Abstract

IT infrastructure management is an effective means to drive business transformation. CIOs and business leaders are proactively seeking new, efficient methodologies and adopting responsive systems and processes to bridge the gap between operations and business. With this understanding and the pressing need to minimize capital expenditure, it is imperative to align IT with business and manage IT infrastructure as a service model. Firms that develop capabilities to manage their IT infrastructure and take advantage of the opportunities a robust and agile IT set-up has to offer, will reap important benefits.
Harmony in Diversity

An effective IT system works like a well-oiled machinery, integrating functions, breaking silos, and delivering premium business benefits. A comprehensive IT infrastructure typically consists of heterogeneous components including complex servers and storage environments, business applications, network and security environment, operating systems and tools, and databases. All these components form the core of every business. However, managing them efficiently is a challenge even for the most seasoned managers.

Most organizations today either maintain their own set of tools and skills to keep IT infrastructure up and running, or opt to partner with a technology specialist to deal with the pressure of driving down escalating maintenance and administration costs. CIOs of companies that are unable to streamline and efficiently manage in-house IT infrastructure must answer critical questions to develop an appropriate IT strategy:

- How can IT companies provide efficient support for internal and external clients?
- How does IT help in enhancing customer satisfaction?
- How can businesses secure applications and store business data safely?
- How can IT infrastructure usage be optimized and made secure?
- How can IT services be deployed within budget and faster than competition?
- How can companies save costs, reduce Total Cost of Ownership (TCO) and align it with evolving business requirements?
- How can businesses extract benefits from IT?

To get the right answers, CIOs need to overcome critical challenges in order to ensure excellence in every aspect of functioning. This paper discusses the challenges service providers face in managing IT infrastructure and lists out solutions for their effective management.

Getting to grips with IT infrastructure management challenges

Devising an effective IT infrastructure management strategy involving complex systems and processes often takes up a significant portion of TCO. In order to reduce the cost involved in managing IT infrastructure while meeting Service Level Agreements (SLAs) companies need to focus on the following industry-identified challenges:

**Pricing:** In today’s turbulent economic environment, there is tremendous pressure on organizations to reduce the cost involved in IT infrastructure management. CIOs must adhere to the following three approaches to deliver promised benefits to the enterprise:

- Deferring discretionary spending
- Decommission little or never used applications
- Re-evaluate the cost of managing applications and adjust SLAs based on their utility
- Migrating Data Centers to Cloud

These short-term approaches can help organizations in bringing down the cost by up to 20%.
Service Level Agreements (SLAs): Organizations need their IT infrastructures to be available and performing optimally at all times. Any unwanted downtime and degradation in performance can lead to loss of revenue. Since most organizations outsource their IT infrastructures to third-party technology partners, stringent and comprehensive SLAs are essential to ensure high standards of IT service.

Empathy: Our focus on specialized industries has helped us contextualize our services and service levels to deliver empathetic customer experiences. We take into account what customers feel rather than just how they rate us, and act upon their feedback to improve continuously.

The services we deliver need to reflect the persona of the organization and connect with the personas of the users/customer. Some of these services impact the organization’s brand; some impact the revenue; and some impact the way the customer is served. Other services remain internally focused—enabling cost-effective, efficiency-driven or collaborative operations. Yet each of these need 24x7 support from infrastructure services because of the overall impact they have on the business.

Different industry verticals need specialized infrastructure services. Our vast vertical-specific experience helps us understand and identify these specialized infrastructure needs and bring this understanding to enable the CIO to create a business-centric view of IT rather than an IT view of IT.

Customer Satisfaction (CSAT): Listening to customers is vital for businesses to prevent dissatisfaction among customers. Analyzing customer behavior helps predict future trends and plan accordingly. Customers must be regularly surveyed in order to understand if the IT infrastructure meets all requirements to service customers optimally. The success of an organization depends on how swiftly and smoothly they adapt to changing customer and IT infrastructure demands. A rigid approach to customer needs will negatively impact CSAT and drive customers to your competitors.

