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Emerging IT Infrastructure Issues in India

Traditional Indian organizatiosade little or no investment in IT, due to the labor-intensive nature of their operations, and asasasthe cost of capital investment compared to deploying more labor. The primary initial driver for IT in India was the outsourcing boom by the need to attain global competitiveness, Indian IT outsourcing companies have embraced the need for state-of-the-art IT infra essential to their business. Starting from the export-oriented outsourcing segment, the IT revolution is now spreading to organizat segments of the economy, both in the private and public sectors. This is coinciding with the mobile revolution, which has swept I years. By 2006, practically every person in the formal economy has an SMS enabled mobile phone, and a lot of mobile usage is w

Indian organizations are extremely price sensitive in their IT procurement, because of the relatively low gross-margin-per-employ core businesses. The mobile revolution took off only when prices were brought down; Indian mobile prices are among the lowest Broader IT adoption is likely to follow the same pattern, with plummeting costs driving mass adoption. From the perspective ente infrastructure costs and ongoing management costs have to be brought substantially lower. In that respect, the costs are still high, conservatism on the part of the buying organizations. As an example, while laptops have overtaken desktops in the West, in India haven't made that transition.

Enterprise IT in India also has to grapple with another phenomenon; with the highly profitable, export oriented IT outsourcing inc available talent pool in India, in order to serve western clients, traditional Indian organizations are challenged to find the people t infrastructure running. They cannot compete with export earnings powered outsourcing companies in terms of pay and perks. Due shortage facing them, they are forced to come up with creative ways to manage their growing IT infrastructure. In practice, Indian willing to consider infrastructure management outsourcing earlier in the cycle than western companies. Systems integrators and re service equipment and software are often asked to take care of managing the newly installed infrastructure on an ongoing basis.

Remote & Web-based Enterprise Management
For reasons of talent shortage and cost, enterprise IT management in India is evolving to be an externally provided service rather purchased and implemented software. It is imperative on the part of IT management vendors to keep this in mind. What are the in First and foremost, enterprise management has to work well over the web. The outsourced management service provider will host software, and install lightweight agents or probes behind the firewall of the organization whose networks they are managing. The is to have the agents communicating with an external management service through web protocols and document formats (http/htt console itself should work over a simple browser. Remote troubleshooting and automation tools are essential, so as to reduce the the external service provider. Second, India has far more SMS usage than email, due to the 10-to-1 ratio of mobiles to PCs.

This means SMS based alerts and mobile access to management information is vital.

Existing enterprise management frameworks are too costly and require too much customization, particularly from the perspective Indian customer. After all, management costs should bear some proportion to the cost of the infrastructure it is managing; as those dramatically, management costs should fall as well.

Towards a New Mobile Driven Thin-Client Paradigm
Looking to the medium to long term, manageability of infrastructure is becoming a huge issue for IT organizations world-wide. The traditional fat-client paradigm, with all the complexity in terms of security and management, not to mention the high per-emp becoming progressively ill-suited to the needs of newly IT-enabled organizations in India. The treadmill of patching, upgrading, p viruses and other malware begs the question: is there a better way? Thin client, web computing offers hope. As bandwidth costs p software-as-a-service is becoming more viable as the preferred software delivery mechanism. It is particularly relevant in a greenf India, where the first computing experience for many people is likely to be internet-computing.

Software-as-a-service also dovetails nicely with the mobile revolution. In many respects, the ideal thin client is the mobile phone, capability so that it can dock to an external LCD display and keyboard. The stateless display device replaces the traditional deskt ubiquitous due to falling cost of displays. The mobile device with Wi-Fi and 3G data capabilities, sporting a state-of-the-art web b preferred delivery medium for software-as-a-service.

In that world, the enterprise management challenge moves from desktop management to data center management. Storage moves FAAA FBBB FCCC
managing user's data so as to offer very high service levels becomes imperative. Managing massive pools of storage attached to v serve millions of users, becomes the central IT management challenge. One example of how internet-based software impacts the t is the popularity of low cost servers in internet data centers, as opposed to massive big-iron servers common within enterprises. In are written to run in a cluster of low cost servers, while traditional IT applications need big-iron. So what is important in future is cheap servers and cheap storage. Traditional big-iron practices like back-up and recovery will give way to grid computing.

Another major consequence of the thin-client model is the end-user expectations of an always-on service. In the internet world, th Traditional maintenance windows common in IT best practices have to be completely rethought.
Opportunities for Mobile Service Providers
Mobile service providers and mobile equipment vendors should embrace the software-as-a-service delivery paradigm. It enhances offerings to businesses and consumers, and it opens to door to new revenue opportunities. The SaaS revolution, which offers dran software, could end up riding the mobile wave. This revolution could end up remaking the IT industry as we know it.