Query User Guide
For the Reassigned Numbers Database

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Version 1.2

Prepared For: Callers and Caller Agents

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Administrator

Revision History

Revision History		
Date	Version	Description
June 17, 2021	1.0	Initial User Guide
July 14, 2021	1.1	Correction on Date file formats Pages 6 and 7
December 29, 2021	1.2	Section 2.2 – reference to interim pricing, Section 4.1 - Inclusion of RecordID in query and sample formats Section 6.2 – Reading Results change for No and No data Section 6.3 – automation of retrieving query results Section 7 – examples of query results with RecordID

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1 Introduction

Purpose

This document provides instructions for Caller and Caller Agents for querying the Reassigned Numbers Database (RND) to determine whether a telephone number has been permanently disconnected after a date certain and therefore is no longer assigned to the party the caller wants to reach.

Overview

The RND system securely houses all permanently disconnected US geographic and toll-free numbers and the most recent permanent disconnection of each of those numbers. The RND is updated monthly by Submit Data users, which are Service Providers (SPs) and Service Provider Agents (SPAs) which report permanently disconnected geographic telephone numbers, and the Toll-Free Number Administrator (TFNA) which reports permanently disconnected toll-free telephone numbers. SPs, SPAs, and the TFNA are required to submit their monthly reports by the 15th of each month, before midnight ET, to the Reassigned Numbers Database (RND). The RND Administrator (RNDA) will update the database no later than 8am ET, on the 17th of each month. The date of the latest database update will always be visible to users logged into the RND.

Registered query users, called Callers or Caller Agents, can query the RND before calling/sending texts to their customer to determine if the number on file has been disconnected to avoid mistaken calls.   To access and query the RND, it is necessary to register as a Caller or Caller Agent user as well as select a Query Tier and set up billing information in the system. *(**NOTE**: the beta test period, lasting from July 1 through September 30, 2021, will not require payment.)* Please consult the **Caller/Caller Agent Registration Guide** for instructions on how to register for the RND.

Callers will submit a query request that includes the telephone number, the date of prior expressed consent (either the date obtained by the consumer to contact them or a past date in which the Caller is reasonably certain that the consumer could still be reached at that number), a RecordID (optional field), and Company ID. Callers may use the GUI, File Upload in the GUI, SFTP or API methods to query the RND. A standard file format is provided if the user wants to use the File Upload in the GUI, SFTP or API methods.

The system will confirm if the query submission was successful and perform validations on submitted queries to identify any errors. For each telephone number queried, a transaction will count against the user's Query Tier limit.

2 Billing Information

Beta Test Period

There will be no billing during the beta test period from July 1, 2021, through September 30, 2021. During this period, Callers and Caller Agents, will be able to use RND services at no cost. During registration, a sample of tiers will be available for Callers and Caller Agents to select the tier that would represent the tier that best meets their needs. Tier selection during the beta test period can be used as a baseline for the user to determine if their actual use during the beta test period aligns with expectations; tier selection can be adjusted as needed.

The RNDA will use data collected during the beta test period to inform billing prices for General Availability.

General Availability

The service is a pre-paid tiered, subscription-based fee structure. The tiers are based on the number of queries the subscriber anticipates making in the RND and the subscription shall be based on the period of time during which the subscriber may make the queries.

Each tier is associated with a flat-rate amount, charged at the beginning of the time period, and which covers the volume of queries during that time period up to the upper query volume limit.

The initial rate for the lowest tier, that is the tier allowing the smallest number of queries, will be capped at a penny per query, assuming the maximum number of queries. Higher tiers, that is tiers allowing larger volumes of queries, will have incrementally lower per-query charges to reflect a volume discount.

Please see interim pricing at https://www.reassigned.us/pricing and directions for subscribing in Section 3 of the **Caller/Caller Agent Registration Guide**.

3 System Settings

The RND uses the following standard datetime format MM/DD/YYYY HH:MM:SS in Eastern Time for display and download data.   Example 12/19/2020 14:35:22.
When editing data in the RND, a red Asterix (*) will appear next to required fields.

