Succeeding in a time of disruption: three levers for India's IT/ITES companies

Contents

Introduction

The Indian Information Technology (IT) and IT Enabled Services (ITES) industry has long been a key enabler in meeting the technology needs of companies around the globe. India is the world's largest IT outsourcing destination, accounting for around 67 percent of the US$130 billion market[1]. The IT/ITES space, which encompasses IT outsourcing, is an essential part of the Indian economy.

Today however, economic and geopolitical factors have prompted a slowdown in the industry. Uncertainties about H1B visas to service US clients and increased threats of protectionism impact revenues. Disruptive technologies have ironically contributed too, with automation playing a growing role and affecting how many human workers are needed to perform tasks. India's 4 million technology workers will need to be retrained with new skills that customers demand.[2]

Further to this, while Indian IT/ITES companies have tried to retain margins via low-wage hikes, making changes in the employee pyramid and shifting more work offshore, these approaches are likely unsustainable as customers' technology needs and requirements go on evolving. These factors are also outside the control of India's business leaders, meaning they must seek to transform their businesses internally to remain competitive and ensure their products and services are in demand.
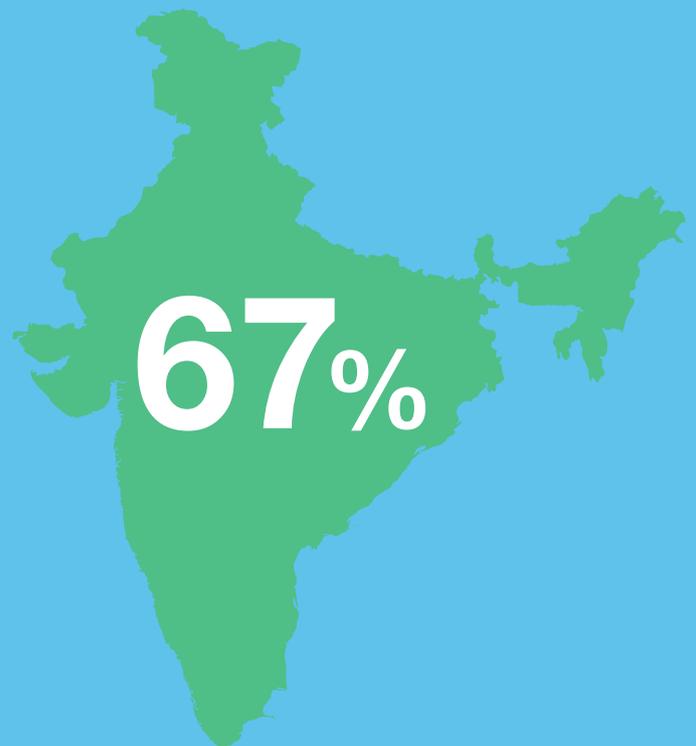
67%

India is the world's largest IT outsourcing destination, accounting for around 67 percent of the US$130 billion market[1].

The shape of IT and ITES in India

- One of India's biggest sectors with revenues of around US $160 billion in FY16[4]

- Growing at a CAGR OF 13.7 percent from 2010 to 2016, almost 4 times higher than global growth

- Forecast to expand at CAGR of 9.1 percent to US$350 billion by 2025[4]

- As of 2016, India continues to account for around 67 percent of the global IT/ITES outsourcing market[1]

- Traditional business model has focused on cost leadership giving cost savings of 60-70 percent over source countries provided by Indian IT/ITES companies.[4] Historically the USA has been the biggest importer of Indian IT exports, with over 62 percent. The UK accounts for 17 percent in FY16. However, rising protectionism casts doubt on the growth of the industry.

- Disruptive technologies like cloud computing, automation and data analytics are offering new avenues of growth across verticals for IT companies. The social computing, mobility, analytics and cloud (SMAC) market is expected to grow to US$225 billion by 2020[4]

- This shift in technology is prompting Indian companies to look at their own practices and processes and seek how best to benefit from this wave of technological change.

