IT Issues & Role of System Integrators (SIs) in India Centric Foreign VC/PE Firms

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IT ISSUES & ROLE OF SIS IN INDIA CENTRIC FOREIGN VC/PE FIRMS

Key Question

What is the challenge of India centric VC/PE firms and how IT can be used by them to improve their operations in terms of the following?

- **International Taxation**
- **Central Server**
- **Data Marts**
- **Digital Dashboards**
- **KM Tools**
- **Mobile-Enabled Tools**
- **Effective Communication Management**
- **IT Security**
- **Role of System Integrators (SI)**

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Venture capital/private equity (VC/PE) funds are investing in India in multiple sectors through countries such as Mauritius, Cyprus, Cayman Islands, and Singapore. However, they face the challenge of achieving the targeted return of investments (ROI) due to skepticism of Indian Tax Authorities about their operations, in spite of double taxation avoidance agreement treaties which India has entered with various countries, including Singapore, Cyprus, and Mauritius. In addition, location of servers and communication management system within the VC/PE firms and their India administrative offices play a key role for tax related purposes.

To ensure ROIs are not affected by tax-related issues, VC/PE firms need to put in place an effective communication management system and select the right server location. In addition, VC/PE firms can achieve operational efficiency through the deployment of a central server and various IT solutions, and ensuring security of data in the host country.

Data Marts – VC/PE firms employing data marts can benefit in data monitoring, compliance reporting, investment management, and due diligence.

Digital Dashboards – Executives pressed with the challenge of monitoring business performance in real time can benefit from digital dashboards

Knowledge Management (KM) Tools – Executives can leverage the existing organizational information and can effectively manage the ever increasing amount of data through KM tools.

Mobile-Enabled Tools – With more and more workers spending more time away from their desks, mobile-enabled devices can assist VC/PE firms to keep employees informed, responsive, and constantly connected.

Effective Communication Management – For faster communication with employees, firms rely on e-mails. Successful e-mail management is the key to effective communication management.

IT Security – As part of IT security, VC/PE firms need to put in place a data governance plan, which includes designing a security policy and deployment of IT security systems.

SI's Role – VC/PE firms are typically small in size, and lack a large IT function. SIs can fulfill the IT needs of such firms–from IT advisory to assisting them in improving features of their product offerings in India.

With increased globalization and growth in international trade and commerce between nations, companies are extending their sphere of operations from their home countries to other host countries at a faster pace. Cross-country flow of capital, services, and technology is increasing after countries are embracing globalization.

In India, opportunities in multiple sectors, including real estate, infrastructure, and IT resulted in the increasing flow of foreign investments, including venture capital/private equity funds. These funds use various destinations to come to India with popular destinations such as Mauritius, Cayman Islands, Cyprus, and Singapore for multiple reasons such as favorable government policies, stable economy, tax benefits, and strong banking sector.

These VC/PE firms establish partnerships with advisory or administrative offices–which are independent legal entities–in India for project monitoring, investment due diligence, and administrative purposes. However, these administrative offices do not take investment decisions and are not involved in financial and management control of investments in India, which are typically controlled by the headquarters located in the home countries.

***VC/PE funds** from destinations such as Mauritius, Cyprus, and Singapore face double taxation challenge. These firms establish partnerships with advisory or administrative offices in India*

Double Taxation Issue

Double or multiple taxation acts as a major determining factor in decisions related to location of investment among other issues as it affects the bottom-line of a business enterprise, besides creating ambiguity in trade. To eliminate ambiguity and increase bottom-line, countries execute tax treaties such as Double Taxation Avoidance Agreements (DTAA) between various countries to facilitate trade. India has also executed DTAA treaties with countries such as Mauritius, Cyprus, and Singapore for the following:

- To simplify the tax-related issues for cross border transactions, thereby minimizing the tax burden on foreign companies
- To attract foreign investments into the country through foreign direct investment (FDI) route
- To promote economic cooperation between India and the agreed countries

Such DTAA treaties allow the VC/PE firms favorable tax treatment on income from capital gains arising from sale of shares/investments in India. However, the tax benefits under DTAA are a subject matter of litigation in India and Indian Tax Authorities have questioned the eligibility of these firms to enjoy tax benefits under DTAA by contending: -