Assistance

If you have any questions or issues, please contact the RND Customer Support at 833-763-2366 or support@reassigned.us.

4 File Format

A standardized file format will be used to query the RND for File Upload in the GUI, SFTP and API methods. The file can either be csv or xlsx. Each file must be limited to no more than 250,000 rows. If queries of more than 250,000 rows are needed, the user must create multiple files to run the queries. If a file is submitted with more than 250,000 rows, the data will be processed up to 250,000 and then stop. The results will be created for the first 250,000 rows only. The user must submit an additional file to process the rows over and above 250,000 rows.

Each row in the file must contain the telephone number, date, and CompanyID.

File format information:

1. File Name
    1.1.   User can pick any file name
2. **Additional Contacts** is an optional row
    2.1.   Add up to 5 additional contact email addresses on one row separated by commas
    2.2.   Will be courtesy copied (cc'd) on the notification email that results are ready for retrieval
    2.3.   Recommend use of distribution email lists if more than 5 email addresses are required
    2.4.   If more than 5 email addresses are supplied, then the first 5 will be included and the rest will be ignored by the system
3. Other Optional data – the user can include additional internal information as long as it is contained in a row prior to the Telephone Number List
4. **Telephone Number List** – header row to tell the system the next row is data to process
5. Each row must contain the following information in this order
    5.1.   **Telephone Number** format: ########## (example: 2025553333)
    5.2.   **Date** format: YYYY-MM-DD, MM/DD/YY, or MM/DD/YYYY (example: 2021-09-07, 09/07/21, or 09/07/2021)
    5.3.   **CompanyID**
        i.   Must be setup in RND and Company is in Active status; Company status verify this in Welcome, Companies
        ii. Associated with the user login
        iii. Case insensitive
        iv. Caller Agents must use the Client CompanyIDs to show client checked RND for purposes of safe harbor for individual clients
6. Addition of a record ID
    6.1.   A record ID of up to 7 digits can be added as the 4th column (column D) in the query file and the query results file will include the corresponding results as entered on the query file associated with the specific Telephone Number. If there are any errors encountered in the input file, those errors will be listed at the end.
7. Verify Data

7.1.   All rows will generate a billing transaction
7.2.   Duplicates rows will generate a billing transaction for each row
7.3.   A row above 250,000 will not be processed or create a billing transaction

8. For XLXS – The first worksheet will be processed. Any data in additional worksheets will not be processed.

4.1 Examples of Query Formats

Example CSV file format
Additional Contacts, Joe@company.com, distro1company.com,
Telephone Number List,
2025550100,02/01/2021,CompanyID1
2025550101,02/22/2021,CompanyID2
2025550102,02/23/2021,CompanyID2

Example XLSX file format

Additional Contacts	joe@company.com, distro1@company.com		
Telephone Number List			
2015551301		04/01/21	C697558384
3015552002		04/01/21	C697558384
4105552003		04/01/21	C697558384
8085552004		04/01/21	C697558384
2075552011		04/01/21	C697558384
3105552015		04/01/21	C697558384

Example CSV file format with RecordID (4th column)
```
Additional Contacts,"joe@company.com, distro1@company.com",
Telephone Number List,
2015551301,04/01/21,C697558384,100
3015552002,04/01/21,C697558384,200
4105552003,04/01/21,C697558384,300
8085552004,04/01/21,C697558384,400
2075552011,04/01/21,C697558384,500
3105552015,04/01/21,C697558384,600
6125551301,04/01/21,C697558384,700
9105551301,06/04/21,C697558384,800
```

Example XLSX file format with RecordID (4th column)

Additional Contacts	joe@company.com, distro1@company.com		
Telephone Number List			
2015551301	04/01/21	C697558384	100
3015552002	04/01/21	C697558384	200
4105552003	04/01/21	C697558384	300
8085552004	04/01/21	C697558384	400
2075552011	04/01/21	C697558384	500
3105552015	04/01/21	C697558384	600
6125551301	04/01/21	C697558384	700
9105551301	06/04/21	C697558384	800

5 Data Validation

All query data will create a billable transaction and count against the Query Tier limit including invalid data.

