

A man with dark hair and glasses, wearing a grey sweater, is shown in profile, looking towards a server rack in a data center. The server racks are filled with equipment and have various colored lights (red, yellow, green) visible. The background is dimly lit with blue tones.

# Career Conversion Programme for ICT Professionals (Infrastructure)

*Company Info-Kit*

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A network diagram with nodes and connecting lines, rendered in a light red color against a dark red background. The nodes are small circles, and the lines are thin and connect various points across the upper left and center of the slide.

# Who We Are

# Who We Are



**Programme Manager  
& Key Industry Association Partner**  
that manages the administrative matters



**Funding Agency**  
**Workforce Singapore (WSG)** is a statutory board under the Ministry of Manpower that oversees the transformation of the local workforce and industry as well as employability



**Supporting Agency**  
A statutory board under Ministry of Communications and Information & Lead Agency to bring Singapore into a digital future

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# **Introduction to Career Conversion Programme (CCP)**

# Why CCP?



## Access Talent

Find hidden gems among career switchers, incl. existing staff



## Offset Opportunity Costs

Up to 90% salary support for 3 - 6 months\*



## Support Company Growth

Build talent pipeline and capabilities

\*Depending on the CCP modality

# Programme Overview

The CCP for ICT Professionals (Infrastructure) is designed to support mid-career individuals in undergoing **skills conversion and taking on roles relating to infrastructure**. Examples of Infrastructure roles (non-exhaustive) include:

- Infrastructure Engineer
- SysOps Engineer
- Automation and Orchestration Engineer
- Radio Frequency Engineer
- Network Engineer
- Infrastructure Engineering Manager

Individuals and employers may refer to the [Information and Communications JTM](#) to identify the relevant ICT roles and skills.

# Example 1 – Infrastructure Engineer

## INFRASTRUCTURE ENGINEER

### Job Description

The Infrastructure Engineer is responsible for the implementation, testing, optimisation and virtualisation of infrastructure across on-premise, cloud and network infrastructure. He/She performs activities pertaining to infrastructure deployment and performance to ensure delivery of infrastructure solutions in alignment with service standards. He oversees major maintenance and troubleshooting issues, and is responsible for executing upgrades to infrastructure systems.

He is familiar with various types of infrastructure systems and platforms, including networks, servers, systems and applications.

The Infrastructure Engineer takes a critical and methodical approach towards implementing infrastructure projects performance monitoring. He also maintains high standards of quality and collaborates with team members to resolve complex issues.

*Click on any of the Skills and Competencies to view a detailed description*

### Technical Skills & Competencies

### Proficiency Level

Applications Integration

4

Budgeting

3

Business Environment Analysis

3

Business Innovation

4

Business Needs Analysis

3

Business Requirements Mapping

3

Business Risk Management

3

Change Management

3

Cloud Computing

4

Configuration Tracking

3

Contract Management

3

Cyber and Data Breach Incident  
Management

4

Emerging Technology Synthesis

4

Infrastructure Deployment

4

Infrastructure Design

4

Network Administration and  
Maintenance

3

Network Configuration

3

Network Security

4

Partnership Management

3

Performance Management

4

Problem Management

3

Process Improvement and Optimisation

3

Procurement

3

Quality Engineering

4

Security Administration

3

Service Level Management

3

Software Configuration

3

Solution Architecture

3

Stakeholder Management

3

# Example 2 – SysOps Engineer

## SYSOPS ENGINEER

### Job Description

The SysOps Engineer is responsible for the configuration, reliability and efficiency of systems. He/She optimises the capacity and performance of infrastructure, using knowledge of coding and scripting to automate the resolution of recurring issues and elimination of tasks, as well as enabling scalable and distributed systems. He also supports system installation and upgrades, performs continuous monitoring of infrastructure and ensures security and compliance in leveraging cloud platforms.

He possesses a high level of proficiency in scripting and programming languages. He is familiar with cloud platforms, scaling and management of infrastructure. He works well with a variety of internal and external stakeholders. He is able to work on an on-call and shift basis, with the ability to prioritise effectively and operate under pressure.

The SysOps Engineer enjoys hands-on problem-solving and is driven by investigating challenging, complex problems. He is a resourceful and self-directed individual who performs independently with minimal guidance. He is also an analytical thinker who demonstrates strong interpersonal skills in cross-team collaboration.

