



Process ID:	CMS017
Process Name:	Compile non book-off roster
Detailed Description:	This process rosters crew for non book-off trains
External Agents Involved:	Roster compilers
What causes the process to occur?	The non book off train plan has been received
What happens after the process is complete?	The 72hour non book-off roster can be confirmed

**Business rules:**

- Non book-off crew may only sign on once within a 24-hour period.
- A maximum daily rest period of 12 hours must pass before crew can be scheduled for a next shift
- The roster for non book-off crew will indicate the forward leg from origin and the return leg back to the home depot
- If a non-book off driver does not have the necessary qualifications to drive the cross-point train returning to the depot, then he must be transported to the depot as a passenger on the train or by kombi.
- Planned Sign-on Time is computed as (ETD – Crew Prep Time [e.g. 30 minutes])
- Crew Prep Time will be defined by each depot as part of their Depot (local) rostering parameters.

Data (attributes):	Entity	CRUD	Source
Personnel number	EMPLOYEE	CRUD	
Home depot	EMPLOYEE	R	
Roster date	TRAIN_PLAN	CRUD	
Train number	TRAIN_PLAN	R	
Train Type	TRAIN_PLAN		
Loco Type	TRAIN_PLAN	R	
Planned Sign-on Time	DAILY_ROSTER	R	
Train Plan date	TRAIN_PLAN	R	
Book Off Indicator	TRAIN_PLAN	R	
Trip Leg	TRIP_LEG	R	

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Origin	TRAIN_PLAN	R	
Destination	TRAIN_PLAN	R	
ETD	TRAIN_PLAN	R	
Brake type	TRAIN_PLAN	R	
Role on job	72HOUR_DUTY_ROSTER	R	
Crew Prep Time	DEPOT_PARAMETER	R	
Additional notes:			
Information source:	Roster Compiler		
<b>Functional Requirement – AS IS</b>			
List the group(s) that currently perform this process.	Roster compilers		
How is the process currently performed?	Rostering is currently done on stand-alone systems or on spreadsheets.		
Who uses the output?	Roster Compilers		

<b>Process ID:</b>	CMS18
<b>Process Name:</b>	Adjust Roster
<b>Detailed Description:</b>	The 72 Hour Roster must continuously be adjusted as current realities change, e.g. crew changes, train changes, cancellation, etc.
<b>External Agents Involved:</b>	Section Manager, Roster Compiler
<b>What causes the process to occur?</b>	There is a change in some detail of the original roster, e.g. a rostered driver is no longer available and must be replaced on the roster
<b>What happens after the process is complete?</b>	The roster is updated and the change communicated to the train crew
<b>Business rules:</b>	
<ul style="list-style-type: none"> <li>○ The roster must continuously be updated if any of the details on it changes.</li> <li>○ A reason for adjustment must be captured for each adjustment of the roster</li> <li>○ The new, adjusted roster will override the original one</li> <li>○ Roster Adjustment = deviation management</li> <li>○ Roster Adjustments will be implemented manually on CMS by the Section Manager</li> <li>○ Crew must promptly be informed of all adjustments made to the roster</li> <li>○ Adjusted roster must be published 12 hours before crew are due to sign on</li> <li>○ All adjustments made to the roster must be confirmed.</li> <li>○ Crew who are on rest can be called in to come and work, subject to approval from an authorised Resource Management manager.</li> </ul>	

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Data (attributes):	Entity	CRUD	Source
Roster Number	72HOUR_DUTY_ROSTER	R	
Roster Date	DAILY_ROSTER	R	
Adjustment Date	ADJUSTED_DUTY_ROSTER	CRUD	
Adjustment Reason	ADJUSTED_DUTY_ROSTER	CRUD	
Personnel Number	EMPLOYEE	R	
Role on Job	CREW_ROLE	R	
Train Number	TRAIN_PLAN	R	
Brake Type	TRAIN_PLAN	R	
Loco Type	TRAIN_PLAN	R	
Planned Sign-on Time	DAILY_ROSTER	R	
Origin	TRAIN_PLAN	R	
Destination	TRAIN_PLAN	R	
ETD	TRAIN_PLAN	R	
Train Plan Version	TRAIN_PLAN_VERSION	R	

Additional notes:

Information source: • ITP

**Functional Requirement – AS IS**

List the group(s) that currently perform this process.

How is the process currently performed?

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<b>Process Name:</b>	Sign on Crew
<b>Detailed Description:</b>	When crew have signed on, the chief Shedman must confirm this by updating the sign-on time on the CMS.
<b>External Agents Involved:</b>	Chief Shedman
<b>What causes the process to occur?</b>	Crew have signed on for duty
<b>What happens after the process is complete?</b>	Crew are available to man the trains that they have been rostered for

**Business rules:**

- o The actual time that crew have signed on must be recorded on the CMS system
- o No roster (non book-off) may allow or permit an employee to sign on for a second shift within a 24 hour period
- o Employees on book-off working will sign on twice within a 24 hour period as a result of the reduced rest period when they book off

<b>Process ID:</b>	CMS21
<b>Process Name:</b>	Sign crew off
<b>Detailed Description:</b>	This process records details related to the time that the crew signs off after a shift has been completed.
<b>External Agents Involved:</b>	Chief Shedman, Train Crew
<b>What causes the process to occur?</b>	Train Crew have finished a shift
<b>What happens after the process is complete?</b>	<ul style="list-style-type: none"> <li>- The crew has to be tested for substance abuse.</li> <li>- Subject to a satisfactory substance abuse test result, the crew will be informed of their next shift.</li> <li>- Book-off crew report to a book-off facility to rest until their next shift</li> </ul>

**Business rules:**

- **Book-Off Crew:**
    - o A rest period of a minimum of >8 hours and <10 hours will be allowed at book-off depots or en-route.
    - o Book-off crew must sign-on again at the Away depot after their mandatory rest period has passed
    - o Book-off crew must be informed of their next sign-on time before they go on rest.
  - An employee shall be rostered according to activities, but for not more than 12 hours per day inclusive of meal breaks, signing on and signing off time.
  - Crew must again be tested for substance abuse upon sign-off. Testing positive for substance abuse can affect a person's availability status for the next shift e.g. suspended if substance test is positive.
  - At the end of a shift an employee must ensure that he is aware of his next shift and shift length.
  - Crew must complete a trip report at the end of every shift. Any incidents recorded in the post-trip report can affect the crew's availability status for the next shift
- The time that Crew signs off the roster can not be earlier than the Time and Attendance sign-out time

<b>Data (attributes):</b>	Entity	CRUD	Source
Personnel Number	EMPLOYEE	R	
Roster Number	72HOUR_DUTY_ROSTER	R	
Roster date	72HOUR_DUTY_ROSTER	R	
Actual Sign Off Time	ACTUAL_DUTY_TIME	CRUD	
Role on Job	CREW_ROLE	R	
Next Shift Date	NEXT_SHIFT	CRUD	
TRANSNET REQUEST FOR PROPOSAL NO. HOAC-BRM-5831			
Journal			

<b>Additional notes:</b>	
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<b>Process ID:</b>	CMS22			
<b>Process Name:</b>	Update crew qualifications			
<b>Detailed Description:</b>	This process updates details of all the crew's qualifications used on the train trip.			
<b>External Agents Involved:</b>	Chief Shedman			
<b>What causes the process to occur?</b>	Crew have finished a train trip where certain skills (qualifications) were used.			
<b>What happens after the process is complete?</b>	Crew qualification details must be updated on SAP to reflect what is on CMS			
<b>Business rules:</b>	<ul style="list-style-type: none"> <li>For each crew qualification used on the last trip, the <b>Date Last Used</b> field must be updated as the actual date that the qualification was last used.</li> <li>Derive <b>Date Last Used</b> from Sign-Off date and roster details</li> </ul>			
	<b>Data (attributes):</b>	<b>Entity</b>	<b>CRUD</b>	<b>Source</b>
	Personnel Number	EMPLOYEE	R	SAP
	Qualification Type	QUALIFICATION	R	SAP
	Qualification Group	QUALIFICATION	R	SAP
	Qualification Description	QUALIFICATION	R	SAP
	Date Last Used	QUALIFICATION	CRU	
<b>Additional notes:</b>				
<b>Information source:</b>				
<b>Functional Requirement – AS IS</b>				
<b>List the group(s) that currently perform this process.</b>				
<b>How is the process currently</b>				

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performed?	
Who uses the output?	Roster Compiler

<b>Process ID:</b>	CMS23
<b>Process Name:</b>	Update last shift worked
<b>Detailed Description:</b>	This process updates information about the crew's last shift worked.
<b>External Agents Involved:</b>	Chief Shedman
<b>What causes the process to occur?</b>	A crew member has completed a certain shift.
<b>What happens after the process is complete?</b>	<ul style="list-style-type: none"> <li>- Crew can be rostered for their next shift, in accordance to BCEA parameters.</li> <li>- Subject to the results of the post-trip substance abuse test, Crew will be informed of when their next shift will be.</li> </ul>

**Business rules:**

- Details of the last shift that a person worked must be recorded on CMS to ensure that shift rotation complies with the BCEA guidelines.
- Shifts must be rotated in a forward direction i.e. Morning → Afternoon → Night for a week, in conjunction to crew schedule.
- The Next Shift that the crew is rostered for must start after the mandatory rest period has been completed
- Mandatory rest periods to be taken as follows:
  - Book-off Crew
    - Between 8 to 10 hours at Away depot
    - 16 Hours at Home depot
  - Non Book-off Crew
    - 12 hours between shifts

Next Shift is computed as Sign-Off Time + Rest Period +

- Crew will be rostered for a next shift subject to the results of the post-trip substance abuse test. (A positive post-trip substance abuse test may result in a person being suspended, in which case they will not be "available" to be rostered for a next shift.
- Record Crew Next Shift date
- Crew must be informed of when their next shift will be – workers must be receive a minimum of 12 hours' notice in advance of scheduled hours of work and of any foreseeable changes to the schedule

	<b>Data (attributes):</b>	Entity	CRUD	Source
	Personnel Number	EMPLOYEE	R	
	Shift Type	SHIFT_TYPE	R	

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	Last Shift Date	SHIFT_RECORD	CRU	
	Next Shift Date	NEXT_SHIFT	CRU	
<b>Additional notes:</b>				
<b>Information source:</b>		Train Crew Journal		
<b>Functional Requirement – AS IS</b>				
<b>List the group(s) that currently perform this process.</b>		Chief Shedman, Roster compilers, Section managers		
<b>How is the process currently performed?</b>				
<b>Who uses the output?</b>		The Train crew		

