

SECURITY

Digital Roadmap

The Security Digital Roadmap is for small and medium enterprises (SMEs) to assess their digital readiness and identify opportunities for going digital.

An Initiative by:



Sector Lead:



Supported by:





01

**Our Security
Industry**

02

**Industry Challenges
and Opportunities**

03

Digital Roadmap

04

**Digital Skills
Needed**

05

**Get Started
Today**

01 - OUR SECURITY INDUSTRY

The Security industry provides private security services and plays a key role in supporting law enforcement agencies to maintain safety and security in Singapore.



Intended Users of this Guide



Security Agency



Building Owner/
Service Buyer



Source: MHA

02 - INDUSTRY CHALLENGES AND OPPORTUNITIES

INDUSTRY CHALLENGES



Heightened Terrorism Threats



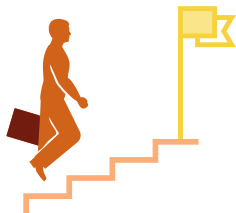
Potential new demand for security services and push for buyers to explore smarter security solutions



Shrinking Local Workforce Coupled with Rising Costs



Paradigm shift to use technology and redesign processes to optimise resources



More Educated Workforce with Higher Aspirations



Better-skilled manpower to enable new technology and services



Source: MHA

The Security Industry Transformation Map (ITM)

The Security Industry Transformation Map (ITM) is a tripartite effort to develop a vibrant, technologically advanced and competitive security industry that delivers better security outcomes for Singapore and provides good jobs for Singaporeans.



Click [here](#) or scan this QR code for more details on the Security ITM

The Industry Digital Plan (IDP)

The IDP serves to meet the productivity and innovation objectives of the ITM.



* Includes training under SkillsFuture Series and Skills Framework

03 - DIGITAL ROADMAP

Transformation With Digitalisation



Current:

Manpower intensive and low digital technology adoption; use of manual surveillance, access control and patrolling.

Stage 1: Digital Systems, Optimise Resources

Digitalise surveillance to reduce manpower intensive work and ease resource constraints.



Stage 2: Integrate Services, Enhance Response

Digital service integration enables service portability and enhances response speed and quality.

Stage 3: Converging Insights, Intelligent Business

Exploit opportunities to maximize business value through advanced tech and convergence.



Digital Roadmap on Training:

To equip individuals and businesses with skills needed for transformation with digitalisation.

Digital Roadmap

The Digital Roadmap serves as a guide to follow on your digital journey.

Stage
03

Stage
02

Stage
01

Getting Digital Economy Ready

Digital Systems, Optimise Resources

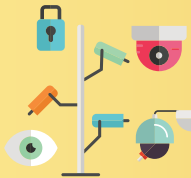


Mobile-enabled Patrol & Incident Management



Automated Visitor Management

(only for facilities that require visitor registration)



Onsite Surveillance & Analytics

Growing in the Digital Economy

Integrate Services, Enhance Response



Clustered Security Guarding



Risk / Threat Prediction & Detection



Wearable Security Technology

Leaping Ahead

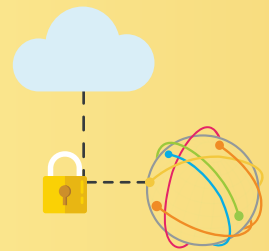
Converging Insights, Intelligent Business



Surveillance Robots



VR / AR for Training



Security Collaboration Platform



Business Capability

Resource Management including Human Resource, Payroll, Accounting, Resource Management, Training Management etc.



Digitalise surveillance to reduce manpower intensive work and ease resource constraints

Mobile-enabled Patrol & Incident Management



Allow mobile access to work assignment and reporting. Organise, track and manage patrol activities, resources, routes and documentation.

Key Benefits:

- Real-time tracking, reporting and communications
- Visibility and management of multiple sites remotely

Automated Visitor Management *

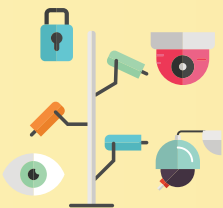


Control facility access with visitor registration. May include biometrics and car plate recognition. Integrate with facility access control systems to prevent unauthorised entry.

Key Benefits:

- Speed up registration and improve visitor flow
- Free up manpower through self-service automation
- Eliminate data inaccuracy and allow visitor pattern analysis

Onsite Surveillance and Analytics



Enhance onsite security monitoring through IP-enabled video cameras that are augmented with analytics to detect security incidents.

Key Benefits:

- Enhance security capabilities and increase productivity
- Enable remote surveillance

*only for facilities that require visitor registration

Digital service integration enables service portability and enhances response speed and quality

Clustered Security Guarding



Centralised surveillance and decision making covering multiple facilities and areas supported by mobile response teams, real-time video feeds and network of sensors and analytics.

