# Dell™ Color Smart Multifunction Printer | S3845cdn Dell™ Color Smart Printer | S3840cdn

### **Supplement Guide**

Setup Example for Authentication (Login Method), Authorization (Roles/Permissions), and Accounting (ColorTrack)

Regulatory Model: S3845cdn S3840cdn



### Notes

MOTE:

• A NOTE indicates important information that helps you make better use of your printer.

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## **Use Case Summary**

This document will explain how to setup Authentication (Login Method) Authorization (Roles/Permissions) and Accounting (ColorTrack) based on the following use-case. It is not a thorough explanation of all possible settings.

#### MOTE:

- Although the settings and procedures in this document are those for S3845cdn, you can use this document for S3840cdn because the feature concepts are common.
- 1 Users will be be required to authenticate via Kerberos to an Active Directory<sup>®</sup> server which will also act as the LDAP server for managing permission groups.
- 2 The guest user cannot access anything on the local UI.
- **3** Users who belong to the group "colorusers" has access to all features except setup features. Two users will be created.
- **4** Users who belong to the group "monousers" can only copy and print in mono and cannot open the Device app. Two users will be created.
- 5 In the following example, ColorTrack accounting will be enabled to track usage and limit pages. "coloruser1" will be limited to 10 color pages and 10 mono pages. "monouser1" will be limited to 10 mono pages.

The following table is the summary of the users and groups which will be setup.

Groups	Users	Permissions	ColorTrack limits
colorusers	coloruser1	All features except setup	10 mono pages/10 color pages
	coloruser2		Unlimited mono and color pages
monousers	monouser1	Mono only.	10 mono pages
	monouser2	Cannot open Device App.	Unlimited mono pages

## **Setup Steps**

- 1 Setup Users and Groups on Active Directory Server
  - a Go to Start → Management Tools → Active Directory Users and Computers on Windows Server<sup>®</sup>. For this document, Windows Server 2008 is used.
  - **b** Create users and groups. For our example, we will create four users in two groups.
  - c Open the properties of the created group and add members in the members tab.
- 2 Setup Authentication on Device
  - **a** Login as Admin on the Web UI and go to  $\rightarrow$  **Permissions**  $\rightarrow$  **Login/Logout Settings**.



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**b** Click the **Select** button of the **Network** Login Method.



c Select Kerberos(Windows ADS) and click Next.



d Enter Realm and Server Address. Scroll to the bottom and click DONE.

Kerberos (Windows ADS)		
Default Server		
Realm*	deska.local	
Server Address*	172.27.XXX.XX : 88	
Alternate	Server 1	
Realm		
Server Address	: 88	
Alternate	Server 2	

e When prompted, click on **Restart**. The device will restart.



**3** Limit Guest Access Role

Because it is not possible to set permissions stricter than guest access (which makes no sense), the guest permissions will be restricted from the default.

a Go to Permissions and click Edit and select Device User Role next to Guest Access.

	Dell	Color MFP S3845cdn		🎎 Admin 🗸
🏠 Home	0-11	<u> </u>		
Apps	Login/Logout Settings	Accounting Method	Roles	Password Rules
Address Book		Guest Ac	cess	Edit
ā Jobs	A Guest is an	nyone who is not currently lo	ogged into the Dev	$_{c\epsilon}$ Device User Role
	Q,	User Acc	ounts	Printing User Role
👗 Connectivity				System Administrator
Permissions				System Administrator
System				

**b** For the example, we will set **No Access** for **Control Panel Permissions** and **Home Only** for **Website Permissions**. Click **OK** when finished.

Ed	Edit Role					
A Gu	A Guest is anyone who is not currently logged into the Device.					
	Control Panel Permissions					
$\bigcirc$	No Access					
	Users must log in to access anything.					
0	Everything Except Setup					
	Users can access everything except setup and configuration functions.					
0	Copy Only					
	Users can use Copy Apps only. No access to Scanning Apps, Printing Apps, status, or set up functions.					
0	Access All					
	Users can access all functions.					
0	Custom Permissions					
	Website Permissions					
0	Everything Except Setup					
	Users can access everything except Connectivity, Permissions, and System.					
	Home Only					
	Users only have access to the Home page.					
0	Custom Permissions					
	Cancel OK					

- 4 Set up Roles
  - **a** As admin, go to **Permissions**  $\rightarrow$  **Roles**  $\rightarrow$  **Device User Roles**.



