Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Agent	Agent

2.1.13 Commitment Time Request

The commitment time request indicates the trouble clearance time, expected by the Manager (AT&T). AT&T will only make a *clearedTime* request. The *clearedTime* requested by AT&T will be in accordance DMOQ agreed to by AT&T and the ILEC.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
commitmentTimeRequest				CHOICE
onsiteTime	OPT.			GeneralizedTime
clearedTime	MAND			GeneralizedTime

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Manager	Manager

2.1.14 Customer Trouble Ticket Number

The trouble ticket number contains the Managers (AT&T) internal trouble ticket number

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
custTroubleTickNum		16		GraphicString

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Manager	N/A

2.1.15 Escalation List

The escalation list indicates whether escalation to higher levels of management is requested by the Manager and provided by the Agent. It optionally specifies the level of escalation and the person escalated to. If no escalation level is specified by the Manager in the request, then the Agent must escalate to the next level.

Note that at ticket creation time, the attribute needs to be instantiated. On the Create message, the orgLevel is usually set at "0". However, in some cases, escalation may be required at the time of create, in which case, the orgLevel will be set to the required level of escalation (>0). At escalation request time, the Manager will send orgLevel higher than 0 (1-6). For escalation time, the Manager should request with a time of "current time." The Agent's response to the escalation request must include escPerson and orgLevel information. The Manager expects the Agent to respond to an escalation request within 15 minutes.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
escalationList			1(Create) 14(Get) 14(AVC)	SET OF SEQUENCE
requestState	MAND			ENUMERATED
requested (1)				
provided (2)				
escalationTime	MAND			GeneralizedTime
requestPerson	MAND			SEQUENCE
personReach				
personNumber	DEFAULT ""			GraphicString
personName	MAND	1..39		GraphicString
personPhone[3]	MAND	10..15		GraphicString
personLocation	NOT SUPP.			GraphicString
personEmail	NOT SUPP.			GraphicString
personFax	NOT SUPP.			GraphicString
personRespon	NOT SUPP.			GraphicString
orgLevel	OPTIONAL			INTEGER
no-escalation (0)				
first-level (1)				
second-level (2)				
third-level (3)				
fourth-level (4)				
fifth-level (5)				
sixth-level (6)				
escPerson	OPTIONAL			SEQUENCE
personReach				
personNumber	DEFAULT ""			GraphicString
personName	MAND	1..39		GraphicString
personPhone	MAND	10..15		GraphicString
personLocation	NOT SUPP.			GraphicString
personEmail	NOT SUPP.			GraphicString
personFax	NOT SUPP.			GraphicString
personRespon	NOT SUPP.			GraphicString

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Manager	Both

[3] However, for Agent proactively provided escalation, minimum lengths of "0" are permitted for personName and personPhone, allowing the Agent to send "0" length strings for these.

2.1.16 Maintenance of Service Charge

The service charge indicates whether the Agent will charge the Manager for repairs performed on the service or UNE. This is a previously negotiated fixed maintenance charge and is not connected to Activity Duration. It is the Manager's decision whether to charge the customer.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
maintServiceCharge	(INITIAL-FALSE)			BOOLEAN

Attribute Sources:

Set to Default by	Supplied by	Updatable by
Agent	N/A	Agent

2.1.17 Managed Object Access Hours

The managed object access hours states the specific hours for each day of the week during which access to the managed object (e.g. loop circuit) is available. No day of week is repeated in the set. The hours (times) provided are according to the local time at the customer's premises. Note that this attribute does not refer to the customer premises. See aLocationAccessHours for premises access hours.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
managedObjectAccessHours			7	SET OF WeekMask
WeekMask	MAND			SEQUENCE
daysOfWeek				BIT STRING
sunday (0)				
monday (1)				
tuesday (2)				
wednesday (3)				
thursday (4)				
friday (5)				
saturday (6)				
intervalsOfDay	MAND		1	SET OF SEQUENCE
intervalStart				SEQUENCE
time24				
hour				INTEGER (0..23)
minute				INTEGER (0..59)
intervalEnd[4]				SEQUENCE

[4]Same structure as intervalStart.

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Manager	Manager

2.1.18 Managed Object Instance

The managed object instance indicates the Customer Network Management Service object class instance or the General Network Model telecommunications network resource instance associated with a particular trouble report (i.e., the loop circuit ID or telephone number).

