

台北海洋技術學院
Taipei College of Maritime Technology
104 年 D-link 教育訓練



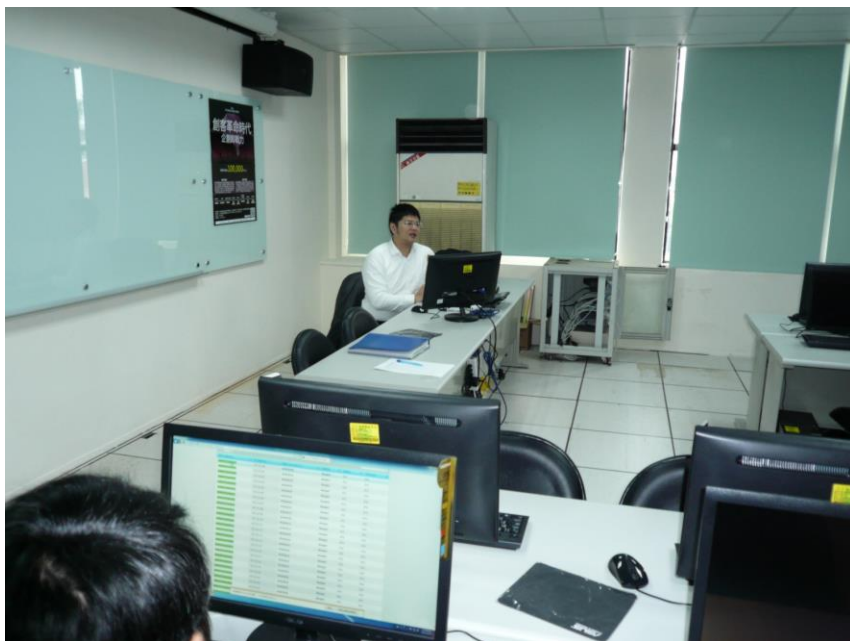
時間:104 年 12 月 17 日上午 09:30~12:00
地點台北海洋技術學院行政大樓 2F 行 202 教室
講師:楊世鴻先生

D-LINK 教育訓練簽到表

時間:104 年 12 月 17 日上午 9 點 30 分

地點:士林校區行 202 教室

單位	姓名	簽到
圖資中心	蔡慧貞	
圖資中心	張哲偉	張哲偉
圖資中心	蔡彥志	
圖資中心	黃翊哲	黃翊哲
圖資中心	陳鵬先	陳鵬先
博鉅資訊	劉鴻君	
博鉅資訊	曾國峯	曾國峯
圖資中心	郭子傑	郭子傑
黃翊設計	黃以心	黃以心
友訊	楊世鴻	





D-Link Business Wireless LAN Solution

Karl Hsieh

From Management viewpoint:

- Standalone access point 
- Controller solution
- Hardware

D-Link Unified Wireless Solution

- APX
- Switch V
- Controller V
- Software in plan
- Cloud-managed in plan solution
- Wireless controller



DWC-1000

Support 6~24 APs per device
Support 24~96 APs per peer group



DWS-4026

Support 64 APs per device
Support 256 APs per peer group



DWC-2000

Support 64~256 APs per device
Support 256~1024 APs per peer group

- Unified switch

Unified Wireless Solution Comparison



DWS-3160

Support 12~48 APs per device
Support 48~192 APs per peer group

	DWC-1000	DWS-3160	DWS-4026	DWC-2000
Port	4LAN+ 2Option 10/100/1000Based-T	20 10/100/1000Base-T 4 Combo 1000 BaseT/SFP	24 10/100/1000Base-T 4 Combo 1000 BaseT/SFP 2 10G (module/ optional)	4 10/100/1000Base-T 4 Combo 100/1000 Base-T/SFP
PoE	No	Yes (PC model)	Yes	No

# mgmt. AP	6 to 24	12 to 48	64	64 to 256 
Max. # mgmt. AP/ peer group	96	192	256	1,024 
# clustering controller/ peer group	4	4	8	8
Redundancy while full AP capacity	No	No	Yes (4+4)	Yes (4+4)
Additional VPN/ Firewall/ WCF license	Yes	No	No	No
Additional AP license increments	6	12 or 24	No	32 or 64 or 128

DWC-1000

- AP License
- To activate an additional 6 access points
- DWC-1000-AP6/ DWC-1000-AP6-LIC

Wireless Controller License Options

- Feature license (DWC-1000-VPN-LIC)
- To activate VPN, firewall and advanced routing features
- DWC-1000-VPN/ DWC-1000-VPN-LIC



DWC-2000

- AP License
- To activate additional access point support
- DWC-2000-AP32/ DWC-2000-AP32-LIC
- DWC-2000-AP64/ DWC-2000-AP64-LIC • DWC-2000-AP128/ DWC-2000-AP128-LIC

*Remark:

DLMS, D-Link License Management System , an on-line system delivering virtual package of appliance's add-on services, instead of physical one.

Unified Wireless Access Point



DWL-8600AP

11n concurrent dual band
2 x 2 antennas
802.3af PoE



DWL-6600AP

11n concurrent dual band
Internal PIFA antennas w/
external antenna connectors
802.3af PoE



DWL-3600AP

11n 2.4GHz single band
Internal 2 x 2 antennas
802.3af PoE



802.3at PoE 802.3at PoE

DWL-2600AP

11n 2.4GHz single band
Internal 2 x 2 antennas



DWL-8610AP

Internal 3 x 3 antennas



DWL-6610AP

11ac concurrent dual band **11ac** concurrent dual band
internal 2x2 antennas

802.3af PoE

DWL-6700AP

Outdoor

11n concurrent dual band 2 x 2 antennas

5GHz high gain directional

2.4GHz omni-directional Non-standard PoE

IP65 rated



In plan

DWL-6700 Outdoor AP

[Global Status](#)[All APs](#)[Managed](#)[Peer Managed](#)[Authentication Failed](#)[RF Scan](#)[De-Authentication Attacks](#)[Hardware Capability](#)

We can see all the details related to a managed AP here. We can perform action like reset, disassociate clients connected with selected AP.

Managed APs List

Show	10 ▼	entries	[Right click row to see more options]				
Model Name	Firmware Version	MAC Address	IP Address	Location	Status	Configuration Status	
DWL-6700AP	4.3.0.1	00:03:7F:11:37:D3	192.168.10.104		Managed	Success	

Managed APs

Status	Managed
Controller IP Address	192.168.10.5
Software Version	4.3.0.1
Profile	1 - Default
Code Download Status	Not Started
Discovery Reason	L2 Poll Received
Configuration Status	Not Started
Protocol	5
Vendor ID	D-Link
Authenticated Clients	0
Part Number	DWL-6700AP
System Up time	0d:00:05:43
Serial Number	R80J1C4008601

Unified Wireless Access Point

802.11ac AP

- The first unified AP 802.11ac model.
- 3x3 MIMO with 3 spatial streams, providing up to 1300 Mbps PHY data rate on the 5GHz

interface

- POE: IEEE 802.3at
- Bandsteering
- Beamforming technology



DWL-8610AP

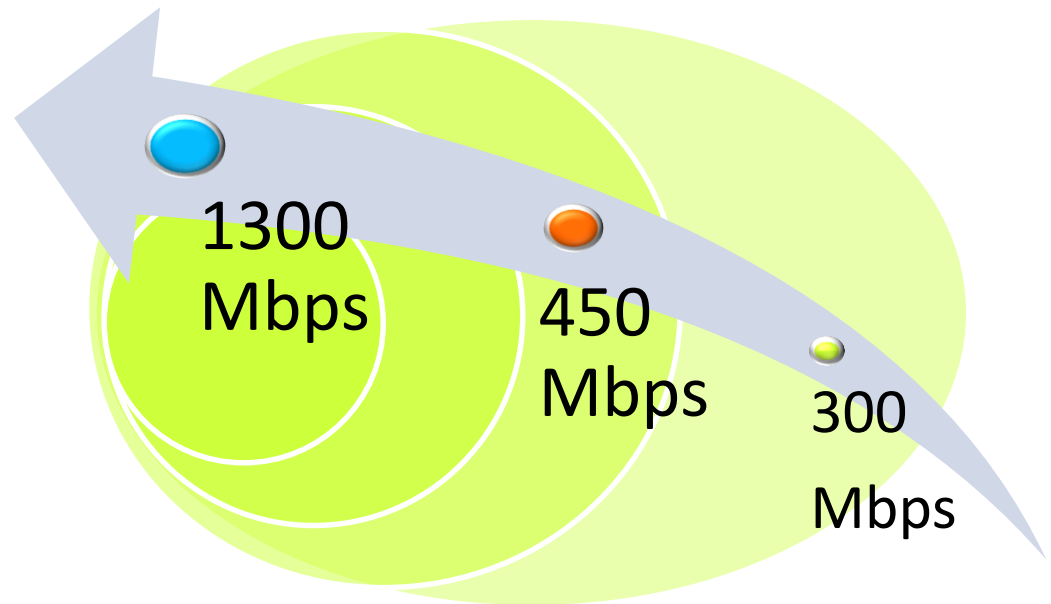
11ac concurrent dual band

Internal 3 x 3 antennas

802.3af PoE

enables longer reach,
thus covering more area
with less devices

- 16 VAPs
- AP Clustering





DWC-2000

DWC-2000 Form Factor



Interface

A	Reset button
B	Power LED
C	Fan LED
D	USB Ports (1-2)
E	Hard Disk Drive Module Slot
F	Gigabit LAN SFP ports (1-4)

DWC-2000 vs. DWC-1000

G Gigabit LAN RJ-45 ports (1-4)

H Console Port

- In addition to hardware (capacity, form factor...), software features and license options, there is one significant difference between Ethernet interfaces:



- System Performance •
- 64 APs per controller, max. 256 APs



- Max. 1,024 APs per peer group

DWC-2000 Highlight

- Max. 8 controllers per peer group (including redundant controllers)
- Max. 3,072 concurrent CP authentication users
- **User Authentication**
- 20K permanent accounts and 20K temporary accounts of local database
- Multiple login pages associated with VLANs/ SSIDs

Hotspot Application

- Single or batch accounts generation
- Customized time/ traffic accounting profile
- User account status monitoring
- User account usage extension
- Payment agent (Paypal, SecurePay, Authorize.net, WorldPay)

Hotspot Application Guest Management

- Account generation from Service Desk/ Front Desk or via online purchasing*.
- Up to 40 billing plans
- Single or batch accounts creation
- Flexible account type sorted by usage volume, usage time, and specific period.

