



ITS 32

Edition 1 / October 2005

Interface Technical Specifications
for the France Telecom network

As required by Directive 1999/5/EC

**Characteristics
of network user interfaces
for the Pack Surf WiFi Access service**

Summary: This document presents the technical specifications of the network user interfaces for the Pack Surf WiFi Access service.

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2. the fact that a service not yet commercially open is described in this document can in no case be considered as a binding commitment on France Telecom part to actually open this service.

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1. GENERAL PRESENTATION OF THE PACK SURF WIFI ACCESS

1.1 GENERAL DEFINITION

The Pack Surf WiFi Access service provides access to the Pack Surf WiFi (PSW) service. The PSW service is a high-speed digital wireless link to interconnect the customers of a site and provide them an Internet access.

The proposed interconnection service is limited to Level 3 of the OSI model (network).

1.2 SERVICE ACCESS EQUIPMENT (EAS) FOR PACK SURF WIFI ACCESS WITH THE PTR

Access to the Pack Surf WiFi Access service is implemented using EAS (Customer Premises Equipment) supplied by France Telecom. On the user side of the equipment, the PTR supports Ethernet and Fast Ethernet type interfaces. Via these interfaces, the user sends and receives a flow of Ethernet frames and France Telecom carries the content of these frames via its network.

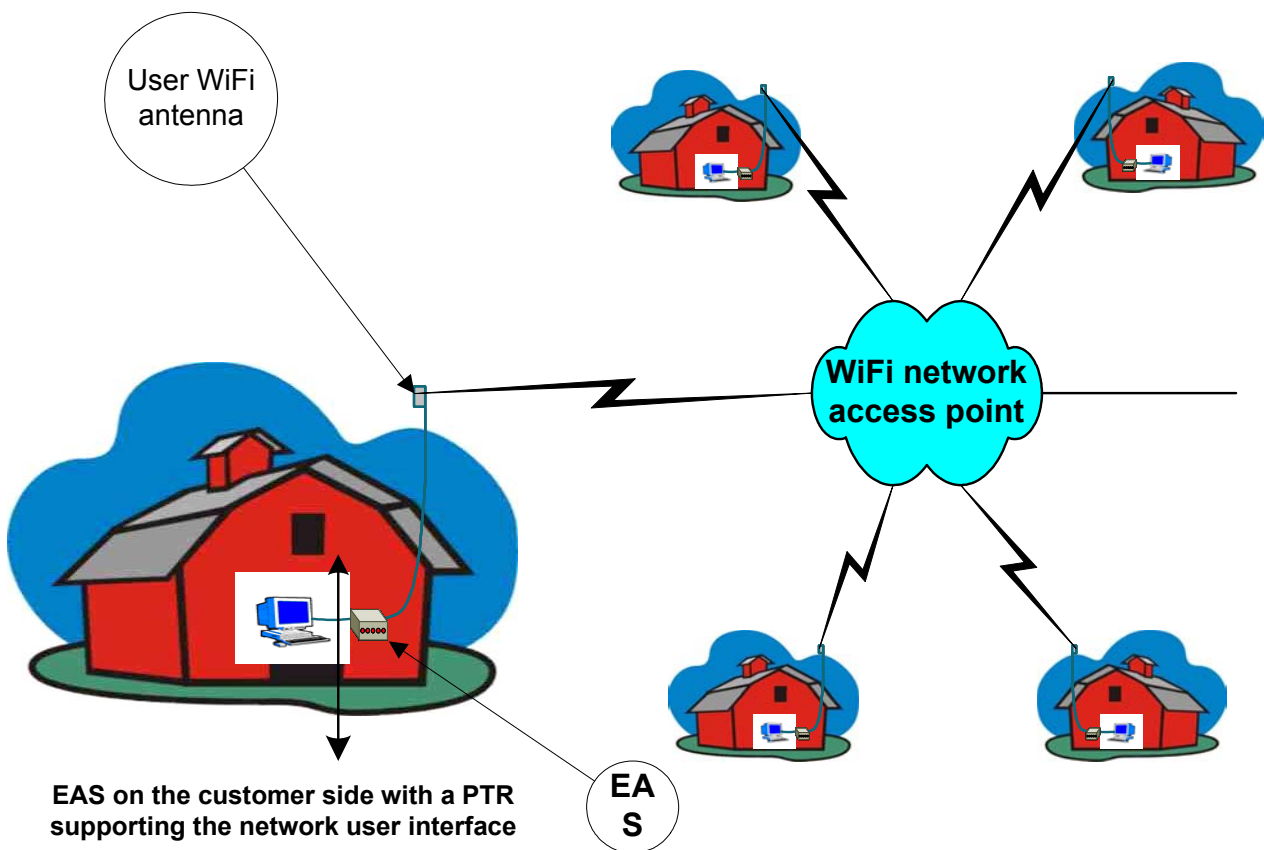


Figure 1: Access to the Pack Surf WiFi Access service

As illustrated in Figure 1, an EAS equipped with one PTR supporting Ethernet or Fast Ethernet type interfaces is installed on each customer site. This equipment provides access to local interconnection links or to the Internet.

2. CHARACTERISTICS OF USER INTERFACES FOR THE PACK SURF WIFI ACCESS SERVICE

2.1 INTERFACES USED AT THE level OF THE PTR

The interfaces provided for the PTR are two types of Ethernet interfaces:

- Ethernet 10 BASE-T,
- Fast Ethernet 100 BASE-TX.

Either a straight or crosslay cable can be used, since the EAS has the MDI/MDIX function.

2.2 LINKS

The links implemented within the framework of the Pack Surf WiFi service have different characteristics, depending on whether they are local (interconnection service) or for the Internet (Internet access service).

The local connections of the interconnection service:

- are symmetrical, that is to say they authorise the exchange of information in both transmission directions, with identical speeds,
