THREATS ARE EVOLVING. IS YOUR BUSINESS?

HOW DIGITAL TECHNOLOGIES CAN TURN RISK INTO OPPORTUNITY

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Digital disruption has changed everything for every business.

Advances in technology have empowered your employees and customers alike to access and use information easier, faster and more reliably than ever before – sparking initiatives such as Bring Your Own Device (BYOD).

One development that has evolved rapidly and become particularly imperative for many businesses is the cloud.

A large number of businesses are already taking a ‘cloud-first’ strategy when considering and deploying new solutions.

It’s no wonder, when the cloud can deliver rapid agility, boost scalability and cost-effectiveness with capacity on demand and a pay-as-you-go pricing model, and improve competitiveness.

However, with these exciting new opportunities comes increased risk – and as you become more empowered, so do potential attackers.

Cloud security is especially complex, but very much necessary.

Even the biggest businesses have had to learn this, often the hard way.

**Yahoo!**
In September 2016, 500 million Yahoo! user accounts were hacked, devaluing the company by US$200 million.

**Dyn**
The DNS provider faced a major DDoS attack in October 2016, which led to the unavailability of major internet platforms and services such as Amazon, Twitter, GitHub and Netflix.

**Society for Worldwide Interbank Financial Telecommunications (SWIFT)**
A series of cyberattacks, which took place between 2015 and 2016, compromised numerous banks worldwide. This resulted in losses of around US$1 billion.
Security breaches can have serious repercussions for organisations large and small – from reputational damage and lowered share prices to reduced trust.

This can lead to a loss of new business and existing customers cancelling contracts.

What’s more, in some countries, members of the board are held personally liable and are fined if a breach occurs.

It’s understandable that security concerns can often be seen as a barrier to achieving objectives.

A survey of CIOs conducted by leading analyst firm Gartner showed that technology challenges, including security, are the biggest challenge for five percent of typical performers and eight percent of top performers.¹

This challenge only becomes greater due to a lack of security professionals in the market, and the cost of hiring enough of them to keep you protected 24 hours a day, seven days a week.

However, these issues needn’t be a hindrance.

By beginning your journey to digital transformation – with support from a trusted technology partner who can manage your security services for you – you can not only overcome your security obstacles, but also turn them into exciting new possibilities for innovation.

Read on to learn how.
BETTER TECHNOLOGY MEANS BETTER PROTECTION

The advance of technology means there’s more opportunity for attack – and opportunity for cybercriminals to carry out more sophisticated breaches than ever.

However, it also means there are more developments available for you to not only protect your business, but to enjoy a wealth of new benefits that digital security systems provide.

By transforming digitally, you’ll be able to:

• Better manage risks.
• Protect your company from multiple levels of threat.
• Add value to your IT offering.
• Improve your reputation.
• Boost operational efficiency.
• Achieve compliance during the audit process.

Look ahead to learn why security should be your top priority today.

You’ll discover how Tata Communications can be the trusted partner you need, empowering you to become digital, safeguard your organisation and achieve all of the above using innovative security solutions.

You’ll also read compelling case studies that show how Tata Communications has digitised security for a range of global organisations.
YOUR NEW NUMBER-ONE PRIORITY

Just why is security something you, as a CIO, should be focusing on right now? We may have touched on it earlier, but we’re not the only ones who believe it’s a pressing issue.

Gartner has found that digital security is the number-one area in which businesses either plan to invest, or have already invested.²

Another analyst, Deloitte, says that:

“Cybersecurity remains a constant boardroom agenda item.
And many of these leaders place the accountability and ownership of cyber risk management squarely on the IT organisation.”³

No doubt you agree with the...

61 percent of CIOs who identified cybersecurity (managing risks and protecting digital assets) as a core expectation of them and the IT organisation.

45 percent of CIOs who said that cybersecurity will have a significant impact on their business in the next two years.

