



Technical Marketing Engineering
Wireless Technology



3Com AP 7760 FIT Software Conversion

Technical Configuration Guide



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<http://www.3com.com>
<http://h3cnetworks.com>
<http://tippingpoint.com>

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3Com AP 7760 Conversion to H3C/3Com FIT Code

This Technical Configuration Guide (TCG) describes how to upgrade the 3Com AP 7760 to the H3C/3Com FIT AP code.

Background Information

This section provides some background information related to this TCG.

Requirements

Readers of this document should be familiar with features and configuration of the 3Com AP 7760 and AC products.

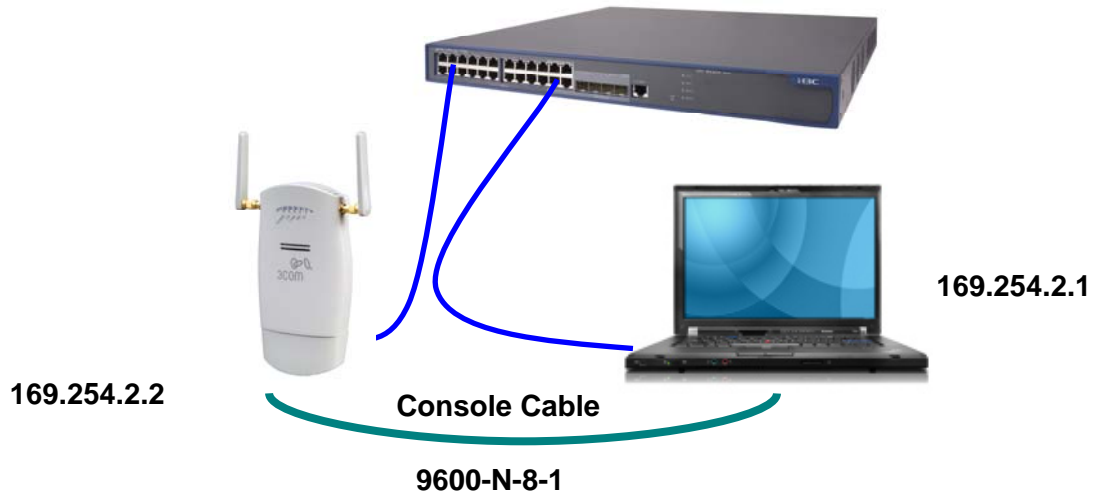
Hardware Requirements

- 3Com AP 7760
- H3C & 3Com Access Controller WX30XX, WX50XX, or S7500E Blade
- PoE Power Source
- Ethernet cables, power cables, console cable, and USB to DB-9 M serial adapter
- Laptop

Software Requirements

- TFTP Server Software
- Terminal Software
- Conversion AP Firmware - 7760.img
- Access Controller AP File - wa2100.bin
- WX30XX - WX3000-CMW520-R3106P10.bin
- WX5002 - WX5002-CMW520-R1108P10.bin
- WX5004 - WX5004-CMW520-R2102P05.bin
- S7500E Blade - S7500E-WX6103-CMW520-R2109P12.bin

Network Diagram

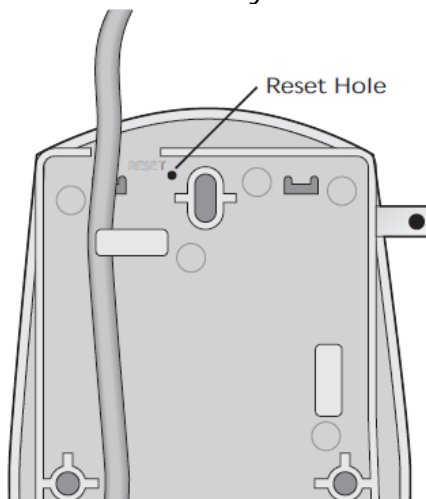


Configure

Follow these steps to convert the AP 7760 to H3C/3Com FIT code:

Reset AP 7760 to factory defaults

Manually reset the AP 7760 to factory default settings by inserting a pointed object (such as the end of a straightened paper clip) into the reset hole on the back of the Access Point, and hold for twenty seconds.



