



**NASSCOM<sup>®</sup>**



**THE RISING REMOTE  
INFRASTRUCTURE  
MANAGEMENT  
OPPORTUNITY:** Establishing  
India's Leadership

# Executive Summary

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Remote Infrastructure Management (RIM) services will be the next growth engine for the offshore services industry. Evolution in technology, changes in customer behaviours and demand and developments in vendor capabilities are propelling a shift that enables the remote management of companies' critical IT infrastructure. India, once again, has an opportunity to establish leadership in a large and strategic service line.

## **RIM: THE NEXT WAVE OF GROWTH**

In the last decade, the Application Development and Maintenance (ADM) and Business Process Offshoring (BPO) industries have dominated the rise of offshoring. Over the next decade Infrastructure Management Services (IMS), that manage an enterprise's core IT systems (hardware, software, connectivity and people), will become equally important.

The IMS industry currently accounts for US\$524<sup>1</sup> billion, nearly a quarter of the US\$2.3 trillion overall IT spend and is moving towards a remote delivery model where services are increasingly delivered by vendors from low-cost locations. This phenomenon is a by-product of three factors - the continuous effort by enterprises to enhance service and performance levels and reduce costs; advancements in technology that have improved infrastructure efficiency and management; and evolution in offshore capabilities.

Our analysis suggests that the addressable market for RIM at US\$96 billion to US\$104 billion is comparable to the size of the addressable market for offshore ADM and BPO opportunities. This excludes infrastructure management spend by segments that are not serviceable (low-cost countries, defence and governments, small enterprises). Currently less than 7 per cent of the addressable market i.e. US\$6 billion to US\$7 billion is serviced by offshore vendors and has the potential to grow to US\$26 billion to US\$28 billion by 2013. The majority of growth will come from offshoring midrange services and network towers that will by 2013, account for approximately 70 per cent of the overall opportunity. The banking, financial services and insurance (BFSI) sectors will lead this growth with the telecommunications industry close on their heels.

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1 Source: Industry Market Strategies Worldwide Vertical Forecast, Gartner: August 2006.

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During 2005-08, the RIM industry<sup>2</sup> in India has grown more than threefold from US\$1 billion to US\$3.6 billion at over 50 per cent year-on-year, significantly higher than the overall industry average of approximately 32 per cent. With such a head-start, India could leverage its competitive advantages to acquire a disproportionate share of the opportunity by 2013, i.e., US\$13 billion to US\$15 billion, and create 325,000 to 375,000 incremental jobs in the process. Indirect jobs will likely be three times this, fuelling the nation's consumption boom. Early success in recruiting from alternative channels reflects the inclusive nature of the industry.

## **FORCES AT WORK**

The convergence of three independent forces – evolution in technologies and architectures, changes in customer behaviour and demand patterns, and developments in the vendor and offshore supply environment – have propelled the RIM industry to a pace much faster than originally conceived and will sustain its dramatic growth.

### **Evolution in core technologies and IT architectures**

Infrastructure architectures are being increasingly centralised and standardised with assets physically decoupled from the support teams that manage them. Remote management tools have evolved from point tools for device management, to integrated offerings that support end-to-end management of IT services. As a result, the focus of IT managers has shifted from managing infrastructure to managing associated labour costs and productivity. Three factors have accelerated this trend:

- Decline in hardware prices, virtualisation and the adoption of open source, that make labour the largest addressable cost in total infrastructure spend.
- Simplification and integration of IT management and governance tools that help improve governance, reduce costs, and create unprecedented transparency.
- Consolidation and remote location of data centres coupled with the increased productivity of telecom networks that decouple physical infrastructure from users and administrators.

This is leading to a fundamental change in value creation for customers as their focus is swiftly moving from hardware utilisation, procurement and financing capabilities, to architecture flexibility, device and labour productivity.

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2 The potential of the Remote Infrastructure Management (RIM) services industry was identified in the NASSCOM–McKinsey report of 2005 and the total addressable opportunity was estimated to be US\$70 billion to US\$85 billion.

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### **Changes in customer behaviours and demand**

Customer capabilities have matured, particularly around governance mechanisms and vendor management. Organisations are more confident about executing transitions and working with vendors in different geographies. This has enabled enterprises to work with a larger portfolio of vendors offering independent slivers of services.

Interfaces between IT infrastructure departments, applications management groups and business users have been simplified. For example, productising infrastructure services and masking their complexity from users allows enterprises to decouple demand and supply thereby increasing delivery flexibility.