**b** The predefined roles are displayed. Press the **+** button and **Add New Role from Existing** to add a Device User Role.



c Select Basic User and press OK.

Add New Role from Existing		
Which role do you want to base the new role on? Basic User		
Cancel	ОК	

**d** For this example, the Role "Color Users" will be added. Enter the role name and description. The Permission will be changed to **Everything Except Setup** from **Access All** for the **Control Panel Permissions**. Click **OK** when finished.

Ad	Add Role				
Co	Color Lisers				
Usi	ers have access to all features except setup.				
	Control Panel Permissions				
	Everything Except Setup				
	Users can access everything except setup and configuration functions.				
0	Copy Only				
	Users can use Copy Apps only. No access to Scanning Apps, Printing Apps, status, or set up functions.				
0	Access All				
	Users can access all functions.				
0	Custom Permissions				
	Website Permissions				
$\bigcirc$	Everything Except Setup				
	Users can access everything except Connectivity, Permissions, and System.				
Ο	Home Only				
	Users only have access to the Home page.				
0	O Custom Permissions				
* Re	quired				
	Сапсеі ОК				

e Confirm the new role "Color Users" is created. Continue to create another group by clicking + followed by Add New Role from Existing.

	Device User Roles			
	Basic User Add	New Role		
Book	Allows access to all Apps but does not allow the user to change any system settings or Device configuration options. New users are automatically added this role.	New Role from Existing		
	Access All			
tivity	Everything Except Setup			
ions	Color Users			
	Users have access to all features except setup.			
	Everything Except Setup	Edit		
	Everything Except Setup			
	System Administrator			
	Allows access to all Apps, system settings, and configuration options.			

**f** The just created "Color Users" role will be used as the base for the next role.



**g** The new role "Mono Users" will be created. Custom Permissions will be defined for this role. After entering **Role Name** and **Description**, click **Custom permissions** and click **Setup**. Continue to select **Copy**.

Add Role	Custom Permissions Setup
Mono Users	Address Book
Will be limited mono only. Device app access will be restricted.	AirPrint (Scan)
	Сору
Control Panel Permissions	Device
Everything Except Setup	Email
Users can access everything except setup and configuration functions.	Fax Copy Permissions
Copy Only	ID Card C
Printing Apps, status, or set up functions.	Jobs
	My Folder Hide
Custom Permissions	Remote Pl Make Color Copies
s Setup	Scan To Allow
Website Permissions	Scan to De Black & White Only
Everything Except Setup	
Users can access everything except Connectivity, Permissions, and System.	2-Sided Only
Home Only	Cancel
Custom Permissions	OK
* Required	
Cancel OK	

h Select Black & White Only under Make Color Copies to restrict color usage for this role.

i Next, select **Device** and select **Hide** to restrict access to this app. Click **OK** and then **Close** on the **Custom Permissions Setup** window and **Close** on the **Add Role** menu.

Custom Permissions Setup	Device Permissions	Dell Color MEP 53845con Device Permissions
Address Book  AirPrint (Scan)  Copy  Copy  Email  Email	Access Device Allow Hide View Information Pages (under About) and Support Page Allow	Access Device Allow Hide Cancel

The roles are now created. These roles will be linked to LDAP groups in the next step.

	Dell Color MFP S3845cdn	🤱 Admin 🗸
A Home	🔓 / Device User Roles	
	Device User Roles	
Address Book	Basic User Allows access to all Apps but does not allow the user to change any system settings or Device configuration options. New users are automatically added to this role.	
a Jobs	Access All	Edit
👗 Connectivity	Everything Except Setup	
A Permissions	Color Users Users have access to all features except setup.	<b>5</b> 4
System	Everything Except Setup	Edit
	Everything Except Setup	
	Mono Users Will be limited mono only. Device app access will be restricted.	
	Custom Permissions	Edit
	Everything Except Setup	
	System Administrator Allows access to all Apps, system settings, and configuration options.	
	C Access All	

#### 5 Setup Printing User Roles

a Return to **Permissions** top menu and select **Roles**  $\rightarrow$  **Printing User Roles**.