"**Enterprises are increasingly looking to defend their businesses against digital disruptors, while innovating to create new areas of growth and differentiation. They have been making fundamental changes throughout their organizations from the front-office, through the middle, and to the back-offices systems. They have been driving new levels of efficiency and effectiveness in the core transaction processing operations, transforming their existing IT systems and infrastructure to next-generation IT to harness the potential of digital technologies, and building new front-end capabilities enabled by digital technologies that create personalized experiences for their customers, employees, suppliers, and other stakeholders."[5]**

Devaraj PR, Vice President, Cognizant
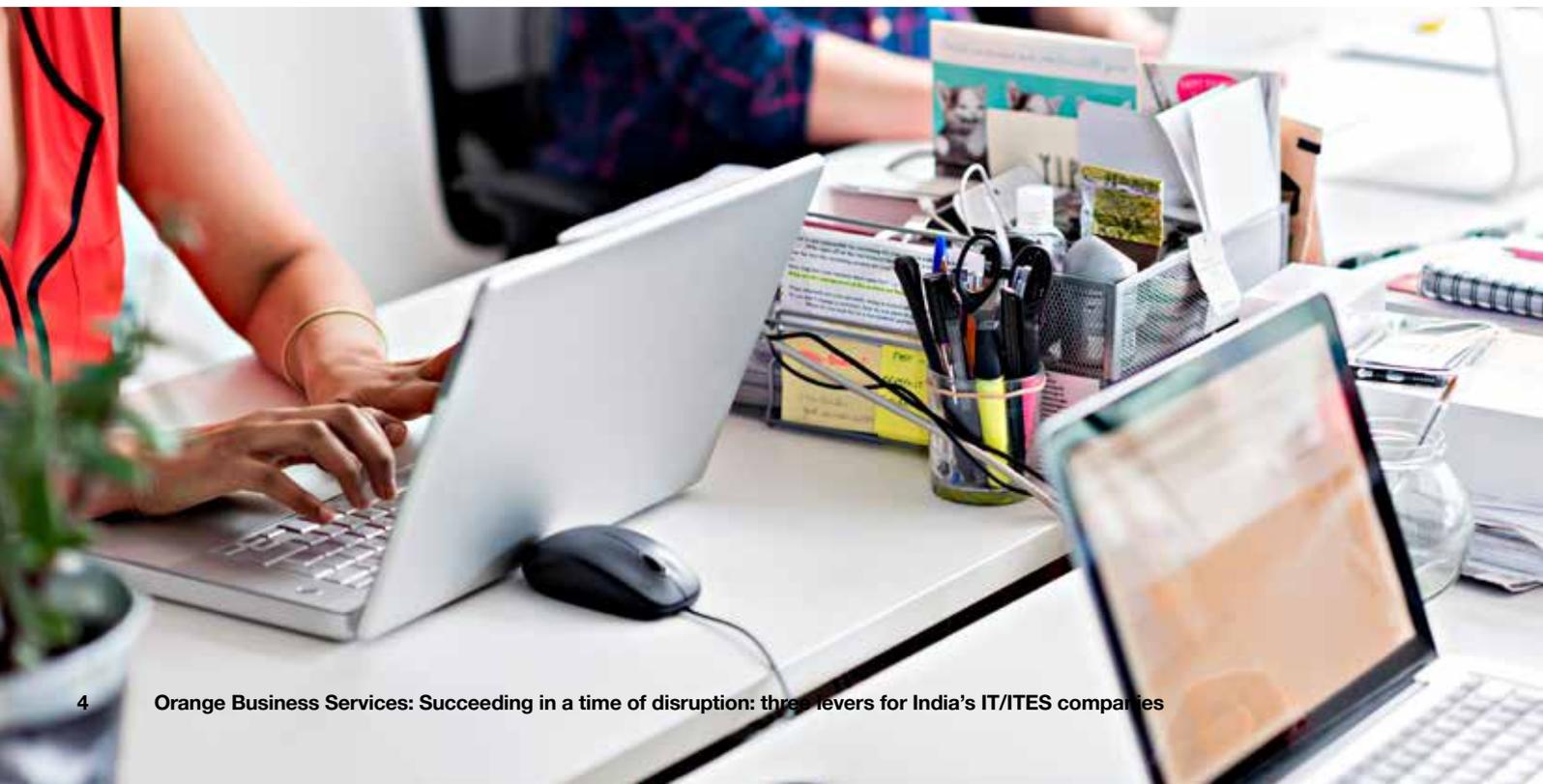
"There are two kinds of ITES companies. Those driven by what their partner demands. These companies are finally focusing on digital transformation – for their backend processes such as recruitment, HR, finance, leave approval, learning, and development. The other type, that is, the platform-oriented companies are also now using a reasonable amount of cloud and mobility and business analytics."[5]

Sunil Gujral, CIO, Quatrro

IT/ITES companies must now embrace change and use new technologies to create new opportunities.