Monitor status and extend usage via front desk account

Billing plan selection

Batch generation

Billing - BillingDesk

Select Billing Profile 3 hours

Billing Form View Accounts

3 hours - 3 hours

Batch Generation 1

Start While Account Login 3 Hours

Expiration Date and Time (Set time from below)

MM DD YYYY HH MM AM/PM

09 10 2012 06 13 PM

Generate

Billing Users

Select Billing Profile 3 hours

Billing Form View Accounts

Show 10 entries [Right click on record to get more options]

User Name	Expiration Date	Usage Time Left(in Seconds)	Bandwidth Usage Left(in MB)
HS_33K40	10/25/2013 18:12	NA	NA
HS_6p5Pg	10/25/2013 18:12	NA	NA
HS_97dYl	10/25/2013 18:12	NA	NA

Showing 1 to 3 of 3 entries

Extend Session View Details

First Previous 1 Next Last

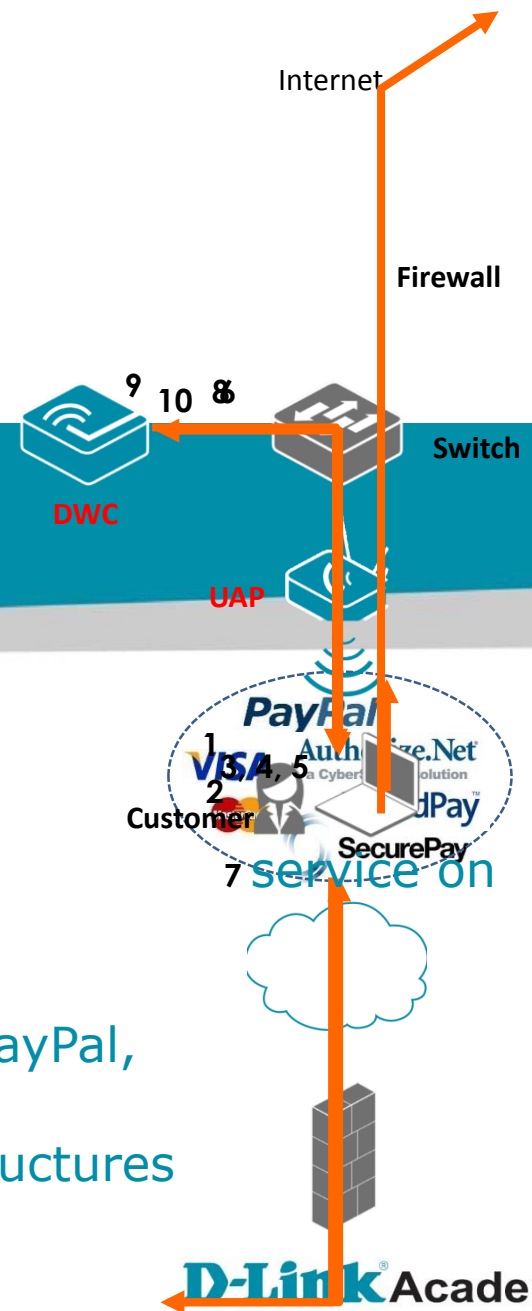
Account usage status

Extend account

* Online purchasing: confirm with PP for supporting in your countries.

usage and detail
info

- Purchase the wireless service online! Customer simply picks, chooses and purchases the wireless



his tips.¹¹

- Include most popular payment gateways (ecommerce application service providers): PayPal, Secure Pay, WorldPay, and Authorize.net.
- Benefits: leverage payment gateways' infrastructures
- Collect funds cross countries and regions worldwide

Hotspot Application

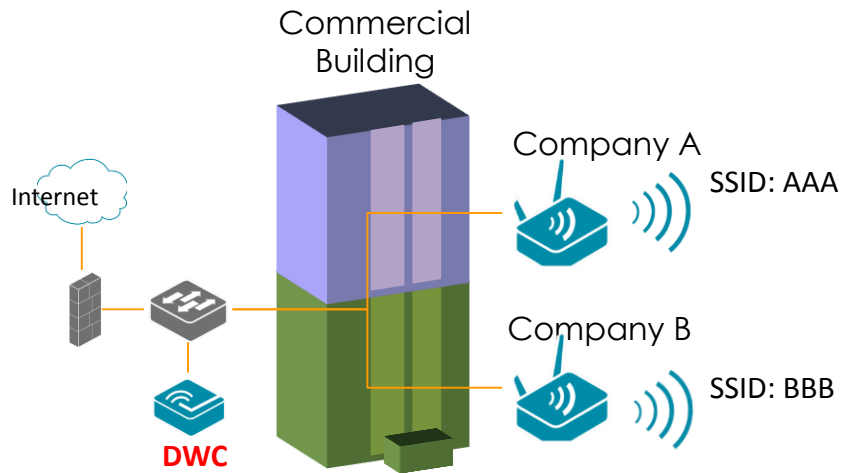
Multiple Login Pages

- Secure transaction, encryption

[Usage Scenario]

1. Wireless clients associate UAP
2. User opens a browser
3. DWC redirects to service package list
4. User chooses service package
5. User fills out payment gateway account (ex. Paypal) or credit card information
6. DWC passes credit card information to the payment gateway
7. The payment gateway validates transaction information
8. The payment gateway confirms the transaction information to DWC
9. DWC generates a user account
10. DWC passes the qualified user **End Device** account to the UAP
11. User acquires the internet access

- Separate welcome pages assigned to different SSIDs or VLANs allow each company or service provider to have their own login portals, even if access points are managed by the same wireless controller.
- Max. 10 login pages



D-Link

Portal Login

Username

Password

Login

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D-Link

Authentication Details

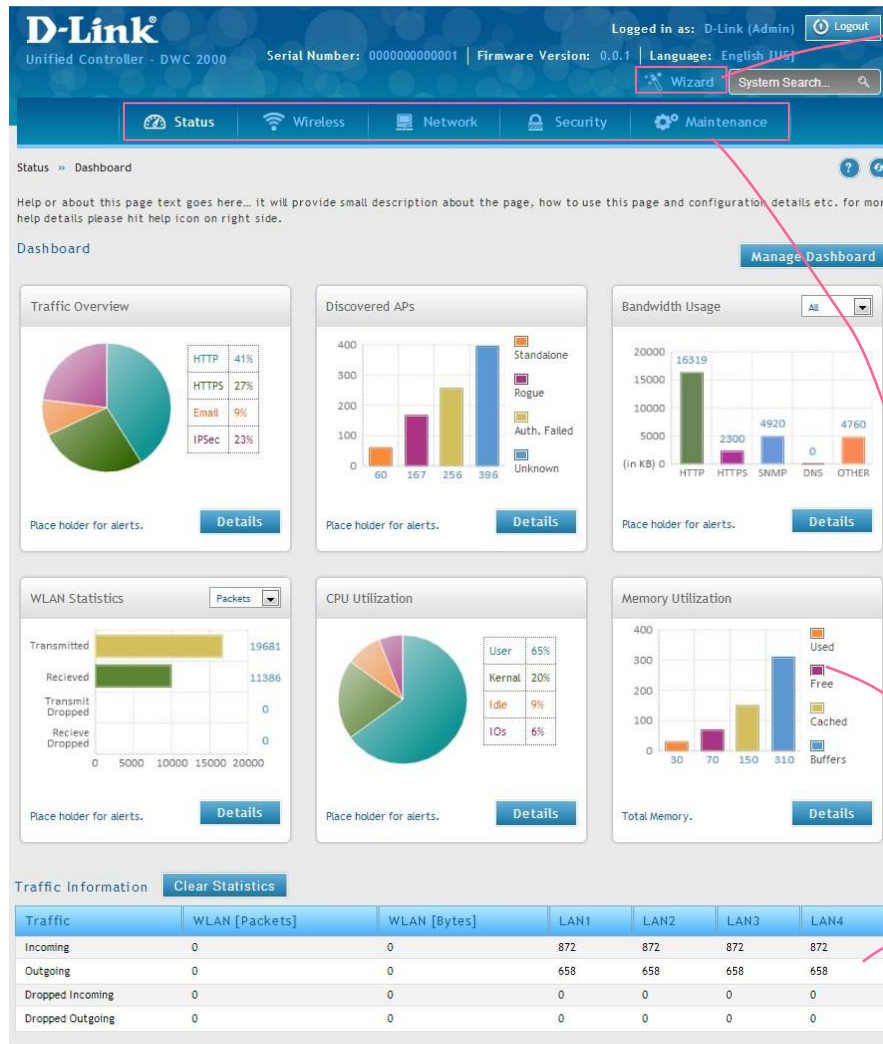
Username

Password

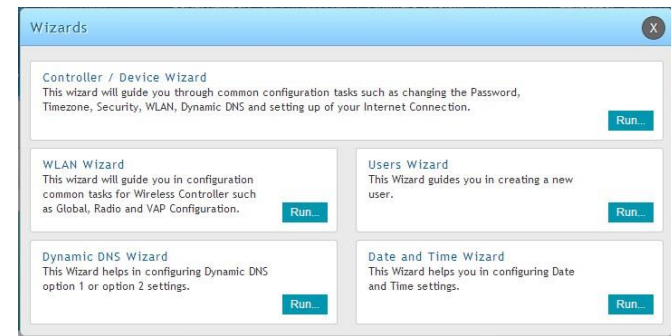
Login

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DWC-2000 User Interface



Step-by-step instruction guides users to setup the system in minutes.



Main menu bar makes it easy to navigate among configurations



The dashboard gives a quick glance on system, wireless and clients information

Traffic information is displayed neatly in a table.

DWC-2000 GUI Tips

DWC-2000 GUI Tips

Logged in as: admin (ADMIN) Logout

Serial Number: 0000000000001 | Firmware Version: 4.2.0.2_WW | Language: English [US]

Wizard System Search...

Status Wireless Network Security Maintenance

Wireless » Access Point » Discovered AP List

This page shows summary information about managed, failed, and rogue access points the controller has discovered or detected. We can Delete, Manage, Acknowledge and View details of all APs here.

Discovered AP List

Show 10 entries [Right click on record to get more options]

MAC Address	IP Address	Last Failure Type	Age	Radio	Channel
00:22:80:F0:CD:F4	N/A	Unknown	3h:49m:8s	802.11b/g	1
00:24:01:6B:AA:F1	N/A	Unknown	3h:55m:38s	802.11b/g	3
00:26:5A:45:22:58	N/A	Unknown	3h:49m:8s	802.11b/g	1
00:E0:61:47:50:78	N/A	Unknown	2h:38m:7s	802.11b/g	6
00:E0:61:47:50:7A	N/A	Rogue	3h:20m:44s	802.11b/g	6
04:11:F0:C9:CC:79	N/A	Unknown	2h:5m:0s	802.11b/g	5
06:18:E7:D6:D1:7F	N/A	Unknown	3h:35m:13s	802.11a	48
14:D6:4D:86:92:D4	N/A	Unknown	0h:7m:36s	802.11b/g	4
90:94:E4:95:79:C0	192.168.10.108	No Database Entry	0h:0m:20s	N/A	N/A
FC:75:16:77:0E:C0	192.168.10.65	Managed		802.11a/n,802.11b/g/n	149,1

Showing 11 to 20 of 20 entries

Manage View Details Delete All

First Previous 1 2 Next Last

System function key word search

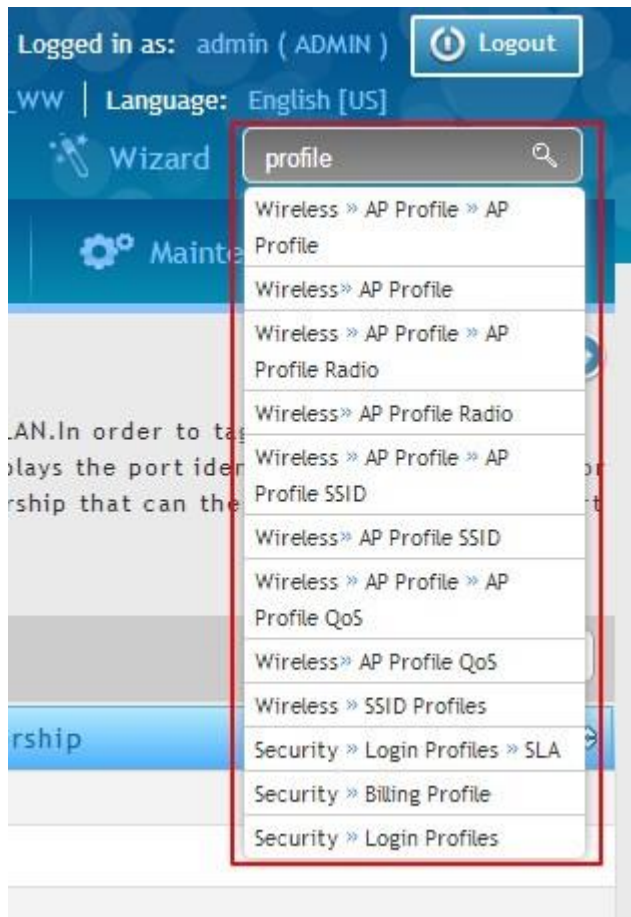
Table content key word search

Sorting info by category

Right-click on PC or long tap on touch panel on tablet to get a pop-out option list

Status is highlighted in color

- Always think of "search" and "right-click" when you get lost.



