

SECURITY SERVICES FOR TELECOM



CLOUD SECURITY








IOT SECURITY



The global telecom sector will see relentless focus on the underlying trends of M2M, Big Data Analytics, Cloud Computing and the over-arching Internet of Things. The complexities of securing an organisation's network and infrastructure against targeted attacks has coerced business leaders to substantiate that there is a constant effort to protect their critical infrastructure and corporate digital assets.

The need to reduce capital expenditures and to comply with relevant industry standards and the scarcity of highly-skilled security professionals continued to be a challenge. Business leaders need to ensure that they proactively fight battles against security threats by operationalising or outsourcing routine security functions and by using converged platforms that adapt to new threats. Tata Communications Transformation Services (TCTS) enables your organisation to safeguard business assets, to reduce operational costs and to meet compliance requirements with regulatory requirements by strengthening your organisation's security infrastructure with performance-based metrics.

TCTS SECURITY OFFERINGS

 ASSESSMENT AND TESTING	 CONSULTING AND ADVISORY	 SOLUTIONS DESIGN AND IMPLEMENTATION	 MANAGED SECURITY	 ADVANCE CYBER SECURITY
<ul style="list-style-type: none"> Cyber security assurance program Device security testing Penetration testing 	<ul style="list-style-type: none"> Secure architecture Governance, risk and compliance Awareness and training Optimisation and migration 	<ul style="list-style-type: none"> Privilege access management Anti-spam solution DDOS mitigation IPS/IDS Firewall SIEM 	<ul style="list-style-type: none"> Managed security operation centre Security device management New product and services Integration SOC capability review 	<ul style="list-style-type: none"> Cloud security Office 365 security IOT security Security analytics

TCTS provides end-to-end security advisory and assurance by enabling access to technology, process, security standards, knowledge, skills, insights and capabilities.

SECURITY TESTING



TCTS helps deliver security testing to ensure products inducted in the environment confirm to industry standards and specifications. We assess infrastructure and its integrated processes to analyse risks and derive solutions to problems. These testing and assessments are designed to highlight and clearly articulate risks to the business.

SECURITY CONSULTING



TCTS collaborates with telcos to understand an appropriate architecture and propose migration solutions and optimisation services that are apt for your organisation's environment. We enable telcos to manage deployment with holistic view of the environment, simplifying security choices and advising to balance risk against the best return on investment.

SECURITY DESIGN & IMPLEMENTATION



TCTS effectively designs and implements security solutions building on our expertise in integration of such solutions within telcos existing infrastructure.

MANAGED SECURITY

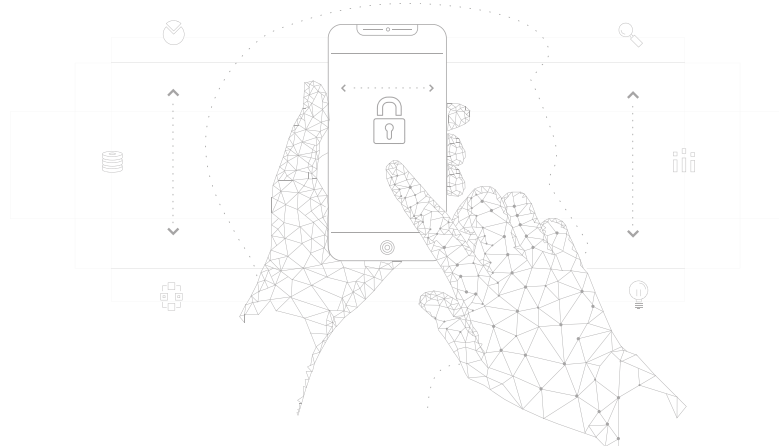


TCTS enables telcos to develop and implement a security value chain that involves planning, designing, building, and managing a secure network infrastructure.

ADVANCE CYBER SECURITY



TCTS Cyber Security services address threats to digital services, such as the internet of things (IoT), cloud services, virtualisation – SDN/NFV, unified collaboration and provide necessary analytics to perform the root cause analysis and resolve the problem.



CLOUD SECURITY



SECURING YOUR CLOUD WORKLOAD

With the emerging need for big data storage, mobility, scalability and management, the move to a cloud is a natural step for many organisations. This makes cloud security a top concern of organisations and hence important for them.

While the attack resistance of the overwhelming majority of cloud service providers (CSPs) has not proven to be a major weakness, customers of these services often lack robust security and governance disciplines. Although a security assessment of the CSP is critical, it cannot compensate for a lack of adequate policies, processes and products that are carefully applied by the customer.

TCTS security services helps customers to identify these gaps and thereby provide solutions for securing their cloud workloads using industry-best standards and solutions .