To facilitate effective digital transformation, there are 3 levers that CEOs and CIOs of IT/ITES companies can deploy:

- Cloud computing platforms
- Software defined networking (SDN)
- Workforce collaboration tools

Cloud platform adoption offers multiple benefits: substantial cost savings thanks to accelerated application delivery to customers via on-demand computing resources plus greatly increased flexibility to meet varying customer demand. It also delivers the elimination of IT servicing wait and queue times, improves efficiency and also renders cost-intensive traditional data centers redundant.

SDN helps IT/ITES companies reduce expenses and enhance flexibility, as it lets them virtualize and remotely manage networks, up to the last layer through the adoption of Universal Customer Premises Equipment (uCPE) – avoiding dedicated fixed hardware. This minimizes investment risk by shifting from CAPEX to OPEX spending and by allowing redeployment of the uCPE to other sites as needed.

A workforce collaboration tool like a Unified Communications and Collaboration (UC&C) platform also helps control costs by extending the value of existing IT investments. It makes routine parts of a workflow more efficient or simply more collaborative, leads to better service levels and enables higher employee productivity.

Lever one: embracing the cloud

- **Cloud adoption is gaining momentum among companies with its ability to reduce costs**
- **Virtual data storage capabilities and rapid self-provisioning access to major computing power is on the rise**
- **Reduced costs with resources available on a pay-as-you-go basis**

Cloud computing is today's platform of choice for large applications, particularly customer-facing ones that require agility. Additionally, major public clouds now lead the way in enterprise technology development, debuting new advances before they appear anywhere else.

There is a huge momentum in the market on cloud adoption. By 2018, IDC predicts that more than 85 percent of enterprise IT organizations will commit to multi-cloud architecture.[3] As enterprises gain confidence in the public cloud, investments will shift from private to public clouds.

This aggressive growth is supported by advances in cloud security and data protection regulation. Deployment of firewalls, proxies, remote access and rigorous code audits ensure customers have access to secure cloud services.

Today, more companies are opting for the cloud, where a pipeline of exciting new technologies invites innovative use. According to the 2017 State of the Cloud report, by 2019 80 percent of all IT budgets will be allocated to cloud solutions.[6]

One of the biggest benefits of cloud computing is its ability to reduce time to market for applications that need to scale dynamically. Increasingly, developers are also drawn to the cloud by the abundance of advanced new services that can be incorporated into applications, from machine learning, such as data analytics and chatbot-based customer service, to internet-of-things connectivity.

On-demand and self-service – why cloud services create value for IT/ITES companies

Cloud computing is particularly useful for IT/ITES companies as it helps them accelerate application delivery to customers via computing resources on demand. Because applications can acquire all the computing capacity they need in real-time, IT/ITES companies can provision new capacity whenever demand increases - and then reduce it when demand falls again. This gives far greater agility to serve customer needs. Cloud services also enable:

- Removal of IT servicing wait and queue times meaning increased IT staff efficiency
- More efficient infrastructure helps meet customer needs more quickly
- Financial imperative by moving from CAPEX to OPEX model
- Reduced need for investment in traditional data centers and in-house specialists to install, configure and run IT systems
- Operational savings from cloud platforms can be substantial. The Wall Street Journal reports that data center maintenance accounts for up to 80 percent of annual IT budgets.[7]

Cloud computing presents huge opportunities for IT/ITES companies in managing complex IT infrastructure needs

Today, on-demand cloud services can respond dynamically to fluctuating business demands. ITES companies have virtually unlimited room to store customer data in the cloud, and they only pay for what they use.

Service-delivered IT also helps environmentally-conscious companies minimize resource consumption and reduce carbon footprints. With cloud computing, companies can give their increasingly mobile workforces secure, rapid access to databases – thereby increasing productivity.

