SFTP User Guide for Callers and Caller Agents
For the Reassigned Numbers Database

Version 1.5
February 16, 2024

Change History

Date	Revision	Change
04/21/2021	1.0	Initial User Guide
05/21/2021	1.1	Addition of terminal commands for accessing public key files/uploading files to sftp.reassigned.us
06/24/2021	1.2	Addition of Caller and Caller Agent Users
10/11/2021	1.3	Correction of command and asterisk note on Page 7, number 3
07/27/2022	1.4	Addition of notifications prior to SFTP Credential expiration - Section 6.0, Page 9
07/27/2022	1.4	Addition of notifications prior to SFTP Credential expiration - Section 6.0, Page 9
02/09/2024	1.5	Addition of Supported Ciphers

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1.0 Introduction

1.1 Purpose

This document provides instructions for RND users to upload files via the SFTP, Secure File Transfer Protocol. It allows users to leverage a secure connection to transfer files.

This document provides instructions for Callers and Caller Agents to upload query files.

SFTP uses the SSH (Secure Shell) protocol to authenticate and establish a secure connection. Although passwords are easy to use and set up by default, we recommend you create SSH keys and transfer your public key to any system that you must access. This is much more secure and can save you time in the long run.

1.2 Primary Contact to create SFTP Account

The Primary Contact has the authority to create the SFTP Account. The file format for SFTP is the same for both methods used in the GUI file upload interface.   The Primary Contact can invite additional users.   It is possible to either transfer the Primary Contact responsibilities or "elevate" other invited users to have the same status after inviting additional users.   Please contact the RND Administrator if other invited users need to be elevated.

2.0 Setup Overview

1. The Primary Contact(s) will need to login to the RND Application at
    https://www.reassigned.us

2. Navigate to the "SFTP Credentials" page by clicking on your username in the upper right corner under Welcome.
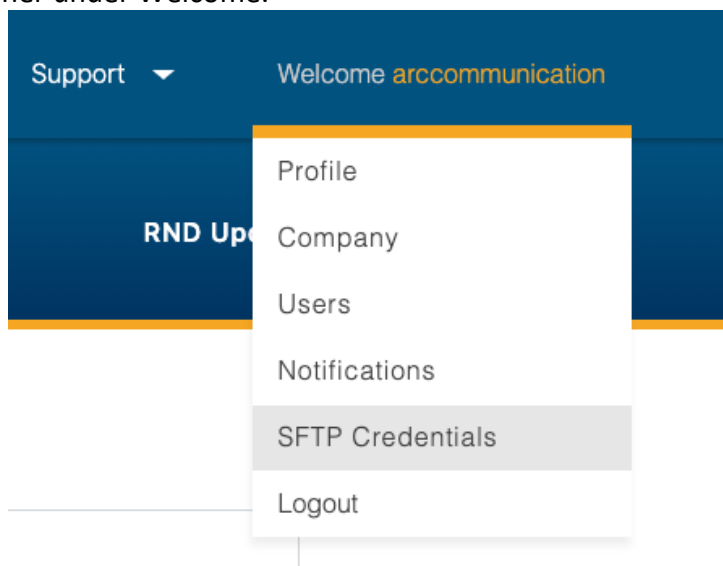
3. Generate SFTP Credentials by entering your SSH Public Key

   a. You can generate an SSH Public Key by opening a command prompt and entering the following command: *ssh-keygen*. (For MAC users, the shortcut to your desktop terminal is to press the command key plus the spacebar, and then type in the word "terminal" and press return.   For Windows users, the shortcut to your desktop terminal is to press Ctrl + r on your keyboard, then type "cmd" and then click OK.).

   Entering the *ssh-keygen* command after the $ symbol should generate the following message. The $ symbol indicates a command prompt. Please replace the wording of jdoe with your own username:

   ```
   JDOE—MBP:~ jdoe$ ssh—keygen
   Generating public/private rsa key pair.
   Enter file in which to save the key (/Users/jdoe/.ssh/id_rsa):
   Created directory '/Users/jdoe/.ssh'.
   ```

   b. By default, the key pair will be saved into the *.ssh/* subdirectory in your home directory unless you specify an alternate path.   You will need to access the file with the .pub extension from your home directory.   If you do a search in your computer's directory for /Users/jdoe/ .ssh, you should be able to locate the two files which will appear as:
   ```
   id_rsa
   id_rsa.pub
   ```

   c. You now have a public and private key that you can use to authenticate. The next step is to place the public key on your server so that you can use SSH-key-based authentication to log in.   The public key is the filename *id_rsa.pub*, which you will want to open in a Text Editor/Notepad in order to copy the SSH Public Key into the text field shown below in Step 4.

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4. Upload your SSH Keys
    a. Copy your SSH Public Key into the text field
    b. Click the checkbox once you have read and acknowledged the terms of service

* Required

Enter SSH Public Key ⓘ : *

☐ The user agrees and warrants that it, and any agent acting on its behalf, will access
and use the reassigned numbers database solely to determine whether a number has
been permanently disconnected since a date selected by the user, or its agent, for
the purpose of making lawful calls or sending lawful texts. The date selected will be a
date that the user, or its agent, reasonably and in good faith believes the person it
intends to call or text could be reached at that number. By using this database, you
are accessing a U.S. Government system. As such, system usage may be monitored,
recorded, and subject to audit. Use of the system indicates consent to monitoring and
recording. Unauthorized use of the system is prohibited and subject to criminal and
civil penalties. *

If you have previously uploaded an SSH public key, it will be overridden with this
new key.

