TATA COMMUNICATIONS

THREE MEGATRENDS

Shaping the IT Landscape

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OVERVIEW OF TRENDS

MOBILE

More than half the planet now owns a mobile phone, with unique users exceeding 3.6 billion. And globally active mobile subscriptions now exceed 7.1 billion, suggesting that the average phone owner maintains almost two active subscriptions. Meanwhile, mobile apps have evolved from simple ringtones to a wealth of operations. So what will the future of mobile look like?

In **this brief video**, we look at the evolution of mobile and explore the innovations on the horizon that will impact our professional and personal lives.

Mobile technology is growing exponentially across business, capturing an ever bigger slice of the IT budget. **In 2015 alone**, investment in mobile devices and applications is projected to reach $484 billion and consume 40% of the growth in IT spending.

That's just the beginning. With mobile devices moving into virtually every department and area of enterprise operations, spending for wireless data services **is projected to reach $536 billion in 2015**, surpassing that of devices and applications and accounting for 13% of the total enterprise telecommunications budget.

CLOUD

Cloud computing will continue to be a game changer for IT. With cloud and cloud services, enterprises don't need to make huge investments in infrastructure to use a huge infrastructure. In fact, **according to a recent Computerworld Forecast survey**, over 40% of the respondents said that in 2015 their organizations will increase their spend on SaaS—software as a service—and a mix of public, private, hybrid, and community clouds. **IDC projects** that the use of SaaS, PaaS (Platform as a Service), and IaaS (Infrastructure as a Service) will grow rapidly, with a total projected spend of $118 billion in 2015—a third of which will go for IaaS alone. With more applications, computing, and data storage moving to the cloud, data centres will continue to transform as the work load increases. This will spark a new generation of cloud-based hardware innovations that merge server, storage, software and networking.

For more research into IT leaders' perceptions around the cloud—and whether it has lived up to the hype—be sure to check out our 2015 whitepaper at **www.tatacommunications.com/cloud**

BIG DATA AND IoT

The future of Big Data and IoT is huge. In fact, IoT is projected to grow from two billion objects in 2006 to 200 billion by 2020 with networks of low-cost sensors and actuators in everything from manufacturing systems to the clothing we wear. All that data will be collected via the cloud and enter the Big Data funnel where it will be analyzed and turned into usable, actionable information.

All this is happening so fast, that building one's own Big Data infrastructure is a recipe for getting left behind. That's why leveraging the cloud and outsourcing infrastructure are intrinsic steps in taking full advantage of Big Data and IoT. **Solutions such as Data-as-a-Service are also emerging** that enable an enterprise to focus on the analytics without making a major investment in a data collection infrastructure. The potential payoffs are huge. Just one example: in manufacturing and logistics IoT and Big Data could boost productivity equal to the output of up to 140 million full-time workers by 2025.

BIG CHANGES AHEAD

KEEPING TRACK →

THE 3RD PLATFORM →

KEEPING TRACK

In 2014, The Economist, taking data from Ray Kurzweil's visionary book The Singularity is Near charted the pace of technological change starting from 1873 to the present. The conclusion: we won't see 100 years of progress in the 21st century—it will be more like 20,000 years of progress. **And it's just the beginning**.

Tapping some of the smartest minds in the business, the **Pew Research Center recently asked** 2,558 technology experts for their views on digital life in 2025. What they got was strong agreement on what lies ahead, including:

- A global, immersive, invisible, ambient networked computing environment enabled by the ongoing proliferation of smart sensors, cameras, software, databases, and massive data centers in a global information fabric—the Internet of Things
- The disruption of business models established in the 20th century impacting finance, entertainment, publishers of all sorts, and education
- Tagging, databasing, and intelligent analytical mapping of the physical and social realms

In other words, **according to IDC**, the focus now is on 3rd Platform technologies—mobile, social, cloud, and Big Data and analytics. **According to IDC's Chief Analyst, Frank Gens**, "We are shifting into a new gear in the industry's adoption of the 3rd Platform… and an exploding number of solutions built on them…"

THOUGHT EXPERIMENTS

1. How does mobility fit into your Unified Communications and Collaboration (UCC) strategy? What are the goals driving your UCC strategy, and how does mobility help advance these goals?
2. How do you currently choose a provider for mobile requirements? For cloud enablement? And for data centre services? How are those criteria for vendor selection different, and why?

