# Table of Contents

1 **Introduction** ..................................................................................................................... 1  
1.1 Overview .......................................................................................................................... 1  
1.2 This Report ....................................................................................................................... 1  
2 **User Requirements** ......................................................................................................... 2  
2.1 The Drivers Perspective ................................................................................................. 2  
3 **Location and Compliance** .............................................................................................. 3  
3.1 Location .......................................................................................................................... 3  
3.2 Compliance .................................................................................................................... 3  
4 **Electronic Information Point Options** ........................................................................... 4  
4.1 Introduction ...................................................................................................................... 4  
4.2 EIP Hardware Suppliers ................................................................................................. 4  
4.3 Desk Top Units .............................................................................................................. 4  
4.4 Wall Mounted Units ...................................................................................................... 5  
4.5 Floor Standing Units ..................................................................................................... 5  
4.6 Keyboards/Printers ...................................................................................................... 6  
4.7 EIP Assessment ............................................................................................................ 7  
4.8 Example Costs ............................................................................................................. 8  
5 **Summary and Conclusions** ............................................................................................ 9  
5.1 User Requirements ....................................................................................................... 9  
5.2 Location and Compliance ............................................................................................. 9  
5.3 Electronic Information Point Options and Assessment ................................................. 9  
5.4 Publicity ....................................................................................................................... 10  
5.5 Monitoring .................................................................................................................. 10  
5.6 Implementation (Next Steps) ...................................................................................... 10  

Appendix A – Technical Data ..................................................................................................12  
Appendix B – Protouch 7000 Application ...........................................................................16  
Appendix C – I-Kiosk Cool Touch Wave ............................................................................20  
Appendix D – CyberD Opti-Line II .....................................................................................24

Table 1 – Companies Identified ............................................................................................4  
Table 2 - Cyber D Opti-Line (cost breakdown) ....................................................................8  
Table 3 - Comparison between CRT and LCD ...................................................................14  

Figure 1- LCD from Wikipedia, the free encyclopedia ......................................................12  
Figure 2 – CRT from Wikipedia, the free encyclopedia ....................................................13
1 Introduction

1.1 Overview
In 2005, the Tyne and Wear Freight Partnership agreed that the provision of an Electronic Information Point (EIP), providing up-to-date information on issues such as traffic information and routing would be of benefit to lorry drivers and also be a valuable means of communication between the partnership and the operators and drivers.

The EIP could provide a range of information for drivers, including live traffic and roadworks information, advice on lorry parking, guidance on lorry routes to key freight destinations and best practice information (safe and fuel efficient driving etc). The case for an EIP can be substantiated further by the fact that surveys carried out by the study team suggest there are a growing number of drivers who are unfamiliar to the area. The Action Plan for 2006/07 has included the development of a website for the Partnership, which provides much of the information alluded to above. It is envisaged that the website, which has been completed recently, would provide an ideal basis and platform in terms of the content for the EIP. It should be noted that the EIP has the facility to be developed in a number of European languages to assist international HGV drivers.

The NT Newcastle truckstop at Birtley, which is located off the A1(M) in the south of Tyne and Wear was thought to be an ideal location to install a trial EIP. Following the announcement that the truckstop has closed, the study team have made contact with the manager of Moto services at Washington to discuss the possibility of locating the EIP on the northbound services. The northbound section of the services has 39 spaces for HGV's and has seen increased utilisation following the closure of Birtley services. Installing an EIP at this location is subject to approval from head office. The study team propose to liaise with the Partnership prior to making a formal application to Moto.

1.2 This Report
After establishing the case for an EIP for lorry drivers, this report has been prepared to assess the feasibility for setting up and installing an EIP at an appropriate location in Tyne and Wear. It looks to provide the Tyne and Wear Freight Partnership with the information required to commission the implementation of an EIP, which would be based on the website which has recently been developed.

The report begins by identifying the important factors in delivering a successful EIP to the user, such as placing it in a prominent location, ensuring simplistic navigation and providing the right information. This is followed by an assessment of the requirements (technical and location) that need to be considered in installing and EIP. Consideration is also given to issues relating to compliance. The report then proceeds to identify suppliers of EIP’s and the individual product types that may be appropriate. This includes looking at required peripherals (e.g. keyboards and printers) along with the cost of purchasing, installing and setting up and EIP. The respective advantages and disadvantages of each product are discussed, a preferred EIP option is suggested and the way forward outlined.

After this introduction, this report is split into 4 further chapters:
- Chapter 2 looks at the user requirements;
- Location and compliance issues are assessed in Chapter 3;
- Chapter 4 assesses the options for an EIP; and
- The recommendations are presented in Chapter 5.

