



Interpret Database Records

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Overview

The following abbreviations are used for database records:

- ACDR—AgentConnectionDetail record in the AgentConnectionDetail table.
- ASDR—AgentStateDetail record in the AgentStateDetail table.
- CCDR—ContactCallDetail record in the ContactCallDetail table.
- CQDR—ContactQueueDetail record in the ContactQueueDetail table.
- CRDR—ContactRoutingDetail record in the ContactRoutingDetail table.
- TACDR—TextAgentConnectionDetail record in the TextAgentConnectionDetail table.
- TCDR—TextContactDetail records in the TextContactDetail table.
- TASDR—TextAgentStateDetail records in the TextAgentStateDetail table.
- TCQDR—TextContactQueueDetail record in the TextContactQueueDetail table.

Call Scenarios

The following assumptions are made for the call scenarios:

- Auto-work is disabled for incoming Automatic Call Distribution (ACD) calls.
- Auto-available is enabled for agents.

Call-Related Detail Records Flow

The following table presents an example of the general flow of detail records for incoming ACD calls.

Assumptions

- Contact Service Queue (CSQ) is configured for auto-work.
- Agent is configured for auto-available.

Table 1: General Flow of Detail Records for Incoming ACD Calls

Call activity	Detail record activity
Call reaches the CTI port	Allocates session. Begins CCDR in memory.
Call executes the first Select Resource step	Begins CRDR and CQDR in memory.
System selects agent and rings the phone	Begins ACDR in memory, writes ASDR to change state to Reserved.
Agent answers	Writes ASDR (Talking).
Call disconnects	Writes CRDR, CQDRs, ASDR (Work).
Agent leaves Work state	Writes ACDR, CCDR, ASDR (Ready).

If the agent does not enter Work state after the call, the system writes the ACDR and the ASDR (Ready) when the call disconnects. If the agent is not configured to be auto-available, the ASDR relates to the Not Ready state.

Basic ACD Call Queues for One CSQ

- 1 Call reaches a Unified CCX route point, executes a script, and queues for one CSQ.
- 2 System allocates agent A for the call and rings agent A's phone, and agent A answers the call.

Table 2: Basic ACD Call Queues for One CSQ—Call-Related Detail Records

Record	Session ID	Session sequence number	qIndex	Remarks
CCDR1	100	0	—	—
CRDR1	100	0	1	Overall queue information.

Record	Session ID	Session sequence number	qIndex	Remarks
CQDR1	100	0	1	Detailed queue information for CSQ1 (targetType = 0; indicates CSQ-based routing).
ACDR1	100	0	1	Agent A and original call information.

Table 3: Basic ACD Call Queues for One CSQ—Agent State-Change Records

Record	Reason	Remarks
ASDR1	4 (Reserved)	Agent A is selected for call.
ASDR2	5 (Talking)	Agent A answers call.
ASDR3	3 (Ready)	Call ends.

Basic ACD Call Queues for Two CSQs

- 1 Call reaches a Unified CCX route point, executes a script, and queues for two CSQs.
- 2 System allocates agent A for the call and rings agent A's phone, and agent A answers the call.

Table 4: Basic ACD Call Queues for Two CSQs—Call-Related Detail Records

Record	Session ID	Session sequence number	qIndex	Remarks
CCDR1	100	0	—	—
CRDR1	100	0	1	Overall queue information.
CQDR1	100	0	1	Overall queue information for CSQ1 (targetType = 0, targetID = ID of CSQ1).
CQDR2	100	0	1	Overall queue information for CSQ2 (targetType = 0, targetID = ID of CSQ2).
ACDR1	100	0	1	Agent A and original call information.

Basic ACD Call Wrap-Up

- 1 Call reaches a Unified CCX route point, executes a script, and queues for one CSQ.
- 2 System allocates agent A for the call and rings agent A's phone, and agent A answers the call.
- 3 After completing the call, agent A goes to Work state, and chooses a wrap-up code.

Table 5: Basic ACD Call Wrap-Up—Call-Related Detail Records

Record	Session ID	Session sequence number	qIndex	Remarks
CCDR1	100	0	—	—
CRDR1	100	0	1	Overall queue information.
CQDR1	100	0	1	Detailed queue information for CSQ1 (targetType = 0; indicates CSQ-based routing).
ACDR1	100	0	1	Agent A and original call information with wrap-up code.

Table 6: Basic ACD Call Wrap-Up—Agent State-Change Records

Record	Reason	Remarks
ASDR1	4 (Reserved)	Agent A is selected for call.
ASDR2	5 (Talking)	Agent A answers call.
ASDR3	6 (Work)	Call ends.
ASDR4	3 (Ready)	Agent A goes to Ready state.

