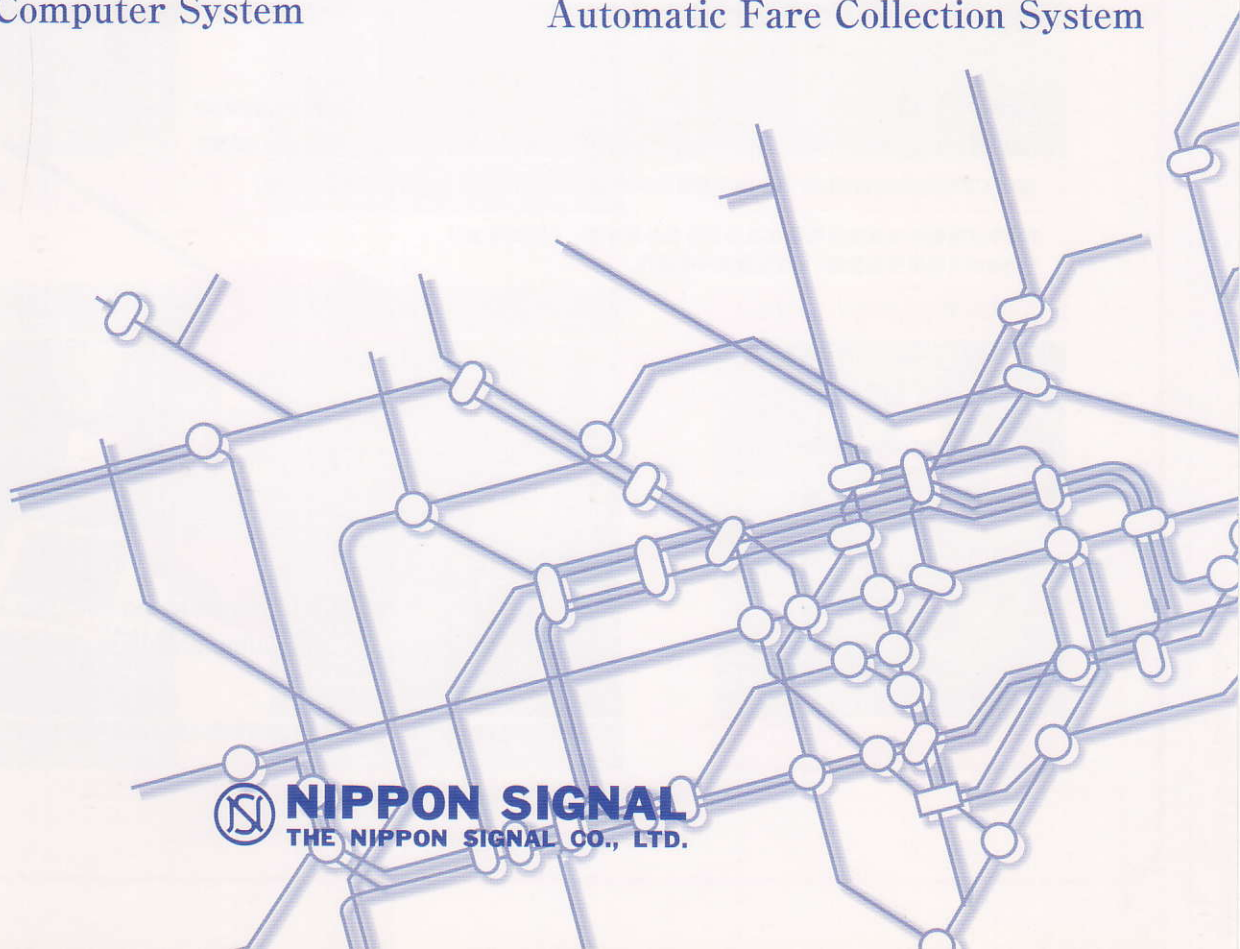




C.C.S for A.F.C

Central Computer System

Automatic Fare Collection System



NIPPON SIGNAL
THE NIPPON SIGNAL CO., LTD.