- Operations of such VC/PE firms are primarily assumed to be driven from host country (India) rather than home country/country of residence of the VC/PE (Singapore, Mauritius, etc). Indian Tax Authorities contend that due to the local establishment of VC/PE firms, they are deemed to have a Permanent Establishment–understood under tax treaties as taxable presence of a foreign company in India–in India

Server Location and its Impact on Permanent Establishment

Some of these VC/PE firms might employ servers, including data and e-mail servers located in India for administrative convenience. Some smaller VC/PE firms store data in employee laptops or PCs, instead of servers. The location of servers or such individual data storage systems play a key role for tax computation purposes. Indian Tax Authorities contend that companies whose servers or such individual data storage systems are located in India can be considered to have permanent establishment in India, and hence the income generated by the PE/VC firms need to be taxed in India. In such a situation, the effective ROIs from the Indian investments reduce. Further, lack of an effective communication management system can also lead to tax ambiguities.

Scope for IT and Role of System Integrators

To ensure that the returns on investments (ROIs) are not affected due to tax ambiguities, VC/PE firms need to put in place an effective communication management system within the VC/PE structure and identify a right server location. In addition, VC/PE firms can also increase their operational efficiency through the deployment of IT solutions such as data marts, digital dashboards, knowledge management (KM) tools, and adopting mobile communication technologies such as PDAs, laptops, and Black Berries.

They can also take advantage of centralizing the IT set up through a centralized server, instead of individual laptops. Various IT tools such as KM tools and data marts can reside in the servers. In addition, intranet and patch book, which is a virtual meeting place for CFOs and CEOs of funds' investee companies, can reside in the servers. These IT tools can be replicated by making virtual copies available to fund's investee companies in India, provided it is centrally negotiated at fund levels, thereby reducing IT costs.

Equally important is data control and governance and security as sharing of information exposes organizations to risk of theft, alteration, damage, and destruction of data, thereby breaching government and industry rules and regulations. According to a recent survey by PGP Research, a US-based e-mail and data encryption software development company, the average cost of a data breach is $4.8 million, and the real costs incurred range from $2 million to $22 million.[1]

To maximize benefit realization from the deployed IT systems, VC/PE firms need to integrate the IT systems. Integration is typically done by IT system integrators (SI). SIs can play a key role in designing the IT architecture of VC/PE firms based on their existing business processes. Designing of IT architecture includes the security architecture. In addition, SIs can assist VC/PE firms in creating new products, especially in real-estate projects. For example, they can play a critical role in building Wi-Fi enabled townships, E-homes, etc.

Mr. Atul Bansal, MD, Velocis (earlier Silicon Integrix), an India-based leading system integrator company says

"A number of factors play a critical role for the success of VC/PE firms in India… integrating data marts, sophisticated digital dashboards, KM tools, effective communication management systems, and mobile-enabled devices and ensuring IT security are the key"

Data marts assist VC/PE firms in:

- *Data monitoring*
- *Compliance reporting*
- *Investment management*
- *Due diligence*

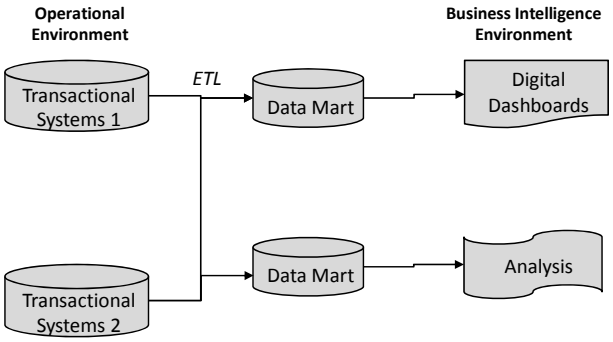
Fluctuating global crude oil prices, the US mortgage and banking crisis, fluctuating currency and inflation rate, and subsequent increase in bank interest rates made imperative for VC/PE firms to monitor more closely the performance of their existing investments in India and other countries. In the scenario of uncertainty, they also need to avoid riskier investments and pay more attention to profitable investments. In addition, regulatory, tax, and accounting rule changes affect the performance of their investments in India. In addition, VC/PE firms typically generate significant amount of data in various formats stored in disparate databases. As a result, the firms cannot leverage the benefits of integrated data.

