SMT-W5100E Handset Quick Set-Up Guide

Registering SMT-W5100E Handsets (work with SMT-R2000 AP only)

1. Handset Registration

- a. Need to un-register first, if handsets have previous registration data
 - i. Press <menu>, <8>, <0000> (default password is 0000), <4>, <0000>, <Yes> to un-register
- **b.** Enter the following info to register the handset:
 - i. Press <Menu>
 - ii. Select <8> for System
 - iii. Enter password <0000>
 - iv. Select <1> for Registration

v. Press <OK> to select <1. System 1>

vi. Select <1> for DHCP mode and continue on \mathbf{x} . or,

vii. Select <2> for Static IP mode

viii. Enter handset IP address and press <OK>

i. e.g. 192.168.1.101 (use "*" for ".")

Note: DO NOT ENTER LEADING O FOR IP ADDRESS. EX. Enter 192.168.1.101 not 192.168.097.101.

- ix. Enter System IP address, e.g. 192.168.1.5, and press <OK>
- **x.** Enter System Gateway, e.g. 192.168.1.1, and press <OK>
- xi. Enter System Netmask, e.g. 255.255.255.0, and press <OK>

xii. Enter System SSID, e.g. 80211g, and press <OK>

i. Press and hold key for numeric digit

- **xiii.** Enter user ID, e.g. **1212**, and press <OK>; all handsets have the same default ID & PW.
 - i. It is recommended to change the ID to match the handset extension. It will be easier for maintenance purpose. For example, change user ID to 3301 for extension 3301. User ID must be 4 digits.
 - ii. Use MMC 846 to change the user ID.
- **xiv.** Enter password, e.g. **0000**, and press <OK>.

- **xv**. Select <1> On for QoS (WMM)
- **xvi.** Skip encryption by pressing <OK>. (It takes about 30 seconds to complete one handset registration.)
- **xvii.** Default wireless IP handset extension number starts with 3301. Use MMC 724 to change numbering plan.
- c. Repeat the above process for each handset.

Preparing System for OfficeServ Wireless Product

1: System Components

- 1. Load OS 500 or OS 100 or OS 7200 system with MCP2 software version 2.6x or up. OS 7400 with MP40 software version 3.2x and up.
- 2. Connect both MCP and MGI to the same data network and have the IP addresses programmed.
- 3. Connect the <u>WAN</u> port of dual band APs (SMT-R2000) to the same data (subnet) network.
- **4.** Power on the system.
- 5. Power on AP either through the power adaptor or PoE switch.

2: Pre-determinate the following data

- **1**. System IP address
- 2. System Gateway IP address
- 3. WLAN SSID
- AP IP addresses (can be different that the system subnet but must be unique for each AP)
- 5. AP RF channels (frequency planning)
- 6. AP external antenna on or off
- 7. Handset IP addresses
- 8. Static WIP IP registration enable or disable
- 9. WEP key enable or disable

For example:

Sample Configuration Table (3 APs + 4 Handsets)

- **1.** System IP: 192.168.1.5
- **2.** MGI IP: 192.168.1.7
- **3.** System gateway: 192.168.1.1
- **4.** SSID: 80211g
- 5. AP TX Power: 100% (max)
- **6.** AP1 IP: 192.168.111.11

7.	AP1 RF CH:	1
8.	AP2 IP:	192.168.111.12
9.	AP2 RF CH:	6
10.	AP3 IP:	192.168.111.13
11.	AP3 RF CH:	11
12.	Handset 1 IP:	192.168.1.101
13.	Handset 2 IP:	192.168.1.102
14.	Handset 3 IP:	192.168.1.103
15.	Handset 4 IP:	192.168.1.104
16.	WEP key:	Disable
17.	Static WIP Reg:	Disable
18.	CODEC:	G729

3: Programming System Data Base

Note: Skip any MMC field that is not mentioned.