Realizing of high performance by distributed processing

The AFC center computers the Nippon Signal Co., Ltd.

高性能、分散型处理——日本信号 AFC 中心计算机系统

Duty Management System

考勤管理系统

Engages in duty management for station staff. This system generates duty schedule tables, and performs results management and calculating of payroll.

管理车站值班员的考勤。可制作值班表、进行实际考勤管理和工资计算。

Fare Management System

运费管理系统

Generates determination conditions for fares and various tickets used in station equipment from the database. This system delivers data to each station equipment and updates fares and determination conditions.

系统依据数据库生成站务机器使用的票价及各种车票、卡的判断条件，并向各站务机器发送数据，更新运费及判断条件。

Revenue Management System

收入管理系统

Collects income and expenditure data and use data from each station equipment, and outputs various statistical data for the management.

汇总各站务机器的收支数据、使用数据，输出经营上需要的各种统计数据。

System proposed by



Remote Supervisory Control System 远程监视控制系统

Allows remote supervisory control of unmanned stations and gates. With remote operations, this system performs supervisory and control for each station equipment, interaction with passengers over intercoms, and video monitoring by cameras.

对无人值守的车站或检票口进行远程监控。通过远程操作实现对各种站务机器的监视和操作；通过对讲机可与乘客通话；通过摄像机进行图像监视。

Maintenance Management System 维修管理系统

Administers operating conditions for each station equipment. This system collects operating data and failure data generated at each station equipment, accelerates the recovery work, and grasps replacement timing for maintenance parts. It changes various parameters for station equipment.

管理各站务机器的运行状况。汇总各机器的运行、故障数据，迅速恢复使用，并可掌握零件的更换时间。也可更改站务机器的各种参数。

IC Card Management System IC卡管理系统

Performs distribution management for IC cards, collecting of use conditions, and control of availability for each card.

可进行IC卡的流通管理、收集IC卡的使用状况，并可决定每一张卡能否使用。

The information processing technologies for station equipment made rapid progress, it is now possible to collect various information correctly, promptly, and in detail. It is indispensable conditions for the head office system in the enterprise that controls every station to unify enormous information collected from station equipment in each station, and to build up the system equipment environment with high reliability, which can provide necessary information at any time, and high cost performance. The AFC Center Computer System from the Nippon Signal has lately attracted considerable attention as a dis-

tributed center system for the next generation that takes reduction of operating costs and maintenance expenditure into consideration.

站务机器的信息处理技术日新月异，已可实现正确、迅速、详细地汇总各种信息。能够对各站进行统一管理的本社系统有三个不可缺因素：对各站站务机器收集的海量信息进行统一管理；能够随时提供所需信息，且可靠性高；优良的性价比。日本信号研制开发的新一代分散型AFC中心计算机系统因其充分考虑到降低运营成本 and 削减维护费用而倍受关注。

Labor-saving, High Efficiency, Space reduct

省力、高效、省空间… 面面俱全的网络

Head Office System 本社系统

- Revenue server and Operation server are installed in the computer room.
- Totals fare adjustment data among railway companies, generates data, and outputs MT and assignment tables to be delivered to stations of other companies.
- Reads fare adjustment data from stations of other railway companies, and generates data for accounting system.
- Supports generating common fare data, and delivers that data to each station.
- Installs operation terminals in each section to operate each server and provides appropriate functions according to the application.

- 收入服务器、运营服务器设置于机房。
- 进行公司间的结算汇总、数据生成，并将需交给其他公司的MT帐表打印出来。
- 读取其他公司传来的补票数据，生成面向财务系统的数据。
- 支持作成通用运营数据，并向各站发送。
- 在各个部门配置其服务器的操作端末，并根据用途改变其功能。



▲ Head Office System

▲ 本社系统



▲ Card Encoder

▲ Operation Terminal

- Issues cards.
- Issues various tickets.