To mitigate risks, track the performance of investments, comply with regulatory, tax, and accounting rule changes, ensure data accuracy and integrity, and leverage the benefits of integrated data, VC/PE firms need to implement data marts.

A data mart is a repository of electronically stored data in a consolidated and an organized form, collected from multiple disparate databases or corporate systems installed across a VC/PE firm. It updates its data based on the companies' requirement to use the stored data for business decisions. For such firms, the consolidated data consists of information around investment amounts, management of the firms who are receiving the investments, investment sectors and geographies, etc. Data marts facilitate in data analysis and reporting.

Business intelligence (BI) tools integrated with data marts help in data extraction, transformation, and loading (ETL) into the repository, while tools are also integrated to manage and retrieve data.[2]

Data Mart Environment



Data marts provide the following benefits to VC/PE firms, thereby assisting them to increase their return on investments (ROI):[3]

- *Improved Monitoring of Existing Investment Data:* In the changing external environment, it is imperative for VC/PE firms to monitor the performance of existing investments to mitigate any potential risks. Data marts support real-time monitoring of the performance of existing investments through BI tools
- *Improved Compliance Reporting:* VC/PE firms are required to prepare compliance reports on transactions, unfunded commitments, and similar issues. Typically, such compliance report generation is time consuming in nature. Data marts enable the firms to prepare such reports quickly without much difficulty. In addition, implementing rules such as Basel II compliance ensures that data can be stored for the mandatory seven years before it is automatically removed from the systems
- *Enhanced Investment Management*: Quick data retrieval, query, and analysis, and organized data assist VC/PE firms to prioritize investments based on the risk-return analysis of potential investment sectors or geographies in the changing external environment
- *Enhanced Due Diligence:* Integrated and organized data in a standard format mitigate the risk of data inconsistency, while supporting VC/PE firms to conduct detailed due diligence of the management of the firms receiving the investments

VC/PE firms might face challenge in extraction, transformation, and loading of data from transactional and external systems into the data marts, as well as integrating different file types such as word processing documents, spreadsheets, etc.[4]

Mr. Atul Bansal, MD, Velocis says

"The increasing appetite for business intelligence information has spawned need for specialized data warehousing. We have helped various clients after studying patterns of data growth and usage that cannot be reconciled and created. We have successfully implemented business critical data warehousing application and cost effective solution for complex business intelligence infrastructure"

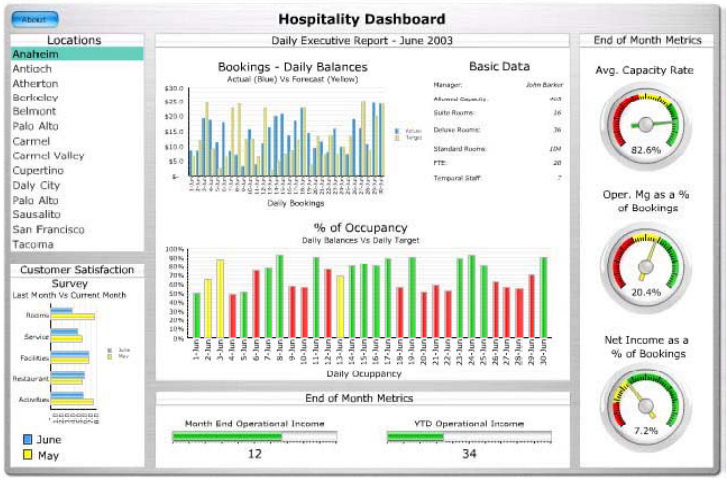
Enterprises, including VC/PE firms are increasingly seeking ways to provide consolidated, real-time information about businesses to their key executives to help them identify industry trends, seize business opportunities, respond to customer needs, and resolve operational issues quickly.

