Telstra

The state of IT and OT convergence in Hong Kong

The way that businesses use technology is evolving at a rapid pace. Tech-driven innovation is a key battleground for competitive differentiation across industries and markets, as organisations embrace the Internet of Things (IoT), big data, Artificial Intelligence (AI), cloud, and modern network technology as part of a push towards Industry 4.0.

Building interconnected digital value chains requires organisations to unify traditionally separate processes across Information Technology (IT) and Operational Technology (OT). This convergence of IT and OT helps businesses achieve new levels of growth and operational scale, although it raises critical security challenges that can be difficult to address.

Telstra commissioned technology research company Omdia to investigate the state of IT and OT convergence in North Asia, including China, Hong Kong, South Korea, Japan and Taiwan. While 85% of firms expect business benefits from convergence, many find it difficult to manage cybersecurity challenges.

Despite some common hurdles, each market shows interesting distinctions. Here are some key barriers and enablers for IT/OT convergence in Hong Kong.
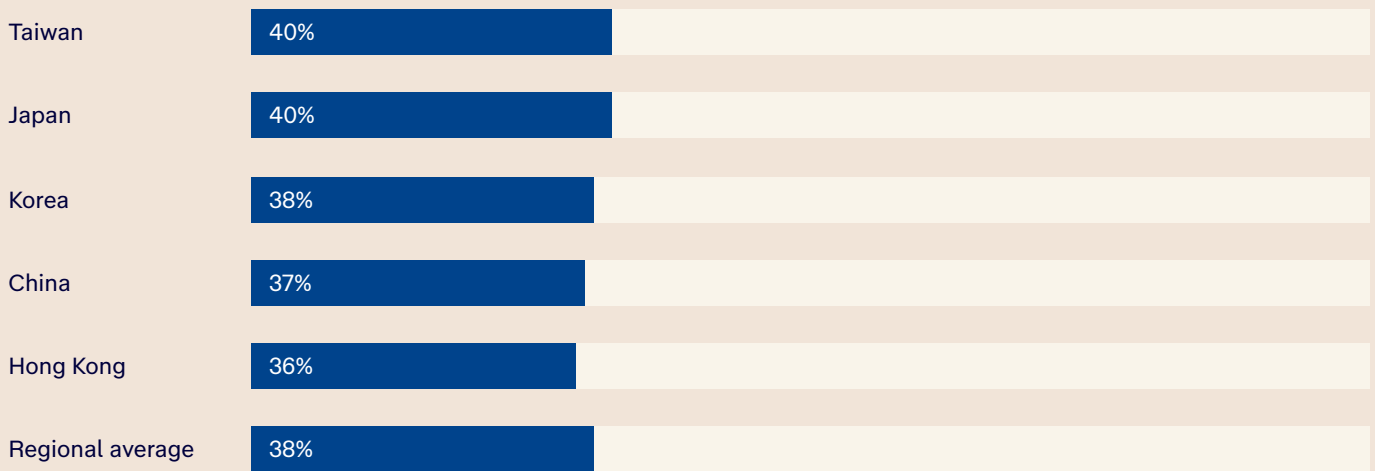
IT/OT maturity in Hong Kong

Hong Kong has the lowest levels of IT/OT system integration in North Asia, with 36% of IT and OT systems integrated across industrial settings, compared to a regional average of 38% (see Figure 1).

In Hong Kong, 46% of firms have completed some level of digitisation to connect IT and OT systems, much higher than the regional average of 34%. However, just 22% of firms have integration activities in progress, which is the lowest in the region (the average is 43%).

