

# What is 3G Featured



## 1. What is 3G

"3G" (3rd-generation) is abbreviation of the Third Generation Mobile Communication Technology, support high speed data transmission CDMA Mobile Communication Technolog; 3G service can transmit voice and data simultaneously, the general speed reach above several hundred kbps; At present 3G has Four kinds of Standard: CDMA2000, WCDMA, TD-SCDMA, WiMAX.

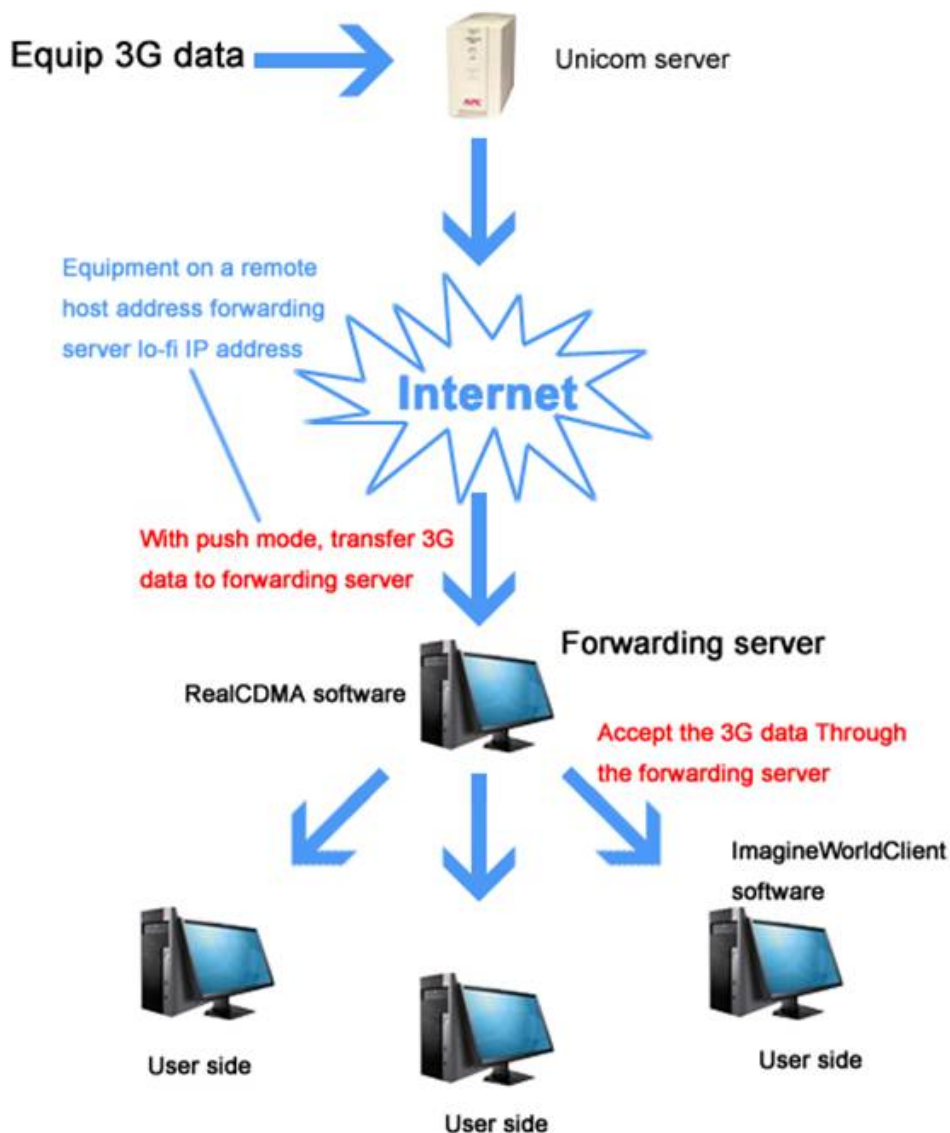
## 2. 3G Parameter Standard?