AP 7760 Web access for conversion to H3C/3Com FIT

Enter the Access Point's default IP address (169.254.2.2) into the computer's web browser. **Note: Ensure there are no DHCP services running on your upgrade network.**

You can configure the Access Point with the following login information:

Login name: admin

Password: password



User Name:
Password:

The default username is **admin**
The default password is **password**

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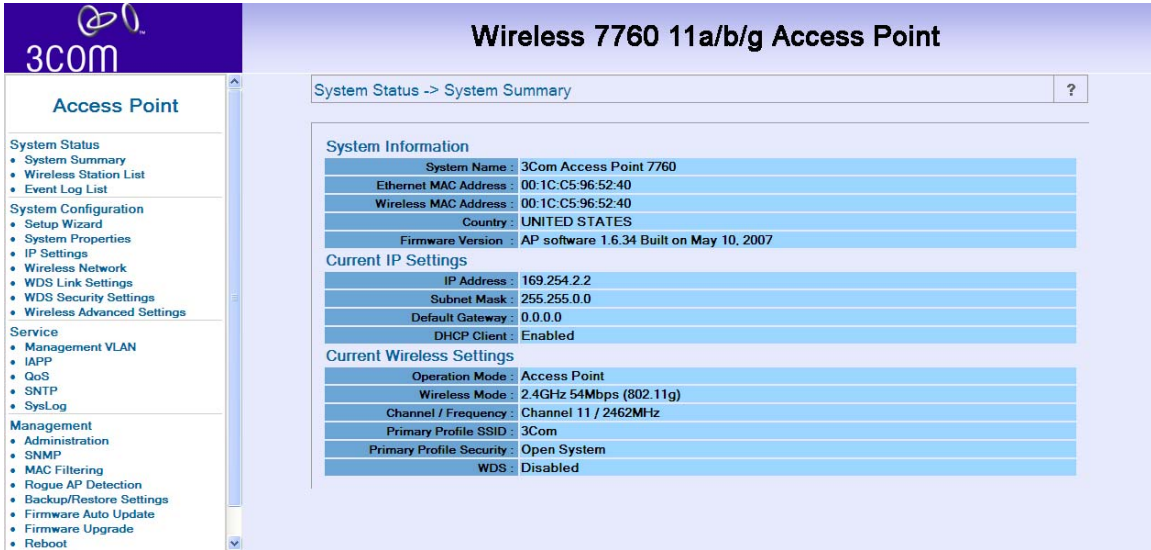
Select a country and Apply



You must select a country.

Country/Region:

Main Page



Wireless 7760 11a/b/g Access Point

System Status -> System Summary

System Information

System Name	3Com Access Point 7760
Ethernet MAC Address	00:1C:C5:96:52:40
Wireless MAC Address	00:1C:C5:96:52:40
Country	UNITED STATES
Firmware Version	AP software 1.6.34 Built on May 10, 2007

Current IP Settings

IP Address	169.254.2.2
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DHCP Client	Enabled

Current Wireless Settings

Operation Mode	Access Point
Wireless Mode	2.4GHz 54Mbps (802.11g)
Channel / Frequency	Channel 11 / 2462MHz
Primary Profile SSID	3Com
Primary Profile Security	Open System
WDS	Disabled

Select Management – Firmware Upgrade Page

Select Image Type – Managed

Select Browse to locate the firmware file – Browse

Select access point software image file (7760.img)

