

Strategy for FOSS Adoption in the Egyptian SME Sector

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1 Introduction

The objective of this paper is to discuss briefly a concrete implementation of an initiative by the IMC executed by IT Synergy designed to increase the adoption of open source-based solutions in the Egyptian small to medium size enterprise environment.

This document remains a work in progress and shall not be considered more than a draft.

2 Expected Benefits of Employment of FOSS in the Egyptian SME

2.1 Lower Capital Requirements for Technology Adoption and Automation

Open source software is fundamentally more cost-effective than proprietary software. The cost savings occur on many levels, some more subtle than others.

1. Initial licensing cost: Open source software is, naturally, free. In an enterprise environment, this will often translate to consequential sums of money including client operating systems and applications, backend operating systems, server licenses, per user seat licenses, &c. As proprietary software vendors move towards a business model where software is rented and not licensed, the cost ramifications of provision of software assets becomes an even more serious consideration.
2. Support costs: One of the primary advantages of open source is that the technology transparency prevents any vendor from gaining a knowledge monopoly over a software system through exclusive access to the source code and withholding of said source code from clients. What this means effectively is that the technology beneficiary can employ any support vendor with the rudimentary technological skills, which translates to lower prices through competition.
3. Hardware asset costs: Open source applications are traditionally far leaner in terms of resource requirements for comparable applications serving comparable purposes and loads. To take an example, the Oracle 9i database system requires an absolute minimum of 3 Gb of hard disk space and 512 Mb of memory; postgresql, on the other hand, can run in as little as 8 Mb of memory and the install itself is very unlikely to exceed 0.1 Gb of hard disk real estate.
4. Savings from exemption from forced updates: Most if not all proprietary software vendors are forced by their need to build market value to develop and push new products. As a consequence of this, older editions are periodically 'EOL'ed', meaning end-of-line. Support is discontinued and the

warranty becomes void, and customers are strongly encouraged into investing in new editions. This happens with Microsoft software, it happens with Oracle, with Sun Microsystems, and just about all other vendors; it is a ubiquitous strategy. With open source, system updates and upgrades are free.

2.2 Sustainability through Improved Self-reliance

One of the chief transformations associated with the open source revolution is the removal of the line distinguishing technology provider from technology beneficiary; under the open source paradigm, the barriers to access to the highest levels of technological sophistication are lowered to the extent that implementing organizations can achieve comprehensive and absolute technological sovereignty.

The open source code liberates the organization from relying on a vendor for code modifications and customization needs; with a little effort, they can acquire the skills necessary to do the job themselves or they can hire a programmer on a contracting basis. From a support perspective, when the organization's IT staff reach more appreciable levels of competence with the software and accompanying source code, the need for reliance on support vendors similarly is obviated.

2.3 Addressing the threat of technology dependence

An organization such as the IMC has a natural mandate to consider not only the welfare of individual businesses but also the net sectorial and national effects of industrial policy. This becomes a particularly salient issue to consider when taking into account the increasingly apparent effects of what can almost be referred to as electronic colonization brought about by over-reliance on proprietary software; the reduction of Egyptian industry to technology consumers subservient to technology mandated, developed, and pioneered abroad. Open source presents an alternate path, not only providing better software with lower investment requirements but also, over the medium term, bringing its beneficiary into the realm of technology participant and eventually producer.

Open source is an enabling revolution, and its effects transcend the simple metrics of technology; it is fundamentally about development and capacity building. The jump-starting of real open source capability at 2,000 Egyptian SMEs will have the incidental and globally unprecedented effect of creating a viable pool of open source-savvy labor in a period of 24 months from project initiation¹.

¹Open source adoption in the developed nations has historically followed a more organic maturity cycle, with initial introduction in academia creating awareness and capability at the grass roots niveau; once management becomes aware of the open source option, they find existing internal capability to manage such a transition. In Egypt, this cycle has not occurred; it would thus be an unprecedented and very impressive initiative to substitute this organic process with an organized drive to induce this capability.

3 Objective

For a project to induce open source capability in the Egyptian SME sector, an overarching objective is needed to provide clear reference and guidance at the highest level for the initiative. The objective will be defined on the level of the executing parties on the one hand, and from the perspective of beneficiaries and desired impacts on the other.

3.1 Policy Objective

The objective of this project will be the creation of a critical mass of sustained open source capability in the Egyptian SME sector. This critical mass will be broad enough and of sufficient depth to have as one of its primary impacts the autonomous further propagation of open source capability and subsequent adoption in the Egyptian industrial environment without further intervention from the IMC beyond the scope of impact monitoring.

3.2 Impact Objective

More specifically, the objective from the open source implementation project will be to bring about the above-mentioned advantages including both short and long-term material technology cost savings, the development of internal open source technological ability, the integration of the technological environments in the Egyptian SMEs in the open source community and culture, and the fostering of initiative of a scope transcending the organizations participating in the seed IMC project².

4 Goals

The project will require very clear and well defined goals to serve as guides that the objectives are being reached. IT Synergy feels that it is good form to classify the goals semantically into two categories: sectoral goals and beneficiary goals.

4.1 Sector Goals

4.1.1 Short to medium term

1. Open source adoption rates in the IMC open source seed initiative participants equivalent to the average open source penetration rate in selected benchmark countries within 12 months

²IT Synergy has provided the impetus for the formation of the Arab Open Source Business Consortium, an NGO dedicated to the furthering of open source adoption and profitable employment by Arabian business concerns. We feel that this organization can and will provide a very appropriate umbrella for monitoring and follow-up of the project, and also for propagation of the project impacts beyond participating organizations in the seed IMC initiative.

4.1.2 Medium to long term

1. Open source adoption rates in the SME sector equivalent to the average open source penetration rate in selected benchmark countries within 36 months
2. Best-of-breed open source adoption rates in the SME sector amounting to a best practises study within 48 months
3. Market share dominance within the SME sector for selected key benchmark open source software solutions providing functional and viable replacements for proprietary software solutions within 36 months

4.2 Beneficiary Goals**4.2.1 Short to medium term**

1. Deployment and operation of selected key open source software systems at the back-end level with penetration rates exceeding 75% of the IMC open source seed initiative participants within 12 months for the 75% most successful implementations of open source amongst the IMC open source seed initiative participants
2. Deployment and operation of selected key open source software systems at the user level with penetration rates exceeding 90% of the IMC open source seed initiative participants within 12 months for the 80% most successful implementations of open source amongst the IMC open source seed initiative participants
3. 100% elimination of employment of unlicensed software at the user level within 12 months for the 80% most successful implementations of open source amongst the IMC open source seed initiative participants

4.2.2 Medium to long term

1. Demonstrable reductions in capital requirements for technology equivalent to or superior to comparable sectors in selected markets further along the open source adoption maturity curve (within 36 to 48 months)
2. Implementation of up to 50% of technology customization either in-house through newly formed capacities or through open source support businesses demonstrating lowest market price.(within 36 to 48 months)
3. Improvement in business automation levels matching or exceeding the average level of selected benchmark markets with mature open source penetration levels within 48 months

5 Strategies

TBD