64 percent of CIOs who expect their technology spend on cybersecurity to increase over the same time frame.⁴

And there’s good reason for you to feel that way...

• KPMG found that 19 percent of consumers would stop shopping with a retailer that had been a victim of a cybersecurity attack.
• Security breaches can derail key objectives by undermining the confidence of shareholders, analysts and consumer.
• The cost of a breach increases the longer it goes undetected.⁵

A HOLISTIC APPROACH

If you’re wondering where to start when considering a digital security strategy, the answer lies in thinking holistically.

After all, there’s no such thing as being 100 percent secure, but the best way to quickly detect breaches and minimise their damage – fast – is with a multifaceted approach.

That means ensuring all your stakeholders, from employees and partners to customers and suppliers, enjoy secured connectivity and experiences.
And it means guaranteeing that security, whether they’re in your offices, branches, or located remotely.

SOLUTIONS COULD ENCOMPASS:

• Vulnerability management and penetration testing
  Look for vulnerabilities and exploitable flaws, and measure the potential severity of each, to get a better idea of your current risks.

• Risk and compliance
  Put in place advanced malware detection, web-application firewalls, guest Wi-Fi access codes, and remote-user authentication to minimise risk and comply with standard regulations.

• Augmented security
  Design and deploy bespoke security tools as the need arises to protect your business, detect threats, maintain compliance, and enhance the way you work.
  This could comprise a Global Secure Internet Gateway, a Secure Web Gateway, a Global Secure Messaging Gateway or data-leak protection.

• Unified Threat Management
  Implement Next-Generation Firewalls and Unified Threat Management, intrusion detection and prevention and DDoS mitigation. You could also audit and optimise your firewalls for additional peace of mind.

• Security Information and Event Management (SIEM)
  Choose a SIEM service for real-time analysis of security alerts generated by your hardware and applications.
  These services can also log security data and generate reports, which can prove useful for compliance.
HOW WE DELIVERED PREDICTABLE SECURITY FOR UNPREDICTABLE THREATS AT RBEI

Tata Communications can put in place a holistic security strategy that works for your business, using innovative technologies to help you manage risk as effectively as possible. This strategy can help you overcome challenges you may currently be facing, like these.

Intelligence against evolving threats
It’s difficult to stay vigilant of security threats, and assess their potential impact, when they’re constantly changing.
Some attackers are shifting their vectors and are increasingly difficult to track. Others may be completely unknown to you.
Either way, you need to prevent them from gaining unauthorised access to your internal data, systems and tools by taking a proactive, not reactive, approach.
We can empower you to move to a predictive operational model by implementing a single, intuitive self-service portal that provides real-time reporting on an integrated dashboard.
That means you can see potential threats before an attack is likely, and respond faster than ever.

Consistent security posture
Do you have disparate ‘islands’ of IT estate across diverse access points, networks and infrastructures?
Are your security policies inconsistent, and your configurations mismatched?
If so, no doubt it can prove challenging to protect all your data and applications – both when stationary and in transit.
We’re able to provide you with a comprehensive adaptive-security framework that underpins your network, users, applications and data for a more robust security posture.
We can also enforce consistent and customised security policies, applied globally across all your IT estates.
HOW WE DELIVERED PREDICTABLE SECURITY FOR UNPREDICTABLE THREATS AT RBEI CONTINUED

Rigid legacy ecosystem

Many businesses like yours are struggling to tackle the security threats of today and tomorrow with the ecosystem of yesterday.

Perhaps you’re also hindered by legacy technologies, strict local regulatory requirements and lack of skilled security staff.

In this situation, we help by delivering a cloud-based security solution that requires no hardware installation. These solutions are agile and flexible, offering the continuous availability and development of new capabilities that can protect against ongoing threats.

What’s more, our industry-leading security expertise means there’s no need for you to build anything in-house. Everything is managed for you, simply and affordably.

