

# Packet Switched Services Not Available for New Supply



## 1. Service Description

- Internationally available standard.
- Caters for medium data rates - up to 48 Kb/s from KC.
- High integrity of data delivery - each link in the network employs error detection and re-transmission.
- Packets of data are routed through a mesh network in accordance with destination address information contained in the packet header.
- The network is capable of routing data packets around faulty links and nodes. Many alternative routes are available within public networks.
- Rental plus usage charges - pay for what you use.
- Available via leased line, or via modem and a PSTN line.
- Not suitable for time critical applications e.g. voice or video transmission.
- Not suitable for interactive applications with short response time requirements.
- Suitable for remote access by a terminal to a server.

## 2. Benefits

- Circuit switching can waste bandwidth, but packet switching conserves bandwidth by interleaving data from multiple sources and packing it onto the circuit wherever there is room.
- Packet Switching eases compatibility problems in communicating between PC's.
- Can use when businesses require communication across many networks of different protocol standards and different devices.
- X.25 was developed to recover errors within the network because of the high error rate in the transmission process.

## 3. Example Application

- A large exporting company which regularly transmit large volumes of information from PC to PC within their network, needs to ensure that the information is received quickly and accurately at the other end of the connection. X.25 Packet Switch ensures that they will be notified of error detection.

## 4. Data Lines - Access Charges

### Permanent Service

01/01/2010		Connection charge / Single Payment		Annual Rental	
		Ex VAT	Inc. VAT	Ex VAT	Inc. VAT
<b>Data Lines</b>					
<b>Packet Terminals (Line Speed)</b>					
1	2400 b/s	£475.00	£570.00	£1,968.00	£2,361.60
	9600 b/s	£840.00	£1,008.00	£3,720.00	£4,464.00
	48K b/s	Specially Assessed		£9,000.00	£10,800.00
<b>Character Terminals (Line Speed)</b>					
2	300 b/s	£210.00	£252.00	£1,236.00	£1,483.20
	1200 b/s	£370.00	£444.00	£1,236.00	£1,483.20

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2400 b/s	Specially Assessed			
<u>1200/75 b/s Error Correction (See Note 1)</u>	£315.00	£378.00	£675.00	£810.00
<u>1200/75 b/s View data (See Note 1)</u>	£315.00	£378.00	£744.00	£892.80

### Temporary Service

01/01/10		Charge for One Calendar Month or Less		Charge for Each Additional Month or Part	
Data Lines		Ex VAT	Inc. VAT	Ex VAT	Inc. VAT
<b>Packet Terminals (Line Speed)</b>					
1	2400 b/s	£865.00	£1,038.00	£186.00	£223.20
	9600 b/s	£1,580.00	£1,896.00	£350.00	£420.00
<b>Character Terminals (Line Speed)</b>					
2	300 b/s	£455.00	£546.00	£117.00	£140.40
	1200 b/s	£615.00	£738.00	£117.00	£140.40
	<u>1200/75 b/s Error Correction (See Note 1)</u>	£455.00	£546.00	£64.00	£76.80
	<u>1200/75 b/s Viewdata (See Note 1)</u>	£470.00	£564.00	£70.00	£84.00

### Reconnection after Temporary Suspension Of Service ([See Note 2](#))

01/01/10		Reconnection Charge	
Data Lines		Ex VAT	Inc. VAT
<b>Packet Terminals (Line Speed)</b>			
1	2400 b/s	£55.00	£66.00
	9600 b/s	£105.00	£126.00
	48K b/s	£210.00	£252.00
<b>Character Terminals (Line Speed)</b>			
2	300 b/s	£32.00	£38.40
	1200 b/s	£32.00	£38.40
	1200/75 Error Correction	£32.00	£38.40
	1200/75 View data	£32.00	£38.40

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## 5. Dial-Up - Access Charges