<b>Process ID:</b>	CMS24
<b>Process Name:</b>	Roster book-off returns
<b>Detailed Description:</b>	This process rosters book-off crew to return to their Home Depot
<b>External Agents Involved:</b>	Roster compilers
<b>What causes the process to occur?</b>	Crew has arrived at the depot on a book off train and must be rostered on a train returning to their Home depot
<b>What happens after the process is complete?</b>	Crew who arrived at the depot on a book-off train are rostered to return to their home depot. The away depot must adjust their roster if inclusion of a book-off crew has resulted in any changes to the roster.
<b>Business rules:</b>	
<ul style="list-style-type: none"> <li>• Book-Off rostering to be done as follows:             <ul style="list-style-type: none"> <li>○ Home Depot to Away - Home depot rosters.</li> <li>○ Away depot to Home – Away depot rosters</li> </ul> </li> <li>• A book-off crew returning home will only be eligible for their next shift, after the mandatory daily rest between shifts has elapsed.</li> <li>• Rest Periods for Book-Off Crew to be allocated as follows:             <ul style="list-style-type: none"> <li>○ Not &lt; 8 hours or &gt;10 hours at book-off depots or en-route.</li> <li>○ 16 hours max at the Home depot.</li> </ul> </li> <li>• Employee will sign-on twice within a 24 hour period/day             <ul style="list-style-type: none"> <li>○ 1st Sign-on for the forward trip at the Home Depot</li> <li>○ 2nd Sign On for the return trip at the Away Depot</li> </ul> </li> <li>• When compiling the roster, the Roster Compiler at the Away depot, must give 1st preference on trains to Book-Off Crew that have to return home</li> <li>• Book-off drivers may not be rostered for their next shift until the minimum 8 hours rest period has elapsed.</li> </ul>	

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- The Away depot must keep record of the Book-Off Crews who sign off there.
- The Away depot must adjust their rosters to accommodate book-off crew to return home.
- Book-Off Sign-on Time is computed as (ETD – Crew Prep Time [e.g. 30 minutes])
- Crew Prep Time will be defined by each depot as part of their Depot (local) rostering parameters.
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Data (attributes):	Entity	CRUD	Source
Personnel number	EMPLOYEE	CRUD	
Home depot	EMPLOYEE	R	
Roster date	BOOK_OFF_ROSTER	CRUD	
Train number	BOOK_OFF_ROSTER	R	
Train Plan date	TRAIN_PLAN	R	
Book Off Indicator	TRAIN_PLAN	R	
Trip Leg	TRIP_LEG	R	
Origin	TRAIN_PLAN	R	
Destination	TRAIN_PLAN	R	
ETD	TRAIN_PLAN	R	
Brake type	TRAIN_PLAN	R	
Loco type	TRAIN_PLAN	R	
Role on job	72HOUR_DUTY_ROSTER	R	
Book-off Sign On Time	BOOK_OFF_ROSTER	CRUD	
Crew Prep Time	DEPOT_PARAMETER	R	

<b>Additional notes:</b>	
<b>Information source:</b>	<ul style="list-style-type: none"> <li>• Roster Compiler (Away Depot)</li> </ul>

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<b>Functional Requirement – AS IS</b>	
<b>List the group(s) that currently perform this process.</b>	
<b>How is the process currently performed?</b>	Roster Compilers compile weekly diagrams

<b>Process ID:</b>	CMS26		
<b>Process Name:</b>	Update availability status		
<b>Detailed Description:</b>	This process updates crew availability status		
<b>External Agents Involved:</b>			
<b>What causes the process to occur?</b>	<ul style="list-style-type: none"> <li>• A person on rest is called in to report for duty, or</li> <li>• A rostered person calls in sick on roster execution day, or</li> <li>• A person is "suspended" due to incidents that occurred on their last trip, or</li> <li>• A person is "suspended" after failing a post-trip substance abuse test</li> </ul>		
<b>What happens after the process is complete?</b>	If the availability status update occurs at the end of a shift, then crew are informed of their next shift (if applicable). The new availability status can be uploaded to SAP		
<b>Business rules:</b>			
<ul style="list-style-type: none"> <li>• In addition to planned absences, crew availability is also influenced by:                             <ul style="list-style-type: none"> <li>○ The results of a post-trip substance abuse test</li> <li>○ Any incidents (SPADs etc) that may have occurred on the trip</li> <li>○ Any deviations en-route (e.g. trip/shift longer than planned)</li> </ul> </li> <li>• The timing of the next shift must take into account the duration of the previous shift. Next shift time must be calculated from actual sign-off time and not planned sign-off time. I.e. Next Shift is computed as [Actual] Sign-off Time + Rest Period.</li> <li>• Crew who are on rest can be called in to come and work, subject to approval from an authorised Resource Management manager.</li> <li>• CMS must include functionality that allows the user to manually update crew availability status on the system where:                             <ul style="list-style-type: none"> <li>○ A person on rest is called in to report for duty</li> <li>○ A rostered person calls in sick on roster execution day</li> <li>○ A person is "suspended" due to incidents that occurred on their last trip</li> <li>○ A person is "suspended" after failing a post-trip substance abuse test</li> </ul> </li> <li>• If crew is "available" for a next shift, then they must be informed of when the next shift will be.</li> <li>•</li> </ul>			
	<b>Data (attributes):</b>	Entity	CRUD
			Source

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	Personal Number	EMPLOYEE	R	
	Availability Check Period	AVAILABILITY_CHECK	CRU	
	Availability Check Date	AVAILABILITY_CHECK	CRU	
	Availability Status	AVAILABILITY_STATUS	R	
<b>Additional notes:</b>				
<b>Information source:</b>		Section Manager		
<b>Functional Requirement – AS IS</b>				
<b>List the group(s) that currently perform this process.</b>		Human capital		
<b>How is the process currently performed?</b>		<ul style="list-style-type: none"> <li>• Crew gets tested for substance abuse and the results are recorded in a book at the depots.</li> <li>• Crew's positive results are suspended and therefore not available for rostering</li> </ul>		
<b>Who uses the output?</b>		Roster compilers		

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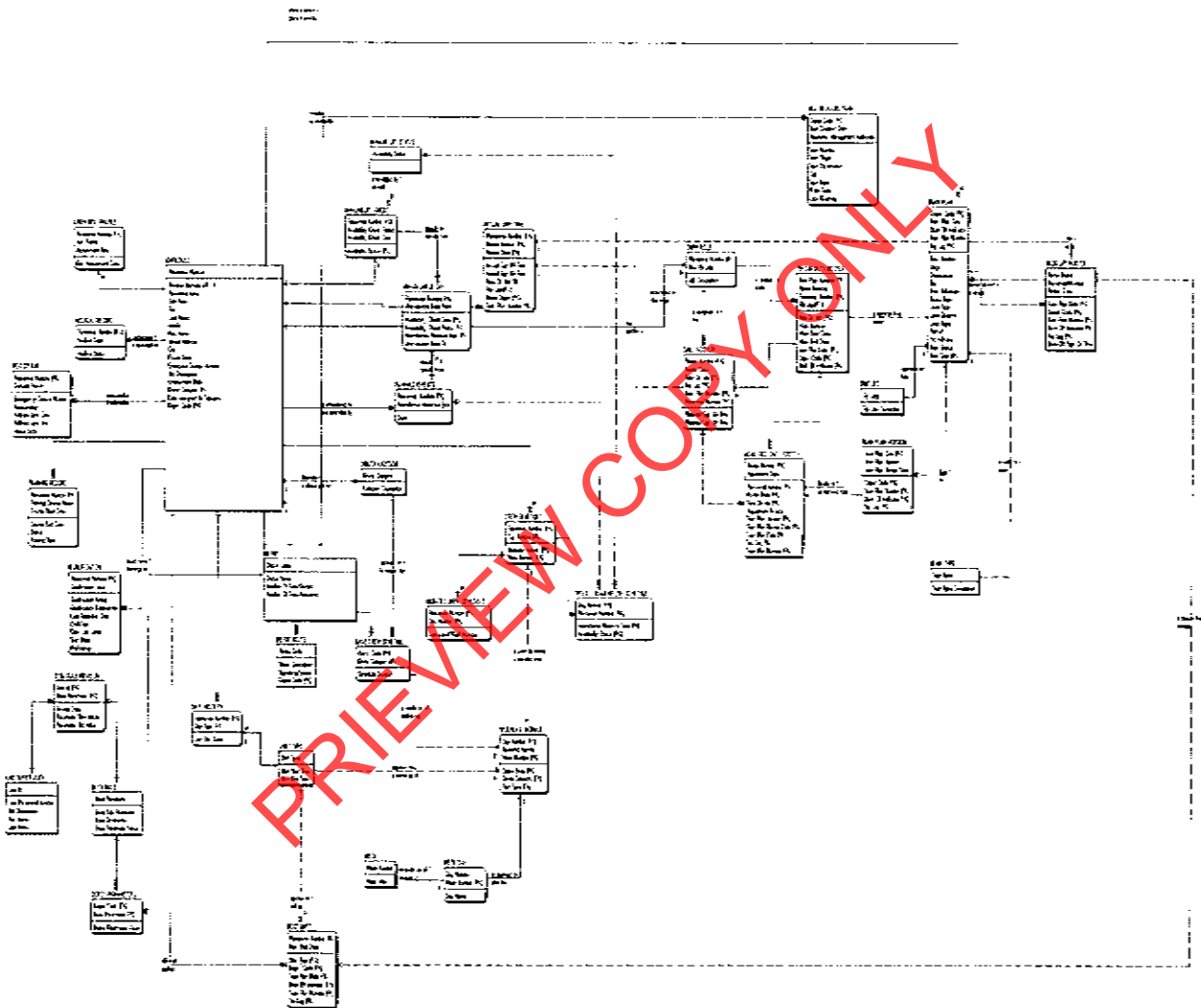
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3. Business Information Requirements

3.1. ENTITY RELATIONSHIP DIAGRAM



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3.2. Entities Template

	Entity Name	Entity Definition	Unique Identifier	Number of occurrences		Author
				Current	Future	
1.	72HOUR DUTY ROSTER	The 72 HOUR DUTY ROSTER shows the allocation of Crew to the 72 Hour ITP.	<u>Train Number</u> <u>Origin</u> <u>Destination</u> <u>Personnel Number</u> <u>Roster Number</u>			
2.	AVAILABILITY STATUS	A list of descriptions that define Crew Availability e.g. Available; AWOL; Sick; Suspended; X99, etc.	<u>Availability Status</u>			
3.	ADJUSTED DUTY ROSTER	As conditions change prior to roster execution time, the roster must continuously be adjusted to reflect the current reality, e.g. different crew, trains cancelled, etc.	<u>Roster Number,</u> <u>Adjustment Date</u>			
4.	AVAILABILITY CHECK	Crew Availability must constantly	<u>Personnel Number,</u>			

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		be checked in the time leading up to roster execution. This table contains results of the different checks (7 Days, 72 Hours, 48 hours, 12 hours, 6 hours, Execution Time)	<u>Availability Check Date</u> <u>Availability Check Period</u>	
5.	BASE CREW SCHEDULE	The BASE CREW SCHEDULE is a blank schedule that the system will automatically create based on the CREW CATEGORY and schedule duration (number of weeks) that the user specifies.	<u>Depot Code</u> <u>Driver</u> <u>Category Shift</u> <u>Type</u> <u>Week Number</u> <u>Day Number</u>	
6.	BCEA RULE	The parameters that govern employees' working conditions (as per the BCEA - Basic Conditions of Employment Act) must be considered when rostering crew. These parameters must be updated in the Crew	<u>BCEA Parameter</u>	

