Summary: This document gives a brief description of the Ethernet LINK services, and describes the technical characteristics of the interfaces used for accessing the service.

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Notice


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France Telecom further points out users’ attention on the following points:

1. timer values are indicative and can be subject to modification,

2. due to various technical constraints, some services or service options may not be available on some interfaces,

3. 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. OVERVIEW

Ethernet LINK provides a service for high bit rate information transport principally for the Ethernet / Fast Ethernet interconnection of LANs.

The service offer includes Ethernet service. This service uses a standard Ethernet or Fast Ethernet interface operating in bridge mode.

Figure 1: Accessing the ‘Ethernet LINK’ service

This service is accessed via a Service Access Equipment (EAS), on which France Telecom install the service interfaces Ethernet or Fast Ethernet.
2. ETHERNET / FAST ETHERNET INTERFACE DESCRIPTIONS

France Telecom establishes a permanent bidirectional digital transmission service between two customer sites or between a central customer site and several remote sites, with bit rates ranging from 256 Kbit/s to 100 Mbit/s. The transmission mode is either half-duplex or full-duplex. The same interface allows the support of Ethernet 10Base-T (according to standard IEEE 802.3) or Ethernet 100Base-TX (according to standard IEEE 802.3u). The Ethernet frames have to be in accordance with the standard IEEE 802.3 CSMA-CD access method. The Ethernet and Fast Ethernet interfaces are transparent with regard to the "spanning tree" protocol frames. These interfaces may be configured to allow or disallow VLAN IEEE 802.1Q service. The internal bridge shall be able to create dynamic MAC address entries (2000 at least).

The connecting interfaces are available on a 8 points female RJ45 connector compliant with the MDI type of 8877 ISO Standard.

<table>
<thead>
<tr>
<th>Interface type</th>
<th>Distance</th>
<th>Connector type</th>
<th>Impedance</th>
<th>Type of cable to be used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet (10 BASE-T)</td>
<td>100 metres</td>
<td>ISO 8877 (RJ 45)</td>
<td>100 ohms</td>
<td>UTP 3 or over</td>
</tr>
<tr>
<td>Fast Ethernet (100Base-TX)</td>
<td>100 metres</td>
<td>ISO 8877 (RJ 45)</td>
<td>100 ohms</td>
<td>UTP 3 or over</td>
</tr>
</tbody>
</table>

Table 1 : Ethernet and Fast Ethernet interfaces characteristics

Figure 2 describes the female ISO 8877 connector (RJ45) present on the France Telecom access equipment (EAS) and its cabling:

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

Assignment of the contacts:
1. Transmission Tx+
2. Transmission Tx-
3. Reception Rx+
4. not used
5. not used
6. Reception Rx-
7. Reserved
8. Reserved

Figure 2 : ISO 8877 connector (RJ45) of the Ethernet and Fast Ethernet interfaces

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### 3. HISTORY

<table>
<thead>
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<th>Edition</th>
<th>Date</th>
<th>Comments</th>
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</thead>
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<tr>
<td>1</td>
<td>September 2005</td>
<td>First version</td>
</tr>
<tr>
<td>2</td>
<td>November 2005</td>
<td>This ITS concerns only the Ethernet and Fast Ethernet interfaces</td>
</tr>
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