The system will validate the following:

- TN format
    - Valid TN format is ##########
    - **Invalid** TN format
        - TN less that 10 digits – examples 411, 911, 703453,
        - TN that is not numeric – example 2025552XXX
        - TN Area Code (NPA) less that 200 – example **199**5554456
        - TN Central Office (NXX) that is less that 200 – example 202**189**8877 or 703**177**2424
    - Duplicate TNs will each be processed and create a billable transaction

- Date format
    - Valid format YYYY-MM-DD, MM/DD/YY or MM/DD/YYYY
    - **Invalid** date format
        - DD/MM/YY - If DD/MM/YY is used, the system will interpret as MM/DD/YY and will result in inaccurate date
        - MM-DD-YY – example: 05-01-20
        - M-D-YY - example: 5-1-20
        - January 1, 2020
    - Invalid if date is in future – example: 2100-12-01
    - Invalid if date is earlier than 1/1/2001 - example: 1/1/2000

- CompanyID
    - Valid if associated with caller or client caller
    - **Invalid** if the Company ID is not associated User submitting query
        - Caller will use Company ID

- Caller Agent will use Client Company IDs
- Company associated with Company ID is not active
- Verify valid company IDs by navigating to Welcome, then Company

If a query file contains more that 5,000 errors, the system will stop processing after 5,000 errors and notify the user.

6 Query Methods

There are 4 methods a Caller or Caller Agent can use to query the RND, which include: GUI, File Upload in the GUI, SFTP, and API. The following section provides instructions for use of each method.

6.1 GUI

The following are the steps to query the RND using the GUI after logging in to the RND. There is a limit of 50 telephone numbers that can be processed per search on this screen. *Note: Use the File Upload option for a query of more than 50 TNs.*

1. Navigate to Query, TN Query
2. Once on the Screen, the following options are available:
    2.1.   Manually enter data or paste in data from CSV or XLSX
    2.2.   To Manually enter a single row of data
        2.2.1.   Telephone number which must be:
            2.2.1.1.   Enter 10 digits
            2.2.1.2.   NPA above 199, example: 2025554848
            2.2.1.3.   NXX above 199, example: 7035559988
        2.2.2.   Date may be today's date or date in the past, but not a future date
        2.2.3.   Company ID can be selected from dropdown list
    2.3.   Click "Add Telephone Number" button to add a row
    2.4.   You can paste in data from CSV or XLSX
        2.4.1.   Prepare the data with Telephone Number, Date, Company ID
            2.4.1.1.   Date format must be in 2020-01-01 or 06/01/2020
            2.4.1.2.   Put curser in first TN field and paste
        2.4.2.   Rows will be added for each TN
        2.4.3.   If data is pasted again prior to search, the following message will appear: "Do you want to overwrite the data entered in the form with new data?"
            2.4.3.1.   Yes will overwrite all data
            2.4.3.2.   No will leave the data on the form

2.5.   All data validation errors must be fixed in order to run the query

2.6.   Click "Remove" to remove a single line of data

2.7.   Click "Clear" to remove all data entered

2.8.   Click "Search"

Query Telephone Number Disconnect Date

RND Updated

Enter up to 50 Telephone Numbers, Dates
and Company IDs below or you can paste in data from
CSV or XLSX in the first Telephone Number Field.

* Required

[Add Telephone Number]

Telephone Number *	Date *	Company ID
9105551301	06/01/2021	C249615033

[Clear] [Search]

2.9.   The System will state "This is a billable transaction for which your company will be charged. Do you wish to continue?"

      2.9.1.   Yes will continue with Search and create transactions for billing

      2.9.2.   No will return to screen with no Search or billing transactions created

This is a billable transaction for which your company will be charged. Do you wish to continue?

