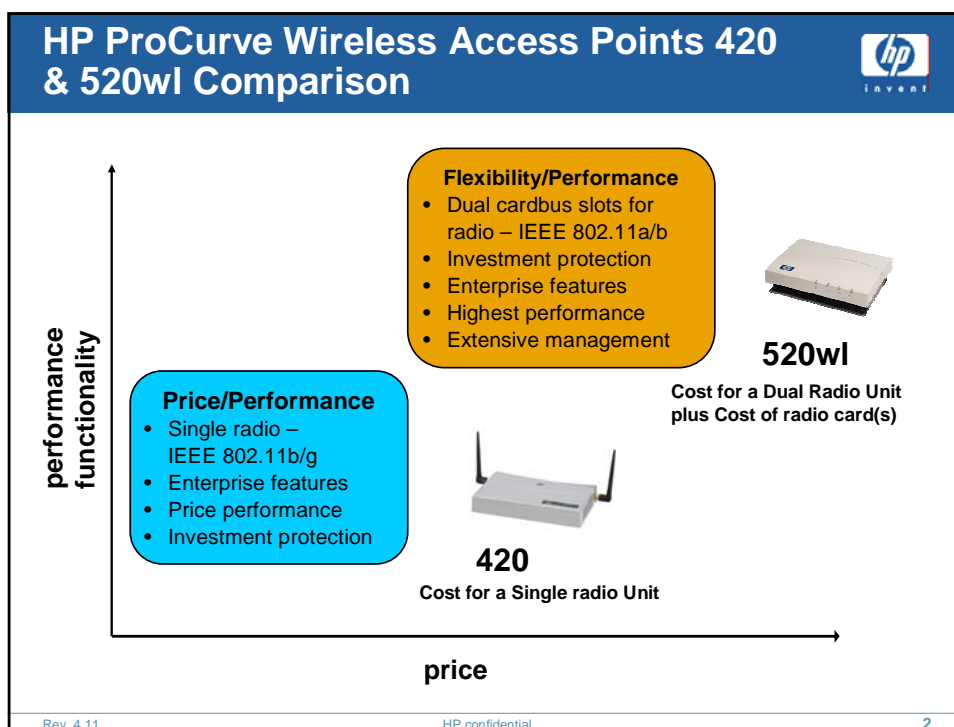


HP ProCurve Wireless Access Point Family

Ralf Krause



HP ProCurve Wireless Access Point 420— Enhancing the mobile workforce



The Wireless Access Point 420 is a full-featured IEEE 802.11b/g, single-radio access point ideally suited for medium to large wireless LAN deployments. With integrated 802.3af Power over Ethernet, the HP ProCurve Wireless Access Point 420 offers a cost-effective means to deploy 802.11b/g wireless network.



HP ProCurve Wireless
Access Point 420

(J8130A)—North America only

(J8131A)—All other countries

Rev. 4.11

HP confidential

3

HP ProCurve Wireless Access Point 420 Features



HP ProCurve Wireless Access Point 420

Network Management

SNMP v1/v2c for remote configuration and management

Network Security

RADIUS MAC Authentication

RADIUS for 802.1x Authentication (client requires supplicant software)

EAP MD5

EAP PEAP

EAP TLS

EAP TTLS

Wired Equivalent Privacy (WEP)

WEP Static (pre-shared keys: 64, 128, 152 bits)

WEP Dynamic (with 802.1x)

Wi-Fi Protected Access (WPA)

WPA PSK (pre-shared keys: 64 Hexadecimal digits)

WPA Dynamic (with 802.1x)

Data Encryption

AES (WPA)

TKIP (WPA)

WEP

Filtering

Local Bridge (wireless Client to wireless client communications)

VLANs

64 Tagged (802.1Q)

Other Features

TFTP/FTP

Power over Ethernet (PoE) 802.3af

Auto Channel Selection

Country Code Selection


Dual Flash Images (operating system for AP)


