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:

SG:D
EMPOWERING POSSIBILITIES

IIM INFOCOMM MEDIA DEVELOPMENT AUTHORITY

Sector Lead:

MINISTRY OF HOME AFFAIRS

Supported by:

Enterprise Singapore

Security Industry Institute

SKILLSfuture SG

Association of Certified Security Agencies SINGAPORE
ACSA

SAS SECURITY ASSOCIATION SINGAPORE

SECURITY SYSTEMS ASSOCIATION of SINGAPORE
www.ssas.org.sg

e2i

care centre

USE

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.
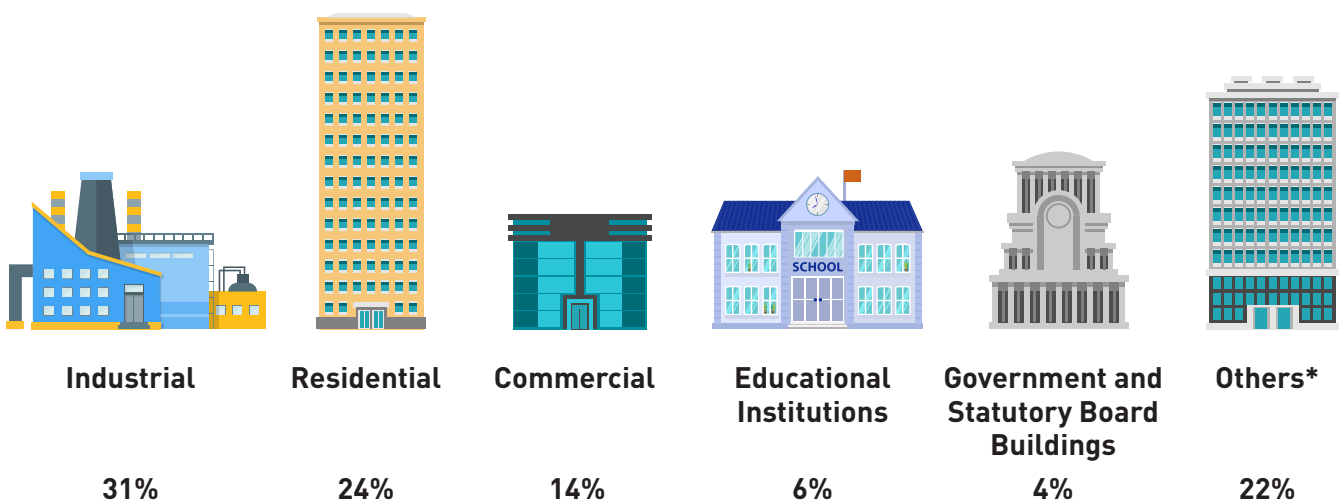
600
Security Service Providers

240
Security Agencies

Total Workforce of **47,000**

Intended Users of this Guide

Security Agency

Building Owner/ Service Buyer

Facilities that require Security Services

Industrial	Residential	Commercial	Educational Institutions	Government and Statutory Board Buildings	Others*
31%	24%	14%	6%	4%	22%

*e.g. Protected areas, Construction Sites, Hospitals

Source: MHA

02 - INDUSTRY CHALLENGES AND OPPORTUNITIES

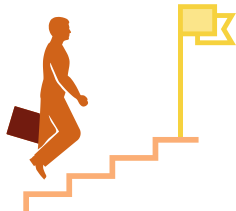| INDUSTRY CHALLENGES	OPPORTUNITIES

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.

SMEs enjoy **STEP-BY-STEP ADVICE** on the digital technologies to use at each stage of growth by sectors

01 Digital Roadmap
Understand your digital readiness and raise employees' digital skills*

02 Digital Consultancy
Seek clarity on your digital journey with basic advisory or advanced consultancy

03 Digital Solutions
Select pre-approved or curated digital solutions to achieve your go digital objectives

04 Digital Sector Projects
Participate in pilot projects led by industry leaders to enjoy new growth

05 Digital Project Management Services
Maximise outcomes of implementing digital solutions with pre-approved digital project management services

* 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 go digital journey.