TCTS' APPROACH TO CLOUD SECURITY



CLOUD SECURITY RISK
ASSESSMENT DURING PRE
AND POST MIGRATION TO
CLOUD



SECURE ARCHITECTURE
DESIGN AND REVIEW



DESIGN AND IMPLEMENTATION
OF SECURITY SOLUTIONS FOR
CLOUD WORKLOADS WHICH
INCLUDE CASB, INFRA AND
NETWORK SOLUTIONs

CLOUD SECURITY SOLUTION AND CONSULTING SERVICES

CONSULTING AND ADVISORY

- Architecture design & review
- Baseline / hardening of virtualisations, OS and containerisation
- Cloud Migration Consulting

ASSESSMENT AND TESTING

- Risk assessment based in ISO27001/NIST
- Vulnerability assessment
- Penetration testing

MANAGED SECURITY SERVICES

- Managed security services
- SAAS platform security management
- IAM/FIM managed services
- Application security as a service

CLOUD BASED SECURITY SOLUTIONS

- Secure web gateway
- CASB – Cloud Access Security Broker
- Cloud data protection gateway / DLP
- Infra and network security solution – FW ,IPS & anti-DDoS

OFFICE 365 SECURITY

KEEPING DATA SECURE IN OFFICE 365

Industry analysts estimate that one or more of the Office 365 productivity suite are now being used by over 92% enterprises globally. While the transition to cloud-based productivity suite is on the rise, security apprehensions still hold back enterprises from fully adopting O365 and transitioning data to the cloud.

Addressing enterprise concerns, Microsoft has made significant investments in upgrading security for the O365 suite that will enable seamless and secure transition to the cloud for O365 productivity suite. As a partner to Microsoft for O365, TCTS enables enterprise network to identify and mitigate cyber security threats. TCTS help customers to prepare, mitigate and operate on security, privacy and governance for enterprises. TCTS' suite of security services for O365 customers include,

- Creating and fine tuning security policies for the customer
- Visibility and control using intuitive reporting and dashboard
- Identifying and protecting sensitive data for compliance and governance
- Improving security posture and performing security assessment
- Mitigating identified risks using third-party security solutions

O365 SERVICE MODULES

- ADVANCED DATA GOVERNANCE/E-DISCOVERY
- ADVANCED THREAT PROTECTION
- ADVANCED SECURITY MANAGEMENT
- CUSTOMER LOCKBOX
- DATA LOSS PREVENTION
- O365 SECURITY ASSESSMENT-SECURE SCORE
- THREAT INTELLIGENCE
- RMS

TCTS' APPROACH TO O365 SECURITY SERVICES

We can help customers to prepare, mitigate and operate for security, privacy and governance

To build customer specific risk model (Architect & Design)

To identify which controls are needed to manage risk (Configuration)

To implement data centric and enable context aware control (Implementation)

To manage Office 365 security operations (Managed Services)

To educate customers (Security Awareness & Training)

IOT SECURITY

IOT SECURITY SOLUTION AND CONSULTING

SECURING INTERNET OF THINGS

As IoT devices make their way into the world, deployed in uncontrolled and complex environments, securing IoT systems presents a number of unique challenges. Some of them are directly involved with physical environments and healthcare solutions.

IoT is revolutionising businesses. But this innovation does not come without risk. IoT devices must be trusted and their data should be secured. Trust begins with identity. These identities and their associated credentials must be trusted and useable across numerous connected ecosystems, between different devices, from devices to humans, and from devices to all varieties of cloud services.

TCTS security helps customers to provide solutions to implement end-to-end security lifecycle management from device sensors to application.

TCTS provides experienced security consulting services and penetration testing services in the customer's IoT environment to remove exposed vulnerabilities.

TCTS' APPROACH TO IOT SECURITY



SECURITY ASSESSMENT
OF IOT NETWORKS AND
PLATFORMS



BLACKBOX SECURITY
TESTING OF IOT END
POINT DEVICES



DESIGN AND IMPLEMENTATION
OF SECURITY SOLUTIONS FOR
IOT NETWORKS INCLUDING
DATA PROTECTION AND
ACCESS CONTROL

IOT SECURITY SOLUTION AND CONSULTING SERVICES

SOLUTIONS

IoT PKI auto-
provisioning &
management

Device
authentication and
authorisation

Key Management,
Flexible Device
Enablement

Policy Driven
Encryption

CONSULTING

Identify, analyse
and mitigate risk

Penetration testing
of IoT networks
and systems

End-to-end security
architecture review

Device security
assessment

SECURITY ANALYTICS

SECURITY SERVICES & SOLUTIONS

With continuous innovation come new techniques by hackers alongside leveraging compromised accounts. Traditional signatures, rules and patterns within defenses offer minimal capability to detect them. Static perimeter defenses are no longer adequate in a world where data breaches increasingly are carried out using stolen user credentials. And they have never been of much use against malicious insiders, who abuse their privileges.

