

Benefits and Risks of Data Center outsourcing



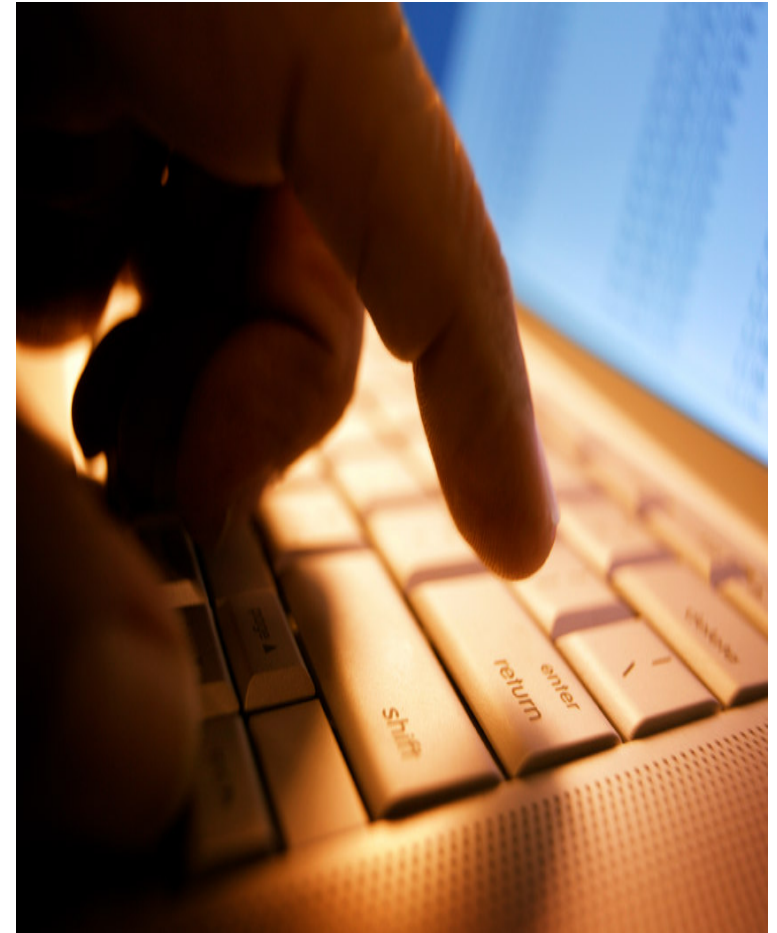
CtrlS

By Mr P Sridhar Reddy

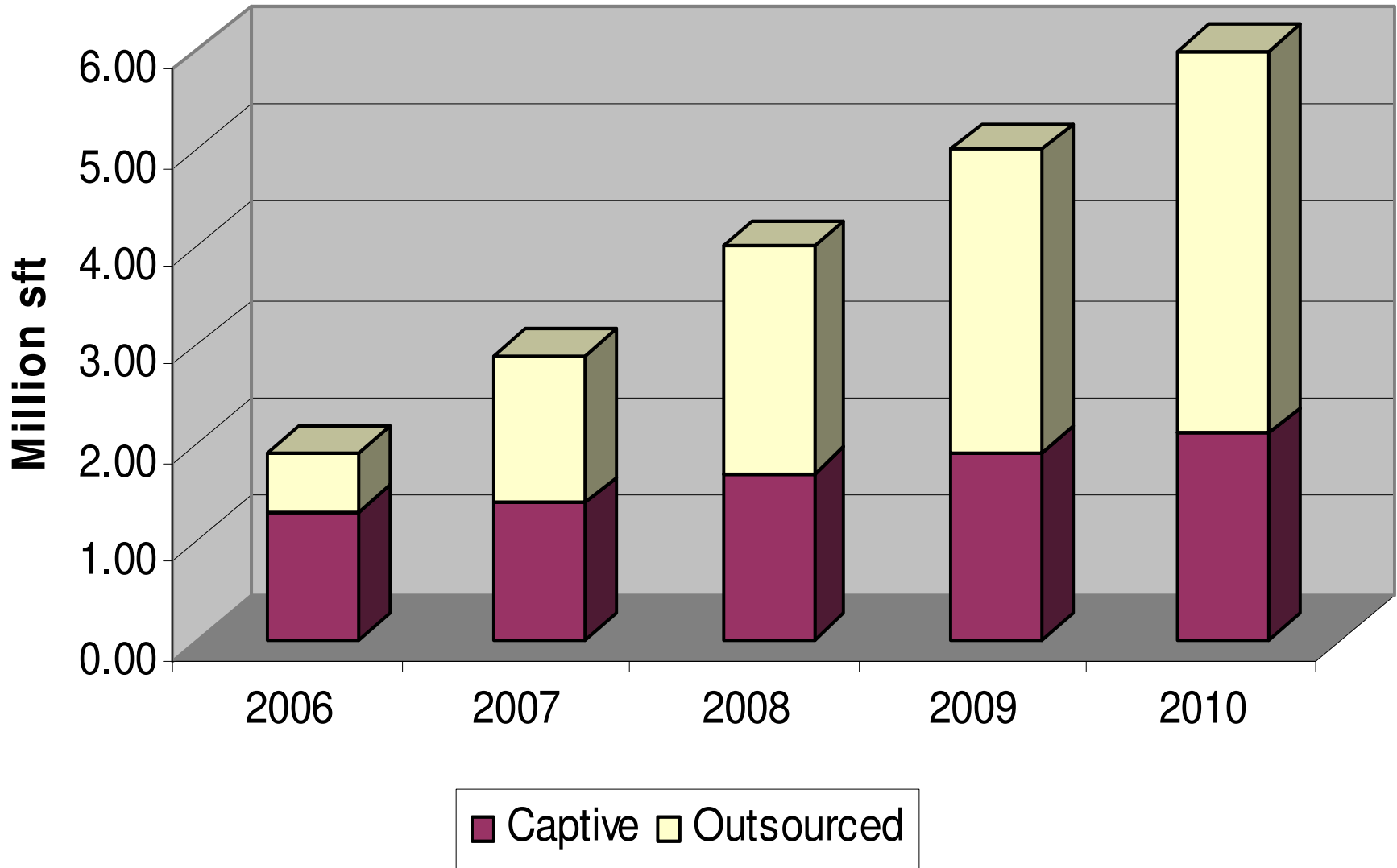
CMD Ctrl S Datacenters Ltd

Structure

- Present Situation
- Trends in DC Market
- Risks & Concerns
- Benefits of outsourcing
- Why Outsource
- Press
- About Ctrl S