Basic Agent-Based Routing Call

- 1 Call reaches a Unified CCX route point, executes a script, and selects agent A.
- 2 System allocates agent A for the call and rings agent A's phone, and agent A answers the call.

Table 7: Basic Agent-Based Routing Call—Agent State-Change Records

Record	Reason	Remarks
ASDR1	4 (Reserved)	Agent A is selected for call.

Record	Reason	Remarks
ASDR2	5 (Talking)	Agent A answers call.
ASDR3	3 (Ready)	Call ends.

Table 8: Basic Agent-Based Routing Call—Call-Related Detail Records

Record	Session ID	Session sequence number	qIndex	Remarks
CCDR1	100	0	—	—
CRDR1	100	0	1	Overall queue information.
CQDR1	100	0	1	Detailed information for the routing attempt (targetType = 1; indicates agent-based routing).
ACDR1	100	0	1	Agent A and original call information.

Table 9: Basic Agent-Based Routing Call—Agent State-Change Records

Record	Reason	Remarks
ASDR1	4 (Reserved)	Agent A is selected for call.
ASDR2	5 (Talking)	Agent A answers call.
ASDR3	3 (Ready)	Call ends.

Transfer to Route Point

- 1 Call reaches a Unified CCX route point, executes a script, and queues for one CSQ.
- 2 System allocates agent A for the call and rings agent A's phone, and agent A answers the call.
- 3 Agent A transfers the call to a Unified CCX route point.
- 4 Call executes a script, queues for one or more CSQs, and connects to agent B.
- 5 Server begins a new session and CCDR as soon as agent A starts the consult call.
- 6 Server writes the CCDR for the consult call either when agent A completes the transfer or when agent A or the script terminates that call.

Table 10: Transfer to Route Point—Call-Related Detail Records

Record	Session ID	Session sequence number	qIndex	Remarks
CCDR1	100	0	—	Transfer field will be 1.
CRDR1	100	0	1	Overall queue information for the first segment of the call (before the transfer).
ACDR1	100	0	1	Agent A and original call information.
CQDR1	100	0	1	Detailed queue information for the CSQ that is selected by the first route point's script.
CCDR2	101	0	—	Consult call from agent A to route point.
CCDR3	100	1	—	Second leg of original call to new route point.
CRDR3	100	1	—	Overall queue information for the second segment of the call (after the transfer).
CQDR3	100	1	1	Queue information for second leg of call.
ACDR3	100	1	1	Agent B and original call information.

Conference to Agent

- 1 Call reaches a Unified CCX route point, executes a script, and queues for one CSQ.
- 2 System allocates agent A for the call and rings agent A's phone, and agent A answers the call.
- 3 Agent A calls another logged-in agent (agent B), and conferences agent B into the original call.
- 4 Server begins a new session and CCDR as soon as agent A starts the consult call.
- 5 Server writes the CCDR for the consult call either when agent A completes the conference or when agent A or agent B terminates the consult call.



Note

- 1 The server does not create a new CCDR or CRDR after the conference is completed.
 - 2 An asterisk (*) indicates that another record has the same name, but the record is for a different agent.
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Table 11: Conference to Agent—Call-Related Detail Records

Record	Session ID	Session sequence number	qIndex	Remarks
CCDR1	100	0	—	Conference field will be 1.
CRDR1	100	0	1	Overall queue information.
ACDR1	100	0	1	Agent A and original call information.
CQDR1	100	0	1	Detailed queue information for CSQ1 (targetType = 0; indicates CSQ-based routing).
CCDR2	101	0	—	Consult call from agent A to agent B.
ACDR1*	100	0	0	Agent B and original call information.

Workflow Redirect to Route Point

- 1 Call reaches a Unified CCX route point.
- 2 Workflow for that route point redirects the call to a second route point.

Table 12: Workflow Redirect to Route Point—Call-Related Detail Records

Record	Session ID	Session sequence number	Remarks
CCDR1	100	0	Caller to first route point (redirect field will be 1).
CCDR2	100	1	Caller to second route point.

ACD Call Unanswered

- 1 Call reaches a Unified CCX route point, executes a script, and queues for one or more CSQs.
- 2 System allocates agent A for the call and rings agent A's phone, but agent A does not answer the call within the timeout specified in the Select Resource or Connect step.
- 3 Call goes into queue and is presented to agent B, who answers the call.

**Note**

An asterisk (*) indicates that another record has the same name, but the record is for a different agent.

