

## RAIL OPERATIONS

### Customer Service Officer/ Rover

**Job description:** The Customer Service Officer/ Rover supports the daily train services and operations, which include conducting patrols on passenger trains and at station premises to ensure the operability of equipment, performing first-line recovery of train and station equipment malfunctions, and serving as an emergency train operator.

Current Job Tasks	Future view of job tasks	Impact at task-level
1. Conduct patrol, crowd and security management on passenger trains and station premises	<ul style="list-style-type: none"> <li>Manual patrolling work will no longer be needed with the use of Intelligent Security Surveillance System which provide real-time passenger information whether in trains or stations.</li> <li>The job holder will be focus on remote monitoring of passengers, analysis of passenger flow data and on-site deployment for crowd management.</li> </ul>	
2. Conduct recovery of train and station equipment in malfunction	<ul style="list-style-type: none"> <li>IoT devices and sensors will perform remote diagnostics of train and station system malfunctions and report incidences.</li> <li>The Rover will focus mainly on monitoring of sensor data and interpreting signals before site mobilization for first-line recovery and close-up inspections.</li> </ul>	
3. Manage and address service challenges of passengers	<ul style="list-style-type: none"> <li>Management of passenger crowd and customer service will become a core task of the Customer Service Officer / Rover, complemented by the use of real-time crowd management solutions such as Distributed Intelligent Video Analytics.</li> </ul>	
4. Implement and execute service recovery measures during rail emergencies and incidents	<ul style="list-style-type: none"> <li>The Customer Service Officer/ Rover will continue to act under pressure in instances of crisis and select the best approach to address rail emergencies and incidents.</li> <li>Digital communication tools and virtual signages would supplement service recovery activities and may reduce manpower required during unforeseen circumstances</li> </ul>	



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:

- Train Fare and Ticket Management
- Train Station Operations Management
- 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:

- Bus Operations Control Centre Controller
- Company Secretaries
- Customer Service 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)