

**ABSTRACT****COMMUNICATION RELAY DEVICE FOR TRAIN AND COMMUNICATION  
RELAY METHOD FOR TRAIN**

5        To provide a communication relay device for a train  
and a communication relay method thereof making it possible  
to perform communications between devices and facilitate  
management of communication identification information even  
when communication identification information such as a  
10    redundant IP address is given to the same type of devices  
installed in different vehicles, and making it possible to  
perform a flexible operation at the time of merging or  
dividing of vehicle formations. When data is transmitted  
from a communication terminal (4a) to a communication  
15    terminal (4b), a communication relay device (1a) converts  
car identification information of a communication source of  
communication-source identification information included in  
a communication packet into a car number of a vehicle (9),  
and transmits the data to an inter-vehicle communication  
20    path (2a). When data is transmitted from the communication  
terminal (4b) to the communication terminal (4a), the  
communication relay device (1a) converts car identification  
information of a communication destination of  
communication-destination identification information  
25    included in a communication packet into a "0"-th car  
indicating own car, and transmits the data to an in-vehicle  
communication path (3a).

**Fig.2**