Table 13: ACD Call Unanswered—Call-Related Detail Records

Record	Session ID	Session sequence number	qIndex	Remarks
CCDR1	100	0	—	—
CRDR1	100	0	1	Overall queue information.
CQDR1	100	0	1	Detailed queue information for the CSQ selected by the route point script.
ACDR1	100	0	1	Agent A information, ring time > 0 and talk time = 0.
ACDR1*	100	0	1	Agent B information, talk time > 0.

Table 14: ACD Call Unanswered—Agent State-Change Records

Record	Agent	State	Reason Code	Remarks
ASDR1	A	4 (Reserved)	—	Agent A is selected for call.
ASDR2	A	2 (Not Ready)	32763	Server retrieves call from the agent's phone.
ASDR3	B	4 (Reserved)	—	Agent B is selected for call.
ASDR4	B	5 (Talking)	—	Agent B answers call.

Agent-to-Agent Non-ACD Call

- 1 Agent A goes off-hook and calls agent B.
- 2 Agent B answers, the two agents talk for a while, and agent B hangs up.

Table 15: Agent-to-Agent Non-ACD Call—Call-Related Detail Records

Record	Session ID	Session sequence number	Remarks
CCDR1	100	0	Agent A to agent B information.

Table 16: Agent-to-Agent Non-ACD Call—Agent State-Change Records

Record	Agent	State	Reason Code	Remarks
ASDR1	A	2 (Not Ready)	32762	Agent A goes off-hook.
ASDR2	B	2 (Not Ready)	32761	Call rings at agent B's phone.
ASDR3	B	3 (Ready)	—	Agent B hangs up.
ASDR4	A	3 (Ready)	—	—

Agent-to-Agent Non-ACD Call Transfer

- 1 Agent A receives a non-ACD call from an unknown party.
- 2 Agent A places a consult call to agent B, agent B answers the call, and agent A completes the transfer.
- 3 Agent B then hangs up.

Table 17: Agent-to-Agent Non-ACD Call Transfer—Call-Related Detail Records

Record	Session ID	Session sequence number	Remarks
CCDR1	100	0	Unknown party to agent A information (transfer field will be 1).
CCDR2	101	0	Agent A to agent B information.
CCDR3	100	1	Unknown party to agent B information.

Table 18: Agent-to-Agent Non-ACD Call Transfer—Agent State-Change Records

Record	Agent	State	Reason Code	Remarks
ASDR1	A	2 (Not Ready)	32761	First call rings at agent A's phone.
ASDR2	B	2 (Not Ready)	32761	Consult call rings at agent B's phone.
ASDR3	A	3 (Ready)	—	Agent A completes transfer.

Record	Agent	State	Reason Code	Remarks
ASDR4	B	3 (Ready)	—	Agent B hangs up.

Agent-to-Agent Non-ACD Call Conference

- 1 Agent A receives a non-ACD call from an unknown party.
- 2 Agent A places a consult call to agent B, and agent B answers the call.
- 3 Agent A establishes a conference; agent A, agent B, and the caller are in conversation.
- 4 Agent A hangs up.
- 5 Agent B hangs up.

Table 19: Agent-to-Agent Non-ACD Call Conference—Call-Related Detail Records

Record	Session ID	Session sequence number	Remarks
CCDR1	100	0	Unknown party to agent A information (conference field will be 1).
CCDR2	101	0	Agent A to agent B information.

Table 20: Agent-to-Agent Non-ACD Call Conference—Agent State-Change Records

Record	Agent	State	Reason Code	Remarks
ASDR1	A	2 (Not Ready)	32761	First call rings at agent A's phone.
ASDR2	B	2 (Not Ready)	32761	Consult call rings at agent B's phone.
ASDR3	A	3 (Ready)	—	Agent A hangs up.
ASDR4	B	3 (Ready)	—	Agent B hangs up.

ACD Call Consult Transfer

- 1 Agent A is connected and talking to an incoming ACD call.
- 2 Agent A puts the call on hold and places a consult transfer to agent B.

- 3 Agent A completes the transfer and then agent B answers.

Table 21: ACD Call Consult Transfer—Call-Related Detail Records

Record	Session ID	Session sequence number	qIndex	Remarks
CCDR1	100	0	—	Original call and agent A information (transfer field will be 1).
CRDR1	100	0	1	Overall queue information.
ACDR1	100	0	1	Agent A information.
CQDR1	100	0	1	Queue information.
CCDR2	101	0	—	Agent A and agent B information.
CCDR3	100	1	—	Original call and agent B information.
ACDR3	100	1	0	Agent B information.