- share the entire bandwidth of the network WiFi access point between the EAS connected to the network.

Internet access service connections:

- are asymmetrical, that is to say they authorise the exchange of information in both transmission directions, with different speeds,
- speed can reach 128 Kbits/s, 512 Kbits/s or 1024 Kbits/s in a downward direction, depending on the Internet access offering subscribed to.

2.6 TRANSMISSION MODE

The customer has the choice between a half duplex or full duplex option for the transmission mode.

2.4 THE CONFIGURATION PROPOSED

The customer terminal is assigned:

- a private IP address for interconnections with other customers of the site served by WiFi,
- a public IP address for Internet access.

2.5 STANDARDS TO BE COMPLIED WITH

LEVEL 3: NETWORK

The following standards are accepted:

- RFC 791 Internet Protocol,
- RFC 792 Internet Control Message Protocol,
- RFC 826 Ethernet Address Resolution Protocol,
- RFC 894 IP Datagram over Ethernet Networks (partial implementation).

LEVEL 2: DATA LINK

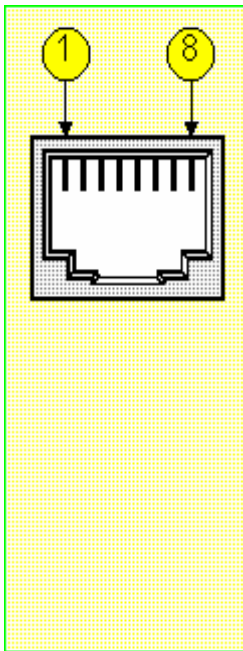
The Ethernet frames generated by the customer from his equipment must comply with the IEEE 802.3 standard. This standard specifies the physical level and MAC level for Ethernet 10 BASE-T networks with the CSMA-CD access method.

The FastEthernet frames generated by the customer from his equipment must comply with the IEEE 802.3u standard. This standard specifies the physical level and MAC level for Ethernet 100 BASE-TX networks with the CSMA-CD access method.

The following table describes the service interfaces available for the Pack Surf WiFi Access service and their characteristics:

Interfaces for the Pack Surf WiFi Access service				
Type of service interface	Range (metres)	Type of connector	Impedance	Type of cable to be used
Ethernet (10 BASE-T)	100	ISO 8877 (RJ 45)	100 ohms	UTP 3 or above
Fast Ethernet (100 BASE-TX)	100	ISO 8877 (RJ 45)	100 ohms	UTP 5

The following figure describes the ISO 8877 (RJ45) connector and cables for the Pack Surf WiFi Access service:



The connector is represented as it appears on the front of the equipment:

Contact layout:

- 1 data out (Tx+)
- 2 data out (Tx-)
- 3 data in (Rx+)
- 4 not used
- 5 not used
- 6 data in (Rx-)
- 7 not used
- 8 not used

3. GLOSSARY

EAS	Service Access Equipment
PSW	Pack Surf WiFi
PTR	Network Termination Point

4. DOCUMENT HISTORY

Issue	Date	Comments
1	October 2005	Initial version