Rev. 4.11

HP confidential

4

Connection






▪ **Connection:**

- RS-232C Console Connection
 - Null Modem cable (part # 5184-1894)
 - Terminal Setup
 - baud rate – 9600
 - Data bits - 8
 - parity – none
 - stop bits – 1
 - control – none
- RJ-45 10/100 Ethernet port
 - Telnet (CLI)
 - Web Browser

Rev. 4.11
HP confidential
5

Connection



▪ **Connection:**

- Input Return
- Input Username
- Input Password
- At the 420 prompt
- Input country

```

Username: admin
Password:
HP ProCurve Access Point 420#country ?
WORD  Country code: AL-ALBANIA, DZ-ALGERIA, AR-ARGENTINA, AM-ARMENIA,
AU-AUSTRALIA, AT-AUSTRIA, AZ-AZERBAIJAN, BH-BAHRAIN, BY-BELARUS,
BE-BELGIUM, BZ-BELIZE, BO-BOLIVIA, BR-BRAZIL, BN-BRUNEI_DARUSSALAM,
BG-BULGARIA, CA-CANADA, CL-CHILE, CN-CHINA, CO-COLOMBIA, CR-COSTA_RICA,
HR-CROATIA, CY-CYPRUS, CZ-CZECH_REPUBLIC, DK-DENMARK,
DO-DOMINICAN_REPUBLIC, EC-ECUADOR, EG-EGYPT, EE-ESTONIA, FI-FINLAND,
FR-FRANCE, GE-GEORGIA, DE-GERMANY, GR-GREECE, GT-GUATEMALA,
HK-HONG_KONG, HU-HUNGARY, IS-ICELAND, IN-INDIA, ID-INDONESIA, IR-IRAN,
IE-IRELAND, IL-ISRAEL, IT-ITALY, JP-JAPAN, JO-JORDAN, KZ-KAZAKHSTAN,
KP-NORTH_KOREA, KR-KOREA_REPUBLIC, KU-KUWAIT, LV-LATVIA, LB-LEBANON,
LI-LIECHTENSTEIN, LT-LITHUANIA, LU-LUXEMBOURG, MO-MACAU, MK-MACEDONIA,
MY-MALAYSIA, MX-MEXICO, MC-MONACO, MA-MOROCCO, NA-NORTH_AMERICA,
NL-NETHERLANDS, NZ-NEW_ZEALAND, NO-NORWAY, OM-OMAN, PK-PAKISTAN,
PA-PANAMA, PE-PERU, PH-PHILIPPINES, PL-POLAND, PT-PORTUGAL,
PR-PUERTO_RICO, QA-QATAR, RO-ROMANIA, RU-RUSSIA, SA-SAUDI_ARABIA,
SG-SINGAPORE, SK-SLOVAK_REPUBLIC, SI-SLOVENIA, ZA-SOUTH_AFRICA,
ES-SPAIN, SE-SWEDEN, CH-SWITZERLAND, SY-SYRIA, TW-TAIWAN, TH-THAILAND,
TR-TURKEY, UA-UKRAINE, AE-UNITED_ARAB_EMIRATES, GB-UNITED_KINGDOM,
US-UNITED_STATES, UY-URUGUAY, VE-VENEZUELA, VN-VIETNAM
HP ProCurve Access Point 420#country us
HP ProCurve Access Point 420#
          
```

Rev. 4.11
HP confidential
6

Initial Configuration



Initial Configuration:

- Input config
- Input interface Ethernet
- Input no ip dhcp
- Input IP Address
 - Input IP subnet mask
 - Input IP Address
 - of default gateway
 - all on one line