### Critical Work Functions and Key Tasks

[View details](#)

Click on any of the Skills and Competencies to view a detailed description

#### Technical Skills & Competencies

#### Proficiency Level

Agile Coaching	4	Emerging Technology Synthesis	4
Application Development	4	Infrastructure Deployment	4
Applications Integration	4	Infrastructure Design	4
Budgeting	3	Infrastructure Support	4
Business Agility	4	Network Administration and Maintenance	3
Business Environment Analysis	3	Network Configuration	3
Business Innovation	4	Network Security	4
Business Needs Analysis	3		
Business Requirements Mapping	3		
Business Risk Management	3		
Change Management	3		
Cloud Computing	4		
Configuration Tracking	3		
Continuous Integration and Continuous Deployment	3		
Contract Management	3		
Cyber and Data Breach Incident Management	4		
		<b>Critical Core Skills (Top 5)</b>	<b>Proficiency Level</b>
		Problem Solving	Advanced
		Service Orientation	Intermediate
		Resource Management	Intermediate
		Teamwork	Basic
		Sense Making	Intermediate

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# Programme Details

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Individuals and employers can participate in the CCP for ICT Professionals through 2 modes:

1. **Place and Train.** This requires prospective employers to first hire mid-career individuals before they undergo training. Upon successful placement in the CCP, mid-career individuals will undergo up to 100% of the On-The-Job Training (OJT) as well as optional structured classroom training (where applicable), across a 6-month period.

2. **Job Redesign (JR) Reskilling.** Employers can reskill in-service employees to be future-ready by taking on Cybersecurity-related new or redesigned ICT growth roles and acquire growth skills. Participating companies will develop a 3-month training plan to reskill these nominated employees. The training plan will be OJT (On-The-Job Training)-centric, covering **at least four ICT growth skills** aligning closely with the redesigned job roles.

# ICT Growth Skills Categories (for JRR applications)

Business and Project  
Management



Business  
Development



Business Finance



Design and  
Architecture



Development and  
Implementation



General  
Management



Governance and  
Compliance



Operations and  
User Support



People  
Development



Sales and Marketing



Stakeholder and  
Contract Management



Strategy Planning and  
Implementation



*For the full list of ICT Growth Skills, and their corresponding definitions, proficiency levels, please download the file via this [link](#). (Page 333 onwards)*

# Examples of ICT Growth Skills – Development and Implementation

Click on any TSC Category to view titles and levels

 Business and Project Management	 Business Development	 Business Finance	 Design and Architecture
 Development and Implementation	 General Management	 Governance and Compliance	 Operations and User Support
 People Development	 Sales and Marketing	 Stakeholder and Contract Management	 Strategy Planning and Implementation

Proficiency Levels

Proficiency Levels

Agile Software Development	3 4 5 6	Control System Programming	2 3 4
Applications Development	3 4 5	Data Engineering	2 3 4 5
Applications Integration	3 4 5	Data Visualisation	3 4 5
Cloud Computing	3 4 5 6	Embedded Systems Programming	4 5
Computational Modelling	3 4 5	Failure Analysis	3 4 5
Computer Vision Technology	4 5	Infrastructure Deployment	1 2 3 4
Configuration Tracking	1 2 3 4	Intelligent Reasoning	4 5
Continuous Integration and Continuous Deployment	3 4 5	Network Configuration	2 3 4



# Programme Details

CCP for ICT Professionals (Cybersecurity)				
Type of Employee	OJT Duration	Funding Duration	Salary Support %	
			Singapore Citizen (SC) & Permanent Resident (SPR)	Singapore Citizen (SC) & Permanent Resident (SPR) who are long-term unemployed <sup>#</sup> or 40 years old and above
<b>New Hire (NH)</b> Company hires a mid-career individual and trains individual to take on a new job role	On-The-Job Training 6 months	6 months	<b>Up to 70% of Fixed Monthly Salary*</b> (capped at S\$5,000 per month) w.e.f 1 April 2024	<b>Up to 90% of Fixed Monthly Salary*</b> (capped at S\$7,500 per month) w.e.f 1 April 2024
<b>Job Redesign &amp; Reskilling (JRR)</b> Existing job roles are vulnerable due to business transformation plans but are not immediately at-risk. These workers will be provided with training by their companies, to take on redesigned job roles within the company.	On-The-Job Training 3 months	3 months		

<sup>#</sup>Long-term Unemployed - being unemployed and actively seeking employment for six months or more

\*Fixed Monthly Salary refers to Basic Monthly Salary + Fixed Monthly Allowances

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# Application Process Flow

# Eligibility Criteria

## Employers:

- Registered or incorporated in Singapore with a valid Unique Entity Number (UEN) with Accounting and Corporate Regulatory Authority (ACRA);
- Ensure that new hires / existing staff cannot be:
  - A shareholder of the CCP company, or its related companies;
  - Related to the owner(s) of the CCP company; and
  - (For new hires only) Immediate ex-staff of CCP company or its related companies;
- (For new hires only) Offer a full-time PMET position employment contract on permanent terms or on contract terms that are no less than one (1) year;
- Offer employment directly related to the job which the CCP is for, with remuneration that is aligned to the market rate;
- Must put in place OJT for the trainees; and
- Commit to the CCP training arrangements for the trainees.