Encouragingly, over half (51%) of Hong Kong organisations plan to have IT and OT well integrated in the next 12 to 18 months and 52% see it as important for business outcomes, compared to a regional average of 48%.
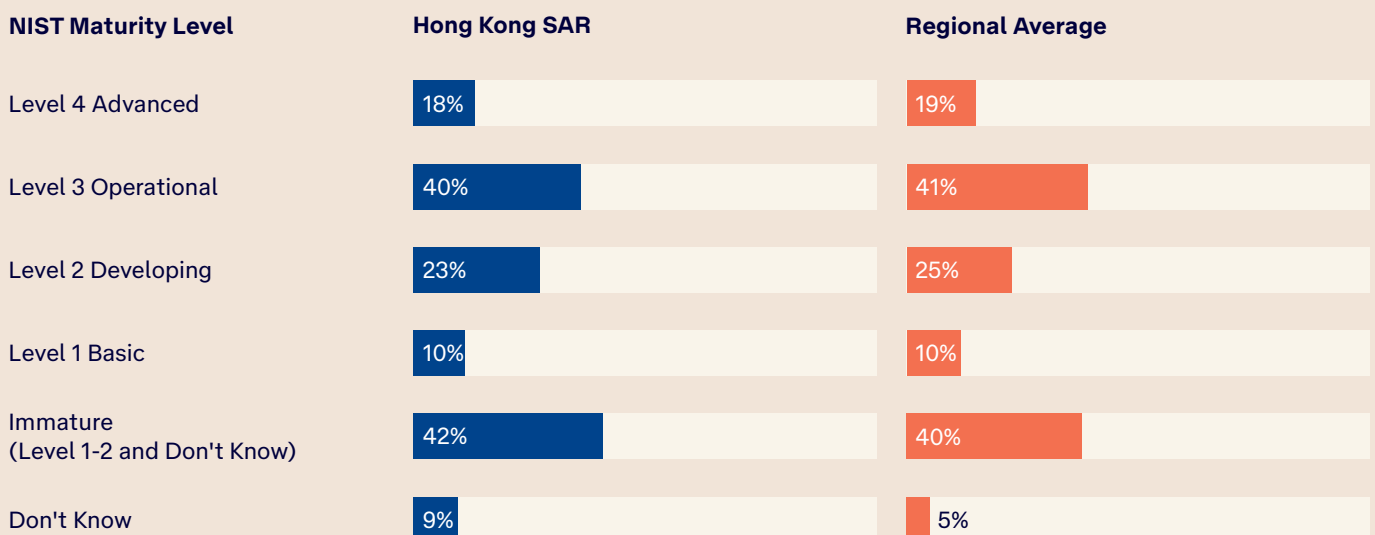
Figure 1: Percentage of IT/OT integration by market

Market	Percentage
Taiwan	40%
Japan	40%
Korea	38%
China	37%
Hong Kong	36%
Regional average	38%

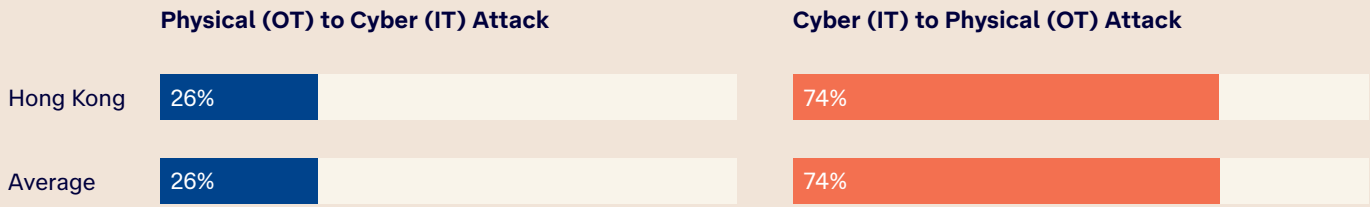# OT security maturity in Hong Kong

Hong Kong is the third-most mature market when it comes to OT security. While just 18% of firms say they're 'advanced' in securing OT, this is still close to the cross-regional average of 19%. Overall, IT/OT security is sub-optimal in Hong Kong, with 42% of firms reporting immature levels (see Figure 2).

Figure 2: OT security maturity in Hong Kong

NIST Maturity Level	Hong Kong SAR	Regional Average
Level 4 Advanced	18%	19%
Level 3 Operational	40%	41%
Level 2 Developing	23%	25%
Level 1 Basic	10%	10%
Immature (Level 1-2 and Don't Know)	42%	40%
Don't Know	9%	5%

In Hong Kong, 74% of the most significant major security incidents or breaches that impacted operations started in cyber (IT), with 26% starting in OT (see Figure 3). That's consistent with the rest of the region and highlights the risk of how attacks targeting IT can impact operational processes and technology as convergence progresses.

