

## View Point



### Offerings to Enable IT for Higher Education

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Asif Khan, Meghna Sharma

#### Abstract

The Education industry faces a large number of issues and challenges within the Information Technology paradigm. Information Technology leaders need to identify these issues in time and address them effectively.

Surveys have identified critical areas in the Information Technology space. These strategic areas are the key to strategic success of educational institutions.

Infosys is well placed to help and partner the Education Industry in providing the direction that Information Technology needs in the Education arena. The article describes the various offerings available which can help do just that.

For more information, contact [askus@infosys.com](mailto:askus@infosys.com)

EDUCAUSE is a nonprofit association intending to catalyze higher education with use of Information Technology. Membership is open to institutions of higher education, corporations serving the higher education Information Technology market, and other related associations and organizations. The current membership comprises of more than 2,000 colleges, universities, and educational organizations, including 200 corporations, with 16,500 active members. Infosys has been a corporate member of EDUCAUSE and is associated with various education industry bodies.

EDUCAUSE undertakes annual surveys of Information Technology (IT) leaders to accurately identify key and critical challenges that leaders within the IT departments of education institutes are likely to face. The surveys balance issues across time and in terms of importance and try to define the top 10 current issues affecting Information Technology in higher education institutions by answering key questions like:

- a. What IT needs to resolve for the institution's strategic success?
- b. What has the potential to grow to become significant?

Based on the results of a survey in 2007, the **top 10 critical areas for educational institutions' strategic success** have been identified as follows:



Infosys is committed to partner and provide seamless services to the Education Industry and addresses all these top critical areas. We demonstrate a strong track record of partnering with and providing services to clients across geographies and industry verticals (including Education).

Partnering with Infosys provides scale, depth and expertise that clients needs in transforming the business in current scenarios. Infosys provides flexible staffing model to accommodate change in staffing requirements and optimizing the costs. Infosys is one of the acknowledged software service industry leaders in IT and ITES and provides the value adds to its clients. Moving an element of delivery to any of Infosys' offshore delivery locations (in India, China, Mexico, Canada, Czechoslovakia among others) also provides a significant reduction in operational cost while ensuring delivery quality. Having multiple capable locations also mitigates the out sourcing risks.

The matrix below explains the critical areas to be addressed by different pain points an Education Institute for their overall success and how Infosys' offerings can address these.

		Build Competitive Advantage		
		Better Returns on Investment	Better Returns of Existing Assets	Better Equipped for Future
Core Transformation Areas	Better Operations	Funding IT	Administrative/ ERP/ Information Systems	E-learning/ Distributed Teaching & Learning
	Better service to constituents	Identity Access Management	IT Infrastructure	Security
	Better Governance	Change Management	BCP / DR (Business Continuity Planning/ Disaster Recovery)	Staffing

Fig: Offerings to Address Key Issues in Educational Institutions

The sections below discuss in detail how every key and critical issue is addressed by services and service offerings provided by Infosys.

## 1. Security

*IT Security is the top strategic issue for colleges and universities with the increasing use of electronic media to use and transmit critical data. The overall persistence of security incidents (including state and federal compliance issues) and data breaches ensure that this remains a central concern of IT organizations in all educational institutions.*

The current scenario in today's campuses where data exchange over campus networks and external networks is on the rise – with a lot of confidential & personal identification information being exchanged over the intranet as well as over the internet – IT security assumes prime importance with not only the network layer but also individual applications requiring security to protect data.

The education industry also faces a large and growing number of regulations related to security of data.

Our understanding of key drivers for Application Security within educational institutions is:

- Regulatory Compliance:** There are growing regulations regarding IT security which put specific pressures on the security and application delivery.
- Application and Integration Complexity:** There are many varied security approaches used by an enterprise's applications and integration across applications brings in added security issues.
- Current Understanding of IT Security Issues:** The heightened level of general awareness of security issues continues to influence institutions to pay greater attention to application-level security.
- Emerging solutions for secure Web Services:** Secure Web Services, is an important technique of application integration. Our endeavor, at Infosys is to help enterprises deal with the potential dangers in the security arena. Infosys Application Security solution does a comprehensive security audit to expose the existing vulnerabilities and suggest ways to mitigate the same.

Our Enterprise Security solution enables you to secure enterprise information, detect , prevent intrusions and safeguard your data assets.