Upload SSH

5. After uploading, the user will be presented with the success message: SSH Public Key uploaded successfully along with the following:

      a. SFTP URL
        *Please note that the SFTP URL in highlighted in green below will show as sftp.reassigned.us

      b. Username
        *Please note that the Username in highlighted green below will show as rnd-prod-sftp-CompanyID

6. Once you have the SFTP URL and SFTP Username you can proceed to transmit your query files via SFTP.

3.0 File Upload

The file(s) can now be uploaded using commands through your desktop terminal. The steps may differ if you are choosing to use a front-end SFTP client for transferring your files to sftp.reassigned.us

1. Access your desktop terminal (Please see Section 1.2, number 3 above for MAC users/Windows Users
2. Assuming the file you are planning to upload is located on your desktop, enter the following command after the $: `cd Desktop` (then click enter)

3. Next, enter the following command after the $:

   $: `sftp -i /Users/jdoe/.ssh/id_rsa rnd-prod-sftp-companyid@sftp.reassigned.us`   (then click enter)

Please note the above is just an example and in this example you would need to replace jdoe with your name and companyid with your RND CompanyID. The above command is just example; the user should specify the path and filename of their private key.

4. After clicking enter in Step 3, you should see the following:
   `Warning: Permanently added the RSA host key for IP address 'XX.XX.XXX.XX' to the list of known hosts.`
   `Connected to sftp.reassigned.us.`
   `sftp>`

5. Next, at the sftp> prompt, enter the command `put` and then add your filename (the .XLSX or .CSV file):
   `sftp> put filename.csv` (then click enter)

6. After clicking enter in Step 5, you should see
   `Uploading filename.csv to /filename.csv`
   `100%  XXX     XX.0KB/s    00:00`

7. Your upload is now complete, so you can enter the command `bye` to end your upload session:
   `sftp> bye`

4.0 File Upload Confirmation

When submitting your file(s) by SFTP, you will be sent an email confirmation of successful or unsuccessful data transmission of report. Any additional contact emails that were included in the uploaded file will be copied on the email response.

5.0 Query Results

The email confirmation of successful data transmission will direct the user to login to the RND and retrieve the results file under Query/Downloads.   The files will be available for 45 days. The email will look as follows:

From: "no-reply@reassigned.us" <no-reply@reassigned.us>
Date:
To: Cc: Support Reassigned <support@reassigned.us>
Subject: Telephone Number Query Results Available

Telephone number query results are available for the input file named _____.csv. Please login at https://secure.reassigned.us and navigate to Query / Downloads to access the results file. Any data validation errors found in this file will be listed at the bottom of the results.

If you have any questions, please contact the RND Customer Support.

RND Customer Support
Phone: 833-763-2366
Email: support@reassigned.us
Web: www.reassigned.us

If the user chooses to retrieve the query result file directly from the SFTP server, the the result files can be found in the results directory. The user can download the results in .csv or .xlsx file format. Please note the results directory is only present if there are results files available to be downloaded. The results directory will not be present if there are no files available to be downloaded.

After Results are available
Connected to sftp.reassigned.us
sftp> ls
sample.csv results
sftp> cd results
sftp> ls
TNQueryUpload-sample.csv   TNQueryUpload-sample.xlsx

Please note that if the user uploads the same filename multiple times, each file will be overwritten on the SFTP server, although all the results files (in .csv and in .xlsx) will all be available for 45 days when logging into https://secure.reassigned.us and navigating to Query / Downloads to access the results file.

6.0 SFTP Credentials expiring

The Primary Contact(s) will be notified via email when the SFTP Credentials are expiring in order to renew the SSH Public Key and reconfirm SFTP Credentials. The SFTP credentials are good for 6 months.

These notifications will be sent at thirty days prior to expiration and reminders will also be sent fourteen days, seven days, three days, two days, one day prior, and a notification will be sent if the SFTP Credentials have expired.   **It is also important that the Primary Contact or at least one Primary Contact for the account remains in active status in order for the SFTP credentials to be kept current.** Only the active Primary Contact(s) will receive the "RNDA SFTP Credentials are about to expire" notices.

7.0 Supported Ciphers and Algorithms

Ciphers

  aes128-ctr
  aes128-gcm@openssh.com
  aes192-ctr
  aes256-ctr
  aes256-gcm@openssh.com

MACs

  hmac-sha2-256-etm@openssh.com
  hmac-sha2-512-etm@openssh.com

KEXs

  curve25519-sha256
  curve25519-sha256@libssh.org
  diffie-hellman-group16-sha512
  diffie-hellman-group18-sha512
  ecdh-nistp256-kyber-512r3-sha256-d00@openquantumsafe.org
  ecdh-nistp384-kyber-768r3-sha384-d00@openquantumsafe.org
  ecdh-nistp521-kyber-1024r3-sha512-d00@openquantumsafe.org
  ecdh-sha2-nistp256
  ecdh-sha2-nistp384
  ecdh-sha2-nistp521
  x25519-kyber-512r3-sha256-d00@amazon.com

8.0 Assistance

Questions or issues on the RND may be directed to RND Customer Support at 833-763-2366 or by email (support@reassigned.us).

The RND will be available during US business hours of 8:00 am and 8:00 pm Monday through Friday ET, excluding recognized holidays which are posted separately on the RND website (www.reassigned.us). On the 15th day of each month, the RND shall be available from 8:00 am until midnight ET.