"A large part of our business in the IT services industry is now commoditizing. The maintenance of software, running of systems, operating systems where we operate other people's infrastructure and so forth. If you walk into a data center of a cloud company these days, there are no people there. Whereas in the enterprise, we do a lot of business, our industry does a business managing people's infrastructure and so on. These things are all going to be automated."

Vishal Sikka, InfoSys former CEO

Public cloud deployment reaps rewards

A major Indian IT/ITES provider needed to migrate data and applications as industries transition from legacy IT to modern cloud-based platforms. The solution it implemented was based on a global strategic initiative with a major public cloud provider to make transitioning to the cloud easier and faster. The goal was to help enterprise customers securely adopt cloud-based systems swiftly. Benefits include enabling customers to move enterprise workloads including mainframe and enterprise resource planning (ERP) to the cloud and leveraging cloud analytics to acquire deep, actionable insights – enabling enterprises to gain competitive advantage in their industries.

Hybrid IT – stepping stone towards fully-fledged cloud adoption

In June 2017 a Harvard Business Review survey reported that "Compared with enterprises, smaller companies are more likely to be considering a pure cloud alternative to traditional IT infrastructure. Yet only 18 percent of SMB survey respondents have adopted a primarily public-cloud approach."[8]

Established IT/ITES players have existing legacy infrastructure in place, making a full switch to pure cloud less economically feasible – particularly when attempting to make the transformation all in one go.

The alternative is that these legacy infrastructures should be leveraged, and companies should adopt elements of cloud through the Hybrid IT model to scale operations and reduce costs.

The Hybrid IT model reduces any fears around cloud adoption rendering legacy infrastructure redundant overnight, and by enabling information to be retained in the legacy infrastructure at discretion, it also effectively addresses security concerns associated with full cloud adoption as pointed out by the HBR survey. "Fully half of all respondents cited security concerns as the main reason they are careful about the cloud."[8]

"On the whole, the survey results are positive in terms of the benefits of cloud and hybrid IT adoption, with 40 to 50 percent of respondents saying that cloud and hybrid deployments have a positive impact on business operations. These impacts were more pronounced among SMB respondents."[8]

The adoption of Hybrid IT should be viewed as a viable stepping stone towards the desired end goal of full cloud adoption.

Lever two: deploying SDN

SDN is the new way to manage connectivity effectively. It helps companies maximize their investments in server virtualization and private cloud and enables network programmability of network speed, latency, security and reliability on a cost-effective basis. It also fosters implementation and management of software-based security tools and generally gives more control and agility to any enterprise's connectivity.

Traffic patterns have changed significantly in today's enterprise data centers. Applications now access different databases and servers, creating a complex web of data traffic flow. At the same time, end-users accessing this data are changing network traffic patterns as they push for access to corporate content and applications from any type of device, including personal ones, connecting from anywhere, at any time.

Enterprise business units now need the agility to access applications, infrastructure and other IT resources on demand, all while addressing increased security, compliance and auditing requirements. The agility that companies look for in self-service provisioning requires elastic scaling of computing, storage, and network resources.

Today too, Big Data requires massive parallel processing on thousands of servers, all of which need direct connections to each other. The rise of Big Data is fueling a constant demand for additional network capacity, and network administrators are tasked with scaling the network to maintain any-to-any connectivity and uptime.

The case for SDN

All this requires a high degree of agility in IT infrastructure. Though an increasing number of organizations are moving to the cloud, certain challenges remain that make the migration to newer systems complicated: to attempt it without sufficient planning or change management in place could disrupt daily working operations.

This risks growing into a larger problem as legacy and conventional networks are centered around hardware that cannot respond rapidly to changes in the network-traffic brought in by the myriad of business applications.

This can be overcome with network automation, which can remove the need for configuring network settings manually – thereby eliminating the entry of specific commands in appropriate devices.

Automation carried out using scripts that replicate device-specific commands can save time and effort for IT personnel. However, these scripts can also present their own challenges: the device-specific nature of scripts can become a further pain point, since they stop working each time network configuration is changed.

SDN provides huge benefits to IT/ITES companies – and their customers

SDN architectures decouple network control and forwarding functions, enabling network control to become directly programmable – and underlying infrastructure to be abstracted from applications and network services.