Read More at <http://www.infosys.com/IT-services/infrastructure-services/service-offerings/enterprise-security-solution.asp>

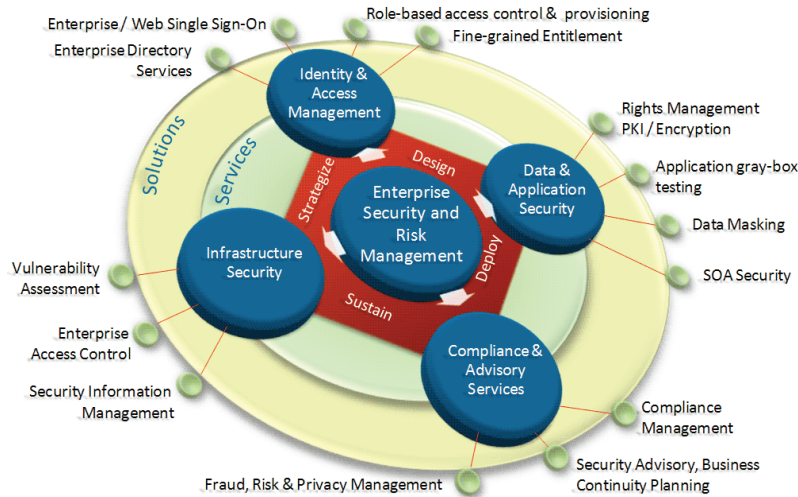


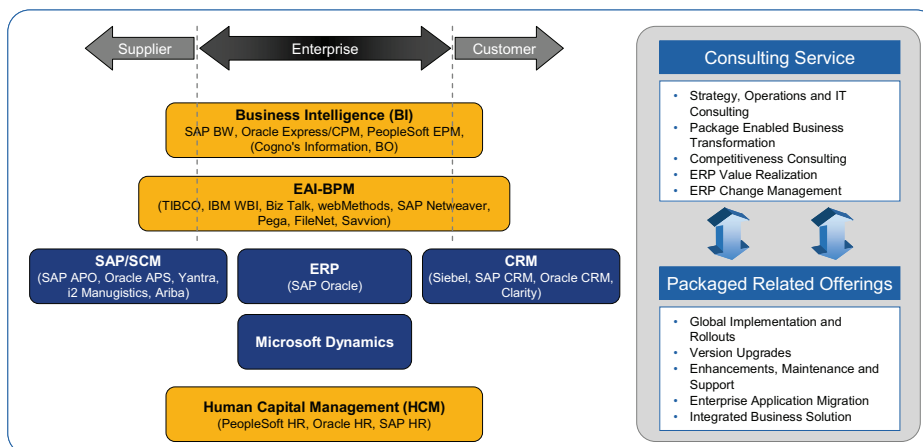
Fig: Infosys' Enterprise Risk Management provides a comprehensive approach for security, governance, risk and compliance

## 2. Administrative/ERP/Information Systems

While ERP systems have been a familiar part of the IT environment for years, institutions still continuously spend the most resources on them.

Also, despite the arrival of new technologies and concepts, ERP has risen in strategic importance. ERP implementations involve high initial investment costs and annual maintenance, licensing, and consulting services are also very expensive.

- The Enterprise Solutions (ES) division at Infosys provides services and solutions spanning across enterprise value chain through Packaged Applications. ES has delivered services and solutions in more than 28 countries across the globe, with team of 12000+ consultants across the packages. Since inception ES has grown at 51% CAGR. As of Q3 FY'09 we contribute 25.1% of Infosys revenues totaling to 290+ M USD.
- Our proven track record of execution excellence: 90+% on time delivery, lower TCO helps provides significant value to the customer. Also 90+% of our Q-o-Q revenues come from existing customers.
- We have alliance partnership with leading enterprise application vendors like SAP, Oracle, Tibco, Sterling Commerce, and Microsoft Dynamics etc.