Show System

- System Information

If NO DHCP Server

- default to IP Address of 192.168.1.1

```
HP ProCurve Access Point 420#configure
Enter configuration commands, one per line. End with CTRL/Z
HP ProCurve Access Point 420(config)#interface ethernet
Enter Ethernet configuration commands, one per line.
HP ProCurve Access Point 420(config-if-ethernet)#no ip dhcp
HP ProCurve Access Point 420(config-if-ethernet)#ip 10.1.1.1 255.255.255.0
HP ProCurve Access Point 420(config-if-ethernet)#end
HP ProCurve Access Point 420(config)#end
HP ProCurve Access Point 420#show system
System Information
=====
Serial Number       : TV336QB285
System Up time      : 0 days, 1 hours, 21 minutes, 37 seconds
System Name         : Enterprise AP
System Location     :
System Contact      : Contact
System Country Code : NA - North America
MAC Address         : 00-01-E6-FF-84-44
IP Address          : 10.1.1.1
Subnet Mask         : 255.255.255.0
Default Gateway     : 10.1.1.1
VLAN State          : DISABLED
Native VLAN ID      : 1
IAPP State          : ENABLED
DHCP Client         : DISABLED
HTTP Server         : ENABLED
HTTP Server Port    : 80
Slot Status         : Dual band(b/g)
Software Version    : v2.0.29
=====
HP ProCurve Access Point 420#
```

Rev. 4.11

HP confidential

7

Wireless Interface Information



Show System Status:

- Input show interface wireless g


```
HP ProCurve Access Point 420#show interface wireless g
Wireless Interface Information
=====
-----Identification-----
Description       : Enterprise 802.11g Access Point
SSID              : Enterprise Wireless AP
Radio mode        : 802.11b + 802.11g
Channel           : 1 (AUTO)
Status            : Enabled
-----802.11 Parameters-----
Transmit Power    : FULL (16 dBm)
Max Station Data Rate : 54Mbps
Fragmentation Threshold : 2346 bytes
RTS Threshold     : 2347 bytes
Beacon Interval   : 100 TUs
DTIM Interval     : 2 beacons
Maximum Association : 128 stations
-----Security-----
Closed System     : DISABLED
WPA mode          : Dynamic key
Multicast cipher  : WEP
Unicast cipher    : TKIP
WPA clients       : SUPPORTED
Authentication Type : OPEN
Encryption        : DISABLED
Default Transmit Key : 1
WEP Key Data Type : Hexadecimal
Static Keys :
Key 1: EMPTY Key 2: EMPTY Key 3: EMPTY Key 4: EMPTY
=====
HP ProCurve Access Point 420#
```

Rev. 4.11

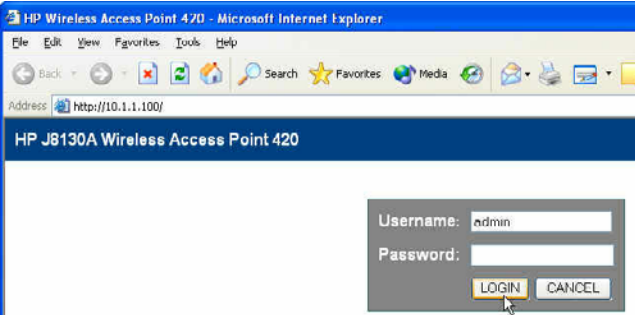
HP confidential

8

Browser Login




- **Browser Login:**
 - Launch Web Browser
 - Input IP Address
 - Input User Name
 - Input Password
 - Click Login

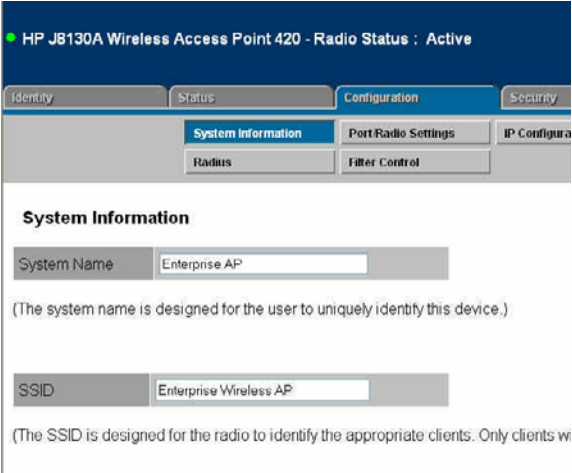


Rev. 4.11 HP confidential 9

System Configuration



- **Configuration – System Information**
 - Click Configure Tab
 - Click System Information
 - Enter System Name
 - Enter SSID