Outsourcing Drives Data Center Growth



Source : Ctrl S Strategic Planning Dept, Broad Group, Data Monitor

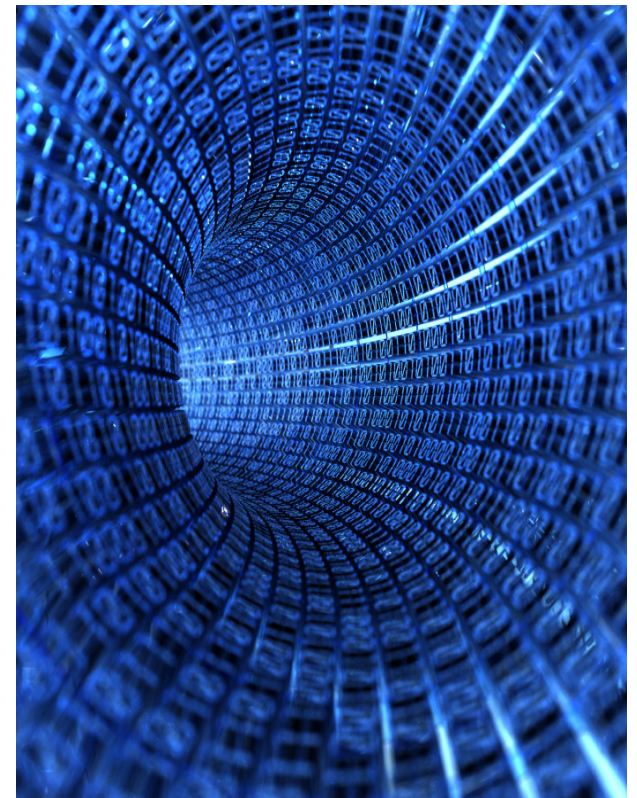
Present Situation



- Captive data centers ~ double third party data centers
- 3rd party data centers dominated by Telcos
- Lack of good supply, key constraint
- Market size ~ \$ 983 million