Appendices A-D include more technical information on the individual products.
2 User Requirements

2.1 The Drivers Perspective

The Electronic Information Point (EIP) should be user friendly to drivers who may or may not be familiar with the computer technology. It must be readily and easily accessible and free to the user. Drivers should be able to access the layers of information within the system and consider the EIP as a valuable working tool. It is also important for the EIP to provide new and up-to-date information to retain the interest of drivers (for example live traffic information). Drivers also need to feel sufficiently confident to revisit the EIP.

When installing the EIP, a primary aim would be to attract the driver attention. It would be worth remembering that drivers who have never used an EIP previously and may be wary of technology owing to their possible age or inexperience. However, if the EIP is easy to use, it will enable the driver to build confidence from initial usage and exploit all the information offered by the system.

Key ingredients in delivering a successful EIP from the perspective of the lorry driver include:

- Placing the EIP in a prominent position.
- Attracting attention with an interesting standby screen.
- Retaining attention, not providing too much text or information on any screen.
- Ensuring simplistic navigation.
- Delivering information requested.
- Taking action from the feedback received.

To understand how successful the EIP has been, it is important to monitor how many people use it and return more than once. As alluded to above, it is important to obtain feedback on the EIP and develop the system and information provided on the basis of this.
3 Location and Compliance

3.1 Location
As explained in Chapter 1, the NT Truckstop at Birtley was initially identified as an ideal location for an Electronic Information Point (EIP) and the truckstop were keen for the EIP to be sited at Birtley. An initial meeting was held with the site manager to discuss locating the EIP inside the reception area of the truckstop. The manager considered that the project would be of benefit to both drivers and the truckstop as the EIP would be cutting edge in terms of providing information and enhancing the facilities available at the truckstop. Further to this, the truckstop indicated that they would be willing to cover the cost of maintaining the EIP, including support costs such as provision of a phone line, enabling the EIP to live information on traffic and roadworks. Regrettably, the study team have recently heard that the truckstop is to close as of the end of January 2007. Discussions are now being held with the manager of the Moto services at Washington regarding the possibility of locating an EIP at the services, where there are a total of 69 spaces for HGV’s on the northbound and southbound carriageways.

In order to attract the maximum possible usage, it is important for the EIP to be located in a prominent position with a high pedestrian footfall. It should also be clear of any restrictions. When the NT Truckstop was being assessed as a potential location the reception area was considered to be the best location, as it has a high number of people passing through and is also well supervised. Other locations considered were the restaurant and bar.

The EIP would require the following:
- AC electric point;
- PC and link;
- Modem for broadband or LAN but will work on 56 KBPS at a slower rate;
- Compatible software.

As alluded to in the previous chapter, the NT Truckstop indicated that they would be willing to cover the cost of maintaining the EIP, including support costs such as access to a broadband phone line, enabling the EIP to live information on traffic and roadworks.

These types of EIP available on the market are assess in detail in the next chapter. In order to keep the EIP maintained the personnel would be required to:
- Ensure that there were no hazards near the EIP;
- Clean the kiosk on a regular basis;
- If printer is fitted, ensure that the paper supply was maintained; and
- Check that the printer and EIP were fully functional.

3.2 Compliance
To conform to Health and Safety issues the installation must be compliant with current legislation. The EIP should therefore be installed in line with the following requirements:
- Requires careful routing of wires, LCD;
- Electrical wiring must comply with the current wiring standards; and
- Fire safety materials must comply with current standards.
4 Electronic Information Point Options

4.1 Introduction
In selecting the most appropriate Electronic Information Point (EIP), technical information from the websites of hardware suppliers was researched. For the purposes of this feasibility study, four suppliers were selected from a list of nine companies. A number of suppliers that do not offer the touch screen facility and were discounted – it was also not considered tenable to carry out detailed research on all nine companies.

4.2 EIP Hardware Suppliers
Table 1 shows the suppliers of Kiosk type EIP’s that were identified.

<table>
<thead>
<tr>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>CyberD</td>
</tr>
<tr>
<td>Data Sonic</td>
</tr>
<tr>
<td>I Kiosk</td>
</tr>
<tr>
<td>Ice Tech</td>
</tr>
<tr>
<td>Kiosk Solutions</td>
</tr>
<tr>
<td>Protouch</td>
</tr>
<tr>
<td>Scrimsign Ltd</td>
</tr>
<tr>
<td>Simple Kiosk</td>
</tr>
<tr>
<td>Touch Systems</td>
</tr>
</tbody>
</table>

From this list Protech, Cyber D, I-TouchSystems and I-Kiosk were shortlisted for further research.

From the above suppliers, 4 types of EIP were identified:

- Desk Top.
- Wall Mounted; and
- Floor Standing;

The following sections (4.4.-4.6) summarise the key features these types of EIP. Further technical information on the products is provided in Appendices A-D.

