

## Call metering services

**File  
3**

The CALL METERING module is used for collecting specific information concerning telephone communications and printing this information in various formats depending on the type of management selected.

This file describes the implementation and use of metering tickets or statements ; these elements can be printed out using a printer connected to the V24 metering outlet on the X7 connector of the CM board (Alcatel 4200E) or on a V24 4083 ASM or 4093 ASY – CTI option on a 40XX station (Alcatel 4200 C/D/D Small).

It is also possible to display data relating to communication.

**NOTE :** Not all the metering information supplied by the ISVPN+ protocol (operator, node, services : transit, overflow, ARS, ...) appears on the statements ; the use of this data can only be carried out from a central management application (Alcatel 4740 or other).

### ALCATEL 4200 E

#### V24 metering outlet :

- ▼ Defining parameters for printing from the metering outlet : format (information bits, parity, stop bits) and speed, by default : 7E1, 1200 bits/s).

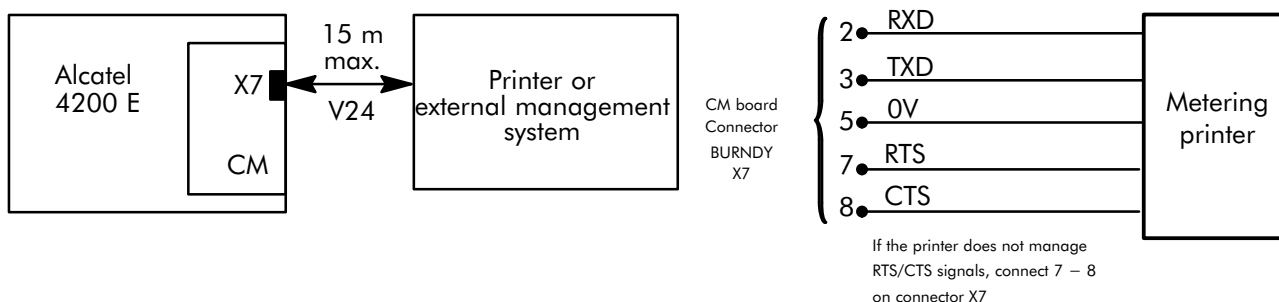
– by MMC–PC, select : **System –>Metering –>V24**

- ▼ Activating the V24 outlet : printing of tickets/statements active or not (default value)

– by MMC–PC, select:  
**System –>Metering –>Printout –>cross External Metering Activation**

It is also possible to display data about a communication on a station.

#### Connection



**ALCATEL 4200 C/D/D Small**

**V24 metering outlet:**

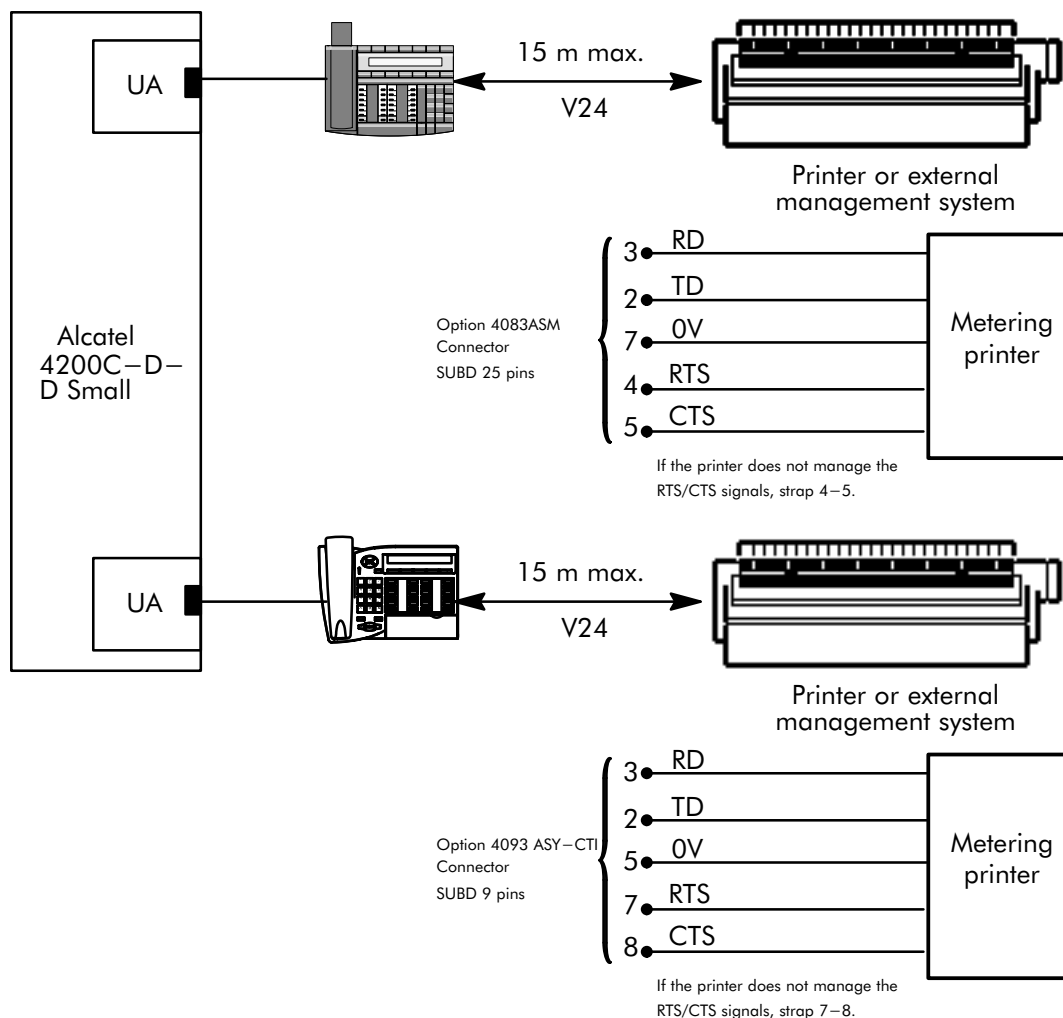
- ▼ Printing parameters from the metering outlet : format (information bits, parity, stop bits) and speed ; by default : 8N1, 9600 bits/s).