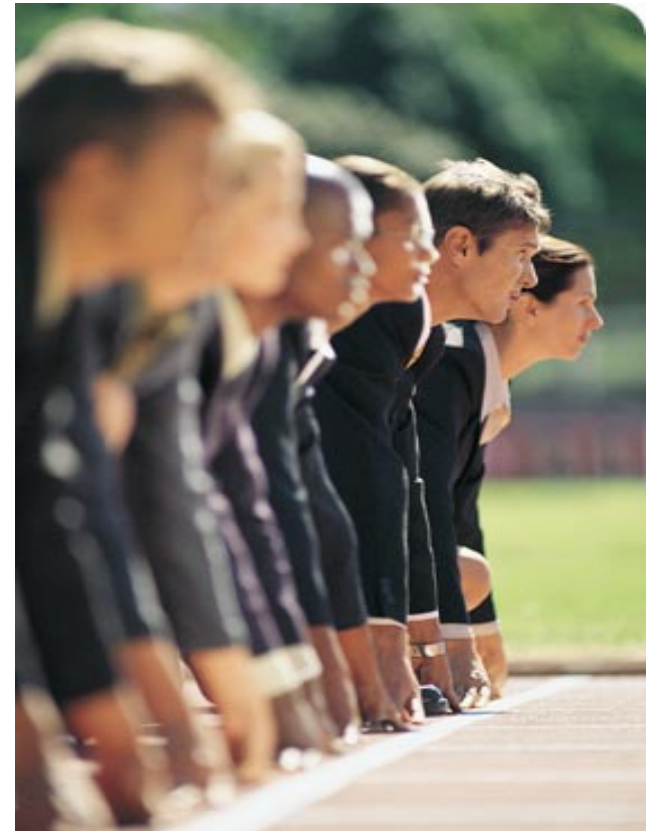
Trends in Data Center Market ^{CtrlS}

- Rapidly decreasing bandwidth cost
- 10 new Telcos in the country
 - More options for customers
- New apps (ex: SAAS) driving up DC demand
 - Gartner Predicts that 33% of software will be sold as service by 2012
- Overall cost of hosting decreasing
 - India to be less expensive than USA for hosting



Trends: New Telco Licenses

- 120 new licenses, 10 new companies
- Competition intensifies amongst Telcos
- Bandwidth prices will drop further & steeply
- Telco domination of 3rd party data centers would end
 - Bandwidth-centered data centers will be replaced by customer-centric data centers



Trends: SAAS

- **Gartner** 2008 Predictions
 - “By 2012, at least one-third of business application software spending will be as service subscription instead of as product license”
 - “By 2011, early technology adopters will forgo capital expenditures and instead purchase 40 per cent of their IT infrastructure as a service.”

SAAS endorsed and promoted by

Microsoft[®]

SAP[®]

ORACLE

Google[™]