Digital dashboards, a key component of BI tools, enable decision-makers to monitor business performance in real-time.[5] Dashboards typically provide single-screen graphical and numerical representation of key enterprise performance metrics.[6] The metrics can be both financial and non-financial such as average revenue per employee, monthly billings, and number of new investments contracts.[7]

Digital dashboards assist executives in VC/PE firms with:

- *Real-time information*
- *Proactive decision making*

A Digital Dashboard



Source: Adam Getz, "Data Warehouses: What are they and how will they benefit your organization?" *Guident Technologies*, December 2006

A digital dashboard typically offers the following key functionalities:[8]

- *Real-Time Information*: Provides real-time financial, operational, and competitive information on business operations and industry performance. Alerts users through indicators, e-mails or wireless messages if actual metric values deviate from the predefined levels
- *Proactive Decision-Making:* Enables venture capitalists and other decision-makers in private equity firms to take proactive decisions on potential opportunities, impending problems, and business threats
- *Customizable User Interface:* Enables users to view specific performance indicators and analyze functions and layout presentation necessary for their jobs. Allows users to drill down displayed information for detailed analysis
- *Cost Reduction:* Leverages the existing enterprise IT infrastructure and enables enterprises to reduce manpower- and operations-related costs

VC/PE firms may face the following challenges while deploying digital dashboard systems:[9]

- *Data Incompatibility:* Enterprises, including venture capital firms frequently store data in disparate and incompatible databases, thereby causing data consolidation and integration challenges
- *Data Inconsistency:* Multiple offices of a venture capital firm might maintain inconsistent data sources. Additionally, operational definitions may differ across the firm
- *Diverse Information Requirements:* Different information requirements from different users make it difficult for decision-makers to identify the most critical information
- *Internal Opposition:* Managers accustomed to handling multiple spreadsheets may show reluctance in using digital dashboards, which display select key performance metrics

VC/PE firms invest across India in various sectors with the objective of high return on investments. A challenge for VC/PE firms is to ensure that the executives always leverage the existing information and knowledge stored within the organizations. However, information is typically scattered across the company in disparate systems, and with many executives geographically dispersed, they face more challenge to leverage the existing organizational information. In addition, the firms face a challenge to effectively manage the ever increasing amount of data generated in the organizations.

To mitigate the above challenges, VC/PE firms can deploy knowledge management (KM) systems. KM tools differ from traditional information and records management tools in that they are more than pure collection and grouping of tangible information by bringing in context with intangible processes and human culture.[10]

Such tools facilitate information sharing and reuse among employees. In addition, such systems work across new types of interaction channels such as wikis and blogs used in organizations and are capable of managing unstructured and structured information.[11]

Companies deploying KM tools can benefit in the following:[12]

- *Document Management*: Supports effective management of documents through structured records management system, thereby overcoming the challenge of managing the rapid rate of growth of information within the organization
- *Efficiency Improvement*: Provides access to the right information at the right time to the right people, who can derive knowledge from it, thereby reducing the time required to locate and process documents for a particular project. Supports reuse of existing knowledge
- *Collaboration Enhancement*: Enhances sharing of information between employees in the age of Web 2.0, when executives are located in different geographies and rely on e-mails, text messaging, and even blogs and wikis to communicate and share information daily

KM tools assist VC/PE firms in:

- *Managing documents effectively*
- *Improving employee efficiency*
- *Increasing employee collaboration*

To remain competitive, organizations are equipping workforce with tools to enable employees thoroughly informed, responsive and constantly connected. As mobile workforce is increasingly relying on a proliferation of remote devices–from smart phones, laptops and tablet PCs to PDAs–they are demanding greater access to the tools and applications that allow them to remain connected and enable them to be more productive. For example, knowledge workers need access to corporate data and applications on the network so they can improve collaboration with team members from a remote location.[13]

Enterprises deploying mobile-enabled tools can derive the following benefits:[14]

- *Increased Employee Work Span*: Employees can work from office, home, and on the field using mobile technologies, thereby improving productivity
- *Enhanced Employee Decision Making*: Employees using mobile technologies can access critical information from anywhere and at anytime, thereby assisting them to take faster and better decisions
- *Increased Collaboration*: Mobile technology-enabled devices enable employees to collaborate more easily

