

TECHNOLOGY – DRIVING THE BUSINESS

OVERVIEW

This study looks at:

- ▶ The remit of Bus Éireann
- ▶ Bus Éireann's integrated approach to technology
- ▶ New technologies increasing quality of service

- ▶ School bus services - on behalf of the Department of Education and Science
- ▶ Ancillary services - coach and bus hire, vehicle testing, contract maintenance, and parcel delivery

Bus Éireann employs approximately 2,500 people directly with a further 1,700 contracted under the School Transport Scheme.

INTRODUCTION

Bus Éireann was formed in 1987 as a subsidiary of Coras Iompair Éireann (CIÉ). Its remit is to provide bus services throughout Ireland with the exception of Dublin city.

Since commencing operations in 1987, Bus Éireann has consistently strived to meet its customers' needs through a variety of strategies and improvement. This case study focuses on the technological developments employed by Bus Éireann and how these are improving its service.

Bus Éireann's mission statement is: *"To succeed by providing excellent service to our customers through a committed team."*

BUS ÉIREANN & TECHNOLOGY

Bus Éireann provides a wide range of services targeted towards different customer groups and market sectors which are as follows:

As Bus Éireann services Ireland (with the exception of Dublin city), it is involved in providing the country with both a rural and urban service. In reality, this means 4,500 bus stops, 2,500 staff and 630 buses on the move. Bus Éireann is committed to providing its customers with the same high quality of service regardless of whether they live in an urban or rural location.

- ▶ Expressway inter-urban coach services
- ▶ Eurolines coach services to Britain and Europe
- ▶ City bus services - in Cork, Galway, Limerick and Waterford
- ▶ Town services in Athlone, Drogheda, Dundalk, Navan and Sligo
- ▶ Commuter bus services radiating from Dublin, Cork, Limerick, Galway and Waterford
- ▶ Local bus services throughout Ireland

In order to optimally manage its business, Bus Éireann has embraced recent developments in technology which are providing great benefits to the company and its customers. By using technology to manage the Bus Éireann fleet, the company is providing the customer with the quality of service they expect.



The main components of Bus Éireann's integrated technology strategy are as follows:

- Development of website *www.buseireann.ie*
- Development of e-commerce
- Utilisation of GPS (Global Positioning System) and GPRS (General Packet Radio Service)

DEVELOPMENT OF WEBSITE

In January 1996, Bus Éireann was at the forefront of the CIÉ companies in developing a comprehensive website *www.buseireann.ie*. Initially the website was used to provide information on the services available. However, overtime and in response to market research, customer expectations and developments in technology, Bus Éireann developed the site to include a variety of e-commerce features including online ticket sales and journey planners. This e-commerce strategy was first implemented in September 2000 and continues to be updated and improved.

DEVELOPMENT OF E-COMMERCE

Bus Éireann was the first bus company in Europe to offer online ticket purchase. The online ticket sales service is available in English, French, Italian, German, Spanish and Polish. An added benefit is that there is no booking fee to use this service.

Currently, the following tickets are available for online purchase:

- National Tickets:** Bus Éireann services 3,000 destinations. It is currently possible to buy online tickets for 500 of these destinations. Bus Éireann plans to further develop its e-ticketing system to expand on the destinations available.
- Open Road, Rover, Rambler, Explorer & Emerald Tickets:** These tickets enable independent travellers 'to go as they please' by offering them the freedom of the entire bus and rail network. These tickets are particularly popular with foreign visitors.
- Day Tours:** For the past 60 years, Bus Éireann has operated a day tour business. The company offers a variety of tours from the bus stations in Cork, Dublin, Drogheda, Dundalk and Galway.
- Special Events:** Bus Éireann provides special transport services to various events including concerts.
- Eurolines Services to Britain:** Bus Éireann/Eurolines offers great value daily coach services from Ireland to a wide range of UK destinations. Connections are available from almost every part of Ireland.



HOW TO BUY AN ONLINE TICKET

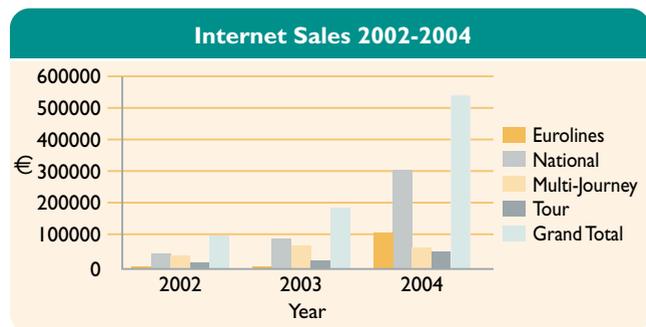
To buy an online ticket you simply select the type of ticket you wish to purchase. You will be asked to input your journey, the date you wish to travel and the ticket type(s) you wish to purchase.

Once your credit card details have been processed, you will be sent an email confirmation with a validation code. You then print that email and present it at the Bus Éireann ticket office or to the bus driver before travelling on the bus. The ticket clerk or bus driver will check the validation code electronically and then issue you with the appropriate travel ticket in exchange.