Select Upgrade



Wireless 7760 11a/b/g Access Point

Management -> Firmware Upgrade

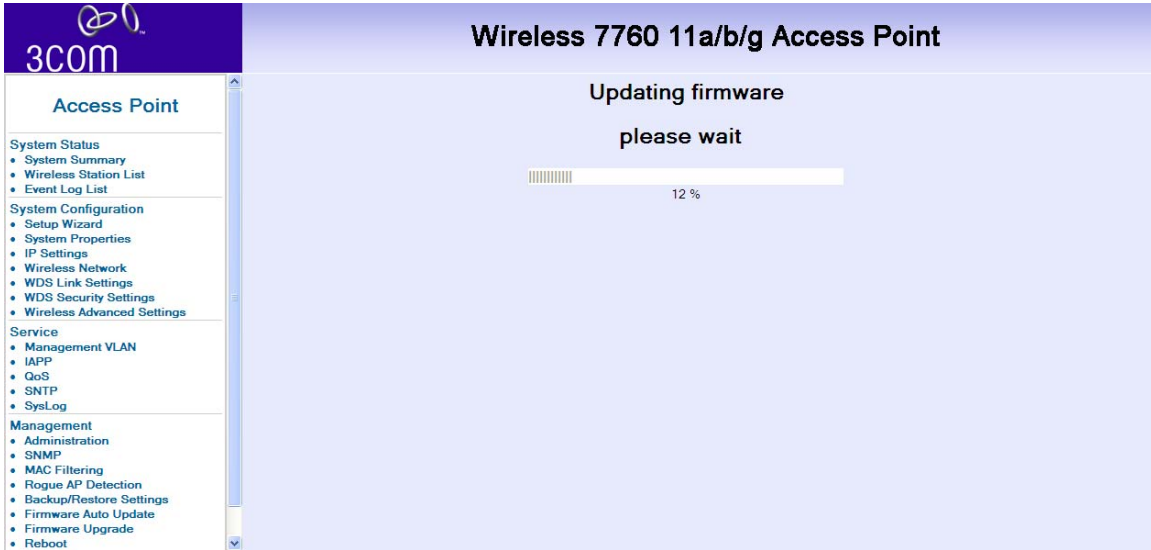
Image Type: Stand-alone Managed (Only for use with 3Com Unified/Wireless Switch)

Current Firmware Version: AP software 1.6.34 Built on May 10, 2007

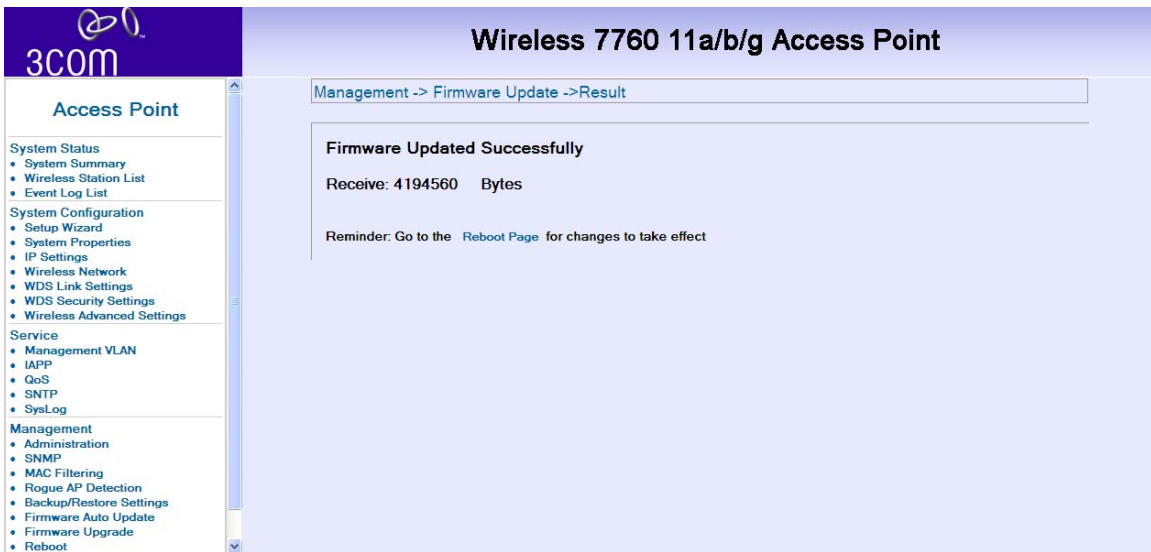
Browse to locate the firmware file: G:\H3C Wireless\H3C Software\7760 [Browse...]

