

Interaction Protocols

| Relation(Airline/Transport Supervisor) | Relation(Supervisor RRHH/Airline) |
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| Name of protocol: Report Vehicles Initiator: Transport Supervisor Reptor: Airline Inputs: Wellness Function Objective Outputs Description: The Transport Supervisor sends the information and the basic indicators of the | Name of protocol Report indicators of RRHH and schedules Initiator: Supervisor RRHH Reptor: Airline Inputs: Agent's Schedule and Fuction objeive of customer service agents Outputs Print out agent's schedules and fuction objective Description: Once the HR Supervisor agent obtains the best agent schedule solution |
| Relation(Transport Supervisor/Customer Service Agent) | Relation(Transport Supervisor/Airline) |
| Name of protocol Report leader selection Initiator: Transport supervisor Reptor: Customer service agent Inputs: Leader Outputs List of agents which ones the leader must to negotiate Description: The Transportation Supervisor reports to the leader (departure and return trip) that he is the leader in certain strips with the list of agents with whom he must | Name of protocol Solicit vehicles Initiator: Airline Reptor: Transport supervisor Inputs: Agent's Schedules Outputs Agents routes with needs of transport Description: The Airline agent requests the Transportation Supervisor to generate the routes of those customer service agents that must be transported |
| Relation(Supervisor RRHH/Customer Service Agent) | Relation(Customer Service Agent/ Transport Supervisor) |
| Name of protocol: Request combinatorial with shcedules Initiator: RRHH Supervisor Reptor: Customer service agent Inputs: Combitary number for the genetic algorithm Outputs Agent's weekly schedule Description: The HR Supervising Agent sends a decimal number indicating the combinatorial number that the Customer Service Agent must search to generate its weekly | Name of protocol: Report vehicle Initiator: Customer service agent Reptor: Transport supervisor Inputs: Clusters Outputs List of agents and order in which the vehicle route will be made in the strip Description: The Customer Service Agents (leaders) report to the Transportation Supervisor the vehicles made in the strip for their evaluation. |
| Relation(Customer Service Agent/ Customer Service Agent) | Relation(Supervisor RRHH/Customer Service Agent) |
| Name of protocol: Send vehicle invitations Initiator: Customer Service Agent Reptor: Customer Service Agent Inputs: Outputs Invitation Description: The leader sends invitations to the other customer service agents asking possible candidates to be able to conform the vehicle (Arrival trip/ Departure trip) | Name of protocol: Report weekly shchedules Initiator: Customer Service Agent Reptor: RRHH Supervisor Inputs: Outputs Agent's weekly schedule Description: The Customer Service Agent based on its internal rules and the combination number to generate the weekly schedule that the agent must |
| Relation(Customer Service Agent/ Customer Service Agent) | Relation(Customer Service Agent/ Customer Service Agent) |
| Name of protocol: Send Request change of Activity Initiator: Customer Service Agent Reptor: Customer Service Agent Inputs: The activity in the strip must change Outputs Invitation Description: Given a change in demand peaks or due to problems sent by other agents in the time slot to change, agents may request changes in their activities in order to | Name of protocol: Accept invitation - Dimiss invitation Initiator: Customer Service Agent Reptor: Customer Service Agent Inputs: Invitation containing check-in time Outputs Invitation status Description: The agent's internal rules (liveness and safety restrictions) decide if it is feasible or not feasible to belong to the vehicle |
| Relation(Customer Service Agent/ Customer Service Agent) | |
| Name of protocol: Accept Change Initiator: Customer Service Agent Reptor: Customer Service Agent Inputs: Outputs Invitation status Description: The change to be made is evaluated to be beneficial to the airline, as long as the agent's internal restrictions are not violated. | |