Stage 01

Getting Digital Economy Ready
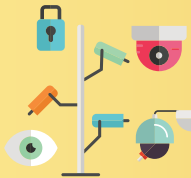
Digital Systems, Optimise Resources

Mobile-enabled Patrol & Incident Management

Automated Visitor Management
(only for facilities that require visitor registration)

Onsite Surveillance & Analytics

Stage 02

Growing in the Digital Economy

Integrate Services, Enhance Response

Clustered Security Guarding

Risk / Threat Prediction & Detection

Wearable Security Technology

Stage 03

Leaping Ahead

Converging Insights, Intelligent Business

Surveillance Robots

VR / AR for Training
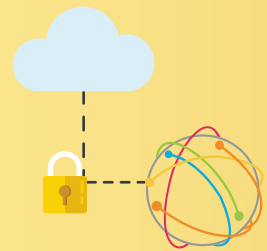
Security Collaboration Platform

Business Capability

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

Getting Digital Economy Ready
Digital Systems, Optimise Resources

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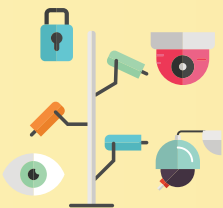
Enhance onsite security monitoring through IP-enabled video cameras that are augmented with analytics to detect security incidents.

Key Benefits:

- Enhance security capabilities and increase productivity
- Enable remote surveillance

*only for facilities that require visitor registration

Growing in the Digital Economy
Integrate Services, Enhance Response

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

Leaping Ahead
Converging Insights, Intelligent Business

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

Leaping Ahead
Converging Insights, Intelligent Business

Exploit opportunities to maximise business value through advanced tech and convergence

Security Collaboration Platform
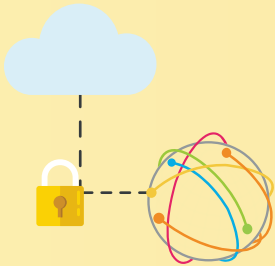
Integrate video feeds, operational data, sensor networks and building / environmental systems to enable visualisation, sense-making, and intelligent response. Layer with building information management (BIM) systems for advanced 3D security planning, scenario simulation and security implementation. Connect 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