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		Management system, as and when they change in the Main/Collective Agreement.			
7.	BCEA RULE REVISION	Details of any changes made to the BCEA parameters on CMS	<u>User Id,</u> <u>BCEA</u> <u>Parameter</u>		
8.	BOOK OFF ROSTER	This table contains details of book-off drivers rostered for the return leg back to their home depots	<u>Home Depot,</u> <u>Roster Date</u>		
9.	CMS SUPER USER	Details of the person designated as the Super User on the CMS system. Only the super user will be authorised to update BCEA Parameters.	<u>User Id</u>		
10.	CREW RISK PROFILE	CREW RISK PROFILE refers to the factors that render a person as a high risk for rostering	<u>Personnel</u> <u>Number</u> <u>Risk Profile</u>		
11.	CREW ROLE	CREW ROLE describes the role (Driver or	<u>Personnel</u> <u>Number,</u> <u>Role On Job</u>		

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		Assistant) that an EMPLOYEE is rostered as on the train.		
12.	CREW SCHEDULE	CREW SCHEDULE shows the assignment of rest periods and standby duties for each crew member for a period into the future.	<u>Personnel Number,</u> <u>Week Number</u> <u>Day Number</u>	
13.	DAILY ROSTER	The DAILY ROSTER is derived from the 72 HOUR ROSTER and is the roster for a single day.	<u>Roster Number,</u> <u>Roster Date,</u> <u>Personnel Number,</u> <u>Role On Job</u>	
14.	DEPOT	The depot refers to a TFR loco depot where crew sign-on for duty and they sign-off. Each loco depot has a number of crew that belong to it and this is then referred to as the crew's home depot.	<u>Depot Code</u>	
15.	DEPOT ROUTE	DEPOT ROUTE is the list of routes that make up that particular depot and which	<u>Route Code</u>	

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		the depots crew should drive		
16.	DRIVER CATEGORY	DRIVER CATEGORY refers to the category of service that the driver is licensed to drive e.g. A = Shunting, B = Short Hauls and C = Main Line	<u>Driver Category</u>	
17.	ACTUAL DUTY TIME	ACTUAL DUTY TIME records details of the crew's actual sign on and sign off times	<u>Personnel Number</u> <u>Roster Number</u> <u>Roster Date</u>	
18.	EMPLOYEE	This table contains biographical information of all crew members.	<u>Personnel Number</u>	
19.	MEDICAL RECORD	MEDICAL RECORD contains details of the crew's medical examinations done.	<u>Personnel Number</u> <u>Medical Date</u>	
20.	NEXT OF KIN	Details of Crew Member's next of kin.	<u>Personnel Number</u> <u>Contact Person</u>	
21.	NEXT SHIFT	Details of the	<u>Personnel</u>	

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		next shift that a person will be working must be recorded and Crew must be informed of when their shift will be	<u>Number</u> <u>Next Shift</u> <u>Date</u>	
22.	PLANNED EVENTS	Any events (Leave, Training, Symposiums, Medicals, etc) planned for the EMPLOYEE for the period.	<u>Personnel</u> <u>Number</u> <u>Attendance</u> <u>Absence Type</u>	
23.	QUALIFICATION	The list of qualifications that each crew member has.	<u>Personnel</u> <u>Number</u> <u>Qualification</u> <u>Type</u>	
24.	ROTATED CREW SCHEDULE	The CREW SCHEDULE is created in advance, for a certain number of weeks into the future. It is rotated weekly so that a different crew is assigned to the pre-set schedule for every week in the schedule.	<u>Personnel</u> <u>Number</u> <u>Week Number</u> <u>Day Number</u>	
25.	SHIFT RECORD	A record of the last shift that an employee has worked and the next shift that they will be	<u>Personnel</u> <u>Number</u> <u>Shift Type</u>	

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		scheduled for.	
26.	SHIFT TYPE	SHIFT TYPE defines the different shifts that crew can be rostered for, viz.: Morning, Afternoon, and Night.	<u>Shift Type</u>
27.	TRAIN PLAN	TRAIN PLAN shows the list of trains planned for the next 7 days, 72 hours and 48 hours. The different ITP versions are distinguished by the Train Plan Version field.	<u>Train Number</u> <u>Origin</u> <u>Destination</u> <u>ETD</u> <u>Train Plan Date</u>
28.	TRAIN PLAN VERSION	The 72 hour train plan, which is the basis for the duty roster, will periodically be adjusted to accommodate real-time changes.	<u>Train Plan Date</u> <u>Revised Date</u> <u>Train Plan Version</u>
29.	TRAINING RECORD	TRAINING RECORD is the detail of all training that a person has completed.	<u>Personnel Number</u> <u>Training Course Name</u> <u>Course Start Date</u>
30.	UNAVAILABLE DAY	Details of the dates that a person is unavailable due to some planned	<u>Personnel Number</u> <u>Unavailable Date From</u>

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		event or any other non-availability.			
31.	WEEK	The BASE CREW SCHEDULE is made up of a number of weeks, each with it's predefined schedule	<u>Week Number</u>		
32.	WEEK DAY	List of days of the week. i.e. 1 - Monday, 2 - Tuesday, 3 - Wednesday, etc.	<u>Week Number</u> <u>Day Number</u>		
33.	WEEKLY_SCHEDULE	The weekly schedule is derived from the Base Crew Schedule and shows the rest/work/standby allocations for a single week	<u>Week Number</u> <u>Day Number</u> <u>Rostered</u> <u>Activity</u>		

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3.3. Requirements rules/guidelines

Attribute Legend: Each Attribute name must start with its Entity name.

Abbreviation	Meaning	Allowable values
Column M	Mandatory	Y(yes) or N(no)
Column R	Repeating	Y(yes) or N(no)
Column U	Unique	Y(yes) or N(no)
Grey rows	Related attributes from another entity	

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Data types: Only five data types will be used in the business requirements. CHAR, NUMERIC, DATE, ALPHANUMERIC, VARCHAR

Valid values: If a data element has more than 5 valid values refer to the valid values section of the document.

Attributes

**Legend:**

U – Unique (Y or N)

M – Mandatory (Y or N)

R – Repeating (Y or N)

3.4. Entity: Template

**72HOUR DUTY ROSTER**

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Train Number	N	Y	N	CHAR(7)				The ITP Train Number of the train
ETD	N	Y	N	DATE				Expected Time of Departure
Origin	N	Y	N	CHAR(3)				The place that the train originates from
Destination	N	Y	N	CHAR(3)				The place that the train is going to
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Role On Job	N	Y	Y	CHAR(10)				A Train Driver can, if operational requirements dictate, act as an assistant for another driver on a particular trip.
Roster Number	Y	Y	N	CHAR(10)				A number which uniquely identifies each roster. A concatenation of week number, depot code
Train Plan Version	Y	Y	N	CHAR(6)				Defines the time period that the train plan is for i.e. 72 Hour, 48 Hour, 24 Hour, and 12 Hour.
Week Number	N	Y	N	NUMBER				Week number of the week in which the roster is to be executed
Week Start Date	N	N	N	DATE				date on which the roster will start being executed

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**TRANSNET**



NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Week End Date	N	N	N	DATE				Date at which execution of the weekly roster will end
Planned Sign On Time	N	Y	N	DATE	DERIVED			Planned Sign-on Time is computed as (ETD – Crew Prep Time

availability status

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Availability Status	Y	Y	N	CHAR(25)	See valid values list			A description of the availability status e.g. Absent, EAP, Change Over, etc

adjusted duty roster

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Roster Number	Y	Y	N	CHAR(10)				A number which uniquely identifies each roster. A concatenation of week number, depot code
Adjustment Date	N	Y	N	DATE				The date on which the duty roster was adjusted
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Train Number	N	Y	N	CHAR(7)				The ITP Train Number of the train
Origin	N	Y	N	CHAR(3)				The place that the train originates from
Destination	N	Y	N	CHAR(3)				The place that the train is going to
ETD	N	Y	N	DATETIME				Expected Time of Departure of the train
Train Plan Version	Y	Y	N	CHAR(6)				Defines the time period that the train plan is for i.e. 72 Hour, 48 Hour, 24 Hour, and 12 Hour.
Roster Date	N	Y	N	DATE				The date on which the roster is planned to be executed
Role On Job	N	Y	N	CHAR(10)				A Train Driver can, if operational requirements

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NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
								dictate, act as an assistant for another driver on a particular trip
Adjustment Reason	N	Y	N	Varchar(255)				Reasons must be given when the roster is adjusted.

availability check

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Availability Check Period	Y	Y	N	CHAR(9)	See valid values list			Indicates which period the availability is being checked
Availability Check Date	N	Y	N	Date				Date on which a person's availability is checked
Availability Status	Y	Y	N	CHAR(25)	See valid values list			A description of the availability status e.g. Absent, EAP, Change Over, etc

base crew schedule

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Depot Code	Y	Y	N	CHAR(3)				A 3-letter code that uniquely identifies each depot
Driver Category	N	Y	N	CHAR				A code that uniquely identifies each train/driver activity category i.e. A = Shunting, B = Short/Long Hauls, C = Mainline
Shift Type	N	Y	N	CHAR(10)				The time of day when the shift is worked, e.g. Morning Afternoon Evening
Week Number	Y	Y	Y	NUMBER(2)				The number of the week, week number is derived from the schedule duration. Increment by 1

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NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
								until Week Max as per the Schedule duration. i.e. if schedule duration = 12 then week max = 12
Day Number	Y	Y	N	NUMBER				Number of the day of the week e.g.: 1 - Monday 2 - Tuesday 3 - Wednesday 4 - Thursday 5 - Friday 6 - Saturday 7 - Sunday
Schedule Duration	N	Y	N	NUMBER(2)				The number of weeks that the schedule will span

**BCEA rule**

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
BCEA Parameter	Y	Y	N	VARCHAR(15)				An element of the BCEA Act. E.g. Shift Length, Rest Period, Normal Hours, etc
BCEA Clause G	N	N	N	CHAR(12)		Regulation of Working Time		The name of the clause in the BCEA agreement that governs working hours – i.e. determines how crew will be rostered.
Dimension	N	Y	N	CHAR(6)				Unit that the parameter is measured in e.g. hours, days, etc.
BCEA Parameter Value	N	Y	N	NUMBER				The value of a BCEA parameter, e.g. if the parameter is rest period, the value can be 12 hours

**BCEA rule REVISION**

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
User Id	Y	Y	N	CHAR(6)				System login id of the CMS Super User
BCEA Parameter	Y	Y	N	VARCHAR(15)				An element of the BCEA Act. E.g. Shift Length, Rest Period, Normal Hours, etc
Revision Date	N	Y	N	DATE				Full details of the

