



Open.Amsterdam

Open.Amsterdam is a project that aims to develop an 'open' workstation environment for the City of Amsterdam, as an alternative to the Microsoft-oriented workstation. This pamphlet describes the background, objectives, approach and desired results of this project.





1. Background

The City Council believes that an active and participative approach to open source developments is appropriate to Amsterdam as “ICT capital of the Netherlands”. In an amendment, the Mayor and Aldermen were requested to present a business case for the 2007 budget, including recommendations on how to respond to the impending expiry of the contract with Microsoft for office automation (as of October 2008).

This amendment should be viewed in the light of nationwide developments regarding open standards and open source software. In 2002, the Dutch House of Representatives approved the Vendrik motion, which called on the government to counteract concentrations in the software market and to ensure that all software used by the public sector complied with open standards by 2006. In short, open standards are **a must**. For the City of Amsterdam, this means that the choice of software is restricted to software based on open standards.

2. Objectives

Proposal for the strategic software objectives of the City of Amsterdam:

- Improving services provided to citizens and businesses through increased interoperability¹;
- Increasing supplier independence for office automation;
- Continuity of operational management;
- Cost neutrality and feasible investment amounts.

The aim of the business case was, in accordance with amendment no. 171, to explicate the conditions that will enable the City of Amsterdam to make a supplier-independent software choice once the current contract with Microsoft expires on 1 October 2008. The principal objectives, insofar as these could not be derived directly from the amendment, were defined by the projectteam and the Alderman responsible for ICT during an expert meeting organised for Council members of the city centre and city boroughs on 20 June 2006.

3. Open standards and open source software

For Open.Amsterdam, open standards and open source software are only means to achieve the strategic software objectives. As will become clear, this always requires the use of open standards, while the use of open source software is a prerequisite only in certain instances.

The central question is what the use of software is intended to achieve. After all, using software is not an end in itself.

As described in the OSS business case, the use of open standards is a prerequisite for achieving the following objectives:

- improving services provided to citizens and businesses through increased interoperability;
- increasing supplier independence for office automation.

The end result proposed and evaluated in the business case assumes the mandatory use of open standards (which, incidentally, is already current policy within the City of Amsterdam).

Open source software enters the equation due to the fact that:

- some open standards are not supported by closed source software;
- open source software is by nature less likely to create supplier dependency.

If we assume that the use of open standards is mandatory, the above means that using open source software is sometimes optional and sometimes required.

¹ The Wikipedia definition: Interoperability is the ability of systems, units, or forces to provide services to and accept services from other systems, units or forces and to use the services exchanged to enable them to operate effectively together. Technical interoperability is intended to solve the technical problems due to the complexity inherent to connecting information systems and the services providing this information. This interoperability defines the norms regarding the presentation, gathering, exchange, processing, securing and transportation of the information.



Open.Amsterdam is based on the following premise:

Globally, the digital workstation of the future (as from 2010) will be an open workstation, based entirely on open standards and based largely on open source software.

4. Environment

The external project environment created for the project complies with an explicit request in amendment no. 171: '[That] whenever appropriate, the Mayor and Aldermen must advance towards open source software by actively collaborating with other municipalities, the national government and open source Strategy Platforms of the various authorities, by seriously attending to advice offered by industry and by reporting hereon twice a year to the City Council.'

The administrative client for Open.Amsterdam is the Alderman for Town and Country Planning, Land Administration, Water Management and ICT, acting on behalf of the City Council.

The Board of the *Concern Organisatie* (Concern Organisation) within the Directorate for General Management is both the contractor and official client.

The City of Amsterdam has initiated an inter-municipal network focusing on open software strategies. This network is supported by ICTU's OSSOS bureau (OSSOS: Open Standards and Open Source Software Strategy in government). This network, comprising the municipalities of

- Almere
- Amsterdam
- Assen
- The Hague
- Eindhoven
- Enschede
- Groningen
- Haarlem
- Leeuwarden
- Nijmegen
- Utrecht,

has evolved into the so-called *Open Software Strategie overleg Grote Gemeenten* (Open Software Strategy consultation Major Municipalities), which convenes once every two months. This body generated much interest and media coverage by drafting and publishing the "**Open Overheid**" ("**Open Government**") manifesto.



At a conference of the European Commission on open standards and open source software, Belgium and Slovenia decided to adopt the full text of the manifesto and implement it nationwide. Other European countries have also shown an interest in the manifesto.

By signing the manifesto the parties concerned indicate that they attach great importance to:

- Supplier independence,
- Interoperability,
- Transparency (controllability and manageability) and
- Digital sustainability.



5. Approach: From software strategy to desired end result

The first challenge to implementing the amendment was to determine the underlying objectives. Establishing which strategic objectives will serve as the basis is a prerequisite for determining which combination of open standards and open source software constitutes a strategy worth pursuing.

The project team was able to come up with (at least) seventeen technical end results (based on all possible combinations of closed or open, back-end or front-end software, and applications or operating systems) that meet the requirements of the amendment to a certain extent.

On the basis of the proposed strategic objectives it is possible to determine which end result and corresponding scenario require further investigation.