Table 22: ACD Call Consult Transfer—Agent State-Change Records

Record	Agent	Reason	Remarks
ASDR1	A	4 (Reserved)	Agent A is selected for original call.
ASDR2	A	5 (Talking)	Agent A answers.
ASDR3	B	4 (Reserved)	Agent A calls agent B, agent B's phone rings.
ASDR4	A	3 (Ready)	Agent A completes the transfer.
ASDR5	B	5 (Talking)	Agent B answers.
ASDR6	B	3 (Ready)	Caller hangs up.

Agent Places Consult Call and Resumes Call

- 1 Agent A is connected to an incoming ACD call.
- 2 Agent A presses the **Transfer** button on the phone to initiate a consult call with agent B.
- 3 Agent A receives a dial tone, drops the consult call, and resumes the incoming call.

Table 23: Agent Places Consult Call Then Resumes Call—Call-Related Detail Records

Record	Session ID	Session sequence number	qIndex	Remarks
CCDR1	100	0	—	Original call and agent A information.
CRDR1	100	0	1	Overall queue information.
CQDR1	100	0	1	Detailed queue information for CSQ1 (targetType = 0; indicates CSQ-based routing).
ACDR1	100	0	1	Includes talk time both before and after the canceled consult call, and contains hold time for the duration of the canceled consult call.
CCDR2	101	0	—	Agent A information, no called-party information.

Table 24: Agent Places Consult Call Then Resumes Call—Agent State-Change Records

Record	Agent	Reason	Remarks
ASDR1	A	4 (Reserved)	Agent A is selected for original call.
ASDR2	A	5 (Talking)	Agent A answers.
ASDR3	A	3 (Ready)	Caller hangs up.

Agent Consults Agent and Resumes Call

- 1 Agent A is connected to an incoming ACD call.
- 2 Agent A puts that call on hold and initiates a consult transfer to agent B.
- 3 Agent B answers, talks to agent A for some time, and then hangs up without agent A completing the transfer.
- 4 Agent A resumes the original call.

Table 25: Agent Consults Agent Then Resumes Call—Call-Related Detail Records

Record	Session ID	Session sequence number	qIndex	Remarks
CCDR1	100	0	—	Original call and agent A information.

Record	Session ID	Session sequence number	qIndex	Remarks
CRDR1	100	0	1	Overall queue information.
CQDR1	100	0	1	Detailed queue information for CSQ1 (targetType = 0; indicates CSQ-based routing).
CCDR2	101	0	—	Agent A to agent B.
ACDR1	100	0	1	Includes talk time both before and after the consult call, and contains hold time for the duration of the canceled consult call.

Table 26: Agent Consults Agent Then Resumes Call—Agent State-Change Records

Record	Agent	Reason	Remarks
ASDR1	A	4 (Reserved)	Agent A is selected for original call.
ASDR2	A	5 (Talking)	Agent A answers.
ASDR3	B	4 (Reserved)	Agent A calls agent B, agent B's phone rings.
ASDR4	B	5 (Talking)	Agent B answers.
ASDR5	B	3 (Ready)	Agent B disconnects from consult call.
ASDR6	A	3 (Ready)	Caller disconnects original call.

Basic Outbound Call Accepted

- 1 Call is presented to agent A, and agent A accepts the call.
- 2 System places the call from agent A to the customer.

Table 27: Basic Outbound Call Accepted—Call-Related Detail Records

Record	Session ID	Session sequence number	Remarks
CCDR1	100	0	—
ACDR1	100	0	Call result is 1 (voice).

Table 28: Basic Outbound Call Accepted—Agent State-Change Records

Record	Reason	Remarks
ASDR1	4 (Reserved)	Agent A is presented with outbound call.
ASDR2	5 (Talking)	Agent A accepts call.
ASDR3	3 (Ready)	Call ends.

Basic Outbound Call Rejected and Later Accepted

- 1 Call is presented to agent A, and agent A rejects the call.
- 2 Call is then presented to agent B, and agent B accepts the call.
- 3 System places the call from agent B to the customer.

Table 29: Basic Outbound Call Rejected and Later Accepted—Call-Related Detail Records

Record	Session ID	Session sequence number	Remarks
CCDR1	100	0	—
ACDR1	100	0	Call result is 9 (reject).
ACDR2	100	0	Call result is 1 (voice).

Table 30: Basic Outbound Call Rejected and Later Accepted—Agent State-Change Records

Record	Reason	Remarks
ASDR1	4 (Reserved)	Agent A is presented with outbound call.
ASDR1	3 (Ready)	Agent A rejects call.
ASDR1	4 (Reserved)	Agent B is presented with outbound call.
ASDR2	5 (Talking)	Agent B accepts call.
ASDR3	3 (Ready)	Call ends.