– by MMC-PC, select :  
**Subscriber** –>**Subscriber list** –> select V24 access–> **Details** –>**V24**

- ▼ Activating external metering : printing of tickets/statements is or is not activated (implicit value)

– by MMC-PC, select:  
**System** –>**Metering** –>**Print out** –>cross **External Metering Activation**

**Connection**



## **PRINCIPLES**

### **Meter charging according to the feature phase**

- |  |   |  |
|--|---|--|
| <b>CONVERSATION</b><br>with              | : | The charge units received on the line are assigned to the station which it is in conversation.   |
| <b>PARKING or HOLD</b>                   | : | The charge units received on a parked line or one on hold are assigned to the station which initiated the parking.   |
| <b>RETRIEVE FROM HOLD<br/>or PARKING</b> | : | The charge units are assigned to the initiator of the service.<br>The charge units are then assigned to the user retrieving the call.  |
| <b>AUTOMATIC FORWARDING</b>              | : | The system cannot manage the cost of external forwarding, this is managed by the public network.   |
| <b>CONFERENCE</b><br>conference.         | : | The cost of a conference is charged to the initiator of the conference.  |
| <b>TRANSFER</b>                          | : | <ul style="list-style-type: none"> <li>• If the transfer occurs during an external call, the cost of the communication is charged to the initial user as long as the external user does not enter into conversation with his new correspondent.</li> <li>• When a call is transferred during the ringing phase or on busy, the cost of the communication is charged to the transfer destination.</li> <li>• No units are charged to the operator during the transfer of an external call to a system user ; all the charge units are assigned to the destination station.<br/>However, if a call is destined for the operator (by transfer or recall), the communication is charged to him.</li> </ul> |
| <b>EXT/EXT TRANSFER</b>                  | : | The charge units received after the transfer are assigned to the user who made the second external call.   |
| <b>TRANSFER FAILURE</b>                  | : | A call back in the case of a transfer failure is always managed as an incoming communication for the station on which the call is rerouted after the non-answer time-out.  |
| <b>EXTERNAL FORWARDING</b>               | : | In the case of an internal call to a user being forwarded on an external number, the charge units are assigned to the forwarded station.   |

## **DURATION AND COST**

### **Duration**

The system counts two types of duration :

- Duration of the communication : this corresponds to the time during which the system considers that a line is allocated to a station ; this accounting occurs after the first switch to conversation mode by the station with the line.
- Call phase duration : the system counts the call phase duration of an incoming external communication from the moment when the system detects the call to when the line changes to conversation with a system station. This information is used during external management.

### **Cost**

The cost of a communication is calculated according to the number of units charged :

- The value of the basic charge unit is constant, regardless of the length of the communication.
- The value of the basic charge unit is variable : the cost of the first x charge units is calculated according to the first value of the basic charge unit. As soon as a threshold number of charge units is reached, the cost is calculated according to a second charge unit value.

### **NOTE :**

The software allows the actual duration of the communication to be shown on the metering ticket :

- on receipt of a CONNECT message on digital networks
- on receipt of a polarity inversion or a metering pulse on analog networks.

In all other cases, the duration given is only approximative since it is calculated by a SIMUL\_DEC mechanism.