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**TRANSNET**



NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Parameter New Value	N	Y	N	NUMBER				parameter New value of the BCEA parameter

Book-off roster

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Home Depot	N	Y	N	CHAR(3)				The Depot to which the person belongs
Roster Date	N	Y	N	DATE				Date on which the roster is to be executed
Train Number	N	Y	N	CHAR(7)				ITP Train Number of the train
Origin	N	Y	N	CHAR(3)				Place where the train trip starts
Destination	N	Y	N	CHAR(3)				Place where the train trip ends
ETD	N	Y	N	DATETIME				Expected departure time of train
Train Plan Version	N	Y	N	CHAR(6)				Defines the time period that the train plan is for i.e. 72 Hour, 48 Hour, 24 Hour, 12 Hour
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Book-off Sign On Time	N	Y	N	DATE	DERIVED			Book Off Sign-on Time is computed as (ETD – Crew Prep Time)

CMS super user

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
User Id	Y	Y	N	CHAR(6)				System login id of the Super User
Personnel Number	Y	Y	Y	NUMBER(8)				SAP Personnel Number of the Super User
Job Description	N	N	N	CHAR(15)				Job Description of the Super User

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TRANSNET



NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
First Name	N	N	N	CHAR(10)				First name of the super user
Last Name	N	N	N	CHAR(10)				Last name of the super user

CREW RISK PROFILE

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Risk Profile	N	Y	N	CHAR(8)				Describes the person's Risk Profile - High, Moderate, and Low. The risk profile will be determined by the results of the assessment
Risk Assessment Date	N	Y	N	DATE				The date on which the employee's risk profile is assessed
Assessment Time	N	Y	N	CHAR(7)	Sign On Sign Off			Refers to the time that the assessment was done, i.e. Sign-On or Sign Off

CREW ROLE

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	Y	NUMBER(8)				SAP Personnel Number of the Super User
Role On Job	N	N	N	CHAR(10)	Driver Assistant			A Train Driver can, if operational requirements dictate, act as an assistant for another driver on a particular trip.
Job Description	N	N	N	CHAR(40)				Crew member's job grade

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CREW schedule

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	Y	NUMBER(8)				SAP Personnel Number of the Super User
Week number	Y	Y	N	NUMBER(2)				The number of the week, week number is derived from the schedule duration. Increment by 1 until Week Max as per the Schedule duration. i.e. if schedule duration = 12 then week max = 12
Day Number	N	N	N	NUMBER				Number of the day of the week e.g.: 1 - Monday 2 - Tuesday 3 - Wednesday 4 - Thursday 5 - Friday 6 - Saturday 7 - Sunday
Shift Type	N	Y	N	CHAR(10)				The time of day when the shift is worked, e.g. Morning Afternoon Evening
Depot Code	N	Y	N	CHAR(3)				A 3-letter code that uniquely identifies each depot.
Driver Category	N	Y	N	CHAR				A code that uniquely identifies each train/driver activity category i.e. A = Shunting, B = Short/Long Hauls, C = Mainline
Rostered Activity	N	Y	N	CHAR	R – Rest S – Standby W – Work			An Indicator which shows that a specific day on the schedule is allocated for rest or standby

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daily roster

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Roster Number	Y	Y	N	CHAR(10)				A number which uniquely identifies each roster. A concatenation of week number, depot code
Roster Date	N	Y	N	DATE				Roster Date
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely

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NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
								identified
Role On Job	N	Y	N	CHAR(10)	Driver Assistant			A Train Driver can, if operational requirements dictate, act as an assistant for another driver on a particular trip.
Train Number	N	Y	N	CHAR(7)				The ITP Train Number of the train
Origin	N	Y	N	CHAR(3)				The place that the train originates from
Destination	N	Y	N	CHAR(3)				The place that the train is going to
Planned Sign On Time	N	Y	N	DATE	DERIVED			Planned Sign-on Time is computed as (ETD – Crew Prep Time
ETD	N	Y	N	DATETIME				Expected departure time of train

DEpot

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Depot Code	Y	Y	N	CHAR(3)				A 3-letter code that uniquely identifies each depot.
Depot Name	Y	N	N	CHAR(20)				The Name of the depot
Number Of Train Drivers	N	N	N	NUMBER(3)				Number of train drivers that the depot has
Number Of Train Assistants	N	N	N	NUMBER(3)				Number of train assistants that the depot has

DEpot route

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Depot Code	Y	Y	N	CHAR(3)				A 3-letter code that uniquely identifies each depot.
Route Code	Y	N	N	CHAR(27)				Code that uniquely identifies each route. The route code is made up of

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NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
								the depot codes of the different depots/locations that make up the route.
Route Description	Y	N	N	CHAR(40)				Full name of the route. e.g. CBE-CHQ (Route Code) = Cambridge-Cookhouse (Route Description)
Signalling System	N	Y	N					The type of signalling system that the depot employs

driver category

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Driver Category	Y	Y	N	CHAR	A B C			A code that uniquely identifies each train/driver activity category
Category Description	Y	N	Y	CHAR(35)				A description of the driver category denoted by the code A = Shunting, B = Hauling, C = Mainline Driving

ACTUAL DUTY TIME

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Roster Number	Y	Y	N	CHAR(10)				A number which uniquely identifies each roster. A concatenation of week number, depot code
Roster Date	N	Y	N	DATE				Date on which the roster is to be executed
Actual Sign On Time	Y	Y	N	DATETIME				Actual time that the crew signs on
Actual Sign Off Time	Y	Y	N	DATETIME				Actual time that the person signs off

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NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Role On Job	Y	Y	N	CHAR(10)				

Employee

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Pension Number	Y	N	N	CHAR(6)				A number by which each TFR employee is uniquely identified
Personnel Area	N	N	N	CHAR(40)				The personnel area (according to SAP) that the employee belongs to
Sub Area	N	N	N	CHAR(40)				The sub area (according to SAP) that the employee belongs to
Title	N	N	N	CHAR(15)				the person's title: Mr, Ms, Doctor etc
Last Name	N	Y	N	CHAR(40)				An employee's surname
Initials	N	N	N	CHAR(10)				The initials of an employee names
First Name	N	Y	N	CHAR(10)				Employee's first name
Street Address	N	N	N	CHAR(60)				The employee's home address - Street And House Number
City	N	N	N	CHAR(40)				name of the city that the employee lives in
Postal Code	N	N	N	CHAR(6)				Postal code of the area that the person lives in
Contact Number	N	Y	N	CHAR(10)				Employee contact number
Job Description	N	Y	N	CHAR(40)				Crew member's job grade
Employment Date	N	N	N	DATE				The date on which an employee entered into service at TFR
Driver Category	N	Y	N	CHAR				A code that uniquely identifies each train/driver activity category i.e. A = Shunting, B = Short/Long Hauls, C = Mainline
Date Assigned To Category	N	Y	N	DATE				Date on which a driver is assigned to a category
Depot Code	N	Y	N	CHAR(3)				A 3-letter code that uniquely identifies each depot.

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medical record

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Medical Date	N	Y	N	DATE				The date on which a crew member's medical examination took place
Medical Status	Y	Y	N	VARCHAR(40)	See Valid Values List			Medical status shows whether or not a train driver/assistant is fit for duty.
Next Medical Date	N	Y	N	CALCULATED				The next date that an employee is scheduled to have a medical

Next of kin

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	Y	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Contact Person	N	Y	N	CHAR(40)				Name of the next of kin person to contact
Contact Number	N	Y	N	CHAR(10)				The number at which the N-O-K person can be contacted.
Relationship	N	Y	N	CHAR(7)				An indicator which the relationship of the employee to the next-of-kin person
Address Line One	N	N	N	CHAR(40)				The first line of the N.O.K. person's address e.g. 27 Long Street
Address Line Two	N	N	N	CHAR(40)				The second line of the N.O.K. person's address e.g. 1 = 27 Long Street 2 = Joubert Park
Postal Code	N	N	N	CHAR(6)				Postal Code of the area in which the N-O-K person lives

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Next shift

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	Y	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Next Shift Date	N	Y	N	DATE				Date on which the next shift will be
Shift Type	N	Y	N	CHAR				Type of shift i.e. Morning, Afternoon, Night that the next shift will be.

PLANNED EVENTS

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Attendance Absence Type	N	Y	N	CHAR(4)				An indicator of the attendance or absence type
Start Date	N	Y	N	DATETIME				The start date/time of the attendance or absence
End Date	N	Y	N	DATETIME				the end date/time of the attendance or absence

QUALIFICATION

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Qualification Type	N	Y	N	CHAR(18)	<ul style="list-style-type: none"> <li>- Brake Knowledge</li> <li>- Road Knowledge</li> <li>- Loco Knowledge</li> <li>- Train</li> </ul>			The type of qualification

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NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
					Knowledge			
Qualification Group	N	Y	N	CHAR(40)				Qualifications are grouped on SAP as follows: Licensing/Certification, Road Knowledge, Abilities, Skills, Knowledge etc.
Qualification Description	N	Y	N	CHAR(40)				Name of qualification e.g. Train Driver Loco 11E(Loco Knowledge) , Bellville Paarden-Eiland (Route Knowledge)
Last Refresher Date	N	Y	Y	DATE				The last date on which a person's qualifications were refreshed.
End Date	N	Y	N	DATE				The date on which the qualification expires
Date Last Used	N	Y	N	DATE				The date on which the particular qualification was last used.
Start Date	N	Y	N	DATE				The date on which the person received the qualification
Proficiency	N	N	N	CHAR(20)				Indicates the person's skill level

Rotated crew schedule

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Week Number	N	Y	N	NUMBER				The number of the week, week number is derived from the schedule duration. Increment by 1 until Week Max as per the Schedule duration. i.e. if schedule duration = 12 then week max = 12
Day Number	N	Y	N	NUMBER				Number of the day of the week e.g.: 1 - Monday 2 - Tuesday 3 - Wednesday 4 - Thursday

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NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
								5 - Friday 6 - Saturday 7 - Sunday
Calculated Week Number	N	Y	N	NUMBER				The week number that is arrived at when Week Number is incremented by 1 in the equation: Calculated Week Number = Week number + 1

shift record

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Shift Type	N	Y	N	CHAR(10)	Morning Afternoon Evening			The time of day when the shift is worked
Last Shift Date	N	Y	N	DATE				The date on which the person worked the last shift
Next Shift Start Date	N	Y	N	DATE				

shift type

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Shift Type	Y	Y	N	CHAR(10)				The time of day when the shift is worked, e.g. Morning Afternoon Evening
Shift Start Time	Y	Y	N	DATETIME				The time that the shift starts. Each shift type will have a pre-determined start and end time
Shift End Time	Y	Y	N	DATETIME				The time that the shift ends. Each shift type will have a pre-determined start and end time