### Network User Identity

01/01/2010 Description	Initial Payment		Annual Rental	
	Ex VAT	Inc. VAT	Ex VAT	Inc. VAT
<u>X.28 (See Note 3)</u>	£42.00	£50.40	£45.00	£54.00
<u>V Pad, E Pad (See Note 3)</u>	£42.00	£50.40	£114.00	£136.80
<u>T Pad (See Note 4)</u>	£42.00	£50.40	£114.00	£136.80

01/01/2010 Description	Connection Charge		Annual Rental	
	Ex VAT	Inc. VAT	Ex VAT	Inc. VAT
<u>Network User Identity (See Note 3)</u>	£26.00	£31.20	£30.00	£36.00

### Temporary Invalidation & Revalidation of Any Network User Identity

01/01/10 Description	Charge	
	Ex VAT	Inc. VAT
1. For a period of time specified at the time of making the customer's request	£21.00	£25.20
2. Any other temporary invalidation	£21.00	£25.20
3. Revalidation after temporary invalidation in accordance with 2. above	£21.00	£25.20

## 6. Notes

1. For Customer without end modem
2. Data lines that have been completely disconnected may only be reconnected in consequence of a further application for service.
3. Charge per Network User Identity (NUI).
4. Charge per Network User Address (NUA).

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## 7. Ancillary Services And Facilities

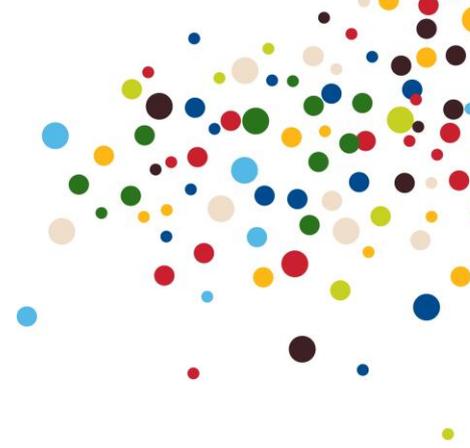
01/01/2010 Description	Charge	
	Ex VAT	Inc. VAT
Change of address to which accounts for charges are sent (at customer's request) (Unless made simultaneously with recording of change of customer's name)	£21.00	£25.20
Recording of change of customer's name	£20.00	£24.00
Itemised Calls - Up to 10 sheets	£3.20	£3.84
- Extra sheets (See Note 3)	£0.35	£0.42

01/01/10 Description	Single Payment for change of facility		Annual Rental	
	Ex VAT	Inc. VAT	Ex VAT	Inc. VAT
<u>Local Closed User Group (CUG) Facility (Note 1)</u>	£21.00	£25.20	£21.00	£25.20
<u>National Closed User Group (CUG) Facility (Note 1)</u>	£42.00	£50.40	£63.00	£75.60
<u>Fast Select Acceptance Facility (Note 1 &amp; 2)</u>	£21.00	£25.20	N/A	
<u>Logical Channels - Per Channel (Note 2 &amp; 4)</u>	£21.00	£25.20	£21.00	£25.20
Multiline	Standard Charge for Each Item			
<u>Local Call Redirection (Note 2)</u>	£21.00	£25.20	£21.00	£25.20

## 8. Notes:

- [1.](#) The charge appropriate to the provision of this facility is payable only in respect of the provision of such facility after the initial provision of a data line or NUI.
- [2.](#) Facilities numbered 3.16, 3.17 and 3.19 cannot be used for dial-up terminals.
- [3.](#) Each sheet has 30 lines of print.
- [4.](#) Logical channels are only available to Packet Terminals.

