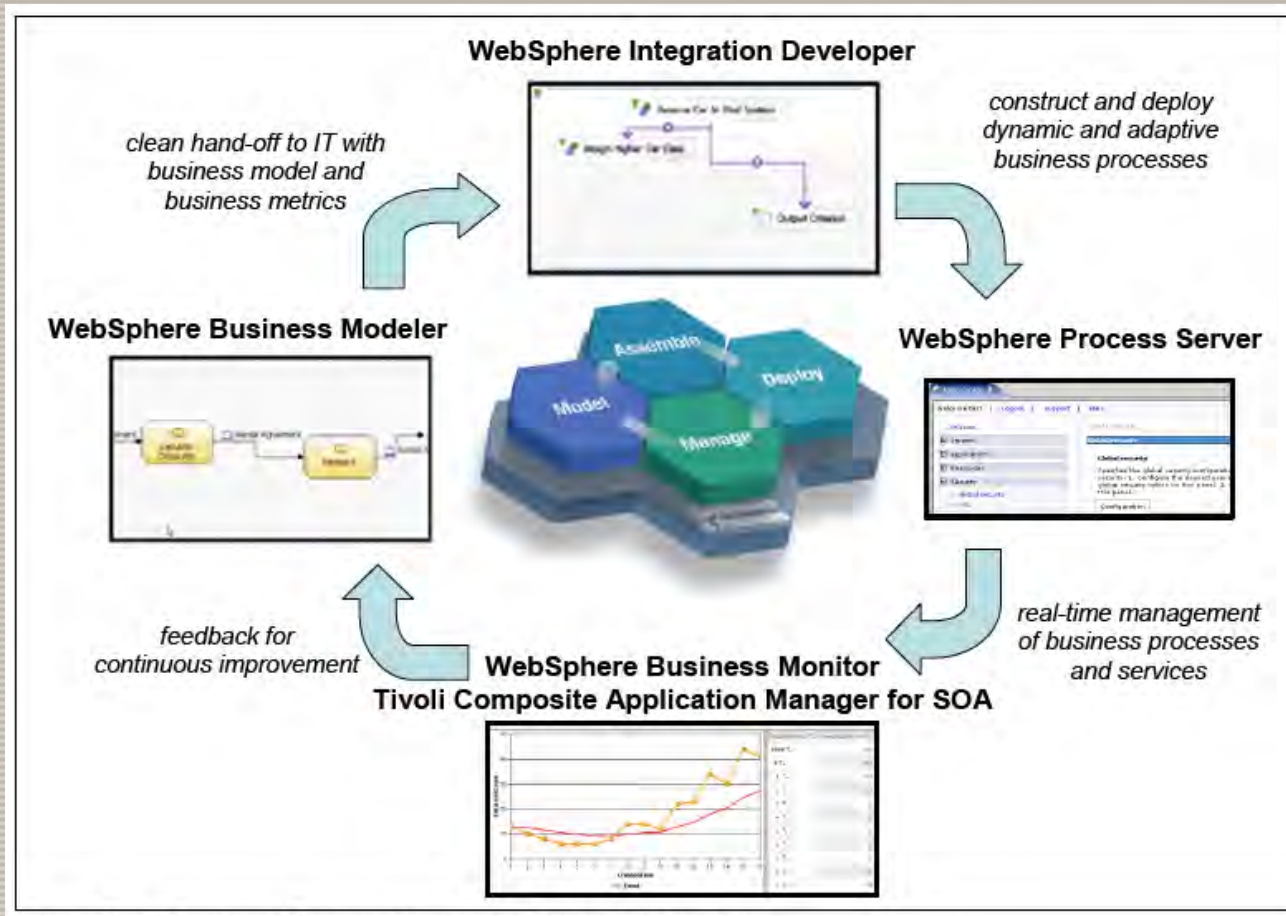
Define and enable SOA Development and Governance standards, organizational models and frameworks