4.3 Desk Top Units

*I-TouchSystems Desk top Units*

- Perfect medium for multimedia applications, information dispensing, advertising and public internet.
- Available in brushed stainless steel.
- Available with monitor sizes 17" - 19" with resistive and saw touchscreen technology.
- Complete with integrated computer and ready to run.
4.4 Wall Mounted Units

**I-TouchSystems Wall Mounted Unit**

- Wall mount kiosk with or without touch screen
- 19" monitor a good medium for multimedia applications, information dispensing and public internet.
- Without touch screen the perfect advertising medium.
- Available in brushed stainless steel.
- Complete with integrated computer and ready to run.

**CyberD Wall Mounted Unit**

- Compact terminal for wall mounting, based on the successful Opti-Line design.
- Wall-mounted terminal system, designed for stylish multi-purpose indoor applications.
- Minimal dimensions of this terminal system.
- Range of different configuration variants available.
- All units are supplied fitted with the highest standard of TFT monitors.
- PCs and keyboards as with all CyberD (UK).com Ltd systems.

4.5 Floor Standing Units

**I-Kiosk floor unit**

- This all-round kiosk combines ergonomic and original design
- With unmatched sturdiness.
- Basic features include a slick robust metal cabinet, virtually maintenance free industrial grade CPU, 15.1"
- Touch screen and a very advanced software package that includes secure browser and remote kiosk management capability.
- A good, reliable kiosk that will be deployed as an information or application delivery channel to a wide range of customers.
- Efficient and cost-effective way.
**Protouch Floor Unit**

- Attractive, timeless and ultra thin freestanding designer kiosk (only 4.5cm thick) with Chrome Beading
- Special lightweight aluminium construction (weighing only 27 KG)
- Easy to transport
- Robust anodized surface (insured to scratches)
- High class side-face with embedded chrome batten
- Ground bracing and theft protection prepared
- Very clear and luminous flat screen provided with a robust screening grid or a scratch resistant touch screen
- Display with a special dust and fluid protection
- Ergonomic shape
- High Class PC technology from Fujitsu Siemens or HP/Compaq

**CyberD Opti-Line**

- Base box to house PC with top and back opening
- Versatile design opportunities for your individual Opti-Line.
- As well as aluminium, the front and designer panels are also available in spray finished sheet steel, stainless steel, or a range of decorative finishes (e.g., marble, wood).
- A real wood insert is also available.

### 4.6 Keyboards/Printers

All the hardware suppliers offer the facility to install peripherals onto the basic information point units, including an external keyboard, mouse or trackball and a printer. The initial design of the EIP is dependent on which peripheral is most appropriate for the application and location.

It is considered that an EIP operating on a touchscreen basis would be preferable to the system operating entirely from an external keyboard with mouse. Such a system would be more user-friendly to drivers not familiar with using PC’s, thereby removing a potential barrier to using the EIP. However, an attachable keyboard will most likely be required for typing in destinations to obtain traffic information and finding destinations. It should be noted that the touchscreen technology allows for an on-screen keyboard to be incorporated, but this may not be as easy to use as an attachable keyboard. The touchscreen technology also incorporates the ability to include up and down arrows to scroll the page.

All EIP’s also offer the facility to incorporate a printer. This could potentially be of use for printing out information such as route maps and directions. For this trial, a printer is not to be...
included as it is likely to maintenance issues. However, including a printer could be considered at a later stage, particularly if the feedback generates strong support for this facility.

4.7 EIP Assessment
In selecting the most appropriate EIP, a number of criteria were considered. These are as follows:
- Functionality;
- Price;
- Mobility;
- Security;
- Any peripherals;
- Ease of roll out; and
- Branding.

The three types of EIP were assessed with these criteria in mind and under the assumption that it would be located at a truckstop or MSA facility. Below is a summary of the advantages and disadvantages of each option of the three options.

**Desk Top**
- Lowest cost option;
- Requires space on the counter top or a table;
- Insecure as it is not fixed;
- More likely to need a keyboard or mouse; and
- More susceptible to vandalism - the screen can be moved easily.

**Wall Mounted**
- Has a fixed position (difficult to move);
- Low cost;
- Takes up less space; and
- Susceptible to vandalism.

**Floor Mounted**
- Movable and attractive design;
- Can accommodate numerous peripherals;
- Secure and robust;
- Most expensive option; and
- Space available for advertising/branding.

It is therefore apparent that the floor mounted option appears to be the best EIP option for lorry drivers. Although a floor mounted option is the most expensive, it is the most secure, robust and versatile. It also has space for peripherals and offers space on the EIP for branding. Of the floor mounted EIP, it is considered that the CyberD Opti-Line is the highest quality product currently on the market and also has the best support package from the supplier. Faber Maunsell staff in Glasgow have used CyberD in implementing EIP's at Motorway Service Areas in Scotland for Traffic Scotland and have found them to be very successful and fit for purpose.

