



## **SIM7020** Series CoAP Application Note

Version: 1.1

Release Date: April 19, 2018

# About Document

## Document Information

Document	
<b>Title</b>	SIM7020 Series CoAP Application Note
<b>Version</b>	1.1
<b>Document Type</b>	Application Note
<b>Document Status</b>	Released/Confidential

## Revision History

Revision	Date	Owner	Status / Comments
1.0	April 10, 2018	Linshu Guan	First Release.
1.1	April 19, 2018	Albert Meng	Revised

## Related Documents

[1] SIM7020 Series AT Command Manual V1.0.pdf

### This document applies to the following products:

Name	Type	Size (mm)	Comments
SIM7020C	NB1	17.6*15.7	Band 1/3/5/8
SIM7020E	NB1	17.6*15.7	Band 1/3/5/8/20/28

## Copyrights

This document contains proprietary technical information which is the property of SIMCom Wireless. Copying of this document and giving it to others and the using or communication of the contents thereof, are forbidden without express authority. Offenders are liable to the payment of damages. All rights reserved in the event of grant of a patent or the registration of a utility model or design. All specification supplied herein are subject to change without notice at any time.

# Contents

<b>About Document .....</b>	<b>2</b>
Document Information.....	2
Revision History.....	2
Related Documents.....	2
<b>Contents.....</b>	<b>3</b>
<b>1 Purpose of this document.....</b>	<b>4</b>
<b>2 Bearer Configuration .....</b>	<b>4</b>
2.1 PDN Auto-activation.....	4
2.2 APN Manual configuration .....	5
<b>3 CoAP Connection and Service .....</b>	<b>6</b>
<b>Contact.....</b>	<b>7</b>

# 1 Purpose of this document

Based on module AT command manual, this document will introduce CoAP application process.

Developers could understand and develop application quickly and efficiently based on this document.

## 2 Bearer Configuration

Usually module will register PS service automatically.

### 2.1 PDN Auto-activation

AT Command	Response	Description
AT+CPIN?	+CPIN:READY  OK	Check SIM card status
AT+CSQ	+CSQ: 20,0  OK	Check RF signal
AT+CGREG?	+CGREG: 0,1  OK	Check PS service
AT+CGACT?	+CGACT: 1,1  OK	Activated automatically
AT+COPS?	+COPS: 0,0,"CHN-UNICOM",9  OK	Check operator info CHN-UNICOM is operator's name 9 is NB-IOT network
AT+CGCONTRDP	+CGCONTRDP: 1,5,"shnbiot","10.250.0.213.255.255.255.0"  OK	Get APN and IP address from network

## 2.2 APN Manual configuration

If not attached, could configure correct APN setting.

AT Command	Response	Description
AT+CFUN=0	+CPIN: NOT READY  OK	Disable RF
AT*MCGDEFCONT="IP","3GNET"	OK	Configure new APN
AT+CFUN=1	OK  +CPIN: READY	Enable RF
AT+CGREG?	+CGREG: 0,1  OK	Inquiry PS service
AT+CGCONTRDP	+CGCONTRDP: 1,5,"3GNET","10.250.0.253.255.255.255.0"  OK	Attached PS domain and got IP address automatically

### 3 CoAP Connection and Service

AT Command	Response	Description
AT+CCOAPSTA="10.161.11.104",5683,1	+CCOAPSTA: 3  OK	Connect CoAP server If succeed, server instance id will return.
AT+CCOAPNEW="10.161.11.104",5683,1	+CCOAPNEW: 1  OK	Create client instance If succeed, client instance id will return
AT+CCOAPSEND=1,12,"400141C7B7636F756E746572"	OK  +CCOAPNMI: 1,11,"60457233c02105ff303234"	Send hex data to server  And got data from server
AT+CCOAPDEL=1	OK	Release Client instance

# Contact

## Headquarters

Add: Building A, No.633 Jinzhong Road, Changning District, Shanghai P.R.China 200335

Tel: +86 21 3252 3424

Fax: +86 21 3252 3020

Email: [simcom@sim.com](mailto:simcom@sim.com)

## Technical Support

### EMEA

#### West Europe

[we-support@sim.com](mailto:we-support@sim.com)

#### East Europe

[ee-support@sim.com](mailto:ee-support@sim.com)

#### Middle East

[me-support@sim.com](mailto:me-support@sim.com)

#### Africa

[af-support@sim.com](mailto:af-support@sim.com)

### APAC

#### ASEAN

[asean-support@sim.com](mailto:asean-support@sim.com)

#### Australia and New Zealand

[anz-support@sim.com](mailto:anz-support@sim.com)

#### Big China

[China-support@sim.com](mailto:China-support@sim.com)

### America

#### North America

[us-support@sim.com](mailto:us-support@sim.com)

#### Central and South America

[la-support@sim.com](mailto:la-support@sim.com)