Rev. 4.11 HP confidential 10

Management



■ Management:

- HP ProCurve Manager
Basic Configuration Manager
- HP ProCurve Manager Plus
Basic and Advanced Configuration Manager
- HP OpenView Network Node Manager
HP OV NNM-NT
Advanced Network Management
SNMP and MIB information

HP OV NNM-UX
Advanced Network Management
SNMP and MIB information

Rev. 4.11

HP confidential

11

HP ProCurve Wireless Access Point 520wl—Enhancing the mobile workforce



The HP ProCurve Wireless Access Point 520wl extends the range of your cabled Ethernet environment to an entire building or campus by providing easy network access for mobile users or for hard-to-wire locations.



HP ProCurve Wireless
Access Point 520wl
(J8133A)

Rev. 4.11

HP confidential

12

HP ProCurve Wireless Access Point 520wl Features



802.1X EAP port-based access control
Enhanced encryption management
VLAN support and tagging
IEEE 802.11a/b dual-radio design
Detachable 802.11b Range Extender antenna
Auto Channel Select
WDS (wireless distribution system)
Adjustable Receive Sensitivity
Remote configuration and management
Interoperability

Rev. 4.11

HP confidential

13

HP ProCurve Wireless Access Point 520wl Software Features




HP ProCurve Wireless Access Point 520wl							
Network Management							
SNMP v1/v2c							
Network Security							
RADIUS Accounting							
RADIUS MAC Authentication							
RADIUS for 802.1x Authentication							
EAP MD5							
EAP PEAP							
EAP TLS							
EAP TTLS							
Wired Equivalent Privacy (WEP)							
WEP Static (pre-shared keys:64, 128, 152 bits)							
WEP Dynamic (with 802.1x)							
Data Encryption							
WEP							
Filtering							
Local Bridge (wireless Client to wireless client communications)							
VLANs							
Tagged (802.1Q)							
Other Features							
TFTP							
Auto Channel Selection							


Rev. 4.11

HP confidential

14

Connection






▪ **Connection:**

- **RS-232C Console Connection**
 - DB9 – DB9 Straight through cable
 - Terminal Setup
 - baud rate – 9600
 - Data bits - 8
 - parity – none
 - stop bits – 1
 - control – none
- Note: set CR = CR +LF*
- **RJ-45 10/100 Ethernet port**
 - Telnet (CLI)
 - Web Browser

Rev. 4.11
HP confidential
15

Initial Configuration



▪ **Initial configuration**

- **IP Settings**
 - Input set ipaddrtype static
 - Input set ipaddr
 - Input set ipsubmask
 - Input set ipgw
- **Radio Settings**
 - Input set wif <3or4> netname <SSID>
 - Input set wif <3or4> autochannel disable
 - Input set wif <3or4> channel <channel>
 - Input set wif <3or4> distaps <distance>
 - Input reboot

IP settings:

520wl>set ipaddrtype static	disables the DHCP client
520wl>set ipaddr 0.0.0.0	sets the IP address for the access point
520wl>set ipsubmask 255.255.255.255	set the IP subnet mask
520wl>set ipgw 0.0.0.0	sets the default gateway

Radio settings:

520wl>set wif <3/4> netname <SSID>	sets the SSID/network name for the wireless card in slot A (3) or B (4)
520wl>set wif <3/4> autochannel disable	disables auto channel select, this parameter must be configured before the channel can be set
520wl>set wif <3/4> channel <channel>	sets the channel number,
520wl>set wif <3/4> distaps <distance>	sets the distance between access points, set <distance> to large, medium, small, minicell, or microcell
520wl>reboot	reboots the access point with the new configuration settings