Another important decision is the selection of the screen type. Firstly, the EIP needs to be of a robust construction and the screen should be large enough size to contain the large buttons needed for a touch screen. Most EIP's offer a choice of either Liquid Crystal Display (LCD) or a Cathode Ray Tube (CRT). Of these the LCD is considered to be the better option as it uses less energy, whereas the CRT is bulky, twice the size of an LCD and uses more energy. The life expectancy of the LCD is also 33% higher than that of the CRT. Further technical information on these various types of display is included in Appendices A-D. Appendix E includes a draft questionnaire, which could be used to assess the EIP.
4.8 Example Costs

This section provides some example costs for the three floor standing EIP’s introduced in the previous section.

I- Kiosk Cool Touch Wave (Floor Unit)
This EIP would cost £2,950 (exc VAT) and for the purpose of this trial there would the offer of free help in creating a user interface. A PC is and installation of the software is included in the price.

Protouch 7000 (Floor Unit)
The cost of the Kiosk style EIP Protouch 7000 is in the range of £3,099 (exc VAT and installation). A piece of software which can generate a screen keyboard (secure browser) is available for an additional £98. The kiosk is inclusive of a PC.

CyberD Opti-Line (Floor Unit)
As stated in the section above, the CyberD Opti-Line, as implemented by Faber Maunsell for Traffic Scotland is the recommended option of the study team. Although this is the most expensive option considered, the specification is of a high standard and the customer service offer is also superior. Table 1 presents a breakdown of the costs.

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit Cost</th>
<th>Quantity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kiosk Hardware</td>
<td>£3,147.00</td>
<td>1</td>
<td>£3,147.00</td>
</tr>
<tr>
<td>Opti-Line 17” touch screen only fitted with Pentium 4 based PC with Microsoft Windows XP Professional and supply.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kiosk Browser Software</td>
<td>£355.00</td>
<td>1</td>
<td>£355.00</td>
</tr>
<tr>
<td>“Streetwise” customised CYT-Lox 2005, Watchdog software and remote synchronised system as used by Faber Maunsell for Traffic Scotland.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kiosk Browser Software Modification</td>
<td>£150.00</td>
<td>1</td>
<td>£150.00</td>
</tr>
<tr>
<td>Addition of on screen keyboard and removal of user feedback questionnaire.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firewall and Anti Virus Software</td>
<td>£100.00</td>
<td>1</td>
<td>£100.00</td>
</tr>
<tr>
<td>Installation and Configuration of commercial network security software</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-site commissioning of kiosk systems</td>
<td>£375.00</td>
<td>1</td>
<td>£375.00</td>
</tr>
<tr>
<td>Set-up and testing of all systems on site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (exc VAT)</td>
<td>£4,127.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Summary and Conclusions

5.1 User Requirements
Key ingredients in delivering a successful Electronic Information Point from the perspective of the lorry driver include:

- Placing the EIP in a prominent position;
- Attracting attention with an interesting standby screen;
- Retaining attention, not providing too much text or information on any screen;
- Ensuring simplistic navigation;
- Delivering information requested; and
- Taking action from the feedback received.

5.2 Location and Compliance
The NT Newcastle Truckstop at Birtley was identified as an ideal location for locating the EIP and extensive discussions were held with the manager regarding the possibility of installing such a facility. Prior to the completion of this feasibility study it was announced that the truckstop was to close by the end of January 2007. Discussions are now being held with Moto services at Washington regarding the possibility of locating an EIP at the services as an alternative location. Approval for locating and EIP would be subject to approval from Moto head office – the study team propose to consult with the Partnership before progressing this.

In order to attract the maximum possible usage, it is important for the EIP to be located in a prominent position with a high pedestrian footfall. It should also be clear of any restrictions. The EIP would require an AC electric point and broadband internet connection.

In terms of compliance to conform to Health and Safety issues, the EIP should therefore be installed in line with the following requirements:

- Requires careful routing of wires, LCD;
- Electrical wiring must comply with the current wiring standards; and
- Fire safety materials must comply with current standards.

5.3 Electronic Information Point Options and Assessment
In selecting the most appropriate Electronic Information Point (EIP), technical information from the websites of hardware suppliers was researched. For the purposes of this feasibility study, four suppliers were selected from a list of nine companies. The four companies were Protech, Cyber D, I-TouchSystems and I-Kiosk.