Discovered AP List

Show 10 entries [Right click row to see more options]

1

MAC Address	IP Address	Last Failure Type	Age	Radio	Channel
78:54:2E:32:41:C0	192.168.10.151	No Database Entry	0h:0m:23s	N/A	N/A

MAC Address	IP Address	Last Failure Type
78:54:2E:32:41:C0	192.168.10.151	No Database Entry

Showing 1 to 1 of 1 entries

- Select All
- Manage
- View Details
- Delete All

- Avoid jumping into configuration directly without a proper plan.
- Before starting configuration, make sure the following information is ready:
- IP plan

Getting Start

- VLAN plan
- Network topology
- Wireless features you would like to configure, including
- Country
- SSID
- Radio
- Wireless security
- ...more

Configure LAN Settings

Network » LAN » LAN Settings » IPv4 LAN Settings

IPv4 LAN Settings | IPv6 LAN Settings | IPv6 Address Pools | IPv6 Prefix Length | Router Advertisement | Advertisement Prefixes

The LAN Configuration page allows you to configure the LAN interface of the controller including the DHCP Server which runs on it and Changes here affect all devices connected to the controller's LAN switch and also wireless LAN clients. Note that a change to the LAN IP address will require all LAN hosts to be in the same subnet and use the new address to access this GUI.

LAN Settings

IP Address Setup

IP Address: 192.168.10.1

Subnet Mask: 255.255.255.0

DHCP Setup

DHCP Mode: DHCP Server ▼

Starting IP Address: 192.168.10.100

Ending IP Address: 192.168.10.254

Default Gateway: 192.168.10.1

Domain Name: DLink

Lease Time: 24 [Range: 1 - 262800] Hours

Configure DNS / WINS: ☐ ON ☒ OFF

Default Route

Enable Default Route: ☐ ON ☒ OFF

Discover Access Points(1/2)



Wireless » Access Point

This page shows summary information for the discovered access point. You can Manage, Acknowledge, or Delete the access point.

Discovered AP List

Show 10 entries [Right click row to see more options]

MAC Address	IP Address	Last Failure Type	Age	Radio	Channel
78:54:2E:32:41:C0	192.168.10.151	No Database Entry	0h:0m:8s	N/A	N/A

Showing 1 to 1 of 1 entries

First Previous 1 Next Last



Wireless » Access Point » Discover

This page shows summary information for the discovered access point. You can Manage, Acknowledge, and View details for the access point.

Discovered AP List

Show 10 entries [Right click row to see more options]

MAC Address	IP Address	Last Failure Type	Age	Radio	Channel
78:54:2E:32:41:C0	192.168.10.151	No Database Entry	0h:0m:2s	N/A	N/A

Showing 1 to 1 of 1 entries

First Previous 1 Next Last

Discover Access Points(2/2)

The screenshot shows a network management interface with a top navigation bar containing links for Status, Wireless, Network, Security, and Maintenance. The breadcrumb trail indicates the current location: Wireless » Access Point » AP Poll List » IP Discovery. Two tabs are visible: IP Discovery (active) and VLANs Discovery. A descriptive paragraph states that this page contains information about IP addresses for peer controllers and APs. Below this, the 'Pool List Discovery Setup' section has a toggle switch set to 'ON' and 'Save' and 'Cancel' buttons. The 'IP Discovered List' section features a table with columns for IP Address and Status, but it is currently empty, displaying 'No data available in table'. Navigation controls for the table include a 'Show 10 entries' dropdown, a search box, and pagination buttons (First, Previous, Next, Last). At the bottom, there is a button labeled 'Add New IP Addresses to Poll'.

Wireless » Access Point » AP Poll List » IP Discovery

IP Discovery | VLANs Discovery

This page contain all the information about IP Address which can be configured for peer controllers. The IP Discovery list can contain the IP addresses of peer controller and APs for the controller to discover and associate with as part of the WLAN.

IP Discovery

Pool List Discovery Setup
L3 / IP Discovery

ON

Save Cancel

IP Discovered List

Show 10 entries [Right click row to see more options]

IP Address	Status
No data available in table	

Showing 0 to 0 of 0 entries

First Previous Next Last

Add New IP Addresses to Poll

Manage Access Points(1/6)

Wireless » Access Point » Discovered AP List

This page shows summary information about managed, failed, and rogue access points the controller has discovered or detected. We Manage, Acknowledge and View details of all APs here.

Discovered AP List

Show 10 entries

[Right click row to see more options]

MAC Address	IP Address	Last Failure Type	Age	Radio	C
78:54:2E:32:41:C0	192.168.10.151	No Database Entry	0h:0m:8s	N/A	N/A

Showing 1 to 1 of 1 entries

☐ Select All Manage View Details Delete All

First

Previous

1

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Manage Access Points(2/6)

Manage AP

MAC address 78:54:2E:32:41:C0

AP Mode ☒ Managed ☐ Standalone ☐ Rogue

Location Optional

Authentication ☐ OFF

Profile 1-Default

Radio 1 - 802.11a/n

Channel Auto

Power Profile

Radio 2 - 802.11b/g/n

Channel

Power

Manage AP

MAC address 78:54:2E:32:41:C0

AP Mode ☒ Managed ☐ Standalone ☐ Rogue

Location Optional

Authentication ☐ OFF

Profile 1-Default
1-Default
2-8610Profile01

Radio 1 - 802.11a/n

Channel Auto

Power Profile

Radio 2 - 802.11b/g/n

Channel Auto

Power Profile

Save



Manage Access Points(3/6)

Manage Access Points(4/6)

Wireless » Access Point » Discovered AP List

The following AP MAC address was configured as a Valid AP by this Controller. The AP configured as managed, will be managed at the next discovery cycle:78:54:2E:32:41:C0

This page shows summary information about managed, failed, and rogue access points the controller has discovered or detected. We can Delete, Manage, Acknowledge and View details of all APs here.

Discovered AP List

Show 10 entries [Right click row to see more options]

MAC Address	IP Address	Last Failure Type	Age	Radio	Channel
78:54:2E:32:41:C0	192.168.10.151	No Database Entry	0h:0m:11s	N/A	N/A

Global StatusAll APsManagedPeer ManagedAuthen

Hardware Capability

The information on the Global page shows status and statistics about Controller periodically collects information from the APs it manages a

APs Global Status

Total APs	1
Managed APs	1
Standalone APs	0
Rogue APs	5
Discovered APs	0
Connection Failed APs	0

Global StatusAll APsManagedPeer ManagedAuthen

Hardware Capability

We can see all the details related to a managed AP here.We can perform

Managed APs List

Show 10 ▼ entries
[Right click row to see more options]

Model Name ↑	Firmware Version ⇅	MAC Address ⇅
bcm953012er	4.3.0.1_B013	78:54:2E:32:41:C0

Showing 1 to 1 of 1 entries

Manage Access Points(5/6)

Wireless » Access Point » Managed APs List » Valid APs

Valid APs Managed APs AP Provisioning

This page contains information about APs configured in the local database.

Valid APs List

Show 10 entries [Right click row to see more options]

MAC Address	Location	AP Mode	Profile
78:54:2E:32:41:C0		Managed	2-8610Profile01

Showing 1 to 1 of 1 entries

First Previous 1 Next

Wireless » Access Point » Managed APs List » Managed APs

Valid APs **Managed APs** AP Provisioning

AP managed by the Wireless Controller is listed by its MAC address and location. When the AP is in Managed mode, remote access to the AP is disabled. However, we can enable Telnet access by enabling the Debug feature. We can also manually change the RF channel and power for each radio on an AP.

Managed APs List

Show 10 entries [Right click row to see more options]

MAC Address	Radio	Channel	Power %	Location	Debug
78:54:2E:32:41:C0	1 - 802.11n/ac	153	10		Disable
78:54:2E:32:41:C0	2 - 802.11b/g/n	6	100		Disable

Showing 1 to 2 of 2 entries

First Previous 1 Next Last

Manage Access Points(6/6)

The power of search

Discovered AP List

Show entries [Right click row to see more options]

MAC Address	IP Address	Last Failure Type	Age	Radio	Channel
00:18:E7:F0:2D:2C	N/A	Unknown	0h:8m:24s	802.11b/g	8
00:18:11:74:4D:54	N/A	Unknown	0h:8m:24s	802.11b/g	8
00:1E:58:36:DB:91	N/A	Unknown	0h:8m:24s	802.11b/g	7
00:1F:33:8E:65:56	N/A	Unknown	0h:9m:24s	802.11b/g	6
00:21:91:50:8D:54	N/A	Unknown	0h:10m:24s	802.11b/g	6
00:24:01:68:6A:62	N/A	Unknown	0h:10m:24s	802.11b/g	6
00:26:5A:17:2E:7B	N/A	Unknown	0h:4m:30s	802.11b/g	9
00:E0:4C:81:96:C1	N/A	Unknown	0h:21m:45s	802.11a	153
02:D6:4D:4D:E1:14	N/A	Unknown	0h:10m:24s	802.11b/g	6
06:18:E7:D8:A2:F3	N/A	Unknown	0h:10m:24s	802.11b/g	6

Showing 1 to 10 of 56 entries

First Previous 1 2 3 4 5 Next Last

Add an AP Profile(1/5)

Wireless » Access Point » Discovered AP List

This page shows summary information about managed, failed, and rogue access points the controller has discovered or detected. We can Delete, Manage, Acknowledge and View details of all APs here.

Discovered AP List



Show 10 entries

[Right click row to see more options]

ma

MAC Address	IP Address	Last Failure Type	Age	Radio	Channel
78:54:2E:32:41:C0	192.168.10.151	Managed	0h:0m:0s	802.11n/ac,802.11b/g/n	153,6

Showing 1 to 1 of 1 entries (filtered from 56 total entries)

First Previous 1 Next Last

Add an AP Profile(2/5)

The screenshot displays the D-Link Unified Wireless Controller (UWC) interface. At the top, there is a navigation bar with tabs for Status, Wireless, Network, Security, and Maintenance. The 'Wireless' tab is active, and the breadcrumb trail shows 'Wireless >> Access Point >> AP Profile'. Below the breadcrumb, there are four sub-tabs: 'AP Profiles' (selected), 'AP Profile Radio', 'AP Profile SSID', and 'AP Profile QoS'. A text block states: 'From this page, we can create, copy and delete AP profiles. Up to 16 AP profiles can be created on the Unified Wireless Controller.' Below this is the 'Access Point Profile List' section. It includes a 'Show 10 entries' dropdown, a search bar, and a table of profiles. The table has four columns: 'AP Profile Name', 'Profile Status', 'Hardware Type', and 'Wired Network Discovery VLAN ID'. One profile is listed: '1-Default' with status 'Configured', hardware type 'Any', and VLAN ID '1'. At the bottom of the table, there is a red-bordered button labeled 'Add New AP Profile'.

Wireless >> Access Point >> AP Profile

AP Profiles | AP Profile Radio | AP Profile SSID | AP Profile QoS

From this page, we can create, copy and delete AP profiles. Up to 16 AP profiles can be created on the Unified Wireless Controller.

Access Point Profile List

Show 10 entries [Right click row to see more options]

AP Profile Name	Profile Status	Hardware Type	Wired Network Discovery VLAN ID
1-Default	Configured	Any	1

Showing 1 to 1 of 1 entries

First Previous 1 Next Last

Add New AP Profile

AP Profile Global Configuration



AP Profile Global Configuration

Profile Name

8610Profile01

Hardware Type

DWL-8610AP Dual Radio ▼

Wired Network Discovery

1

[Range: 1 - 4093]

VLAN ID

Configure AP Profile Radio1

Radio Mode 802.11a/n

OFF

Configure AP Profile Radio2

Radio Mode 802.11b/g/n

OFF

Configure AP Profile QoS Radio1

QoS Radio 802.11a/n

OFF

Configure AP Profile QoS Radio2

QoS Radio 802.11b/g/n

OFF

Save

Add an AP Profile(3/5)

AP Profile Global Configuration

AP Profile Global Configuration

Profile Name

Hardware Type

Wired Network Discovery [Range: 1 - 4093]

VLAN ID

Configure AP Profile Radio1

Radio Mode 802.11a/n

Radio1 Configuration

State

RTS Threshold [Range: 0 - 2347] Bytes

Load Balancing

Maximum Clients [Range: 0 - 200]

- Turn on 5GHz radio
- Select radio mode
- Turn on auto-channel and auto-power
- Remember to click “Save”

AP Profile Global Configuration

Radio1 Configuration

State

RTS Threshold [Range: 0 - 2347] Bytes

Load Balancing

Maximum Clients [Range: 0 - 200]

RF Scan Other Channels

RF Scan Sentry

Mode

DTIM Period [Range: 1 - 255] Beacons

Beacon Interval [Range: 20 - 200] M. Sec.

