Agenda

- Tax solution @ State of Vaud
- A few workstreams towards SOA
- Lessons learned

Brief positioning for State of Vaud

State of Vaud
- 19 districts
- 381 municipalities
- +650,000 inhabitants

ACE (Cantonal Tax Administration)
- 700 employees
- 22 regional sites
- 380,000 taxpayers (~declarations/year)
- 5 milliards CHF for cantonal tax
State of Vaud: Some Challenges to be solved

- Federal law for harmonization
  - Change in the tax period rule
    - Postnumerando = Tax in only 1 year what use to be done in 2 !

- Automate and rationalize Tax sub-processes
  - VaudTax, offline client for tax declarations
  - Digitize paper based tax déclarations
  - Electronic exchange with eGov partners (Municipalities, AVS, ...)
  - Computer Aided Taxing

**Tax Automation: A Macro Process iterative change**

- 380000 tax declar. fully manually in 2 years
- Same in 1 year via a Rule engine!
  - +200 rules to be checked
- <10% fully automated (initial target 35%)
- Previous+15% semi-automated (<10 minutes)
  - Accepting easy nonconformity (restricted area)
- 30% semi-manual
  - Via Cyber pre-processing new rules
- Previous+30% semi-auto (in target)
- Complex tax auto-routing,
- Quality control

**TAO: Computer Aided Tax**
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Several workstreams towards SOA

- I: Accessing the mainframe as a service
  - Get reference data with authorisations matrix (tax assessment auth.)
  - Get reference data for taxpayer
- II: Consuming data from a service prospective
  - Get tax tables (main ref data)
- III: Civil Registry Update Process from a REST prospective
  - Update PFP/Taxpayer info (pension inquiry)
  - (later) Communication with partners (AVS)
- IV: In/Out document services for Taxations
  - Scan tax declarations
  - Mass printing and storage of documents
  - Documents search

WkS-I: Mainframe interoperability service

Business Case

- Main benefits
  - Reuse security rules for interactive or automated consumers
  - Decoupling from proprietary legacy (transactions)
  - N-tiers evolution
WkS-I: Mainframe interoperability service
Architectural view

- Composites Apps
- Processes
- Services
- Access Middleware

WkS-II: Consuming data from a service prospective
Business Case

- Main benefits
  - Performant access to legacy information
  - Add more QoS
Main benefits
- Resource as a service
- Traceability
- Multi-Formats conversion
- Notification + app. workflow

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From the IT prospective

- Robust and dependable standards choices
  - SSL for integrity and confidentiality
  - HTTP for request transport
  - XML for data transport and XML schémas for lexical + syntactic validation
  - FTP for file transport (between integration and back-ends)
  - JAVA as common technology for development and integration

- Market study and recommendation for a choice (in 2003)
  - WebLogic Integration@IBM

- Follow best practices form architecture group (ATT)
  - Split in independent quarters & isolate with interfaces
  - Loose coupling to ease progressive replacement of legacy
  - Contractualize data schemas
  - Flow modeling
  - Configuration management for all sub-systems
  - Setup multiple environments
    - Dev., Test, Integration, Acceptance, Training, Production, Post-production

From the governance prospective

- It is more about organizational and business
  ... than technical
  - Federal legal change -> Cantonal policies impact -> New processes to be implemented -> New strategic objectives
  - New roles (CyberTaxAssessors, Business architects, Operation architect) & re-adjust responsibilities matrix
  - Corporate Business contract needs flexibility (try to negotiate with 381 municipalities and you'll figure it out !)

- Lots of Training and technology digestion...
  - Pilot first ! Add QoS (indicators) progressively as you tune the process
  - Keep simple what is simple (but machines can't do it all !)

- Success factors
  - Support Change (be inventive for objectives, carriers path, work habits... ! @)
  - Switch from Check-proof everything to productivity based approach
  - Subcontractors motivation (financing guaranteed by Canton de Vaud)
  - Reusability of the platform for multiple Use cases/projects

Towards an SOA Reference Model
URLography

- Administration Cantonale des Impôts
  - www.id.ch/fr/organisation/services/administration-cantonale-des-impostes/presentation/
- Administration Fédérale des contributions
  - www.admin.ch/fr/finances/finances.html

- Federal, Cantonal and Communal Taxes: An outline of the Swiss System of Taxation
  - www.admin.ch/fr/finances/finances.html

- A Case Study on Taxpayer Segmentation: Swiss Public Administration Network (SPAN) and Swiss Graduate School of Public Administration (SGHAPP)
  - www.admin.ch/fr/finances/finances.html

- New business roles in Tax @ ACI
  - www.admin.ch/fr/finances/finances.html

- DINF : Remplacement de la chaîne de perception de l’ACI
  - www.admin.ch/fr/finances/finances.html

- ISPA: Swiss Public Administration Network (SPAN)
  - www.admin.ch/fr/finances/finances.html