Offshoring has traditionally been led by Fortune 500 enterprises for which large ADM spends warranted investment in offshore management teams. However, standardising architectures, greater spending on infrastructure and increasing adoption of standards have allowed mid-market companies to be equally aggressive in the race for RIM supremacy.

A recent McKinsey survey of over 140 CIOs reveals a greater enthusiasm towards RIM. In the twelve months period from 2006 to 2007, we witnessed a 17 per cent increase in the numbers of CIOs who had offshored some part of infrastructure and those with plans to offshore some part of infrastructure services over the next three years, increased from 19 per cent to 34 percent during this time.

### **Developments in the vendor and offshore supply environment:**

Vendor capabilities have grown dramatically, particularly in India. The size and complexity of offerings, tools and delivery techniques to manage them efficiently, and the development of RIM capable talent all indicate a growing sophistication of the supply side of the equation. Recent trends include:

- Flexibility of vendors on technology and architectural control issues, aiming to attract customers
- Investments in lean offshore operations to improve productivity, allowing vendors to compete on device productivity, in addition to labour efficiency
- Creation of software tools aiming to develop process excellence in ITIL (Information Technology Infrastructure Library)

These forces are collectively accelerating the adoption of RIM, creating a virtuous cycle of supplier investments to support customer demand.

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## IMPLICATIONS FOR STAKEHOLDERS

### Vendors

To capture the rising RIM opportunity, offshore vendors must shift focus from project management, a critical requirement for the traditional ADM and BPO industries, to service and device management and must also build key delivery and marketing capabilities. More importantly, they need to reassess their business models and recast their aspirations to ensure growth and profitability. Based on our analysis, vendors will need to choose their delivery strategy from the following three models:

- A “Fully integrated” asset-heavy model requiring end-to-end ownership and delivery
- An “Aggregator” model involving partnerships in select areas such as field services, software and financing
- An “Asset-light” model which is largely a labour-only model

Winners will be distinguished by their ability to ensure differentiated delivery capabilities in transition management and integrated tools that deliver productivity and transparency. In addition, vendors will need to address the challenges associated with talent quality and supply. Substantive efforts have to be made to both attract and retain the right quality talent.

The experiences gained from the rise of the ADM and BPO industries, the ability to manage low-cost talent, and India’s reputation as the IT offshoring centre of the world, uniquely position vendors to capture a disproportionate share of the RIM opportunity.

### Enterprises

A deliberate and well-crafted approach to RIM offshoring can yield as much as 25 per cent savings from total infrastructure spend budgets (savings from labour alone are in excess of 50 per cent). As a result, the economic reasons to offshore are compelling.

However, efforts such as program governance, migration planning, transition processes and architecture changes can be long and complex. Due to the real-time nature and sensitivity of production environments that characterise RIM, disruptions in transition could impact program and vendor credibility, adversely impacting future commitments to offshoring.

IT managers should consider three important steps as they embark on the RIM journey. First, invest in proper strategy, planning and base-lining well before execution begins. Second, design the desired end state from a clean slate. Third, redefine infrastructure management roles to maximise offshore leverage while minimising

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complexity arising from hand-offs. In effect, this requires an avowed commitment to a global sourcing strategy. Enterprises, especially those that have experience with a global delivery model, are more prepared today than ever before to take advantage of the growing RIM opportunity. In addition, a disciplined approach will enable them to capture significant cost, quality and productivity benefits.

### **Government and Industry**

For India to sustain its leadership and realize the full potential of the RIM opportunity, a few challenges must be addressed. NASSCOM, the industry, central and state governments need to work together to address the issues related to the quality and supply of talent.

Augmenting talent supply will require a concerted effort by all stakeholders in branding RIM as the new frontier of growth. Enhancing the quality of talent involves three distinct efforts; (i) increasing the relevance of curricula in government-supported institutions, by including IT infrastructure management courses in computer science programmes, (ii) creating technical institutes affiliated to universities that offer training in core technology and process skills and (iii) investing in training programmes to improve communication skills.

In addition, concerted efforts to attract and to retain talent must be made by NASSCOM and the industry. Branding and marketing campaigns that highlight the career options provided by the RIM industry must emphasise benefits such as the opportunity to work with cutting-edge technologies, and address lifestyle and career growth concerns.

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The RIM industry is at a watershed in its development. It has the potential to unleash the next wave of growth, in particular for India, at a time when the traditional ADM industry has achieved a degree of maturity. Stakeholders will need to act in unison on challenges and implications arising from this opportunity to ensure that India can once again establish and sustain its leadership as the infrastructure offshoring centre of the world.