Create and manage SOA runtime environments

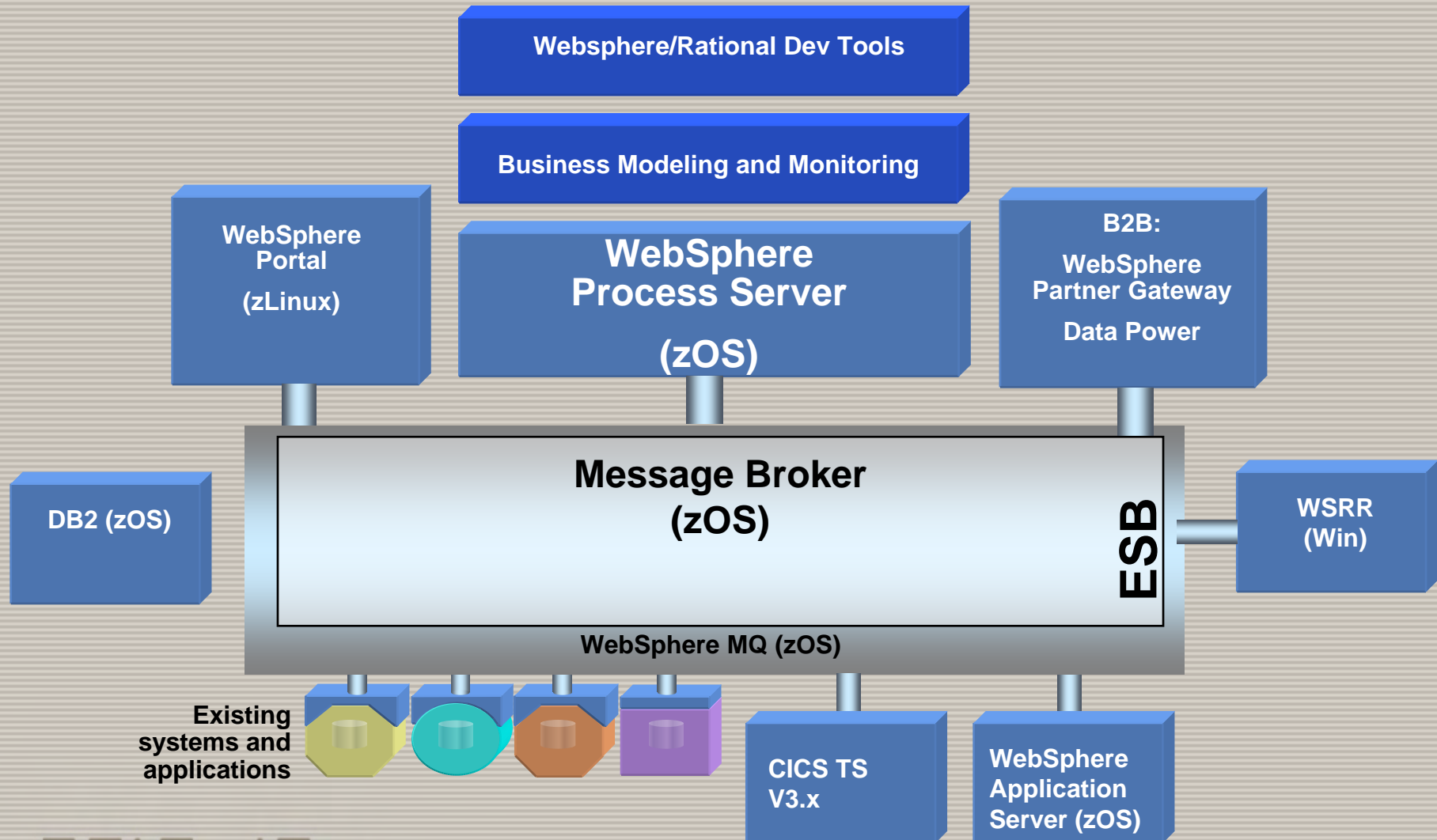
Kick-start the development of major business projects based on SOA principles, architecture and operating environments