[Yes] [No]

2.10.   Screen will return with results

Query Telephone Number Disconnect Date

RND Updated:

Enter up to 50 Telephone Numbers, Dates and Company IDs below or you can paste in data from CSV or XLSX in the first Telephone Number Field.

* Required

Add Telephone Number

Telephone Number *	Date *		Company ID
	mm/dd/yyyy	🔲	C249615033 ⇕

Clear   Search

Query Results

Telephone Number	Response	Company ID
9105551301	no	C249615033
8505551301	yes	C249615033
2075552000	no_data	C249615033

Rows per page: 10 ▾   1-3 of 3

RND will not store these Query Results, so please download for your records:
CSV File or XLSX File

IMPORTANT: **The results will no longer be available when the user navigates away from this page.** The files can be downloaded in a csv or xlsx file format. The RND will not store these Query Results; the result files must be downloaded immediately for record keeping.

Example of downloaded results file:

	A	B	C	D	E
1	Query Results Created at 08/28/2021 04:42:47 PM (EST)				
2	Telephone Numbe Result		Company Id	Date Provided	Record Id
3	4055550141	no_data	C084578306	9/21/20	1
4	4055550142	no	C084578306	9/1/21	2
5	4055550143	no	C084578306	8/20/21	3
6	4055550145	yes	C084578306	8/21/21	5

6.2 Reading Results

For each TN in the query, the RND will generate a "Yes," "No" or "No Data" response.

To gain safe harbor from TCPA liability, a Caller must demonstrate that they appropriately checked the most recent update of the database and the database reported "No" when given either the date they contacted that consumer or the date on which the caller could be confident that the consumer could still be reached at that number.

Yes	Queried number is contained in the database and the date the Caller provides in the query is the same as or before the permanent disconnect date for that number in the RND. (i.e., the number **has been** permanently disconnected during the time period). **Example**: 8505551301 was disconnected 2/11/2021. If Caller queried with 1/11/2021, result will be "yes"
No	Queried number is contained in the database and the date the Caller provides in the query is after the permanent disconnect date contained in the database, **or** if the number is not in the database and the date the Caller provides is on or after January 27, 2021, the date all providers were required to maintain records of the most recent date each number was permanently disconnected. (i.e., the number **has not been** permanently disconnected during the time period). **Example:** 9105551301 was disconnected 2/11/2021. If Caller queried with 7/11/2021, result will be "no"
No Data	The queried number and a permanent disconnect date are not contained in the database and the date provided in the query is before January 27, 2021, the date all providers are required to maintain records of the most recent date each number was permanently disconnected numbers to the RND (i.e., the database does not contain either the date or number data queried by the Caller). **Example:** 2075551301 – TN has not been disconnected. If Caller queried with 12/30/20, result will be "no_data"

6.2 File Upload in the GUI

The following are the steps to query the RND using the File Upload method when logged into the RND.

Upload Query File

1. Create file following standard format as outlined above in Section 4 File Format.
2. Navigate to Query, TN Query Upload
     2.1.   Choose a file to use for query

Query Upload
Bulk TN Disconnect Query Upload

Please upload a .csv or .xlsx file.

File:

Choose File   No file chosen

Upload

      2.2.   You will be asked "This is a billable transaction for which your company will be charged. Do you wish to continue? "

      2.2.1.   Yes will continue with Search and creating transactions for Billing

      2.2.2.   No will return to screen with no Search or billing transactions created

This is a billable transaction for which your company will be charged. Do you wish to continue?

Yes   No

      2.3.   Once uploaded, the RNDA will return a message: "File uploaded successfully. You will receive an email when the file is processed."

An email notification will be sent to the user when the file results are ready to access. This email will also be sent to up to 5 additional contacts if included in uploaded file. The results file will contain any validation errors. It will be necessary to login to the RND download the results.