Mobile-enabled tools assist VC/PE firms to:

- *Increase work span*
- *Increase employee collaboration*
- *Enhance employee decision making*

However, with more and more workers spending more time away from their desks, VC/PE firms seeking to maximize the benefits from mobile-enabled tools need to ensure the following:[15]

- *Migrate from Ad-hoc Mobility Usage Policy*: Lack of standardized mobile strategy in small and medium firms drives employees in such firms to use different mobile devices and related operating systems, thereby creating problems to manage the devices effectively
- *Install Mobile Compatibility Business Applications*: Lack of custom or dedicated mobile compatible business applications inhibit the growth in the usage of mobile-enabled tools in enterprises
- *Focus on Access Controls*: Lack of management control on data accessibility will encourage employees to access and save sensitive data through various storage devices, thereby compromising on data security
- *Focus on Security Issues*: The more the number of employees take their laptops or other mobile devices containing sensitive company and customer data outside the four walls of the enterprise, the greater the threat of data loss or theft

In the era of globalization, e-mail is one of the most effective and widely used methods for business communication. Important documents are shared and critical information is exchanged over e-mails between offices and employees. For quick communication with employees, administrative offices, and clients, VC/PE firms also rely on e-mails.

Given the critical role of e-mails in business communication, companies, including VC/PE firms require a successful e-mail management as part of an effective communication management strategy.

The key aspects of successful e-mail management are:[16]

- *E-Mail Disaster Recovery*: Outages typically affect the e-mail systems. The average duration of outages varies between one hour and 48 hours, and longer the duration of outages, more difficulties organizations face in communication. Companies typically rely on clustering, replication, and backup tapes for disaster recovery. However, such solutions face data corruption, configuration, and virus problems, which might prevent full recovery. To overcome the challenge, companies need to deploy solutions which provide continual e-mail service, full recovery, and low recovery time objectives
- *E-Mail Retention and Deletion Policies*: E-mail messages are considered business records, and hence they are subject to rules related to retention and deletion of records. The rules determine which business records need to be retained and the appropriate timeframe for deletion. However, in many organizations, there is a lack of consensus on retention policies, while in others there are no retention and deletion policies. Companies need to set granular retention and deletion policies at the employee level
- *E-Discovery Compliance*: E-discovery is a process through which electronic data is sought, located, secured, and searched for using it as evidence in a lawsuit. As e-mails are increasingly used in business transactions, the e-discovery of these documents becomes critical. However, normal discovery of such documents are difficult due to volume, retrieval method used, and restoration cost, failing which companies may face fines and unfavorable court rulings. To eliminate the pitfalls, companies need to comply with e-discovery, which includes strong retention policy and a proper e-mail search and recovery systems
- *E-Mail Archiving*: To reduce volume of e-mail storage in the network, organizations typically set mailbox size limits, enforce employees to archive e-mails, or delete e-mails after a certain period of time. However, such options are not effective to manage e-mail volume due to employee reluctance and frequent new e-mail retention and deletion regulations. To manage the growing e-mail volume, firms need to deploy e-mail archiving systems that allow IT administrators to set granular level e-mail policies
- *Security*: To eliminate the threat of spam e-mails, worms, viruses, and malicious codes, firms need to deploy anti-virus software, content filtering software, and firewalls, and implement security controls. Security controls include file attachment filtering; specific router configurations; protection of e-mail clients and e-mail servers; updating user accounts, global lists of trusted, and blocked addresses and domains

Effective communication management through:

- *E-mail disaster recovery*
- *E-mail retention and deletion policies*
- *E-discovery compliance*
- *E-mail archiving*
- *Security*

The proliferation of Internet data tracking coupled with the fact that companies now collect increasingly more information make them vulnerable to data security breaches. Securing such information may prove challenging, as employees can download information locally from spreadsheets and databases. The two most common security threats are exposure of private data and altering and tampering of data. Exposures of sensitive private data not only affect the businesses, but also risk the companies to violate certain regulations.[17]

In addition, with the increasing usage of mobile devices such as laptops, mobile phones, Black Berries, and wireless networks, enterprises are vulnerable to mobile device viruses. Such viruses exploit the vulnerabilities in Bluetooth, wireless encryption protocol (WEP), and other wireless technologies. Mobile viruses spread in the same way as traditional computer viruses, through downloading of infected programs and files such as photos, video clips, ring tones, and cell phone themes. Blue tooth enabled mobile devices are affected when in close proximity with an infected Bluetooth device.[18]

To prevent costly data breaches, VC/PE firms need to put in place a data governance plan. Data governance plan includes designing a security policy and deployment of security systems.