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Train Plan

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Train Plan Date	Y	Y	N	DATE				The date on which execution of the Train plan is planned
Train Number	N	Y	N	CHAR(7)				The ITP Train Number of the train
Origin	N	Y	N	CHAR(3)				The place that the train originates from
Destination	N	Y	N	CHAR(3)				The place that the train is going to
ETD	N	Y	N	DATETIME				Expected Time of Departure
Train Plan Version	Y	Y	N	CHAR(6)				Defines the time period that the train plan is for i.e. 72 Hour, 48 Hour, 24 Hour, 12 Hour
Train Schedule	N	Y	N	CHAR				Indicates the schedule type of the train i.e. schedule 1 or schedule 2
Brake Type	N	Y	N	CHAR				Indicates the brake type of the train.
Loco Class	N	Y	N	CHAR(6)				A description of the loco
Loco Quantity	N	Y	N	NUMBER(2)				Indicates the number of locos on the train
Load Type	N	Y	N	VARCHAR(10)				Indicates the load type of the train
Remark	N	N	N	VARCHAR(20)				Remarks related to the train
YQ Indicator	N	N	N	CHAR				Indicates whether or not the train is a YQ Train
Train Status	Y	N	N	CHAR	A = Customer Committed Trains S = Spare Capacity; P = Part of design & will possibly run,			Indicates the status of the train, as defined on the ITP

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Train Plan version

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Train Plan Date	Y	Y	N	DATE				The date on which execution of the train plan is planned
Train Plan Revise Date	Y	N	N	DATE				The date on which the new train plan version is created
Train Plan Version	Y	N	N	CHAR(6)				The version (48hr, 24hr, 12hr) of the train plan

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**TRANSNET**



<u>NAME</u>	<u>U</u>	<u>M</u>	<u>R</u>	<u>Data-Type/Length</u>	<u>Valid values</u>	<u>Default value</u>	<u>Owner</u>	<u>Definition</u>
Train Number	N	Y	N	CHAR(7)				The ITP Train Number of the train
Origin	N	Y	N	CHAR(3)				The place that the train originates from
Destination	N	Y	N	CHAR(3)				The place that the train is going to
ETD	N	Y	N	DATETIME				Expected Time of Departure

**TRAINING RECORD**

<u>NAME</u>	<u>U</u>	<u>M</u>	<u>R</u>	<u>Data-Type/Length</u>	<u>Valid values</u>	<u>Default value</u>	<u>Owner</u>	<u>Definition</u>
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Training Course Name	N	Y	N	CHAR(40)				A descriptive name of the course that was completed
Course Start Date	N	Y	N	DATE				The date on which the training course started
Course End Date	N	Y	N	DATE				The date on which the training course ended
Status	Y	Y	N	CHAR(40)				An indicator which shows whether or not the training course has a practical component that must be completed, before certification
Training Type	Y	Y	N	CHAR(13)	- Certification - Refresher			Certification (New) or Refresher (renewal)

**TRIP LEG**

<u>NAME</u>	<u>U</u>	<u>M</u>	<u>R</u>	<u>Data-Type/Length</u>	<u>Valid values</u>	<u>Default value</u>	<u>Owner</u>	<u>Definition</u>
Trip Leg Id	N	Y	N	Char				A key that identifies the different legs of a Train Trip e.g. R = Return F = Forward
Trip Leg Description	Y	Y	N	Varchar(7)				A description of the Train Trip represented by the

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NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
								key R = Return F = Forward

UNAVAILABLE DAY

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Personnel Number	Y	Y	N	NUMBER(8)				A unique number on the SAP system by which each employee is uniquely identified
Unavailable Date From	N	Y	N	Date				Date from which the person will be unavailable
Unavailable Date To	N	Y	N	Date				Date until which the person will be unavailable

WEEK

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Week Number	Y	N	N	NUMBER(2)				The number of the week, week number is derived from the schedule duration. Increment by 1 until Week Max as per the Schedule duration. i.e. if schedule duration = 12 then week max = 12
Week Max	N	N	N	Number(2)				Week Max is derived from the schedule duration that the user specifies, i.e. if Schedule Duration = 10 then Week Max = 10.

WEEK DAY

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Day Number	Y	Y	N	NUMBER				A number from 1 to 7 that

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NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
								represents the days of the week.
Day Name	Y	Y	N	CHAR(8)				Name of the day of the week represented by the number viz.:  1 – Monday 2 – Tuesday 3 – Wednesday 4 – Thursday 5 – Friday 6 – Saturday 7 – Sunday

WEEKly SCHEDULE

NAME	U	M	R	Data-Type/ Length	Valid values	Default value	Owner	Definition
Week Number	Y	Y	N	NUMBER(2)				The number of the week, week number is derived from the schedule duration. Increment by 1 until Week Max as per the Schedule duration. i.e. if schedule duration = 12 then week max = 12
Day Number	Y	Y	N	NUMBER				A number from 1 to 7 that represents the days of the week.
Rostered Activity	N	Y	N	Char(7)	- Rest - Standby - Work			The activity that the crew is rostered for, for that particular day
Shift Type	N	Y	N	CHAR(10)				The time of day when the shift is worked, e.g. Morning Afternoon Evening
Driver Category	N	Y	N	CHAR				A code that uniquely identifies each train/driver activity category i.e. A = Shunting, B = Short/Long Hauls, C = Mainline
Depot Code	N	Y	N	CHAR(3)				A 3-letter code that uniquely identifies each depot.

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3.5. Valid values List

Data element name	Valid values	Default value
Availability Status	<ul style="list-style-type: none"> <li>· Absent</li> <li>· Act 85</li> <li>· Acting</li> <li>· Alco-blow</li> <li>· Annual Leave</li> <li>· Assessment</li> <li>· Available</li> <li>· Book Off</li> <li>· Book-off outside Depots</li> <li>· Casual Leave</li> <li>· Change Over</li> <li>· EAP</li> <li>· Family Responsibility</li> <li>· Hearing</li> <li>· Incapacity</li> <li>· Investigations</li> <li>· LOS Training</li> <li>· Maternity Leave</li> <li>· Medical</li> <li>· Meetings</li> <li>· Other Duties</li> <li>· Part 4 Airbrake</li> <li>· Part 4 Vacuum</li> <li>· Practical</li> <li>· Refresher 2<sup>nd</sup> attempt</li> <li>· Refresher Training</li> <li>· Relief Duties</li> <li>· Rest Days</li> <li>· Road Learning</li> <li>· Road Test</li> <li>· SHE Rep inspection (5.40)</li> <li>· Sick</li> <li>· Simulator</li> <li>· Suspension</li> <li>· Symposiums</li> <li>· Union Activities</li> <li>·</li> </ul>	
Availability Check Period	<ul style="list-style-type: none"> <li>· 7 Day</li> <li>· 72 Hour</li> <li>· 48 Hour</li> <li>· 12 Hour</li> </ul>	

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	<ul style="list-style-type: none"> <li>· Execution</li> <li>· Sign Off</li> </ul>	
Medical Status	<ul style="list-style-type: none"> <li>· Fit for duty</li> <li>· Fit for Exit</li> <li>· Fit for Duty Subject to Review</li> <li>· Fit for Exit Subject to Review</li> <li>· Fit for Duty Subject to Job Modification</li> <li>· Temporarily Unfit Subject to Review</li> <li>· Pending</li> <li>· Permanently Unfit for Duty</li> </ul>	
Grade	<ul style="list-style-type: none"> <li>· Train Driver</li> <li>· Train Assistant</li> <li>· Section Manager</li> <li>· Chief Shedman</li> <li>· Service Driver</li> </ul>	
Loco Type	<ul style="list-style-type: none"> <li>· Diesel</li> <li>· Electric</li> </ul>	
Time Delay Reason	<ul style="list-style-type: none"> <li>· Wait Connection Train</li> <li>· Wait Kombi</li> <li>· Wait Loco</li> <li>· Wait Wagons</li> <li>· Wait Power Failure</li> <li>· Wait Signals</li> <li>· Wait Track</li> <li>· Wait Occupation</li> <li>· Wait X Point Train</li> <li>· Wait Other Delay</li> </ul>	
Train Deviation Reason	<ul style="list-style-type: none"> <li>· Waiting at Crossing Point</li> <li>· Waiting for Load</li> <li>· Waiting for Locomotives</li> <li>· Locomotive Problems</li> <li>· Radio Problems</li> <li>· Signal Problems</li> <li>· Shunting Problems</li> <li>· Wire Theft</li> <li>· Scheduled Shift Longer than 12 H</li> <li>· Waiting for Kombi</li> <li>· Working more than 1 Shift</li> <li>· Waiting on Connection Train</li> <li>· Waiting for Instructions (NOC)</li> <li>· Waiting for Relief</li> <li>· Train Brakes</li> <li>· Hot Box</li> <li>· Dragging Wheels</li> <li>· Wait for Banker Locomotives</li> <li>· Derailments</li> <li>· Work on Tracks</li> <li>· Power Failure</li> <li>· Waiting in Section</li> </ul>	

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	<ul style="list-style-type: none"> <li>· Guaranteed Shunting Shift</li> <li>· Shunting Work</li> <li>· Actual - No Schedule</li> <li>· Actual - Longer than Scheduled T1</li> <li>· Speed Restrictions</li> <li>· Metro Refuse Passage</li> <li>· Overlapping Time</li> <li>· Re-manning</li> <li>· Train Cancelled – Locos</li> <li>· Train Cancelled – Load</li> <li>· Train Cancelled – Derailment</li> <li>· Hook-up</li> </ul>	
Train Type Description	<ul style="list-style-type: none"> <li>· Hauler</li> <li>· Shunt</li> <li>· Mainline</li> </ul>	
Risk Category	<ul style="list-style-type: none"> <li>· Substance Abuse</li> <li>· Fatigue</li> <li>· Time and Attendance</li> <li>· Medical and Psychological</li> <li>· Qualifications</li> <li>· Discipline</li> </ul>	
Risk Sub Category	<ul style="list-style-type: none"> <li>· Time and Attendance                             <ul style="list-style-type: none"> <li>○ Rest period between shifts</li> <li>○ Length of shift</li> <li>○ Over Time</li> <li>○ Rest Days</li> <li>○ Night Duty</li> <li>○ Sunday Time</li> <li>○ Sick Leave</li> <li>○ X99</li> <li>○ AWOL</li> </ul> </li> <li>· Medical and Psychological                             <ul style="list-style-type: none"> <li>○ Medical</li> <li>○ Psychological</li> <li>○ Pregnancy</li> </ul> </li> <li>· Qualifications                             <ul style="list-style-type: none"> <li>○ Refresher Training</li> <li>○ Safety Performance Monitoring</li> <li>○ Qualifications</li> </ul> </li> <li>· Discipline                             <ul style="list-style-type: none"> <li>○ Discipline</li> <li>○ Incidents</li> <li>○ Train Partings</li> </ul> </li> </ul>	
Risk Profile	<ul style="list-style-type: none"> <li>· H – High</li> <li>· M - Moderate</li> <li>· L - Low</li> </ul>	