From the above suppliers, 3 types of EIP were identified:

- Desk Top.
- Wall Mounted; and
- Floor Standing;

Of these it was concluded that that the floor mounted was the best option for lorry drivers. Although they are the most expensive, floor standing units are secure, robust and versatile. It also has space for peripherals and offers space on the EIP for branding. Of the floor mounted EIP’s, it is considered that the CyberD Opti-Line is the highest quality product currently on the market and also has the best support package from the supplier. Faber Maunsell staff in Glasgow have used CyberD in implementing EIP’s at Motorway Service Areas in Scotland for Traffic Scotland and have found them to be very successful and fit for purpose.
5.4 Publicity
To maximise the publicity and promote the launch of the EIP, the study team suggest that a press release should be produced. This would be sent to the trade press such as Motor Transport, Commercial Motor and local newspapers nearer the intended launch date. This would assist in promoting use of the EIP and increase awareness of the work of the Partnership.

5.5 Monitoring
Having made the decision to install the EIP, it is recommended that a survey of users and non-users is carried out at the location. This will assist in gauging the success of the EIP and informing future developments. Faber Maunsell have had experience of assessing the effectiveness of EIP's for the Highways Agency.

Potential questions and response categories to be included on the questionnaire could include:
- Reason for using the EIP
  - Interested to see what it did
  - Roadworks
  - Route information
  - Check journey distance
- Whether got information required
- Agree or disagree with the provision of and EIP.
- Whether the EIP
  - Provides useful information
  - Is easy to use
  - Is easy to find
  - Provides accurate information
  - Is well signed
- Reason for not using the EIP
  - Didn’t see it
  - Didn’t need any information
  - Didn’t have time
  - Didn’t know how to use it
  - Someone else was using it

5.6 Implementation (Next Steps)
This feasibility study has set out the requirements for delivering a successful EIP for lorry drivers and has set out a proposed specification for the product. Following the closure of the NT Newcastle Truckstop, the only outstanding issue to be resolved is the location of the EIP. Further to this, discussions have been held with Moto services at Washington regarding the possibility of locating the EIP at the northbound carriageway services. Approval is dependant on an application being made to head office – the study team propose to consult with the Partnership prior to making the application. Assuming that an appropriate location can be found, funds could potentially be made available in the Tyne and Wear Freight Action Plan Year 3 (2007/08) for purchasing the EIP.
Appendix A – Technical Data
Appendix A – Technical Data

Software
The application software for LCD screens is written specifically for the correct resolution of the LCD screen.

To assist the user the following is recommended relating to the screen:

- Make touchable areas obvious, e.g. symbols and words;
- Limit choice of screens;
- Guide the user as much as possible on the screen; and
- Use large navigation buttons (back-forward-start).

In terms of the software shown on the Electronic Information Point (EIP), best practice when operating touchscreen systems is as follows:

- Avoid down menus where possible;
- Double clicking features may confuse the driver;
- Avoid dragging or scrolling features on the touch screen; and
- Limit the amount of text to key features/info bytes.

Hardware
The hardware discussed in this instance is a free standing kiosk type EIP. When deciding on the right type of unit for the location, the design and colour should match the existing décor.

The following is also recommended

- It should not show fingerprints;
- Should not include space for resting food and drink;
- Have a clear viewing position; and
- Be located in a ventilated area.

Cathode Ray Tube (CRT) or Liquid Crystal Display (LCD)

LCD
A liquid crystal display (LCD) is a thin, flat display device made up of any number of colour or monochrome pixels arrayed in front of a light source or reflector. It is prized by engineers because it uses very small amounts of electric power, and is therefore suitable for use in battery-powered electronic devices.

Figure 1- LCD from Wikipedia, the free encyclopedia

1. Reflective twisted nematic liquid crystal display.
2. Vertical filter film to polarize the light as it enters.
3. Glass substrate with ITO electrodes. The shapes of these electrodes will determine the dark shapes that will appear when the LCD is turned on or off. Vertical ridges etched on the surface are smooth.
4. Twisted nematic liquid crystals.
5. Glass substrate with common electrode film (ITO) with horizontal
ridges to line up with the horizontal filter.
6. Horizontal filter film to block/allow through light.
7. Reflective surface to send light back to viewer.

CRT

A cathode ray tube technically refers to any electronic vacuum tube employing a focused beam of electrons. This article will concentrate on the families of cathode ray tubes used as displays for television, radar, oscilloscopes etc. Another important type of cathode ray tube is the video camera tube.

Figure 2 – CRT from Wikipedia, the free encyclopedia

Comparison of LCD and CRT

An LCD screen of 15” requires only 40% of the space of a CRT with the same viewing area although the CRT viewing angle is much greater. The LCD can be wall mounted and are twice the brightness.

True flat CRT’s are as good and as modern, they are of a larger size than an LCD and half the cost. The back light, once they have aged are easier to replace in the LCD.

Backlights will eventually wear out. The comparisons are given in the following approximate life expectancies:

- CRT 10,000 to 20,000 hours.
- LCD 20,000 to 30,000 hours.

