

HowTo: User Authentication using DNC-100/DNH-100

[requirements]

DNH-100 with latest firmware (<u>ftp://ftp.dlink.de/dnh/dnh-100/driver_software/</u>) or DNC-100 latest firmware (<u>ftp://ftp.dlink.de/dnc/dnc-100/driver_software/</u>)

[scenario]

When logging into the SSID the user should authenticate against an existing LDAP server. In this Scenario we use a Windows Server 2016 AD + LDAP. The Domain is "dlink-dce.de", so users usually login by their credentials like "marcus(@dlink-dce.de")".

[preparations]

- ⇒ Completed installation of DNC-100/DNH-100 with working SSIDs
- \Rightarrow Completed installation of LDAP Server



[modification of SSID to use LDAP Authentication]

- a. Login to your DNC-100/DNH-100
- b. Navigate into "Configuration > Profile Settings" and select your AP Profile

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Dashboard Monitor Configuration	CP Profile Lab	Profile > Lab > Lab Upload Configuration						
Create Profile Profile Settings Firmware Upgrade SSL Certificate Payment Gateway	SSID VLAN Bandwidth Optimization RF Optimization Schedule	Time Start B	mmediate v					Apply Clear
Report >	Device Settings Performance WLAN Partition	Apply Status 1/:	1					
GO System →	Wireless Resource	Results	Run Time • • • • • • • • • • • • • • • • • • •	Name ~ dap2662	IP Address	MAC Address ~ 60:63:4c:30:a6:70	Model Type × R DAP-2662 S	tesult ~

c. Select the SSID you want to configure and scroll down to "User Authentication" and select "LDAP"

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()) Dashboard	Ç ^o Profile	Profile > Lab > Lab > SSID
Monitor >	Lab	
🗙 Configuration 🗸	⊗ Lab	User Authentication
Create Profile Profile Settings SSL Certificate SSL Certificate Payment Gateway	SSID VLAN Bandwidth Optimization RF Optimization Schedule Device Settings Performance	Authentication Type LDAP Idle Timeout (Enable White List MAC Address XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
E Log →	WLAN Partition Wireless Resource	No. MAC Address A V Delete

- d. Scroll down again to "IP Interface Settings"
 - i. You must enable this only when SSID VLAN and Management-VLAN of the AP are different
 - ii. The AP can obtain by DHCP an IP Address or you can define a static IP Address here

IP Interface Settings	
IPIF Status	Disabled v
VLAN Group	1
Get IP Address From	Static IP Address (manual) 🗸
IP Address	Subnet Mask
Gateway	DNS



- e. Scroll down again to "LDAP" and define your settings depending on your LDAP server
 - i. Server IP = IP of the LDAP Server
 - ii. Port = Port defined at the LDAP Server
 - iii. Authentication Mode = Simple (unencrypted) or TLS (encrypted), use this according to your LDAP Server settings
 - iv. Username = LDAP Administrator username
 - v. Password = LDAP Administrator password
 - vi. Base DN = your LDAP's Base DN
 - 1. In this example its "CN=Users,DC=dlink-dce,DC=de"
 - vii. Acount Attribute = the Attribute you want to use for Authentication1. Here you must type in f.e. CN = User or UPN =
 - userPrinicalName, or others according to your LDAP Server
 - viii. Identity = the full authentication string
 - 1. You can enable "Auto Copy" when you use the CN

Configuration example using UPN authentication, so user must login with

UPN = "<u>marcus@link-dce.de</u>"

LDAP	
Server*	192.168.10.60
Port*	389
Authentication Mode	Simple ~
Username*	administrator
Password*	<i>w</i>
Base DN*	CN=Users,DC=dlink-dce,DC=de
	(ou=,dc=)
Account Attribute*	userPrincipalName
	(ex,cn)
Identity*	CN=administrator,CN=Users,DC=dlink-dce,DC=de
	Auto Copy



Configuration example using CN authentication, so user must login with

UPN = " marcus_linde "

LDAP	
Server*	192.168.10.60
Port*	389
Authentication Mode	Simple ~
Username*	administrator
Password*	Ø
Base DN*	CN=Users,DC=dlink-dce,DC=de
	(ou=,dc=)
Account Attribute*	CN
	(ex,cn)
Identity*	CN=administrator,CN=Users,DC=dlink-dce,DC=de
	Auto Copy

Scroll down and save the settings.