Security leaders face a never-ending challenge to keep up with the accelerating pace of risk. They — overloaded and fatigued by high alert volumes and ineffective detection that misses important security events — will increasingly demand improvements in their existing security products, which can be enabled by the proper use of advanced analytics and artificial intelligence. Security analytics employs modeling to establish what normal behavior looks like.

End-user spending on UEBA (User entity and behavioural analytics) stand-alone platforms will grow at a CAGR of 48%, from \$50 million in 2015 to \$352 million in 2020.

This modeling incorporates information about: network activity, system behavior, user roles and titles from applications or directories, including access, accounts and permissions; activity and geographic location data gathered from network infrastructure; alerts from defense in-depth security solutions, and more. This data is correlated and analysed based on past and ongoing activity

TCTS' APPROACH TO SECURITY ANALYTICS



USE COLLECTIVE INFORMATION FEEDS, EVENT DATA FROM ON-PREMISES, CLOUD BASED SYSTEMS, SOCIAL MEDIA, SECURITY APPLIANCES



CREATE SECURITY INTELLIGENCE USING BEHAVIORAL AND MACHINE LEARNING ALGORITHM



ANOMOLY DETECTION: DIFFERENTIATE BETWEEN NORMAL AND UNUSUAL BEHAVIOUR OF USER, NETWORK, SYSTEMS ENTITY



TREND & PATTERN DETECTION: PROACTIVELY CORRELATES AND PREDICT THE SECURITY THREAT. ALERT SOC BEFORE THE ATTACK

SECURITY ANALYTICS SOLUTION AND SERVICES

SOLUTION	
Artificial Intelligence based predictive methods.	Telecom-specific use cases
Rule-based detection mechanism	Detecting insider threats, outsider threats, compromised insider
Calibration and simulation of rules	Baseline of user profile activity
Threat intelligence and pattern detection	Managed Security Analytics services for large telecom networks.

DIFFERENTIATORS



Broad portfolio of security offerings

Capabilities that cover the gamut of end-to-end security operations across the IT/ telecommunication landscape.



Innovation led technical capability

Dedicated security research lab centres and partnership engines.



Engagement model

Variety of engagement models from consumption models to multiyear transformational projects to enable consistent, low cost and highly efficient delivery.



Process and execution

'Security integration' frameworks to transform your organisation from its current-state maturity level to its future desired state.



Service delivery

Range of service delivery models, including on-premise SOC, staff augmentation, offshore monitoring and management, design-build-operate models.



Solution accelerators

Transformation accelerators and methodologies to mitigate cybersecurity concerns.



Right people with right experience

Trusted partner for CSPs, helping them to cost-effectively improve their information security processes, meet security best practices and achieve regulatory compliance.

CASE STUDIES



TCTS enabled Indian mobile operator to achieve Telecom and IT security compliance

Mobile operator had heterogeneous network with multiple vendor technologies, major security amendments to comply in regulatory requirements that are critical to core business. TCTS conducted security assessment with variety of tools and frameworks (such as 3GPP/3GPP2, NIST, ISO27002) and helped to develop preventive measures to manage the substantial residual risks leading to achieve regulatory security compliance.

TCTS empowered large UK data centre to achieve more than 95% right first time in security implementation

UK based data centre provider had to accelerate the customer provisioning with multi-vendor technologies including security products with no self-inflicted incidents and no early life failures post implementation. TCTS delivered a systematic engineering process and lifecycle mechanism that ensured to have more than 95% right first time deliverable on customer security projects.



TCTS transformed security firewall infrastructure of South African telecom giant

Customer infrastructure had obsolete firewalls that were no-longer fit to protect the latest cyber threats. TCTS designed flawless solution and migrated firewalls from legacy to next generation firewalls that detect and protect the infrastructure from any breaches.

About Tata Communications Transformation Services (TCTS)

Tata Communications Transformation Services (TCTS), a 100% subsidiary of Tata Communications Ltd, provides leading business transformation, managed network operations, network outsourcing and consultancy services to telecommunication companies around the world. TCTS delivers operational efficiency, cost transformation and revenue acceleration solutions for all the stages of the carrier process lifecycle including but not limited to network engineering and design, implementation and operations functions.

TCTS is a part of the USD \$100+ billion Tata group. Tata group comprises of over 100 operating companies in seven business sectors. TCTS leverages the market expertise of Tata group's global telecom operation capabilities and globally established IT, process and consulting skills. It carries the rich traditions and business ethics of the Tata companies.

For more details on TCTS and how we can help your company build, operate and transform, please contact us at tcts.marketing@tatacommunications.com or visit www.tatacommunications-ts.com. To hear more from TCTS experts, join us on LinkedIn <https://www.linkedin.com/company/tata-communications-transformation-services> and follow us on Twitter https://twitter.com/Tata_TCTSL.