- 磁卡发行机
- 可发行通用储值卡。
- 可发行各种乘车证。

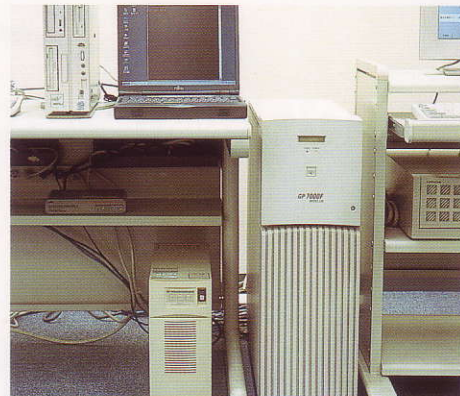


▲ Operation Terminal for Maintenance

- Computers execute operating revenue server and operation server. (Data input and report output).

维修操作端末

- 在计算机上可对收入服务器、运营服务器进行操作。
- (输入数据、打印帐表)

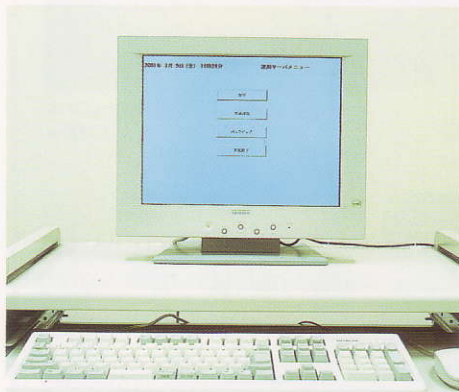


▲ Revenue Server

- Collecting and managing revenue type server.

营业收入服务器

- 营业收入数据的收集和管理。



▲ Operation Server

- Collects, totals, and saves OD data and transfer data.
- Sets various parameters and delivers them to station equipment.
- Generates and delivers common fare data.

运营服务器

- OD数据、运行数据的收集、统计和保存。
- 各种参数的设定、向站务机器发送信息。
- 通用运营数据的生成、发送。

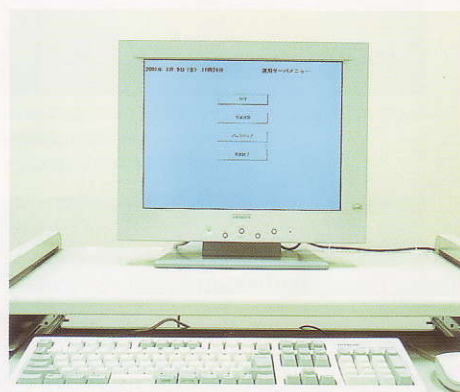


▲ Operation Terminal for Revenue

- The passenger section operates revenue server and operation server. (Data input, report output, and MT output.)

收入操作端末

- 设于乘客办公室可对收入服务器、运营服务器进行操作。
- (输入数据、打印帐表、MT输出)



▲ Operation Terminal for Service

- Installed in the transportation room and engages in tasks related to revenue server and operation server. (Data input and report output)

服务操作端末

- 设于运营办公室，进行和收入服务器、运营服务器有关的操作。
- (输入数据、打印帐表)

ion All-round Network System

各系统

Major Output Reports (Total Number of Reports: Approximately 70types) ■主要输出印帐表 (共约70种帐表)

Revenue System	收入方面	Operation System	运营方面
<ul style="list-style-type: none"> •Revenue report /inequaty report •Handling report •Transfer adjustment report •Receiving definition report •Financial closing report •Statistical report/annual report •Card management report 	<ul style="list-style-type: none"> •收入帐票/金额超出或不足帐表 •实施操作表 •联络清算帐表 •接收确认表 •决算报表 •统计报表/年报 •磁卡管理帐表 	<ul style="list-style-type: none"> •Operating data of each terminal equipment (automatic vending machine, automatic gate,automatic fare adjustment machine,etc.) •OD tables for each station •Number of passengers table for each automatic gate •ID table of lost and stolen commuter passes for workers •Common fare data sending status table 	<ul style="list-style-type: none"> •各端末设备 (自动售票机、自动检票机、自动补票机等) 的数据 •各站OD数据表 •自动检票机通过人员表 •无效月票ID表 •通用票价数据发送状况表

Network System 网络系统

•Stations are connected through optical integrated transmission channels for networking. The head office system executes revenue management and operation management.

