August 2020

Securing the future of business

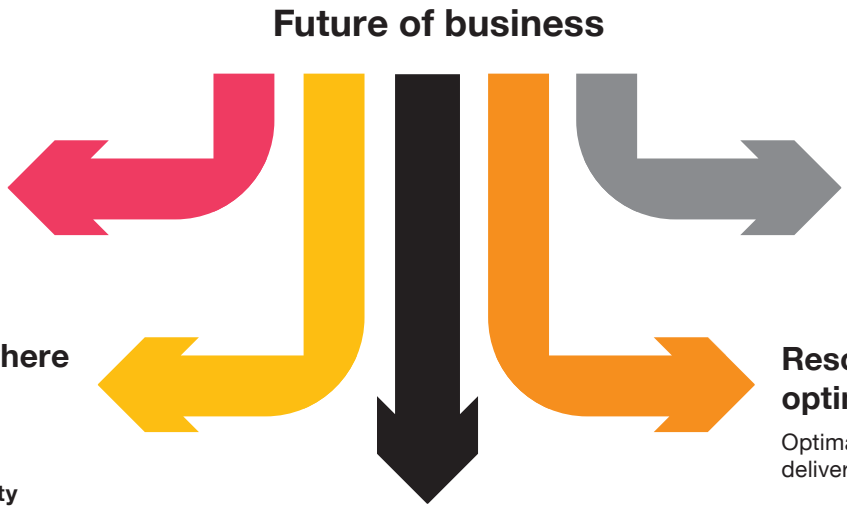
Cyber security solutions
Digital trust

pwc

What will the future of business be like?

The COVID-19 crisis has resulted in widespread concerns amongst businesses, clients, consumers and communities worldwide, and is expected to have a significant impact on the global economy.

Businesses worldwide have dealt with this unprecedented situation by helping their workforce to work from home (WFH)/work remotely and revamping their business continuity plans, among other steps. Many of these measures are not only point-in-time to deal with the current crisis, but also expected to continue in the post-COVID-19 future.



Business resilience

Strengthening business systems and processes to **perform seamlessly** during a **crisis**

Low-touch business model

Digital transformation – driving **minimum physical contact** with customers

Work from anywhere and anytime

Increased emphasis on WFH model, allowing **employees the flexibility and their safety**

Resource optimisation

Optimal allocation of **resources** to deliver business outcomes

Supply chain transformation

Increased reliance on local procurement/greater control over supply chains

Security priorities of businesses will be transformed

From a cyber security point of view, we believe that the future of business will revolve around an altered world with seamless and borderless transformation.

Organisations are expected to reanalyse cyber security priorities and strive to accordingly adjust to their redefined business requirements.

Pre-COVID-19 era

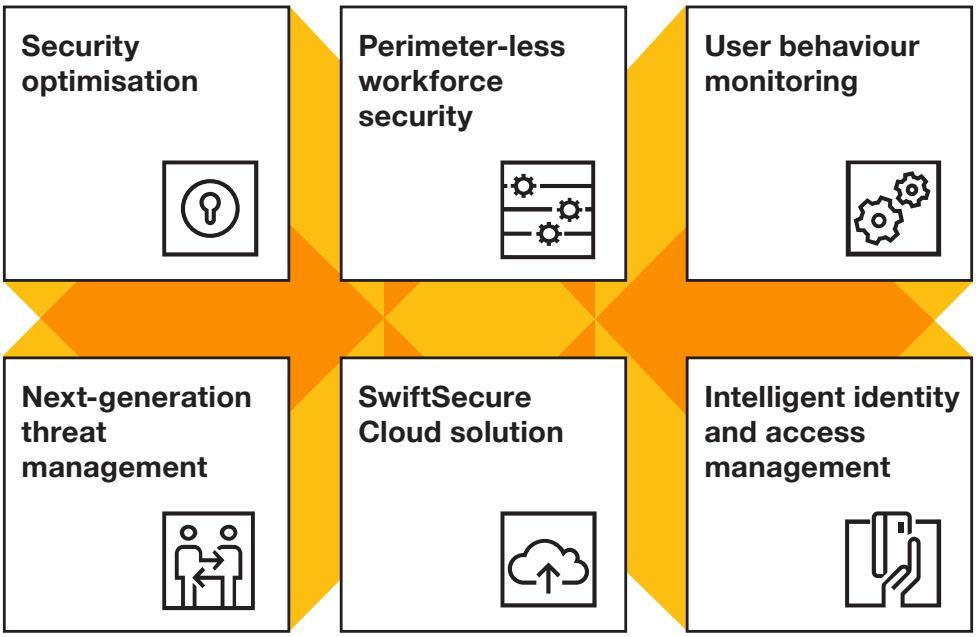
- Siloed security investments
- Secure organisation and data centres
- Perimeter security/trusted endpoints
- Traditional security monitoring
- Mitigation of all risks
- Facility-dependent application access
- Structured identity solutioning