Securing innovation for RBEI

Multinational engineering and electronics company Robert Bosch Engineering and Business Solutions (RBEI) needed increased security for its research-and-development activities.

It was struggling to manage its on-premises infrastructure, with different offices using different network providers.

This complexity resulted in unacceptably high risk to potential cyberattacks, and lower network availability. Plus, business-critical applications weren’t safely accessible to all users, leading to collaboration difficulties.

Tata Communications centralised the company’s systems, linking all offices in India, and implemented a managed, cloud-based firewall with unified threat management.

This fully managed solution empowered RBEI to:

- Increase speed to market by 50 percent.
- Achieve near-zero downtime from external attacks in a six-month period.
- Increase productivity of IT and network teams by 50 percent.
- Cut costs, reducing upfront investment by 80 percent and OpEx by 30 percent.
- Reach network availability of almost 100 percent with built-in redundancy to support access to data and applications.
HOW WE ENABLE EXCEPTIONAL CUSTOMER EXPERIENCES FOR FORMULA 1 FANS

No matter how holistic your solution, you also need to know that it’s reliable, protecting your most important assets around the clock.

We’ll enable you to overcome the following reliability challenges for complete peace of mind.

**Avoiding meltdown**
Your business demands that you balance the highest levels of availability, confidentiality and integrity while maintaining security... all within tight operational budgets.

Plus, you’re expected to innovate and implement new technologies that can reduce your resilience against threats.

You need to build contingency against the unknown - but this can seem impossible with a lack of in-house expertise, where you’re prone to human error.

You’ll be able to maximise your budgets through our effective use of the internet, and ensure minimal business disruption with exceptional service across the entire IT life cycle.

**Quick recovery**
You need to provide maximum service to your end users, with minimum downtime. Fail to do so, and you could face loss of reputation, financial risk, and even litigation.

However, building a disaster-recovery (DR) solution from scratch can be expensive, complex and unreliable - and extended outages can knock users’ confidence and cause attrition.

We offer fully managed and automated DR and security-incident-response services, with defined processes and reporting capabilities.

These services enable you to deliver seamless continuity, with enterprise-grade SLAs, including RTO and RPO guarantees.

That means you can ensure near-zero business disruption, with a robust network and DR infrastructure.

Work with us, and we'll give you a holistic view of service criticality, ranking locations, cyber resilience and serving locations based on your business’s unique needs.

We’ll also give you access to a highly qualified, world-class Client Services team. This team has experience in solution design; programme management; and service delivery, assurance and management.
Protecting brand reputation

Your IT performance affects not only your internal reputation, but also the perception customers and partners have of your brand. Are you making a good impression?

We can guarantee it – and protect you from the potential loss of important data, too.

Our preventative, detective, proactive and responsive security capabilities ensure you’re always performing at your best, and are safeguarded from external attacks and breaches.

Enabling exceptional customer experiences for millions of F1® fans

Formula 1 is one of the most watched annual sporting series in the world. F1 has a diverse range of platforms providing more than half a billion fans with any dimension of multimedia or digital they need. Formula One Group counts on Tata Communications to ensure these media platforms are available, accessible, scalable and secure to ensure broadcasters and the fans can reach the action in real time, any time and anywhere in the world.

Secure, reliable speed and bandwidth are critical to this operation, with every milli-second lost in real-time data connectivity costing the ecosystem of rights-owning broadcasters and F1.com dearly. Since 2012, Tata Communications has been the Official Connectivity Provider and Official Web Hosting and Content Delivery Network Provider for Formula1.com, with a dedicated and integrated service delivered across any of 25 international racing venues.

Over the last 100 races and counting, we’ve helped secure and standardise this operation, once riddled with multiple suppliers, prone to much higher risks of DDoS attacks, downtime and varying calibrations of reliable connectivity.

Today, even up to 5 millions fans can simultaneously operate immersive multimedia content on F1.com and we’re testing the limits of the fan experience with ULTRA HD broadcasts, 360 live video and much more.