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
managedObjectInstance				CHOICE
distinguishedName	MAND			DistinguishedName
[<networkId>[5]		0..31		
<accountName>	DEFAULT"AT&T LOCAL"	0..31		
<svc_type_prefix>		4		
< loopCircuitID or serviceTelephoneNumber>[6]]		0..64		
nonSpecificForm	NOT SUPP.			IMPLICIT OCTET STRING
localDistinguishedName	NOT SUPP.			IMPLICIT RDN Sequence

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Manager	N/A

2.1.19 Manager Contact Person

The Manager contact person identifies an individual in the Manager's organization who can be contacted regarding the reported trouble. AT&T will supply the name of the appropriate center for personName and the telephone number of that center for personPhone.

[5] Determined by a Joint Implementation Agreement with each LEC.
[6] Replaces ECCircuitId

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
ManagerContactPerson				SEQUENCE
personReach				
personNumber	DEFAULT""			GraphicString
personName	MAND	1..39		GraphicString
personPhone	MAND	10..15		GraphicString
personLocation	NOT SUPP.			GraphicString
personEmail	NOT SUPP.			GraphicString
personFax	NOT SUPP.			GraphicString
personRespon	NOT SUPP.			GraphicString

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Manager	Manager

2.1.20 Outage Duration

The outage duration indicates the amount of time between the trouble report received time and the trouble report clearing time, excluding previously agreed to "stop clock" (mutually agreed on time when work is suspended) and time for which the service or UNE could not be accessed by the Agent for repair. Note that the second and millisecond fields are not expected to provide any significant value.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
outageDuration	(INITIAL-NULL)			CHOICE
				{Null, TimeInterval}
timeInterval				SEQUENCE
day (0)				INTEGER (0..31)
hour (1)				INTEGER (0..23)
minute (2)				INTEGER (0..59)
second (3)	NOT SUPP.			INTEGER (0..59)
msec (4)	NOT SUPP			INTEGER (0..999)

Attribute Sources:

Set to Default by	Supplied by	Updatable by
Agent	N/A	Agent

2.1.21 Perceived Trouble Severity

The perceived trouble severity allows the Manager to indicate the effect of the trouble on the managed object or function being reported.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
*perceivedTroubleSeverity outOfService (0) backInService (1) serviceImpairment (2) nonServiceAffecting (3)				CHOICE–INTEGER

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Manager	Manager

2.1.22 Preferred Priority

This attribute is deleted. AT&T will not use it. (See 2.1.34: TSP.)

2.1.23 Received Time

The received time indicates the date and time when a trouble report was entered into the Agent's OSS as supplied by the Agent.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
receivedTime				GeneralizedTime

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Agent	N/A

2.1.24 Repeat Report

The repeat report indicates if there has been provisioning or maintenance activity within the past thirty (30) days.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
*repeatReport				ENUMERATED

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Manager	Both

2.1.25 Restored Time

The restored time indicates when the trouble was repaired and service or UNE restored, according to the Agent, which may be different from Manager's notified time.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
restoredTime	(INITIAL-NULL)			CHOICE {Null, GeneralizedTime}

Attribute Sources:

Set to Default by	Supplied by	Updatable by
Agent	N/A	Agent

2.1.26 Trouble Clearance Person

The trouble clarence person identifies the person in the Manager's organization who last modified the "cancelRequestedByManager" attribute. AT&T will supply the name of the responsible AT&T work center in the "personName" element.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
troubleClearancePerson				
personReach				
personNumber	DEFAULT ""			
personName	MAND	1..39		
personPhone	MAND	10..15		
personLocation	NOT SUPP.			
personEmail	NOT SUPP.			
personFax	NOT SUPP.			
personRespon	NOT SUPP.			

Attribute Sources:

Set to Default by	Supplied by	Updatable by
Agent	N/A	Manager

2.1.27 Trouble Found

This troubles found text specifies an enumerated code value which identifies the problem resolved.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
*troubleFound	(INIT- {pending(0)})			CHOICE–INTEGER

Attribute Sources:

Set to Default by	Supplied by	Updatable by
Agent	Agent	Agent

2.1.28 Trouble Report Identifier

The trouble report identifier is a distinguishing attribute of the Trouble Report managed object class. It is assigned by the Agent at the time the trouble report is entered.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
troubleReportID		1..16		GraphicString

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Agent	N/A

2.1.29 Trouble Report State

The trouble report state indicates the current state of a trouble report from among an enumerated list.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
*troubleReportState				INTEGER(0..255)