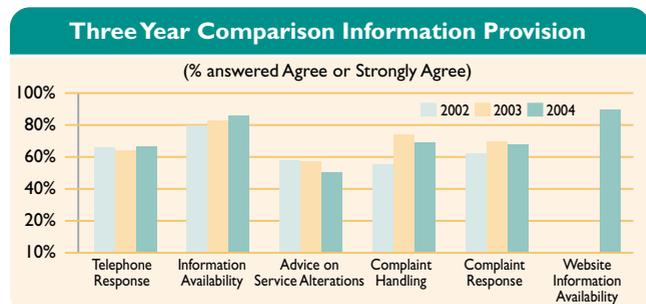
A registration facility for regular users is also available.

CUSTOMER RESPONSE TO BUS ÉIREANN WEBSITE

Internet sales on the Bus Éireann have increased dramatically with total ticket sales increasing from 97,224 in 2002 to 519,661 in 2004. The following graph shows the breakdown of Internet sales for the period 2002 to 2004.



In addition, Bus Éireann does regular **market research**, in order to access customer feeling. Market research has shown that customers are very satisfied with the quality of information provided on the website. The following graph shows results from market research in 2002, 2003 and 2004.



ANALYSING WEBSITE STATISTICS

Bus Éireann also analyses the traffic on the website to access customer response to existing services. By establishing what customers use and when they use it, the company can create more targeted and customer focused strategies.

An example of one type of analysis is to compare a certain month with the same month in the previous year. The table overleaf compares September 2004 with September 2005.

Period September 2004 versus September 2005

	Total Hits	Page Views (Impressions)
September 2004	8,261,093	1,098,193
September 2005	12,667,930	1,464,609
% Increase	53.34%	33.37%

Note: Total hits are a count of actual successful hits and do not include any graphics. Page views (impressions) are the pages fully downloaded.

GPS & GPRS

Bus Éireann uses GPRS (General Packet Radio Service) to transmit its GPS (Global Positioning System). These technologies are invaluable resources for fleet management.

GPS: This is a worldwide satellite navigational system formed by 24 satellites orbiting the earth. GPS can calculate the latitude, longitude, altitude, velocity and time information on a 24 hour basis. It can be used in all types of weather, any place in the world.

GPRS: This technology offers a continuous connection to the Internet via the mobile phone network. A distinct benefit of GPRS is that it only uses the network when there is data to be sent, which is more efficient and more cost-effective. It opens a wide range of possibilities for personalised applications and services. These include:

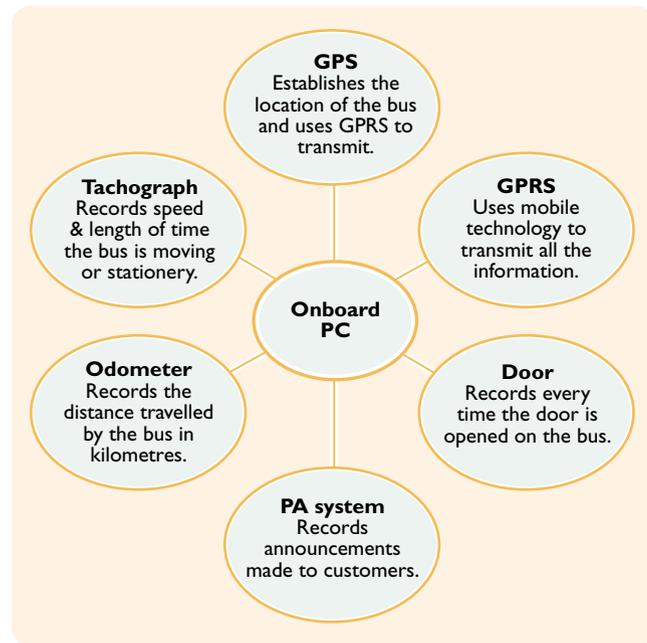
- **Information Access:** Mobile Internet, mobile office and video conferencing.
- **Electronic Commerce:** Electronic banking and reservation services (e.g. hotel).
- **Personal Communication:** Internet, chat rooms and instant messaging.
- **Location Based Services:** Map guides, navigation systems, travel and tourist information.
- **Telemetry Services:** Fleet management, vehicle and object tracking and traffic information.
- **Security and Supervisory Systems:** Alarm notification, monitoring and surveillance.

Bus Éireann is predominantly using the telemetric aspects of GPRS to manage its fleet and increase the quality of service for customers.

HOW DOES THE SYSTEM WORK FOR BUS ÉIREANN?

Technology fitted on buses allows a central system to receive regular updates from each bus about its current location. Information is also available regarding the driver, what time they logged on, how many tickets have been sold, the number of stops the bus has made, the amount of people on the bus and information from the tachograph, the odometer and the door.

