

# HP's Blade Servers Enable Sify's Aggressive Growth Plans



Sify is India's pioneer and leader in Internet, Networking and e-Commerce services, and the first Indian Internet company to be listed on the Nasdaq National Market in the US. Sify is also a key enabler and catalyst of the Internet and its usage in India. The Company developed India's first TCP/IP network and offers multiple services on a common backbone infrastructure for an integrated Internet, networking and eCommerce business model. This was the first such business model in the world, and appropriate for catalysing the growth of the Internet and networking in an infrastructure starved market.



Sify was selected by Fortune magazine, in their December 2000 issue, as one of the world's ten hot technology companies to watch out for. Today Sify is the market leader in most lines of business, winning global recognition for its expertise, performance, customer focus and standards. Sify garnered revenues of USD 83 million for the year ended March 31, 2005, with a growth of 50% in revenues in its core businesses over the previous year.



Rustom Irani,  
President and  
Chief Technology Officer,  
Sify

"We are looking at aggressive growth and expansion into new service offerings in a dynamic market. This means we need IT infrastructure that can respond immediately to a burgeoning market and is both flexible and scalable. HP's Blade Servers, with their unique features like the Rapid Deployment Pack and Headless implementation will ensure that we will be prepared for exponential growth and future challenges in terms of scalability and service uptime."

Today Sify has a customer base of more than 89,000 users for its broadband services from the home segment alone, in addition to corporate customers. In addition, Sify also runs a nationwide chain of over 2000 Internet cafés, branded iWay, which are connected by high bandwidth pipes. As the next step in its expansion plans, Sify will introduce high performance online gaming at the iWay chain.

India is poised for an unprecedented explosion in the number of broadband users, and Sify plans to garner a major chunk of this market by becoming the preferred provider of connectivity and other online services. NASSCOM, India's apex IT software and services industry trade body, estimates that India will have 9 million broadband subscribers by 2007, and 20 million by 2010.

## The Business Challenge

The sharp growth in Sify's broadband customer base has meant that the demands made on the processing power of its infrastructure have increased exponentially. In addition to providing uninterrupted bandwidth services, Sify's infrastructure also needs to run extremely critical customer management applications for customer authentication, billing, etc.

"We are looking to grow our customer base exponentially over the next two years," says Rustom Irani, President and Chief Technology Officer, Sify. "Our IT infrastructure obviously needs to be highly and seamlessly scalable to cope with this kind of growth."

Sify thus needed a solution that would enable it to immediately enhance the processing capabilities of its back end systems and at the same time offer it the scalability to future proof its IT investments. Given the growth in customers Sify was anticipating and the resultant frequent additions to its IT infrastructure, it was essential that the solution it implemented had as small a footprint as possible.

Moreover, Sify's plans to introduce online gaming at the iWay chain would add even greater pressure on its IT infrastructure. "Online gaming will introduce an element of high variability in the demand for computing and processing power. We needed to ensure availability of services to all customers, no matter how high the loads at peak times," says Mr. Irani. "We expect a huge increase in the number of online gamers on weekends and holidays, for example."



### HP Blade Servers – the Clear Choice

Blade servers were clearly the solution that Sify was looking for. Sify then evaluated various technology providers on their blade server offerings and found the features offered by HP to be unmatched by others.

HP deployed a solution consisting of HP ProLiant BL30p servers running Redhat Linux for managing Sify's broadband services, and BI20p G2 servers running Windows Server 2000 SE for online gaming. These blade servers deliver unique functionalities and features such as the Rapid Deployment Pack to ensure that Sify can seamlessly scale its infrastructure as demanded by business requirements.

HP's Rapid Deployment Pack (RDP) is a server deployment solution that facilitates the installation, configuration, and deployment of high-volumes of servers, even remotely, through either a GUI-based or a web-based console, using either scripting or imaging technology. True to its name, RDP drastically reduces server configuration time, enabling organisations to scale server deployments to high volumes, even hundreds of servers, at the same time. While its drag-and-drop user interface makes it easier than ever before to deploy servers, the RDP's easy manageability also ensures that the IT staff required is minimal.

In addition, HP's blade systems also offer "headless", IP-based implementation that eliminates the need for physical CD and floppy drives, thus dramatically reducing time and resources taken to deploy servers.

"Features like RDP and headless implementation are of immense value in our dynamic environment, where speed of response and seamless scalability are critical to business success," says Mr. Irani.

In addition, HP's Pre-Boot Execution Environment enables IT administrators to view individual blade servers on a network and install the operating system, applications, etc. remotely. The features of the HP Blade Servers also ensure automated deployment of servers with minimal manual intervention, delivering complete control over the server environment by enabling

reliable and consistent IP based remote deployment of servers across locations.

Sify has also deployed a spare server in the blade enclosures. HP's Pre-Failure Alert feature warns IT administrators of impending system failure through its advanced diagnostic capabilities. Administrators can then configure the spare blade server through HP's Rapid Deployment Pack and hot swap it using the Rip and Replace functionality to ensure uninterrupted availability of services to its customers.

Sify estimates that HP's blade servers will significantly lower its TCO by at least 15%. HP's innovative design ensures that the same enclosure can accommodate both the BL30p and the BI20p G2 servers, thus delivering very high cost effectiveness and flexibility to the Sify. This feature allows Sify to add the blade servers needed most at a particular point of time, rather than being constrained by a rack exclusive to one line of servers. This design advantage also enables Sify to scale horizontally to add applications on demand, as well as scale vertically to cope with the fast growing number of customers and users of their services.

In addition, the density of server population ensures minimal requirement of physical space, while the power consumption is a third of that of regular servers. This significantly reduces power costs for running the servers as well as for temperature control in the DataCentre. HP's ProLiant BL30p and BI20p G2 blade systems also considerably enhance manageability by reducing the number of cables required to deploy the server systems.

### The Future looks brighter with HP

With the solution firmly in place, Sify is already seeing the benefits of the HP solution. In Mr. Irani's own words, "We have got a future-proof solution that enables us to meet our business objectives. HP's blade servers deliver unbeatable scalability and availability, and ensure that our IT infrastructure becomes a strategic tool to grow our business."

## Challenges

- Create IT infrastructure that is vertically and horizontally scalable on demand
- Ensure maximum availability of services- extremely high degree of uptime
- Build a flexible infrastructure
- Provide high degree of manageability, easy deployment, reduce need for manual intervention
- Low TCO
- Minimise space required, reduce power consumption

## Solutions

- ProLiant BL30p (Redhat Linux) and B120p G2 (Windows 2000 Server) Blade Servers
- Rapid Deployment Pack
- Pre Boot Execution Environment
- Pre Failure Alert functionality
- Rip and Replace
- Innovative and flexible rack design

## Results

- Extremely scalable server infrastructure
- Capability to scale immediately according to business demands
- Highly available infrastructure
- Complete flexibility to deploy ProLiant BL30p or B120p G2 servers in same rack enclosure
- Cost effective solution
- IP based server deployment greatly reduces time and costs
- Hot swapping capability removes possibility of service disruptions
- Power consumption reduced by one third
- Reduced real estate costs
- TCO reduction of at least 15%

To know more about the HP Adaptive Enterprise solutions,  
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