### **Useful parameters for calculating the cost of a communication :**

- ▼ Value of the basic charge unit before having reached the configured threshold (6 digits in the chosen monetary unit, of which 0 to 2 are decimals)

– by MMC-PC, select :  
**System –>Metering –>Options–>1. base charge rate**

- ▼ Threshold taking into account the second basic charge unit value (in metering numbers from 0 to 99)

– by MMC-PC, select :  
**System –>Metering –>Options–>No units for cost threshold**

- ▼ Second basic charge unit value (6 digits of which 0 to 2 are decimals)

– by MMC-PC, select :  
**System –>Metering –>Options–>2. base charge rate**

## APPLICATIONS SECTION

## Alcatel 4200

## CALL METERING SERVICES

### ▼ Number of decimals in the cost

– by MMC–PC, select :  
**System –> Metering –> Options –> Fractional part length for costs**

**NOTE :** If operation with a single charge unit value has been chosen, the same value must be given to the second charge unit value.

## **COST OF ISDN SERVICES**

Since the costs of some facilities are not transmitted by the public network, it is possible to assign a given value to the cost counter whenever such a service is activated.

### **Cost of ISDN services :**

- ▼ Cost of on-line metering (in metering numbers) in the case of manual activation (if the network does not add the cost of the service at the beginning of the communication).

– by MMC-PC, select :  
**System –> Metering –> Options –> On line metering**

- ▼ Cost of user to user signalling (in the monetary unit chosen, 6 digits of which 0 to 2 are decimal).

– by MMC-PC, select :  
**System –> Metering –> Options –> User to User information**

- ▼ Cost of PABX forwarding (in the monetary unit chosen, 6 digits of which 0 to 2 are decimal).

– by MMC-PC, select :  
**System –> Metering –> Options –> Diversion charge rate**

### **Example of the calculation of the cost of a communication**

This example shows the consequences of using the "Remote charge" and "UUS" services in the cost of a communication.

Parameters configured :

- basic charge unit value : 1, 70 F
- threshold : 1 charge unit
- second basic charge unit value after threshold : 2 F
- cost of on-line metering : 4 charge units
- cost of UUS : 5,10 F

Example of a statement :

A100 --> N01 23/10/9608:31 00:00:08 **8** ST TI 00388677700..**14.500**

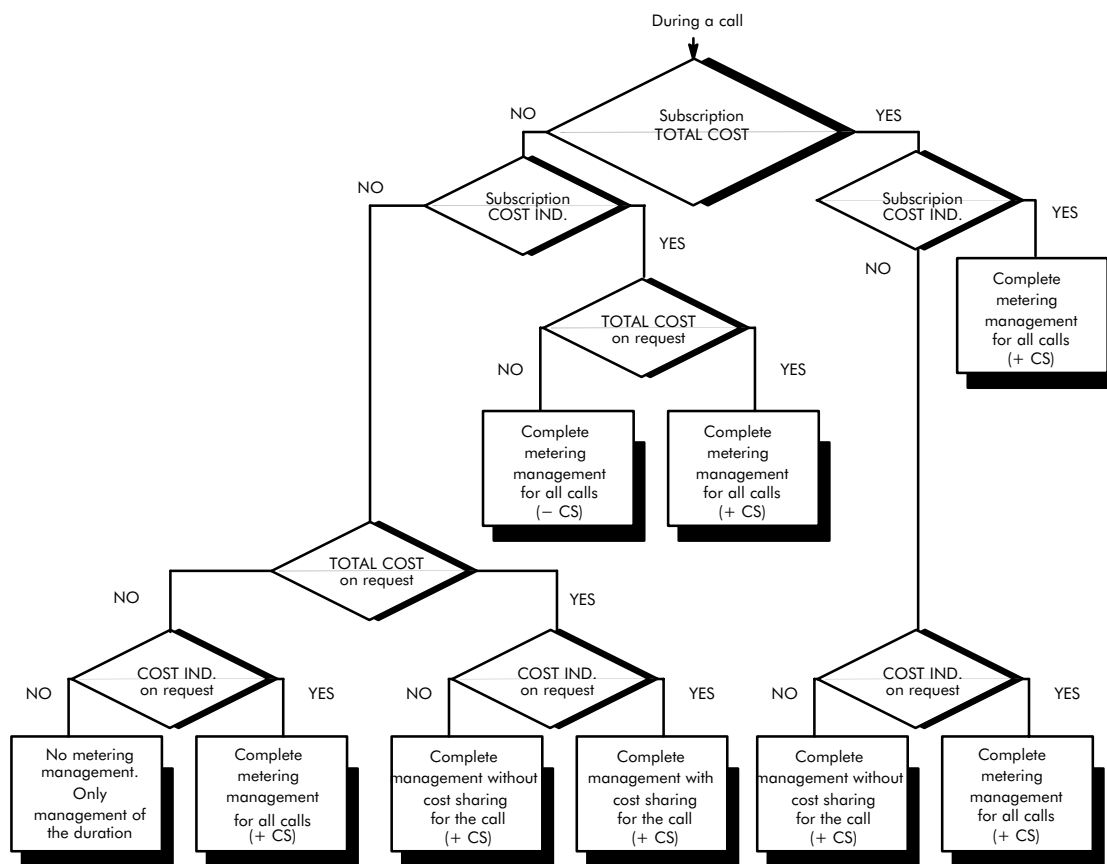
The 8 charge units are made up as follows :