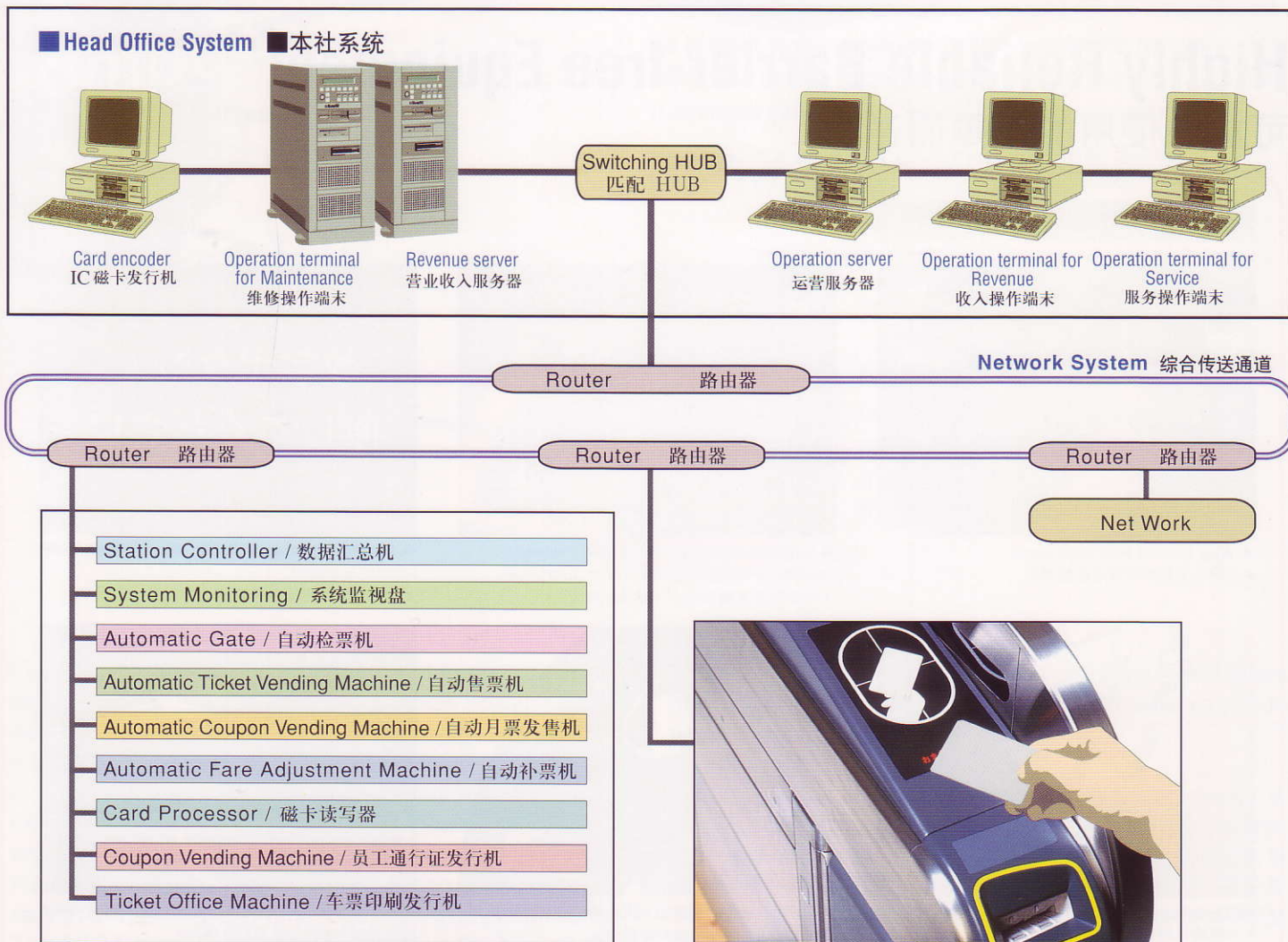
•利用光纤传送通路将各站之间网络化,在本社系统进行营业收入和运营管理。

•Terminal equipment of each station is also connected through optical integrated transmission channels.

