

## Reboot the OS

The penguin has attacked! If you have been reading the war of OSes it seems that Linux is gaining ground against Microsoft in the server space. Now, with 'Lindows', which is a Windows UI plastered on Linux, the penguin is eyeing desktop users. While the various open-source and free-software groups may be busy writing obituaries for Windows, let me propose another solution. Why not write a brand-spanking-new OS from ground up with the realities of today that will utilize the power of the desktop and scalability of the Internet into one seamless user experience?

If you've been reading my articles, then I'm sure you would have gathered by now that I'm bullish on Indian software industry to get into product development. So, I'll use this forum to discuss and propose product ideas and my vision about those products in order to entice the local software manufacturers to pick-up these ideas and deliver some world-class 22<sup>nd</sup> century products that will help put India in a definitive technological lead from the rest of the world.

### The case for a new OS

So, can anyone from Lindows camp educate me on WHY would I use or buy a copy of the software that will work exactly the way I have one on my desktop already? My gut feel is that these people may have taken leadership classes from our political parties that have the mantra - in order to differentiate look exactly like your competitor or opposition! But, frankly, if my Lindows desktop is going to look like Windows, behave like Windows and run all the software that runs on Windows; then what is the differentiation? If I use Windows, I do all this in native code, while with Lindows I'll be translating on the fly, which is bound to have an impact on the overall performance; not to mention that there will be a limit to the amount of software and games Lindows can support that can run on native platform. You may tout the stability of underlying Linux and crash-at-the-drop-of-the-hat of Windows, but is that really the case? I mean about frequent crashes of Windows? Unless I install a boat-load of beta and test software and fail to manage the disk space Windows is appropriately stable enough for an average desktop/home user. And trust me that 'average' covers almost 80% or more of user base. If you include the 'standard builds' corporate IT uses then the stability rate goes up by another 10 - 15%!

I would have been more excited if I had read that some company is coming out with a totally new OS platform while providing *similar* software that is currently available - notice that I said similar and not 'same'. If you really want to compete with Microsoft, you got to change the rules of the game; it's no use playing the game with existing rules as Microsoft *defines* these rules. Do I really care if I'm using MS Word to write a document or any other word-processing software as long as I can create, view and share the documents? The same argument is true for almost all other software products. Interoperability with the corporate environment is touted as one big reason that I should have the same software running on my home PC that I have on my office PC. Does that argument hold true anymore? How many of us really bring our office work to our home PC - again, notice that I said 'home PC' and not 'home'? If I do work on office stuff at home, I use my laptop, beyond that even if I wanted to work on a PowerPoint at home, it would not be feasible as an average PPT is beyond the capacity of a floppy drive to be transported back to office machine.

If we look carefully, there is no compelling reason for me to have the same OS in my office and at home. In fact, the corporations should encourage the separation of the two so that the risk of carrying a virus from my home PC to office environment will be greatly reduced along with the piracy issues and intellectual property theft. So what is my vision about the new OS?

## **The extended desktop**

With the Internet, there came a browser, an instant messenger and many other utilities that decorate the desktop, while the primary usage is getting to content and media on web and communicating with friends, peers or family. The current version of Windows let's you define the browser as your desktop, but it's clumsy and you still have to have the IM, YM and other trinkets easily within reach. What if my desktop could be personalized like myYahoo? This desktop would be intelligent and would know when I'm running a local application or when I'm playing a game over the Internet and above all when I need to tap into the nearest computing grid to run MHz intensive application like creating the DVD of my latest birthday bash!

This 'desktop' would let me work in connected or in offline mode and connection to the web would be a single click away or would be so seamless that I will be connected to the web in the background once I invoke functions and programs that need the connection. The biggest benefit of this 'connected desktop' is that the power of my PC is seamlessly integrated with the connectivity and reach of the Internet. With the penetration of DSL and cable modem this switching from offline and online mode can become seamless even further.

Once I and my network of people (family, friends, peers and contacts) are interconnected seamlessly I should be able to lend my extra computing horsepower to anyone on demand. The OS should be able to provide this capability so that if my friend has a low powered desktop and needs to create digital movie, she can request spare computing cycles from my PC to render the special effects for her movie! Distributed computing has been trying to explore the same concept but the problem is that, once again, I have to download and install a desktop utility specific to that organization, SETI or cancer research, for them to tap into my available desktop horsepower. Imagine the computing power available on demand for a grid connecting medium to large corporate desktops during lunch hour! The business possibilities around this concept explode like mushrooms in monsoon.

This brings me to the second most important feature of my "concept OS", which is intelligent hard-disk management. Again, the assumption is that the desktop is seamlessly integrated with Internet. Now, rather than having folders and sub-folders and managing each folder's sharing properties I should be able to specify zones on my disk - Public, Private and Personal. By default, the 'personal' zone will be encrypted with 128 bit or more encryption and will require ID/Password for access. In this zone I will keep my financial and other important information and the OS will recognize the applications that use this zone for their data or I can specify it while installing the app. In my 'private' zone I will keep the digital photos, MP3s and other things I would like to share with my family and friends. Only my family and friends or contacts who have been authorized by me can access content in this space and that too in a streaming mode so that I don't go to jail for copyright evasion! The OS will make sure that all content in the 'private' zone is, once again, encrypted and accessible based on user identification because I may want to share few naughty pictures with my girlfriend while making them off-limits to my parents. The third zone, 'public', will contain the content that I would like to share with the entire world. Things like my resume or my blogs will be stored in this zone so that a suitable employer can find me and make me an offer I can't refuse or people with similar ideas can contribute to my learning or find me so that I can reach out to more like-minded people and get the ego boost that is essential for survival.

Once we have this connected desktop, we will not need to 'send' and e-mail because I would be able to write the e-mail directly on someone's desktop. If I want to share something with another person or group, I will be able to move, copy or author the content directly on their hard-disk with appropriate protection so that it cannot be copied, forwarded or misused by anyone else or tapped into while it sits on POP servers or is flowing through the wires.

I could go on and on about the features and functions about my concept OS, but I'm sure I've given enough ideas to get your creative juices flowing. My opinion is that if you want to compete with an

established player in the market, then in order to disrupt the competitor you need to bring in disruptive ideas or technology to the market rather than just becoming a clone of your competitor. I hope the Lindows camp is reading this.

About the author: Rajeev is the author of *e-everything.com: How to map out a viable e-strategy* published by Tata McGraw-Hill. He works with Intel in US.