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Shunting Activity	<ul style="list-style-type: none"> <li>- Shed/Yard</li> <li>- Trains Relieve</li> <li>- Bank/Assist</li> <li>- Light Loco</li> <li>- Passenger</li> <li>- Other</li> </ul>	
Train Indicator	<ul style="list-style-type: none"> <li>- (none)</li> <li>- Haulers</li> <li>- Hospital Hauler</li> <li>- Hospital Trains</li> <li>- Main Line Goods</li> <li>- Material Trains</li> <li>- Metro Trains</li> <li>- Passenger</li> <li>- Pilot Train</li> <li>- Relief</li> <li>- Spray Train</li> </ul>	
Trip Leg	<ul style="list-style-type: none"> <li>F – Forward</li> <li>R – Return</li> </ul>	

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3.6. Relationships (Data related Business Rules)

	ENTITY PAIR	RELATIONSHIP	AT LEAST	AT MOST		COMMENTS	
1.	<b>EMPLOYEE-TRAINING RECORD</b>	EMPLOYEE	has	0	Many	TRAINING RECORD	Each employee may have attended Many or 0 Training Courses (new employee, not trained yet)
		TRAINING RECORD	Is for	1	1	EMPLOYEE	
2.	<b>EMPLOYEE-DRIVER CATEGORY</b>	EMPLOYEE	Is classified into	0	M	DRIVER CATEGORY	An employee will only be classified as 1 DRIVER CATEGORY at a time, but can have many categories

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		DRIVER CATEGORY	Classifies	1	1	EMPLOYEE	over time (category classification changes when drivers are promoted). A new employee may not have been classified into a category yet
3.	MEDICAL RECORD - EMPLOYEE	MEDICAL RECORD	Relates to	1	1	EMPLOYEE	
		EMPLOYEE	has	0	Many	MEDICAL RECORD	
4.	SHIFT HISTORY - EMPLOYEE	EMPLOYEE	has	0	Many	SHIFT HISTORY	This refers to shifts worked by a particular person
		SHIFT HISTORY	Is for	1	1	EMPLOYEE	
5.	AVAILABILITY CHECK - EMPLOYEE	EMPLOYEE	Is rostered based on	1	Many	AVAILABILITY CHECK	
		AVAILABILITY CHECK	Determine rostering potential	1	1	EMPLOYEE	
6.	AVAILABILITY CHECK - AVAILABILITY STATUS	reveals	1	Many		AVAILABILITY STATUS	
		Is revealed thru	1	1		AVAILABILITY CHECK	
7.	EMPLOYEE - RISK PROFILE	EMPLOYEE	Is rostered according to	1	1	RISK PROFILE	
		RISK PROFILE	Can apply to	0	Many	EMPLOYEE	
8.	EMPLOYEE - DEPOT	EMPLOYEE	Has a home in	1	1	DEPOT	
		DEPOT	Is home to	0	Many	EMPLOYEE	
9.	DEPOT - DEPOT ROUTE	DEPOT	Is made up of	0	Many	DEPOT ROUTE	
		DEPOT ROUTE	Belongs to	1	1	DEPOT	
10.	EMPLOYEE - NEXT OF KIN	EMPLOYEE	Is related to	0	Many	NEXT OF KIN	
		NEXT OF KIN	Is related to	1	1	EMPLOYEE	
11.	EMPLOYEE - PLANNED EVENTS	EMPLOYEE	May attend	0	M	PLANNED EVENT	
		PLANNED EVENT	Is scheduled for	1	1	EMPLOYEE	

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12.	BASE CREW SCHEDULE - WEEKLY SCHEDULE	WEEKLY SCHEDULE	is derived from	1	1	BASE CREW SCHEDULE	
		BASE CREW SCHEDULE	Gives rise to	1	Many	WEEKLY SCHEDULE	
13.	WEEKLY SCHEDULE - WEEK DAY	WEEKLY SCHEDULE	Plans for	1	1	WEEKDAY	1 day at a time
		WEEK DAY	is planned on	1	Many	WEEKLY SCHEDULE	
14.	WEEKLY SCHEDULE - SHIFT TYPE	WEEKLY SCHEDULE	Schedules for	1	1	SHIFT TYPE	1 shift at a time
		SHIFT TYPE	is scheduled on	1	Many	WEEKLY SCHEDULE	
15.	WEEKLY SCHEDULE - CREW SCHEDULE	WEEKLY SCHEDULE	Is the basis for				
		CREW SCHEDULE	Is based on	1	Many	WEEKLY SCHEDULE	
16.	CREW SCHEDULE - ROTATED CREW SCHEDULE	CREW SCHEDULE	Gives rise to	1	Many	ROTATED CREW SCHEDULE	
		ROTATED CREW SCHEDULE	Is derived from	1	1	CREW SCHEDULE	
17.	WEEK - WEEK DAY	WEEK	Is made up of	1	Many	WEEKDAY	
		WEEK DAY	Makes up	1	1	WEEK	
18.	DUTY TIME - DAILY ROSTER	DUTY TIME	Is recorded on	1	1	DAILY ROSTER	
		DAILY ROSTER	Records	0	Many	DUTY TIME	
19.	EMPLOYEE - CREW ROLE	EMPLOYEE	Acts in	1	Many	CREW ROLE	
		CREW ROLE	Is held by	1	1	EMPLOYEE	
20.	CREW ROLE - DAILY ROSTER	CREW ROLE	Is recorded in	0	Many	DAILY ROSTER	A designated train driver being rostered as an assistant
		DAILY ROSTER	Records	1	1	CREW ROLE	
21.	DAILY ROSTER - 72 HOUR DUTY ROSTER	DAILY ROSTER	Is derived from	1	1	72HOUR DUTY ROSTER	
		72HOUR DUTY ROSTER	Is the source for	1	Many	DAILY ROSTER	
22.	ADJUSTED DUTY ROSTER - DAILY ROSTER	ADJUSTED DUTY ROSTER	Is derived from	1	1	DAILY ROSTER	
		DAILY ROSTER	Is adjusted to	0	Many	ADJUSTED ROSTER	
23.	ADJUSTED DUTY ROSTER	ADJUSTED DUTY ROSTER	Is derived from	1	1	72HOUR DUTY ROSTER	

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	- 72HOUR DUTY ROSTER	72HOUR DUTY ROSTER	Is adjusted to	0	Many	ADJUSTED DUTY ROSTER	
24.	TRAIN PLAN - 72HOUR DUTY ROSTER	TRAIN PLAN	Is rostered by	1	1	72HOUR DUTY ROSTER	
		72HOUR DUTY ROSTER	Rosters	1	1	TRAIN PLAN	
25.	TRAIN PLAN - TRAIN PLAN VERSION	TRAIN PLAN	Occurs in	0	Many	TRAIN PLAN VERSION	
		TRAIN PLAN VERSION	May exist for	1	1	TRAIN PLAN	
26.	TRAIN PLAN VERSION - ADJUSTED DUTY ROSTER	TRAIN PLAN VERSION	Leads to	1	Many	ADJUSTED DUTY ROSTER	
		ADJUSTED DUTY ROSTER	Arises from	1	1	TRAIN PLAN VERSION	
27.	BOOK OFF ROSTER - 72HOUR TRAIN PLAN	BOOK OFF ROSTER	Is derived from	0	1	TRAIN_PLAN	
		72 HOUR TRAIN PLAN	Produces	1	Many	BOOK OFF ROSTER	
28.	EMPLOYEE - NEXT SHIFT	EMPLOYEE	Is scheduled for	0	Many	NEXT SHIFT	
		NEXT SHIFT	Will be worked by	1	1	EMPLOYEE	
29.	UNAVAILABLE DAY AVAILABILITY CHECK	AVAILABILITY CHECK	Results in	0	Many	UNAVAILABLE DAY	
		UNAVAILABLE DAY	Results from	1	1	UNAVAILABILITY CHECK	

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3.1. Additional Business Rules

Business Rule ID	Business Rule	Related requirements components
BRI	The number of weekly schedules that a Base Crew Schedule has will depend on the schedule duration	

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4. Functional Requirements

4.1. User Classes/Actors

User Class	Tasks	Concerns
Roster Compiler	<ul style="list-style-type: none"> <li>Record Crew Availability</li> <li>Update crew availability status</li> <li>Determine standby requirements</li> <li>Roster book-off returns</li> </ul>	
Section Manager	<ul style="list-style-type: none"> <li>Update Crew Journals</li> <li>Sign crew on</li> <li>Sign crew off</li> <li>Adjust roster</li> <li></li> <li></li> </ul>	
	<ul style="list-style-type: none"> <li></li> </ul>	

4.2. Initial Design Plan

Each essential process is listed below. Each process has been evaluated and rated by the project team, based on the current process efficiency and the project objectives.

Essential Process	Automation Desired Y or N	Functional Design	Business Priority H,M,L	Technical Priority H,M,L	Estimated Cost H, M, L	Phase	Use Case ID
CMS01_Create Base Weekly Schedule	Y	<ul style="list-style-type: none"> <li>Capture Screen</li> <li>Automated System Functionality</li> </ul>			L		
CMS02_Link Crew to Schedule	Y	<ul style="list-style-type: none"> <li>Automated system functionality</li> </ul>					
CMS03_Rotate Crew Schedule	Y	<ul style="list-style-type: none"> <li>Automated system functionality</li> </ul>					
CMS04_Determine Crew Availability (Planned Absences/attendance)	Y	<ul style="list-style-type: none"> <li>Internal interface to SAP database</li> </ul>				Module 1	

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Essential Process	Automation Desired Y or N	Functional Design	Business Priority H,M,L	Technical Priority H,M,L	Estimated Cost H, M, L	Phase	Use Case ID
CMS05_Record Crew Availability	Y	- Capture Screen					
CMS06_Compile weekly crew availability schedule	Y	- Automated system functionality					
CMS07_Determine Standby Requirements	Y	- Automated system functionality					
CMS08_Compile and Publish weekly shift schedule	Y	- Automated system functionality					
CMS09_Obtain Book-off train plan	Y	- Internal interface to ITP database - Automated system functionality					
CMS10_Obtain Non Book-off Train Plan	Y	- Internal interface to ITP database - Automated system functionality					
CMS11_Create Train	Y	- Capture Screen - Automated system functionality					
CMS12_Determine Crew Availability	Y	- Automated system functionality - Capture Screen???					
CMS13_Confirm crew risk profile	Y	- Internal interface to SAP database (Crew Risk Profile Viewer)					
CMS14_Obtain Crew Qualifications	Y	- Internal interface to SAP database				Module 1	

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Essential Process	Automation Desired Y or N	Functional Design	Business Priority H,M,L	Technical Priority H,M,L	Estimated Cost H, M, L	Phase	Use Case ID
CMS15_Match crew skills to train requirements	Y	- Automated system functionality					
CMS16_Compile Book-Off Roster	Y	- Automated system functionality					
CMS17_Compile Non Book-Off Roster	Y	- Automated system functionality					
CMS18_Adjust Roster (also CMS20 & CMS25)	Y	- Capture Screen					
CMS19_Sign on Crew	Y	- Capture Screen					
CMS20_Adjust roster as required (see CMS18 – Adjust Roster)	Y	- Capture Screen					
CMS21_Sign Crew Off	Y	- Capture Screen					
CMS22_Update Crew Qualifications	Y	- Automated system functionality					
CMS23_Update last shift	Y	- Automated system functionality					
CMS24_Roster Book-Off Returns	Y	- Automated system functionality?? - Capture Screen???					
CMS25_Ajdst Roster to accommodate book-off	Y	- Capture screen					
CMS26_Update Availability status (e.g. Suspended, if substance abuse test is positive)	Y	- Capture screen - Automated system functionality (Interface to					

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Essential Process	Automation Desired Y o N	Functional Design	Business Priority H,M,L	Technical Priority H,M,L	Estimated Cost H, M, L	Phase	Use Case ID
		Update SAP)???					