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Agent	Agent

2.1.30 Trouble Report Status

The trouble report status indicates the current status of an active trouble report.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
*troubleReportStatus				CHOICE–INTEGER

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Agent	Agent

2.1.31 Trouble Report Status Time

The report status time identifies the last time at which the status was known to be changed or validated.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
troubleReportStatusTime				GeneralizedTime

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Agent	Agent

2.1.32 Trouble Report Status Window

The trouble status window specifies a sliding time period during which a progress or status notification is expected. The sliding time period begins at the event time for the most recent notification. A minimum value of 15 minutes needs to be supported. This attribute is a tool to be used by the AT&T work center to indicate when it expects a status update from the Agent. AT&T will send a very high value (31 days) when it does not wish to receive automatic periodic status updates.

Note that no significant information is expected from second or millisecond fields.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
troubleReportStatusWindow				SEQUENCE
day (0)				INTEGER (0..31)
hour (1)				INTEGER (0..23)
minute (2)				INTEGER (0..59)
second (3)				INTEGER (0..59)
msec (4)				INTEGER (0..999)

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Manager	Manager

2.1.33 Trouble Type

The trouble type identifies the category of trouble that is being reported by the Manager.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
*troubleType				CHOICE–INTEGER

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Manager	N/A

2.1.34 TSP Priority

The TSP priority conveys TSP (Telecommunications Service Priority) codes, if applicable between the Manager and Agent. AT&T will use TSP only, there will be no Preferred Priority conveyed from AT&T. (Refer to 2.1.22 Preferred Priority).

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
tspPriority		2		GraphicString

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Manager	N/A

2.1.35 Trouble Report Format Object Pointer

The trouble report format object pointer indicates which instance of the Trouble Report Format Definition (TRFD) object class will be used for the trouble reports for a particular CNM Service or GNM managed Object. AT&T will use TRFD 1.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
troubleReportFormatObjectPtr				CHOICE
distinguishedName	MAND			DistinguishedName
nonSpecificForm	NOT SUPP.			IMPLICIT OCTET STRING
localDistinguishedName	NOT SUPP.			IMPLICIT RDNSequence

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Manager	N/A

2.2 Additional Attributes

This section contains attributes from T1.227–1995 that are not currently used and have been selected for use by AT&T. AT&T expects these attributes to be available in the near future.

2.2.1 Called Number

The coller number specifies the telephone number being called at the time the customer experienced trouble.

Attribute and Elements:

Attribute Label	MAND/OPT/DEF	Length	No. Elem.	Type
calledNumber		10..15		GraphicString

Attribute Sources:

Set to Default by	Supplied by	Updatable by
N/A	Manager	N/A

2.2.2 Last Update Time

This attribute is deleted. AT&T will not use it.

3. Functions

3.1 Functions and Services

This section lists the functions and CMISE services that AT&T requires for a fault management electronic bonding interface with the ILECs.

The functions selected are those currently implemented for reporting access circuit troubles using electronic bonding. They are fully explained and defined in clauses 6 and 9 of ANSI T1.228–1995. The following table lists all of the supported functions. The table contains four columns. The first column lists the function names. The second column lists the part of Clause 6 in T1.228–1995 where the functions are referenced. The third column lists the clauses in T1.228-1995 that define the services that support the functions. The fourth column lists the CMISE services that support the functions.

Trouble Administration Functions of Fault Management	Clause 6	Clause 9	CMISE Service
Enter Trouble Report	6.2(a)	9.1.1	PT–CREATE
Request Trouble Report Status (Get Info)	6.2(b)	9.1.2	PT–GET
Add Trouble Information	6.2(f)	9.5	PT–SET
Modify Trouble Report Attributes	6.2(m)	9.8	PT–SET
Trouble Report Attribute Value Change Notification (AVC)	6.2(i)	9.9.1	M–EVENT–REPORT
Cancel Trouble Report	6.2(r)	9.11	PT–SET

3.2 Function Descriptions

This section describes each function that AT&T expects to use for fault management electronic bonding.

3.2.1 Enter Trouble Report

This function is used to create a trouble report. The request to create a trouble report originates from the Manager. Once the create request is received, the Agent is required to respond. The Agent is only required to match the attribute *managedObjectInstance* (circuit id) before transmitting the create response. If the information is valid, then a positive response is required, which includes all the Agent attributes with which the trouble ticket was instantiated. For all the attributes that should be instantiated by the Agent with the value supplied by the Manager, the Agent is required to return all the attribute values sent by the Manager on the create exactly as they were received. See Section 3.3. Thus, if the Manager sends a leading "blank" in the managedObjectInstanceAliasList, the Agent is required to return the value with the leading "blank" in the create response.

