

# Monitoring Call Detail Records and CTI Ports

Call Detail Records (CDRs) and CTI data provide additional information about call handling. CDR/CTIs illustrate how the network element perceived call events. The PSAP equipment produces CDR/CTI Data. This could be a discrete piece of hardware or integrated into a PBX or an ACD. CDR/CTI data is typically sent to a local printer. There are different kinds of CDR/CTI data. Some only show a minimum amount of information. Other types show not only call events, but also ALI information. For example, CDR/CTI data could contain the following information:

## Simple CDR/CTI

- ANI
- Trunk Number – The trunk used for the call
- Seized Time – Time presented to the PSAP equipment
- Position that handled the call

## Complex CDR

- ANI
- Seized Time – Time presented to the PSAP equipment
- Trunk Number – The trunk used for the call
- Answer Time – Time call was answered by the PSAP Equipment
- Pickup Time – Time call taker answered the call
- Answer Position - Position ID of the call taker who answered the call
- Transfer Time – Time call was transferred
- Outbound Channel ID – Outbound Channel call was transferred to
- Position Disconnect Time – Time call taker's position released the call
- Outbound Channel Disconnect time – Time Outbound Channel released from the call taker
- Release Time – Time the PSAP equipment released the call
- Main Telephone Number – Number associated with the ANI
- Type of Caller - Residence, Mobile, Business. Etc
- Caller ID - 10-digit telephone number
- CDR Time – Time CDR was produced
- CDR Date – Date CDR was produced
- PSAP ID Information
- Caller's Address
- ESN Number
- Service Provider – Service provider that handled the call
- X and Y coordinates – Location information for wireless calls
- Police, Fire and Emergency Medical groups assigned to the caller's location

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## CTI Port

- ANI
- Originating Call Monitor (Admin)
- Terminating Call Monitor (Admin)
- Hunt Group Queue Count tracking
- On Hold Times
- Overflow to Operator detection
- Position “Do Not Disturb “Monitor
- Park On Activity Monitor
- Destination DINS/pANI
- Call Block Monitor
- Join/Conferencing Monitor
- All Trunks Busy/Not Busy Alarming
- Position Status Monitoring
- SDN Busy/Reorder Monitor
- Dialed Digit/Feature Usage Analysis
- Call Transfer Monitor
- Trunk Seized Time – Time call was presented to the PSAP equipment
- Trunk Number – The trunk used for the call
- Answer Time – Time call was answered by the PSAP Equipment
- Pickup Time – Time call taker answered the call
- Answer Position - Position ID of the call taker who answered the call
- Transfer Time – Time call was transferred
- Outbound Channel ID – Outbound Channel call was transferred to
- Position Disconnect Time – Time call taker’s position released the call
- Outbound Channel Disconnect time – Time Outbound Channel released from the call taker
- Release Time – Time the PSAP equipment released the call
- Agent Login/Logout Monitor
- Wrap-up Monitor
- Supervisor Monitor Tracking
- CTI Link Monitor

The BSW System software can extract the CDR/CTI information and compare it to the physical call events detected by the ECA monitor hardware. This not only helps ECA stay in sync with the PSAP equipment, it also can detect when the PSAP equipment is not responding to real call events. This could be caused by faulty equipment, conflicting configuration settings, intermittent circuit failures, etc. CDR/CTI information is invaluable in determining PSAP failures.

Access to CDR/CTI ports is very simple. A “Y” cable is used to connect the BSW System controller to the PSAP printer port. It does require a short interruption of CDR/CTI output, however most PSAP equipment buffers CDR/CTI data until the printer is reconnected. In this way, no data is lost. Once connected to the ECA controller, CDR/CTI information can be accessed and analyzed. Normal CDR/CTI output returns to normal.

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It is important to remember that the CDR/CTI data represents what the PSAP equipment “*thinks*” is happening, not necessarily what is really happening. BSW System can identify instances where the CDR/CTI data is in error and is inaccurately reporting what is going on.

If provided, the ALI portion of the CDR can, identify/provide:

- Wireless carriers that are not supplying location information
- Location or caller type calling patterns
- Percentage of wireline verses wireless calls
- Chronic callers

Combined, the ECA and CDR/CTI data, when analyzed, can also identify/provide:

- Source of call failures
- Call taker pickup performance
- Training needs
- Network element performance

**Most importantly the BSW System and CDR/CTI data combined can definitively answer the “I called 9-1-1 and nobody answered” complaints.** You will have proof that calls were answered, who answered them, who disconnected first, determine if a call failed after a transfer, etc. The CDR/CTI option allows users to quickly access BSW System call records, which document all aspects of the call. This “Cradle- to-Grave” information is useful in legal disputes, center planning, workload scheduling, etc.

## **CDR/CTI Monitor Events**

This package provides call record data from subscribing PSAP. Call Record data is obtained from the PSAP's PBX/ACD CTI or CDR port.

Available Data:

Date, Call Start Time, Call End Time, Call Duration, Answer Time, Direction, \*ANI/pANI, \*Calling Party Number, \*DNIS, \*Mid Call Digits, \*On Hold Time,\*Wrapup On Time, \*Wrapup Off Time, \*Agent Ready, \*Agent Not Ready, \*Conference Time, \*Do not Disturb Time, \*Park Time, \*Account Code, \*Queue Count, \*Agent Log On/Off, \*Call Taker ID, \*Position ID

Call/Network Handling Status Indicators:

Number of Normal Calls by Trunk Group, Number of Abandon Calls by Trunk Group, Number of \*Overflows, Number of \*Overflows Failed, Number of \*Call Blocks, \*All Trunks Busy Times, \*Agent Busy, Number of \*Reorder Calls by Trunk Group, Number of \*Call Transfer by Call Taker, Number of Abandon Transfer Calls by Call Taker, Number of \*Call Park by Call Taker, Number of \*Call On Hold by Call Taker, Number of Calls by \*Call Taker ID, Number of Calls by \*Position ID, \*Call Queue Status, \*Agent Not Ready Time, Calculated Shift Duration

Circuits that can be monitored:

Life Line Trunks, Admin Lines, Intra PBX Links

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