- 2. Enter the technician mode (MMC 800, pw: 4321).
- 3. MMC 830
 - a. Verify the desirable system IP and gateway address are in place.

e.g.	
System IP:	192.168.1.5
Gateway:	192.168.1.1
Netmask:	255.255.255.0

4. MMC 831

a. Verify the desirable system IP and gateway address are in place.

e.g.

System IP:	192.168.1.7
Gateway:	192.168.1.1
Netmask:	255.255.255.0

- 5. MMC 849
 - a. Use password "0000" to enter.

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[ENTER PASSWORD ]
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[0000]

b. Select "Dual AP" type.

[SELECT AP TYPE]

[DUAL AP]

Note: System will restart and erase all existing wireless data. Data from MMC 845 to MMC 849 will be reset to the factory default. After system comes back, go back to the MMC 849 and continue the following:

c. Enable VoWLAN registration.

[REGISTER VoWLAN]

[ENABLE]

- 6. MMC 848
 - a. Set handset IP address for each handset.

[IP:001 USED:]

[192.168. 1.101]

4: Programming SMT-R2000

Note: It takes about 1 minute to reboot the SMT-R2000.

- 1. Set IP address of the PC to the same subnet address range of SMT-R2000.
 - a. Ex. Set PC to the following:
 - i. IP: 192.168.111.9
 - ii. SM: 255.255.255.0
- 2. Connect PC to the SMT-R2000 via LAN or WLAN
 - a. For LAN:
 - i. Connect a data cable to the LAN port of the SMT-R2000
 - b. For WLAN:
 - i. Factory default SSID is SMT-R2000-WLAN1 (802.11b/g)
- Make sure the SMT-R2000 is in idle state. It takes about 1 minute from power on to idle state. The following LED shows idle state.
 - a. WAN: ON
 - b. LAN: OFF
 - c. 2.4GHz: flashing
 - d. 5GHz: flashing
 - e. PWR: ON
- 4. Access the Web management page of the SMT-R2000 by using "Internet Explorer"
 - a. The default setting of SMT-R2000:
 - i. IP: **192.168.111.10**
 - ii. ID: admin
 - iii. PW: samsung
 - b. Using "ping 192.168.111.10" to confirm the connectivity.
- 5. Select country code and click [Update]
- 6. Under [Basic Setting]
 - a. Optional
 - i. Time Compensation: -6(CH)
 - ii. Location: AP1 (or AP2, etc.)
 - b. Must change
 - i. IEEE 802.11b/g (SSID): 80211g
 - 1. Current software version of WIP-5000M requires numeric SSID.
 - c. Click [Update]
- 7. Under [Manage],
 - a. [Ethernet Setting]
 - i. WAN Interface Settings
 - 1. Static IP Address: 192.168.111.11 (Must use different address for each AP)

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- b. [Wireless Setting]
 - i. Radio Interface 2, Mode: IEEE 802.11g
 - 1. Channel: 1 (set the desirable channel)
- c. Click [Update]
- 8. Repeat above steps for all APs.

Remarks

SMT-W5100E:

- **1.** Default handset password is 0000.
- 2. Handset has hidden mode for the following info:
 - a. Software version
 - **b**. IP address
 - c. MAC address
 - d. Phone State
 - e. Display RSSI, cell boundary should be when SL is between -60 to -70 (dBm)

To access the hidden mode:

- In Idle state: <menu>, <hold>, <*>, <#>
- In conversation state (only RSSI): <music key>, <#>
- 3. The handset has built-in Web server for status
 - a. ID: smtw5100
 - b. Password: smtw5100
- **4.** The call can be maintained when placing the handset in the charger if the "Cradle Hook" feature is enabled.
 - a. [MENU], [7. PhoneSettings], [0000], [7 Cradle Hook], [2. Continue call]
- 5. When handset is out of range,
 - a. It will maintain the call for 30 seconds to allow user to come back to the coverage area;
 - **b.** It will keep searching AP (in pre-defined time interval).
 - c. Once in range, handset will automatically re-registered and in service.