- **1** charge unit for the call ; cost = **1,70 F**
- **4** charge units for activation of the on-line metering ; cost = **7, 70 F** (1 x 1, 70 F + 3 x 2 F)
- **3** charge units for UUS (calculated as : number of charge units = UUS/first basic charge unit value cost, be it 5,10/1,70 = 3) ; cost = **5,10 F**

## SUPPLEMENTARY SERVICES

### – on–line metering (T)

This supplementary service includes the services TOTAL COST (display of the total cost on release of the communication) and COST INDICATION (display of the cost during a communication). Different cases are possible :



Subscription to the TOTAL COST or the COST INDICATION signifies that this supplementary service is activated, on subscription, by the network operator.

TOTAL COST or COST INDICATION on request (call by call) signifies that the supplementary service is activated by system configuration (MMC) or by activation from an S0 station.

+ CS signifies that the cost of supplementary services (UUS, terminal forwarding) is managed (–CS for the contrary).

At each automatic or manual activation of the ON–LINE METERING request, a charge unit is assigned to the calling party.

### ▼ Activation of the on–line metering during or at the end of communication

– by MMC–PC, select :

**System –> Metering –> Options –> Advice of charge –> cross ☐ During the call and/or ☐ At the end of the call**

### – User to User Signalling (I)

The cost of this service is programmable by MMC.

It does not depend on the length of the message. It is assigned as soon as the UUS is transmitted (even if the called party has not answered). The cost is assigned to the user who initiated the call : it therefore only applies to outgoing calls.

**Note :** During such a call, the cost of outgoing and incoming messages is assigned to him.

### – Terminal forwarding or external forwarding (R)

A ticket or statement is printed whenever this feature is activated or deactivated.

## BEARER SERVICES

One of the metering ticket fields mentions the bearer service used for the communication.

The following bearer services are offered :

- **ST** : voice, group 3 facsimile, teletex and videotex type services.
- **T+** : group 4 facsimile, transparent data transmission.



## INFORMATION DISPLAYED ON A STATION

Temporary counters keep track of information destined to be displayed during a trunk conversation.

**Information which can be displayed on all system stations with displays (except S0 stations) :**

- ▼ duration
- ▼ duration + number of charge units (including supplementary service ones)
- ▼ duration + cost

– by MMC-PC, select :  
**System –> Metering –> Options –> display on sets**

### Metering counter

- This counter counts the number of charge units received on a line and assigns them to a given station.
- It is reset when the line is released or the call is transferred to a new station.

### Duration counter

- This counter adds up the duration (in minutes) during which a given line is in connection with a given station.
- It is reset when the line is released or allocated to a new station.

### Cost counter

- This counter records the cost of a communication (in local currency) between a given station and a trunk line.
- It is reset when the line is released or allocated to a new station.

### Examples of displays

- Station 4034 and Advanced :

00388736458	xxx.yy Frs xxx'
Hold	<input type="checkbox"/> Conf <input type="checkbox"/> MF>

- Station 4023 :

xxx.yy Frs xxx'
Hold

- Stations 4011, 4012, Easy and Premium :

xxx.yy Frs xxx'
-----------------

## **METERING COUNTERS**

### **Description of the counters**

The recording of the number of charge units and the cost of communications is done by 12 counters, distributed as follows :

#### **– 10 station counters :**

- 2 adding counters (one for the number of charge units and one for the cost) :
  - read only
  - no reset possible
  - the number of charge units displayed returns to zero when the maximum number is reached
- 8 partial counters (4 charge counters, 4 cost counters) :
  - read only
  - reset possible by MMC

The storage capacity of these counters is 65535 charge units.

#### **– 2 line counters :**

- one partial charge counter which can be reset
- one adding charge counter which cannot be reset

The storage capacity of these counters is 4 thousand million charge units.

All of these counters can be read from MMC STATION or from MMC PC (the updating of metering counters at MMC PC level can only be done during PABX → PC backup in a new file).