The following end result can be described as '**Everything as open as possible in a separate environment**' and has the following characteristics:

- Based entirely on open standards and, where useful or necessary, based on open source software;
- A separate 'open' (workstation) environment, without tinkering with the current workstations. This avoids the problems associated with hybrid environments;
- Expansion (increasing the number of workstations) via an 'entry' model, rather than by a (forced) *big bang*;
- Both back-end and front-end (progressing from back to front).

The following end result is known as the **Standard Open Workstation (SOW)**. The SOW is aimed at the development of

- The front-end of workstations: hardware (desktop and/or laptop) and software (the operating system), generic office applications (such as e-mail, agenda, word processing, spreadsheets, presentations and security, etc.).
- The back-end: hardware (servers required to provide all functionalities such as e-mail and file-sharing) and the software required to manage networks, domains, file and print, role-based application management, security, etc.
- With regard to administration, both technical and functional administration and the administrative expenses are charted.
- Changes in specific software applications such as operational management applications are not taken into consideration. Only achieving access to these applications is part of Phase B, in which a functional SOW is realised.
- Peripheral appliances such as fax machines and PDAs are initially not taken into consideration, unless the chosen solution offers standard support for these appliances. In cases where the applications that are used impose conditions on the workstation or the network infrastructure, these costs will be included.

6. Evaluating the desired end result

It has been evaluated in the OSS business case whether the Standard Open Workstation model complies with the strategic software objectives.

To this end, the business case included the following analysis:

- an inventory and description of the current situation (workstations, functionality, price, etc.)
- an inventory and description of alternatives (as indicated by three suppliers)
- a data analysis in which the current and the future situation were compared
- an estimation of the costs and efforts of migration.



Evaluation of the desired end result regarding supplier independence

Advantages

- Freedom of choice of software suppliers through knowledge and availability of alternatives
- Freedom of choice of software suppliers through availability of software source codes
- Less dependence on supplier standards

Disadvantages

- Migration to other systems may be necessary
- The City of Amsterdam needs to develop an active and participative approach to the software and standards over which it wishes to exert influence

Neutral

- Supplier dependency may shift from package supplier to open workstation supplier, supplier independence is to be achieved primarily through 'smart buyership'

Evaluation of the desired end result regarding interoperability

Advantages

- Increased interoperability promotes internal and inter-administrative data exchange resulting in improved services and maintenance
- Increased interoperability promotes data exchange between the City of Amsterdam and citizens and businesses
- Increased interoperability promotes chain integration and key data registration
- Offering Standard Open Workstation via Shared Service Concept reduces the need to supervise the decentral use of open standards

Disadvantages

- Active participation of the City of Amsterdam is required to adapt and co-define open standards
- Migration to other systems may be necessary

Evaluation of the desired end result and migration scenario regarding operational continuity

Advantages

- More standardisation and Shared service concept (also for services other than data registration) can offer more stability
- Makes it possible to set up a sustainable management structure, independent of the releases, updates and support policy of the software supplier

Disadvantages

- Migrating to the desired end result constitutes a higher psychological threshold than migrating to new versions of MS Software

Neutral/Unknown

- It cannot be demonstrated that the desired situation is more/less stable, more/less secure than the current situation
- It cannot be demonstrated that a migration to the desired situation constitutes a greater threat to operational continuity than a migration to future versions of MS software





Evaluation of the desired end result and migration scenario regarding cost neutrality and investment amounts

Advantages

- Even the most conservative calculation indicates that investments in the SOW will be recouped within 4 to 5 years
- The SOW is offered via the shared services concept, which can further reduce the recoupment period

Disadvantages

- The recoupment period is based on achieving sufficient volume. The number of migrated SOWs necessary to recoup the initial investment of €300,000 (see paragraph 1.9 decision point 3) in 5 years is 700.
- To have a fully-fledged alternative to Microsoft, within a recoupment period of 5 years, 9500 workstations (of which 30% basic, 60% functional and 10% specialised) need to be migrated.⁹

Neutral

- The calculation has been performed on the basis of information provided by 3 suppliers and in practice will need to be tested on a number of points (see 1.8)
- While statements regarding cost neutrality can be made, statements regarding financial planning are inhibited by too many unknown factors, particularly by the absence of a total overview of the software contracts and the course of volume growth

7. Result

The result of the business case is the implementation of amendment no. 171, differentiated in terms of the following products:

- The substantiated proposal to define the strategic software objectives for the City of Amsterdam, to wit: increased interoperability, increased supplier independence, continuity of operational management, cost neutrality and feasible investment amounts
- Proof that it is possible for the City of Amsterdam to pursue a software strategy that will result in an end result that meets the proposed strategic objectives (of which the last two are preconditional) to a greater extent than the present situation
- The substantiated proposal to launch the project (BOSS) that should lead to the phased realisation of the desired end result, which also includes a practical evaluation of the business case analysis in the first phase (A), focusing primarily on the following points:
 - Factual determination of the predicted management costs
 - Narrowing the predicted range of migration costs
 - Determining the feasible volume (initially in a situation based on voluntary participation)
 - Determining the financial planning based on the above points, complemented with an inventory of existing contract conditions
 - Legal feasibility
- A provisional advice on how to respond, as of 1 October 2008, to the expiry of the contract with Microsoft on that date (see 1.8)
- An inter-municipal open standards and open source platform

The practical test mentioned above is currently being carried out in the form of an implementation of the model at the Housing Department and the Zeeburg city borough.

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