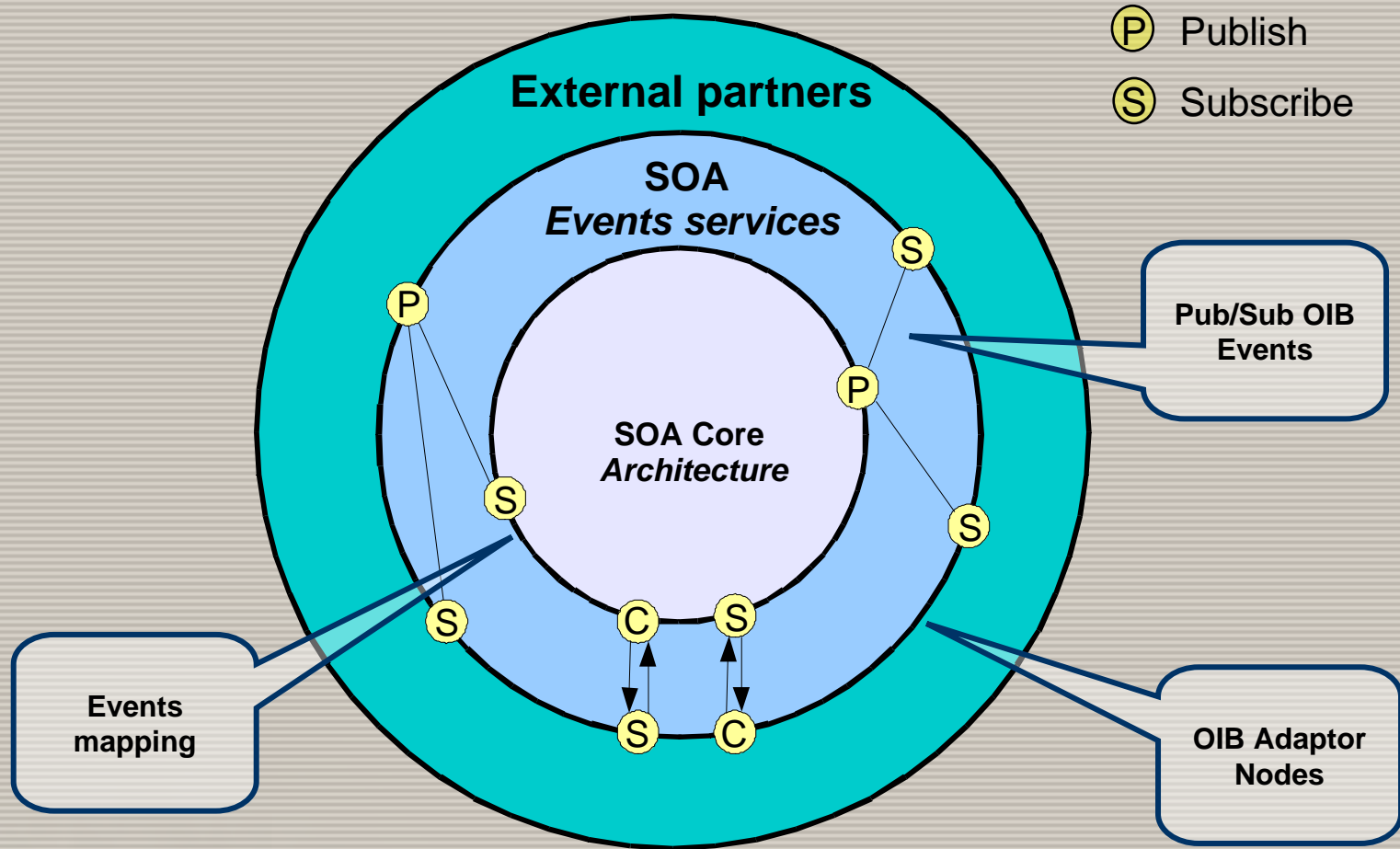
# Our SOA lifecycle



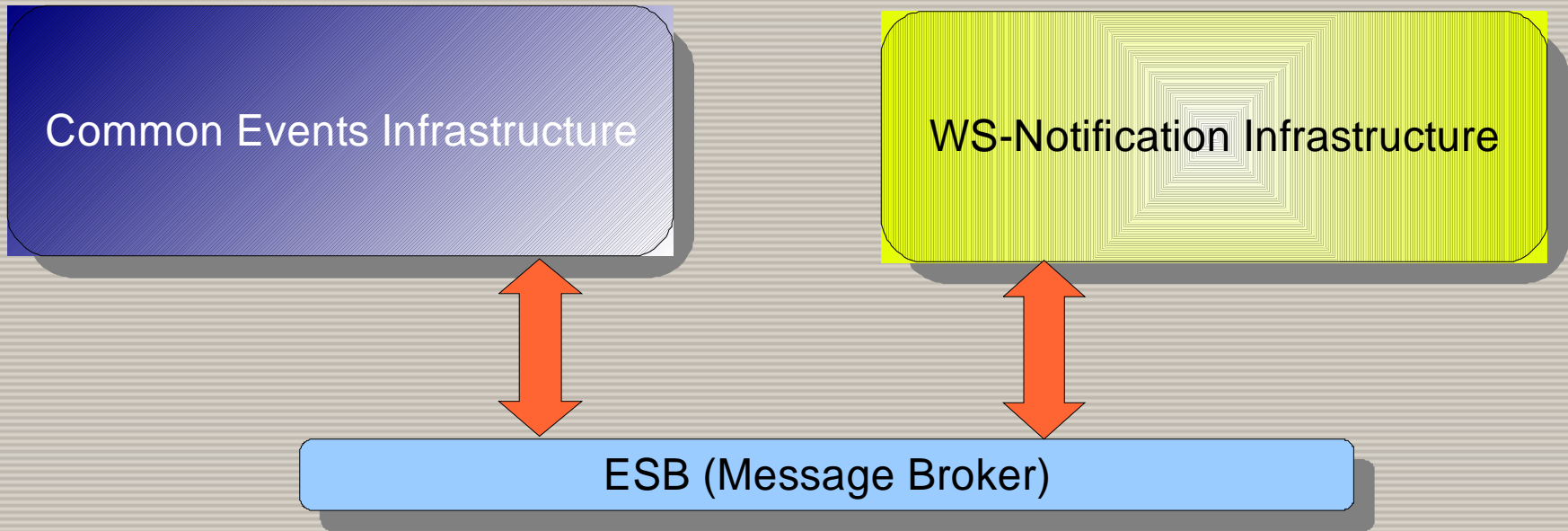
# Our SOA reference architecture



# Building Events services in APIS IT



# SOA events services in APIS IT



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How we implemented OIB?



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# OIB Functional and Nonfunctional Requirements (1)

- Business demands
  - Real-time exchange of data between institutions
  - Real-time notifications for subscribed institutions
  - Real-time business events correlation among institutions
- Integration of different institutions into the OIB system
- Integration with existing APIS IT SOA architecture
- Integration with other national IT systems (Tax and Custom IS)

# OIB Functional and Nonfunctional Requirements (2)

- IT solution should be standardized
  - SOA
  - BPM
  - XML Schema
  - SOAP
  - Web Services Security, HTTPS, VPN
  - Synchronous and Asynchronous models
  - Publish/subscribe models – WS Notification