Automatic Channel

Automatic Power

* Please note that values need to be given to all blank field.

Add an AP Profile(5/5)

- The newly created profile shows up in the “AP Profiles” list.

Wireless » Access Point » AP Profile

Operation Succeeded

AP Profiles | AP Profile Radio | AP Profile SSID | AP Profile QoS

From this page, we can create, copy and delete AP profiles. Up to 16 AP profiles can be created on the Unified Wireless Controller.

Access Point Profile List

Show 10 entries [Right click row to see more options]

AP Profile Name	Profile Status	Hardware Type	Wired Network Discovery VLAN ID
1-Default	Configured	Any	1
2-8610Profile01	Configured	DWL-8610AP Dual Radio a/b/g/n/ac	1

Showing 1 to 2 of 2 entries

First Previous 1 Next Last

Add New AP Profile

- After the profile is created, it will show up in the profile list where it can be applied.

Valid APs Configuration

MAC address: 78:54:2E:32:41:C0

AP Mode: ☒ Managed ☐ Standalone ☐ Rogue

Location: Optional

Authentication: ☐ OFF

Profile: 2-8610Profile01

Radio 802.11a/n: 1-Default

Channel: 2-8610Profile01

Power: Auto

Radio 802.11b/g/n: Profile

Channel: Auto

Power: Profile

Save

LAB Objectives: at the end of the lab, you will be able to use DWC-2000 to manage access points by applying a customized profile.

Tasks:

- Configure the controller



AP Profile SSID Setting(1/7)

- Discover access points
- Manage access points
- Create an AP profile
- Create a SSID named DEU-0x, where x stands for the group number. Use WPA2-personal, passcode: *dlink123* as the security profile
- Apply the AP profile to the access point
- Associate to the SSID using your wireless clients
- Raise your hand and tell me to verify it.

DWC-2000 IP: 192.168.10.5/24

Wireless » Access Point » SSID Profile

This page shows all the wireless SSID cannot delete them. We can add and

SSID Profile List

Show 10 entries [Right]

SSID Id	Name	VLAN	Channel	Power	WIDS	WLAN Visualization	WLAN Visualization	Image
1	dlink1	1-Default	Disabled	None	None	Free		
2	dlink2	1-Default	Disabled	None	None	Free		
3	dlink3	1-Default	Disabled	None	None	Free		
4	dlink4	1-Default	Disabled	None	None	Free		
5	dlink5	1-Default	Disabled	None	None	Free		
6	dlink6	1-Default	Disabled	None	None	Free		
7	dlink7	1-Default	Disabled	None	None	Free		
8	dlink8	1-Default	Disabled	None	None	Free		
9	dlink9	1-Default	Disabled	None	None	Free		
10	dlink10	1-Default	Disabled	None	None	Free		

Showing 1 to 10 of 16 entries

First Pre

Add New SSID Profile

General

Access Point

Peer Group

General

Discovered AP List

Peer Configuration

Channel Algorithm

Managed APs List

Peer Status

Power Algorithm

AP Poll List

WIDS

AP Profile

Distributed Tunnels

SSID Profiles

WLAN Visualization

WDS Groups

WLAN Visualization

Image



- You can select option to add a new SSID profile or modify the default SSID from the SSID profile list.

AP Profile SSID Setting(2/7)

- Right click any of the 16 default SSIDs you would like to edit.

This page shows all the wireless SSID configured on the controller. The first 16 SSID's are created by default. You can modify the default SSID, but we cannot delete them. We can add and configure up to 16 additional SSID for a total of 32 wireless SSID.

SSID Profile List

Show 10 entries

[Right click row to see more options]



SSID Id	Name	VLAN	Hide SSID	Security	Redirect	Captive Portal	Authentication Server
1	dlink1	1-Default	Disabled	None	None	Free	None
2	dlink2	1-Default	Disabled	None	None	Free	None
3	dlink3	1-Default	Disabled	None	None	Free	None
4	dlink4	1-Default	Disabled	None	None	Free	None
5	dlink5	1-Default	Disabled	None	None	Free	None
6	dlink6	1-Default	Disabled	None	None	Free	None
7	dlink7	1-Default	Disabled	None	None	Free	None
8	dlink8	1-Default	Disabled	None	None	Free	None
9	dlink9	1-Default	Disabled	None	None	Free	None
10	dlink10	1-Default	Disabled	None	None	Free	None


Edit
Delete

Showing 1 to 10 of 16 entries

[First](#) [Previous](#) 1 2 [Next](#) [Last](#)[Add New SSID Profile](#)

AP Profile SSID Setting(3/7)

SSID Profile Configuration

SSID

GOA-01

Captive Portal Type

Free

Hide SSID

OFF

Ignore Broadcast

OFF

VLAN

1

[Range: 1 - 4095]

SSID Profile Configuration

Configuration

Security

☐ None

☐ WEP

☒ WPA/WPA2

☒ WPA Personal

☐ WPA Enterprise

WPA Versions

WPA

ON

WPA2

ON

WPA Ciphers

TKIP

ON

CCMP(AES)

ON

WPA Key Type

ASCII

WPA Key

.....

Bcast Key Refresh Rate

300

[Default: 300, Range: 0 - 86400] Seconds

Save

AP Profile SSID Setting(4/7)

SSID Profile List

Show 10 entries [Right click row to see more options]

SSID Id	Name	VLAN	Hide SSID	Security	Redirect	Captive Portal	Authentication Server
11	dlink11	1-Default	Disabled	None	None	Free	None
12	dlink12	1-Default	Disabled	None	None	Free	None
13	dlink13	1-Default	Disabled	None	None	Free	None
14	dlink14	1-Default	Disabled	None	None	Free	None
15	dlink15	1-Default	Disabled	None	None	Free	None
16	dlink16	1-Default	Disabled	None	None	Free	None
17	GOA-01	1-Default	Disabled	WPA PERSONAL	None	Free	None

Showing 11 to 17 of 17 entries

First Previous 1 2 Next Last

- Or you can experience the power of search again!

AP Profile SSID Setting(5/7)

SSID Profile List

Show entries [Right click row to see more options]



SSID Id	Name	VLAN	Hide SSID	Security	Redirect	Captive Portal	Authentic Server
17	GOA-01	1-Default	Disabled	WPA PERSONAL	None	Free	None

Showing 1 to 1 of 1 entries (filtered from 17 total entries)

[First](#) [Previous](#) [1](#) [Next](#) [Last](#)

This page displays the Virtual Access Point (VAP) settings associated with the selected AP profile. Each VAP is identified by its network number and name. You can configure and enable up to 16 VAPs per radio on each physical access point.

Access Point List

2-8810Profile01 ▼

☐ 802.11n/ac

☒ 802.11b/g/n

[Right click row to see more options]



	SSID Status	VLAN	Hide SSID	Security	Redirect	Captive Portal
1-dlink1	Enabled	1-Default	Disabled	None	None	Free
2-dlink2	Disabled	1-Default	Disabled	None	None	Free
3-dlink3	Disabled	1-Default	Disabled	None	None	Free
4-dlink4	Disabled	1-Default	Disabled	None	None	Free
5-dlink5	Disabled	1-Default	Disabled	None	None	Free
6-dlink6	Disabled	1-Default	Disabled	None	None	Free
7-dlink7	Disabled	1-Default	Disabled	None	None	Free
8-dlink8	Disabled	1-Default	Disabled	None	None	Free

AP Profile SSID Setting(6/7)

AP Profiles AP Profile Radio **AP Profile SSID** AP Profile QoS

This page displays the virtual access point(VAP) settings associated with the selected AP Profile. We can configure and enable up to 16 VAPs per radio on each AP.

Access Point Profiles SSID List

AP Profile 2-8610Profile01

Radio Mode ☒ 802.11n/ac ☐ 802.11b/g/n

Show 10 entries [Right click row to see more options]

SSID Name	SSID Status
17-GOA-01	Enabled
2-dlink2	Disabled

AP Profiles AP Profile Radio AP Profile SSID **AP Profile QoS**

From this page, we can create, copy and delete AP profiles. Up to 16 AP profiles can be created on the L

Access Point Profile List

Show 10 entries [Right click row to see more options]

AP Profile Name	Profile Status	Hardware Type	Wireless
1-Default	Configured	Any	1
2-8610Profile01	Associated Modified	DWL-8610AP Dual Radio a/b/g/n/ac	1

Showing 1 to 2 of 2 entries

Add New AP Profile



- Select All
- Edit
- Copy
- Apply**
- Delete

AP Profile SSID Setting(7/7)

AP Profiles AP Profile Radio AP Profile SSID AP Profile QoS

From this page, we can create, copy and delete AP profiles. Up to 16 AP profiles can be created.

Access Point Profile List

Show 10 entries [Right click row to see more options]

AP Profile Name	Profile Status	Hardware Type
1-Default	Configured	
2-8610Profile01	Apply Requested	

AP Profiles AP Profile Radio AP Profile SSID AP Profile QoS

From this page, we can create, copy and delete AP profiles. Up to 16 AP profiles can be created.

Access Point Profile List

Show 10 entries [Right click row to see more options]

AP Profile Name	Profile Status	Hardware Type
1-Default	Configured	Any
2-8610Profile01	Apply In Progress	DWL-8610AP Dual Radio a/b/g/n/ac

AP Profiles AP Profile Radio AP Profile SSID AP Profile QoS

From this page, we can create, copy and delete AP profiles. Up to 16 AP profiles can be created.

Access Point Profile List

Show 10 entries [Right click row to see more options]

AP Profile Name	Profile Status	Hardware Type
1-Default	Configured	Any
2-8610Profile01	Associated	DWL-8610AP Dual Radio a/b/g/n/ac

Associated Wireless Clients

- iPhone and the laptop wireless clients connect to GOA-1 SSID
- Right click client to view more information



Status » Wireless Information » Associated Clients » Associated Client

Global Status **Associated Client** Ad Hoc Clients Detected Clients

You can view a variety of information about the wireless clients that are associated with the APs the controller manages.

WLAN Associated Clients List

Show 10 entries [Right click row to see more options]

Client MAC Address	Client IP Address	SSID	BSSID	AP MAC Address
C8:D3:A3:AB:BC:1D	192.168.10.111	GOA-01	78:54:2E:32:41:C0	78:54:2E:32:41:C0
CC:08:E0:B1:F2:71	192.168.10.239	GOA-01	78:54:2E:32:41:C0	78:54:2E:32:41:C0

Showing 1 to 2 of 2 entries

First Previous 1 Next Last

Associated Wireless Clients Actions

Global Status Associated Client Ad Hoc Clients Detected Clients

You can view a variety of information about the wireless clients that are associated with the APs the controller manages.