Future of business

- Security optimisation and consolidation
- Secure 'work from anywhere' model
- Zero trust architecture/ semi-trusted or untrusted personal devices and virtual desktop infrastructure (VDI) adoption
- Predictive security monitoring
- Risk-based focused remediation
- Secure cloud adoption
- Managing identities on the go

PwC's cyber security solutions will aid in securing the future of business

Our cyber security solutions will help organisations enhance their security maturity and adjust to the future of their business requirements.



1 Security optimisation

The economic impact of the COVID-19 crisis may increase the cost pressure on businesses. Optimising cyber security investments would become an imperative for many businesses to enhance their security posture.

Security technology optimisation

- Evaluate incumbent network security architecture and cast off non-essential/redundant security tools.
- Optimise licensing costs for products based on their usage.
- Consider open source/commercially competitive security products in the network.

Fixed costs to variable costs

- Managed Security Services (MSS) 'in-a-box' for end-to-end security monitoring.
- Transform the on-premise security solutions landscape and move to cloud-based solutions (e.g. cloud firewall, privileged identity management [PIM]).

Optimise security team structure

- Redesign security organisation structure.
- Institutionalise virtual security team on shared-model basis.
- Drive governance, security approvals and regulatory compliances through virtual collaboration.

Automation and other opportunities

- Automate security processes (e.g. DevSecOps, user management).
- Automate/orchestrate incident detection and response (e.g. security orchestration, automation and response [SOAR]).
- Evaluate solutions to drive efficiency in a cost-effective manner (e.g. VDI solutions to cut costs on laptops).

2 Perimeter-less workforce security

As organisations move towards the future of business, conventional security may no longer be sufficient to address the changing threat landscape. Employees become the new perimeter for security, and protection from opportunistic threat actors becomes critical.

Flexible and rapid-to-deploy security solutions would be the need of the hour to meet cyber security requirements arising out of any unprecedented disruption.

Zero trust architecture

- Secure access to resources regardless of location.
- A least privilege and stringent access control strategy.
- Define attributes based on business and data sensitivity.
- Design micro-perimeters.
- Prevent untrusted communication.

Secure endpoints

- Assess endpoint security effectiveness
- Assess endpoint patching effectiveness
- Secure VDI implementation
- WFH policies and guidelines updates
- Bring your own device (BYOD) security operating model definition
- Mobile device management (MDM)

Threat analysis

- Discover indicators of compromise (such as COVID-themed communication).
- Strategic threat intelligence/dark web monitoring to identify compromise.
- Ready-to-integrate managed detection and response infrastructure.

Secure culture

- Web-enabled security awareness training.
- Conduct campaigns to sensitise employees on pseudo-phishing, SMS phishing (smishing) and voice phishing (vishing).

3 User behaviour monitoring

Traditional network and security monitoring will transform to include user behaviour monitoring as one of the critical components.

Leveraging security analytics with machine learning (ML)/AI to cover user and entity behaviour to analyse, correlate and detect anomalous interactions among users, systems, applications and data will become the need of the hour.

Advanced data and behaviour analytics

- Create behavioural baselining and risk scores to detect anomalous behaviours.
- Near real-time detection for compromised accounts, insider threats and data breaches.
- Turnkey solution for existing security event related to a data lata.

Defend the enterprise with AI and ML

- Leverage advanced AI and ML to filter billions of actions on a network into a list of prioritised threats.
- Classify assets and users to segregate common and anomalous behaviour aligned with business practices.
- Use security analytics to bypass manual processes and spend time investigating risk-based prioritised alerts.

Detect threats at the speed of business

- Contextualise alerts in relation to users, devices and events.
- Provide important perspectives for alert triaging to the security operations centre (SOC) teams.
- Programmed and continuous threat detection to monitor corporate data with behavioural analysis, threat intelligence and business context to uncover hidden threats.

Intelligent incident response

- Rapidly investigate incidents by pivoting on anomalous entities and tracing associated activities and events.
- Accelerate investigations by correlating disjointed events and providing analysts with all relevant information in a single user interface.

