

High demand for skills in 5G, cloud, AI, based on Jobs Transformation Map for tech workers

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EMERGING tech trends such as 5G, cloud computing and artificial intelligence (AI) are expected to influence high demand for workers skilled in these areas in the next three to five years, according to the Jobs Transformation Map (JTM) for the information and communications workforce.

Such trends, including for Internet of Things (IoT) and analytics, are likely to lead to an increase in demand for workers with skills in software engineering, cloud and mobility, as well as AI and analytics, said the JTM.

Launching the JTM on Thursday (Oct 13), Communications and Information Minister Josephine Teo said the JTM complements the government's Industry Transformation Maps (ITM).

"If you have some sense as to how the enterprises should be transformed in accordance with the industry developments, then it stands to reason that equally, you must define how the jobs will change and how the skill requirements will change," Teo said at the 5G Learning Festival held at the National University of Singapore.

The JTM examined 100 information communication and technology roles and found that 19 are likely to experience displacement or convergence with another job role, while 44 would evolve to take on new or additional tasks.

Examples of jobs that face a high risk of impact are roles in quality assurance, infrastructure engineers, network engineers and



Communications and Information Minister Josephine Teo (in orange blazer) at the 5G Learning Festival. PHOTO: KWAN JUN WEI, ZB

security analysts.

Such roles are likely to be impacted by technology such as cloud and AI, as well as the IT ecosystem's evolution towards site reliability engineering and development and operations (DevOps), the JTM said.

"What this JTM then does is to guide the employers in redesigning jobs for impacted workers and providing the necessary training or reskilling for them to take an evolved or an emerging job role," said Teo.

The minister said a skilled workforce is essential for Singapore to explore the new frontiers of 5G and other emerging digital technologies.

The government is also supporting professionals to acquire new digital skills, Teo said, adding that the Infocomm Media Develop-

ment Authority (IMDA) is conducting a call-for-proposal exercise to set up multiple partner consortia, where appointed training partners will assist employers in identifying at-risk tech professionals and reskilling them, said Teo.

Teo said Singapore's investments in 5G infrastructure and use-cases aim to strengthen Singapore's role as a 5G innovation hub that is home to many first 5G use-cases within the region.

But apart from the performance, security and resilience are also of critical importance, she said.

Noting that she had just returned from the Tallinn Digital Summit, Teo said the "risks that were previously just talked about suddenly became very real" particularly for countries in Europe against the backdrop of the Russia-Ukraine war.

Non-targets of cyberattacks can also become collateral damage, she said, adding that wind turbines and Germany and emergency services in France were both affected when satellites operated by ViaSat were breached for the purposes of disrupting telecommunications and internet access in Ukraine.

"In this context, shaping 'trusted connectivity' has become more important than ever," she said. "We need to trust that our digital infrastructure is secure and resilient."

She added: "We must put in place the building blocks of comprehensive digital security because they are essential to our ambitions to grow a vibrant digital economy."

ment Authority's (IMDA) TechSkills Accelerator (TeSA) has trained more than 160,000 individuals with skills in AI, IoT and cloud engineering.

So far, more than 7,000 professionals have also taken courses in 5G and related technologies through the 5G and Telecoms Academy since it was launched in 2020. This has exceeding the initial training target of 5,000 professionals within three years.

Ng Yen Ling, senior product development manager at Singtel, is currently taking a 5G career conversion programme to expand her knowledge in the technology.

She said her objective is to learn how to ride on the evolution of 5G to come up with "a more powerful and enhanced product" for the market.

Meanwhile, the Infocomm