amazon.com

Monthly Total Cost, \$ / Rack

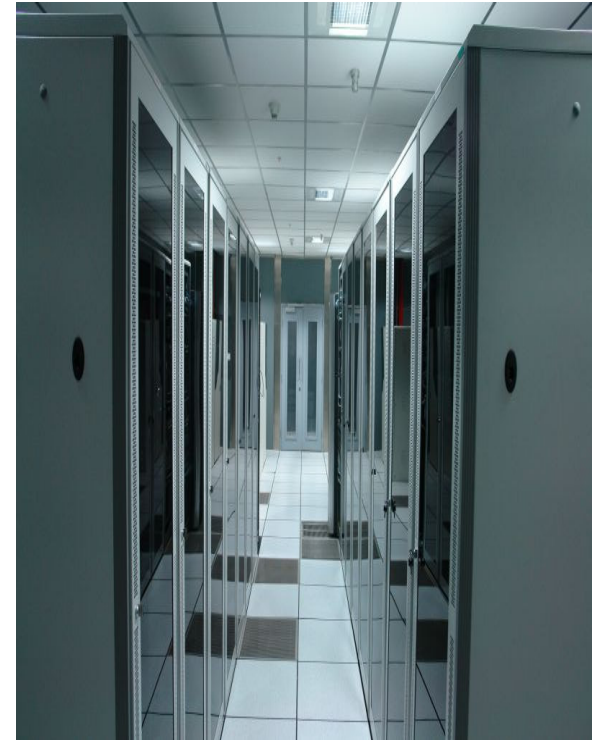


Data Centers: The Future

- Plunging bandwidth cost
- New Telcos
- Emergence of SAAS
- India as preferred hosting
- Overall Market to grow at 35%
- 3rd party data centers to grow by 80%

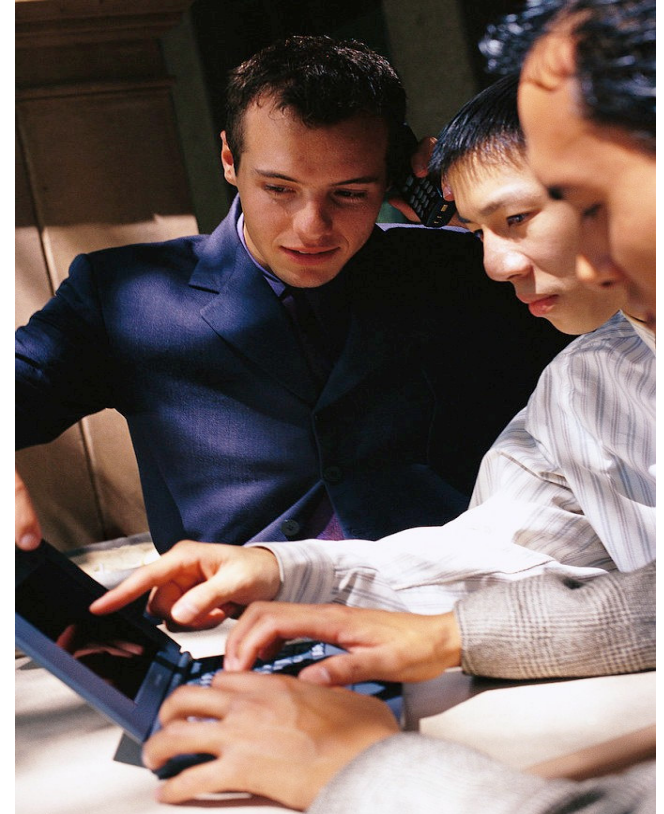
Risks and Concerns

- Security
- Reliability
- Intellectual Property
- Reputation Enhancement



Security

- Physical Security
 - Cars & Motorcycles are high fire risk elements
 - Cables get cut during maintenance work
 - Maintenance is normally the time when accidents happen
 - E.g PAC requires maintenance every quarter
 - Natural Calamities
 - Floods
 - Earthquakes
 - Sabotage
 - Petty Personal Feelings
 - Employee Greed; Selling data
 - Corporate Espionage
- Virtual Security
 - Viruses
 - Spam
 - Distributed DOS
 - Hacking/Defacing/Disrupting
 - Stealing of data



Outsourcing Partner

- Paranoid about security
 - Boom barriers, gunmen, etc.
 - No Parking allowed near data centers
 - Maintenance personnel not allowed in server hall (Even for PAC Maintenance)
 - Dedicated internet security professionals
 - Constantly updating their knowledge
 - Structurally incentivized to avoid breaches



Reliability

- Respect for SLA's
- Server Downtime
- Network Connectivity
- Expertise to take up L3&L4 services



