

ROME

QUERY DETAIL RECORD SPECIFICATIONS

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Version: 1.1a
Date: July 10, 2013



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Revision History

Date	Revision	Edited by	Descriptions of Change
07-Dec-2010	0.1	rtran	Initial version of Sansay Query Detail Record Specification.
10-Oct-2011	0.2	rtran	Added Jdtype and CarrierID.
10-Oct-2011	0.3	rtran	Removed service port in response; removed trunk alias field; changed answer date/time to query answer delay.
11-Jun-2012	0.4	rtran	Expand record type to accommodate LNP. Added fields for LNP fields.
31-Jul-2012	1.0rc1	rtran	Added fields: route table group, route table, routed digits, translated DNIS.
7-Sep-2012	1.1rc1	rtran	Removed the translated DNIS field
11-Sep-2012	1.1rc2	rtran	Added check marks to specify applicable fields for each system type (HRS or NLS).
12-Sep-2012	1.1	rtran	Use NLS RN field (dual purpose) for HRS RN received.
10-Jul-2013	1.1a	rtran	Added TranslatedDNIS field for HRS.

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1 Scope

This document defines the Sansay Query Detail Record (QDR) file format for the ROME platform and the file retrieval process. The ROME platform includes different types of products: HRS and NLS.

QDRs are ASCII records of the queries from the SBCs to the ROME platform, and the responses from the ROME platform to the SBCs. Queries can be route lookup requests as well as LNP lookup requests.

A QDR record consists of the header with unique identification of the record, and the body containing information of the query.

2 QDR Format

2.1 QDR Header

<i>Parameter</i>	<i>Max ASCII Characters</i>	<i>Description</i>	<i>Notes</i>
Record Sequence Number	9	Unique identification of this record	
Version Number	5	Format version number of records to follow	
Record Type	1	Type of QDR being generated. R=NORMAL A=AUDIT	
Record Data	Variable	Parameters as defined in the body.	

- QDR fields without any data will be blank.
- The character semi-colon (;) is used as the field delimiter to separate the fields of a QDR record.
- For the list of route responses, if the query mode is TID, the entry can be in the form: TrunkID separated by a comma. For example: 437,12.
- If the query mode is IP, the response can be IP addresses, separated by commas.
- Each QDR record in the file is separated by line feed “\n”.

2.2 QDR Body

<i>Parameter</i>	<i>Max ASCII Characters</i>	<i>Description</i>	<i>HRS</i>	<i>NLS</i>
SessionID	32	Unique ID assigned to the query by the ROME system.	✓	✓
Start Date Time	32	Date and Time when the query entered the system in MySQL format. This is the local date and time.	✓	✓
Duration in msec	6	Answer time in milliseconds	✓	✓
Minutes West of Greenwich Mean Time (String)	4	Used to calculate the absolute time (0-1440).	✓	✓
Origination Query Mode (String)	10	Mode of query: “DNIS”, “IP”, “TID” or “LNP”	✓	✓
Origination VoIP Protocol (String)	6	“SIP” or “ENUM”	✓	✓
Carrier ID	6	Carrier Identification (1-99999) or NA	✓	
Origination Source Host Name	128	FQDN or IP address for source SBC	✓	✓
Origination Trunk ID String	6	Trunk ID of the origination SBC	✓	✓

Parameter	Max ASCII Characters	Description	HRS	NLS
Origination Service Port	6	Service Port Number of the source SBC	✓	✓
Jurisdiction Type	4	Jurisdiction Type used in the query (0-255)	✓	
Origination Source Number (see ANI input selection)	41	'0-9','+', "none"	✓	✓
Input Selection (ANI input selection)	10	'PCHARGEINFO': P-Charge-Info was used 'RPID': Remote Party Identification was used 'PAI': P-Asserted-Identity was used 'JIP': Jurisdiction Information Parameter was used 'ANI': ANI was used	✓	
Origination Destination Number (DNIS)	41	'0-9','+', "none"	✓	✓
Route Query - RN Routing	4	'RN': RN was used 'DNIS': DNIS was used	✓	
Origination Query ID	128	Unique ID for the query from the SBC	✓	✓
Release Cause Description	64	Release cause string	✓	✓
Release Cause Value	4	Value of release cause (decimal)	✓	✓
Route Response – Total Routes	4	Number of alternate routes (decimal). See N in Final Routes field.	✓	
Route Response – Routes	N(32)	Either Trunk ID -or- FQDN/IP address. See Total Routes field. Separated by commas, or NA for other query mode. [TrunkID[,]] [IPAddress[,]]	✓	
For HRS – RN received For NLS – RN Response	41	Routing Number '0-9'	✓	✓
LNP Response - SPID	41	Service Provider Identification '0-9'		✓
Route Table Group Id	6	Route Table Group Id (1-99999) – only for TID,IP,DNIS mode	✓	
Route Table Id	6	Route Table Id (1-99999) – only for TID,IP,DNIS mode	✓	
Routed Digits	41	Number matched in the query lookup	✓	
Translated DNIS	41	Translated DNIS number	✓	
Epoch Time	16	Number of seconds elapsed since 1970-01-01	✓	✓