[Upgrade] [Cancel]

Updating firmware status page



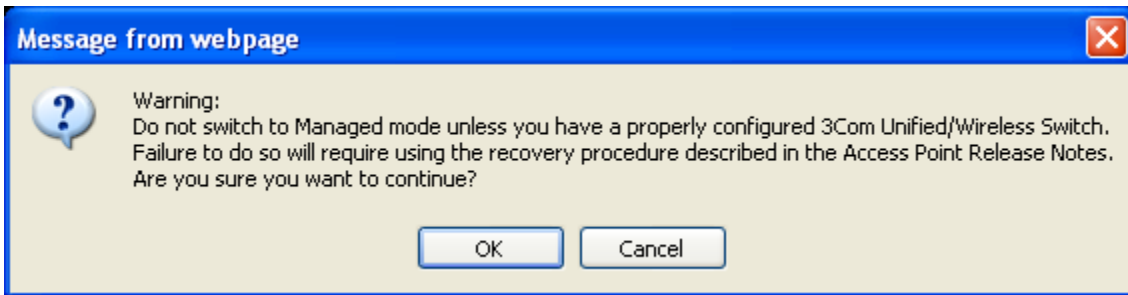
Firmware Updates Successfully Page. Note: Do not reboot at this time.



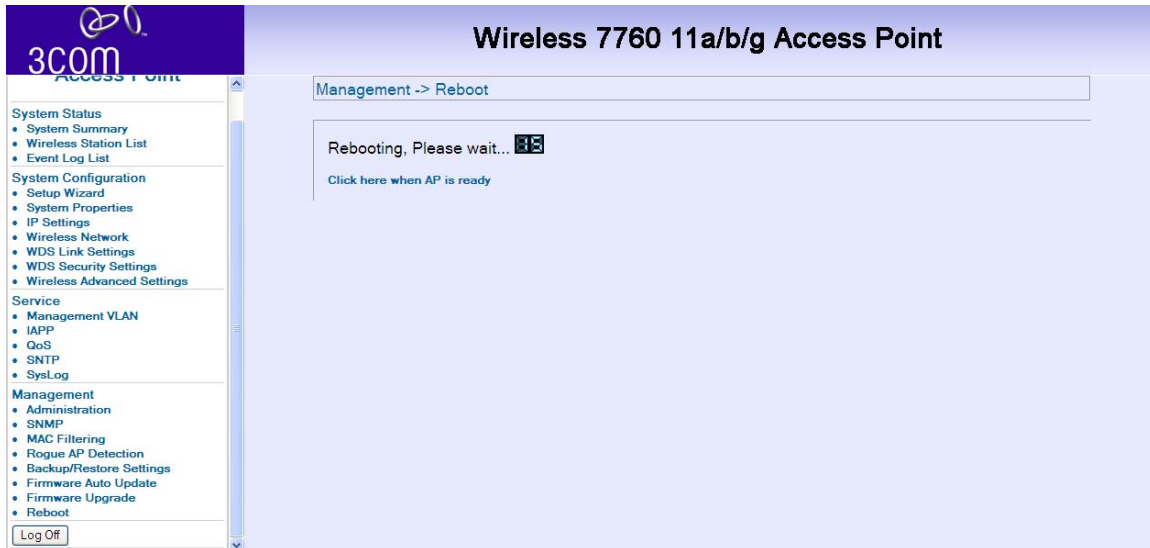
- Select System Configuration – System Properties Page
- Select Operation Mode – Access Point
- Select Start-up Mode – Managed
- Select Apply



Warning Message select OK



Management – Reboot Page



Allow Access Point to reboot Conversion Complete

Note: Configure AP on the appropriate H3C/3Com access controller before plugging AP back in to the production network.

Note

On the Wireless Controller you will need to enter the following commands:

```
wlan apdb 7760_2750 Ver.A V100R001B58D019SP01
```

Note

The AP 7760 will require the file **wa2100.bin** to be loaded on the Wireless Controller if not already present. You can verify the presence of that file by using the **DIR** command.

Verify

To verify the configuration is correct compare configuration files.

Access Point Configuration – What you will see on the console during the conversion process

```

*****
*****
* All rights reserved (2004-2009) *
* Without the owner's prior written consent, *
* no decompiling or reverse-engineering shall be allowed. *
*****
*****

```

User interface con0 is available.