THE 3RD PLATFORM: THE DOOR TO THE FUTURE

Cloud computing will continue to be a game changer for IT. With cloud and cloud services, enterprises don't need to make huge investments in infrastructure to use a huge infrastructure. In fact, **according to a recent Computerworld Forecast survey**, over 40% of the respondents said that in 2015 their organizations will increase their spend on SaaS—software as a service—and a mix of public, private, hybrid, and community clouds. **IDC projects** that the use of SaaS, PaaS (Platform as a Service), and IaaS (Infrastructure as a Service) will grow rapidly, with a total projected spend of $118 billion in 2015—a third of which will go for IaaS alone. With more applications, computing, and data storage moving to the cloud, data centres will continue to transform as the work load increases. This will spark a new generation of cloud-based hardware innovations that merge server, storage, software and networking.

The value of using Big Data is also being recognized across all industries. A recent survey found that 93% of business executives in North America believe that their enterprises are losing money by not being able to use the business data they collect.

"[B]ig data is helping to level the playing field for small businesses…(it's) a way for small business to fight back."

—STEVE KING, partner at Emergent Research

WHAT'S NEXT?

MOBILE

CLOUD

BIG DATA

MOBILE

Up to this point, it has been difficult for enterprises to measure the effectiveness and ROI of their social presence. Going forward, the focus will be on developing more accurate metrics and methods for testing user engagement.

Watch this brief video in which Vice President of Mobile Market Development, Tim Sherwood, talks about what makes Tata Communications the ideal partner for enabling innovation in the mobile ecosystem

CLOUD

Some believe that it will soon be delivering value faster by automating the entire implementation process from configuration to deployment. There's also talk of creating a cloud of clouds, where multiple clouds are integrated seamlessly.

For example, Tata Communications recently launched IZO™, an innovative platform for cloud enablement, which you can learn more about by watching this video **here**.