### **Metering counters**

#### **▼ Reading and resetting station counters**

– by MMC-PC, select :  
**Subscribers –> Subscribers List –> Station identification –> Details –> Metering**

#### **▼ Reading and resetting line counters**

– by MMC-PC, select : **Trunks –> Trunk List –> Line identification –> Details**

#### **▼ Reading all the station adding counters**

– by MMC-PC, select : **System –> Metering –> Metering Counters**

## APPLICATIONS SECTION

## Alcatel 4200

## CALL METERING SERVICES

### Changes of the counters in break-out/transit

- normal break-out (line leased to the public line) : the line counter changes
- break-out (line leased to the public line) by external forwarding : the station counter changes
- normal transit (public line to public line) : no counter change
- transit (public line to public line) by hunting group external forwarding : the hunting group counter changes

### Print out of the cost counters

The contents of the counters can also be printed by the metering printer (by MMC STATION : **Instal/ Admin** -> **Count** -> **Extens** or **Access**).

### Station counters and operator counters

TAXES AND COST COUNTERS PER SUBSCRIBER

– 12/08/92 14:05

USER	TAXES COST	: C1 : C1	C2 C2	C3 C3	C4 C4	TOTAL TOTAL
A101		1203	20	0	400	2645
		2467.50	422.32	0	53	23577.45
G1		23	0	2	0	60
		47.05	0	23.76	0	458.32

FIELD	MEANING
USER	Terminal number (5 characters max. right justified) ; the number format is : – AXXX for a subscriber – GXX for a hunting group
C1–C2–C3–C4	Partial charge counter per subscriber/hunting group (5 characters)
TOTAL	Total cost counter per subscriber/hunting group (5 characters)

**Line counters**

TAX METERS PER ACCESS                      –                      12/08/92    14:05

ACCESS	PARTIAL	TOTAL
L01	12030	26452584
N01	23532	6052487
L03	24543	6503452

FIELD	MEANING
ACCESS	Access number (5 characters max. right justified) ; the number format is : – LXX in the case of an analog line during a transit – NXX in the case of a T0 basic access – PX in the case of T2 primary access
PARTIAL	Partial charge counter per access (10 characters)
TOTAL	Total charge counter per access (10 characters)

**NOTE :**

- As soon as a counter printout has been activated, no statement or ticket can be printed.
- A form feed is automatically performed before and after a counter printout.
- If the installer wants the SUBSCRIBER and the ACCESS counters to be printed on the same page, the second printout request must be done before the end of processing the first printout.
- Pressing successively on the Extens (or Access) key results in printing the counters twice. A third request is only taken into account when the first request has been printed.
- If a printout problem occurs (for example no more paper), any printout request is ignored.
- No specific display on the station indicates a printer problem. Only a system message is generated.

## **MANAGEMENT OF METERING TICKETS / STATEMENTS**

The system enables metering tickets and statements to be printed out.

### **Choice of the type of metering information printout**

- ▼ statement printout line by line
- ▼ printout of metering tickets (1 ticket per communication)

– by MMC-PC, select :  
**System –> Metering –> Printout –> Type of printout**

Each communication answering to the monitoring parameters defined for the different stations in the system, provokes a ticket printout.

If a communication is free (incoming call for example) or in the case of an unanswered incoming call, the transmitted ticket will specify the call history (ringing time, call duration, ...).

### **Station monitoring**

- ▼ Definition of the monitoring criteria values : cost threshold (monetary value), duration threshold (from 0 to 99 minutes), international prefix (4 digits maximum).

– by MMC-PC, select :  
**System –> Metering –> Options –> Activation Criteria**

- ▼ Assigning the type of monitored communications for each station (parameter to be defined station by station) : none (no monitoring) or for all communications (outgoing and incoming) or all outgoing communications with monitoring criteria active ; if this is the case, define the active criterion/criteria : duration threshold (in minutes), cost threshold (6 digits of which 0 to 2 are decimals) or monitored (international prefix).

– by MMC-PC, select :  
**Subscribers –> Subscribers List –> Station ident. –> Details –> Metering**

- ▼ It is also possible to assign a profile defining the applied monitoring criteria to a group of stations.

– by MMC-PC, select : **Subscribers –> Subscribers List –> Profiles**

- ▼ Printout of a ticket or statement if an incoming call is unanswered (no by default)

– by MMC-PC, select :  
**System –> Metering –> Printout (ticket/listing) –> choose whether or not to cross Print-out non-answered IC calls**

- ▼ Printout of a ticket for ATL communications ("ATLTicket" noteworthy address)

## **FUNCTION OF THE BUFFER MEMORY**

This is used to temporarily store the different messages (output terminal not available, several simultaneous messages etc,...).

The maximum number of tickets or statements that can be stored is equal to 100 (4200C P2 and 4200D Small) or 200 (4200C P5 and 4200D) or 400 (4200E).

### **Alarm activation threshold**

▼ percentage of tickets or statements printed before the alarm is activated (between 0% and 99%, 70% by default)

– by MMC-PC, select :  
**System –> Metering –> Printout (ticket/listing) –> Printer alarm threshold**

As soon as the programmed threshold has been reached, an alarm is generated alerting the user (message in the call history + flashing of the operator LED).