Key Benefits:

- Optimise security manpower to cover more buildings / facilities
- Scalable business model
- Fast response to ground incidents

Risk/Threat Prediction & Detection



Detect unusual and less predictable security events under challenging situations (e.g. large crowds, unpredictable flow of people).

Key Benefits:

- Effective monitoring of challenging and high-activity deployment sites
- Optimise tight resources
- Supports security officers to detect emerging threats

Wearable Security Technology



Equip security guards with new tech for event capturing, geolocation tracking and man-down alert to augment patrolling duties.

Key Benefits:

- Improve personal safety and protection for security officers
- Enable real-time monitoring of security incidents
- Improve situational awareness and response capabilities

Exploit opportunities to maximise business value through advanced tech and convergence

Surveillance Robots



Deploy autonomous robots and drones to augment patrol and surveillance duties. Cover large remote areas and hazardous situations that are difficult or impossible to deploy cameras. Use security robots to respond to security incidents, defuse situations and deter crime.

Key Benefits:

- Augment capability to provide security protection over challenging terrain
- Enable persistent security presence through 24/7 monitoring/coverage

VR / AR for Training



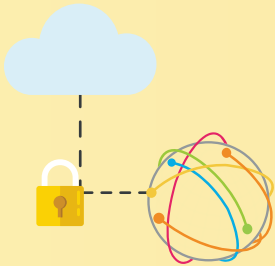
Use Virtual Reality (VR) / Augmented Reality (AR) for security training. Enable security staff to have greater access to training resources, immerse in more realistic scenarios, and track trainee performance.

Key Benefits:

- Increase productivity of trainees and trainers
- Optimise resources that include facilities and training toolkits
- Improve training outcomes including knowledge retention and recall

Exploit opportunities to maximise business value through advanced tech and convergence

Security Collaboration Platform



Integrate video feeds, operational data, sensor networks and building / environmental systems to enable visualisation, sense-making, and intelligent response. Layer with building information management (BIM) systems for advanced 3D security planning, scenario simulation and security implementation. Connect with Smart Facility Management (FM) platform to enable collaboration across the Built Environment.

Key Benefits:

- Enable deeper, real-time security sensing and assessment
- Improve security team capabilities
- Improve information sharing and collaboration with security stakeholders including police, building owners, government agencies, etc.
- New opportunities for productivity gains by sharing facilities management systems/equipment



FUTURE OF SECURITY GUARDING

DIGITAL TECH FOR SECURITY OFFICERS

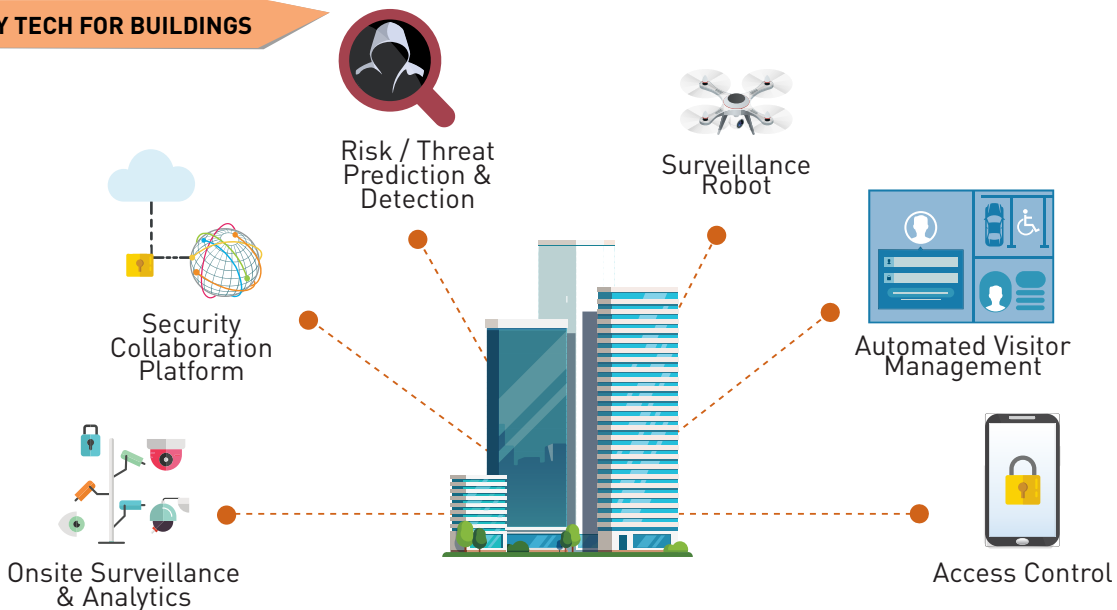


Real Time Monitoring



- ✓ **Manpower efficient** with a more **sustainable** operating model through use of technology and insights from data
- ✓ Leverage collaborative platforms and networks for a **safer society**
- ✓ **Better security sense-making and response** through integrating sensors, management systems and predictive analytics
- ✓ **Augment capability** of security officers