Please press ENTER.

```

Do long reset...boot-shim startup...
Set facdefault...
Checksum good, no need copy data.
Write boot-shim configuration data finish.
ar531x rev 0x00005850firmware-DEF startup...
SDRAM TEST...PASSED

```

Atheros AR5001AP default version 1.1.0

0
auto-booting...

```

Attaching to TFFS... done.
Loading /fl/APIMG1...1672208
Starting at 0x80484c20...

```

```

resetting to factory config.
Using factory default settings.
Attaching interface lo0...done
DHCP Client is asking a lease ...
wlan1 Ready
Ready

```

```

3Com Access Point 7760 login: admin
Password: *****

```

Access Point Rev 1.6.34
3Com Access Point 7760 wlan[1, 0](Country code not set, Type 'SET COUNTRYCODE' for detail) ->
3Com Access Point 7760 wlan[1, 0](Country code not set, Type 'SET COUNTRYCODE' for detail) -> LEASE Renewal Failed, Re
starting DHCP negotiation
Upgrading FIT load, length=4194560

Upgrade FIT load finish.
FIT load upgrade ok.
wireless access point starting...
Auto Channel Scan selected 2452 MHz, channel 9
WDS Bridge is not Enabled...
LEASE Renewal Failed, Restarting DHCP negotiation
ws_reboot called
Rebooting AP...
boot-shim startup...
normal reset

System is starting...
Booting Normal Extend BootWare.....
The Extend BootWare is self-decompressing.....Done!

```
*****
*****
*                                     *
*           3COM 7760_2750 BootWare, Version 2.09           *
*                                     *
*****
*****
```

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Compiled Date : Mar 13 2009
CPU Type : Atheros AR2313
CPU L1 Cache : 16KB
CPU Clock Speed : 180MHz
Memory Type : SDRAM
Memory Size : 32MB
Memory Speed : 90MHz
Flash Size : 8MB
PCB Version : Ver.A

BootWare Validating...
Press Ctrl+B to enter extended boot menu...
Starting to get the main application file--flash:/wlcfit.bin!.....
.....
The main application file is self-decompressing.....
.....

```

.....
.....
.....Done!
System application is starting...
Update board info at first run time, device will reboot!!!
boot-shim startup...
normal reset

```

```

System is starting...
Booting Normal Extend BootWare.....
The Extend BootWare is self-decompressing.....Done!

```

```

*****
*****
*                                     *
*           3COM 7760_2750 BootWare, Version 2.09           *
*                                     *
*****
*****

```

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```

Compiled Date      : Mar 13 2009
CPU Type          : ATHEROS AR2313
CPU L1 Cache      : 16KB
CPU Clock Speed   : 180MHz
Memory Type       : SDRAM
Memory Size       : 32MB
Memory Speed      : 90MHz
Flash Size        : 8MB
PCB Version       : Ver.A

```

```

BootWare Validating...
Press Ctrl+B to enter extended boot menu...
Starting to get the main application file--flash:/wlcfit.bin!.....
.....
The main application file is self-decompressing.....
.....
.....
.....Done!
System application is starting...
Startup configuration file does not exist.
User interface con0 is available.

```