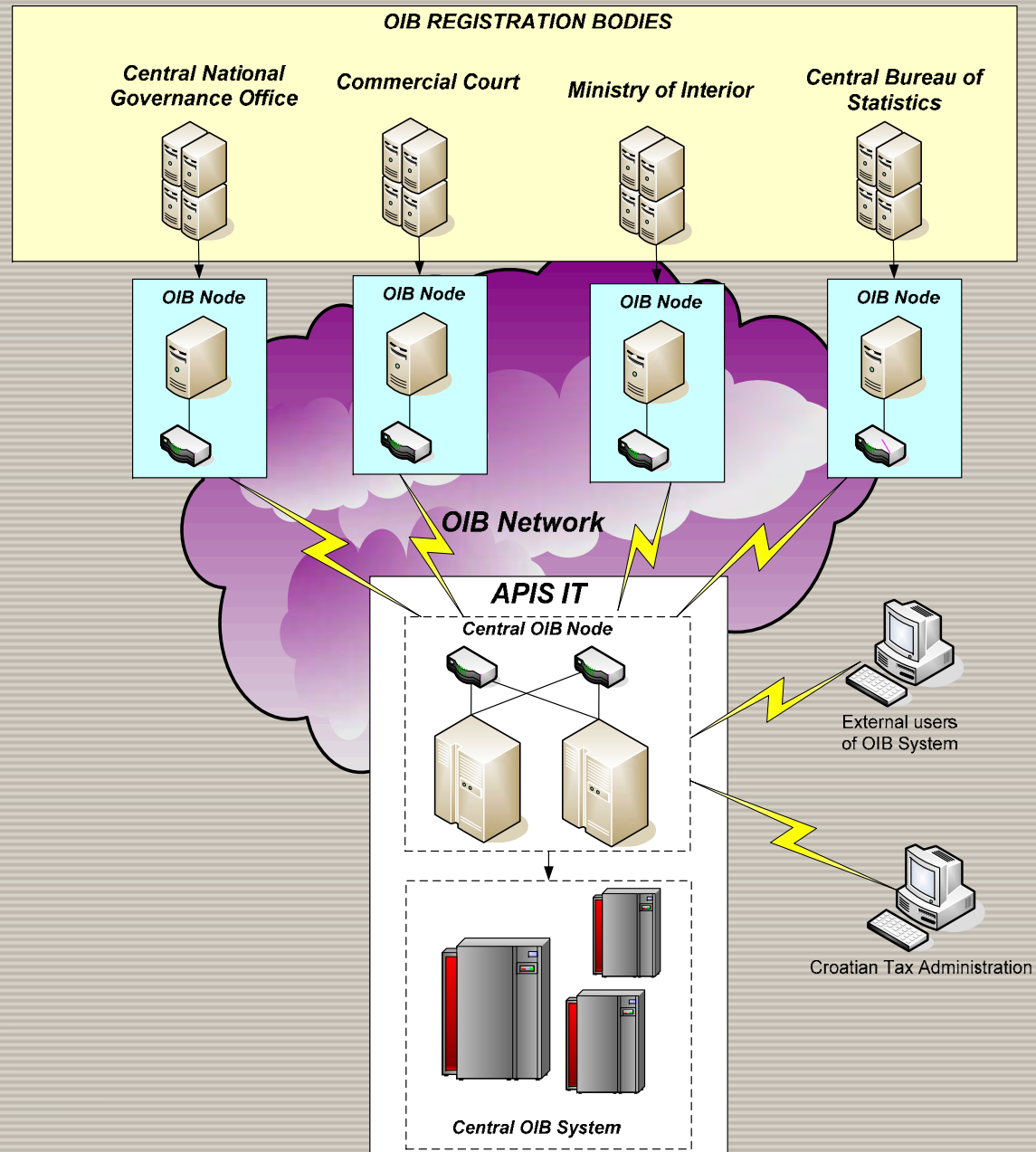
# OIB implementation

- Implementation started in H2/2008 on top of our already stable SOA ecosystem
- Long running processes
- External partners
- Phase 1 and Phase 2
- Risks
  - Short timeframe
  - Procurement
  - External partners – different maturity levels
  - High project visibility – political importance