WLAN Associated Clients List

Show 10 entries [Right click row to see more options]

Client MAC Address	Client IP Address	SSID	BSSID	AP MAC Address
CC:08:E0:B1:F2:71	100.100.10.200	GOA-01	78:54:2E:32:41:C0	78:54:2E:32:41:C0

Showing 1 to 1 of 1 entries

First Previous 1 Next Last

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- Disconnect
- Details
- Distributed Tunneling
- Neighbor AP Status
- Client Statistics
- Roam History Details
- Purge Roam History

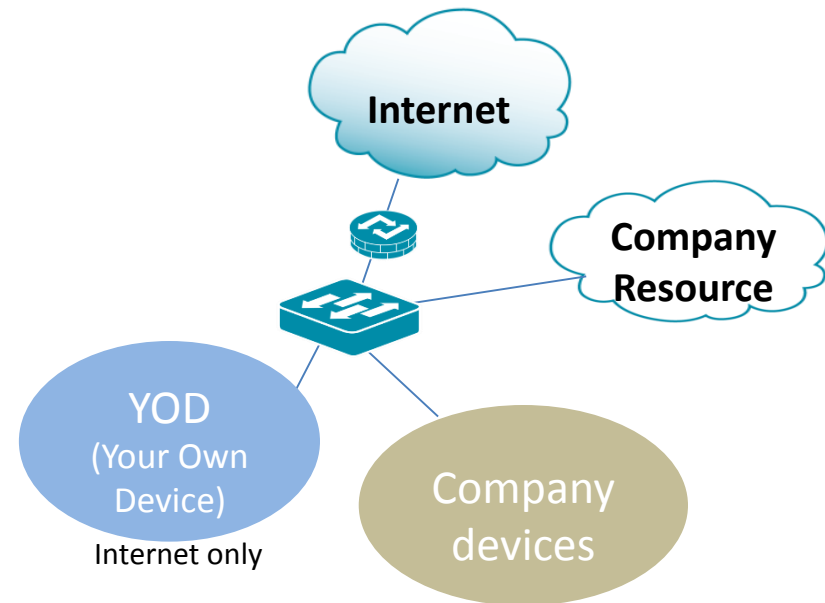
Scenario: separate and grant different privileges to company and personal devices

Description: Nowadays it's very common for people to have multiple wireless devices, which are carried by employees to their company. A common policy of company IT team: your own device

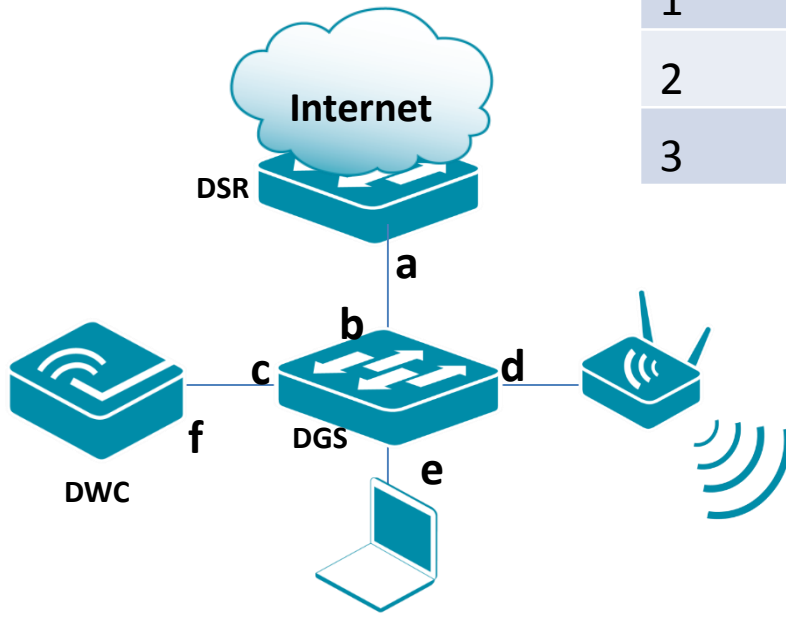
could only connect to the Internet whereas company devices could connect to both the Internet and the company resource.

Tasks:

- Configure network infrastructure
- Create company and BYOD VLANs
- Create AP profiles and SSIDs
- Configure captive portal for SSIDs
- Create company user accounts
- Add company device's MAC address
- Change AP's profile to BYOD profile
- Create and customize login profiles
- Create captive portal accounts
- Connect to both SSIDs Full
- Verify the result



VLAN	Name	IP (DSR)	IP (DWC-2000)
1		192.168.10.1	192.168.10.5
2	v2	192.168.2.1	192.168.2.5
3	v3	192.168.3.1	192.168.3.5



SSID1: **company0x**

SSID2: **byod0x**

x stands for the group number

- a. Port 1/trunk/ VLAN 1, 2, 3
- b. Port 1/Tagged, VLAN 2, 3 /untagged VLAN1
- c. Port 2/Tagged, VLAN 2, 3 /untagged VLAN1

Create VLANs on DWC(1/3)

- d. Port 3/Tagged, VLAN 2, 3 /untagged VLAN1
- e. Port 10/untagged/ VLAN 2
- f. Port 4/Trunk/ VLAN 1, 2, 3 * Disable DSR wireless if any
 - Add VLANs

Network » VLAN » VLAN Settings

The controller supports virtual network isolation on the LAN with the use of VLANs. LAN devices can be configured to communicate in a subnetwork defined by VLAN identifiers.

VLAN List

Show 10 entries [Right click row to see more options]

Name	VLAN ID	IP Address	Subnet Mask	Captive Portal	Authentication Server
Default	1	192.168.10.1	255.255.255.0	Free	None

Showing 1 to 1 of 1 entries

First Previous 1 Next Last

Add New VLAN

Create VLANs on DWC(2/3)

VLAN Configuration

VLAN ID: [Default: 1, Range: 2 - 4093]

Name:

Activate InterVLAN Routing: ☒ ON ☐ OFF

Captive Portal Type:

Multi VLAN Subnet

IP Address:

Subnet Mask:

DHCP

DHCP Mode: ☒ None ☐ DHCP Server

LAN Proxy

Enable DNS Proxy: ☐ ON ☒ OFF



- You are allowed to configure IP address during VLAN creation in new GUI.

- You are also allowed to configure DHCP on the same page in the new GUI.

VLAN Configuration

VLAN ID: [Default: 1, Range: 2 - 4093]

Name:

Activate InterVLAN Routing: ☒ ON ☐ OFF

Captive Portal Type:

Multi VLAN Subnet

IP Address:

Subnet Mask:

DHCP

DHCP Mode: ☒ None ☐ DHCP Server ☐ DHCP Relay

LAN Proxy

Enable DNS Proxy: ☐ ON ☒ OFF



Create VLANs on DWC(3/3)

- Verify your settings

Network » VLAN » VLAN Settings

The controller supports virtual network isolation on the LAN with the use of VLANs. LAN devices can be configured to be defined by VLAN identifiers.

VLAN List

Show entries [Right click row to see more options]

Name	VLAN ID	IP Address	Subnet Mask	Captive Portal	Authent
Default	1	192.168.10.1	255.255.255.0	Free	None
v2	2	192.168.2.5	255.255.255.0	Free	None
v3	3	192.168.3.5	255.255.255.0	Free	None

Showing 1 to 3 of 3 entries

First

Configure Port Property as Trunk

Network » VLAN » Port VLAN

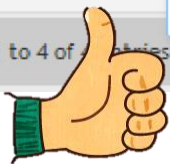
This page allows user to configure the port VLANs. A user can choose ports and can add them into a VLAN. In or specific LAN port with a VLAN ID, you can associate a VLAN to a physical port. The VLAN Port table displays th that port and VLAN membership information. Go to the Available VLAN page to configure a VLAN membership th

Port VLANs List

[Right click row to see more options]

Port Name	Mode	PVID	VLAN Membership
port1	Access	1	1
port2	Access	1	1
port3	Access	1	1
port4	Access	1	1

Showing 1 to 4 of 4 entries



Edit

Port Name

Mode

Port4

Trunk

VLAN Membership Configuration

VLAN Membership

1
2
3

Port VLANs List

[Right click row to see more options]

Port Name	Mode	PVID	VLAN Membership
port1	Access	1	1
port2	Access	1	1
port3	Access	1	1
port4	Trunk	1	1,2,3

Showing 1 to 4 of 4 entries

Save

Create SSIDs(1/2)

- Create 2 SSIDs: company0x and byod01 where x stands for group number.
- MAC authentication is required for company0x SSID

SSID Profile Configuration

SSID: company01

Captive Portal Type: Permanent User

Captive Portal Authentication Configuration

Authentication Server: Local User Database

Login Profile Name: default [Create a Profile](#)

Hide SSID: OFF

Ignore Broadcast: OFF

VLAN: 2

MAC Authentication: Local

Redirect: None

Wireless ARP Suppression: OFF

SSID Profile Configuration

SSID: byod01

Captive Portal Type: Permanent User

Captive Portal Authentication Configuration

Authentication Server: Local User Database

Login Profile Name: default [Create a Profile](#)

Hide SSID: OFF

Ignore Broadcast: OFF

VLAN: 3 [Range: 1 - 4093]

MAC Authentication: Disable

Redirect: None

Wireless ARP Suppression: OFF



SSID	company 0x	byod0x
VLAN	2	3
MAC Auth	Local	Default

Create SSIDs(2/2)

- Verify your settings

SSID Profile List

Show 10 entries [Right click row to see more options]

SSID Id	Name	VLAN	Hide SSID	Security	Redirect	Captive Portal	Authentication Server
11	dlink11	1-Default	Disabled	None	None	Free	None
12	dlink12	1-Default	Disabled	None	None	Free	None
13	dlink13	1-Default	Disabled	None	None	Free	None
14	dlink14	1-Default	Disabled	None	None	Free	None
15	dlink15	1-Default	Disabled	None	None	Free	None
16	dlink16	1-Default	Disabled	None	None	Free	None
17	6600_radiu...	1-Default	Disabled	None	None	Permanent	radius
18	8610_sla	1-Default	Disabled	None	HTTP	SLA	None
19	company01	2-v2	Disabled	None	None	Permanent	local
20	byod01	3-v3	Disabled	None	None	Permanent	local

Showing 11 to 20 of 20 entries

First 1 2 Next Last

Create an AP Profile(1/2)

AP Profile Global Configuration

AP Profile Global Configuration

Profile Name

Hardware Type

Wired Network Discovery [Range: 1 - 4093]

VLAN ID

Configure AP Profile Radio1
Radio Mode 802.11a/n ☐ OFF

Configure AP Profile Radio2
Radio Mode 802.11b/g/n ☐ OFF

Configure AP Profile QoS Radio1
QoS Radio 802.11a/n

- Create an AP profile named BYOD, accepting any AP hardware type.

AP Profiles | AP Profile Radio | AP Profile SSID | AP Profile QoS

From this page, we can create, copy and delete AP profiles. Up to 16 AP profiles can be created on t

Access Point Profile List

Show entries [Right click row to see more options]

AP Profile Name	Profile Status	Hardware Type	Wi
1-Default	Configured	Any	1
2-8610Profile01	Associated	DWL-8610AP Dual Radio a/b/g/n/ac	1
3-BYOD	Configured	Any	1

Create an AP Profile(2/2)

- Change profile SSID setting for both radios.
- Remember to enable the 2nd SSID.

AP Profiles

AP Profile Radio

AP Profile SSID

AP Profile QoS

This page displays the virtual access point(VAP) settings associated with the selected AP profile. Each VAP is identified by its network number and Service Set Identifier(SSID). We can configure and enable up to 16 VAPs per radio on each physical access point.

Access Point Profiles SSID List

AP Profile

3-BYOD

Radio Mode

☒ 802.11a/n/ac

☐ 802.11b/g/n

Show 10 entries

[Right click row to see more options]

SSID Name	SSID Status	VLAN	Hide SSID	Security	Redirect	Captive Portal
18-company01	Enabled	2-company01	Disabled	None	None	Permanent
19-byod01	Disabled	3-byod01	Disabled	None	None	Permanent

Apply AP Profile to the AP

Valid APs Configuration

MAC address: 78:54:2E:32:41:C0

AP Mode: ☒ Managed ☐ Standalone ☐ Rogue

Location: Optional

Authentication: ☐ ON ☒ OFF

Profile:

2-8610Profile01
1-Default
2-8610Profile01
3-BYOD

Radio 802.11a/n
Channel:

Power: Profile

Radio 802.11b/g/n
Channel: Auto

P **Valid APs** Managed APs AP Provisioning

- Apply the profile to the selected AP in Valid AP list if the access point is managed.
- If access points are not managed, discover and manage them. You can assign the AP profile during AP management process.

This page contains information about APs configured in the local database.