VC/PE firms need to formulate a data governance plan as part of IT security through….:

- *Designing a security policy*
  - *Gathering Information*
  - *Providing responsibility on data governance to employee*
  - *Formulating a security policy*
  - *Focusing on effective vendor management*

Designing a Security Policy[19]

- *Gather Information*: • Gather details related to various places where business collects and processes personal information. Consider all HR functions, all employee and client interfaces that collect information • Determine the methods that an enterprise adopt to use the collected data, the employees who have access to the data, and the circumstances under which the data leaves the company
- *Provide Responsibility on Data Governance to an Employee*: Select a staff member who can take the responsibility for data privacy and provide the staff with necessary resources required
- *Formulate a Security Policy*: • Review existing employee policies, notices, and all types of privacy statements that exist within the enterprise • Determine the appropriate data collection, processing, security, and notice, opt-out access for each respective data collection area, as well as the types of actions that employees can take with specific data • Develop a comprehensive security plan, taking into account network aspects such as the infrastructure, operating systems, application software, databases, access controls, remote access services, and Internet services • Conduct periodic security audits by employing external parties to detect weaknesses in security policies and procedures • Educate employees on security-related issues
- *Focus on Effective Vendor Management:* • Review existing vendor contracts and determine whether those documents meet privacy standards • Include in the contract, clauses for security measures and data accessibility guidelines to ensure that vendors manage data properly

…. and:

- *Deployment of security systems:*
  - *Access control*
  - *Data encryption*
  - *Firewall*
  - *Vulnerability testing*
  - *Integrity checking*
  - *Intrusion detection*
  - *System and data auditing*

Deployment of Security Systems[20]

Security systems can be deployed by adopting proactive and reactive approaches. While proactive strategies prevent data breaches, reactive strategies detect already occurred breaches as quickly as possible.

Proactive strategies are access control, data encryption, firewalls, archiving, and vulnerability testing.

- *Access Control*: Authorizes only specific employees to access the data servers, which can be achieved through the deployment of identity and access management solution. Some smaller VC/PE firms store data in employee laptops or PCs, instead of servers, which can lead to data mismanagement and data security compromise. Restricts and monitors the type of data that can be copied or transferred to removable storage devices and media, thereby ensuring confidential data and other intellectual property does not leave the company's control. For mobile security strategy, controlling data transfer need to be done in a granular manner. For example, organizations should be able to specify which data or content can be copied and which cannot, as well as which types of removable media can be used
- *Data Encryption*: Protects data from unauthorized access by encrypting the data. Encryption solutions typically need to support both data in-transit between corporate devices and data at-rest in storage devices, in addition to support for multiple encryption algorithms and keys. Such solutions include full-disk encryption to protect all the information stored on all corporate systems and removable devices and file and folder encryption to ensure that files and folders remain encrypted and unreadable by anyone other than the authorized individuals, irrespective of where the files or folders are saved or transferred. Encryption also helps in safe transmitting of e-mail messages intra and inter offices and companies
- *Firewall*: Protects enterprise networks from malicious code such as trojan horses, BOTs, key loggers, worms through its deployment at the perimeter of the networks
- *Vulnerability Testing*: Tests vulnerability of data servers through various techniques. Network-based vulnerability testing scanners discover and evaluate the security of data servers in enterprises

Reactive strategies are integrity checking, intrusion detection, and system and data auditing.