Basic Outbound Call Accepted and Transferred to Another Agent

- 1 Call is presented to agent A, and agent A accepts the call.
- 2 System places the call from agent A to the customer.
- 3 Agent A transfers the call to agent B.

Table 31: Basic Outbound Call Accepted and Transferred to Another Agent—Call-Related Detail Records

Record	Session ID	Session sequence number	Remarks
CCDR1	100	0	—
ACDR1	100	0	Call result is 1 (voice).
CCDR2	200	0	Consult call from agent A to agent B information.
CCDR3	100	1	Outbound call at agent B information.
ACDR2	100	1	Call result is 20 (transfer).

Table 32: Basic Outbound Call Accepted and Transferred to Another Agent—Agent State-Change Records

Record	Reason	Remarks
ASDR1	4 (Reserved)	Agent A is presented with outbound call.
ASDR2	5 (Talking)	Agent A accepts call.
ASDR3	3 (Ready)	Agent A transfers call to agent B.
ASDR1	4 (Reserved)	Agent B is presented with outbound call.
ASDR2	5 (Talking)	Agent B on outbound call.
ASDR3	3 (Ready)	Call ends.

Basic Outbound Call Accepted and Transferred to Route Point

- 1 Call is presented to agent A, and agent A accepts the call.
- 2 System places the call from agent A to the customer.
- 3 Agent A transfers the call to a route point.

- 4 Call reaches a Unified CCX route point, executes a script, and queues for one CSQ.
- 5 System allocates agent B for the call and rings agent B's phone, and agent B answers the call.

Table 33: Basic Outbound Call Accepted and Transferred to Route Point—Call-Related Detail Records

Record	Session ID	Session sequence number	qIndex	Remarks
CCDR1	100	0	—	—
ACDR1	100	0	—	Call result is 1 (voice).
CCDR2	200	0	—	Consult call from agent A to route point information.
CCDR3	100	1	—	Outbound call is queued.
CRDR1	100	1	1	Overall queue information.
CQDR1	100	1	1	Detailed queue information for CSQ1 (targetType = 0; indicates CSQ-based routing).
ACDR1	100	1	1	Agent B and original call information.

Table 34: Basic Outbound Call Accepted and Transferred to Route Point—Agent State-Change Records

Record	Reason	Remarks
ASDR1	4 (Reserved)	Agent A is presented with outbound call.
ASDR2	5 (Talking)	Agent A accepts call.
ASDR3	3 (Ready)	Agent A transfers call to route point.
ASDR1	4 (Reserved)	Agent B is selected for call.
ASDR2	5 (Talking)	Agent B answers call.
ASDR3	3 (Ready)	Call ends.

Chat Scenarios

Chat-Related Detail Records Flow

The following table presents an example of the general flow of detail records for incoming chat contacts.

Table 35: General Flow of Detail Records for Incoming Chat Contacts

Chat activity	Detail record activity
Contact reaches Unified CCX	Begins TCDR in memory.
Contact is queued to a CSQ	—
Agent is allocated to the contact	Writes ASDR (Busy).
Agent answers and contact is dequeued from CSQ	Collects TCQDR in memory.
Contact disconnects	Collects TACDR, TCCDR. Writes TCCDR, TCDR, TCQDR, TACDR.
Agent leaves Work state	Writes ASDR (Ready).

If the contact drops before agent is connected, TCQDR is collected and written when the contact disconnects.

Chat Contact Unanswered

- 1 Contact reaches Unified CCX and queues for one or more CSQs.
- 2 System allocates agent A for the contact and offers the contact to the agent, but agent A does not answer the contact within the configured timeout period.
- 3 Call goes into queue and is presented to agent B, who answers the call.

Table 36: Chat Contact Unanswered Scenario—Chat-Related Detail Records

Record	Remarks
Contact is queued to a CSQ	—
Agent is allocated to the contact	Writes ASDR (Busy).
Agent does not accept the contact	Writes ASDR (Not Ready).
Contact is requeued to CSQ	Collects TACDR1.

Record	Remarks
Contact is allocated to a different agent	Writes ASDR (Busy).
Agent answers and contact is dequeued from the CSQ	Collects TCQDR in memory.
Contact disconnects	Collects TACDR2, TCCDE. Writes TACDR1, TACDR2, TCDR, TCQDR, TCCDR.
Agent leaves Work state	Writes ASDR (Ready).