When the buffer memory is full, any new information is lost.

## **XON/XOFF TRANSMISSION PROTOCOL**

When the printer is ready to print, it transmits an XON control character. The data received is stored on a buffer. If there are only a certain number of bytes available on this buffer, the printer will transmit XOFF. It continues to receive characters and print before transmission halt. When part of the buffer is released, it transmits XON. The printer also transmits XOFF in the event of the following problems : printer off-line, no more paper, paper jam, .... It transmits XON when these problems have been resolved.

**NOTE :** The printer DTR signal is connected to the interface CTS signal if XON is not received.

## APPLICATIONS SECTION

## Alcatel 4200

## CALL METERING SERVICES

### STATEMENTS PRINTED LINE BY LINE

Each statement corresponds to a communication (16 fields maximum, separated by a space.)

#### Statement output format :

USER	LINE	TIME	TAXES	ADD. SERVICES	MODE	COST	USER NAME
TYPE	DATE	DURATION	SERV	DIALLED NUMBER		RING	BUSIN. CODE
A101 -->	L04	23/10/96 08:31	00:02:40	6 ST	00388677700	M 00:00	1.000

#### Definition parameters for a statement :

##### ▼ language for the printout

– by MMC-PC, select :  
**System -> Metering -> Printout (listing) -> Language**

##### ▼ company name :16 characters maximum

– by MMC-PC, select :  
**System -> Metering -> Prinout (listing) -> Company name**

##### ▼ masking the last 4 digits of the dialled number

– by MMC-PC, select :  
**System -> Metering -> Printout (listing) -> choose whether or not to cross Masking 4 last digits**

##### ▼ maximum number of statements per page : 1 to 99 (50 by default)

– by MMC-PC, select :  
**System -> Metering -> Printout (listing) -> Proofs per page**

##### ▼ form feed at the end of the day : yes/no (no by default)

– by MMC-PC, select :  
**System -> Metering -> Printout (listing) -> choose whether or not to cross Formfeed permitted**

Select

##### ▼ printing of a header on each page, on the first page or not at all

– by MMC-PC, select :  
**System -> Metering -> Printout (listing) -> Head printout**

**NOTE :** If the form feed is active, it will be performed :

- when the maximum number of statements per page has been reached
- at the end of the day : the number of statements printed in one day is indicated at the bottom of the page on the right-hand side (5 digits maximum)
- during startup if the header printing parameter is active

**Definition parameters for a statement (continued) :**

▼ fields to be printed on the statement ; if none of the fields below have been defined, a default metering statement is printed. It includes all the fields preceded by an asterisk (\*) :

Select

- by MMC-PC, select : **System** –> **Metering** –> **Printout** –> **Printed fields** –> selection of each field :
- |                                 |                                       |
|---------------------------------|---------------------------------------|
| (*) charged user (yes/no)       | – dialing mode (yes/no)               |
| (*) communication type (yes/no) | – ringing duration (yes/no)           |
| (*) trunk n° (yes/no)           | – cost in the local currency (yes/no) |
| (*) date (yes/no)               | – account code (yes/no)               |
| (*) time (yes/no)               | – subscriber name (yes/no)            |
| (*) duration (yes/no)           | – initial user (yes/no)               |
| (*) amount of taxes (yes/no)    |                                       |
| (*) services (yes/no)           |                                       |
| (*) facilities (yes/no)         |                                       |
| (*) dialed number (yes/no)      |                                       |



## Alcatel 4200

### APPLICATIONS SECTION

### CALL METERING SERVICES

#### DESCRIPTION OF THE FIELDS MAKING UP THE STATEMENT

FIELD	DESCRIPTION
initial USER	5 characters Outgoing call : empty field indicated by **** Incoming call : called number (hunting group or station) – AXXX for a subscriber – GX for a hunting group (G9 for the operator group)
charged USER	5 characters Outgoing call : calling party Incoming call : user who answered the call Trunk identity not supplied : access number – AXXX calling or called* user – LXX for an analog line during break in/break out – NXX for T0 access (no private/public distinction) – PXX for T2 primary access (no private/public distinction)
TYPE	3 characters left justified Type of communication : –> : outgoing call on public network <-- : incoming call on public network CS+ : request supplementary service CS- : cancel supplementary service
LINE	3 characters Number of the line : – LXX (00 to 35) for a public analog line – NXX (00 to 17) for a public or private T0 basic access – PX (00 to 03) for a public or private T2 primary access for reactivation : R indication (room)
DATE	8 characters Date of the communication made up of 3 x 2 numbers separated by /
TIME	5 characters Time of the start of the communication made up of 2 x 2 numbers separated by :
DURATION	8 characters Duration of the communication 3 x 2 numbers separated by : for alarm : programmed time
TAXES	5 characters Number of charge units