Quick Troubleshooting if handset fails to register:

1. Ping IP address of MCP from PC (via wireless WLAN connection)

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- a. If fails, make sure that
 - i. MCP, MGI and SMT-R2000 have the LAN cables connected to the same data switch.
 - ii. The LAN cable is connected to the WAN port of SMT-R2000.
- 2. Check MMC settings to make sure that
 - a. "Dual AP" is selected in MMC 849.
 - b. "Register VoWLAN" is enabled in MMC 849.
 - c. WIP registration mode is matched between system and the handset.
 - i. If "Static WIP IP" is enabled in the system, handset needs to use the static IP mode.
 - d. Handset IP addresses are programmed in the MMC 848.
 - e. There is no IP addresses conflict in the network.
 - f. The MCP/MGI and the handset are in the same subnet range.
- 3. Handset registration process
 - a. Make sure not leading 0 in the IP address field. EX. Enter 192.168.1.101 not 192.168.001.101.101.

SMT-R2000 Security:

This quick set up guide provides only an example for set-up. The data is automatically broadcast through WLAN when SMT-R2000 is connected to the network. That means any PC with WLAN card is able to associate to the AP and access to the data network.

Dealers are expected to work with the IT department to determine the proper measure for the data network security. The data network security and WLAN security are the big topic in the industry.

- 1. SMT-R2000 dual band AP has the factory default as "SSID broadcast". It can be unchecked.
 - i. [Security], [11b/g Security Setting], Broadcast (uncheck the box)
- 2. If WEP key is used, the following settings are required for WIP-5000M to work:

Under [Security], [11b/g Security Setting]

- i. Wlan1 Key Length: 128 bits
- ii. Key Type: ASCII
- iii. WEP keys: (13 ASCII characters) EX. 1234567890123
- iv. Authentication: Open System
- **3.** MAC filtering feature can be used to allow only certain devices (ex. handsets) to have access to the AP. If this feature is used, all APs should have the list. Note: this feature is not very secure.
 - i. [Manage], [MAC Filtering],
 - 1. Filter: Allow only stations in list
 - 2. At the bottom of screen, type in MAC address in the box, and click [Add]

- **4.** If radio 1 (802.11a) is not used, it should be turned off to prevent back door to the AP.
 - i. [Manage], [Radio], Status: (check) Off

SMT-R2000 Repeater Mode (Wireless Distribution System):

WDS function is used to extend the coverage wirelessly. One repeater jump is allowed for each AP.

- 1. The host AP MAC address and RF channel info are required to set up the repeater mode. Under the repeater AP,
 - a. [Manage], [WDS], Radio:1
 - i. Remote Address: (enter host AP MAC address)
 - b. [Manage], [Wireless Settings], Radio Interface 1
 - i. Channel: (set to the same channel as the host AP)

System:

- 1. Handset can be **cleared** (de-registered) from system by using MMC 849.
 - a. After selecting the extension number, move the right softkey to the field "FORCED"
 [WIP REGISTER CLEAR]
 [3301 : <u>F</u>ORCED]
 - b. Press right softkey again[WIP REGISTER CLEAR]

[ARE YOU SURE?<u>N</u>O]

- **c.** Press <1> to start the process
- 2. Useful MMCs
 - MMC 847: Display status of WLI and WAP
 - MMC 815: Customer database copy
 - MMC 724: Dial numbering plan
 - Wireless IP handset is under "IP STN NUM PLAN"
 - o For OfficeServ 500M version, VoWLAN starts with IDX061
 - For OfficeServ 500L version, VoWLAN starts with IDX121
 - o For OfficeServ 7200, VoWLAN starts with IDX061
 - o For OfficeServ 100, VoWLAN starts with IDX033
 - MMC 805: Adjust voice path gain

- o "WLAN" entry is used for WIP-5000M with WBS24 Combo AP
- $\circ~$ "ITP" entry is used for ITP phone and WIP-5000M/SMT-W5100E with SMT-R2000 dual band AP
- MMC 217: Station pair assignment
- MMC 210: To change call forward setting
- MMC 846: To change handset registration user id and password
- MMC 844: IP Station Type (handset is "Mobile Phone" type)
- MMC 101: Reset handset password