



# **A2019 Twilio SMS Integration Bot**

## **Readme**

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**Version 1.0**

**03/01/2020**

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# 1. Introduction

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This document contains all essential information for the user to make full use of this A2019 Bot. It includes a description of the functions and capabilities and step-by-step procedures for setup & configuration of the Bot.

## 1.1 Overview

Use the A2019 SMS Integration Bot to improve automation reliability and validate RPA return on investment by sending SMS notifications to your human workforce using Twilio.

## 1.2 Use cases

The key use cases for this bot include:

- Send status updates on Bot Processing directly from the bot itself
- Have high priority bots send text notifications to support personnel if data inconsistencies or anomalies are detected
- Get buy-in for your automation projects with key savings metrics and weekly updates.
- Include SMS notifications as a part of a bot shell error handling to alert the bot owner that an issue may have occurred.
- Escalate support tickets which may have passed a particular time threshold by SMS.
- Send notes out to a client after a meeting
- Remind customers of an upcoming appointment with a friendly reminder of what documents they may need to bring.

## 2. Requirements & Prerequisites

### 2.1 System Requirements

Below are the minimum system requirements for running bots as an Enterprise A2019 (Cloud deployed) or Community Edition user on your local machine.

#### Hardware Requirements

| Device                     | Processor                                | RAM                                      | Storage (Free Space)                                                                                | Network                                  |
|----------------------------|------------------------------------------|------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------|
| Machine                    | Intel Core i5 2.6 GHz                    | 4 GB minimum<br>8 GB recommended         | 32 GB                                                                                               | 1 GbE                                    |
| Bot Creator and Bot Runner | No additions to the machine requirements | No additions to the machine requirements | Add 100 through 150 KB per Automation Anywhere script<br>Add 40 through 50 GB per long-term project | No additions to the machine requirements |

#### Browser Requirements

The user interface for Automation Anywhere Enterprise is through a browser. Login to your device then login to Enterprise Control Room through a browser.

| Browser                     | Browser Version | Automation Anywhere plug-in version <sup>2</sup> | Supported bot functions by Bot agent version |               |                             |
|-----------------------------|-----------------|--------------------------------------------------|----------------------------------------------|---------------|-----------------------------|
| Google Chrome <sup>1</sup>  | 57 or later     | 11 or 12                                         | 2.0.2                                        | 1.0.2         | 1.0.1                       |
| Microsoft Internet Explorer | 11              | N/A                                              | None                                         | Debugger only | All except Credential Vault |

(1) Google Chrome re-verification

**CAUTION:** Google Chrome requires re-verification of permissions when the Automation Anywhere Google Chrome extension (Version 11.3.3 or later) is updated. If prompted, click **Enable this item** in the Google Chrome message. Alternatively, re-enable the extension through [chrome web store](#). Similarly, if you are deploying your Bot Runners from a master image, accept the permission from within that image.

(2) Google Chrome plug-in versions

A2019 supports Chrome plug-in version 11. If you have other versions installed, you might not be able to record tasks using the **Record** feature or **Capture** action. To resolve this issue, do the following:

1. Rename the automation.chrome.agent registry key to automation.chrome.agent.old. The registry key is available at: Computer\HKEY\_CURRENT\_USER\Software\Google\Chrome\NativeMessagingHosts
2. Disable all other Google Chrome plug-in versions you have installed, except for version 11.

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## 2.2 Prerequisites

This bot uses A2019, the Twilio API, and Python. The bot runner/bot creator machines will need to have Python 3 installed as well as the Twilio package (as outlined in the Quick Start section of this guide)

Additionally, prior to use of the bot, a Twilio account trial or paid, needs to be established for the creation of an SID, Auth Token, and establishing an outbound SMS number. (again, all outlined in the Quick Start section of this guide)

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## 3. Getting Started

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### 3.1 Quick Start

#### 3.1.1 Setup

##### Twilio

The bot is dependent on the SMS Platform Twilio. If you don't already have a Twilio account, set up a trial account here: Sign up for a free trial account here:

<https://www.twilio.com/docs/usage/tutorials/how-to-use-your-free-trial-account>

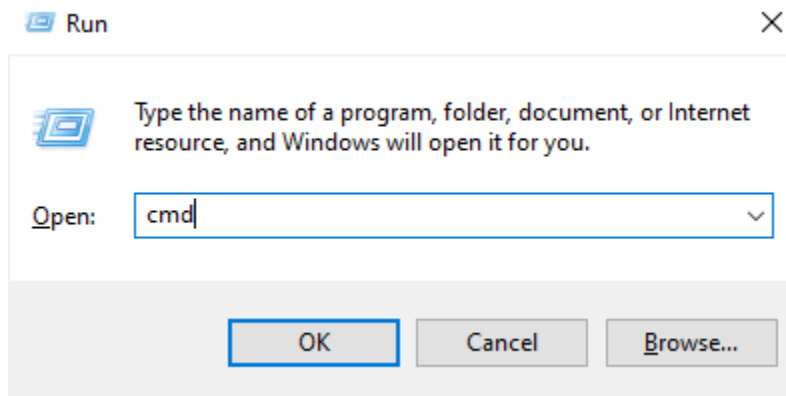
You'll need several pieces of data from the Twilio platform which will be mapped as mandatory input for the bot to work properly.

1. SID Twilio String Identifier:
  - a. Refer to this page on what an SID is and how to access yours on your trial/full account: <https://www.twilio.com/docs/glossary/what-is-a-sid>
2. Twilio Auth Token:
  - a. Refer to this page on how to access or change your Auth Token: <https://support.twilio.com/hc/en-us/articles/223136027-Auth-Tokens-and-How-to-Change-Them>
3. From Number:
  - a. With a Twilio paid account, you actually buy an outgoing number that's used to send and receive text messages.
  - b. For trial accounts, the number you can use for outbound messages can be found here: <https://www.twilio.com/console/sms/getting-started/build>
    - i. Note: on trial accounts, all messages are prefixed with something like "Trial message from Twilio:" – this wouldn't appear when an account is upgraded beyond trial.
4. To Number:
  - a. On a trial account, you can only send text messages to confirmed phone numbers (presumably your own)
    - i. Be sure to verify your number with Twilio before attempting to send a test message. Use the following page to send yourself a test message before using the bot to send a message: <https://www.twilio.com/console/sms/getting-started/build>
  - b. On a full account, you can send text messages to any number that Twilio supports.

##### Python

The bot also leverages Python to parse the dictionary and make a call to the Twilio Service. The Python setup is straightforward:

1. Install Python 3 if you haven't already (<https://www.python.org/downloads/>) on your bot runner/development machine
  - a. During the install, there is a point where it asks to include Python on the PATH variable, say yes. You don't HAVE to have it for this particular bot (though it makes the next part easier), but it should make editing, and testing the bot in the future much easier.
2. Once Python has been installed, you'll need to install the Twilio Python Package.
  - a. Open the command prompt in windows. (Ctrl+Right Click on the windows start icon and select "Run")
  - b. In the Run window, type `cmd` and press OK



- c. In the command prompt window, type: `pip install twilio` and press Enter
- d. Twilio may take a minute or two to install, and you should be good to start configuring the bot.

```

Microsoft Windows [Version 10.0.18362.592]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Micah Smith>query user
USERNAME                SESSIONNAME              ID  STATE  IDLE TIME  LOGON TIME
>micah smith             console                  1   Active      none      2/27/2020 7:10 PM

C:\Users\Micah Smith>pip install twilio
Collecting twilio
  Downloading twilio-6.35.5.tar.gz (409 kB)
    |#####| 409 kB 467 kB/s
Requirement already satisfied: six in c:\users\micah smith\appdata\roaming\python\python37\site-packages (from twilio) (1.14.0)
Collecting pytz
  Downloading pytz-2019.3-py2.py3-none-any.whl (509 kB)
    |#####| 509 kB ...
Collecting PyJWT==1.4.2
  Downloading PyJWT-1.7.1-py2.py3-none-any.whl (18 kB)
Requirement already satisfied: requests>=2.0.0 in c:\users\micah smith\appdata\local\programs\python\python37\lib\site-packages (from twilio) (2.23.0)
Requirement already satisfied: idna<3,>=2.5 in c:\users\micah smith\appdata\local\programs\python\python37\lib\site-packages (from requests>=2.0.0->twilio) (2.9)
Requirement already satisfied: urllib3!=1.25.0,!<1.25.1,<1.26,>=1.21.1 in c:\users\micah smith\appdata\local\programs\python\python37\lib\site-packages (from requests>=2.0.0->twilio) (1.25.8)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\micah smith\appdata\local\programs\python\python37\lib\site-packages (from requests>=2.0.0->twilio) (2019.11.28)
Requirement already satisfied: chardet<4,>=3.0.2 in c:\users\micah smith\appdata\local\programs\python\python37\lib\site-packages (from requests>=2.0.0->twilio) (3.0.4)
Installing collected packages: pytz, PyJWT, twilio
  Running setup.py install for twilio ... done
Successfully installed PyJWT-1.7.1 pytz-2019.3 twilio-6.35.5

C:\Users\Micah Smith>
  
```

The bot download includes a single bot file which can be used as a subtask and included with any other bots you may be creating.