ζ ^{rO} Profile	Profile > Lab > Lab > SSID		
Lab ® Lab			
SSID		No data found	
VLAN			
Bandwidth Optimization			
Schedule	OSU Config	config 1 v	
Device Settings Performance	OSU Language Code	English v	
WLAN Partition	OSU Friendly Name	English v :	
Wireless Resource	OSU Nai	e	
	COSU Service Description		
	OSU Icon Language Code	English v	
	OSU Icon File Path		
	OSU Icon File Name		
	OSU Icon Width *	0	
	OSU Icon Height *	0	
	OSU Icon Type	PNG ~	
			Save Reset Cancel



Now you need to push the new configuration to the APs

ζ^{O}_{r} Profile	Profile > Lab > Lab
Lab	
lab	Uplaad Configuration
SSID	Time Start Immediate V
VLAN	
Bandwidth Optimization	Acolv Cliar
RF Optimization	
Schedule	Run Status

After you have pushed the configuration you now can login into the SSID and authenticate against the AD + LDAP.

If you f.e. choosed CN as authentication attribute, you must enter the FULL Username (in this example it is "marcus_linde" as within the AD stated. You can find this within your AD Settings.

marcus_linde		AUFGABEN 🔻 ABSCHNITTE 🔻
Konto Organisation	Konto	?⊗⊙
<u>o</u> rganisation	Vorname: marcus	Konto läuft ab:
Mitglied von	Initialen des zweiten V	() Am
Kennworteinstellungen	Nachname: linde	Kananatantianan
Profil	Vollständiger Name: 🍀 marcus_linde	Benutzer muss Kennwort bei der nächsten Anmeldung ändern
	Benutzer-UPN-Anmeld marcus @ dlink-dce.de	Andere Kennwortoptionen
Richtlinie	SamAccountName-An dlink-dce * marcus	Microsoft Passport oder eine Smartcard ist für die interakt
Silo	🗆 Verseensk antijsk en Lijsek en ook ötere	✓ Kennwort läuft nie ab
Erweiterungen	vor versenentlichem Löschen schutzen	Benutzer kann Kennwort nicht ändern

If you f.e. choosed the UPN as authentication attribute, you must enter the FULL UPN authentication (in this example it is "marcus@dlink-dce.de" as within the AD stated. You can find this within your AD Settings.

marcus_linde					AUFGABEN 🔻	ABSCHNITTE V
<u>K</u> onto	Konto			?⊗⊙		
<u>O</u> rganisation <u>M</u> itglied von	Vorname: Initialen des zweiten V	marcus		Konto läuft ab:	● Nie ○ Am	
K <u>e</u> nnworteinstellungen <u>P</u> rofil Richtlinie	Nachname: Vollständiger Name: 🌟	linde marcus_linde		Kennwortoptionen:		
	Benutzer-UPN-Anmeld	marcus	@ dlink-dce.de	ce.de • • • • • • • • • • • • • • • • • • •		nmeldung andern
Silo Frweiterungen	Vor versehentlichem L	öschen schützen	(marcus	 Microsoft Passp ✓ Kennwort läuft ☐ Benutzer kar 	oort oder eine Smartcard is nie ab nn Kennwort nicht ändern	st für die interakt



Additionally you can use the Windows Powershell to check if the users are correct accessible.

For our example type into the powershell following command:

dsquery user -name marcus linde

dsquery user -name marcus_linde -o upn



If you type in an value/name which isn't correct you'll not getting an response like in this example.

dsquery user -name marcus