SECURITY TECH FOR BUILDINGS



04 - DIGITAL SKILLS NEEDED

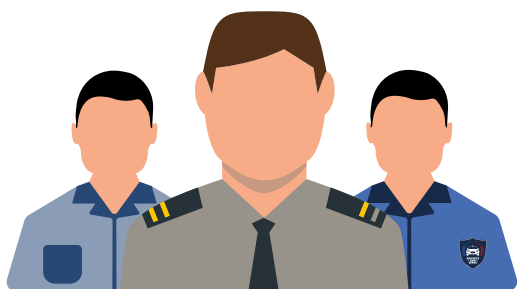
Digital skills are required for all security job roles to varying levels of proficiency. You may refer to these job roles and skills needed to support your digital journey.

Types of Users

All Users

Require broad-based digital literacy and awareness

Security roles which require light digital use (e.g. Using simple apps)



Advanced Users

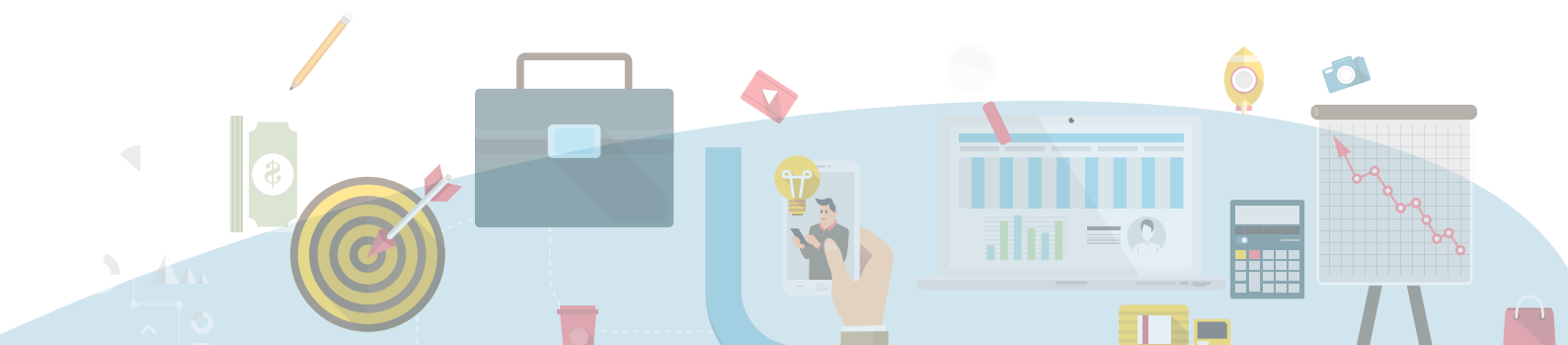
Require higher proficiency level digital skills

Security supervisory and managerial roles who use digital tools to manage overall security operations



Job Roles

Security Officers
Senior Security Officers
Security Supervisor
Senior Security Supervisor
Chief Security Officer








04 - DIGITAL ROADMAP ON TRAINING



Getting Digital Economy Ready

Growing in the Digital Economy

Leaping Ahead

	Security Tech I: Getting Digital Economy Ready (1 day)	Security Tech II: Growing in the Digital Economy Ready (1 day)	Security Tech III: Leaping Ahead (1 day)
Tech Basic Courses Require broad based digital literacy and awareness	<ul style="list-style-type: none"> Innovation Mindset Security & Digital Literacy Mobile Patrol & Incident Management Visitor Management System Onsite Surveillance & Analytics 	<ul style="list-style-type: none"> Unleashing Innovation Clustered Security Guarding Analytics for Security Detection / Prediction Wearable Security Tech 	<ul style="list-style-type: none"> Innovation for competitive advantage Surveillance robots / drones VR/AR for training Security Collaboration Platform
	  	 	 
	 Vendor solution specific training		
Tech Advanced Courses Require higher proficiency digital skills	<ul style="list-style-type: none"> Building Foundation in Microsoft Excel (1 day) Basic Business Analytics @ Work (1 day) WSH@Robotics (1 day) Introduction to Data Science (2 days) 	<ul style="list-style-type: none"> Understanding Cyber Risk Assessment and Management (1 day) Industrial IoT and Data Analytics (1 day) Internet of Everything (IoE) (2 days) Design Thinking: A Strategy for Idea Generating and Problem Solving (1 day) 	<ul style="list-style-type: none"> Design Thinking: A Strategy for Idea Generating and Problem Solving (1 day) AR/VR at the Workplace (1 day) Data Security Governance (4 days) Robotics Integration (6 days)
	 	 	 

Training programmes aligned to Skills Framework and emerging areas under SkillsFuture Series.