FIELD	DESCRIPTION
SERV	2 characters Bearer services : – ST : telephone service (voice, G3 fax, teletex, videotex) – T+ : G4 fax, transparent data transmission
FACILITIES	6 characters max (each character indicating a supplementary service, the 6 supplementary services can be all activated together) Supplementary service : – I : user to user signalling – R : terminal forwarding (external forwarding) – T : on-line metering – S : substitution (DISA transit) – X : change correspondent (transfer) – N : PABX forwarding
DIALLED NUMBER	26 characters left justified Dialled number : – outgoing call : the number transmitted on the line (public or private) – incoming call : the number received on the line (public or private) – the destination number for external forwarding For alarm : ALARM PROGRAMMED, ALARM CANCELLED, ALARM ACKNOWLEDGED, ALARM NOT ACKNOWLEDGED : FREE or BUSY, STATION NOT AVAILABLE
MODE	1 character Dialling mode – M : manual dialling – I : personal speed dial numbers – R : collective speed dial numbers
RINGING	5 characters Duration of the ringer, for all incoming ringing phases, made up of 2 x 2 numbers separated by :
COST	10 characters Cost of the communication including a possible ISDN service activation
BUSINESS CODE	16 characters right justified Charge account code specific to the communication
SUBSCRIBER NAME	16 characters User name : – outgoing call : calling party – incoming call : called party – name associated to the business code

## Alcatel 4200

### APPLICATIONS SECTION

### CALL METERING SERVICES

#### EXAMPLES OF STATEMENTS

##### Outgoing call

USER	LINE	TIME	TAXES	FACILITIES	MODE	COST	USER NAME
TYPE I	DATE	DURATION	SERV I	DIALLED NUMBER	I	RING I	BUSIN CODE I
A101	--> N1	23/10/96 08:31	00:02:40	6 ST	00388677700	M 00:00 1.000	DUPONT

##### Transfer of an outgoing call

▼ A101 calls an external number then transfers the communication to 125.

USER	LINE	TIME	TAXES	FACILITIES	MODE	COST	USER NAME
TYPE I	DATE	DURATION	SERV I	DIALLED NUMBER	I	RING I	BUSIN CODE I
A101	--> N1	23/10/96 08:31	00:02:40	6 ST	00388677700	M 00:00 1.000	DUPONT
A125	--> N1	23/10/96 08:31	00:03:20	8 STX	00388677700	M 02:00 1.000	MARTIN

##### Transit call

▼ A101 is forwarded on the private external number 751234.

USER	LINE	TIME	TAXES	FACILITIES	MODE	COST	USER NAME
TYPE I	DATE	DURATION	SERV I	DIALLED NUMBER	I	RING I	BUSIN CODE I
A101	CS+	23/10/96 08:31	00:00:00	0 ** R	751234	M 00:00 0.000	DUPONT
A101	I->	N1 23/10/96 08:31	00:03:20	1 ST	751234	M 00:00 1.000	DUPONT
A101	<-I	N1 23/10/96 08:31	00:03:20	0 ST		M 00:00 1.000	DUPONT

##### Incoming station call

▼ Incoming call answered by the called station.

USER	LINE	TIME	TAXES	FACILITIES	MODE	COST	USER NAME
TYPE I	DATE	DURATION	SERV I	DIALLED NUMBER	I	RING I	BUSIN CODE I
A101A101	<--N1	23/10/96 08:31	00:02:40	0 ST	00388677700	M 00:04 0.000	DUPONT

▼ Incoming call answered by a station (A125) other than the called station (dynamic forwarding, interception, monitoring, immediate forwarding).

USER	LINE	TIME	TAXES	FACILITIES	MODE	COST	USER NAME
TYPE I	DATE	DURATION	SERV I	DIALLED NUMBER	I	RING I	BUSIN CODE I
A125A101	<--N1	23/10/96 08:31	00:02:40	0 ST	00388677700	M 00:04 0.000	MARTIN

##### Incoming hunting group call

▼ Incoming answered hunting group call.

USER	LINE	TIME	TAXES	FACILITIES	MODE	COST	USER NAME
TYPE I	DATE	DURATION	SERV I	DIALLED NUMBER	I	RING I	BUSIN CODE I
G50A125	<-- N1	23/10/96 08:31	00:02:40	0 ST	00388677700	M 00:04 0.000	MARTIN

### External forwarding

▼ The operator is forwarded on the external number 0388677700 ; 125 calls the operator.

USER	LINE	TIME	TAXES	FACILITIES	MODE	COST	USER NAME
	TYPE	DATE	DURATION	SERV	DIALLED NUMBER	RING	BUSIN CODE
G9	CS+	23/10/96	08:31 00:00:00	0 ** R	00388677700	M 00:00 0.000	PO
G9	--> N1	23/10/96	08:31 00:03:20	1 ST	00388677700	M 00:00 1.000	
G9	CS- indicates forward cancelled						

### METERING TICKETS

#### Printout format of a ticket

Number of the ticket printed during the day (here, it is the 19 ticket printed on 23/10/96).