Valid APs List

Show 10 entries

[Right click row to see more options]

MAC Address	Location	AP Mode	Profile
78:54:2E:32:41:C0		Managed	3-BYOD

Showing 1 to 1 of 1 entries

First Previous 1 Next Last

Create CP User Account(1/2)

Group Configuration

Group Name

Description

User Type

User Type ☐ Admin ☒ Network ☐ Front Desk ☐ Guest

Captive Portal User ☒ ON ☐ OFF

Idle Timeout [Default: 10, Range: 1 - 999] Minutes



[Get User DB](#)[Groups](#)[Users](#)[MAC Authentication](#)[Password Rules](#)

This page shows the list of added groups to the controller. The user can add, delete and edit the gr

Groups List

Show entries [\[Right click row to see more options\]](#)

Group Name	Description
ADMIN	Admin Group
employee	D-Link emplo...
GUEST	Guest Group

Create CP User Account(2/2)

User Configuration

User Name	user01
First Name	Issac
Last Name	Newton
Select Group	employee
Enable Password Change	☐ OFF
MultiLogin	☒ ON
Password	
Confirm Password	

- Create a user name "user01" with a password "user01"

Get User DB	Groups	Users	MAC Authentication	Password Rules
This page shows a list of available users in the system. A user can add, delete and edit the users also. This page is for users.				
Users List				
Show 10 entries [Right click row to see more options]				
User Name	Group Name	Login Status		
admin	ADMIN	Enabled (LAN) Enabled (OPTION)		
guest	GUEST	Disabled (LAN) Disabled (OPTION)		
user01	employee	Enabled (LAN) Enabled (OPTION)		

Add Company Device MAC

Security » Authentication » User Database » MAC Authentication

Get User DB Groups Users **MAC Authentication** Password Rules

The Known Client Summary shows the wireless clients currently in the Known Client Database and allows you to add clients to the database.

MAC Authentication

List Type White-List

MAC Authentication List

Show 10 entries [Right click row to see more options]

MAC Address	Name	Authentication Action
-------------	------	-----------------------

Showing 0 to 0 of 0 entries

Add New MAC Authentication

MAC Authentication Configuration

MAC Address

C8:D3:A3:AB:BC:1D

Name

company laptop

Authentication Action

Global

The Known Client Summary shows the wireless clients currently in the Known Client Database.

MAC Authentication

List Type White-List

MAC Authentication List

Show 10 entries [Right click row to see more options]

MAC Address	Name	Authentication Action
c8:d3:a3:ab:bc:1d	company laptop	Global

Showing 1 to 1 of 1 entries

Add New MAC Authentication

Connect Devices(1/3)

- Connect company-owned devices to the company01.
- Typing any valid IP, you will be redirected to company device portal.
- Your own device could not connect to this SSID.

Connect Devices(2/3)



Company Device. Please Login!

Company Device Portal Login

Username

Password

Login

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Successfully logged in

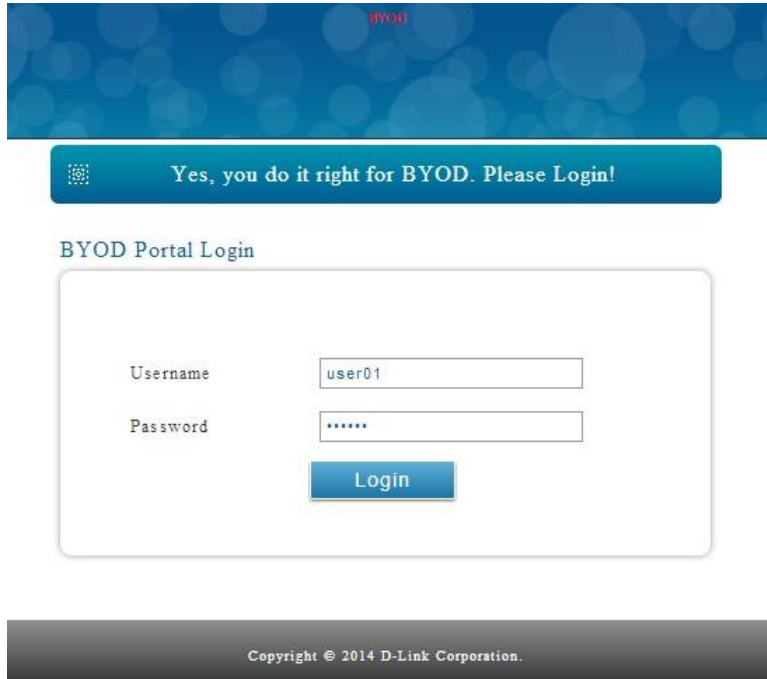
Company Device Portal Login

Logout

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- Your own device could only connect to byod01 SSID.
- It is only allowed to connect to the Internet

Connect Devices(3/3)



BYOD

Yes, you do it right for BYOD. Please Login!

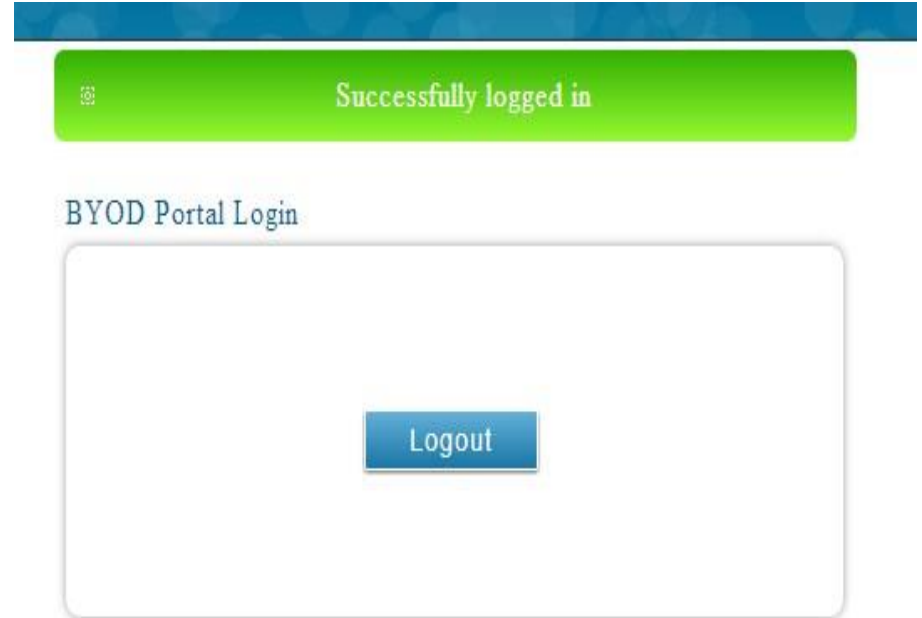
BYOD Portal Login

Username

Password

Login

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Successfully logged in

BYOD Portal Login

Logout

- You can verify the captive portal session from the “Captive Portal Session List” under Status → Network Information

Use this page to monitor the runtime authentication sessions that are active on your controller

Captive Portal Sessions List

Show 10 entries

[Right click row to see more options]

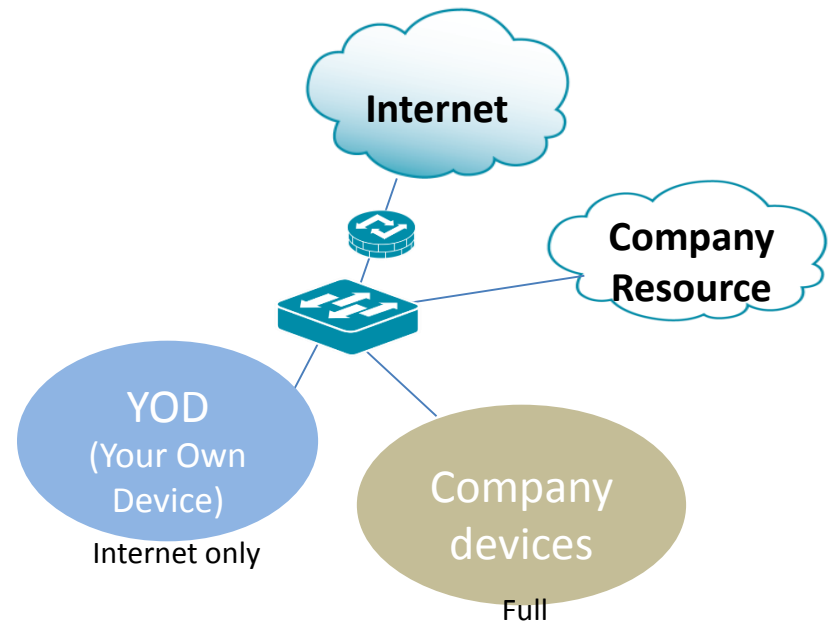
User Name	IP Address
user01	192.168.10.102

Showing 1 to 1 of 1 entries

LAB: separate and grant different privileges to company and personal devices

- LAB time: 40 minutes
- You need to finish all the tasks in order to separate company and personal devices

and grant different privileges to those devices

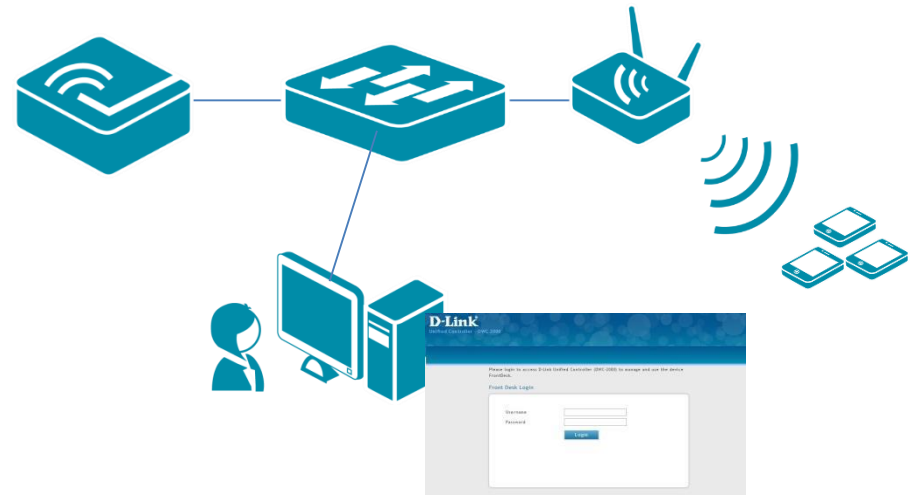


Guest Management

Description: Nowadays it's very common for company receptionists, hotspot managers, hotel front desk staff...etc. to manage visitors' network access. This requirement can be carried out through DWC-2000 guest management function.

Tasks:

- Create guest SSIDs
- Create a front desk user
- Create billing profile(s)
- Login as a front desk and generate guest accounts
- Test generated accounts
- Create a SSID for hotel guests



SSID Profile Configuration

SSID

Captive Portal Type

Captive Portal Authentication Configuration

Login Profile Name

[Create a Profile](#)

Hide SSID ☐ OFF

Ignore Broadcast ☐ OFF

VLAN [Range: 1 - 4093]

MAC Authentication ☐ Local ☐ Radius ☒ Disable

Redirect ☒ None ☐ HTTP

Wireless Mode SSID Profile List

Show entries [Right click row to see more options]

SSID Id	Name	VLAN	Hide SSID	Security	Redirect	Captive Portal	Authentication Server
21	hotel01	1-Default	Disabled	None	None	Temporary	None

Showing 21 to 21 of 21 entries

First Previous 1 2 3 Next

Guest Management

- Apply the SSID to both of the radios to the existing AP profile

AP Profiles

AP Profile Radio

AP Profile SSID

AP Profile QoS

This page displays the virtual access point(VAP) settings associated with the selected AP profile. Each VAP is identified by its network number and Service Set Identifier(SSID). We can configure and enable up to 16 VAPs per radio on each physical access point.

