Protocols of Interaction

Relation(Airline/Transport Supervisor)

Name of protocol:	Report Vehicles
Iniciator:	Transport Supervisor
Receptor:	Airline
Inputs:	Wellness Function Objective
Outputs	
Description:	The Transport Supervisor sends the information and the basic indicators of the

Relation(Customer Service Supervisor/Airline)

Name of protocol	Report indicators of RRHH and schedules
Iniciator:	Customer service supervisor
Receptor:	Airline
Inputs:	Agent's Schedule and Fuction objetive of customer service agents
Outputs	Print out agent's schedules and fuction objetive
Description:	Once the HR Supervisor agent obtains the best agent schedule solution

Relation(Transport Supervisor/Customer Service Agent)

Name of protocol	Report leader selection
Iniciator:	Transport supervisor
Receptor:	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

Relation(Transport Supervisor/Airline)

Name of protocol	Solicit vehicles
Iniciator:	Airline
Receptor:	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(Customer service supervisor/Customer Service Agent)

Name of protocol:	Request combinatorial with shcedules
Iniciator:	Customer service supervisor
Receptor:	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

Relation(Customer Service Agent/ Transport Supervisor)

Name of protocol:	Report vehicle
Iniciator:	Customer service agent
Receptor:	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)

Name of protocol:	Send vehicle invitations
Iniciator:	Customer Service Agent
Receptor:	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)

Relation(Customer Service Supervisor/Customer Service Agent)

Name of protocol:	Report weekly shedules
Iniciator:	Customer Service Agent
Receptor:	Customer Service 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)

Name of protocol:	Send Request change of Activity
Iniciator:	Customer Service Agent
Receptor:	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

Relation(Customer Service Agent/ Customer Service Agent)

Name of protocol:	Accept invitation - Dimiss invitation
Iniciator:	Customer Service Agent
Receptor:	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
Iniciator:	Customer Service Agent
Receptor:	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.