Operating Models: Managing IT infrastructure through operating models is the immediate need of today’s organizational environment. Companies need to choose their operating models carefully in order to ensure maximum profit and better investment returns.
Emerging Technologies: New, emerging technologies like virtualization for better utilization of IT resources and high-availability configurations for continuous application availability enable organizations to reduce costs and ensure high flexibility. However, the benefits achieved from these technologies are often elusive as users spend a lot of time in understanding and using them effectively.

Business value of handling changes in infrastructure management

Once an organization plans for effective infrastructure management, customers are bound to achieve the desired business benefits. These include:

- Higher availability of IT resources resulting in better functioning of systems and applications
- Reduced costs
- Improved business flexibility
- Reduced financial risk

Solution approach to effective IT infrastructure management

Global regulation and compliance

Regulations and compliance requirements have major implications on customer business needs that must be addressed effectively in order to remain competitive. Managing new, emerging compliance and regulatory needs while still adhering to the old has generated the need for cost-effective technology frameworks and services that service providers need to cope with.

Changing customer expectations

Customers demand bigger and better quality of service at lower costs. To cater to these growing demands, enterprises require a scalable IT infrastructure in order to keep customers satisfied and stay ahead of the competition.

Consumerization of IT for service delivery

Enterprises seeking competitive advantage must provide easy access to reports, dashboards, tools, and other systems to ensure visibility to the infrastructure management services. Near-real-time information will help in delivering excellent service to the customers and will provide users with the flexibility to work from anywhere, anytime.
Emerging technologies
Emerging technologies such as Cloud Computing and mobility are rapidly changing the business landscape. Companies have to be in sync with these technologies to be able to provide desired benefits to the customers. Immediate adoption of these technologies will translate as lower overall cost and increase in revenues.

Business-IT Alignment
To become more flexible and agile, businesses must manage IT infrastructure based on their clients’ business needs. An enterprise-wide view of the processes and underlying technologies is essential to understand the information flows, applications, and infrastructure, with traceability across all business units. The traceability should be clearly aligned with the business goals and strategic decisions in order to reduce time-to-market and accelerate revenue realization.

Industry success stories

Case Study 1: Transportation
Business Scenario: The client, a high-speed train service that directly links the UK to France and Belgium via the Channel Tunnel since 1994, wanted to gear up its IT infrastructure for the 2012 London Olympics. They were seeking to connect all client offices and stations through a new Wide Area Network (WAN). They also wanted to setup a helpdesk to provide multi-lingual support for operations in the UK, France, Belgium, Switzerland, and the Netherlands. They were on the lookout for a technology partner who could deliver an end-to-end solution towards infrastructure management, apps development and maintenance, WAN design and implementation, and implementation of transformation and innovation projects.

Solution: The client partnered with NIIT Technologies for a high performance next-generation WAN solution across 15 locations in Europe. The ramped up WAN took care of the expanding bandwidth needs of the client and catered to the forecasted exponential growth in e-commerce. In addition, NIIT Technologies consolidated one primary data center and a data room center. We also helped create a multi-lingual, multi-location helpdesk, and were responsible for end-to-end SLAs for operations, third-party contracts and transformation projects. The team of technical consultants rolled out over 17 transformation projects to create a state-of-the-art IT estate.

Value Delivered: NIIT Technologies’ solution aligned with latest industry trends provided a premier customer experience. The benefits to the client included:
- Higher availability of business systems including the website
- Optimized WAN contract
- Reduced operational cost by approximately 30%
- Reduced power consumption
- Increased response times for business critical applications
- Provided end-to-end automation platform
- Achieved 100% virtualization using Virtual Desktop Infrastructure (VDI)
- Reduced manpower and improved SLAs for service delivery
- Enhanced end customer experience