```

Press ENTER to get started.boot-shim startup...
normal reset

```

System is starting...
Booting Normal Extend BootWare.....
The Extend BootWare is self-decompressing.....Done!

*
* 3COM 7760_2750 BootWare, Version 2.09 *
*

Copyright (c) 2004-2009 3Com Corp. and its licensors. All rights reserved.

Compiled Date : Mar 13 2009
CPU Type : Atheros AR2313
CPU L1 Cache : 16KB
CPU Clock Speed : 180MHz
Memory Type : SDRAM
Memory Size : 32MB
Memory Speed : 90MHz
Flash Size : 8MB
PCB Version : Ver.A

BootWare Validating...
Press Ctrl+B to enter extended boot menu...
Starting to get the main application file--flash:/wlcfit.bin!.....
.....
The main application file is self-decompressing.....
.....
.....
.....Done!
Extend BootWare Version is not equal,updating? [Y/N]
Updating Extend BootWare.....Done!
Basic BootWare Version is not equal,updating? [Y/N]
Updating Basic BootWare.....Done!
BootWare updated,System is rebooting now.boot-shim startup...
normal reset

System is starting...
Booting Normal Extend BootWare.....
The Extend BootWare is self-decompressing.....Done!

*
* 3COM 7760_2750 BootWare, Version 2.10 *
*

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Compiled Date : May 11 2009
CPU Type : Atheros AR2313
CPU L1 Cache : 16KB
CPU Clock Speed : 180MHz
Memory Type : SDRAM
Memory Size : 32MB
Memory Speed : 90MHz
Flash Size : 8MB
PCB Version : Ver.A

BootWare Validating...
Press Ctrl+B to enter extended boot menu...
Starting to get the main application file--flash: /wlcfit.bin!.....
.....
The main application file is self-decompressing.....
.....
.....
.....
.....Done!
System application is starting...
Startup configuration file does not exist.
User interface con0 is available.

Press ENTER to get started.
<7760_2750>
%Apr 26 12:00:12:608 2000 7760_2750 SHELL/4/LOGIN: Console login from con0
<7760_2750>
<7760_2750>display wlan ap
Display AP Profile

Model Number : 7760_2750
Serial-ID : 9TZ497L965240
AP Address : 10.10.10.71
H/W Version : Ver.A
S/W Version : V100R001B58D017(271485056)
Boot Version : 2.10
Mode : Split Mac Mode
Device State : Not in zero configuration state

Master AC:
Description : Not Configured
AC Address : 10.10.10.127
State : Run

```

Transmitted control packets : 4
Received control packets   : 4
Transmitted data packets   : 0
Received data packets      : 0

Latest AC IP address       : 10.10.10.127
Tunnel Down Reason        : -NA-
  
```

```

-----
Unicast static AC IPv4 address: Not Configured
Unicast static AC IPv6 address: Not Configured
-----
  
```

```

<7760_2750>display wlan ap
                Display AP Profile
  
```

```

-----
Model Number           : 7760_2750
Serial-ID              : 9TZ497L965240
AP Address             : 10.10.10.71
H/W Version           : Ver.A
S/W Version           : V100R001B58D017(271485056)
Boot Version          : 2.10
Mode                  : Split Mac Mode
Device State          : Not in zero configuration state
  
```

```

Master AC:
Description           : Not Configured
AC Address            : 10.10.10.127
State                 : Run
Transmitted control packets : 29
Received control packets   : 29
Transmitted data packets   : 0
Received data packets      : 0
  
```

```

Latest AC IP address       : 10.10.10.127
Tunnel Down Reason        : -NA-
  
```

```

-----
Unicast static AC IPv4 address: Not Configured
Unicast static AC IPv6 address: Not Configured
-----
  
```

```

<7760_2750>
  
```

Access Controller Configuration – What you will see on console if AP is configured on the Access Controller

