In Search of an Architecture

Procurement made understandable by an architecture

By

Endre Grøtnes, Adviser

Department of IT planning and co-ordination
Today’s Text

• About Statskonsult and the architecture project
• The target architecture - the public sector core network
• The process of creating an architecture
• The pro and cons of our development method/process
• A comparison with the TOGAF ADM
• The link between procurement and architecture
Statskonsult

- Governmental employees with a sole focus on the public sectors needs and requirements
- It-professionals with good experience from the public sector. We know the possibilities and to a large extent the business requirements
- No day to day duties - just project work
- Our mission is to make the public sector more efficient so it can give better services to it’s customers
The National IT Procurement Initiative

- A major initiative to create a common infrastructure for the public sector in Norway—joint venture between local and central government
- Developing framework contracts for IT procurement. 6 different contracts signed, 2 more on the way
The National IT Procurement Initiative 2

- Using open standards to create connectivity internally and externally
- Creating common services - PKI, directory, EDI, E-mail converter, etc
- Main goal: To facilitate simple, secure and cost effective electronic communication within the government and with partners
The Operational Environment for the Procurement Initiative

• At least three concurrent processes
  – Architecture
  – Procurement process
  – Technical specification
• A lot of money and a great momentum
• Industry interested in the procurement process
• Users eager to use the framework contracts
The Goals for the Architecture Project

• Create an high level architecture for the public sector network in Norway
• Co-ordinate the architecture with the procurement and specification processes
• Relate the architecture to relevant international architectures (IT-DialTone)
The Target Architecture Principles

- Use Internet as a backbone - run TCP/IP
- Add central services like a directory, a PKI and a e-mail converter (X.400 to SMTP)
- No central firewall - each connecting unit responsible for it’s own security
- Buy quality of service as needed
Internettgrense for forvaltningsnettets sentrale infrastruktur

- LAN Privat virksomhet
- LAN offentlig virksomhet
- LAN offentlig virksomhet
- LAN offentlig virksomhet
- Felles-tjenester og E-postgateway
- Stor landsdekkende etat
- Internt WAN
- Tjenester/produkter over rammeavtalen
- LAN offentlig virksomhet
- LAN Privat virksomhet
- Tjenester/produkter over rammeavtalen
The architecture process - overview

• Commitment from top level management
  – The minister and the board of directors of “KS”
• Establishing a working group
• Getting involvement from
  – Procurement project group
  – Industry
  – Users
• Open meetings to get input and correction
Top Management Commitment

• The project was “blessed” by our minister
• We got a good budget to do the project
• The project leader got enough time off to run the project - highest priority
• Direct communication with the leaders of the other projects and other top management
The Working Group

• Lead by Statskonsult
• Participation by
  – Main vendors
  – Large users
  – Governmental IT-specialists
  – A leading international “architect”
• Intensive work for a short period

NB: Getting the right people in the working group is the difference between failure or success
The Process 2

- Look at existing architectures
  - The main participants went to The Open Group
- Involve the vendors and the users
  - User requirements and vendor deliverables
- Define the terminology
- Define the scope of the architecture

NB: Commitment from the vendor-side was ensured by the procurement process - They knew this was no theoretical exercise
The Open Meetings

- During the process there were three meetings open for all interested. Participation by vendors, technical specialist, users and project management.
- An open forum for discussion - good dialog.
- The open group did a presentation in one of them.
- Gave the vendors an understanding of what the procurement was aiming at.
Pro and Cons in the Architecture Development Method

+ People with knowledge about architecture and the special needs in the public sector
+ Commitment from all parties and enough money to carry the project true
+ The link from the architecture work to the procurement process - vendor involvement
+ The open meetings - creating momentum
Pro and Cons in the Architecture Development Method 2

+ The relationship to other architecture work
- Dependent on the knowledge off the working group
- No “real” end user input
- The process couldn’t agree on a common set of applications
  - an architecture for a common infrastructure not common applications
Overview of TOGAF

Target Architectures

Architecture Development Method including building block concepts and notation

Technical Reference Model

Standards Information Base

Building Block Information Base
The TOGAF ADM

A Initiation and framework
B Baseline description
C Target architecture
D Opportunities and Solutions
E Migration options
F Implementation
G Architecture maintenance
Comparison With the TOGAF ADM

• We used the methods described in step A, B and C in the ADM as a help in developing our architecture
• We found the description of the input and output for these faces very helpful
• We did not use the SIB or the TRM
Comparison With the TOGAF ADM 2

- Architecture is a circular process. We are trying to start an architecture project part 2. We got this point from the TOGAF ADM.
- Part D of the ADM is taken care of by the framework contracts.
- Part E and F is outside the scope of the project.
The use of views

• TOGAF uses the notion of views - You can look at an architecture from different viewpoints - security, management, infrastructure, etc.

• Our view of the architecture was from an infrastructure/connectivity viewpoint.

• TOGAF told us you don’t have to cover everything in an architecture
What Did the Architecture Process Give Us?

- A technical architecture for the core public sector network
- A clarification of the terms used in the procurement project
- Input to the specification process
- A communication “bridge” between the users and the procurement project
What Did the Architecture Process Give us? /cont

• A better understanding of the problems involved in creating an infrastructure for the public sector
  – Common services
  – Quality of service
  – Vendor co-operation
  – Centralisation of services vs flexibility in choice of services