## Applicants/Trainees:

The Programme is open to all company-sponsored applicants who meet the following General Eligibility Criteria:

- Singapore Citizen (SC) or Permanent Resident (PR);
- Minimum 21 years old;
- Graduated or completed National Service, whichever is later, at least two years prior, at the point of application;
- Must not be a shareholder of the CCP company, or its related companies;
- Must not be related to the owner(s) of the CCP company; and
- Existing employees must have served at least one-year tenure with the employer to qualify for the Job Redesign Reskilling CCP

In addition, new hires should also adhere to the following:

- Hired for not more than three (3) months prior to CCP commencement;
- Must not be in the same or similar job role prior to joining the CCP; and
- Must not be immediate ex-staff of CCP company or its related companies.

# Application Flow

4 steps	Employee	Employer
Step 1: Account Creation	<ul style="list-style-type: none"> <li>Register his/her interest on WSG portal (Take Note of Application ID)</li> <li>Create and verify an account on techtalent portal</li> </ul>	<ul style="list-style-type: none"> <li>Create and verify an account on techtalent portal</li> <li>Post the new job description on techtalent and tag it to the respective CCP job role</li> </ul>
Step 2: Preparation	<ul style="list-style-type: none"> <li>Prepare Documents (next slide)</li> <li>Accept the invitation from the employer and start the CCP application</li> </ul>	<ul style="list-style-type: none"> <li>Prepare Documents (next slide)</li> <li>Invite the employee to apply for the job and start the CCP application</li> <li>Discuss OJT template &amp; JRR Reskilling Form with SGTech (if applicable)</li> </ul>
Step 3: Submission	<ul style="list-style-type: none"> <li>Fill up the trainee/employee portion and save the tabs.</li> </ul>	<ul style="list-style-type: none"> <li>Fill up the hirer/employer portion and save the tabs.</li> <li>After the form is fully completed, employer to submit the application.</li> </ul>
Step 4: Confirmation or Rejection		<ul style="list-style-type: none"> <li>After the submission has been approved, employer to sign the Letter of Undertaking issued by SGTech.</li> </ul>

# Application Documents

Submit via <a href="https://techtalent.sg">techtalent.sg</a>		
Type of Employee	New Hire (NH)	Job Redesign & Reskilling (JRR)
Pls note	Submit full documents within 6 weeks of employment^	Hired for at least 1 year at the company
From Employer	<ul style="list-style-type: none"> <li>• Company's latest ACRA records, with shareholding (not more than 6 months from the date of submission)</li> <li>• Signed employment letter (please include any other documents that affect employee compensation e.g. bond terms, latest increment)</li> <li>• Job description for the role</li> <li>• On-the-Job Training Blueprint</li> <li>• [For JRR Only] JRR Reskilling Form</li> </ul>	
From Employee	<ul style="list-style-type: none"> <li>• Registration on WSG Portal Application ID number (e.g. PCP-YYYY-XXXXXXXX)</li> <li>• Past 15 months CPF contribution statement of the PMET</li> <li>• [For NH Only] PMET's most updated Curriculum Vitae (CV)</li> <li>• [For NH Only] Coloured copy of PMET's highest educational certificate</li> <li>• [For NH Only] Coloured copy of PMET's latest educational certificate</li> </ul>	

^For employment period after 6 weeks, kindly contact SGTech prior to applying. Do note that the application may be rejected and appeals will be required and evaluated on a case-by-case basis.