- *Integrity Checking*: Monitors specific files for any changes that might have been made to them
- *Intrusion Detection*: Monitors system files to identify whether there are multiple failed authentication attempts, and tracks network traffic to identify patterns associated with malicious activities
- *System and Data Auditing*: Determines the nature of the security breaches and scope of the incidents and prepares reports and records all system and file access chronologically

Integrating the individual components such as data marts, KM tools, and digital dashboards is the key for VC/PE firms to monitor the performance of their investments in real-time. As the existing VC/PE firms are small in size, they typically lack a large IT function. SIs can play a key role to fulfill the IT needs of VC/PE firms. In addition, recruiting SIs can help VC/PE firms to eliminate the need to manage the day-to-day operational challenges of IT functions, thereby enabling them to focus on their core competence.

Following are the spaces where SIs can provide value-add to VC/PE firms:

- *IT Advisory*: As the VC/PE firms lack IT functions, they typically are unaware of the solutions that are appropriate for their organizations. SIs can play a proactive role in understanding the IT needs of the VC/PE firms, based on which they can recommend solutions and applications best suited for the firms. For example, the type of data marts or KM tools that will be suitable for a particular VC/PE firm, server location, IT connectivity between offshore and onshore locations, intranet, and type of network design such as star topology appropriate to that firm. In addition, they can design the architecture of different IT components such as data marts. As part of their understanding of the business processes of the VC/PE firms, SIs can also suggest improvement or elimination of the existing business processes to streamline the operations, as well as redesigning the IT plans based on the business processes
- *IT Infrastructure Installation and Management*: Based on the IT needs of VC/PE firms, SIs can implement IT infrastructure such as servers, routers, and network and communication equipment, including cabling, as well as firewalls to meet the security challenges. Post installation, SIs can manage the IT infrastructure, including monitoring infrastructure performance, resolving any issues that might arise, and scaling up the capacities of the installed equipment to meet the increased network and communication traffic, thereby eliminating server downtime
- *IT Application Integration*: Independent silos of data marts, KM tools, and digital dashboards will not provide any leverage to the VC/PE firms, unless these systems are integrated. SIs not only integrate these tools, but also provide end-to-end application management services
- *Compliance and Auditing*: *As* VC/PE firms make multiple investments in different industries, they need to comply with multiple legal, tax, and regulatory laws. SIs can help in setting up the mechanism and processes to ensure that VC/PE firms and their Indian investments are complying with the law of the land through central auditing of documents, which are IT automated compliance calendar and reporting. VC/PE firms can set up a central compliance reporting mechanism through a centralized server for statuary and legal records to ensure that its investee companies comply with the law of the land. An auditor is typically hired for each country in which VC/PE firm operates and the auditor can periodically audit the documents remotely by accessing the centralized server and circulating a compliance report to the VC/PE firms post-auditing
- *IT Security*: SIs can assist in designing the data governance plan of a VC/PE firm, including formulating the security policy and recommending the security systems appropriate for the VC/PE firms. SIs also monitor network traffic, and detect and prevent security leaks in network
- *VC/PE Product Offerings Attractiveness*: VC/PE firms are creating new investment products and SIs can play a proactive role in assisting the firms to create such products. For instance, VC/PE firms' real estate funds are investing in WiFi-enabled townships. SIs can play an important role in IT planning for such townships. Such townships will have Wi-Fi-enabled homes, called E-homes. Owners of such homes can remotely control the activities of their home equipments. For example, they can remotely switch on air conditioners, heaters, lights while driving by connecting to an in-built home server through the Internet using their mobile phones. Such apartments will also have e- letterboxes[21]

SIs can play a critical role to fulfill the IT needs of the VC/PE firms and in assisting such firms to create new products

- *IT advisory role*
- *IT infrastructure installation and management role*
- *IT application integration role*
- *Compliance and auditing role*
- *IT security role*
- *VC/PE product creation assistance role*

Mr. Atul Bansal, MD, Velocis says

"VC/PE firms would need to take advantage of centralizing the IT set up and housing IT tools such as ERP, KM, Data Marts, intranet, patch books (for instance CFO and CEO round table) on server and even replicate copies to its investee companies in India. This can be cost effective being certainly negotiated at fund level and generate controls within the organizations….."

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