### 3. Funding IT

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*The expectations from IT continue to grow and keep the budget under pressure at all institutions. This has led to evolve the approach to fund IT with a number of campuses recognizing the need to involve CIOs in the highest levels of planning and governance.*

*Reduction of cost and stretching of the dollar must be high priority for IT leaders in order to meet growing expectations with the limited budget resources.*

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- The days of flying an entire team of business consultants to a client site, incurring the high costs of travel, and thinking about problems with a local perspective are over. As the pioneer of the Global Delivery Model, we developed a new model for consulting based on a simple idea: A blended offering of high quality business consulting onsite with impeccable technology implementation offsite.
- Infosys advocates implementation and execution of all IT projects by using the off shoring advantage it offers. This helps in reducing the overall IT spend, and hence not very huge funds are needed for executing small IT innovations and requirements.

#### *Application Management*

Infosys' Application Management practice offers a wide range of support services for various platforms and technologies.

Read more at <http://www.infosys.com/IT-services/infrastructure-services/serviceofferings/application-management.asp>

### 4. Infrastructure

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*The challenge of maintaining and enhancing campus infrastructure remains a high priority. Supporting robust connections to available networks and maintaining and securing the college network requires sound planning to ensure that basic telecommunication and networking needs of the educational institution are met. New infrastructure like Wi-Fi and VPN is being requested of the IT organization – thus competing with existing resources for traditional networking.*

*IT infrastructure is expected to “always be there” and is the foundation for any technology related activities that are visible from outside any institution.*

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- Infosys has a separate Infrastructure Management Service (IMS) - group to address customer requirements in the field of IT Infrastructure Management. IMS group ensures that IT infrastructure and applications are managed and operated on a 24x7 basis, ensuring high availability to provide better business value with a reduced Total Cost of Ownership (TCO) in a shorter time frame, utilizing the Global Delivery Model (GDM) of Infosys.
- Infosys has sought to provide the best IT infrastructure management packages to its clients through the solutions pioneered by IMS' Solutions team. These solutions aim to strengthen the end users environment, as well as reduce the complexities in the management of the core infrastructure components.
- Infosys' alliance with technology leaders and niche players in break-fix and onsite services enables the delivery of the solutions at the optimal cost. The partnership approach also covers the hardware aspect of delivery and ensures better inventory management.

#### *Data Center Services*

We provide support to different elements within a datacenter such as Systems and Storage Management, Database Management, Messaging Environment Support and Hosting.

Read more at <http://www.infosys.com/IT-services/infrastructure-services/serviceofferings/datacenter-management.asp>

## 5. Identity/Access Management

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*Identity/Access Management (IAM) is being thought of as an institution wide commitment across the education world. Institutions are developing plans and operations relating to each of the main elements i.e. identification, authorization and authentication. IT leaders are increasingly educating and informing constituents on the importance of IAM in securing individual network users.*

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### IAM Solutions Highlights

- Enterprise Directory Services design and consolidation
- User identity design and management
- Enterprise and web access control and reduced / single sign-on
- Risk-based strong authentication and fraud management
- Roles-based user provisioning
- Customer registration and management
- Integrated user console for self-service and request management
- Delegated user administration
- Externalize application access control into a fine-grained entitlement system
- Factory integration model for application / platform on-boarding
- Integrated compliance and reporting system
- IAM COE and governance

Infosys sees IAM as a set of business processes, and a supporting infrastructure for the creation, maintenance and use of digital identities and their access. Our understanding is that IAM initiatives are typically driven by thrust on regulatory and statutory compliance. Other key operational reasons for the decision to move into a comprehensive IAM solution as observed by us are maintenance issues and desire for convergence of platforms.

A good IAM solution also ensures effective audit trails and reports as required by regulations and privacy laws.

Typically the areas that need to be addressed while looking at an IAM solution are

- Creation and management of user accounts on various enterprise systems
- Enforcement of access controls and security policies across the enterprise

Infosys' comprehensive Identity Management framework covers the identity lifecycle (creating, managing and de-commissioning stakeholder identities).