The major contributors to the CRT aging, is cathode and phosphor ageing these affect the brightness, colour balance and causes loss of focus.

The CRT can be repaired by a local TV repair shop, the LCD cannot.

There is less power consumption on the LCD, about 33% of the CRT screen, the LCD therefore generates less heat.
Table 3 - Comparison between CRT and LCD

<table>
<thead>
<tr>
<th>Liquid Crystal Display (LCD)</th>
<th>Cathay Ray Tube (CRT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compact bulky.</td>
<td>Lightweight heavy.</td>
</tr>
<tr>
<td>Low power (c.20W).</td>
<td>High power (c.150W).</td>
</tr>
<tr>
<td>Perfectly sharp limited sharpness.</td>
<td>Tend to blur more at high brightness, and with age.</td>
</tr>
<tr>
<td>Perfect image geometry</td>
<td>Tend to suffer from geometric distortions, which may be picture (brightness) dependent, and worsen with age</td>
</tr>
<tr>
<td>Consistent* tonal scale*</td>
<td>Strong bright areas can cause other regions of the picture to dim</td>
</tr>
<tr>
<td>Excellent text contrast</td>
<td>Poor text contrast (bandwidth limited)</td>
</tr>
<tr>
<td>Do not normally flicker</td>
<td>Inherently flicker (although peoples sensitivity varies)</td>
</tr>
<tr>
<td>Contrast/colour change with viewing angle</td>
<td>Consistent image irrespective of viewing angle</td>
</tr>
<tr>
<td>Poor black on dark images</td>
<td>Good blacks (quality monitor, properly adjusted)</td>
</tr>
<tr>
<td>May cause motion-blur</td>
<td>Usually portray motion well</td>
</tr>
<tr>
<td>Peak brightness limited by backlight; photos/videos can appear &quot;flat&quot;</td>
<td>Very high (small area) peak brightness possible; gives &quot;sparkle&quot; and &quot;life&quot; to movies/video/photos</td>
</tr>
<tr>
<td>May have or develop &quot;stuck&quot; pixels not pixel-based,</td>
<td>No problem</td>
</tr>
<tr>
<td>Fixed inherent resolution</td>
<td>Support multiple resolutions equally well</td>
</tr>
<tr>
<td>Maturing technology</td>
<td>Cost falling mature technology; cheap</td>
</tr>
<tr>
<td>Native interface would be digital (e.g. DVI)</td>
<td>Naturally suited to analog interface</td>
</tr>
<tr>
<td>Image can be sub-optimal with analog interface</td>
<td>Naturally suited to analog interface</td>
</tr>
</tbody>
</table>
Appendix B – Protouch 7000 Application
Appendix B – Protouch 7000 Application

Protouch 7000

The leader among information systems

Uses for the Protouch 7000 systems:

- Internet stations
- Visitor greeting stations
- Store ordering points
- Employee intranet access solutions
- Interactive wayfinder systems
- Trade show information systems
- On-line catalogue information points
- Customer consultation workstations
- Trade show terminals
- Terminals for Internet cafes
- Visitor registration terminals
- Visitor photo, voicemail sanding systems
- Exhibition and conference registration stations

Manufactured with certified quality:

EN EN ISO 9001: 2000
EN EN ISO 13485: 2001

Protouch Manufacturing Limited
www.protouch.co.uk
Optional features of the Protouch 7000:

1. Kiosk height can be reduced to accommodate wheelchair user which helps with DDA compliance
2. Business Card Scanner can be integrated into the keyboard shelf with a standard keyboard (also available in Cream), integrated with an ICR or a microphone
3. Ant-vandal phone with the option of keypad or automatic dial connection
4. Ant-vandal keyboard with trackball with IP66 rating, perfect for unattended areas
5. Robust and easy to move (height can be adjusted if kiosk is to be moved frequently)
6. Integrated Hi-Fi Speakers
7. Slim line 10” touch screen PC which sits in the locked casing at the bottom of the kiosk. This can be supplied by Protouch or customer, please check dimensions

Other options:
8. Touchscreen using Surface Acoustic Wave (SAW) technology
9. Proximity motion sensor
10. Bar Code Scanner
Protouch 7000

The leader among information systems

Summary of benefits:

- Crystal clear, very bright full screen display with a robust protection pane or SAW touchscreen technology
- Highly anti-glare, frontally dirigible, and site thin design
- Lightweight aluminum body with scratch resistant
- Rear weight 271g
- High-grade side profile with entangled chrome peeling
- Weatherproof ground fixation ensuring high stability
- Simple to transport in custom-made flightcase
- Ergonomic shape designed for easy handling with customized full colour graphics covering the front of kiosk
- Kiosk is designed for easy upgrading
- High class PC technology from Fujitsu Siemens

Optional hardware composer software & ile secure browser

1. Screen segmentation allows for direct integration of existing presentation content like vanilla website, text ticker, web site, and PowerPoint
2. Automatic presentation allows for fixating timing of presentation
3. Split-screen and 2nd display control allows for control of an external screen
4. Option to integrate all news ticker via internet
5. Office-dependent representation
6. No secure browser protects your software and stops users logging at unwanted websites. Please ask for further info.