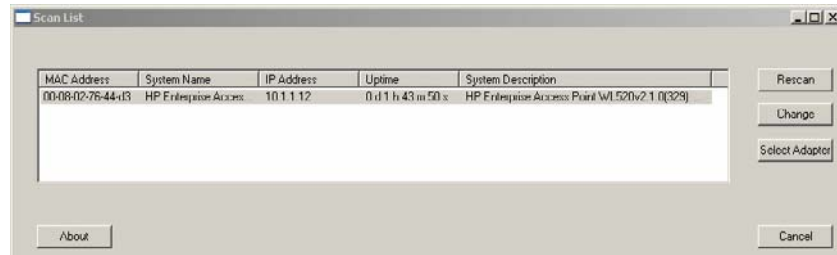
Rev. 4.11
HP confidential
16

Basic Configuration



▪ Scantool:

▪ Scan List



▪ Select Change

(Scantool comes on CD-ROM with product)

Rev. 4.11

HP confidential

17

Basic Configuration



▪ Scantool:

▪ Change

- Input Name
- Select IP Address Type
- Input IP Address
- Input Subnet Mask
- Input Gateway IP Address
- TFTP Server IP Address
- Image File Name
- Read/Write Password
default is public
- Click OK

Rev. 4.11

HP confidential

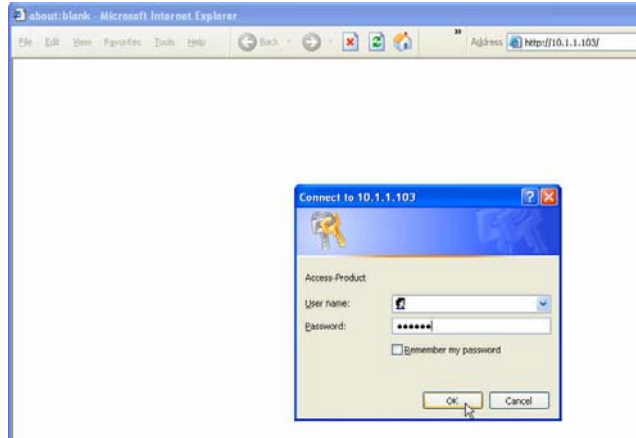
18

Browser Login



Browser Login:

- Launch Web Browser
- Input IP Address
- Input User Name
- Input Password
- Click OK
- If NO DHCP Server default to IP Address of 10.0.0.1



Rev. 4.11

HP confidential

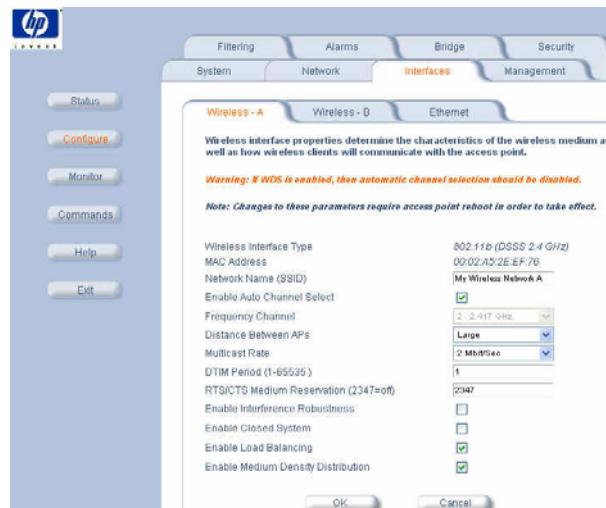
19

Configuration



Configure – Interface – Wireless-A:

- Click Configure Button
- Select Interface tab
- Enter Network Name (SSID)



Rev. 4.11

HP confidential

20