If the Agent receives the request to create the ticket with an error, one of the error messages as described in T1.227 i.e., 7.3.1 or 7.3.2 or 7.3.4 are required. When a trouble ticket already exists then error 7.3.1 is required. The error 7.3.1 must also include *troubleReportID* and the *managedObjectInstance* attributes.

In the PT-CREATE request AT&T (the Manager) will send "ATT-LOCAL" as the *accountName* in the *managedObjectInstance* attribute. The same value will be provided as the accountName in the Superior Object Instance CMIP parameter in the CREATE requests. This will allow the Agent to use either the accountName in the managedObjectInstance attribute, or the accountName in the Superior Object Instance CMIP parameter in the create request, to bind the trouble ticket. The trouble ticket will be bound to the same value in either case.

If a trouble report is created manually in an Agent OSS, then at the time AT&T sends the PT-CREATE request for the same *managedObjectInstance* attribute, the Agent is required to bind the trouble ticket under either *accountName* equal to the value (ATT-LOCAL) that is in the Superior Object Class parameter of the create request., or the accountName that is in the *managedObjectInstance* attribute.

When the Agent receives a create trouble report request, if the Agent is unable to match the *managedObjectInstance* with the Agent's records, the Agent is required to send an error, 7.3.2, "fall back reporting". The Agent is also required to send the reason (circuit mismatch) for fall back reporting in the parameter *fallBackReporting* by using the GraphicString "0" (the numeric zero). When the Manager receives the error, it is required that the Manager together with the Agent resolve the reason for fall back reporting "via a phone call" and a ticket is manually entered. If possible, the Manager will then send a PT-CREATE from the Manager gateway to the Agent gateway and follow the process for error 7.3.1. If it is not possible to exchange the information electronically then the manual process must be continued.

When the Agent receives the create request with one of the "must be present attributes" as defined in the Trouble Report Format Definition (TRFD) object missing, then it is required to transmit the error 7.3.4, "trouble report must be present attribute missing." If one of the "may be present attributes" is missing then this error does not apply. Once the error is received by the Manager, the Manager is expected to re transmit the create request with all the attributes required.

If the Manager rejects a response sent by the Agent responding to a create request from the Manager, appropriate Agent personnel will contact the Manager personnel for resolution of the error. After the error is resolved, the electronic bonding for the ticket may be established by having the Manager issue a new create request for the same trouble.

The Agent must have some means of indicating on the display for a trouble ticket whether it is an electronically bonded ticket. This is needed in order to have the Agent's work center personnel know for each displayed ticket, whether to follow the methods and procedures for an electronically bonded ticket, or those for a manual ticket. The indicator must stay on the display for the life of the ticket.

The Agent should respond within two minutes. If the Agent is unable to include certain information in the response, such as MLT results, that might affect the trouble report status or commitment time, the Agent should respond with best available information and provide an update via an AVC when updated information is available.

3.2.2 Request Trouble Report Status

This function is used by the Manager to obtain status information from the Agent. It is also used to obtain values for certain other attributes. See Section 3.3. When the Manager issues a PT-GET against the trouble report status and the trouble report status time attributes, according to the request trouble report status functional unit as described in T1.228, the Agent is required to respond with the values of the two attributes. When requesting status, AT&T will always request *troubleReportStatus*, *troubleReportStatusTime*, *troubleReportState*, and *additionalTroubleStatusInfo*. If the Manager also

requests other readable attributes, then the Agent is required to provide the values of those other attributes as well.

The Agent must respond within 2 minutes.

3.2.3 Add Trouble Information

This function is used by the Manager to update the *additionalTroubleInfoList* attribute. See Section 3.3 for attributes exchanged for this function.

When the Manager requests to add additional trouble information to the existing trouble report it issues a PT-SET with the *additionalTroubleInfoList* attribute in accordance with the add trouble information functional unit as described in T1.228.