Body Worn Camera

Incidents

Intruder Alert

Location Tracking

SOS Panic Button

Communication

Mobile-enabled patrol & incident management

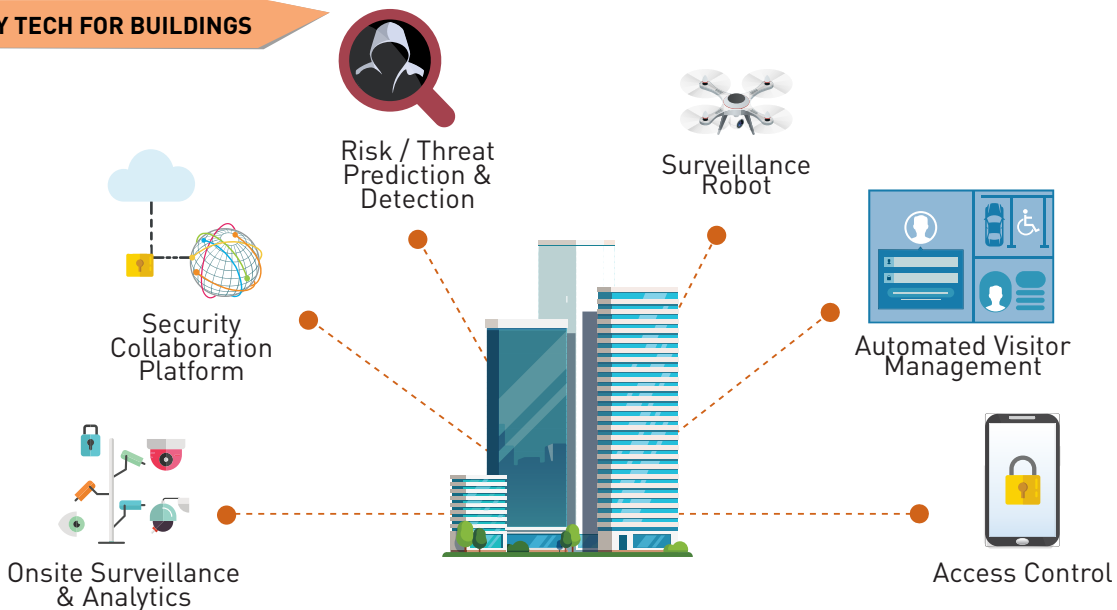**Real Time Monitoring**

Clustered Security Guarding

Security Collaboration Platform

✓ **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

Risk / Threat Prediction & Detection

Surveillance Robot

Security Collaboration Platform

Automated Visitor Management

Onsite Surveillance & Analytics
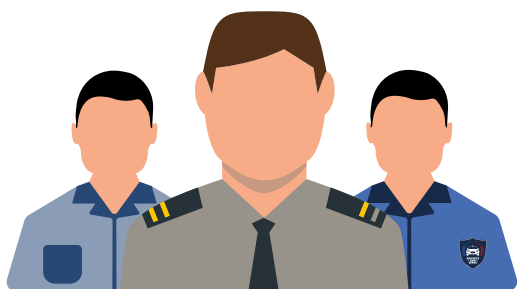
Access Control

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)
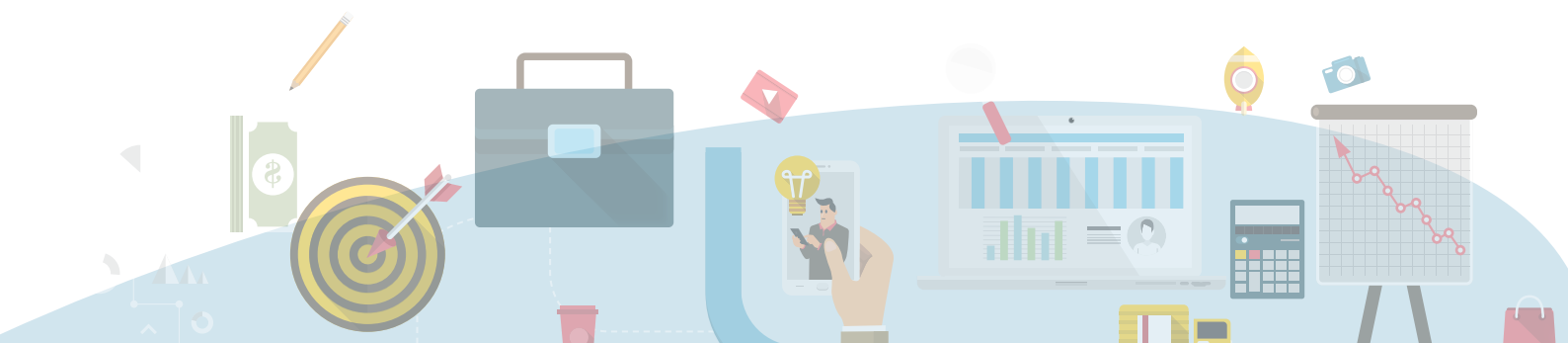
Advanced Users

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

	Stage 01	**Stage 02**	**Stage 03**
	Getting Digital Economy Ready	Growing in the Digital Economy	Leaping Ahead
Tech Basic Courses Require broad based digital literacy and awareness	**Security Tech I: Getting Digital Economy Ready (1 day)** • Innovation Mindset • Security & Digital Literacy • Mobile Patrol & Incident Management • Visitor Management System • Onsite Surveillance & Analytics	**Security Tech II: Growing in the Digital Economy Ready (1 day)** • Unleashing Innovation • Clustered Security Guarding • Analytics for Security Detection / Prediction • Wearable Security Tech	**Security Tech III: Leaping Ahead (1 day)** • 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	• Building Foundation in Microsoft Excel (1 day) • Basic Business Analytics @ Work (1 day) • WSH@Robotics (1 day) • Introduction to Data Science (2 days)	• 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)	• 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

Classroom

Blended Learning

Online Learning/ Micro-Learning

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.