Access Point Profiles SSID List

AP Profile

4-BYOD

Radio Mode

☒ 802.11a/n

☐ 802.11b/g/n

Show 10 entries

[Right click row to see more options]

SSID Name	SSID Status	VLAN	Hide SSID	Security	Redirect	Captive Portal
19-company01	Enabled	2-v2	Disabled	None	None	Permanent
20-byod01	Enabled	3-v3	Disabled	None	None	Permanent
21-hotel01	Disabled	1-Default	Disabled	None	None	Temporary
4-dlink4	Disabled	1-Default	Disabled	None	None	Free
5-dlink5	Disabled	1-Default	Disabled	None	None	Free

Guest Management

Access Point Profiles SSID List

AP Profile: 4-BYOD

Radio Mode: ☒ 802.11a/n ☐ 802.11b/g/n

Show 10 entries [Right click row to see more options]

SSID Name	SSID Status	VLAN	Hide SSID
19-company01	Enabled	2-v2	Disabled
20-byod01	Enabled	3-v3	Disabled
21-hotel01	Disabled		Disabled
4-dlink4	Disabled		Disabled
5-dlink5	Disabled		Disabled
6-dlink6	Disabled		Disabled

Context menu for row 21-hotel01:

- Edit
- Enable

- Enable the SSID
- Reapply the AP profile to access points

AP Profiles | AP Profile Radio | AP Profile SSID | AP Profile QoS

From this page, we can create, copy and delete AP profiles. Up to 16 AP profiles can be created

Access Point Profile List

Show 10 entries [Right click row to see more options]

AP Profile Name	Profile Status	Hardware Type
1-Default	Configured	Any
2-6600	Configured	Any
3-8610	Configured	DWL-8610AP Dual Radio a/b/g/n/ac
4-BYOD	Associated - Modified	Any

Showing 1 to 4 of 4 entries

Add New AP Profile

Context menu for row 4-BYOD:

- Select All
- Edit
- Copy
- Apply
- Delete



Guest Management

- Create front desk accounts
- Create a group for the front desk account in the first place.

- Select “Front Desk” as the user type

Group Configuration

Group Name:

Description:

User Type

User Type: ☐ Admin ☐ Network ☒ Front Desk ☐ Guest

Idle Timeout: [Default: 10, Range: 1 - 999] Minutes

Save

Get User DB Groups Users MAC Authentication Password Rules

This page shows the list of added groups to the controller. The user can add, delete and edit

Groups List

Show 10 entries [Right click row to see more options]

Group Name	Description
ADMIN	Admin Group
employee	internal
GUEST	Guest Group
GuestMgt	Guest manage...

Showing 1 to 4 of 4 entries

Guest Management

User Configuration

User Name	frontdesk01
First Name	Jimmy
Last Name	Carter
Select Group	GuestMgt
Password	
Confirm Password	

- Create accounts for the guest management group.

Get User DB	Groups	Users	MAC Authentication	Password Rules
This page shows a list of available users in the system. A user can add, delete and edit the users.				
Users List				
Show 10 entries [Right click row to see more options]				
User Name	Group Name	Login Status		
admin	ADMIN	Enabled (LAN)		
frontdesk01	GuestMgt	Enabled (LAN)		
guest	GUEST	Disabled (LAN)		
moo	ADMIN	Enabled (LAN)		
user01	employee	Enabled (LAN)		

Guest Management

- Create a billing profile for passcode generation.

The screenshot displays the D-Link Guest Management web interface. The top navigation bar includes tabs for Status, Wireless, Network, Security, and Maintenance. The Security tab is active, and a dropdown menu is open, showing options like Authentication, User Database, External Auth Server, Login Profiles, and Billing Profile (which is highlighted). The main content area shows the 'Billing Profile' configuration page. It includes a breadcrumb trail: Security » Authentication » Billing Profile. Below this, there are two tabs: 'Billing Profile' (active) and 'Payment Gateway'. A message states: 'This page shows a list of available billing profiles for temporary CaptivePortal Users. We can add, delete and edit the profiles.' Below this is a 'Billing Profile List' section with a search bar and a table. The table has columns for Profile Name, Billing Status, and Description. A message 'No data available in table' is displayed. At the bottom, there is a button labeled 'Add New Billing Profile' which is highlighted with a red rectangle.

- The usage scenario: One of our hotel customer would like to have their front desk staff to generate temporary Internet access accounts for their hotel guests.

Guest Management Hotel Scenario(2/9)

Ca ← → ↻ 192.168.10.5/frontdesk

Profile Details

Profile Name	hotel
Profile Description	hotel scenario
Allow Multiple Login	☒ ON ☐ OFF
Allow Customized account on Front Desk	☐ ON ☒ OFF
Allow batch generation on Front Desk	☐ ON ☒ OFF
Session Idle Timeout	10 [Default: 10, Range: 1 - 60] Minutes
Show alert message on login page while rest of usage time/traffic under	1 Hour

- Sign in as a front desk to manage guest pass

- The front desk staff is able to generate 10 codes at once.
- The hotel gives their guests 24 hours complimentary wireless access for 2 devices after their first login. codes

Captive Portal Billing Profile Configuration

time/traffic under

Basic Limit by Duration

Valid with Begin and End time	☒ ON ☐ OFF
Valid Begin	Start while account login
Start while account login	1 Days
Allow Front Desk to Modify Duration	☐ ON ☒ OFF

Basic limit by usage

Maximum Usage Time	☐ ON ☒ OFF
Maximum Usage Traffic	☐ ON ☒ OFF

Guest Management Hotel Scenario(3/9)



The image shows the login interface of a D-Link Unified Controller (DWC-2000). The header features the D-Link logo and the text 'Unified Controller - DWC 2000'. Below the header, a message states: 'Please login to access D-Link Unified Controller (DWC-2000) to manage and use the device FrontDesk.' A red rectangular box highlights the 'Front Desk Login' link. Below this link is a white login form with two input fields: 'Username' and 'Password'. A blue 'Login' button is positioned at the bottom of the form.

D-Link[®]
Unified Controller - DWC 2000

Please login to access D-Link Unified Controller (DWC-2000) to manage and use the device FrontDesk.

Front Desk Login

Username

Password

Login

- From here, the front desk staff could generate codes and view

Guest Management Hotel Scenario(4/9)

codes information.

Billing - BillingDesk

Select Billing Profile

Billing Form View Accounts

hotel - hotel scenario

Start While Account Login

Expiration Date and Time (Set time from below)

MM	DD	YYYY	HH	MM	AM/PM
04	18	2013	12	44	AM
05	19	2014	12	45	PM
06	20	2015	01	46	

Generate

- One code is generate; the front desk staff could print it.

Guest Management Hotel Scenario(5/9)

Billing Profiles Configuration

hotel's User Accounts

Username	HS_32701
Password	8iG6Q58
Expiration Date/Time	05/31/2014 12:00 AM

Print

Total: 1 sheet of paper

Print Cancel

Destination  Microsoft XPS Docu...

Change...

Pages ☒ All

☐ e.g. 1-5, 8, 11-13

4/19/2014 MyTitle

hotel's User Accounts

Username	HS_88L13
Password	kW5bv9dO
Expiration Date/Time	05/19/2014 12:45 PM

Print

- The front desk can extend the time and view code details.

Billing Users

Select Billing Profile

hotel ▼

Billing Form

View Accounts

Show 10 ▼ entries

[Right click row to see more options]



User Name	Expiration Date	Usage Time Left(in Seconds)	Bandwidth Usage Left(in MB)
HS_32701	05/31/2014 00:00	NA	NA

Showing 1 to 1 of 1 entries

- Extend Session
- View Details



First Previous 1 Next Last

Extend Session Configuration

User Name

HS_1NF5y

Expiration Date/Time

05/19/2014 02:47

(Set time from below)

MM	DD	YYYY	HH	MM	AM/PM
04 05 06	18 19 20	2013 2014 2015	01 02 03	46 47 48	AM PM

Guest Management Hotel Scenario(6/9)

- However, our customer would like its staff to generate multiple accounts at once. How could that be achieved?

Guest Management Hotel Scenario(7/9)

Captive Portal Billing Profile Configuration

Profile Details

Profile Name	hotel
Profile Description	hotel scenario
Allow Multiple Login	☒ ON
Allow Customized account on Front Desk	☐ OFF
Allow batch generation on Front Desk	☒ ON
Session Idle Timeout	10
Show alert message on login page while rest of usage time/traffic under	1

Billing - BillingDesk

Select Billing Profile	hotel																								
<input checked="" type="button" value="Billing Form"/> View Accounts																									
<i>hotel - hotel scenario</i>																									
Batch Generation	10																								
Start While Account Login	2 Hours																								
Expiration Date and Time 04/19/2014 02:48 AM																									
<table><tr><td>MM</td><td>DD</td><td>YYYY</td><td>HH</td><td>MM</td><td>AM/PM</td></tr><tr><td>03</td><td>18</td><td>2013</td><td>01</td><td>47</td><td>AM</td></tr><tr><td>04</td><td>19</td><td>2014</td><td>02</td><td>48</td><td>AM</td></tr><tr><td>05</td><td>20</td><td>2015</td><td>03</td><td>49</td><td>PM</td></tr></table>		MM	DD	YYYY	HH	MM	AM/PM	03	18	2013	01	47	AM	04	19	2014	02	48	AM	05	20	2015	03	49	PM
MM	DD	YYYY	HH	MM	AM/PM																				
03	18	2013	01	47	AM																				
04	19	2014	02	48	AM																				
05	20	2015	03	49	PM																				
Generate																									

Billing Users

Select Billing Profile

hotel ▼

Billing Form

View Accounts

Show 10 ▼ entries

[Right click row to see more options]

User Name	Expiration Date	Usage Time Left(in Seconds)	Bandwidth Usage L
HS_1NF5y	05/19/2014 02:47	NA	NA
HS_32701	05/31/2014 00:00	NA	NA
HS_37x24	05/19/2014 02:47	NA	NA
HS_39H7C	05/19/2014 02:47	NA	NA
HS_6ssql	05/19/2014 02:47	NA	NA
HS_7yG7j	05/19/2014 02:47	NA	NA
HS_8ohab	05/19/2014 02:47	NA	NA
HS_908Xg	05/19/2014 02:47	NA	NA
HS_OfN81	05/19/2014 02:47	NA	NA
HS_Q3D95	05/19/2014 02:47	NA	NA

Showing 1 to 10 of 11 entries

First

Previous

Guest Management Hotel Scenario(9/9)

- Use one of the codes to sig in the portal

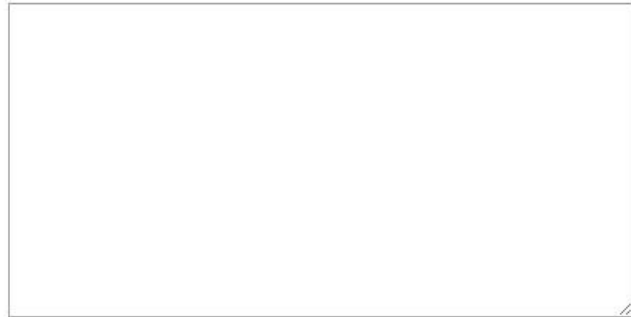


A screenshot of a web portal login page. At the top, a blue banner contains the text 'Welcome to D-Hotel Please Login!' next to a QR code icon. Below the banner, the title 'D-Hotel Portal Login' is displayed. The main content area contains two input fields: 'Username' with the value 'HS_32701' and 'Password' with masked characters '.....'. Below these fields is a blue 'Login' button.

- After successful signing in, you are bring to the following message boxes.

Guest Management

D-Hotel Portal Login

A large, empty rectangular box intended for a user to enter their login credentials.

☒ I Accept to Terms & Service

Accept

- Usage scenario: coffee shop
- Requirement:
- Shop clerks could generate and manage their guest Internet access codes.



Successfully logged in

D-Hotel Portal Login

Expiration Date

05/31/2014 00:00

Logout

- Policy: the code could be only used by one device and is valid for 2 hour. The shop clerk could extend the time per request.
- Usage scenario: hotspot or business lobby
- Requirement:

- Receptionists could generate and manage their guest Internet access codes and usage
 - Policy: two types of codes will be issued:
 - 3-hour code
 - 100 MB code
- Users could consume time and traffic volume from multiple devices at the same time

Guest Management

Coffee Shop Scenario(1/2)

Captive Portal Billing Profile Configuration

Profile Details

Profile Name

Profile Description

Allow Multiple Login ☐ OFF

Allow Customized account on Front Desk ☐ OFF

Allow batch generation on Front Desk ☐ ON

Session Idle Timeout [Default: 10, Range: 1-30]

Show alert message on login page while rest of usage time/traffic under

Captive Portal Billing Profile Configuration

time/traffic under

Basic Limit by Duration

Valid with Begin and End time ☐ ON

Valid Begin

Start while account login

Allow Front Desk to Modify Duration ☐ ON

Billing Profile | Payment Gateway

This page shows a list of available billing profiles for temporary CaptivePortal Users. We can add, delete and edit the profiles.