When the Agent receives the request, it is required to add the information provided to the additional information list. If the trouble report state is "closed," and the Agent receives the request for add, then it is required to send the error 7.3.6 "TroubleReportChangeDenied.." In this case, the Agent is required to send the "Trouble Report Change Denied" with an enumerated value of 2. The Manager may not send an add trouble information message while the trouble report is in the "cleared" state. If the trouble report state is "cleared," and the Agent receives an add trouble information message, the Agent is required to send the error 7.3.6, 'troubleReportChangeDenied,' with an enumerated value of 1. For all other cases, on an add request, the Agent must add the information provided.

The Agent is expected to respond within one minute.

3.2.4 Modify Trouble Administration Information

This function is used by the Manager to modify certain attributes. (See Section 3.3) It is used for the following specific purposes:

1. Manager requests escalation from the Agent.
2. Manager responds to Agent request authorization for a specific activity.
3. Miscellaneous attribute updates

When the Manager issues a PT-SET with one or more of the modifiable attribute(s), then the Agent is required to modify the attribute(s) in compliance with the modify trouble administration information functional unit or the extended modify trouble administration functional unit.

If the trouble report state is "cleared" or "closed," and the Agent receives the modify request, then it is required to send the error 7.3.6, "TroubleReportChangeDenied." If the trouble report state is "closed," and the Agent receives the modify request, then the Agent is required to send the "TroubleReportChangeDenied" enumerated value of 2. If the trouble report state is "cleared" and the Agent is waiting for verification of closure, then the Agent is required to send the enumerated value of 1. In all other cases, the Agent is required to perform the modification requested.

When the Manager requests a modification to the "escalationList" attribute, the Agent is required to respond with the provided information within 15 minutes. Otherwise the Agent must respond within 1 minute.

3.2.5 Cancel Trouble Report

The cancel trouble report function is used by the Manager to request the Agent to cancel a trouble report. When the Manager issues a PT–SET , the Agent is required to respond as follows:

1. If no work is in progress, the Agent responds with a Trouble Report Status of "closedOutByCustReq."
2. If work is in progress, the Agent responds with "canceledPendingWOrkInProgress."
3. If the trouble report is closed, the Agent responds with Error 7.3.6, "Trouble Report Change Denied" (enumerated value of 2) and if the trouble report is cleared, , the Agent responds with Error 7.3.6, "Trouble Report Change Denied" (enumerated value of 1).

The Agent must respond within 1 minute.

3.2.6 Attribute Value Change Notification

This function is used by the Agent to notify the Manager of attributes value changes. It is used for the following specific purposes:

1. Agent provides escalation in response to a Manager request for escalation.
2. Agent request authorization for a specific activity.
3. Agent provides status.
4. Agent closes trouble report.

A notification from the Agent results in a PT-EVENT REPORT at the Agent gateway on the trouble report object.

Any change in the *troubleReportStatus* must always be accompanied by a change in the *troubleReportStatusTime* attribute and the *troubleReportState* attribute. The *additionalTroubleStatusInfo* attribute should be included if the Agent has any explanation or comments to include.

When the Agent updates any attributes that it is allowed to update, it is required to issue an AVC as described in T1.228–1995 using the PT–EVENT–REPORT operation. The Agent must issue an AVC any time the Agent changes the escalation level, including auto–escalations.

Procedures for requesting and providing authorization for specific activities will be in accordance with Electronic Communications Implementation Committee (ECIC) document ECIC/TRA/95–008.

The Manager is expected to respond to an AVC within 2 minutes. The Manager is expected to respond to a request for an authorization within 15 minutes.

3.3 Function – Attribute Mapping

This sections maps all of the attributes in section 2 to the functions listed in section 3.1. The first column of the table lists the attributes. The remaining columns of the table provide utilization of each attribute for each function. The first code indicates the utilization for the request or report and the second code indicates utilization for the response. The codes used in the table are as follows:

O	Optional
R1	Required attribute that must always be supplied
R2	Required if function succeeds
R3	Required if function succeeds or Trouble Report is a duplicate (same MOI)
R4	Required if requested by Manager
R5	Required when *troubleReportStatus* is closed
RX	Returned when attribute value is invalid Echoed back to Manager if supplied by Manager and function succeeds
Q	May be requested on Get Info
n/u	Not used for a function