We’ve driven Formula One to:

• Deliver a consistent, high-quality web experience for 67 million unique users, with 40x increased bandwidth and virtually real-time connectivity enabling remote operations.
• Implement a solution at each site within 10 days and available at any venue F1 is racing at.
• Improve the productivity of IT staff and efficiencies for the business with remote operations.
• Boost issue-resolution and response times during live races.
• Achieve zero downtime due to consistent network availability, reliable storage and protection from cyberattacks.
WHY PARTNER WITH TATA COMMUNICATIONS FOR DIGITAL TRANSFORMATION?

What happens in your business when you identify a risk?
This is one of the most common processes for companies like yours:

1. Identify a risk.
2. Research the market.
3. Speak to potential vendors.
4. Learn more about each of these vendors and their solutions.
5. Pay an analyst firm for advice about which to select.
6. Shortlist and evaluate these options.
7. Build a Request For Proposal (RFP) and business case.
8. Scour the market for qualified security professionals to install, run and oversee the use of the chosen solution.

A process like this can take years; time you simply don’t have in today’s world of evolving security threats. Plus, it costs money – and a lot of it – as you’ll need multiple professionals to take care of your security, 24 hours a day, seven days a week.

However, with a trusted partner like Tata Communications, we manage your security – effectively and affordably – for your complete peace of mind.

By working with us, your process will look like this:

1. Tata Communications, or the business, detects a risk.
2. We switch on a service to identify and protect against this risk.

As well as shortened response times, and therefore reduced risk, we offer the following outstanding benefits.

**Global expertise**

We’ve built and managed security solutions for some of the world’s biggest brands.

We also connect businesses to service providers who account for around 50 percent of the cloud computing market today, including Reach, Microsoft, Amazon, Google and Salesforce.

We have more than 44 data centres across the globe, 13 of which offer private-cloud-enabled services.
WHY PARTNER WITH TATA COMMUNICATIONS FOR DIGITAL TRANSFORMATION? CONTINUED

**Extensive network and access**
We have a robust suite of security solutions, enabled through cloud-delivery models, offering outstanding multiplatform support.

We’re the fourth-largest Tier-1 IP provider, carrying 25 percent of the world’s internet traffic routes. We are ISO-27001 certified, and have more than 200 certified engineers.

Our attack protection leverages the strength of our tightly integrated global scrubbing farms, enabling us to mitigate attacks as close to the source as possible.

Plus, we innovatively analyse emerging threats using our access to net-flow and traffic data.

**Guaranteed service, easy management**
We offer a fully managed service and a single point of contact for your technology estates; guaranteed end-to-end SLAs, even on the internet; 99.982 percent uptime; and automated routing that puts the right traffic onto the right network.

We scale with your business for ultimate flexibility, fitting around your unique requirements to deliver an offering that’s tailored, affordable and reliable.

Our solutions are easy to manage, too. You’ll get single-view service schedule, order form, invoice and network reporting and a self-service customer admin portal, so you can control your services.

**Increased ROI**
With our pay-as-you-go or yearly committed, private-cloud consumption models, you have complete control of your costs.

What’s more, our cloud-based deployments can prepare you for a more profitable future – and we can offload your non-critical traffic to the internet for maximum value.

**Mature multi-tenanted security operations centre (SOC)**
We take complete ownership of your security systems, from design and deployment to management, operating from international SOCs that serve 230 customers like you.

85 percent of customer issues are resolved within four hours. 95 percent of incidents are proactively identified.
HOW WE MANAGE YOUR RISKS

Our pillars
We have four proven pillars we put in place when implementing a security framework. These pillars are:

Plan & assess
We assess and define your security programmes, and look at how these are tied to your KPIs.

Process & technology
We establish your processes and technology, and ensure that these align to the goals of your security programme.

Programme governance
We put governance in place to drive your ongoing maturity.

