

## RAIL OPERATIONS

### Train Service Controller/ Depot Traffic Controller/ Depot Train Controller/ Chief Controller/ Controller/ Operations Control Centre Manager/ Head, Operations Control Centre

**Job description:** The Train Service Controller/ Depot Train Controller/ Depot Traffic Controller/ Chief Controller/ Controller/ Operations Control Centre (OCC) Manager/ Head monitors, controls, regulates, and manages train services in real-time in the OCC to provide regular and efficient train services, and directs the movement of trains within the depot. He coordinates with operations and maintenance centres across the rail network to manage activities for daily train services and implement service recovery measures during rail incidents and/or accidents. He manages track access to ensure the protection and safety of maintenance personnel and coordinates with relevant internal and external stakeholders to execute first-line recovery of trains during train service disruptions.

Current Job Tasks	Future view of job tasks	Impact at task-level
1. Monitor and control train services in real-time and related daily activities	<ul style="list-style-type: none"> <li>The focus of the controller within the station will shift to crisis management and he/she will handle multiple stations / depots instead of one station / depot via centralized control centres.</li> <li>Train services monitoring will be automated via vision based sensors installed within station premises and on trains.</li> </ul>	
2. Implement and execute service recovery measures during rail emergencies and incidents	<ul style="list-style-type: none"> <li>The controller 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>	
3. Provide technical guidance and on-the-job coaching	<ul style="list-style-type: none"> <li>Human interaction would continue to be required to conduct on-the-job coaching</li> <li>Performance management systems can be utilised to guide training and development programmes for junior engineers/ technicians</li> </ul>	
4. Establish and ensure workplace safety standards and competencies	<ul style="list-style-type: none"> <li>Human judgment is a crucial aspect of formulating, identifying and developing safety standards and competencies across rail functions.</li> <li>The controller is expected to promulgate safety standards and develop initiatives to ensure compliance across rail functions</li> </ul>	



A MEDIUM proportion of the job tasks will be impacted by the key trend, thus minimising or changing the current job tasks

**MEDIUM degree of change**



#### Current/future skill

To take on adjacent/ new job role(s) the skills below will observe these changes:

- Security Management
- Track Access Management
- Train Depot Control Management
- Decision making
- Rail Regulatory Compliance
- Rail Incident Management
- Rail Emergency Response Management
- Workplace Facilities Safety Management
- WSH Incident and Accident Investigation
- People Development
- Data Usage and Implementation
- Sensor Monitoring Management
- Innovation Management
- Data and Statistical Analytics



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

**REDESIGN**



#### 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 (redesigned roles)

















Job tasks today	Job tasks in 10 years	Job skills in 10 years	Job task impact	task	Job role impact	Job role transition
1. Monitor and control train services, station and depot operations	 Focus will shift to crisis management of multiple stations via centralised control centres as service monitoring will be automated via vision based sensors installed within station premises and on trains.	 Track Access Management  Rail Operations Control Management  Train Depot Control Management  Sensor Monitoring Management	 Medium degree of impact	 Redesign	1. Operations Manager 2. Administrative Services manager 3. Venue Manager 4. Facilities Manager 5. Station manager	
2. 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				
3. Provide technical guidance and on-the-job coaching	 Human interaction would continue to be required to conduct on-the-job coaching	 People Development				
4. Establish and ensure workplace safety standards and competencies	 Continue to promulgate safety standards and develop initiatives to ensure compliance across rail functions	 Rail Regulatory Compliance  Workplace Facilities Safety Management				
Declining Functions	Manual monitoring and regulating of rail operations					
Emerging Functions	Application of internet of things for consolidated service data management and centralized monitoring of station / depot operations					

Table 17: 10-year skills impact for rail operations (redesigned roles)

## 20-year skills analysis for rail operations (redesigned roles)

















Job tasks today	Job tasks in 20 years	Job skills in 20 years	Job task impact	Job role impact	role transition
1. Monitor and control train services, station and depot operations	 Focus will shift to crisis management of multiple stations via centralised control centres as service monitoring will be automated via vision based sensors installed within station premises and on trains.	 Track Access Management  Rail Operations Control Management  Train Depot Control Management  Sensor Monitoring Management	 Medium degree of impact	 Redesign	1. Operations Manager 2. Administrative manager 3. Venue Manager 4. Facilities Manager 5. Station manager
2. 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			
3. Provide technical guidance and on-the-job coaching	 Human interaction would continue to be required to conduct on-the-job coaching	 People Development			
4. Establish and ensure workplace safety standards and competencies	 Continue to promulgate safety standards and develop initiatives to ensure compliance across rail functions	 Rail Regulatory Compliance  Workplace Facilities Safety Management			
Declining Functions	Manual monitoring and regulating of rail operations				
Emerging Functions	Application of internet of things for consolidated service data management and centralized monitoring of station / depot operations				

Table 19: 20-year skills impact for rail operations (redesigned roles)