Measurements:
- 1800 x 470 x 100 mm (Height x Width x Depth)
- Maximum PC size: 340 x 380 x 110 mm

Display sizes:
- 17" Landscape format
- Native Resolution 1280 x 1024

Computer:
- State-of-the-art small form factor computer. Available from Fujitsu Siemens, Dell, Compaq, IBM, MSI etc.

Material:
- Anodized, brushed aluminum

Supported media formats:
1. HTML
2. Flash (SWF), MP3, and 2, 3, 4 WFF Player
3. PowerPoint
4. News ticker
5. DVI
Appendix C – I-Kiosk Cool Touch Wave

Interactive Touchscreen Kiosk Solutions

I-KIOSK is a leading provider of interactive touchscreen kiosks, which allow users to navigate computer systems by touching icons and links on screens. Touch screens are quickly becoming the interface of choice for a vast array of environments. They stimulate the senses to provide memorable service experiences, while being so user friendly that they do not require any computer experience.

This new breed of interactive technology has diversified into every aspect of public life: hotels, airports, hospitals, shopping centres, bars, restaurants, colleges, banks, schools, campgrounds, medical centres, convention centres, public libraries, car dealerships, cruise vessels, book stores, and more.

Our i-kiosks are ergonomically designed, take up very little space, serve many functions, possess remote management capability and offer unlimited future potential. We tailor the hardware and software of our kiosks to suit the wants and needs of each customer.

The possibilities are endless, so why not give us a call to see how you can capitalise on interactive technology, revolutionise the way you provide information and empower your organisation?

Welcome to the new world of i-kiosks!

T: 020 7432 8850  E: info@i-kiosk.co.uk  W: www.i-kiosk.co.uk
About I-KIOSK

I-KIOSK is a leading hardware and software provider of touchscreen kiosks and information delivery displays.

We supply interactive kiosks of superior quality and style to private and public organisations, and government institutions. All our kiosks are designed to your particular needs and requirements, ranging from simple unsupervised public internet access points to highly sophisticated information delivery systems.

We pride ourselves in the personal service that we offer our clients— we design and deploy interactive kiosks for virtually any application. We can design, produce and deliver customised kiosks to suit your particular needs and requirements.

Whether you want an off-the-shelf or bespoke kiosk, standard software and interface package or customised design, content and colour— we offer you a complete solution package and personal service from start to finish.

Our knowledgeable and enthusiastic team is ready to provide help at every step of your kiosk project— we can even assist you with website or intranet’s design.

We believe that our commitment to customers does not end the moment your new kiosk is delivered— we provide continuous support, on-line monitoring and maintenance service to ensure your kiosk operates trouble-free.

Our expertise stretches across a wide range of industries— we have successfully deployed interactive kiosks in shopping centres, museums, cafes and restaurants, banks and estate agents, underground stations, retail outlets, corporate headquarters, The Parliament of Finland and others.

To learn more about our organisation, past projects and recent developments, please check our website at www.i-kiosk.co.uk.
CoolTouch Wave I-Kiosk

CoolTouch Wave is our most popular model. This great all-round kiosk combines a unique ergonomic design with unmatched sturdiness and can be placed virtually anywhere in your office or retail environment.

CoolTouch Wave’s slim body hides a virtually maintenance-free industrial grade computer that is able to support both Internet and Windows-based applications offering you unlimited flexibility and infinite potential applications.

This very compact and reliable kiosk creates the ideal harmony of form and function. Its flexible configuration can be adapted to serve a wide range of customers by fitting a number of optional peripherals.
Appendix D – CyberD Opti-Line II

Kiosk Hardware built on experience.

The Opti-Line II

The creation of the Opti-Line II brings new visions to your fingertips. Stainless steel and aluminium, simplicity and elegance, functionality and aesthetics - timeless attributes for successful communication. Charming packaging with clear style: a new line to the keyboard support, greater modularity and consistent design. An innovative continuation of the Opti-Line generation.

Optional Front Panels

Versatile design opportunities for your individual Opti-Line. As well as aluminium, the front and designer panels are also available in spray finished sheet steel, stainless steel, or a range of decorative finishes (eg marble, wood). A real wood insert is also available.