Case Study 2: Entertainment Group
Business Scenario: The client is an American public gaming corporation that owns and operates multiple brand assets including 50 casinos, hotels, and seven golf courses. The company was looking for technology infrastructure support in the US that included mature, secured, robust, and tested network and Windows server, storage backup and IT service management. They were scouting for a technology partner capable of recommending a strategy wherein regulatory approvals are received in all jurisdictions where it operates.
**Solution:** NIIT Technologies followed an onsite-offshore delivery model (90% offshore-10% onsite) with senior resources working closely with the team at the client’s office. The offshore delivery team conducted an exhaustive study of the client’s IT infrastructure, which was completed within a short span of time. Our knowledge of IT support services helped the client and we embarked on a program providing:

- Consolidated storage at enterprise level
- Centralized service desk and Business and Commercial Operations (BCO) to work in tandem with command center
- Centralized operations management and enhanced reporting framework, enabling clear demarcation of IT assets
- Vendor-neutral approach for upgrading existing network inventory
- Automated and integrated service management tools with Netcool
- A single view of IT operations through an integrated command center for Network, OS, Storage, and Information Technology Infrastructure Library (ITIL)
- Knowledge management system

**Value Delivered:** With NIIT Technologies’ technology infrastructure support, the client achieved multi-million-dollar savings. Other benefits included:

- Increased time efficiencies due to transparent business view
- Saved costs by 30-40% in the end-to-end upgradation exercise as compared to as-is upgrade
- Enhanced operational efficiency
- Rendered consolidation of existing tool environment
- Provided cost-effective implementation of centralized knowledge base across all process/technical tracks
- Increased support utilization resulting in 15% cost savings
- Reduced costs by 20% and enhanced security
- Enhanced capturing of support metrics leading to higher C-SAT
- Reduced support costs by 30%
The NIIT Technologies Thought Board:
IT Infrastructure Management: The Road to Transforming Business

How do you know if your IT infrastructure is functioning optimally?

If it provides efficient support for internal and external clients
If it helps in enhancing customer satisfaction
If it offers secure applications and stores business data safely
If it optimizes secure IT infrastructure usage
If it can be deployed within budget and with faster turnaround time
If it helps in cutting costs, TCO, and aligns with evolving business needs

What are the components that impact decisions on IT infrastructure management?

- Price sensitivity
- Meeting SLAs
- Ensuring CSAT
- Disparate operating models
- Accurate reporting
- Adopting right tools
- Consistent reliability
- Continued efficiency

How can businesses plan for effective infrastructure management?

- By focusing on emerging technologies
- By adopting a Cloud model for flexibility
- By deploying mature tools and processes
- By providing dynamic reporting capabilities
- By reducing hardware components to run applications
- By standardizing and customizing processes

What are the key challenges to an effective IT management strategy?

- Global regulation and compliance
- Changing customer expectations
- Consumerization of IT for service delivery
- Business and IT alignment
- Emerging technologies
Reaping the Benefits of Improved Management

Having a robust and agile IT infrastructure is fraught with challenges. But with the right strategy and management approach, businesses can successfully leverage coherent IT systems to maintain their competitive edge. To maintain a dynamic and resilient IT environment, businesses need to effectively manage the IT infrastructure. Organizations that focus on industry-wide and service provider challenges can improve their management capabilities and provide a comprehensive approach to build, implement, and manage the IT infrastructure. Tackling the challenges will also help organizations to align infrastructure with their business goals and transform it into a more business-aligned unit.
NIIT Technologies is a leading global IT solutions organization, enabling its clients to transform at the intersect of unparalleled domain expertise and emerging technologies to achieve real-world business impact. The Company focuses on three key verticals: Banking and financial services, Insurance, Travel and Transportation. This domain strength is combined with leading-edge capabilities in Data & Analytics, Automation, Cloud, and Digital. With over 10,000 employees serving clients across Americas, Europe, Asia, and Australia, NIIT Technologies fosters a culture that promotes innovation and constantly seeks to find new yet simple ways to add value for its clients. Learn more about NIIT Technologies at www.niit-tech.com