Read more at <http://www.infosys.com/IT-services/information-management/serviceofferings/identity-management.asp>

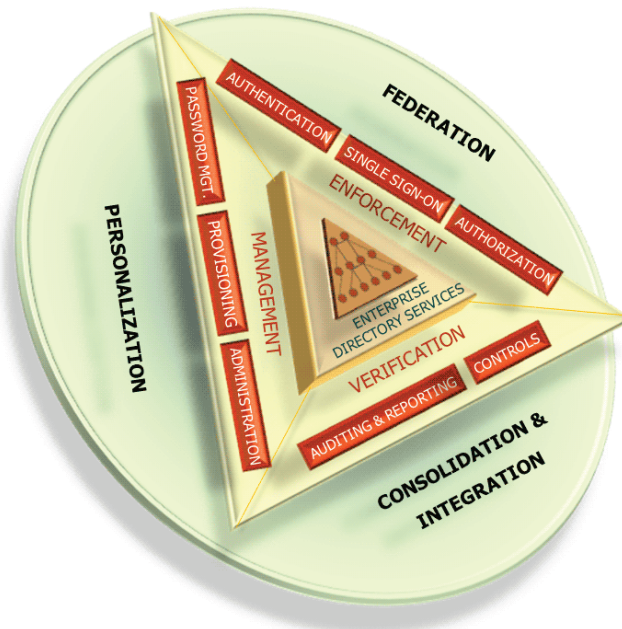


Fig: Infosys IAM services enable automation of user provisioning and access control to enterprise resources and provide a foundation for periodic compliance reporting

## 6. Disaster Recovery/Business continuity

*With expectations of rapid response to unforeseen change and the classic reactive mode of DR which takes hours or days of downtime to restore from backups being deemed as not good enough, institutions is shifting focus to proactive planning for organizational resilience.*

A key challenge for an organization is to ensure service availability even in times of uncertain environmental occurrences beyond control of the organization. Regulatory measures also strongly enforce for business continuity planning and disaster recovery strategies measure to be adapted by the organization. Also, there are standards like ISO 15489 for maintaining important records & NFPA 232 standard for the physical protection and storage of documents.

Increasing dependency on technology enablers like IT infrastructure, telecommunication, power etc. are also driving factors for Disaster Recovery / Business Continuity Planning (DR / BCP) solution. These enablers are prone to technical failures or intentional/unintentional human error causing huge interruption in business operations or loss of information. Hence resilience of these enablers is a must in ensuring agility to operations.

The Infosys Business Continuity Planning offering helps organizations identify mission-critical components (including people, processes and technology), procedures and functions to run the institution. The Business Continuity Plan covers the response to emergencies in the event of any disasters. Infosys has a specific BCP/DR framework which is described below. This framework can help fetch out key issues which need to be address to ensure that the organizational process resilience is maintained.