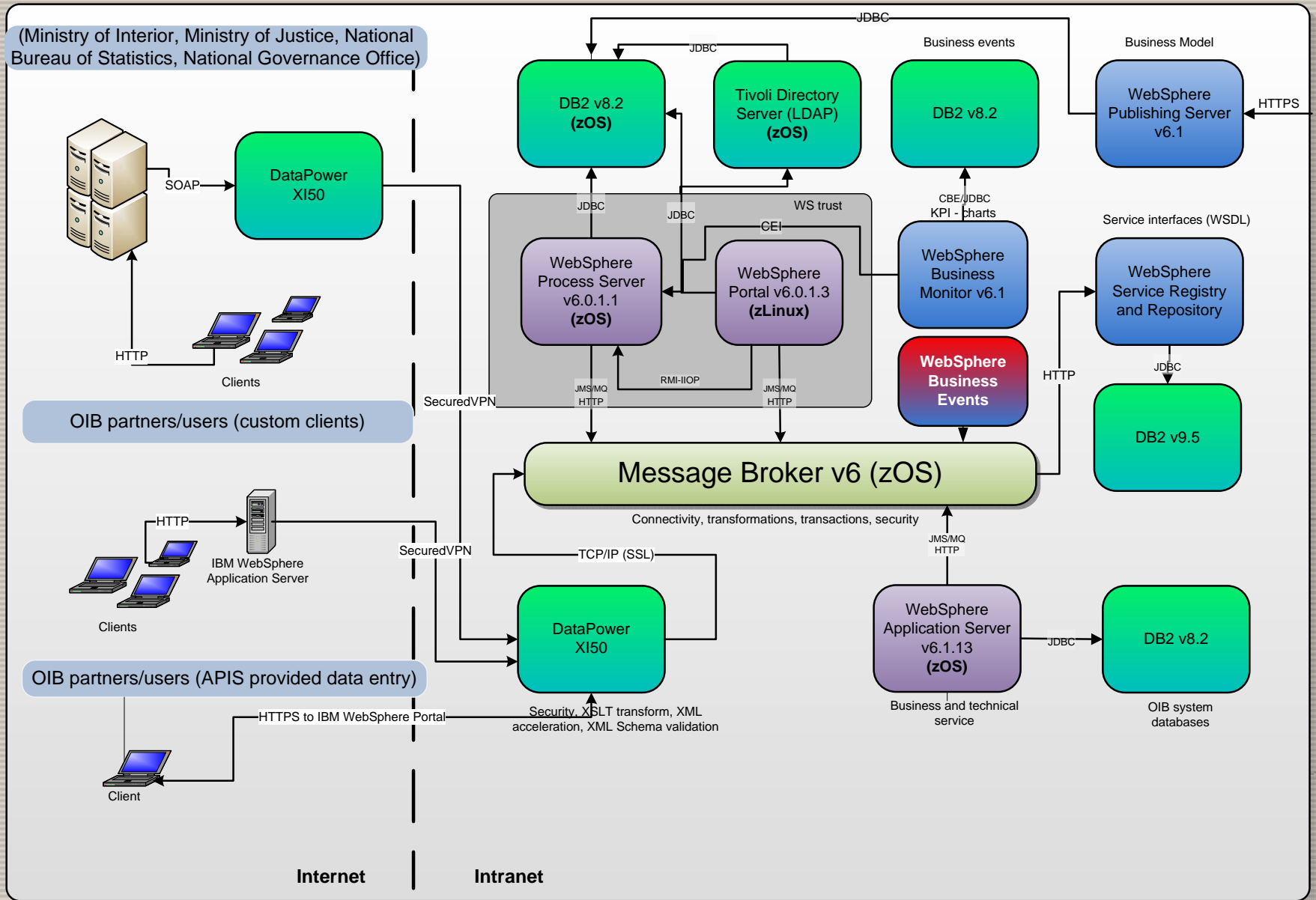
# OIB Phase 1

- Connect the partners
  - Establish infrastructure
  - Establish governance
  - Service desk & support
- Implement basic registration process
- Unify data registers

# OIB Topology (Phase 1)



# OIB product mapping



## OIB Phase 2 – events processing

- Real time notifications
- Real time events processing
- Real time events correlation
- Dashboards
- Connecting more partners (cca 40!)

# Our SOA & OIB Lessons Learned

- SOA is horizontal!
- Many new technologies need to be adopted.
- Organizational structure needs to change
- Enterprise architecture needs to be clearly defined
- Governance needs to evolve right from the beginning
  - SOA Center of Excellence -> SOA Integration Center
- Silos are bad!
  - IBM's Team Solution Design Method