•各站端末设备之间也通过光纤通路连接。

•As the coupon ticket printing and issuing machine can freely change settings for the station,issuing data is installed in the data collector of that station from the floppy disk.

•售票机可根据站的情况自由设定,并可将其数据保存在软盘里。



Remote Monitoring System for Watching Security

远程监视系统守护安全

Remote Monitoring System 远程监视系统



▲ Remote monitoring corner
• 远程监视口



▲ Intercom
• 对讲机



▲ Monitor display images
• 监视器图像



▲ Remote fare adjustment instruction screen
• 远程补票指示画面



▲ Monitor Camera (ticket vending machine)
• 监视摄像机

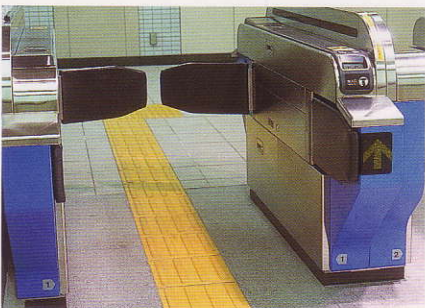


▲ Video screen (fare adjustment machine)
• 图像画面 (补票机)

Highly Reliable Barrier-free Equipment

可放心使用的无障碍通道

Barrier-free 无障碍通道



▲ Wide gate for the handicapped
• 残障人士使用的宽通道检票机



▲ Customer operation unit on ticket vending machine (with ten-key and braille guidance)
• 售票机乘客操作部分 (键盘、盲文)



▲ Operation guidance display on automatic ticket vending machine
• 自动售票机的操作提示



▲ Barrier-free automatic ticket vending machine
• 无障碍自动售票机



▲ Ticket insertion slot of automatic gate (with yellow indicated frame and braille plate)
• 自动售票机的投票口 (镶边、盲文)



▲ Ticket pick-up slot of automatic gate (with yellow indicated frame and braille plate)
• 自动售票机的取票口 (镶边、盲文)

Each Equipment with High Performance Backs Up Railway Company for New Century

具有成熟使用经验的各种设备使新世纪的铁路如虎添翼

Station Controller



数据汇总机

System Monitoring



系统监视盘

Automatic Ticket Vending Machine



自动售票机

Automatic Gate



自动检票机

Automatic Fare Adjustment Machine



自动补票机

Automatic Coupon Vending Machine



自动月票发售机

Card Processor



磁卡读写器

Multi-functional Processing Machine

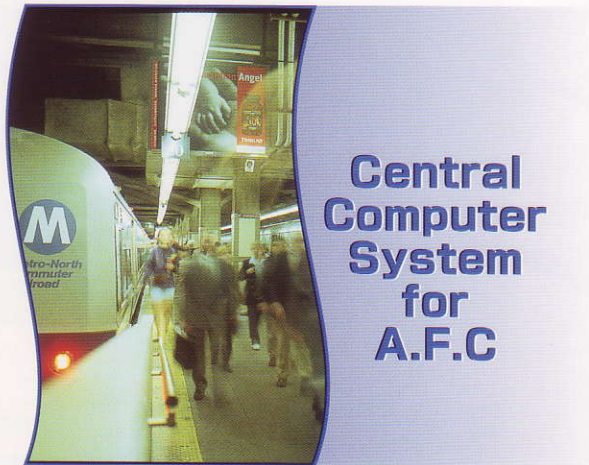


多功能终端机

Coupon Vending Machine



月票发行机



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