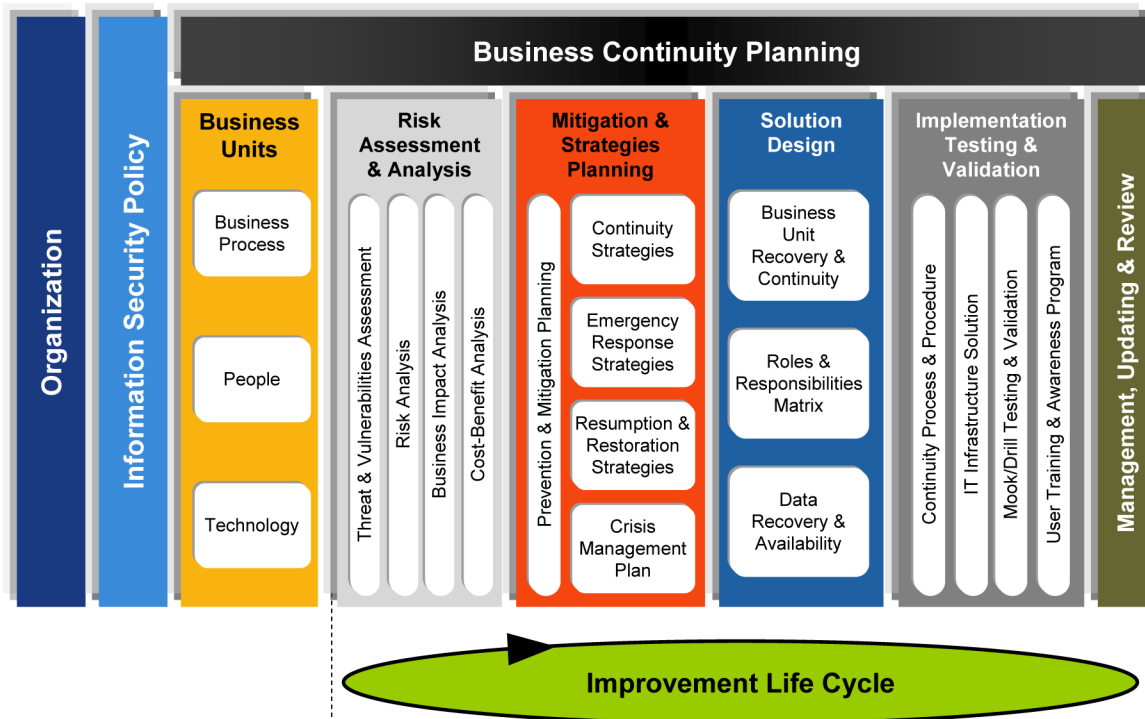


Fig: Infosys BCP/DR Framework

## 7. Governance/Organization and Leadership

*The issues surrounding IT governance in higher education are very complex. Complicating the matters, the fact that within a very short amount of time, and within the institutional memory of many campuses, IT has gone from nonexistent to an ever-visible presence requiring ever-more resources in terms of budget, staffing and time.*

Through its capabilities in consulting, Infosys helps organizations / institutes to incorporate their IT plans. The services here include: Complete analysis of the IT infrastructure, propose solutions to achieve the institutional goals in the short term and long term, make Vs buy analysis, technology road map, implementation requirements, estimates for hardware, software and all related resources required.

Infosys can also actively partner in achieving and implementing your transformation plans and demonstrate improvement in day to day work efficiency.

Some of the services that we offer are

- Information & Technology Strategies (IT Diagnostic and Assessment, IT Strategy, IT Cost Reduction, IT Transformation (applications, infrastructure, solution delivery), IT Organizational Development)
- Learning & Complex Change (Customized Organizational Change Management, Change Management Integration, Human Resources Transformation, Human Resources Value Enhancement)

Read more at <http://www.infosys.com/consulting-services/service-areas/default.asp>

## 8. Change Management

*IT organizations large and small, private and public throughout higher education are under pressure to advocate or influence institutional change. For most campuses the CIO has the dual role of delivering service and support and acting as an agent of collaborative change throughout the organization. CIOs use Change Management to align the organizations to match the college or university's core requirements.*

Infosys' approach to Change Management is based on a participatory framework. This includes both the client executives as well as the Infosys engagement teams working together to realize the changes required to make outsourcing successful.

The people and relationship structure used to include the Change Management track within outsourcing relationships – varies from client to client, based on each client's receptiveness to formal Change Management and the client's organizational dynamics. However, the methodology followed by Infosys lays down a set of basic principles to include all impacted parts of the client organization as well as the key engagement leads from Infosys to work together in defining the change roadmap as a means to make outsourcing successful.

The basic principles that underlie the Infosys change management methodology are depicted below.

