

**Public sector software- How
to make it public?
The challenges and the
response.**

TAMILNADU EXPERIENCE

C.Umashankar IAS

TN- umashankarc@gmail.com

ELCOT

→ **ELCOT is a Government company under Company's Act 1956.**

→ **It is the IT procurement agency for Government of TN.**

→ **ELCOT is consulted on all IT related policy matters.**

ELCOT's chief is the head of the department for Information Technology Department.

→ **ELCOT has been given freedom to choose technology.**

ELCOT

→The Government departments procure whatever is available from ELCOT, usually without questions.

The challenges before ELCOT – May 2006

- **Every IT activity was based on proprietary technology.**
- **No one knows about Linux in ELCOT.**
- **Huge IT hardware procurement was on without any accessibility ingredient**

The change within

- **50% of ELCOT's corporate office computers were switched over to Linux in the first month (May-June 2006)- over 200 employees.**
- **The remaining 50% switched over to Linux 4 months later.**
- **Only 3 Windows machines were allowed to enable the accounting section which uses Tally.**

The change within

→ **ELCOT went for its own ERP which is fully open source compliant (2008), which includes financial accounting.**

Hardware procurement: The Problem

- **Computer hardware procured was costlier than the market price.**
- **ELCOT was in the grip of two IT companies.**
- **Others were blocked by unreasonable turnover restrictions.**

The Response

- **Rules of the Game were changed.**
- **The qualifying turnover was reduced from Rs.50 crore to Rs.5 crores.**
- **Unreasonable weightage given to 'branches' neutralised.**

The Result

- **More vendors took part in the tender (2006)**
- **Multinationals entered the ELCOT's premises with their hardware offer for the first time in ELCOT's history.**
- **Hardware cost came down from Rs.42000 to Rs.18500.**
- **CRT monitors were completely abolished.**

The Result

- **From 15” CRT monitor computer, ELCOT switched over to 19” TFT monitor desktops at this price line (Rs.18500)**
- **For the first time, the clerks in the Government and primary schools were getting 19” TFT monitor systems when the IAS officers had only CRT systems.**

The Result

→ For the next two years, ELCOT's price on any IT product was the benchmark figure for Asia-Pacific region – the lowest and the best.

The Result

- **Schools were supplied with 3000 ANSI Lumen – XGA TFT projectors at a cost of Rs.49500 with a spare lamp (worth Rs.20000), a stand and screen.**
- **Earlier price was over Rs.1 lakh without the spare lamp.**

Accessibility

- **Linux compatibility was insisted for the first time in the tender document -2006**
- **It was made mandatory by the end of 2006.**
- **Products which did not have Redhat and Suse certifications were not allowed to take part in tender.**

Accessibility

- **All products were technically evaluated for performance under Linux and windows before the price bids were opened.**
- **Performance under Linux should be better or equal to Windows. Otherwise the product was rejected.**

Accessibility

- **The evaluation papers were signed by the team, vendors as well as MD, ELCOT and the same was hosted on ELCOT's website - www.elcot.in**
- **Two lists were hosted – a green list containing the ELCOT certified Linux compliant products and the red list containing Linux failed products.**

Accessibility

→ **Linux drivers for the approved products were hosted on ELCOT's website for free download.**

Accessibility

- **60000 desktops were procured during 2006-07.**
- **Government departments and Schools were supplied with Linux preloaded desktops only.**
- **ELCOT refused to supply windows preloaded systems.**
- **Linux Training to the officials of the buying departments was made integral part of the procurement.**

Accessibility

- **In the next year 50000 desktops and over 10000 laptops were procured.**
- **Linux preloaded on all systems.**

Accessibility

- **In the next year (2007-08) 50000 desktops and over 10000 laptops were procured.**
- **Linux preloaded on all systems.**

Training Centres

- **ELCOT set up a 360 seater Linux training centre in Chennai – powered by Linux laptops.**
- **A 25-50 seater Linux training centre was set up in each Collectorate to train the Government officials**
- **1200 laptops for Linux training alone.**

Training Centres

- **For every desktop procured ELCOT charged Rs.2400 for a 3 year training hand holding .**
- **This provision was available in the Government order and the same was used to promote accessibility.**

ELCOT's Linux Training Centres

- There is a craze among Government employees for attending training in ELCOT's centres because of the excellent infrastructure
- Each trainee was given a laptop connected to high speed internet.
- They were given the option of taking the laptop home during the training days.

