Communication Controller

Job description: The Communication Controllers keeps track of daily rail operation activities and supports the Operations Control Centre (OCC) in executing its tasks and requirements by monitoring passenger activities and train operations via close-circuit television (CCTV) and communication and alert systems, to provide train service information and updates to commuters and the public.

Current Job Tasks	Future view of job tasks	Impact at task-level
1. Monitor passenger activities and train operations	• The focus of the Communication Controller within station will shift to crisis management and he/she will handle multiple stations instead of one station via centralized control centres. • Station monitoring will be automated via vision based sensors installed within station premises.	
2. Provide real-time train service information and updates	• The role of a Communication Controller will be consolidated to multi-station environments instead of one station. • Train service information and updates can be conveyed via centralized systems with minimal need for human intervention.	
3. Perform documentation and Reporting	• The role of a Communication Controller will need to shift from basic documentation and logging of daily activities to value-added tasks such as data interpretation and service quality improvements. • RPA can be used to generate standardized reports, conduct digital data logging and documentation reducing manual work	
4. Implement and execute service recovery measures during rail emergencies and incidents	• The Communication Controller will continue to act under pressure in instances of crisis and select the best approach to address rail emergencies and incidents. • Digital communication tools and virtual signages would supplement service recovery activities and may reduce manpower required during unforeseen circumstances	

A SIGNIFICANT proportion of job tasks will be automated by key technologies, tasks performed will have a

HIGH degree of change

Within the next **10 – 20 years**, the job role(s) could potentially change

DISPLACEMENT

Reskilling is required

To take on adjacent job role(s) the skills below will become critical:

- Rail Operations Control Management
- Report Writing
- Rail Regulatory Compliance
- Rail Incident Management
- Rail Emergency Response Management
- Workplace Facilities Safety Management
- WSH Incident and Accident Investigation
- WSH Culture Development
- Health and Fatigue Risk Management
- Data Usage and Implementation
- Sensor Monitoring Management
- Innovation Management

Job Adjacency

The job holder could potentially take on adjacent job roles as:

- Station manager

Legend for job tasks & skills

High impact
Medium impact
Low impact
Declining skills
Adjacent skills
Emerging skills

Legend for job adjacency

Pivot score shows job fit between current to future job role derived from Faethm. The higher the score, the easier the transition. A pivot score of >75 is deemed as a good fit for the future role.

10-year skills impact analysis for rail operations (at-risk roles)

Job tasks today	Job tasks in 10 years	Job skills in 10 years	Job task impact	Job role impact	Job role transition
1. Implement and execute service recovery measures during rail emergencies and incidents	Continue to act under pressure in instances of crisis but digital communication tools and virtual signages would supplement service recovery activities	Rail Incident Management Rail Emergency Response Management Data Usage and Implementation	 High degree of impact	 Displacement	1. Company Secretaries 2. Customer Service Manager 3. Station manager 4. Bus Operations Control Centre Controller 5. Rail operations control management
2. Conduct recovery of train and station equipment in malfunction (For Customer Service Officer/ Rover)	IoT devices and sensors will perform remote diagnostics of train and station system malfunctions and report incidences, shifting focus towards monitoring of sensor data and interpreting signals before site mobilization for first-line recovery and close-up inspections	Train Station Operations Management Data Usage and Implementation Sensor Monitoring Management			
3. Operate passenger trains and meet overall train service standards (For Train Captain)	Modern trains are highly automated, operate in confined environment and equipped robust signalling systems, shifting focus towards monitoring technology solutions and interpreting train dashboard data to manage exceptions	Passenger Train Operations Data Usage and Implementation Sensor Monitoring Management			
4. Oversee the performance and well-being of Train Captains (For Crew Manager)	Train Captain tasks being largely automated may lead a smaller pool being managed, while IoT sensors onboard trains will gather and centrally store performance data of Train Captains for processing and analysis	Data Usage and Implementation Sensor Monitoring Management			
Declining Functions	Train, station and depot operations that requires manual intervention such as onboard operating of trains and station patrolling				
Emerging Functions	Use of data and interpretation of outputs from automated systems				

Table 18: 10-year skills impact for rail operations (at-risk roles)

20-year skills impact analysis for rail operations (at-risk roles)

Job tasks today	Job tasks in 20 years	Job skills in 20 years	Job task impact	Job role impact	Job role transition
1. Implement and execute service recovery measures during rail emergencies and incidents	Continue to act under pressure in instances of crisis but digital communication tools and virtual signages would supplement service recovery activities	Rail Incident Management Rail Emergency Response Management Data Usage and Implementation	 High degree of impact	 Displacement	1. Company Secretaries 2. Customer Service Manager 3. Station manager 4. Bus Operations Control Centre Controller 5. Rail operations control management
2. Conduct recovery of train and station equipment in malfunction (For Customer Service Officer/ Rover)	IoT devices and sensors will perform remote diagnostics of train and station system malfunctions and report incidences, shifting focus towards monitoring of sensor data and interpreting signals before site mobilization for first-line recovery and close-up inspections	Train Station Operations Management Data Usage and Implementation Sensor Monitoring Management			
3. Operate passenger trains and meet overall train service standards (For Train Captain)	Modern trains are highly automated, operate in confined environment and equipped robust signalling systems, shifting focus towards monitoring technology solutions and interpreting train dashboard data to manage exceptions	Passenger Train Operations Data Usage and Implementation Sensor Monitoring Management			
4. Oversee the performance and well-being of Train Captains (For Crew Manager)	Train Captain tasks being largely automated may lead a smaller pool being managed, while IoT sensors onboard trains will gather and centrally store performance data of Train Captains for processing and analysis	Data Usage and Implementation Sensor Monitoring Management			
Declining Functions	Train, station and depot operations that requires manual intervention such as onboard operating of trains and station patrolling				
Emerging Functions	Use of data and interpretation of outputs from automated systems				

Table 20: 20-year skills impact for rail operations (at-risk roles)