2.3 Sample QDR records

2.3.1 Route Lookup Queries - TID mode

```
000092810;V1.1;R;181-1071459514@192.188.0.28;Mon Feb 21 11:38:34
2013;10;480;TID;SIP;102;192.188.0.38;9101;101;3;4152432345;PAI;19093423452;DNIS;
47642429-694@10.10.1.162;
Redirect;0300;6;120,1125,890,821,132,1126;;;4;9999;1909342; 19093423;1361446714;
```

```
000092814;V1.1;R;181-1071459514@192.188.0.28;Mon Feb 21 11:38:34
2013;10;480;TID;SIP;102;192.188.0.38;9101;101;3;4152432345;ANI;19093423452;RN;
f0faff54-2e6c-11d8-8c4bbd4d562c2265;Redirect;300;3;821,132,1126;;; 4;9999;1909342;
19093423;1361446714;
```

2.3.2 Route Lookup Query - IP mode

```
001002010;V1.1;R;181-1071459514@192.188.0.28;Mon Feb 21 11:38:41
2013;20;480;IP;SIP;102;192.188.78.38;91;101;9;4152432345;ANI;19093423452;RN;
f0faff54-2e6c-11d8-8c4bbd4d562c2265;Redirect;300;4;192.188.0.64,192.188.0.45,
65.199.230.233,12.89.34.101;;;4;9999;1909342;19093423;1361446714;
```

2.3.3 LNP Lookup Query

```
001002222;V1.1;R;181-1071459514@192.188.0.28;Mon Feb 21 11:38:41
2011;10;480;LNP;SIP;105;192.188.78.38;92;101;;;;19093423452;;
f0faff54-2e6c-11d8-8c4bbd4d562c2265;
Moved Temporarily;302;;;2013331818;2314;;;;1361446714;
```

3 QDR File Storage/Retrieval

3.1 File Storage Policy

By default, all QDR files will be kept on the system for at least 360 hours (15 days). QDR files which are older than 360 hours will be deleted by the ROME system automatically in order to save disk space. The QDR file is generated in a configured time interval. The time interval can be configured from 60 seconds to 99,999 seconds.

3.2 File Naming Convention

File name is assembled using the format YYYYMMDD-HHmm-BeginQDRSeq-EndQDRSeq.xxx where:

- YYYY is the Year: 4 digit long
- MM and DD are the Month and Date: 2 digit each
- HHmm are the Hour and Minute fields: 2-digit each. The Hour/Minute field is always of 24-hour format, which ranges from 00 through 23.
- QDRSeq is 9-digit long. BeginQDRSeq is the sequence number of the first query. EndQDRSeq is the sequence number of the last query within this file.
- The .xxx suffix/extension indicates the file was completed (qdr). The working QDR field will be named qdr.tmp, which has the most current QDRs before the qdr file interval expired.

For example, the QDR file 20130227-0515-71001-80000.qdr indicates the file was created on 27-Feb-2013 at 5:15AM and contains the QDR records seq # from 71,001 to 80,000. The QDRSeq is a 9 digits number where it is wrapped around when the value hit 999,999,999. Integer fields without data will be set for 0; Non-integer fields which do not have data will simply be left empty or with string "NA". The character semi-colon (;) is used as the field delimiter to separate the fields of a QDR record.

3.3 File Retrieval Procedure

QDR files can be retrieved using the SCP (secure file copy) procedure. The SCP procedure requires a defined user login name with password. The QDR user name and password can be obtained through Web GUI via system administrator. Following is a simple procedure for retrieving QDR files from the ROME system:

- Obtain the IP address or the host name of the ROME system.
- Open an SCP(or ftp) session using one of the following commands:
SCP user@<IP address>:/QDR/20130227*.qdr
to get all QDR files created on 02/27/2013.