4 Next-generation threat management

While organisations add security measures to protect their businesses, emerging threats seek to derail or bypass these security controls.

Next-generation threat management provides automated monitoring, protection and remediation measures. The focus is to provide a complete view of the risk landscape and proactively respond to emerging risks.

Automated intelligent remediation

- Unified robotic process automation (RPA) based solution integrating different technologies/processes (e.g. scan engine, asset database, incident management tool, threat feed)
- Bot-managed tasks including automated scans, notification and monitoring of remediation
- Correlation and algorithms to prioritise remediation tasks
- Orchestrated remediation and closure validation

On-the-go patch and configuration update

- Continuous scanning to identify vulnerabilities across the landscape based on a predefined baseline
- RPA-based patch management and configuration management

One-click risk view across the landscape

- Correlation of vulnerabilities across the infrastructure and application
- Holistic view of vulnerabilities and related exploits
- Unified/single view of risk scores across the landscape, with the ability to drill down to asset level
- Intelligent reports mapping the vulnerabilities-asset applications

Agility to integrate newer processes

- RPA-based automation with a process designer interface to customise/integrate new processes
- Integration capability with other processes such as a secure software development life cycle (SDLC), DevSecOps and configuration management to enable end-to-end and seamless vulnerability management

5 SwiftSecure Cloud

The SwiftSecure Cloud solution will help businesses drive efficiency, reduce overheads and make themselves commercially viable while ensuring that cyber security is incorporated appropriately across the journey.

Accelerate secure cloud adoption, driven through PwC's partnerships with leading cloud service providers (CSP) (AWS/Azure/GCP)

- Security strategy, policies and guidelines aligned to a cloud adoption strategy
- Ready-to-deploy cloud security stack
- Security-enabled solution with reference architecture, Center for Internet Security (CIS) benchmarks and others for secure environment
- Cloud security assessment and management to provide assurance to businesses and IT

Enhance maturity of existing cloud environment

- Cloud identity integrated lifecycle management
- Cloud access management for secure access to cloud resources
- Secure configuration and operations in a multi-cloud environment
- Threat intelligence and vulnerability management

Securing cloud operations

- Cloud security monitoring for proactive identification of potential security threats
- Detect, prioritise and remediate vulnerabilities
- Incident management and forensics investigation for responding to securing issues
- Training and awareness for employees

Achieve and maintain compliance

- Compliance with regional and sector-specific requirements
- Privacy requirements for data transfer and access
- Third-party auditing for security assurance

6 Intelligent identity and access management

Managing identities on-the-go will become a prerogative for businesses to govern a complex ecosystem of stakeholders operating anywhere and anytime.

Comprehensive, automated and streamlined identity management solutions will help businesses drive process automations, efficient compliance fulfilment and other requirements.

Lightweight ready-to-use platform

- Turnkey solutions to solve end-to-end identity governance and access management challenges.
- Complete identity management (IDAM) with advanced product capabilities delivered as cloud-ready, on-premise and plug-and-play options.
- Workflows to automate processes for managing identities and accesses across enterprise applications.
- Secure single-click access to all applications across all platforms with single sign-on (SSO) and multifactor authentication (MFA) capabilities.

Advanced analytics engine for effective governance

- AI/ML to create accurate predictive and actionable insights for discovery and remediation
- Automated policy-driven access certification to enable remediation and reporting
- Audit-ready compliance-statutory solution for SOX, HIPAA, ISO27001 etc.
- Intelligent analytics engine for enhanced identity control with data mining and analytics
- Advanced user interface (UI) dashboard for 360-degree coverage

Autonomous services for select adoption

- Adoption of discrete solutions/services from the suite as per the requirements.
- Pricing flexibility with pay-as-you-go consumption-based models.
- Self-service for access request, password reset, etc., to optimise desk costs.
- Access provisioning and de-provisioning automation to streamline onboarding and offboarding processes.
- Access review as a service to eliminate manual efforts on IT audits and provide a more secure environment.
- Save time and decrease costs with reduced implementation cycles and ongoing maintenance costs.

Flexible to augment, integrate or replace

- Agile solution to address IDAM-specific necessities including identity governance and administration (IGA), access management (MFA and SSO), authorisation and PIM/privileged access management (PAM).
- Ability to integrate new related processes as per business needs
- Support any already-deployed identity access management (IAM) solution
- Agile effortless integration with IT service management solution

About PwC

At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 157 countries with over 276,000 people who are committed to delivering quality in advisory and tax services. Find out more and tell us what matters to you by visiting us at www.pwc.com.

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