Compensation plan for DC Manager

- Fixed salary of 1 Lakh Per month
- Variable Pay per month
 - Rs 1 Lakh – Zero Downtime
 - Rs (-1) Lakh – 10 minutes downtime
 - Rs (-5) Lakh – 30 minutes downtime
- We can't have a Data Center Manager with the above Plan
- In-house DC Manager **X**
- Out sourced DC **✓**



Intellectual Property

- **What if**
 - **Bidding for a power plant, email server hacked; all bid related messages accessible to competitor**
 - **FMCG Major**
 - **Big ad campaign for the latest season planned;**
 - **competitor gets the story board from intranet**
 - **Spoof released on you tube the same day, the Rs 25 crore campaign is launched**
 - **New aggressive bank enters home loans market; database of big home loan players compromised**
 - **Research & Consulting firm; High Value reports accessible to potential clients**



Reputation Enhancement ^{CtrlS}

- Companies feel that having captive data center enhances their reputation
- Ownership is the key concern



Benefits of outsourcing

- Better Focus on business
- Scalability
- No Capex
- Expertise
- Superior Infrastructure

Better Focus on business

- Focus on core competencies
- Take better advantage of internal resources & Expertise
- Multinational Manufacturing Firm
 - ERP Implementation
 - Hosting Application Servers
 - Outsourced data center operations to Ctrl S
 - SAP Implementation
 - Attached office space
 - Server Management
- Focus on customer oriented activities



Scalability

- Captive data centers unable to match growth requirements
- Optimum utilization of resources
- Service oriented architecture ; Services on demand
- Walker information- conducts 8,00,000 online surveys
 - Challenge – Experienced partner to support its servers
 - Solution – outsourced all its data center needs to an international data center
 - Result – Greater reliability and scalability to its ever growing web focused business line.



No Capex

- Data centers require huge capital expenditure
- Outsourcing data center means Opex based on resource utilization
- \$238 Billion Telecom company
 - Outsourced their data center operations to Ctrl S.
 - Saved considerable money and time
 - Investment in more productive areas of their business



Expertise

- Specialized IT Skills
 - System, network and database admin
 - Detailed reports
 - Server Level utilization
 - Security audits, etc.
- Infrastructure experts
 - PAC, Power, UPS, DG, Fire suppression
 - Person to repair DG at 4 AM
- Better Scope for IT professionals
 - Generally 3-4 levels of hierarchy in company
 - But In Data center 12-15 areas of specific expertise like presales or wide range of technologies
 - Can have focused career path



Superior Infrastructure

- Best of breed facilities
- For instance at Ctrl S we have the following Redundancies
 - UPS – $2(n+1)$
 - PAC – $n+n$
 - Power – $n+n$
 - Dual sources of power supply, etc.
 - No single point of failure
- Branding Opportunities
 - A new Dot Com Company in the market
 - Can prove availability and reliability to its customers by hosting in Tier IV data center



Outsourcing increases security ^{CtrlS}

- Small startup; Provides SAAS; predicts financial performance
- Customers don't feel safe as the company lacks security and expertise to run DC.
- Outsourced data center to MSP
- Result:
 - Added 36 customers to its portfolio
 - A big security firm also became a customer after outsourcing



Why Outsource

- Key risks and concerns are better met by specialist data center companies
 - Physical and virtual security
 - Reliability
 - Scalability
 - Reputation
- Strategic, Financial & Operational Benefits
 - Better Focus on business
 - Scalability
 - No Capex
 - Expertise
 - Superior Infrastructure
- Market environment conducive to outsourcing
 - Overall market in India growing at 25% - 35%
 - 3rd party data center expected to grow at 80%



Important Statistics

45%	Will be the shrinkage of Talent Pool of Qualified senior level technical and management of data center professionals by 2015
50%	More than half of the data centers will have to be relocated to new facilities, or outsource applications by 2010
90%	Is the percentage of companies whose data center operations would be halted over the next 5 years due to power failures and limits to power availability
70%	Of all data centers will utilize some form of grid computing or other virtual processing by 2010 .
25%	One out of every four data center will experience a business disruption within the next 5 years , serious enough to affect the entire company's ability to continue business as usual.