Technical Specifications:

<table>
<thead>
<tr>
<th>Touch Screen Version</th>
<th>Keyboard Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>15&quot;</td>
<td>17.4&quot;</td>
</tr>
</tbody>
</table>

| Model Code | 6.500 | 6.700 | 6.600 | 6.800 |
| External dimensions | 560 | 1550 | 1550 | 1550 |
| W | H | D | W | H | D |
| 520 | 520 | 520 | 520 |

| IP Rating | N/A indoor use only |

<table>
<thead>
<tr>
<th>Additional Options</th>
<th>Card Reader</th>
<th>Sound system</th>
<th>Pre-installed PC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Options</td>
<td>code x4</td>
<td>code x20</td>
<td>code x50</td>
</tr>
</tbody>
</table>

Software built on experience.

Without software the kiosk just a box! The most expensive computer can do nothing without the appropriate software. CyberD have produced a range of kiosk and secure browsers available off the shelf. By virtue of our component based development model CyberD can easily tailor new or existing systems to suit your requirements. For other Internet and network solutions, including bespoke systems please refer to services.

Simple Surf

Simple Surf is the latest in kiosk and cyber café software solutions designed to suit all situations. Simple Surf has a familiar looking user interface and has facilities to make it more suited for users with
disabilities. Simple Surf is used by international banking corporations and government bodies to provide complete kiosk base information systems.

**Device Drivers**

CyberD have produced a suite of device drivers for use in the kiosk and gaming markets. These drivers couple standard PCs to credit input devices such as coin mechanisms and note validators either directly via USB or RS323 or via the PcCredit range of interface boards distributed by Brent Electronics.

The direct communication drivers use Standardized Gaming Protocol (SGP), an XML and TCP/IP based technology developed by CyberD for cross platform rapid integration of peripherals. SGP support is also included as standard in Simple Surf 2 so that driver plug-ins can be seemingly added to kiosk systems. SGP drivers include drivers for coin mechanisms, note acceptors, barcode readers, magnetic card readers and ticket printers.

The PcCredit Board drivers are ActiveX components that can be included into your own software, the basic driver is free of charge from this site or with additional functionality these drivers can be purchased from CyberD upon request, such additions include hopper controllers and ESCROW functions for note validators.

**Hardware Development Aids**

CyberD's development tool, Comm.-A-Scope, is a complete serial engineering application for PCs. Comm.-A-Scope has been developed for use with standard PC serial ports (both 9pin and 25pin) and incorporates all the available communication properties of the PC.

**Quotation**

Quotation Number: 70-088/Q009  
Quotation date: 15/11/06

**Truck Stop Traffic Information Kiosk**

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit Cost</th>
<th>Quantity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kiosk Hardware</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opti-Line 17” touch screen only fitted with Pentium 4 based PC with Microsoft Windows XP Professional and supply.</td>
<td>£33,147.00</td>
<td>1</td>
<td>£3,147.00</td>
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<tr>
<td><strong>Kiosk Browser Software</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Streetwise” customised CYT-Lox 2005, Watchdog software and remote synchronised system as used by Faber Maunsell for Traffic Scotland.</td>
<td>£355.00</td>
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<td>£355.00</td>
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<tr>
<td><strong>Kiosk Browser Software Modification</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Addition of on screen keyboard and removal of user feedback questionnaire.</td>
<td>£150.00</td>
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<td>£150.00</td>
</tr>
<tr>
<td><strong>Firewall and Anti Virus Software</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Installation and Configuration of commercial network security software</td>
<td>£100.00</td>
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<td>£100.00</td>
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<tr>
<td>On-site commissioning of kiosk systems</td>
<td></td>
<td></td>
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<tr>
<td>Set-up and testing of all systems on site</td>
<td>£375.00</td>
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<tr>
<td><strong>Sub Total</strong></td>
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<td><strong>VAT</strong></td>
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<td><strong>Total</strong></td>
<td></td>
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<td>£4,849.23</td>
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**Additional and Optional Services**

<table>
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<tr>
<th>Description</th>
<th>Unit Cost</th>
<th>Quantity</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td><strong>Option 1: Annual Real-Time Monitoring</strong></td>
<td></td>
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<tr>
<td>Subject to ADSL connection Type</td>
<td>£52.00pa</td>
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<td>£52.00pa</td>
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<tr>
<td><strong>Option 2: On Site Warranty</strong></td>
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<tr>
<td>On site replacement of warranted components during first year</td>
<td>£395.00</td>
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<td>£395.00</td>
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<tr>
<td><strong>Option 3: Extended On Site Warranty</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Extended hardware warranty per annum (maximum period 5 years)</td>
<td>£595.00pa</td>
<td>1</td>
<td>£595.00pa</td>
</tr>
<tr>
<td><strong>Option 4: Extended Software Support</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual software support after initial first six months (per annum)</td>
<td>£100.00pa</td>
<td>1</td>
<td>£100.00pa</td>
</tr>
</tbody>
</table>

**Terms** prices fixed 30 days