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## Calls - Local

### Data Calls and Converted Fast Select Calls ([See Note 5](#))

01/01/10 Description	Per 2 Secs (p)		Per Hour (p)	
	Standard	Cheap	Standard	Cheap
Duration Charge ( <a href="#">See Notes 1 &amp; 2</a> )				
All Data Line Terminals	0.017	0.017	30	30
Dial Up Terminals ( <a href="#">See Note 3</a> )	0.150	0.079	271	142
	Per Segment (p)		Per Kilo segment (p)	
Volume Charge ( <a href="#">See Note 1</a> )	Standard	Cheap	Standard	Cheap
All Data Line Terminals	0.030	0.030	30	30
Dial Up Terminals	0.030	0.030	30	30

### Fast Select Calls ([See Notes 4 and 5](#))

01/01/10 Description	Duration Charge (p)		Volume Charge (p)	
	Standard	Cheap	Standard	Cheap
Per Occasion	~	~	3	3

### Transaction Calls ([See Note 7](#))

01/01/10 Description	Duration Charge (p)		Volume Charge (p)	
	Standard	Cheap	Standard	Cheap
Per Occasion	~	~	2	2

### Attempted Calls ([See Note 6](#))

#### Notes

- Local and National calls are charged in steps of 2 seconds (Duration) and 1 segment (Volume).
- Standard rates apply to duration between 8am and 6pm, Monday to Friday.
- Cheap rates apply at all other times.
- Dial-up call duration charges include telephony usage charges (excluding initial unit charge which is charged on the normal telephone calls account).

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5. Fast Select Calls (successful or unsuccessful) are charged a "per occasion volume only charge" corresponding to 100 segments.

6. All calls (except Fast Select Calls) incur a minimum volume charge of 50 segments.

7. There is no charge for a call attempt if failure is due to the network. For call attempts to British Telecom PSS which do not mature into effective calls, and do not fail by reason of the British Telecom system, as identified by clear codes 03 and 13, there will be a charge of 7p for each call attempt.

8. Transaction Calls (successful or unsuccessful) are charged on a "per occasion" basis, subject to a maximum of 10 segments

### 9. Calls - National

To British Telecom PSS - (including Channel Islands and Isle of Man)

Data Calls and Converted Fast Select Calls ([See Note 5](#))

01/01/10 Description	Per 2 Secs (p)		Per Hour (p)	
	Standard	Cheap	Standard	Cheap
Duration Charge ( <a href="#">See Notes 1 &amp; 2</a> )				
All Data Line Terminals	0.017	0.017	30	30
Dial Up Terminals ( <a href="#">See Note 3</a> )	0.150	0.079	271	142

01/01/10 Volume Charge ( <a href="#">See Note 1</a> )	Per Segment (p)		Per Kilo segment (p)	
	Standard	Cheap	Standard	Cheap
All Data Line Terminals	0.030	0.030	30	30
Dial Up Terminals	0.030	0.030	30	30

Fast Select Calls ([See Notes 4 and 5](#))

01/01/10 Description	Duration Charge (p)		Volume Charge (p)	
	Standard	Cheap	Standard	Cheap
Per Occasion	~	~	3	3

Transaction Calls ([See Note 7](#))

01/01/10 Description	Duration Charge (p)		Volume Charge (p)	
	Standard	Cheap	Standard	Cheap
Per Occasion	~	~	2	2

Attempted Calls ([See Note 6](#))

# Packet Switched Services Not Available for New Supply



## Notes

1. Local and National calls are charged in steps of 2 seconds (Duration) and 1 segment (Volume).
2. Standard rates apply to duration between 8am and 6pm, Monday to Friday. Cheap rates apply at all other times.
3. Dial-up call duration charges include telephony usage charges (excluding initial unit charge which is charged on the normal telephone calls account).
4. Fast Select Calls (successful or unsuccessful) are charged a "per occasion volume only charge" corresponding to 100 segments.
5. All calls (except Fast Select Calls) incur a minimum volume charge of 50 segments.
6. There is no charge for a call attempt if failure is due to the network. For call attempts to British Telecom PSS which do not mature into effective calls, and do not fail by reason of the British Telecom system, as identified by clear codes 03 and 13, there will be a charge of 7p for each call attempt.
7. Transaction Calls (successful or unsuccessful) are charged on a "per occasion" basis, subject to a maximum of 10 segments