6.3 SFTP Method

In order to set up the SFTP account, the Primary Contact will need to Login to the RND at https://www.reassigned.us and navigate to the "SFTP Credentials" by clicking on the username in the upper right-hand corner under Welcome.   The SFTP User Guide located at https://www.reassigned.us/resources/guides provides steps on how to upload files via SFTP. The SFTP method utilizes the File Format specified above.

Users may upload a file via SFTP to query up to 250,000 TNs per file.

An email notification will be sent to the user when the file results are ready to access. This email will also be sent to up to 5 additional contacts if included in uploaded file. The results file will contain any validation errors. It will be necessary to login to the RND download the results, although it is possible to automate file result retrieval by following the steps outlined in Section 2.6 of the API Guide.   See next section below for retrieving the API Guide.

6.4 API Method

For a Caller or Caller Agent to query the RND using an API, the primary contact will need to login to the RND at https://www.reassigned.us and navigate to the "API Credentials" by clicking on the username in the upper right corner under Welcome. The user can then generate an API token and download the API Guide.

The same file format specified above will be used for making queries via the API. Users may query up to a max of 1,000 TNs as a single API call using a JSON formatted data request. Users may also upload a file via an API, to query up to 250,000 TNs at a time.

7 Query Results File

Result files are created for Upload by GUI, SFTP, and API. After submitting the TN Query file, an email will be sent to the user when the Result Files are ready for download. This email will also be sent to up to 5 additional contacts if the emails are included in the uploaded file. The results file will contain any validation errors. The email will provide direction to login to the RND, and navigate to Query, Downloads to retrieve the file. Please see the Downloads Section with details.   Or follow Section 2.6 of the API Guide to automate results retrieval.

7.1 Reading the TN Query Results File

The results file contains the following for each row of data:

A timestamp to identify the date and time the query results were provided,
TN submitted,
Result of yes, no, or no-data,
CompanyId,
Date Provided (will be the same date format as provided in the query file), and
RecordId (if this column is part of the query file)

If there were data validation errors, those rows are in the error section at the end of the file. The data in the file is the same whether downloading a .csv or .xlsx file format. Please refer to Overview section for definition of responses including "yes", "no", "no_data".

Example of query results file (RecordID was included in query) in xlsx:

Query Results Created at 08/28/2021 04:42:47 PM (EST)					
Telephone Number	Result	Company Id	Date Provided	Record Id	
4055550141	no_data	C084578306	9/21/20	1	
4055550142	no	C084578306	9/1/21	2	
4055550143	no	C084578306	8/20/21	3	
4055550145	yes	C084578306	8/21/21	5	
The following errors were encountered in the input file:					
14005555018	8/21/21	C084578306	4		Invalid tn field: 14005555018

Example of query results file (RecordID was included in query) in csv:

```
"Query Results Created at 08/28/2021 04:42:47 PM (EST)",
Telephone Number,Result,Company Id,Date Provided,Record Id
4055550141,no_data,C084578306,9/21/20,1
4055550142,no,C084578306,9/1/21,2
4055550143,no,C084578306,8/20/21,3
4055550145,yes,C084578306,8/21/21,5,

The following errors were encountered in the input file:
14005555018,8/21/21,C084578306,4,Invalid tn field: 14005555018
```

At the bottom of the results file will be any identified invalid data and the reason. To gain safe harbor, a new query must be created for the lines in error. The user can

resubmit a file containing only those line as billable transaction is created for each row processed.   Please see Data Validation section above for details on data formats. Example:

The following errors were encountered in the input file:

Invalid tn field: 201555888
Invalid date field: 9/4/21
Invalid date field: 1/9/2017
Invalid company id: 123abc

8 Reports

Query Summary Report

This report gives a summary of all queries. All query methods are included in this report.
1. Navigate to Query / Query Summary Report
2. Ener the following:
    2.1.   **Query Request Date Range** that is less that 3 months and the query results will include all queries run on or between the dates provided
    2.2.   Select a **Company ID**
    2.3.   Select a **File format** for the download, options are CSV and XLSX
3. Select Search to run the report

Query Summary Report

Run a report on queries for Company IDs associated with your user.
Results will automatically download.