Bus operators can then monitor exactly where a bus is and use the information to control services more effectively. For example, if Bus Éireann realises that traffic congestion in Athlone is badly affecting the service from Dublin to Galway, it can organise alternative buses to keep the service moving on either side of Athlone.



BUS ÉIREANN INITIATIVES USING TECHNOLOGY

REAL-TIME TRAFFIC INFORMATION

Bus Éireann drivers are able to communicate real-time traffic information to the control centre. This information can be used to make informed decisions to ensure the best quality service for passengers.

VITAL STATISTICAL INFORMATION

Using the available technology, Bus Éireann is able to analyse the information and provide services accordingly in both the short and long-term. For example in the short-term, the company can take information off the bus regarding passenger numbers and adherence to timetable and can make decisions accordingly. In the long-term, the company can also establish trends in terms of how its passengers are travelling and purchasing tickets and where they are making connections. This information is vital for long-term planning of new and existing routes.

PROVISION OF REAL-TIME INFORMATION TO LANDLINE AND MOBILE PHONES

Bus Éireann customers will be able to access real-time information on their phones regarding bus and location information. There will also be SMS and WAP services available.

BUS STOPS WITH INFORMATION DISPLAYS

In the future, Bus Éireann bus stops will display real-time information on bus arrival times. The signs will show the order in which buses will reach the stop and the number of minutes until their expected arrival. The signs could also display special messages about traffic delays or planned roadworks.

BUS ÉIREANN & TECHNOLOGY - BENEFITS FOR CUSTOMERS

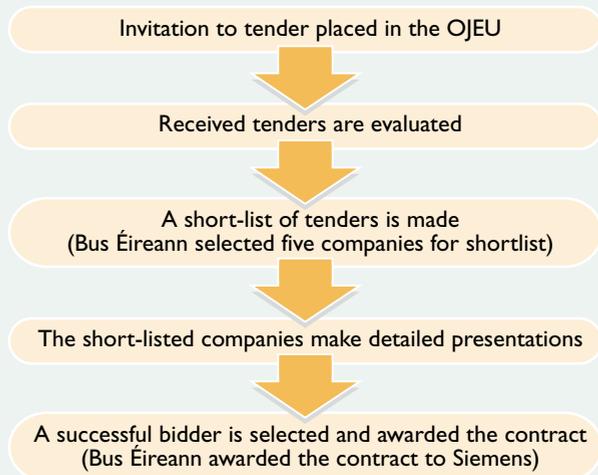
By embracing technology, Bus Éireann has improved its quality of service and developed a more customer-focused service. The tangible benefits for customers include:

- Information on timetables readily available online. This allows the customer to access information when they need it, 24 hours a day.
- Ability to purchase tickets online. Customers both here and abroad can purchase tickets at a time that suits them from a location that suits them. This allows customers more flexibility and saves time.
- The availability of real-time information to inform passengers when the bus is coming. By taking the uncertainty out of waiting customers feel more informed and satisfied.
- Dramatically improves bus efficiency. The new technologies allow Bus Éireann to create a more efficient service that is more customer-focused.
- Improved safety for customers and drivers. Technology allows drivers to make an emergency call at the touch of a button in the unlikely event of an incident.

TENDERING PROCESS

Bus Éireann awarded its GPRS contract to Siemens in December 2004. Given the size of the GPRS contract, Bus Éireann was required to enter an invitation to tender in the **Official Journal of the European Union (OJEU)**. This involved inviting parties to submit an offer by public advertisement, followed by an evaluation of offers and selection of a successful bidder. Bus Éireann employed a consultant to verify and audit the selection process.

The process can be outlined as follows:



CONCLUSION

The company is committed to providing the highest standard of transport for its customers regardless of where they live. Through an integrated approach to technology, Bus Éireann is dramatically improving its quality of service for customers. The use of the website, e-commerce, GPS and GPRS allow the company to make vital decisions in regards to its service thus improving efficiency. Bus Éireann will continue to use technology to deliver a high quality of transport in both urban and rural areas.



GLOSSARY

Market Research: The process of gathering and processing data so that a company will know which goods and services to produce, what price to charge for them and which markets to sell them in.

Official Journal of the European Union (OJEU): This is the publication in which all contracts from the public sector which are valued above a certain threshold must be published.

FIND OUT MORE

For more information on Bus Éireann:

- Click on the website www.buseireann.ie



In teams, analyse the website statistics below. You can also use the figures included in the case study regarding total hits and page views. Prepare your presentation under the following headings:

- Total hits and page views
- The most popular pages
- The most popular and least popular days
- The most popular hours of the day

	Most Popular Pages	First Page Viewed	Most Popular Day	Least Popular Day	User Sessions Weekdays	User Sessions Weekends	Most Popular Hour	Work Hours	After Hours
9/04	Home 45.18%	Home 79.9%	Thursday	Saturday	80.16%	19.83%	12-1pm 7.46%	56.72%	43.27%
9/05	Home 45.57%	Home 75.82%	Friday	Saturday	80.16%	19.83%	2-3pm 7.39%	57.43%	42.56%

ACTIVITY

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