Vortex ATMs Going the Linux way

Please find the advantages and Key Benefits of running ATMs on Linux Operating system overs windows.

Windows O/S up-gradation – Recurring cost:

On April 8, 2014 windows withdrew the support for Windows XP Completely, which means technical assistance for Windows XP is no longer available, including automatic updates that help protect your ATM.

Banks have typically spent Rs. 15000 to 20000 to upgrade H/w, buy new S/w licence and on related service costs.

Pic 1.1 stating the End of life for windows Editions

Client operating systems	Latest update or service pack	End of mainstream support	End of extended support
Windows XP	Service Pack 3	April 14, 2009	April 8, 2014
Windows Vista	Service Pack 2	April 10, 2012	April 11, 2017
Windows 7 *	Service Pack 1	January 13, 2015	January 14, 2020
Windows 8	Windows 8.1	January 9, 2018	January 10, 2023

Ref: http://windows.microsoft.com/en-in/windows/lifecycle

This operating system up-gradation typically happens twice in the life cycle of an ATM which constitute to additional effort and cost.

Linux – Low resource Utilization and hence power:

Linux being less resource intensive, results in minimal utilization of CPU and RAM and hence the results in very less power consumption. With this the resource requirement such as the system configuration like CPU, HDD and RAM is brought down significantly. Windows O/S requires i3 processor to support the applications while Vortex ATMs with Linux operating system can run on Intel Atom single core processor.

Linux for Safe and secure solutions:

In the Windows environment, besides the cost factor, update management for the anti-virus S/w has considerable effort, which if not managed in timely manner can result in issues related to PCI-DSS certification.

Malwares exploit Windows/ XFS architecture to gain access to critical peripherals like cash dispenser. With the Vortex-Linux ATM architecture, the malware threats are greatly minimized.

IDRBT supports Linux:

The Institute for Development & Research in Banking Technology [IDRBT] has been researching and driving programmes on "open source technologies" and has also reviewed Vortex ATMs under "Green banking" initiatives. IDBRT has recommended "Green banking framework" for the banks and Vortex ATMs addresses many of these guidelines.

IDRBT is also working on open source for ATM's, where they are willing to share their recommendations on using Linux O/S as a suggestion to the PSU banks.

Linux as a part of "Digital India" Initiative:

In keeping with its larger 'Make in India' pitch, the Government of India has recommended usage of BOSS - Bharat Operating System Solutions, a Linux based operating system.

This is being proposed as a 'home-grown' alternative to the proprietary operating systems. Vortex ATMs comes with Debian Linux, same OS from which Boss OS is derived.

Industry adapts to open source:

Today every ATM manufacturer is moving from a "fat client" Windows-based system to a thin-client hardware that goes with a minimal software stack on it, good enough to run an operating system which on this operating model happens to be an open source. In the future, there are high chances that every ATM will run their machine linux or other open source like android.

Bank References:

PSU Banks including UCO Bank, Indian bank, State bank of India, Andhra Bank, large RRBs like Prathama bank and private banks like Indusind Bank, federal bank, Catholic syrian bank, South Indian bank, ING Vyasya Bank have agreed to include Linux as the operating software in the ATM procurement tender they have released. Vortex ATMs which runs on Linux platform is installed and successfully running in PSUs like Bank of India, Bank of Maharashtra, Dena bank, Union bank of India, Central bank of India, Indian Overseas Bank, IDBI bank (Under MOF Project).