* Required

Query Request Date Range (maximum 3 months) *

| mm/dd/yyyy | 📅 | to | mm/dd/yyyy | 📅 |

Company ID

| C3456234 | ⇕ |

File Format

| CSV | ⇕ |

[Clear] [Download]

Please enter valid from and to dates.

4. The System will create a results file and you will receive an email when the download is ready to be retrieved. Please see the Downloads Section for more details.
5. The Results will contain the following:
   - 5.1.　　Query Originator – the username of the user who ran the query
   - 5.2.　　Query Request Date Time – date time for request
   - 5.3.　　Query Response Date Time - date time of RND response
   - 5.4.　　Number of TNs Queried – total number of TNs in the query
   - 5.5.　　"Yes" Response – total number of TNs in the query with a response of "Yes"
   - 5.6.　　"No" Response – total number of TNs in the query with a response of "No"
   - 5.7.　　"No_data" Response – total number of TNs in the query with a response of "No_data"
   - 5.8.　　Invalid Data – data that was invalid, see Data Validation SECTION for details

	A	B	C	D	E	F	G	H
1	Query Originator	Query Request Date Time	Query Response Time	Number of TNs Queried	Yes Response	No Response	No Data Response	Invalid Data
2	MailosaurUser	9/29/2020 12:17	9/29/2020 12:17	4	1	0	3	
3	MailosaurUser	9/29/2020 6:13	9/29/2020 6:13	4	1	0	3	
4	MailosaurUser	9/29/2020 1:13	9/29/2020 1:13	4	1	0	3	
5	MailosaurUser	9/29/2020 0:03	9/29/2020 0:03	4	1	0	3	
6	MailosaurUser	9/28/2020 6:14	9/28/2020 6:14	4	1	0	3	
7	MailosaurUser	9/25/2020 6:14	9/25/2020 6:14	4	1	0	3	
8	MailosaurUser	9/24/2020 6:14	9/24/2020 6:14	4	1	0	3	
9	MailosaurUser	9/23/2020 13:23	9/23/2020 13:23	4	1	0	3	
10	MailosaurUser	9/23/2020 6:14	9/23/2020 6:14	4	1	0	3	
11	MailosaurUser	9/23/2020 2:29	9/23/2020 2:29	4	1	0	3	
12	MailosaurUser	9/23/2020 1:09	9/23/2020 1:09	4	1	0	3	
13	MailosaurUser	9/22/2020 6:12	9/22/2020 6:12	4	1	0	3	
14	MailosaurUser	9/21/2020 6:12	9/21/2020 6:12	4	1	0	3	
15								

9 Downloads

Under Downloads, a user will be able to retrieve Query Results run by any user from the company. All files are available for 45 days so it is important to download a copy for recordkeeping.

Downloads
Download the result files for your records. The result files will only be available for 45 days from the Create Date.

Downloads

Username	Type	Create Date	Input Filename	Output Filename	Download
Meadows	TN Query Upload	11/17/2020 10:0…	CQUpload1 ca345987.csv	TNQueryUpload-CQUpload1 ca345987	CSV XLSX
Meadows	TN Query Upload	11/17/2020 10:0…	CQUpload1 ca345987 add contact.xlsx	TNQueryUpload-CQUpload1 ca345987 add contact	CSV XLSX

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10 Acronyms

These are terms or acronyms used with in the document.

API – Application Programming Interface
CompanyID – Company Identifier
Csv – Comma Separated Values file format
ET – Eastern Standard Time
NPA – Number Plan Area
NXX – Central Office (exchange) code
RND – Reassigned Numbers Database
RNDA – Reassigned Numbers Database Administrator
SFTP – Secure File Transfer Protocol
SP – Service Provider
SPA – Service Provider Agent

TCPA – Telephone Consumer Protection Act
TN – Telephone Number
YYYY-MM-DD – Year-Month-Day
Xlxs – Excel^{TM} file format