

A Multimodal, Multi-operator, Seamless Public Transport Ticketing System

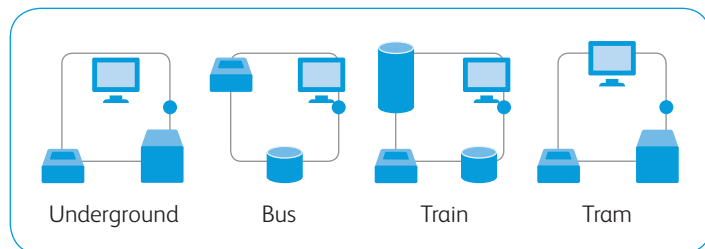
One of the world's leading ticketing specialists, Xerox, has produced the first system that aligns with the ambitions of public transport policy. Scalable and based on leading standards, Atlas guarantees the highest long-term return on investment in travel solutions within and between cities.

Multimodal, Multi-operator and Seamless

Atlas is the first ticketing system designed to handle an unlimited number of databases and applications. This makes it a naturally multimodal, multi-operator and seamless system.

All transport networks and operators are equipped with their own specific subsets and management functions – finance, fraud, marketing and so on. With Atlas, each of these communicates with the central system, which hosts consolidated data and manages all parameters. As a result, even the most ambitious multimodal, multi-operator policies are visible.

And Atlas is seamless – open to all tickets issued by multiple networks in a given transport area.



Customisation and Scalability

Each Atlas system is customised with an à la carte selection of subsets. Networks can choose to integrate other subsets later. New networks, operators, applications and functionalities – whatever innovations the future of public transport in major cities demands – will fit into Atlas without performance restrictions or maintenance problems.

Easy to Install and Manage

With Atlas, workstations are now simply PCs equipped with browsers. So they are easy to install and manage, with no intervention required for system updates.

Atlas also opens up myriad online service possibilities. Season ticket and recharge requests, for example, can be handled remotely, outside of ticket office hours. As a result, public transport can evolve to keep pace with passengers' behaviour and level of Internet access.

Built on Leading Standards

Atlas is built on the leading technological standards, including:

- n-tier architecture
- Oracle databases
- ETL (Extract Transfer Load) OWB tools.

These technologies are constantly evolving and users will benefit from these developments at all times.

Shedding Light on All Traffic Data

With Atlas, all databases receive the same permanent flow of information from the field. Despite their different approaches, all network management services achieve consistent results. In addition, there's no limit to the volume of data stored, and all results can be analysed down to the smallest detail.

All information is fed into databases in fields such as marketing, finance and fraud, with an unprecedented guarantee of reliability. Based on Business Object technology, Atlas creates a new concept, and new "transport intelligence" tools.

With individual databases dedicated to specific functions, all operations data can be easily stored. You can zoom in on a set of data and analyse it, distinguishing individual pieces of data – timed, dated and localised – from a given piece of network equipment.

Uncompromising Security

Atlas uses Internet technology with a very high level of security. Each subset has its own physical network that can be isolated at any time. A dedicated central server controls all network equipment and workstations in real time.

Security is further tightened via the latest version of the Simple Network Management Protocol (SNMP), which introduces an extra level of authentication between concentrators and equipment. All exchange of data on onboard systems, especially WiFi, is subject to double VPN authentication.

Equipment Under Control

Information from the bottom up and the top down. Along with “transport intelligence,” which delivers comprehensive data, Atlas enables your network managers to operate their machines individually or collectively – or even to define application parameters without requiring manufacturer support.

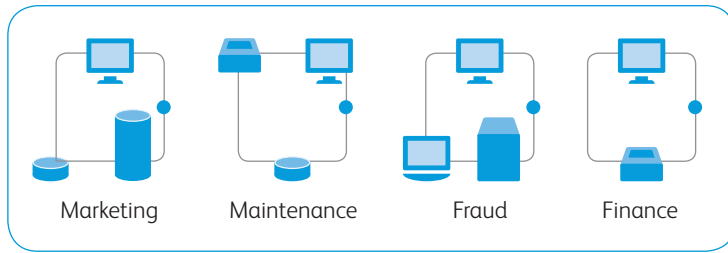
The Atlas central system becomes a true control tower, with unprecedented ease of supervision. It offers a view of each subset of equipment, and lets you zoom in on each one from a block diagram. An individual access code (CEB) eliminates errors as it routes through to the machine address, showing its physical and operational status.

Real-Time Maintenance

Atlas gives you unmatched levels of action from the central system. Alerts are set in real time, and corrective measures can be implemented immediately and remotely. In addition, the system enables you to conduct diagnostic and preventive maintenance operations. Applications housed in the machines can be remotely updated – either one machine at a time or the entire set of equipment.

Fare Parameters Modified

Atlas offers you a wide range of fare parameter capacities, easily meeting the needs of the most demanding networks, and freeing up the creativity of marketing teams. Multiple criteria – such as school holidays, special events, season-ticket holder categories, time slots – can be addressed and combined.



Fare parameters are managed in the central system, and all updates can be communicated to all terminals in a single operation. And it can be performed on the fly, without disrupting operations.

Adaptable to New Requirements

Atlas’s adaptability can be laid to its innovative architecture. For example, when a new card enters the market, there is no need to modify the machines. The new application is downloaded onto all equipment in a single operation. Advanced technology handles the downloading process to automate, secure and control data transfer from the central system to the terminals.

Innovative Ticketing for Public Transport

Over more than three decades, Xerox has installed and maintained more than 300 public transport solutions. And today, more than 50 million people use our systems on buses, underground networks, trains, trams and taxis.

Our expertise is recognised as a worldwide standard. We have built three powerful capabilities that are essential to successful projects:

- Integrators of complete solutions, fully deploying systems, networks and equipment that we maintain over the long term
- Designers and editors of innovative ticketing

systems that are Web-enabled and based on leading technology standards

- Manufacturers of equipment and terminals, combining intelligence, communication and exposure to intensive use by the general public

Contact Us

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