Automation
We implement analytics and automation throughout your operations.

Your transition
We ensure your transition to your new, holistic security solution is as smooth as possible, considering:

Security posture
We transform data into intelligence, and use pioneering services to protect against sophisticated cyberattacks.

Compliance
We help you achieve your auditing needs with log management, and analyse your security set-up with Vulnerability Assessment and Penetration Testing services.

Uniformity
We enforce uniform security policies and on-premises security solutions across your organisation.

Data protection
We take care of your data at rest, as well as offering protection for MHS, Colo and cloud set-ups.

Authentication
We enable secure access from distributed locations and mobile devices.

In-depth defence
We also make sure you’re completely protected at every point of your life cycle, offering:

Prediction
We predict the most likely attacks and attack methods.

Prevention
We prevent or deter attacks so no loss is experienced.

Detection
We detect any attacks that couldn’t be prevented to allow for rapid and complete response.

Response
We respond rapidly to security incidents to minimise their impact.
OUR SERVICES

We’re here for you, whatever it takes.

We’ll help you:
- Simplify your complex environment.
- Revolutionise how you work.
- Discover what you need and refine what we offer, so we can exceed your expectations.
- Take complete responsibility for your operational performance.

We do this by excelling in the following five areas:

PROGRAMME MANAGEMENT AND SERVICE DELIVERY

Give your projects the best start – and finish – with our expertise and proven methodologies.
From the day you choose us until your project’s completion and beyond, a qualified Tata Communications champion will be looking after your interests. They’ll liaise with our team and third-party vendors to keep you on track and on budget.

Giving you full visibility of your project, with online digital project tracking, analytics and dynamic service updates, we’ll seamlessly integrate multiple business processes to deliver an error-free operational model.

SERVICE MANAGEMENT

Get outstanding support from a service management team that’s your voice in our organisation.

You’ll have access to advanced IT services and expertise, so you can stay ahead of the game. Our big-data analytics platforms will measure your performance, and provide a 360-degree ‘Voice of the customer’ view – so we always know what’s going on in your business, and can adapt accordingly. Our certified service specialists will monitor your networks and keep you in the loop about next-generation products, so you can seize new opportunities.
OUR SERVICES CONTINUED

SERVICE ASSURANCE

Stay one step ahead with our comprehensive, always-connected support services.

With our proactive, reactive and expert-led support services, we’ll spot issues before they happen. Leveraging on predictive analytics, we monitor your networks around the clock and catch issues before they escalate. Our intelligent ticketing system, which uses a dedicated Application Program Interface (API) and machine-to-machine interaction, ensures you get the right expert to help. Our intuitive Self Care Portal and certified network experts give your business the comprehensive support it needs.

ADVANCED SOLUTIONS DELIVERY

Choose an end-to-end life cycle service for large, critical projects – taking the pain out of business transformation.

However big your deployment, we make it simple. We'll be your one global partner, giving you a 360-degree view at each point. You’ll get a dedicated team of experienced specialists. They’ll act as your point of contact and ensure a seamless transition. And you’re in control, every step of the way.

PERSONALISED SUPPORT SERVICES

Drive your operation forward with best-in-class, personalised support services.

You can choose from three support options to fit what your business needs. Our Resident Engineer, Customer Support Analyst and Dedicated Support Desk Services bring best-in-class solutions and subject matter experts right into the heart of your business, ensuring you get the most from your communications portfolio.

Our staff score five out of five in satisfaction surveys at least 80 percent of the time.
This eBook is just one in our series about how digital transformation can improve the way you work.

Take a look at the others today:

- Improve engagement and amplify loyalty
  Start thinking omni-channel and deliver the experiences your customers have come to expect. [Read more]

  Improve collaboration between your users and systems to become more productive and efficient. [Read more]

- Digital transformation and the borderless enterprise
  Expand into new markets and develop new revenue streams globally. [Read more]