

## Development Specification

### *Taunton Power and Light – Change to Ericsson MD 110 PBX Filter*

The custom software work covered by this Development Specification (the "Work") is subject to the software license terms (the "License Terms") set forth: (i) in the existing written software license agreement between Customer and ISI (the "License Agreement"); or (ii) if no such written agreement exists, on ISI's website at <http://www.isi-info.com/sltw.pdf> on the date of Customer's execution of this Development Specification. Such License Terms are incorporated into this Development Specification by reference. Notwithstanding anything to the contrary contained in the License Agreement, the parties acknowledge and agree that the Work, once completed, will be licensed to Customer and ISI will retain all ownership rights in and to the Work, including all intellectual property rights therein.

### Overview

Taunton Power and Light uses an Ericsson MD 110 PBX. NOTE: Ericsson has been bought by Aastra. They have changed their switch setup. This has caused the CDR to contain condition codes that they were not previously receiving. The PBX filter is not handling them which is leading to a large number of rejected records. In addition the CDR record is slightly longer and needs to account for the longer trunk numbers.

### Revisions

#### *Revision 1 – Original Draft*

#### *Revision 2*

After a conference with the customer how Transfers are being handled is simplified.

### Detailed Specification

1. The CDR is still a fixed length ASCII text file with the following layout. Please note the layout changes.

MD 110 Field	Position	Select Field	Format/ Comment
SPACE	1 – 3		
DATE	4 – 7	Date	MMDD – no change
TIME	8 – 11	Time	HHMM – no change
SPACE	12		
DURATION	HMMSS	Duration	
SPACE	18		
TAX PULSE	19 – 22		
SPACE	23		
CONDITION CODE	24 – 25		Updated codes – see below
SPACE	26		
ACCESS CODE 1	27 – 31		
ACCESS CODE 2	32 – 36		
SPACE	37		
DIALLED NUMBER / OPERATOR QUEUE TIME	38 – 39		
DIALLED NUMBER -	40 – 57	Incoming – Extension Outgoing & Internal – Phone Number	NOTE: field is two spaces shorter now
SPACE	58		
CHARGED NUMBER	59 – 68	Incoming – ANI Outgoing & Internal – Extension	MD 110 has new field name for the same function.

MD 110 Field	Position	Select Field	Format/ Comment
SPACE	69		
ACCOUNT CODE	70 – 84	Account Code	No change
SPACE	85		
AUTHORIZATION CODE	86 – 91	Authorization Code	No change
SPACE	92		
TRANSIT NETWORK SELECTION CODE	93 – 95	Not used	No change
SPACE	96		
OPERATOR SYSTEM ACCESS CODE	97 – 98	Not used	No change
SPACE	99		
TIME IN QUEUE-MINUTES TENS	100 – 101	Not used	No change
SPACE	102		
EXTERNAL LINE ID / CONNECTED NUMBER	103 – 111	Trunk	The field is three characters longer now.

2. Condition Codes -- there are several new condition codes that we need to code for.
- a. Codes currently handled by PBX Filter -- no changes

Code	Meaning
I and NI	Incoming
J and NJ	Internal
M	Least Cost Routing -- treat as outgoing
X and NX	External Follow me -- treat as outgoing

- b. Code not currently handled by PBX Filter -- changes

Code	Determining Type
NT (transfers)	Incoming
T (transfers)	Incoming unless there is a value in the Access 1 field, then outbound
A and NA (call handled by PBX operator)	Outgoing: Charged # > 7 digits Incoming: Charged # < 7 digits and Dialed Number ≥ 7 digits Internal: Charged # and Dialed Number are both < 7 digits
NO	Outbound

- c. Code that cannot be processed: L -- these indicate a conference call but don't have enough information in the records to be useful.

## Assumptions

Customer understands that the Work will be performed by ISI based on the latest release of ISI's call accounting software in existence on the date of Customer's execution of this Development Specification (the "Latest Release"). Therefore, Customer agrees that, as a condition to ISI's delivery of the Work, Customer will have installed the Latest Release prior to delivery of the Work to Customer.

## Test Conditions

1. Use the data attached to the incident.
2. Make sure that the calls are correctly processed following the rules in the specification.

## Inputs


Raw call data

## Outputs

Processed call records

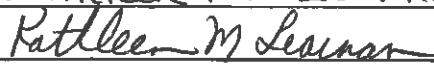
### Customer Confirmation

Customer's signature confirms its agreement with the terms contained in this Development Specification.

DATE	04/04/2014
CUSTOMER REPRESENTATIVE NAME	MAN KIT SO.
CUSTOMER REPRESENTATIVE SIGNATURE	
CUSTOMER REPRESENTATIVE TITLE	MIS SUPERVISING ENGINEER

### ISI Acceptance

ISI's signature confirms its acceptance of the terms contained in this Development Specification.

DATE	4/4/14
ISI REPRESENTATIVE NAME	Kathleen M. Larnan
ISI REPRESENTATIVE SIGNATURE	
ISI REPRESENTATIVE TITLE	Director of Product Development

### Timing of Completion of Work

The Work will be completed within 60 days upon ISI's receipt of the signed Development Specification.

### Price Quote

The work in this specification is covered by the support based on earlier work done under PCR 6839.

This quotation for the Work is valid for 30 days from the date of issuance of this Development Specification. If Customer fails to sign and return this Development Specification to ISI within said 30-day period, this Development Specification may be subject to changes in the pricing and delivery timeframe for the Work.