Legend



05 - GET STARTED TODAY

You will be supported at every stage of your digital journey. You can perform a self-assessment or contact business advisors at SME Centres for assistance.



Self Assess



You can assess your digital readiness by using a self-assessment checklist

Click [here](#) or scan this QR code for more details



Resources Available*

List of Digital Solutions

Visit Tech Depot to access digital solutions, including Pre-approved Digital Solutions

Procure Pre-approved solutions from the Business Grants Portal

Business Advisory & Digital Consultancy

Access to advisory services

- SME Centres
- SME Digital Tech Hub

Skills Framework

The Skills Framework provides key information on:

- Sector information
- Career pathways
- Occupations and job roles
- Existing and emerging skills
- Training programmes for skills upgrading & mastery

*Refer to the next page on how to access these resources



Contact SME Centre



You can seek assistance from Business Advisors at SME Centres

Click [here](#) or scan this QR code for more details

For advanced digital advisory, you may be referred to Principal Consultants at SME Digital Tech Hub

SME Centres

www.smeportal.sg

- Association of Small and Medium Enterprise (ASME) - SME Centre @ ASME
- Singapore Chinese Chamber of Commerce & Industry (SCCCI) - SME Centre @ SCCCI
- Singapore Indian Chamber of Commerce & Industry (SICCI) - SME Centre @ SICCI
- Singapore Malay Chamber of Commerce & Industry (SMCCI) - SME Centre @ SMCCI
- Singapore Manufacturing Federation (SMF) - SME Centre @ SMF

Satellite SME Centres are located at Community Development Councils (CDCs)

SME Digital Tech Hub

- SME Digital Tech Hub operated by the Association of Small and Medium Enterprise (ASME)

Contact Trade Association

Security Association Singapore

secretariat@sas.org.sg | +65 6836 0933

<http://www.sas.org.sg>

Association of Certified Security Agencies (ACSA)

secretariat@acsa.sg | +65 6479 8255

<http://www.acsa.sg>

Contact Labour Movement

Union of Security Employees

use@ntuc.org.sg | +65 6334 6393

<http://www.use.org.sg>

Employment and Employability Institute

<http://e2i.com.sg/contact-an-industry-specialist>

+65 6474 0606 | <http://e2i.com.sg>

FOR MORE INFORMATION

For SME

Digital Solutions

Tech Depot

<https://www.smeportal.sg/content/tech-depot/en/home.html>

Digital Sector Projects

SMEs Go Digital

<https://www.imda.gov.sg/SMEsGoDigital>

Digital Consultancy

SME Centre

<https://www.smeportal.sg/content/smeportal/en/resources/sme-centres.html>

SME Infoline: +65 6898 1800

SME Digital Tech Hub

www.digitaltechhub.sg

Digital Project Management Services

SMF

<http://www.smfederation.org.sg/capability-capacity-development/project-management-services>

For Individuals

Capability Upgrading and Career Facilitation

Security Industry Institute

<http://www.tp.edu.sg/centres/temasek-skillsfuture-academy>

<http://www.tp.edu.sg/sii>

Course Directory

<http://www.skillsfuture.sg/credit>

Fundamentals for Future Economy

<http://www.skillsfuture.sg/digitalworkplace>

Skills Framework

<http://www.skillsfuture.sg/skills-framework>

WSG's Careers Connect

<http://www.wsg.gov.sg/career-services.html>

e2i Centres

<http://e2i.com.sg/app>

Union of Security Employees

<http://www.use.org.sg>



This Digital Roadmap is part of the
SMEs Go Digital programme

For programme information and feedback:
<https://www.imda.gov.sg/SMEsGoDigital>



For more news and information, visit www.imda.gov.sg
or follow IMDA on Facebook [IMDAsg](#) and Twitter [@IMDAsg](#).

The Infocomm Media Development Authority (IMDA) will develop a vibrant, world-class infocomm media sector that drives the economy, connects people, bonds communities and powers Singapore's Smart Nation vision. IMDA does this by developing talent, strengthening business capabilities, and enhancing Singapore's ICT and media infrastructure. IMDA also regulates the telecommunications and media sectors to safeguard consumer interests while fostering a pro-business environment. IMDA also enhances Singapore's data protection regime through the Personal Data Protection Commission.