Figure 3: Origin of attacks on organisations

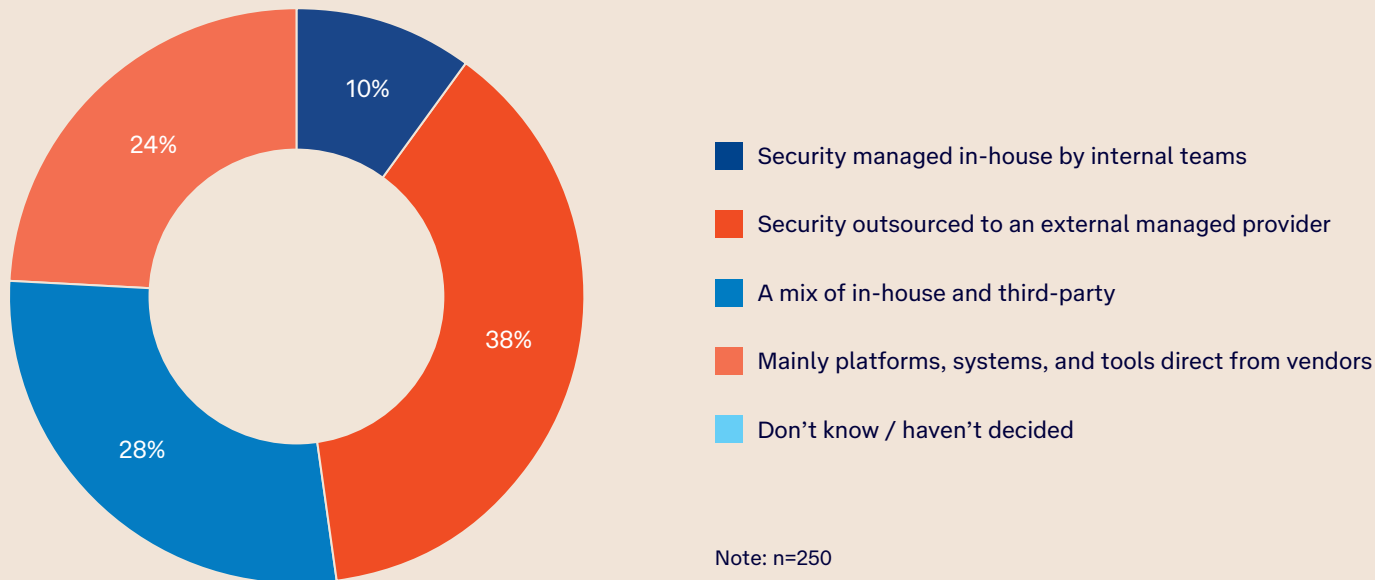|	Physical (OT) to Cyber (IT) Attack		Cyber (IT) to Physical (OT) Attack	
Hong Kong	26%		74%	
Average	26%		74%	

Calling in outside help

Finding the right talent to help manage the complexity of IT/OT convergence is incredibly challenging for many organisations. Risks often mount very quickly, as threats that target one previously siloed system can rapidly have a broader impact on critical business data and processes once integrated.

That's why most firms across North Asia plan to engage a third party to help them manage IT and OT security in the next 18 months, with 42% saying they'll completely outsource security to an external managed services provider.

The need for third-party help is strong in Hong Kong, with two-thirds (66%) of firms planning to outsource to an external provider (either completely or in a mixed arrangement), while just 10% plan to go it alone and 24% say they'll rely largely on vendor platforms, systems, and tools (see Figure 4).

Figure 4: How will your organisation likely manage IT and OT security 18 months from now?

- 10% Security managed in-house by internal teams
- 38% Security outsourced to an external managed provider
- 28% A mix of in-house and third-party
- 24% Mainly platforms, systems, and tools direct from vendors
- Don't know / haven't decided

Note: n=250

With a team of trusted IT and OT security experts, Telstra is fully equipped to help North Asian organisations take the next step on their IT/OT convergence journeys. To learn more about how convergence can transform your business, get in touch with a Telstra representative or download the full white paper at telstra.com/securing-ot-it-convergence-whitepaper

Want to learn more about how to improve IT and OT security in your organisation?

Contact your Telstra account representative for more details.

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