Source: AFCOM

Data centre outsourcing can work

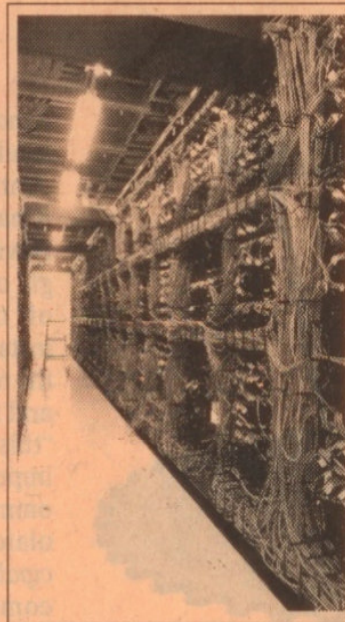
Business Standard – 18th April 2008

SEEMA SINDHU
New Delhi

The complexity of business demands, cost constraints, data growth and staffing issues are driving companies to outsource their data centre operations or specific tasks like email, web or help desk services to third-party vendors, also called managed service providers (MSPs). These MSPs include Reliance Communications (RCom), Tata Consultancy Services (TCS), Bharti, Netcore, and Ctrl S. The biggest outsourcers are enterprises, banks and financial institutions at 28 per cent, followed by manufacturing — 25 per cent, public sector — 18 per cent, telecom — 9 per cent and retail — 8 per cent.

A data centre is essentially a computer room, a physical facility that allows a company to store and manage servers, networks and other computer equipment in a controlled-environment.

Ayyappa Nagubandi, managing director, Nowpos, a Hy-



CHECKLIST FOR A GOOD MSP

- What am I getting other than the physical racks to host the server?
- Do they have the necessary resources to manage it?
- How many shifts do they work?
- Do they have a 24/7 help-desk service?
- What kind of infrastructure support would they offer?
- Service level agreement that guarantees service

derabad-based voice technology company, which outsources its data centre jobs to Ctrl S, admits it's cheaper "and saves recurring operation costs of managing an in-house data centre." Niranian Prasad, director, Metamind Software, another Ctrl S client says: "Outsourcing jobs to a third party means reliable power supply, sufficient bandwidth, ample disk space, reliable security etc

and not only server upkeep. It is a complete hostage facility. It hosts enterprise-level applications for which we are not technically equipped."

According to a Symantec report, IT managers in the Asia-Pacific region rely on outsourcing data centre operations more than their peers. Currently, India's data business is pegged at \$983 million (around Rs 4,000 crore), which

is a mere 2 per cent of the world market share. Web research firm Data Monitor predicts that this business will grow at 22.2 per cent per annum.

The Indian managed services market is currently dominated by telcos as it is a value-added attraction for their customers who may already be subscribing to various telecom facilities like broadband and leased lines.

"Globally, web hosting is an increasing trend. Besides that, data centre services are seeing more growth among other managed services," Abid Qadiri, vice-president-product management (Managed Services), Tata Communications, says. Soumitra Agarwal, marketing director-India, NetApp — partner of Tata Communications in providing storage services — agrees with the view.

Shantanu Ghosh, vice-president, India Product Operations, Symantec Corporation, notes that the Indian data centre market opportunity is expected to be driven by increasing sup-

ply and decreasing cost of Internet bandwidth and domestic companies hosting their mission-critical applications such as ERP and CRM in third-party data centres.

In the 2008-09 Budget, the government announced a Rs 275-crore package for setting up state data centres, which is expected to give this trend a further boost.

"As bandwidth prices fall to around Rs 6000-8,000 per Mbps per month, India becomes an attractive destination for hosting," says Sreedhar Reddy, chief managing director, Ctrl S Data Centers, a Hyderabad-based service provider in data centre solutions.

Naresh Singh, principal research analyst in the enterprise network services and infrastructure group of Gartner, an IT research and advisory company, says: "The market will grow faster because of two developments: more and more foreign companies are hosting web content from India and the trend will grow steadily over 4-5 years."