4.3. Design Phases

The software will be designed and constructed in the following phases

Phase	Description of work
1	
1	
1	

4.4. Functional Requirements module 2

Based on the priorities listed above and the project budget, the following processes have been selected to be included in Module 2 of the project. The design will include:

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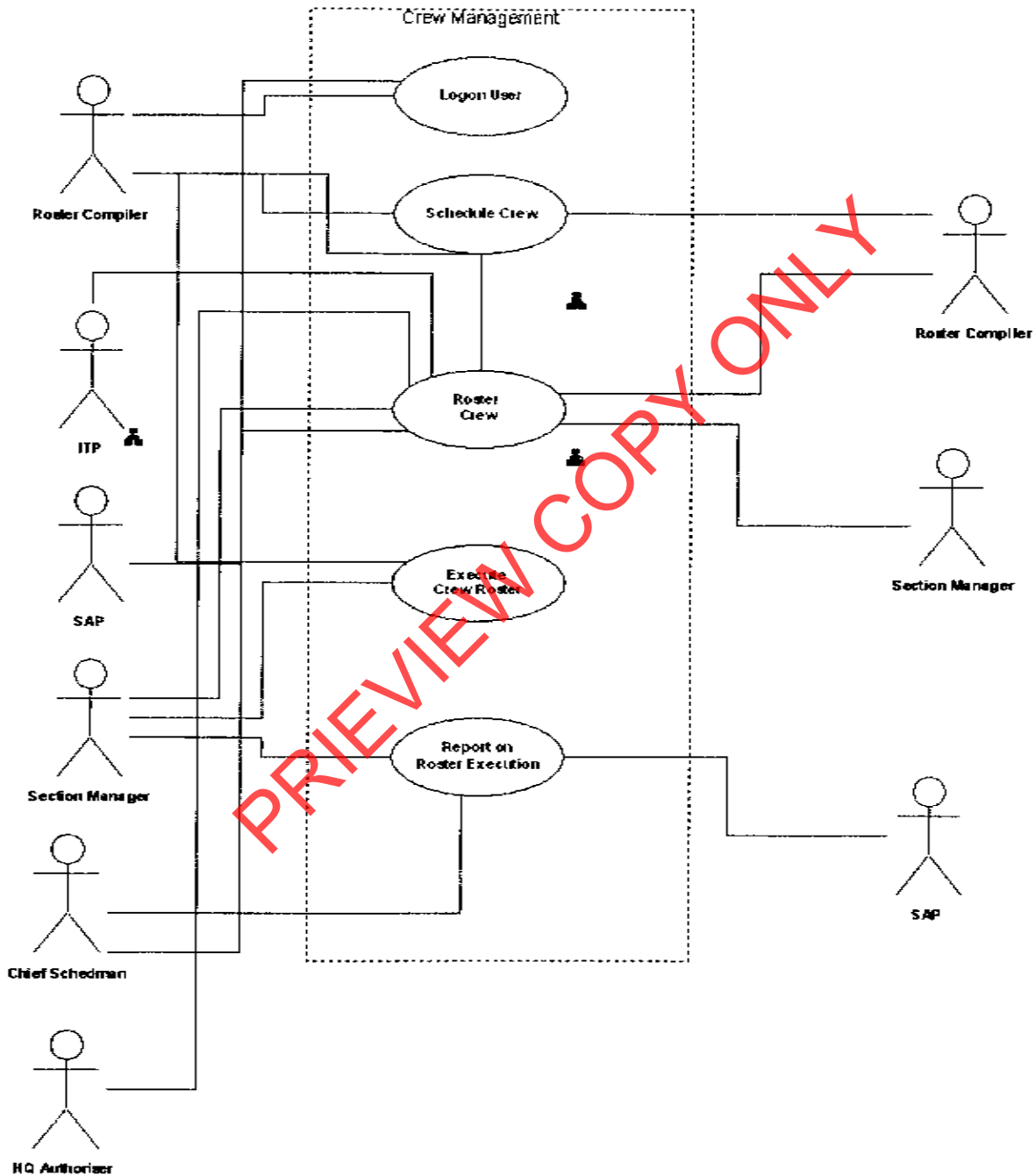
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4.4.1. Use Case Diagram

Crew Management System - High Level Use Case Diagram



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4.4.2. Workflows

4.5. System functionality

4.5.1. System Use Case list



4.6. USER INTERFACES

4.7. REPORTS

5. Approved Abbreviations and acronyms

TFR	Transnet Freight Rail
TCM	Train Crew Management
BCEA	Basic Conditions of Employment Act
EAP	Employee Assistance Program
AWOL	Absent Without Leave
ITP	Integrated Train Plan
CMS	Crew Management System
RM	Resource Management

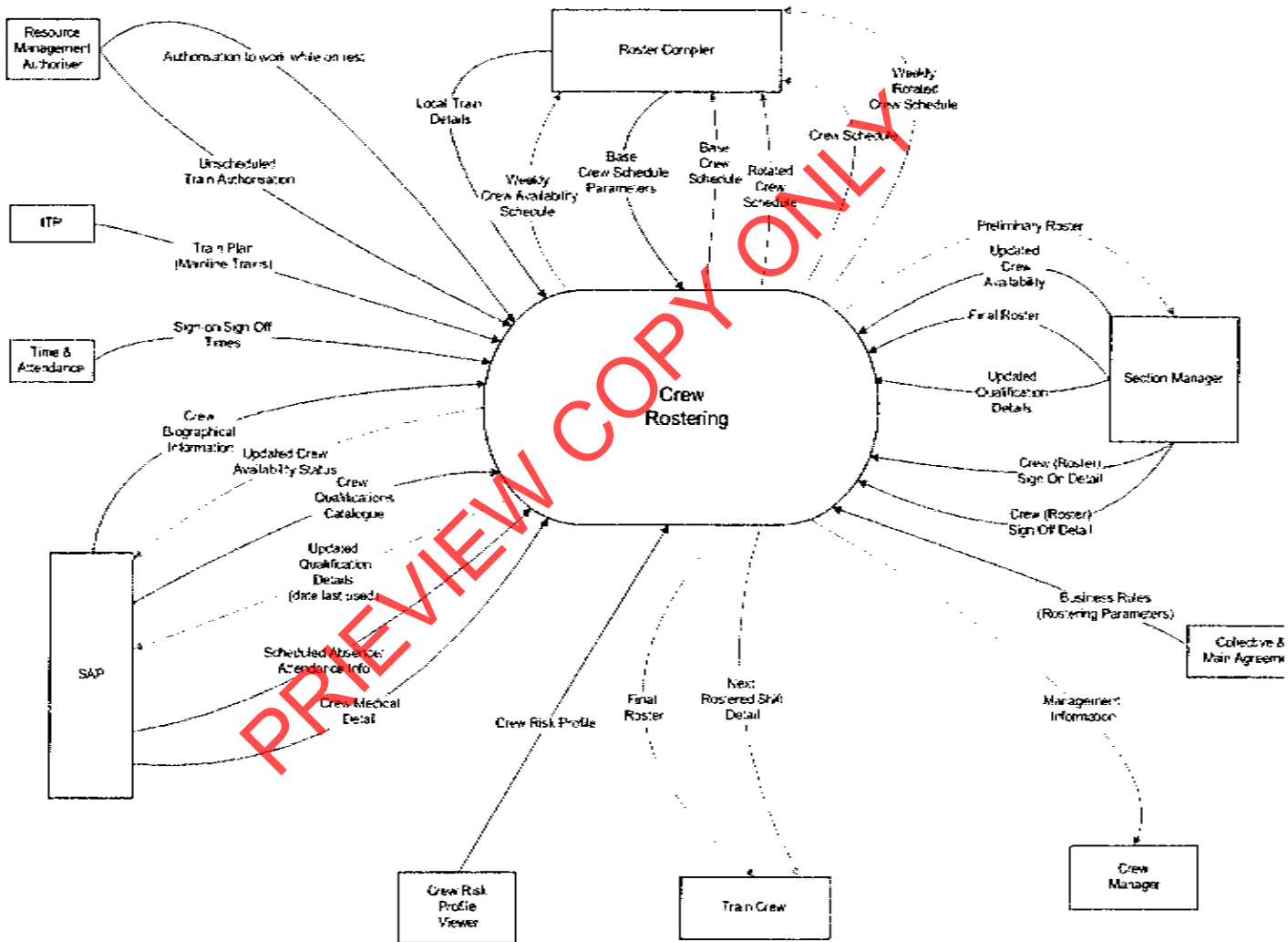
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High-level context diagram of the Train Crew Management process.



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## 5. Deliverables

The aim of this initiative is to develop a crew management system on behalf of the National Crew manager geared to meet the following deliverables:

- Ability to produce detailed roster schedules per region, depot as well as nationally.
- Ability to provide train crew drivers and their assistants with detailed work assignments.
- The new rostering component will support the existing rostering methods employed by TFR.
- The new rostering system will allow some level of flexibility so as to incorporate any organisational specific business rules.
- Full integration is required to the existing TFR operational and planning systems.
- Full integration is also required with the SAP HR system which hosts all employee related information such as leave schedules, training attended, qualifications etc.
- TFR requires the ability to simulate different rostering scenarios. The new application must be able to offer the planner a range of rostering scenarios which will adequately support the national train plan.
- All system related documentation applicable to the implementation at TFR must be provided as part of the deployment of the solution.
- Training manuals must be provided so as to ensure that the end-user is completely trained on the system functionality.
- Full compliance is required with the IT architecture utilised by TFR.
- Full compliance is required with the security standards relating to system security.

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## 6. Evaluation Process

The suppliers will be evaluated on:

- Technical skills - Sapiens eMerge development
- Oracle 10g(DDL,DML,PL SQL)
- Java and or .net development
- XML and XML Schemas
- Web services
- WSDL
- SOA concepts
- SOAP
- Exposure and experience in SDLC
- Has the resources developed any system using eMerge
- Time line
- All technical skill must be substantiated with formal qualifications

Herewith is a brief description of the TFR IT architecture:

- The TFR development environment choice is Java on IBM Websphere Application server (V6.0x)
- Sapiens eMerge Version 45.10 on Windows 2003 R2
- Database is Oracle 10g R2 (minimum 10.2.0.4).
- Integration platform is webMethods (V7.1).
- The workflow engine is webMethods.
- Web based Graphical User Interface using HTML, JSP and XML.