ELCOT's Linux Training Centres

- **High quality food, including water and snacks was provided to the trainees as part of the package.**
- **Written and practical exams were conducted at the end of the training training. The mark sheets were forwarded to their HOD.**
- **Many of them score 100%**

E-tender challenge

- **ELCOT** was given the task of implementing e-tender on pilot
- **No open source compliant e-tender software available.**
- **E-signature security card was not available for Linux platform.**

E-tender challenge

- **ELCOT** waited for **TCS** and **NIC** to provide **linux compatibility** for the **digital signature card**.
- **Took one year**.
- **ELCOT** went for **open tender** specifying **full OSS compatibility**.
- **ELCOT** now runs its **e-tender portal** on **Linux server(s)** – the first in **India**.

Family card software challenge

- **ELCOT handles the family card printing for TN Government.**
- **Standardised database was not available as each vendor had done the data entry in his own standard.**
- **Took 11 months to configure the state family card database.**
- **Application software for full administration of the family card system developed and implemented.**

Family card software challenge

- **Government officials and general public can transact online.**
- **All data available online through web browser.**
- **Intranet enabled – fully browser based.**
- **Public viewing – ready and tested.**

Database challenge

- **ELCOT wanted to buy enterprise database for its use.**
- **Oracle quoted Rs.25 lakhs for each dual processor server.**
- **ELCOT decided to adopt FOSS database – Postgresql which is an enterprise level database.**

Database challenge

- **With the cost saved on database, ELCOT built the first ever LINUX powered mainframe server data centre in Chennai at a cost of Rs.12 crores (Servers Rs.5.8 crores)**
- **The two IBM enterprise servers (Z9) can be scaled to create over 400 virtual servers with full capacity.**
- **No maintenance cost for 5 years.**

Challenge – find a screen reader software for use by visually challenged.

→ **ELCOT was asked to buy 5 licenses of JAWS, a proprietary screen reader software for use by visually challenged students in the Blind schools of Tamil Nadu.**

Challenge – find a screen reader software for use by visually challenged.

→ **ELCOT discovered ORCA and Krishnakant Mane (of Mumbai)**

Challenge – find a screen reader software for use by visually challenged.

→ **All the teachers of Blind Schools were trained in the use of ORCA.**

→ **Policy decision taken to offer all computer services to visually challenged free of cost. This includes free training in the use of ORCA.**

→ **No profit margin on hardware supplied to visually challenged.**

ERP Software for Chennai corporation

- **ELCOT discovered the Open source ERP offered by e-gov foundation of Bangalore.**
- **Source code is free.**
- **Service charges for implementation.**
- **Government is free to use it for implementation in the remaining 10 Municipal corporations and over 900 urban local bodies.**

Software to be developed for
Commercial Taxes operations and
land registration operations.

- **ELCOT developed both the packages in house by deploying technical manpower hired from industry.**
- **Source code is the property of the Government.**
- **100% FOSS technology used.**

Fair price shop challenge

- **No technology available to control corruption in fair price shops.**
- **Computer is not suitable for FPS.**
- **ELCOT identified a cost effective hardware.**
- **Customisation took 6 months.**
- **Open tender fetched the GPRS hand held billing device for Rs.5750 each.**

Standardised Tamil font challenge

- **TamilNadu prescribed Tamil language storage standards – TAM and TAB during June 1999.**
- **No standard Tamil font available free.**
- **One private company monopolised Tamil Nadu Government offices**
- **No compatibility for Linux OS.**

Standardised Tamil font challenge

- **ELCOT procured the rights of standardised Tamil fonts through open tender.**
- **Hosted the fonts in its website www.elcot.in for free download.**

State wide area network challenge

- **ELCOT is the implementing agency for TN State WAN (TNSWAN) project.**
- **ELCOT redid the tender specifications half the way and specified 100% Linux compatibility.**
- **Microsoft MD personally came down and objected.**

State wide area network challenge

- **Objections over ruled.**
- **FOSS on TNSWAN Made mandatory and tender finalised.**
- **The 708 location SWAN is online, powered by FOSS.**

Last mile high speed wireless network challenge

- **ELCOT** wanted to expand the **SWAN** to cover the remote villages.
- Identified **Wireless** mesh technology.
- Specified **100%** **Linux** compatibility and went for open tender.

Last mile high speed wireless network challenge

- **Finalised two vendors, one from USA and the other from India.**
- **Price line : Rs.12000 for end user equipment and Rs.64000 for each base station.**
- **A base station covers 12 km radius.**

Challenge – make the administrators use Linux/FOSS

- **ELCOT created a scheme to provide a Linux notebook computer to all IAS Officers of the State free of cost.**
- **Government accepted.**
- **All IAS Officers were given Linux notebook free of cost (2007)**

Challenge – make the administrators use Linux/FOSS

- **ELCOT gave Linux training to IAS Officers in the first phase.**
- **It gave special training to the family members of IAS officers to make them FOSS friendly.**