		De	ell Color MFP S3845c	dn	1 Admin 🗸
Â	Home	0		2	
==	Apps	Login/Logout Settings	Accounting Method		Password Rules
٥	Address Book		Gi	Device User Roles	Edit
â	Jobs	A Guest is anyone	who is not currently log	use Device Control Panel and the Device Website.	
4	Connectivity	Q	U	Printing User Roles	Add
1	Permissions	admin		Define permissions for people who submit print jobs to the Device from their PC.	System Administrator System Administrator
¢	System			Setup LDAP Permissions Groups Enable permissions to be handled by a remote server.	

**b** Click the **+** mark and add a new printing user role.



c Enter Role Name, Description and select Unlimited Black & White Printing, No Color Allowed as the Printing Permission. Click OK when finished.

Ad	Add Role			
Мо	no Printing Only			
No	No color allowed			
	Printing Permissions			
0	Unlimited Printing			
0	Weekdays, 8 AM to 5 PM			
	Printing is allowed Monday through Friday from 8 AM to 5 PM. Prints may be 1-sided and/or color.			
0	Eco-Friendly			
	All prints are 2-sided in black & white.			
	Unlimited Black & White Printing, No Color Allowed			
0	Custom Permissions			
* Red	quired			
	Cancel OK			

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- 6 Setup LDAP Permissions Groups
  - a Go to Permissions  $\rightarrow$  Roles  $\rightarrow$  Setup LDAP Permissions Groups. Select New LDAP Server followed by LDAP Servers/Directory Services.





• This LDAP menu is the same menu as Web UI  $\rightarrow$  **Connectivity**  $\rightarrow$  **LDAP**.

**b** Set **IP Address/Host Name**, **LDAP Server**, **Search Directory Root**, and **Login Name** and **Password** based on the settings of the Active Directory server.

LDAP Servers/Directory Ser	vices		
Server Information			
IP Address/Host Name : Port*	(172.27.66.21) 389		
Backup IP Address/Host Name : Port	: 389		
LDAP Server	Microsoft Active Directory		
Advanced Set	tings		
Search Directory Root	dc=deska,dc=local		
Login Credentials to Access LDAP Service	erver Device		
Login Name	Administrator		
Password			
Retype Password			
Maximum Number of Search Results	5-100 50		
Search Timeout	Specify Timeout		
Timeout	5-120 Seconds 30		
LDAP Referrals			
Perform Searc	h On		
Perform Search On S	umame & Given Name Fields		
* Required			
[	Cancel OK		

- c Click **OK** and reboot the device.
- **d** After rebooting, go to **Permissions**  $\rightarrow$  **Roles**  $\rightarrow$  **Edit LDAP Groups** which is now added to the menu.



T

e Click the + mark to add an LDAP group.

	Dell Color MFP S3845cdn	🏦 Admin 🗸
A Home	🦾 / LDAP Groups	
Apps	LDAP Groups	
-	No items to display.	
Address Book		
a Jobs		
🙏 Connectivity		
🔓 Permissions		
System		

**f** Type in the name (or part of the name) of the group created in step 1 and click **Next** or the search icon. If LDAP is configured properly it should search and return the LDAP group which matches.

Add LDAP Group	
mono	Q
	Cancel

Add LDAP Group	2010F MFF - 53043C0H
mono	Q
	Cancel Next

g Select the group and click Next.



**h** Select the **Device User Role**. For this case, the custom created "Mono Users" will be selected. Click **Next**.



i Select the **Printing User Role**. The custom created "Mono Printing Only" will be selected.

Select Printing User Role			
0	Basic Printing User Applies to all users who are not mapped to a custom role.		
٥	Mono Printing Only No color allowed		
С	Cancel Back Next		

**j** Repeat the steps from e. to i to map the "colorusers" LDAP group to the Device Role "Color Users" and the default "Basic Printing User" printing permission.