# Claim Documents

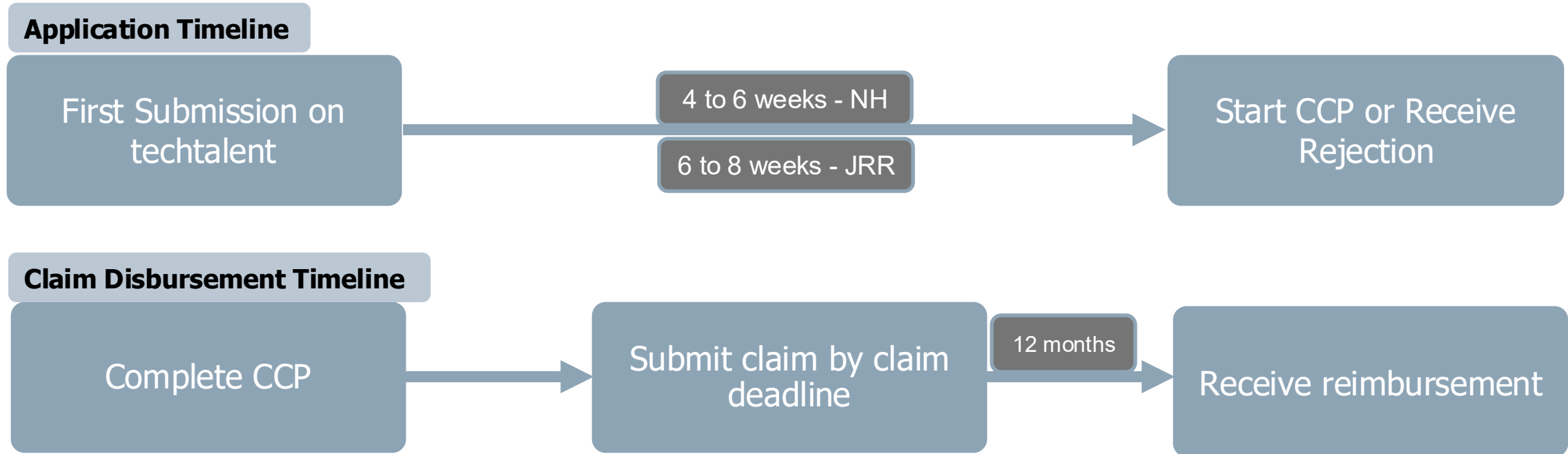
Submit via <a href="https://techtalent.sg">techtalent.sg</a>		
Type of Employee	New Hire (NH)	Job Redesign & Reskilling (JRR)
Pls note	<ul style="list-style-type: none"> <li>• Claim after full OJT period has ended.</li> <li>• Please note that it will take approximately 12 months for companies to receive the reimbursement from the deadline of claims submission.</li> </ul>	
Documents Required	<ul style="list-style-type: none"> <li>• Company's bank account details</li> <li>• Fully Completed OJT Blueprint (by CCP End Date), Proof of Course Completion may be requested if Classroom/Blended Training (CT/BT) including e-learning are included in the OJT</li> <li>• CPF covering CCP Funding Period</li> <li>• Payslips covering CCP Funding Period - Inform SGTech of calculation and dates of variable salary deduction e.g. NPL, reservist.</li> <li>• Feedback form (Company)</li> <li>• Feedback form (Trainee)</li> </ul>	

## IMPORTANT THINGS TO NOTE:

- Company must **retain the proof of work or relevant evidence of activities completed** as outlined in this OJT blueprint **for at least 3 years** from the date of final disbursement to the company under this CCP. Companies must be able to submit the proof of work or relevant evidence upon request, as part of the Terms and Conditions for the CCP. Failure to do so could be considered a breach of the Terms and Conditions.
- Examples of proof of work **include but are not limited to:** Work outputs/ deliverables produced by the trainee (reports, presentations, analyses, designs), digital portfolios of work samples produced by the trainee, photos of CCP trainee at work (with the date and time or time stamp for the photo taken, and location of the event), signed-off Timesheets, attendance record of training, emails or WhatsApp chats as supporting documentations that lead to approval of work or clearance of the draft work.



# Estimated Timeline for Companies



*The timeline stated above is an estimate. It will vary according to the submission and verification of all required supporting documents.*

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# **Other CCPs Administered by SGTech**

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- CCP for ICT Professionals ([Cybersecurity](#))
- CCP for ICT Professionals ([Data and Artificial Intelligence](#))
- CCP for ICT Professionals ([Infrastructure](#))
- CCP for ICT Professionals ([Operations and Support](#))
- CCP for ICT Professionals ([Product Development](#))
- CCP for ICT Professionals ([Sales and Marketing](#))
- CCP for ICT Professionals ([Software and Applications](#))
- CCP for ICT Professionals ([Strategy and Governance](#))

For more info or any other enquiries, contact us at [ccp@sgtech.org.sg](mailto:ccp@sgtech.org.sg)

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# Contact Us

# Follow SGTech's Social Accounts

Stay updated with

## Industry events



SGTech's 40<sup>th</sup> Anniversary Gala with Deputy Prime Minister Heng Swee Keat as our GOH

## Latest news



Launch of Singapore's first Digital Trust Centre of Excellence

## Industry research



The State of Digital Automation 2023 (with SGTech member Workato)

## Tech trends



Smart Nation Chapter Thought Leadership Series



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