**TRANSNET LIMITED / CONTRACTORS / SUB-CONTRACTORS**

**CONTRACTUAL SAFETY CLAUSES WHICH WILL FORM PART OF ANY RESULTING CONTRACT**

The parties agree on the following arrangements according to section 37 (2) of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) to ensure compliance by the mandatory with provisions of the Act.

- 1) That the contractor is an “employer” in his own right as defined in section 1 of Act 85 of 1993 and that he must fulfill all his obligations as an employer in terms of the Act.
- 2) The contractor shall comply with the requirements of Act 85 of 1993 in its entirety.
- 3) Where special permits are required, such as electrical switching, hot work permits, etc. the contractor shall obtain them from a person designated by Transnet Limited for this purpose, and all requirements of the contractor must rigidly comply with the permit.
- 4) The contractor shall conduct a risk assessment of the work to be performed by a competent person prior to the commencement of work, to identify risks and hazards that persons may be exposed to, analyse and evaluate identified hazards.
- 5) The contractor shall have a documented Health and Safety Plan based on the risks and hazards identified before commencement of work.
- 6) The Health and Safety Plan shall include the following:
  - 6.1 The safety management structure to be instituted with all appointments in terms of the Act and Regulations
  - 6.2 The safe working methods and procedures to be implemented to ensure work is performed in compliance to the Act.
  - 6.3 The safety equipment, devices and clothing to be made available by the contractor to his employees.
  - 6.4 The site access control measures pertaining to health and safety to be implemented.
  - 6.5 Control measures for ensuring that the Health and Safety Plan is maintained and monitored for the duration of the contract.
- 7) The contractor shall ensure that all work is performed under the close supervision of a person trained to understand the hazards associated with the work performed and who has authority to ensure that the necessary precautionary measures are implemented.

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- 8) The contractor must appoint a Health and Safety Co-ordinator to liaise with Transnet Limited on matters pertaining to occupational health and safety.
- 9) The appointed Safety Co-ordinator must liaise at least once a week with the\* Health and Safety Section / Risk Manager /Occupational Risk Manager of Transnet Limited.
- 10) The contractor shall furnish the\* Health and Safety Section/ Risk Manager/ Occupational Risk Manager of Transnet Limited immediately with full particulars of any sub-contractor which he may involve in the contract in order that the sub-contractor himself can be made aware of all the clauses in this contract pertaining to health and safety.
- 11) The contractor shall stop any subcontractor from executing work which is not in accordance with the Health and Safety Plan or which poses a threat to health and safety of persons.
- 12) The contractor shall ensure that all his employees and visitors undergoes health and safety induction pertaining to the hazards prevalent, proof of such training must be kept on file.
- 13) In the event where the risk assessment reveals the risk relating to working from an elevated position the contractor shall cause the designation of a competent person, responsible for the preparation of a Fall Protection Plan.
- 14) The Fall Protection Plan shall include:
  - 14.1 A risk assessment of all work carried out from an elevated position
  - 14.2 Procedures and methods to address all the identified risks per location
  - 14.3 Evaluation of employees physical and psychological fitness necessary to work at elevated position.
  - 14.4 The training of employees working from an elevated position.
  - 14.5 Procedure addressing the inspection, testing and maintenance of all fall protection equipment.
- 15) The contractor shall advise the \* Health and Safety Section / Risk Manager/ Occupational Risk Manager of Transnet Limited of any hazardous situations which may arise from work being performed either by the contractor or his sub-contractor.
- 16) Copies of all appointments required by the act must be given to \* Health and Safety Section / Risk Manager / Occupational Risk Manager of Transnet Limited.
- 17) The contractor shall ensure that a Health and Safety File is available which shall include all documentation as required by the Act, copy of his and his subcontractors Risk Assessment and Health and Safety Plan.
- 18) All incidents referred to in Section 24 of the Act involving the contractor and his subcontractor on Transnet Ltd premises, shall be reported as prescribed. Transnet Ltd hereby obtains an interest in the issue of any investigation, formal inquiry conducted in terms of Section 31 and 32 of the Act into any incident involving the contractor, his subcontractor, any person or machinery under his control on Transnet Ltd premises.
- 19) No alcohol or any other intoxicating substance shall be allowed on Transnet Ltd premises. The contractor shall not allow anyone under or suspected to be under the influence of alcohol or any other intoxicating substance on Transnet Ltd premises.

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- 20) A letter of good standing in terms of Section 80 (Employer to register with the Compensation Commissioner) of the Compensation for Occupational Injuries and Disease Act 1993 (Act 130 of 1993) must also be furnished.
- 21) All clauses in the contract pertaining health and safety forms an integral part of the contract and if not complied with may be construed as breach of contract.

\*As applicable

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**SECTION 3**

**RFQ NO: HOAC-JHB-05831**

**A REQUEST FO A PROPOSAL FOR THE PROVISION OF  
SKILLED RESOURCES TO HELP WITH THE DEVELOPMENT OF CREW  
MANAGEMENT SYSTEMS**

**CERTIFICATE OF ATTENDACE OF RFQ INFORMATION MEETING**

**Refer Document attached hereto**

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**TENDER BRIEFING SESSION:**

A **COMPULSORY** tender briefing session will be held at the following venue:

Time : 10:00 to 12:00

Date : 14<sup>th</sup> December 2009

Venue : ...Boardroom R1408, Logistic House, 39 Wolmarans Str

Town/City : Braamfontein JHB

The briefing session is compulsory and companies not attending **will be overlooked** during the tender process.

**1 ATTENDANCE CERTIFICATE**

This is to certify that.....

Representative/s of .....

Has/have today attended the Tender Briefing in respect of the proposed:

.....

TRANSNET'S REPRESENTATIVE  
REPRESENTATIVE

TENDERER'S

DATE :.....

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**VERY IMPORTANT**

**ANY TENDERER NOT ATTENDING THE BRIEFING SESSION WILL AUTOMATICALLY BE EXCLUDED FROM THE TENDER PROCESS**

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**SECTION 4**

**RFQ NO: HOAC-JHB-05831**

**A REQUEST FO A PROPOSAL FOR THE PROVISION OF  
SKILLED RESOURCES TO HELP WITH THE DEVELOPMENT OF CREW  
MANAGEMENT SYSTEMS**

**RETURNABLE SCHEDULE / DOCUMENTS**

**Refer Document attached hereto**

**PREVIEW COPY ONLY**

\_\_\_\_\_  
Respondent's signature

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Date and company stamp



**C.I.Returnable Schedules / Documents required for tender evaluation purposes (By e.g.**

	Returnable Schedules / Documents	YES/NO/N/A
1	Certificate Of Authority For Joint Ventures (Where Applicable)	X
2	Schedule of the Tenderers Experience	X
3	Certificate of Attendance at Clarification Meeting	X
4	Labour Payment Schedule	X
5	Supplier Declaration form (version2)	X
6	Letter of Good Standing with the Compensation Commissioner	X
7	Original / Certified BBBEE Rating Certificate With Detailed Scorecard	X
8	Statement Of Compliance With Requirements Of The Scope Of Work	X
9	Certified Copy of Financial Statements (for the past 3 years) including Balance sheets where BBBEE not provided.	X
10	Certified Copy of Share Certificates CK1 & CK2	X
11	Certified Copy Of Certificate Of Incorporation and CM29 and CM9	X
12	Certified Copy of Identity Documents of Shareholders/Directors/Members (Where Applicable)	X
13	Cancelled Cheque	X
14	Original current Tax Clearance Certificate	X
15	Original Vat Registration Certificate	X
16	Copy of BEE Policy/BEE Plan/Employment Policy/Procurement Policy	X

Respondent's signature

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Date and company stamp

TRANSNET



**SECTION 5**

**RFQ NO: HOAC-JHB-05831**

**A REQUEST FOR A PROPOSAL FOR THE PROVISION OF  
SKILLED RESOURCES TO HELP WITH THE DEVELOPMENT OF CREW  
MANAGEMENT SYSTEMS**

**SUPPLIER DECLARATION FORM**

**Refer Document attached hereto**

**PREVIEW COPY ONLY**

\_\_\_\_\_  
Respondent's signature

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Date and company stamp

TRANSNET



**SECTION 6**

RFQ NO: HOAC-JHB-05831

**A REQUEST FOR A PROPOSAL FOR THE PROVISION OF  
SKILLED RESOURCES TO HELP WITH THE DEVELOPMENT OF CREW  
MANAGEMENT SYSTEMS**

**GENERAL TENDER CONDITIONS (CSS5-SERVICES)**

Refer Document attached hereto

**PREVIEW COPY ONLY**

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Respondent's signature

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Date and company stamp

TRANSNET



**SECTION 7**

**RFQ NO: HOAC-JHB-05831**

**A REQUEST FOR A PROPOSAL FOR THE PROVISION OF  
SKILLED RESOURCES TO HELP WITH THE DEVELOPMENT OF CREW  
MANAGEMENT SYSTEMS**

**STANDARD TERMS AND CONDITIONS OF CONTRACT (US7 – SERVICES)**

**Refer Document attached hereto**

**PREVIEW COPY ONLY**

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Respondent's signature

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Date and company stamp

TRANSNET



**SECTION 8**

RFQ NO: HOAC-JHB-05831

**A REQUEST FOR A PROPOSAL FOR THE PROVISION OF  
SKILLED RESOURCES TO HELP WITH THE DEVELOPMENT OF CREW  
MANAGEMENT SYSTEMS**

**NON-DISCLOSURE AGREEMENT**

Refer Document attached hereto

**PREVIEW COPY ONLY**

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Respondent's signature

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Date and company stamp



TRANSNET



**SECTION 9**

**RFQ NO: HOAC-JHB-05831**

**A REQUEST FO A PROPOSAL FOR THE PROVISION OF  
SKILLED RESOURCES TO HELP WITH THE DEVELOPMENT OF CREW  
MANAGEMENT SYSTEMS**

**SUPPLIER CODE OF CONDUCT**

**Refer Document attached hereto**

**PREVIEW COPY ONLY**

\_\_\_\_\_  
Respondent's signature

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Date and company stamp

**Beverley Ramaru      Transnet Freight Rail   JHB**

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**From:** Rightfax E-mail Gateway [Tsnrfax@Spoornet.co.za]  
**Sent:** 03 December 2009 09:05 AM  
**To:** Beverley Ramaru      Transnet Freight Rail   JHB  
**Subject:** Your fax has been successfully sent to SURGE TECH at 0117936928.

Your fax has been successfully sent to SURGE TECH at 0117936928.

-----  
Account: 01200  
Matter: 410014  
-----

Time: 12/3/2009 8:54:21 AM  
Sent to 0117936928 with remote ID ""  
Result: (0/339;0/0) Successful Send  
Page record: 1 - 5  
Elapsed time: 00:54 on channel 16

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