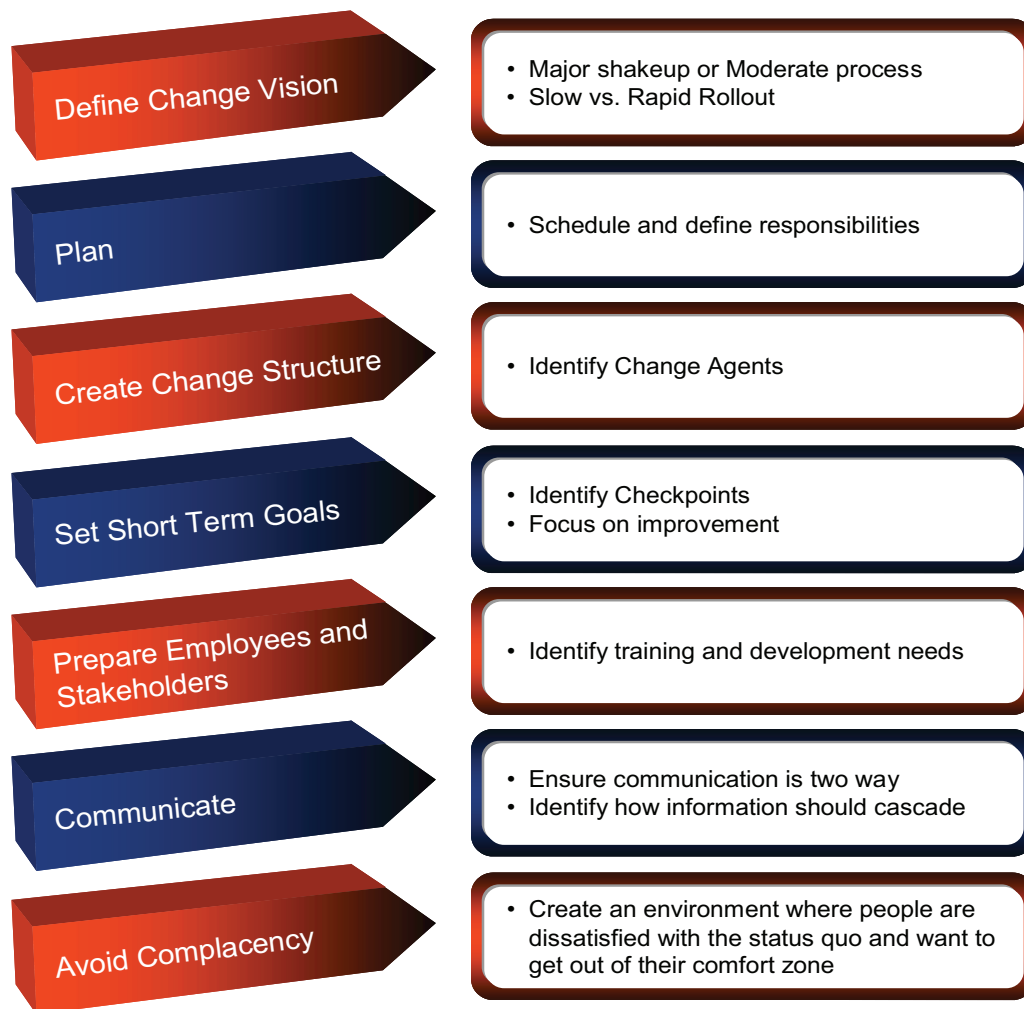


Fig: Infosys change management methodology - Basic principles

## 9. E-learning/Distributed Teaching and Learning; Staffing/HR Management/ Training

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*The CIO invests in e-learning/ Distributed Teaching and Learning by efficiently hosting enterprise-level hardware/software, securing access and ensuring integrity. Through strategic dialogue with campus stakeholders, CIOs are responsible for adopting and implementing new technologies to support teaching and learning.*

*Faculty and students self-select and adopt emerging social networking tools and applications residing outside the local IT environment, campus dialogue must focus on impact on the underlying IT infrastructure, content retention, and protection of user (and content) rights.*

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Infosys has pioneered the method of imparting learning to all its employees at its development centers and even onsite at client locations. The Education & Research department at Infosys is one of the key business enabling resource centers in Infosys and it facilitates the company's growth leveraging the power of knowledge - by creating an environment for knowledge acquisition, dissemination and management.

It is also the largest corporate 'technical university' in Asia, with state-of-the-art technology, offering training in all our development centers in India. Consider this: In 2008, we trained about 30,000 new joiners on full time educational programs at our various training locations. The E&R department uses all instruments for imparting knowledge, contact programs, classroom sessions, assignments, mock projects, e-learning courses, certifications, and computer based examinations.

## 10. Staffing/HR Management/Training

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*Staffing/HR Management/Training is a key recurring issue with every issue in IT being associated with some kind of a staffing challenge. Successful recruitment and retention of IT staff requires a partnership with campus HR department. An organization needs to invest in its staff by creating profession development initiative that while meeting the organizational goals also take into account specific needs of the individual.*

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Infosys provides end-to-end Human Capital Management services to align your HR strategy with business goals.

Read more at <http://www.infosys.com/IT-services/packaged-application-services/serviceofferings/human-capital-management.asp>

We also help in solving people and organizational problems that often derail projects through Learning & Complex Change.

Read more at <http://www.infosys.com/consulting-services/service-areas/default.asp>



For more information, contact [askus@infosys.com](mailto:askus@infosys.com)

### About Infosys

Many of the world's most successful organizations rely on Infosys to deliver measurable business value. Infosys provides business consulting, technology, engineering and outsourcing services to help clients in over 30 countries build tomorrow's enterprise.

For more information about Infosys (NASDAQ:INFY), visit [www.infosys.com](http://www.infosys.com).