SDN helps IT/ITES companies reduce costs and provides greater flexibility, especially through Universal Customer Premises Equipment (uCPE) platform capabilities. While uCPE remains in developmental stage, it has the potential to strengthen SDN's flexibility and cost-effectiveness all the way up to the customer premise layer.
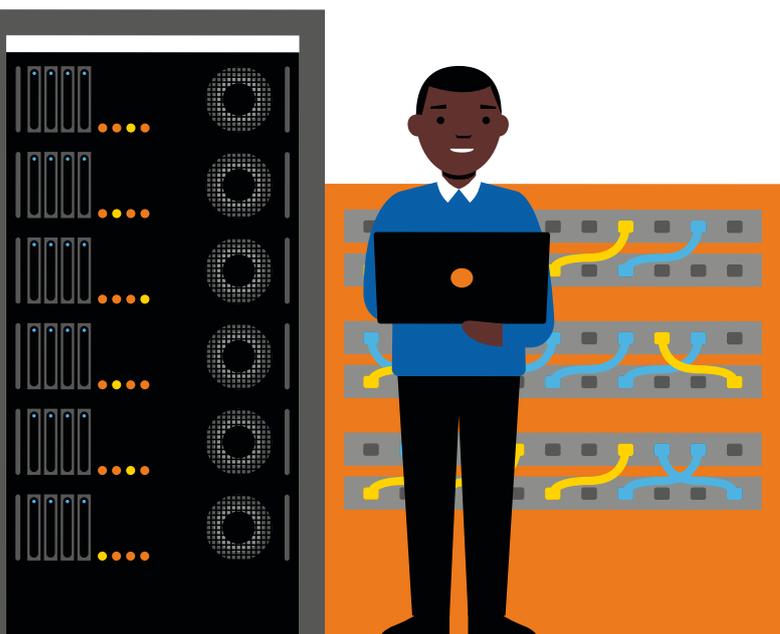
"The simplified hardware installation means easy mixing and matching VNFs across multiple company sites. It also removes the need for proprietary network appliances and as such for multiple skillsets, making administration much easier. You can deploy, reconfigure and amend network functions as you need, across multiple sites, quickly and conveniently and without the need for hardware changes; in summary, one device is able to perform any network infrastructure function – you just need to tell it what to do."[9]

For IT/ITES companies that own their IT infrastructure, uCPE's efficient reconfiguration capabilities effectively means cost-effective reusability. This is particularly significant during customer turnover, as it gives SDN significant flexibility via back-end configuration, and also cost savings resulting from reduced need for experts to attend to customer sites when they leave.

SDN also enables virtualization of networks rather requiring spend on dedicated hardware. With so many manual operations replaced by automated scripts and procedures, cost savings are significant – and can enable companies to become more agile and flexible, and minimize investment risks by switching from the CAPEX to OPEX model again.

Flexible security platforms integrated into SDN connections provide secure connectivity, giving customers the security and confidence they need. Network administrators are able to install virtual firewalls, encryption tools and network monitoring services to protect data traffic and update as and when required.

Despite benefits available from SDN, fewer than 10 percent of organizations have deployed data center SDN in production. This may present an opportunity for IT/ITES companies to gain a foothold in the market by partnering with other network providers and develop mature SDN deployment capabilities that can meet customer needs.

There's little doubt that SDN will continue to play a larger role in networking as vendors continue to invest in SDN strategies and companies continue to identify use cases. In the 2017 State of the Cloud report 73 percent of companies say they are planning to move to a fully software-defined data center by 2019.

IT/ITES companies are striving to build the next great software-defined offering for a growing market. IDC expects the SD-WAN market to grow at more than 90 percent compound annual growth rate over the next few years – increasing from $225 million in 2016 to $6 billion by 2020.

Digital transformation in action

An Indian IT/ITES firm was faced with a challenge: digital transformation in global markets evolves rapidly, with big demand for technology in Internet of Things (IoT), Cloud, network, 5G, AI, and data center infrastructure management. How to address this? The company entered into an agreement with Intel to provide high-value offerings and data center solutions that improve performance, speed, reliability, and flexibility that meet the demands of data-intense applications and support next-generation business models. Benefits included using collaboration tools to deliver business value by enhancing customers' data centers and end-to-end IoT solutions such as edge devices, operating systems, storage, analytics, end-point devices, and networking infrastructure investments. Both companies will work together to design cloud-ready network architectures to help build agile and cost effective infrastructure through SDN and NFV.