```

<WX3024>display wlan ap name ap7760_wx3024
                AP Profile
  
```

```

-----
AP Name      APID State  Model      Serial-ID
  
```

ap7760_wx3024 3 Run/M 7760_2750 9TZ497L965240

<WX3024>

<WX3024> **display wlan ap name ap7760_wx3024 verbose**

AP Profile: ap7760_wx3024

APID : 3
AP System Name : Not Configured
Map Configuration : Not Configured
State : Run
Up Time(hh:mm:ss) : 00:09:25

Model : 7760_2750
Serial-ID : 9TZ497L965240
IP Address : 10.10.10.71

H/W Version : Ver.A
S/W Version : V100R001B58D017
Boot-Rom Version : 2.10
Description : Not Configured

Connection Type : Master
Peer AC MAC Address : -NA-
Priority Level : 4
Echo Interval(s) : 10
Statistics report Interval(s) : 50

Cir(Kbps) : -NA-
Cbs(Bytes) : -NA-

Jumboframe Threshold : Disable

Transmitted control packets : 160
Received control packets : 160
Transmitted data packets : 0
Received data packets : 0

Configuration Failure Count : -NA-
Last Failure Reason : -NA-

Last Reboot Reason : Tunnel Initiated

Latest Join IP Address : 10.10.10.71
Tunnel Down Reason : No Reason

AP Mode : Split
AP operation mode : Normal
Portal Service : Disable

Device Detection : Disable
Maximum Number of Radios : 1
Current Number of Radios : 1
Client Keep-alive Interval : Disable
Client Idle Interval(s) : 3600
Broadcast-probe Reply Status : Enable
Radio 1:
Basic BSSID : 001c-c596-5240
Current BSS Count : 1
Running Clients Count:
11g : 0
11b : 0
Wireless Mode : 11g
Configured Channel : auto(11)
Configured Power (dBm) : 14
Interference (%) : 2
Channel Load (%) : 2
Utilization (%) : 0
Co-channel Neighbor Count : 0
Channel Health : Good
Preamble Type : short
Radio Policy : 1025
Service Template : 1
SSID : wx3024_clear
Port : WLAN-DBSS0:11
Mesh Policy : default_mp_plcy
ANI Support : Enable
11g Protection : Disable
Admin State : UP
Physical State : UP
Operational Rates (Mbps):
1 : mandatory
2 : mandatory
5.5 : mandatory
6 : supported
9 : supported
11 : mandatory
12 : supported
18 : supported
24 : supported
36 : supported
48 : supported
54 : supported
Radar detected Channels : None

```
< WX3024 >  
< WX3024 > display current-configuration  
#  
version 5.20, Release 3106P08, Release 3106P08  
#
```

```
sysname WX3024
#
domain default enable system
#
telnet server enable
#
port-security enable
#
portal server web ip 10.10.10.127 key portal url http://10.10.10.127/portal
portal local-server http
#
oap management-ip 10.10.10.128 slot 0
#
wlan country-code US
#
wlan apdb 9550 Ver.A V100R001B71D002SP01
wlan apdb 7760_2750 Ver.A V100R001B58D019SP01
#
vlan 1
#
domain system
authentication portal local
authorization portal local
accounting portal local
access-limit disable
state active
idle-cut disable
self-service-url disable
#
user-group system
#
local-user admin
password simple admin
authorization-attribute level 3
service-type ssh telnet
local-user portal
password simple portal
authorization-attribute vlan 1
service-type portal
#
wlan rrm
dot11a mandatory-rate 6 12 24
dot11a supported-rate 9 18 36 48 54
dot11b mandatory-rate 1 2
dot11b supported-rate 5.5 11
dot11g mandatory-rate 1 2 5.5 11
dot11g supported-rate 6 9 12 18 24 36 48 54
#
wlan radio-policy 257
#
```

```
wlan radio-policy 258
#
wlan radio-policy 513
#
wlan radio-policy 514
#
wlan radio-policy 769
#
wlan radio-policy 770
#
wlan radio-policy 1025
#
wlan radio-policy 1026
#
wlan radio-policy 1281
#
wlan radio-policy 1282
#
wlan service-template 1 clear
  ssid wx3024_clear
  bind WLAN-ESS 0
  service-template enable
#
interface NULL0
#
interface Vlan-interface1
  ip address 10.10.10.127 255.255.255.0
  portal server web method direct
#
interface GigabitEthernet1/0/1
  port link-type trunk
  port trunk permit vlan all
#
interface WLAN-ESS0
  port link-type hybrid
  port hybrid vlan 1 untagged
#
wlan ap ap7760_wx3024 model 7760_2750
  serial-id 9TZ497L965240
  radio 1
    channel auto
    max-power 14
    radio-policy 1025
    service-template 1
    radio enable
#
ip route-static 0.0.0.0 0.0.0.0 10.10.10.1
#
snmp-agent
snmp-agent local-engineid 8000002B03000FE207F2E0
```

```
snmp-agent community read public
snmp-agent community write private
snmp-agent sys-info version all
#
ssh server enable
#
load xml-configuration
#
user-interface aux 0
user-interface vty 0 4
 authentication-mode scheme
 user privilege level 3
#
return
<WX3024>
```