

Field service

Solutions



On-site access by communication with
PHL1300

nashuatec

ABOUT NASHUATEC

Field maintenance engineers of Nashuatec in the Benelux repair and maintain copiers and printers for service contracted customers at the customer's office. They needed wireless communication from a scanner to their laptop in order to create an efficient solution for their inventory system.

FEATURED PRODUCT: PHL1300

Key PHL1300 features for this solution:

- IrDA communication interface
- Choice for rechargeable (Li-Ion) or dry cell (AA) batteries
- 8 MB inventory memory

INTRODUCTION

Nashuatec is a global leader in providing customers with document management solutions, services, supplies and consultancy. Nashuatec is part of the international sales and service arm of the Ricoh Group, one of the world's largest suppliers of advanced technology for the office. In the Benelux Nashuatec supports some 50,000 customers whom it supports locally via its head offices in Brussels (Belgium) and Den Bosch (Netherlands).

IRDA



RELATED PRODUCTS

PHL2700



OPH1004



APPLICATION

The field maintenance engineers repair and maintain copiers and printers for service contracted customers, at the customer site. This means that they are mobile and must carry all the required tools and spare parts in their vehicles and manage their inventories effectively. To do this the workforce needed the right equipment and application to register on-site the used parts and immediately generate an order. This is done on their laptop, which in turn can communicate with the central computer by mobile phone. For the registration of the mutations in the stock data a wireless handy-sized terminal was required. The PHL 1300 of Opticon was selected for its physical size, portability, easy use, 8 MB memory and the possibility to use regular dry cell batteries. The PHL1300 is standard equipped with an integrated barcode laser scanner and an IrDA interface.

THE CHALLENGE

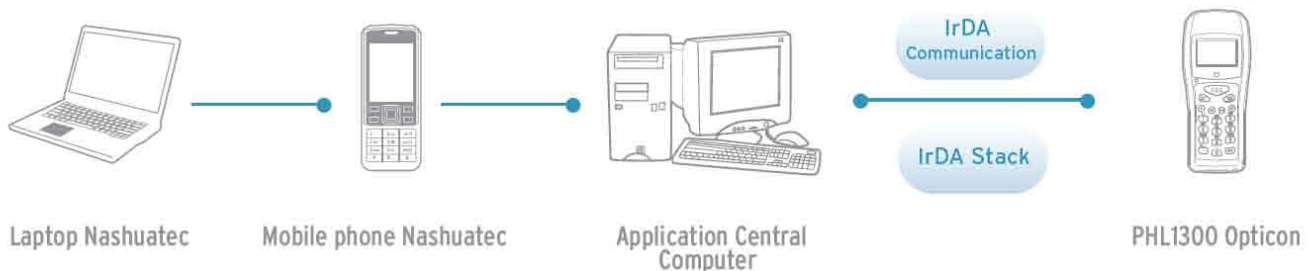
One of the difficulties that had to be conquered concerned the protocols. The protocols that were required for this type of IrDA communication were not provided in the standard software. Another issue was the fact that both PHL1300 and the laptop are naturally primary devices. For the communication a primary and secondary device is needed, so the PHL1300 had to act as a secondary device. With the use of the PHL 1300 and the IrDA stack of pro-

ocols the field maintenance engineer mutates on site the required data. When the engineer takes a part from the stock in his vehicle he scans the barcode on that part. On-site the serial number of the printer or copier is scanned. The Nashuatec application stores the data. After repair or maintenance the engineer sends the data mutations to the central computer by a mobile phone. The central office processes the data flow and takes care of further handling such as invoicing to the customer and replacement of the engineer's stock.

SOLUTION

Opticon's software engineers created a complete stack of protocols that could be linked to the application in the PHL1300. This on-site operating routine requires no unnecessary equipment, works fast, processes on-location and has undoubtedly brought significant benefits such as increased accuracy and time & money savings. For the wireless communication between the terminal and the laptop a quick and plain method was required. Opticon developed a complete IrDA stack providing all necessary protocols, like:

- Link Access Protocol for reliable data transmission
- Link Management Protocol to share multiple applications on a single device
- Tiny Transport Protocol for the data flow
- IrDA Protocol for the communication between IrDA and serial devices.



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