N 19	ALCATEL
SUBSCRIBER :	A122
DATE :	25.12.1995
LINE :	11
TIME :	08:35
NUMBER :	00388677700
COST :	3.50

#### Definition parameters for a ticket :

▼ language for the printout

– by MMC-PC, select :  
**System –> Metering –> Printout (ticket) –> Language**

▼ company name : 16 characters max

– by MMC-PC, select :  
**System –> Metering –> Printout (ticket) –> Company name**

▼ masking the last 4 digits of the number dialled

– by MMC-PC, select : **System –> Metering –> Printout (ticket) –> choose whether or not to cross ☐ Masking 4 last digits**

▼ number of lines between tickets (1 by default)

– by MMC-PC, select :  
**System –> Metering –> Printout (ticket) –> No of blank lines**

## APPLICATIONS SECTION

### Alcatel 4200

## CALL METERING SERVICES

### Description of the fields making up the metering ticket

FIELD	DESCRIPTION
SUBSCRIBER or TERMINAL	Number of the station or terminal (5 characters max.) This number is preceded by A if it concerns a station
DATE	Current date. 8 characters : 3 x 2 digits separated by /
LINE	3 characters Number of the trunk line used (2 characters) – LXX (00 to 35) for a public analog trunk – NXX (0 to 17) for a private or public T0 basic acces – PX (0 to 3) for a private or public T2 primary access
TIME	Time of the start of the communication made up of 2 x 2 numbers separated by H.
NUMBER	Number dialled (26 characters maximum)
COST	Cost of the communication or the supplementary service

### ALARM

#### Conditions for printing a ticket/statement for alarms or temporary appointment reminders :

- ▼ alarm activated
- ▼ alarm cancelled
- ▼ alarm failed
- ▼ alarm answered

– by MMC–PC, select : **System –> Metering –> Printout (ticket/listing) –> Appointment printout for ...**

#### Printout format for a ticket

```

N 19          ALCATEL
-----
SUBSCRIBER:   A122
DATE          :   25.12.1995
TIME          :   08:35
ALARM ACKNOWLEDGED
  
```



## Alcatel 4200

### CALL METERING SERVICES

### APPLICATIONS SECTION

#### Printout format for a statement

USER	LINE	TIME	TAXES	FACILITIES	MODE	COST	USER NAME	NODE
	TYPE	DATE	DURATION	SERV	DIALLED NUMBER		RING	BUSIN CODE   OPERAT.
A122	--> R	25/12/95	08:31 07:45		ALARM PROGRAMMED			
A122	--> R	25/12/95	08:31		ALARM CANCELLED			
A122	--> R	25/12/95	08:35		ALARM ACKNOWLEDGED			
A140	--> R	25/12/95	08:31		ALARM NOT ACKNOWLEDGED : FREE			
A145	--> R	25/12/95	08:35		ALARM NOT ACKNOWLEDGED : BUSY			
A146	--> R	25/12/95	08:35		ALARM STATION NOT AVAILABLE			

The fields TYPE, TAXES, MODE, RING, COST, BUSIN CODE and SUBSCRIBER NAME are insignificant.  
The DURATION field is only filled in if the time is programmed.

R = room.

## USING THE EURO

This paragraph describes the configurations which need to be carried out to accomodate for the future integration of the Euro into several European countries.

The following parameters are to be configured :

- ▼ the conversion rate with the current currency of the country :

– By MMC-PC : **System –> Metering –> Currency Conversion –> Exchange Rate**

- ▼ specify if the public operator is to carry out this conversion on the same date.

– By MMC-PC :  
**System –> Metering –> Currency Conversion –> No Conversion, User Defined or Immediatly**

- ▼ the label to be used (EUR for example) :

– By MMC-PC :  
**System –> Metering –> Currency Conversion –> Inactive Currency Label**

- ▼ the date and time of the conversion :

– By MMC-PC :  
**System –> Metering –> Currency Conversion –> Conversion Date & Time**

At the date and time specified, the system will manage the following Euro conversions :

- partial counters and accumulatorsof stations and tax credit for Hotel clients.
- basic tax cost and cost thresholds (Business and Hotel), cost of VAT (Hotel).
- cost of metering reminder.

If the public operator carries out the conversion, then the conversion report between the system currency and the public network currency is equal to 1, and the following parameters are to be configured :

- real cost of the tax.
- cost of the UUS and of the PABX forwarding.



**CALL METERING SERVICES**

**Alcatel 4200**

**APPLICATIONS SECTION**

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