Billing Profile List

Show entries [Right click row to see more options]

Profile Name	Billing Status	Description
CoffeeShop	Begin/End Duration	coffee shop scenario
hotel	Begin/End Duration	hotel scenario

Showing 1 to 2 of 2 entries

[First](#) [Previous](#) [1](#) [Next](#) [Last](#)

Guest Management

Coffee Shop Scenario(2/2)

Billing - BillingDesk

Select Billing Profile CoffeeShop ▼

Billing Form View Accounts

CoffeeShop - coffee shop scenario

Batch Generation 1 ▼

Start While Account Login 2 Hours ▼ Expiration Date and Time

MM DD YYYY HH MM

03 18 2013 12 45
04 19 2014 01 46
05 20 2015 02 47

Generate

Billing Profiles Configuration

CoffeeShop's User Accounts

Username	HS_3Rm6D
Password	32mq3y1B
Expiration Date/Time	05/19/2014 1:46 PM

CoffeeShop's User Accounts

Username	HS_r7y1V
Password	46540925
Expiration Date/Time	05/19/2014 1:46 PM

CoffeeShop's User Accounts

Username	HS_9OVEJ
Password	t5ZLO5bz

Guest Management Hotspot Scenario(1/9)

Captive Portal Billing Profile Configuration

Profile Details

Profile Name	hotspot-time	
Profile Description	time-based code for hotspot	
Allow Multiple Login	☒ ON ☐ OFF	
Allow Customized account on Front Desk	☐ ON ☒ OFF	
Allow batch generation on Front Desk	☒ ON ☐ OFF	
Session Idle Timeout	10	[Default: 10, Range: 1 - 60] Minutes
Show alert message on login page while rest of usage time/traffic under	1	Hour ▼

Basic Limit by Duration

Valid with Begin and End time ☐ ON ☒ OFF

Basic limit by usage

Maximum Usage Time ☒ ON ☐ OFF ▼

Maximum Usage Traffic ☐ ON ☒ OFF

Allow Front Desk to Modify Usage ☒ ON ☐ OFF

- Usage by time

Guest Management Hotspot Scenario(2/9)

Captive Portal Billing Profile Configuration

Profile Details

Profile Name:

Profile Description:

Allow Multiple Login: ☒ ON ☐ OFF

Allow Customized account on Front Desk: ☐ ON ☒ OFF

Allow batch generation on Front Desk: ☒ ON ☐ OFF

Session Idle Timeout: [Default: 10, Range: 1 - 60] Minutes

Show alert message on login page while rest of usage time/traffic under: ▼

Basic Limit by Duration

Valid with Begin and End time: ☐ ON ☒ OFF

Basic limit by usage

Maximum Usage Time: ☐ ON ☒ OFF

Maximum Usage Traffic: ☒ ON ☐ OFF ▼

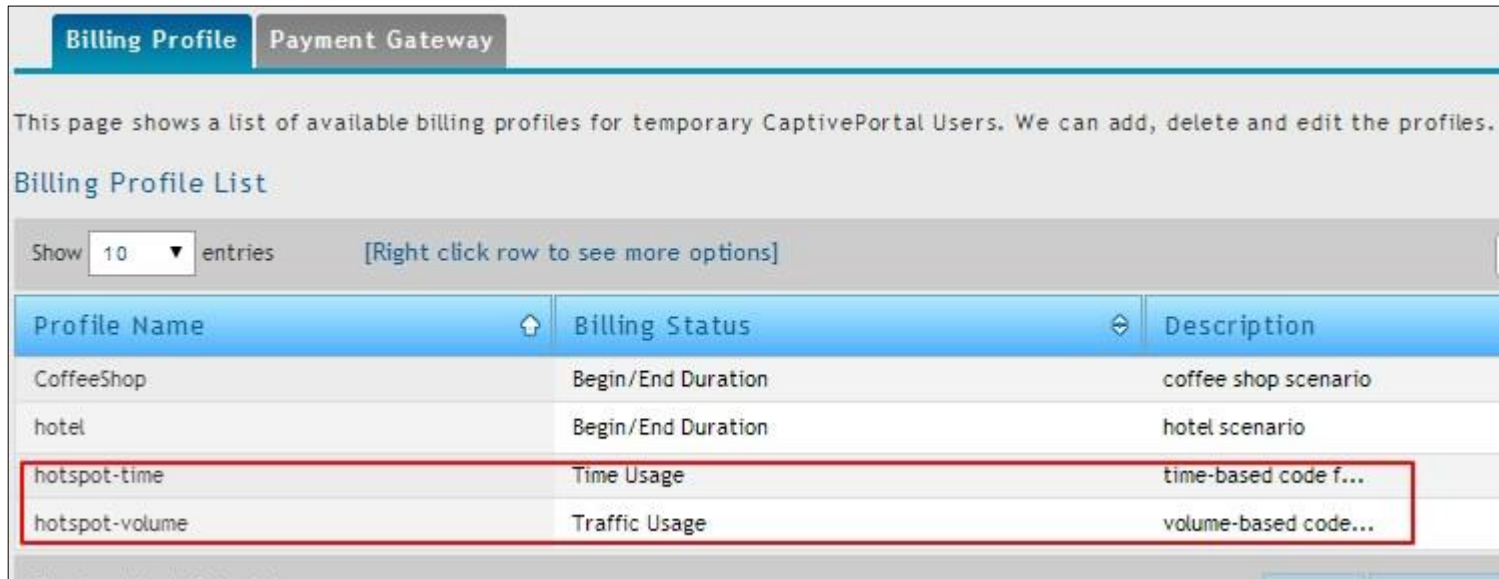
Allow Front Desk to Modify Usage: ☒ ON ☐ OFF

Unit Price

- Usage by traffic volume

Guest Management Hotspot Scenario(4/9)

- Verify the billing profiles you created



The screenshot shows a web interface for managing billing profiles. At the top, there are two tabs: "Billing Profile" (selected) and "Payment Gateway". Below the tabs, a message states: "This page shows a list of available billing profiles for temporary CaptivePortal Users. We can add, delete and edit the profiles." The main section is titled "Billing Profile List". It includes a "Show 10 entries" dropdown and a link "[Right click row to see more options]". A table lists the profiles:

Profile Name	Billing Status	Description
CoffeeShop	Begin/End Duration	coffee shop scenario
hotel	Begin/End Duration	hotel scenario
hotspot-time	Time Usage	time-based code f...
hotspot-volume	Traffic Usage	volume-based code...

The last two rows of the table are highlighted with a red border.

- Generate time-based codes.

Guest Management Hotspot Scenario(5/9)

ng - BillingDesk

Select Billing Profile

Billing Form View Accounts

hotspot-time - time-based code for hotspot

Batch Generation

Maximum Usage Time

Generate

Billing Profiles Configuration	
<i>hotspot-time's User Accounts</i>	
Username	H5_4q4t1
Password	s5wN476j
Maximum Usage Time	3 Hours
<i>hotspot-time's User Accounts</i>	
Username	H5_621L9
Password	i624918w
Maximum Usage Time	3 Hours
<i>hotspot-time's User Accounts</i>	
Username	H5_7653e
Password	00eif0d

Guest Management Hotspot Scenario(6/9)

Billing Users

Select Billing Profile hotspot-time ▼

Billing Form **View Accounts**

Show 10 ▼ entries [Right click row to see more options]

User Name	Expiration Date	Usage Time Left(in Seconds)
HS_060v4	NA	10800
HS_0b4CT	NA	10800
HS_19s69	NA	10800
HS_1D3WM	NA	10800
HS_1x88Z	NA	10800
HS_240U1	NA	10800
HS_270ns	NA	10800
HS_282i5	NA	10800
HS_2J64h	NA	10800
HS_2l761	NA	10800

Showing 1 to 10 of 50 entries

- Generate volume-based codes.

Guest Management Hotspot Scenario(7/9)

ng - BillingDesk

Select Billing Profile hotspot-volume ▼

Billing Form View Accounts

hotspot-volume - volume-based code for hotspot

Batch Generation 10 ▼

Maximum Usage Traffic 100 MB ▼

Generate

Billing Profiles Configuration	
<i>hotspot-volume's User Accounts</i>	
Username	HS_s9I22
Password	50rW63d5
Maximum Usage Traffic:	100 MB
<i>hotspot-volume's User Accounts</i>	
Username	HS_5cq04
Password	P2q3a5Dv
Maximum Usage Traffic:	100 MB
<i>hotspot-volume's User Accounts</i>	
Username	HS_F5uUV
Password	7U0IU403

Guest Management Hotspot Scenario(8/9)

Billing Users

Select Billing Profile hotspot-volume ▼

Billing Form | **View Accounts**

Show 10 ▼ entries [Right click row to see more options]

User Name	Expiration Date	Usage Time Left(in Seconds)	Bandwidth Usage Left(in MB)
HS_0S0u0	NA	NA	100
HS_1Ab79	NA	NA	100
HS_2K96E	NA	NA	100
HS_5cq04	NA	NA	100
HS_5VbE9	NA	NA	100
HS_904H0	NA	NA	100
HS_E3659	NA	NA	100
HS_Ept1e	NA	NA	100
HS_F5uUV	NA	NA	100
HS_s9I22	NA	NA	100

Guest Management Hotspot Scenario(9/9)

Successfully logged in

D-Hotel Portal Login

Usage Time Left 10800

Logout

- Sign in with a time-based code.
- Observe from front desk management page.

Billing Users

Select Billing Profile hotspot-time

Billing Form View Accounts

Show 10 entries [Right click row to see more options]

User Name	Expiration Date	Usage Time Left(in Seconds)
HS_060v4	NA	10800
HS_0b4CT	NA	10800
HS_19s69	NA	10724
HS_1D3WM	NA	10800
HS_1x88Z	NA	10800



- Sign in with a volume-based code.
- Generate traffic and observe from front desk management page.

Billing Users

Select Billing Profile: hotspot-volume ▼

Billing Form View Accounts

Show 10 ▼ entries [Right click row to see more options]

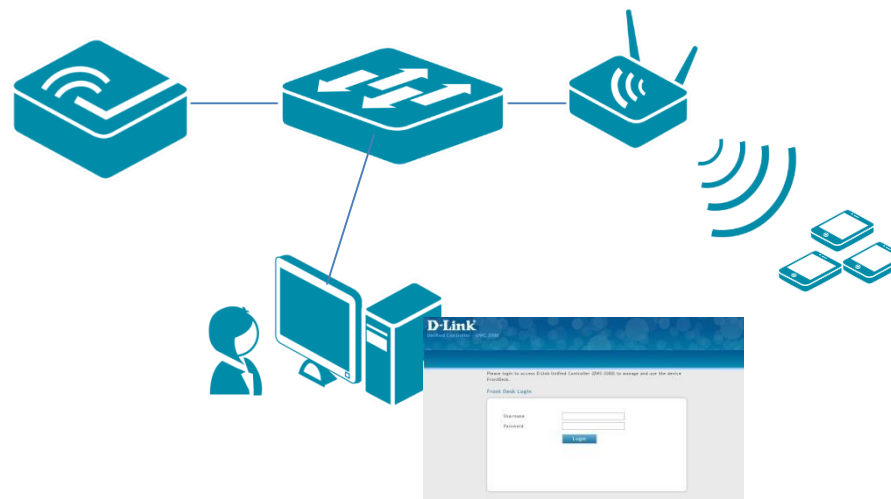
User Name	Expiration Date	Usage Time Left(in Seconds)	Bandwidth Usage Left(in MB)
HS_050u0	NA	NA	98
HS_1Ab79	NA	NA	100

LAB time: 30 minutes

You need to practice the 3 Scenarios

Guest Management LAB

- Hotel
- Coffee shop



- Hotspot or lobby