Attribute Name	Enter		Get Info		Add Info		Modify		AVC		Cancel	
activityDuration	n/u	n/u	Q	R4	n/u	n/u	n/u	n/u	R5	n/u	n/u	n/u
additionalTroubleInfoList	R1	RX	n/u	n/u	R1	n/u	O	n/u	n/u	n/u	n/u	n/u
additionalTroubleStatusInfo	n/u	R1	Q	R4	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u
AgentContactPerson	n/u	R1	Q	R4	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u
aLocationAccessAddress	R1	RX	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u	n/u	n/u
aLocationAccessHours	R1	RX	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u	n/u	n/u
aLocationAccessPerson	R1	RX	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u	n/u	n/u
authorizationList	R1	RX	n/u	R4	n/u	n/u	O	n/u	O	n/u	n/u	n/u
calledNumber	O	RX	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u
cancelRequestedByManager	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	R1	n/u
closeOutNarr	n/u	n/u	Q	R4	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u

Attribute Name	Enter		Get Info		Add Info		Modify		AVC		Cancel	
commitmentTime	n/u	R2	Q	R4	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u
commitmentTimeRequest	R1	RX	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u	n/u	n/u
custTroubleTickNum	R1	RX	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u
escalationList	R1	RX	Q	R4	n/u	n/u	O	n/u	O	n/u	n/u	n/u
maintServiceCharge	n/u	n/u	Q	R4	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u
managedObjectAccessHours	R1	RX	n/u	n/u	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u
managedObjectInstance	R1	RX	Q	R4	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u
ManagerContactPerson	R1	RX	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u	n/u	n/u
outageDuration	n/u	n/u	Q	R4	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u
perceivedTroubleSeverity	O	RX	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u	n/u	n/u
receivedTime	n/u	R2	Q	R4	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u
repeatReport	O	O	Q	R4	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u
restoredTime	n/u	n/u	Q	R4	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u
troubleClearancePerson	n/u	n/u	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u	R1	n/u
troubleFound	n/u	n/u	Q	R4	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u
troubleReportFormatObjectPtr	R1	RX	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u
troubleReportID	n/u	R3	R1	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u
troubleReportState	n/u	R2	Q	R4	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u
troubleReportStatus	n/u	R2	n/u	R4	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u
troubleReportStatusTime	n/u	R2	n/u	R4	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u
troubleReportStatusWindow	R1	RX	n/u	n/u	n/u	n/u	O	n/u	n/u	n/u	n/u	n/u
troubleType	R1	RX	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u
tspPriority	O	RX	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u	n/u

References

1. ANSI, 1995, *American National Standard for Telecommunications – Operations, Administration, Maintenance, and Provisioning (OAM&P) – Extension to Generic Network Information Model for Interfaces between Operations Systems across Jurisdictional Boundaries to Support Fault Management (Trouble Administration),* ANSI – T1.227–1995.

2. ANSI, 1995, *American National Standard for Telecommunications – Operations, Administration, Maintenance, and Provisioning (OAM&P) – Services for Interfaces between Operations Systems across Jurisdictional Boundaries to Support Fault Management (Trouble Administration),* ANSI – T1.228–1995.

5

USAGE DATA EXCHANGE

BETWEEN AT&T AND THE RECORDING LEC

REQUIRED FOR BILLING AT&T LOCAL SERVICE CUSTOMERS

IN RELATION TO THE

UNBUNDLED NETWORK ELEMENTS (UNE) PLATFORM

Executive Summary

Recognized by customers for its accuracy and timeliness in billing, AT&T often relies on other telecommunications carriers to supply recorded usage data required by AT&T to bill its customers.

In providing local service to customers under terms of the Unbundled Network Elements (UNE) agreement, AT&T will rely on the LEC to record customer usage data that AT&T needs to bill customers for Local Service.

The purpose of this document is to provide information about the process that AT&T plans to use to ensure an accurate and timely exchange of Local Service usage information between the Recording LEC (RLEC) and AT&T.

AT&T proposes that the interface for the exchange of Local Service usage data be based on the Bellcore Exchange Message Record (EMR) format, and that the data be transmitted electronically via CONNECT:DIRECT.

Overview

In the following sections of this document are AT&T's proposed requirements for the usage data to be recorded, the format of the data to be provided, and procedures for managing the exchange. Two Appendices are included, one to identify the direct measures of quality (DMOQ'S) that are geared to ensure that customers bills will be timely and accurate.

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Provision of Customer Usage Data

1. **Introduction**

1.1 This Document sets forth the terms and conditions for RLEC's provision of recorded usage data (as defined in this Document) to AT&T. Recorded Usage Data shall be provided by RLEC to AT&T when AT&T purchases Unbundled Network Elements, Combinations, or Local Services from RLEC.