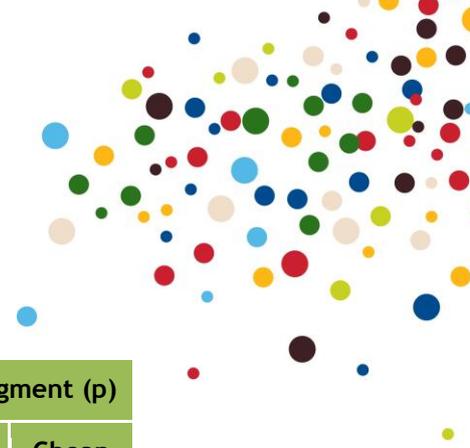
## 10. Calls - International

### Data Calls

01/01/10 Description	Per 30 Secs (p)		Per Hour (p)	
	Standard	Cheap	Standard	Cheap
All Data Line Terminal				
Band A - Europe	1.558	1.558	187	187
Band B - USA and Canada	3.875	3.875	465	465
Band C - All Other Countries	4.650	4.650	558	558
Dial-Up Terminals (See Note 3)				
Band A - Europe	2.940	1.867	353	224
Band B - USA and Canada	5.258	4.183	631	502
Band C - All Other Countries	6.033	4.958	724	595

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01/01/10 Volume Charge ( <a href="#">See Note 1</a> )	Per 5 Segment (p)		Per Kilo segment (p)	
	Standard	Cheap	Standard	Cheap
<b>All Data Line Terminals</b>				
Band A - Europe	0.935	0.935	187	187
Band B - USA and Canada	2.325	2.325	465	465
Band C - All Other Countries	2.790	2.790	558	558
<b>Dial-Up Terminals</b>				
Band A - Europe	0.935	0.935	187	187
Band B - USA and Canada	2.325	2.325	465	465
Band C - All Other Countries	2.790	2.790	558	558

### Attempted Calls ([See Note 4](#))

#### Notes

1. Minimum chargeable steps: International calls are charged in steps of 30 secs and 5 segments. All calls incur a minimum duration charge of 30 secs and 5 segments.
2. Standard rates apply to duration between 8am and 6pm Monday to Friday. Cheap rates apply at all other times.
3. Dial-up call duration charges include telephony usage charges (excluding initial unit charge which is charged on the normal telephone calls account).
4. There is no charge for a call attempt if failure is due to the network. For call attempts to British Telecom PSS which do not mature into effective calls, and do not fail by reason of the British Telecom system as identified by clear codes 03 and 13, there will be a charge of 5p for each call attempt.

#### Multistream

#### EPAD

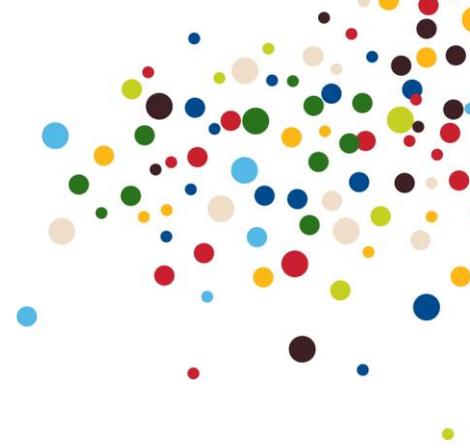
#### Duration Charge ([See Notes 1 and 2](#))

All Terminals                      £0.000139 per 2 seconds

#### Volume Charge ([See Note 1](#))

All Terminals                      £0.00025 per segment

# Packet Switched Services Not Available for New Supply



## VPAD

### Duration Charge ([See Notes 1 and 2](#))

All Terminals	£0.000139 per 2 seconds
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### Volume Charge ([See Note 1](#))

All Terminals	£0.00025 per segment
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## Notes

- [1.](#) Inland calls are charged in steps of 2 seconds (Duration) and 1 segment (Volume).
- [2.](#) For dial up services these charges are additional to normal telephone call charges.