### 3.1.2 Configuration

Review and setup the variables which are assigned in the “Set Variables” step of the SMS\_Integration\_Bot. There are 5 required input values, and 1 output value:

| INPUT VARIABLES: Input Variables to be mentioned in this Table |        |           |                                                                                                                   |                                                                                                  |
|----------------------------------------------------------------|--------|-----------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Variable Name                                                  | Type   | Mandatory | Purpose                                                                                                           | Example Input                                                                                    |
| sSID                                                           | String | Yes       | Twilio String Identifier – see link above on where to access                                                      | AC87b6cfa2b18e82af283XXXc6e8609e<br>(This isn't a real one, but they are similar to this format) |
| sAuth                                                          | String | Yes       | Authorization Token required for sending a message                                                                | 7e8d7394acbc954d6d9d7ac19fa42cb<br>(again, not real, but similar format)                         |
| sToNumber                                                      | String | Yes       | The number you intend to send a message to. Must be a string, and must be prefixed with a + and the country code. | +19372416946                                                                                     |
| sFromNumber                                                    | Yes    | Yes       | The number you are sending a message from. Must be a string, and must be prefixed with a + and the country code   | +12152416946                                                                                     |
| sMessageBody                                                   | Yes    | Yes       | Message body being sent as a text – can be combination of literal characters and or variables.                    | Go Be Great!                                                                                     |

| OUTPUT VARIABLES: Output Variables to be mentioned in this Table. |        |           |                                                                                                                                                   |                           |
|-------------------------------------------------------------------|--------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Variable Name                                                     | Type   | Mandatory | Purpose                                                                                                                                           | Example Output            |
| prompt-assignment                                                 | String | -         | The resulting message from the send_message function call. Should be 'Message sent successfully' on success and 'Error sending message' on error. | Message sent Successfully |

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## 4. Support & FAQs

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### 4.1 Support

Free bots are not officially supported. You can get access to Community Support through the following channels:

- You can get access to Community Support, connecting with other Automation Anywhere customers and developers on [APeople](#) – the [Bot Building Forum](#), the [Bot Store Support Forum](#), or the [Developers Everywhere Group](#).
- Automation Anywhere also provides a [Product Documentation portal](#) which can be accessed for more information about our products and guidance on [Enterprise A2019](#).

### 4.2 FAQs

**Q: Can I make changes to this bot?**

A: Absolutely. Free bots are for you to make use of, customize, and/or include in your builds as you see fit.

**Q: Can I upgrade the packages for this bot?**

A: Yes – but know that the bot was created/tested on a specific package version. Any modifications to that may result in unexpected outcomes – so make sure to test the bot/subtask after making any package version modifications.

**Q: How can I change the output format of the bot?**

A: When calling a subtask, the return value is always of type dictionary, and the value(s) returned from the subtask can be access through their specific variable names as a key within the dictionary. Additionally, the python script could be modified to include additional information in the response of the successful send. See the Twilio REST API documentation (set the tab to python) to see the API response and possible response parameters:  
<https://www.twilio.com/docs/usage/api>

For questions relating to Enterprise A2019: See the [Enterprise A2019 FAQs](#).

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## Appendix A: Record of Changes

| No. | Version Number | Date of Change | Author      | Notes                  |
|-----|----------------|----------------|-------------|------------------------|
| 1   | 1.0.0.0        | 3/1/2020       | Micah Smith | Initial release of Bot |

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## Appendix B: References

| No. | Topic                                    | Reference Link             |
|-----|------------------------------------------|----------------------------|
| 1   | Overview of Enterprise A2019             | Click <a href="#">here</a> |
| 2   | Guidance: Building basic A2019 bots      | Click <a href="#">here</a> |
| 3   | Guidance: Building A2019 action packages | Click <a href="#">here</a> |
| 4   | APeople Community Forum                  | Click <a href="#">here</a> |
| 5   | Automation Anywhere University           | Click <a href="#">here</a> |