2. **General Requirements for Recorded Usage Data**

2.1 RLEC shall provide AT&T with Recorded Usage Data in accordance with this Attachment.

2.2 RLEC's provision of Recorded Usage Data to AT&T shall be in accordance with AT&T's Direct Measures of Quality (DMOQs) set forth in Appendix I of this Attachment.

2.3 RLEC shall retain Recorded Usage Data in accordance with applicable law and regulation.

3. **Usage Data Specifications**

3.1 RLEC will record all usage originating from AT&T Customers using the RLEC-provided Element or Local Services. Recorded Usage Data includes, but is not limited to, the following categories of information:

- Call Attempts
- Completed Calls
- Use Of CLASS/LASS/Custom Features
- Calls To Information Providers Reached Via RLEC Facilities And Contracted By RLEC
- Calls To Directory Assistance Where The RLEC Provides Such Service To An AT&T Customer
- Calls Completed Via RLEC-Provided Operator Services Where The RLEC Provides Such Service To AT&T's Local Service Customer
- For RLEC-Provided Centers Service, Station Level Detail
- Records Shall Include Complete Call Detail And Complete Timing Information
- Recording Of Completed Calls Which RLEC Does Not record For Its Own Service Offerings (e.g., Flat Rate Free Calling Area Service)

3.2 RLEC shall provide to AT&T Recorded Usage Data for AT&T Customers only. RLEC will not submit other carrier local usage data as part of the AT&T Recorded Usage Data.

3.3 Calls to information providers referenced in Section 3.1 preceding shall be provided to AT&T in rated format for billing to the customer.

3.3.1 The parties also agree to establish settlement procedures to permit AT&T to recourse to RLEC amount AT&T Customers refuse to pay for these rated information provider charges forwarded by RLEC to AT&T for billing.

3.4 End user customer usage records and station level detail records shall be in packs in accordance with EMR standards.

4. **Recorded Usage Data Format**

4.1 RLEC will provide Recorded Usage Data in the EMR format and by category, group and record type, as specified in the AT&T Customer Usage Data Transfer Requirements, March 1996 ("Data Requirements"), which is attached hereto and incorporated herein as Appendix II.

4.2 RLEC shall include the Working Telephone Number (WTN) of the call originator on each EMR call record.

4.3 End user customer usage records and station level detail records shall be in packs in accordance with EMR standards.

5. **Recorded Usage Data Reporting requirements**

5.1 RLEC shall segregate and organize the Recorded Usage Data in accordance with AT&T's instructions.

5.2 RLEC shall provide segregated Recorded Usage Data to multiple AT&T biller locations as designated by AT&T.

5.3 RLEC, at no cost to AT&T, shall transmit Data Requirements formatted Recorded Usage Data to AT&T via CONNECT:Direct as designated by AT&T.

5.4 AT&T will test and certify the CONNECT:Direct interface to ensure the accurate receipt of Recorded Usage Data. RLEC shall make any changes necessary to pass the AT&T CONNECT:Direct certification process.

5.5 RLEC shall provide Recorded Usage Data to AT&T on a schedule to be determined by the parties once a day three hundred sixty-five (365) days a year, as designated by AT&T. RLEC shall provide to AT&T the Recorded Usage Data not more than twenty-four (24) hours after termination of the call for which usage data is to be provided.

5.6 RLEC will establish a single point of contact to respond to AT&T call usage, data error, and record transmission inquiries.

5.7 The Recorded Usage Data EMR format, content, and transmission process will be tested as specified by AT&T.

5.8 When requested by AT&T for security purposes, RLEC shall provide AT&T with Recorded Usage Data within two (2) hour of the call completion. If not available in EMR format, the Recorded Usage Data may be provided in AMA format.

6. **Recording Failures**

6.1 **Loss of Recorded Usage Data** - AT&T Recorded Usage Data determined to have been lost, damaged or destroyed as a result of an error or omission by RLEC in its performance of the recording function shall, upon AT&T's request, be recovered by RLEC at no charge to AT&T. In the event the data cannot be recovered by RLEC, RLEC shall estimate the messages and associated revenue, with assistance from AT&T, based upon the method described below. This method will be applied on a consistent basis, subject to modifications agreed to by RLEC and AT&T. This estimate will be used to adjust amount AT&T owes RLEC for services RLEC provides in conjunction with the provision of Recorded Usage Data.