<b>WCDMA</b>	RTT FDD	Asynchronous CDMA system: without GPS
		Bandwidth: 5MHz
		Spreading Rate: 3.84Mcps
		China Frequency Band: 1940MHz - 1955MHz(Up), 2130MHz-2145MHz (Down)
<b>TD-SCDMA</b>	RTT TDD (Time Division Duplex)	Synchronous CDMA system: with GPS
		Bandwidth: 1.6MHz
		Spreading Rate: 1.28Mcps
		China Frequency Band: 1880 - 1920Mhz 2010 - 2025MHz, 2300 - 2400MHz
<b>CDMA2000</b>	RTT FDD (FDD)	Synchronous CDMA system: with GPS
		Bandwidth: 1.23MHz
		Spreading Rate: 1.2288Mcps
		China Frequency Band: 1920MHz-1935MHz(Up) 2110MHz-2125MHz(Down)

## 3. WCDMA Advantage?

Matured Technology, WCDMA has 10 more years development and 6 years commercialization, which is now the most matured 3G Technology;

Fast Web Speed, download speed :14.4M/s, upload speed :6.8M/s;
High Signal Coverage Rate, nowadays WCDMA Global Coverage Rate reach 70%
Excellent Network Quality, WCDMA with low off-line rate and high transmitting quality.
<b>4. 3G Data Transmission Flow Chart.</b>
<b>5. 3G Mobile of China</b>
WCDMA, Unicom operations, get IP address that for Unicom intranet IP through 3G dial-up, not access to visit equipment directly through the IP address, unable to log in with IE, need to undertake forwarding operations;
CDMA2000, telecommunication operation, get IP address for public network IP through 3G dial-up, can access to visit equipment directly through the IP address, namely log in with IE;
TD-SCDMA, Mobile Operation.
Remark: Could you access to visite3G equipment directly through IE? whether 3G operators could provide public IP is related with 3G standards is irrelevant.
<b>6. DATA Forwarding principle</b>



**7. Network Settings of Equipment**

Real-time    Replay    **Settings**

**Basic    Network    3G    Channels    Alarm    Server**

▼ IP address & port

Connection type:

IP address:     Gateway:

Subnet mask:     DNS:

MAC address:

WEB port:     Data transfer port:

Alarm host address:     Alarm host port:

**Remote host address:**     **Remote host port:**

Multicast address:     Range: [225.0.0.0-239.255.255.255]

Multicast port:     Range: [6000-9999]

Note: Any changes of network parameters will take effect after saved and system restarted.

**Forwarder server's IP Address in WAN**    **Data forward port**   

### 8. Forward server

The reason to structure the forward server: China Unicom does not provide public network ip address for WCDMA dialing;

The requirement of Forward server: connecting wit Internet(public network),installing Real CDMA software;

The advantage of forwarding: no limitation in visitors.

### 9. Structure of the forward server

Choosing one computer which can be connected to internet, filling the public ip address on the courter main one (domain name should be analysed if it is dynamic ip);

mapping pc port3000-4000(default:5 port);

Installing Real CDMA software, 3000 for equipment. Sending port is 3004;

Setup forwarding name and password.

### 10. How to visit forward server

adding other hardware through installing ImagineWorldClient software.

Server name: the name of equipment

Server address: public ip address of forward server(domain name)

user password: the password of forwarder user

### 11. 3G Set video parameter

In order to assure video with high fluency and definition, suggestion set parameter as follows:

WCDMA	Resolution Ratio: QCIF,CIF;
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	Code Rate: 100Kbps-300Kbps;
	FPS: 8fps-15fps.
CDMA2000	Resolution Ratio: QIF,CIF;
	Code Rate:50Kbps-200Kbps;
	FPS:6pfs-12fps.
If you just want to make sure the image with high definition, Resolution Ratio can be set to D1, Code Rate could be set to above 500Kbps, frame rate above 15 frames.	
<b>12. 3G Product application</b>	
Front-end: Just plug in the SIM card, 3G Internet, 12V2A power supply. (To ensure there is a corresponding 3G signal) does not require the traditional cable, which is 3G wireless;	
Back-end: Install ImagineWorldClient software management, or directly to visit by IE;	
Application: Highway, wild mountains, vehicle, and other place which is inconvenient to set up the network cable.	