Lever three: collaboration powering innovation

The benefits of a collaboration platform like Unified Communications and Collaboration (UC&C) are quite well established: UC&C provides a single, consistent, cohesive experience combining mobile, email, voice and web-conferencing communications. End-users can collaborate better and be more productive and enjoy an enhanced user experience.

- **Today's employees use a variety of devices and work out of different geographies**
- **Unified workspace enables easy collaboration between employees, partners, and customers**
- **Unified communications supports better and faster decision making**

Today's workforce is more mobile-centric and set to be dominated by millennial workers. As such companies increasingly need to integrate more personal mobile devices into the corporate network. Corporate IT must find ways to grant access to all these personal devices while also protecting corporate data and intellectual property and meeting regulatory compliance.

What this means for IT/ITES companies that adopt UC&C is that they can support customers from anywhere and at any time, using an empowered, collaborative, mobile workforce. IT/ITES companies should depoly a UC&C solution that meets the technical needs of their employees' workflows, including enabling them to use multiple types of devices.

Collaborative tools go beyond communication

Organizations are consistently under pressure to control costs while addressing customers' business needs. So it is important to build in the necessary flexibility to accommodate new developments as customer needs evolve. A UC&C platform can help to control costs by extending the value of existing IT investments.

Collaboration technologies do more than just streamlining old ways of doing things; they make new ways of doing things possible. UC&C tools can be embedded into existing ways of working, making certain routine parts of a workflow more efficient or simply more collaborative.

Customers today expect a seamless experience when working with IT/ITES companies. UC&C therefore becomes useful, as it enables IT/ITES employees to share information about issue resolution in real-time. For example, customers can follow and monitor the progress of a service ticket as it moves through the various solution teams within the IT/ITES departments and make queries accordingly.

Leading IT/ITES companies are actively seeing the value and adopting UC&C for enhancing their internal functionalities. However, better service levels and higher employee productivity benefits resulting from the adoption of UC&C do not necessarily have to be constrained to the IT/ITES companies themselves.

Leading International Brewery

The company needed to support rapid global growth and stay connected globally to aid information flow and decision-making, and also cut travel costs and reduce carbon emissions and support sustainability commitments. A collaboration solution based on 300 video rooms, 5 TelePresence Rooms (Cisco), 45,000 Lync users, Video Conferencing / Audio Web Conferencing / Instant Messaging and Orange Business Talk VPN was deployed, with all video and MS Lync solutions connected together including a link to MS Outlook.

The benefits included better global collaboration, reduced travel costs, lower CO2, improved Green responsibilities, a high quality video experience and more.

Lever three: collaboration powering innovation

Extending UC&C to their clients and consequently positioning themselves as a business partner and not just a vendor can be an integral source of business differentiation for IT/ITES companies, a proposition that they must consider as they ride the wave of change and disruption in their industry.

UC&C solutions also help IT/ITES companies share and capitalize on the knowledge and expertise within their ranks. They can use UC&C to create service offerings and improve teams' collective performance and knowledge through simplified teamwork. Collaboration helps employees form strong working relationships and encourages employee engagement towards a more customer-centric service.

These solutions are supported by robust security frameworks with a unified communications network to protect data and resources. With secure unified communications solutions, employees working out of any office or remote workspace can securely collaborate and communicate across multiple communications applications.

By incorporating UC&C tools such as voice, video, messaging and conferencing APIs into the company's processes in real time, IT/ITES companies can optimize their efficiency and performance while creating a seamless experience for their employees and their customers.

Key insights and takeaways

The Indian IT/ITES industry has experienced a slowdown in growth in recent years, as seen by the fall in net additional jobs from 217,000 to 203,000 to 175,000 from FY15 to FY17.[2] This slowdown presents a challenge for IT/ITES companies to reinvent themselves and remain competitive in a changing landscape.

In particular, there is a strong imperative to accelerate innovation, expand market reach, and drive IT costs down. To facilitate their transformation, business leaders and CIOs of IT/ITES companies should consider implementing the following three recommendations:

1. Embrace cloud computing platforms to reduce costs and increase flexibility

2. Deploy SDN service to boost efficiency

3. Adopt UC&C tools to raise employee productivity and consider extending them to clients for enhanced employee productivity, improved relationships and improved service levels.

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