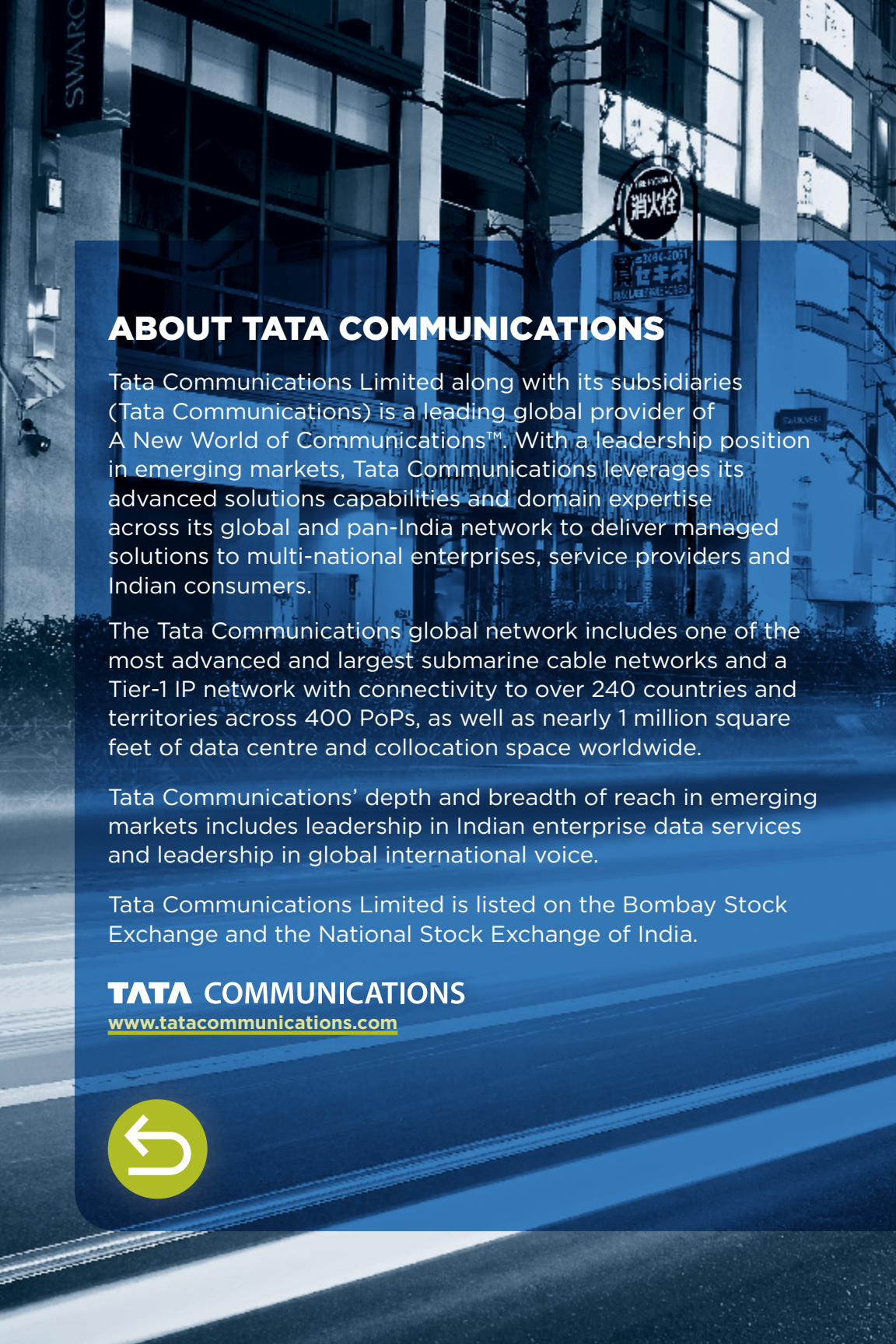
BIG DATA AND IoT

Data scientist Neil Biehn, Ph.D., believes that the word Big Data will soon be obsolete, replaced by a greater focus on the hidden assets in enterprise data. These analytics will help enterprises make smarter decisions faster, better engage with customers, and increase revenue. He states that "The most astute CEOs are looking for new opportunities to use their data assets to extract predictive and prescriptive analytics that evaluate how their companies are performing." These analytics will provide real business value and help enterprises make smarter decisions faster, better engage with customers, and increase revenue[10]

For more on data-enabled leadership, read CMO Vinod Kumar's blog post **here**.

ARE YOU MAKING THE MOST OF THESE MEGATRENDS?

However you plan to use mobile, social, cloud and Big Data, we can provide you with infrastructure and services you need, as you need them to stay competitive, operate efficiently, and grow your business. We offer a full spectrum of **network solutions** along with **managed security services**, and cutting-edge **media and entertainment services**. Through our massive global infrastructure we can provide you with all the **data centre capabilities** you need, on demand, in whatever capacity you require. We have more than 1 million square feet of data centre space in 44 locations worldwide ready to help your business grow. Talk to us today about what you need.



ABOUT TATA COMMUNICATIONS

Tata Communications Limited along with its subsidiaries (Tata Communications) is a leading global provider of A New World of Communications™. With a leadership position in emerging markets, Tata Communications leverages its advanced solutions capabilities and domain expertise across its global and pan-India network to deliver managed solutions to multi-national enterprises, service providers and Indian consumers.

The Tata Communications global network includes one of the most advanced and largest submarine cable networks and a Tier-1 IP network with connectivity to over 240 countries and territories across 400 PoPs, as well as nearly 1 million square feet of data centre and collocation space worldwide.

Tata Communications' depth and breadth of reach in emerging markets includes leadership in Indian enterprise data services and leadership in global international voice.

Tata Communications Limited is listed on the Bombay Stock Exchange and the National Stock Exchange of India.

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