	Dell Color MFP S3845cdn	🤱 Admin 🗸
A Home	🔓 / LDAP Groups	
	LDAP Groups	+
		Color Users
Address Book	colorusers	Basic Printing User
	monousers	Mono Users
🛱 Jobs		Mono Printing Only

Т

**k** Members can be confirmed by clicking on the group and selecting **View Members**.

🌡 / LDAP Groups			Members
	LDAP Groups	+	Color User1
colorusers	Change Device Lines Dela	Color Users Basic Printing User	Color User2
monousers	Change Printing User Role	Mono Users Mono Printing Only	
	View Members		
	Remove Group		

Through the steps up to this point, the four users can login via Active Directory and the users in "monousers" group can be restricted from using color. Setting up ColorTrack in the next step will further enable accounting and limiting number of pages.

- 7 ColorTrack Setup
  - a Access Permissions → Accounting Method on Web UI.



**b** Click on **Select** button next to **ColorTrack**.



c For this test, select Track All and click OK.



**d** The following warning message will be displayed. Click **Change** and restart the device.

Changing the Accounting Method requires a restart. Are you sure you want to change the Accounting Method?				
Selecting Change can delete all user information. This process can take several minutes.				
Mask input Cancel Cha	nge Cancel OK			

8 Adding ColorTrack Users

#### 🖉 NOTE:

• Although users can login via Kerberos, in order to track usage and limit by number of pages, the users need to be manually registered on each device to manage via ColorTrack. The linking with the Kerberos/AD account will happen if the (local) ColorTrack user name is the same as the Kerberos login.

**a** Add a user account.

			Dell Color MFP S3845cdn		👔 Admin 🗸
Â	Home	0	<b></b>		
==	Apps	Login/Logout Settings	Accounting	Roles	Password Rules
٥	Address Book		Guest A	Access	Edit
a	Jobs	A Guest is any	one who is not currently logge	d into the Device.	
*	Connectivity	Q	User Ad	counts	Add
	,	admin			System Administrator System Administrator
30	Permissions				
٥	System				
A	dd New Account				

Add New Account		
User Name		
monouser1		
Password		
Retype Password		
Cancel		
Add		

- **b** Enter a user name which matches the Active Directory user account. The password entered here will not be used for Network Authentication so it can be left blank. Click **Add**.
- **c** Select the user just created from the list.



**d** To edit the ColorTrack settings click on the **Edit** button in the **Accounting** section.

	Dell Color MFf	P S3845cdn	Admin 丫
🏫 Home	♣ / monouser1		
# Apps		Roles	
Address		Device User Role	Basic User
- Book		Printing User Role	Basic Printing User
<ul> <li>Connectivity</li> </ul>	monouser1	Personaliz	ations
A Connectivity	Change Password	Home Screen: Default	
A Permissions	Delete User	Rese	t
System		PC User N	lames
		To enable personalized statu link any of your PC user nan Link Acc	is about your print jobs, nes to your account. jount
		Accoun	ting
		Copies	
		Color	0 / 16000000
		Black & White	0 / 16000000
		Prints	
		Color	0 / 16000000
		Black & White	0 / 16000000
		Scans	0 / 16000000
		Faxes	0 / 16000000
		Edi	
		Email "From"	Address
		Email Address	
		Not Specified	
		Edit	

e For our test, we will set a limit of 10 pages for all features. Click **OK**.

Edit Accounting				
Limits				Reset All
Copies	Limit			Used
Color	10			0 O
Black & White	e 10			۰5
Prints	Limit			Used
Color	10			0 O
Black & White	e 10			0 D
Scanned Ima	iges	Limit		Used
All		10		•5
Faxes Lir	nit			Used
All 1	0			۰ <b>5</b>
General Accounts				
Not Registered				
			Cancel	ОК

**f** Repeat the steps a. to e. for the user "coloruser1". For comparison, we will not register "monouser2" and "coloruser2" for now.

- 9 Testing
  - **a** Logging in
    - i. Because we have removed access rights to the guest user, the default screen on the device will become a login screen.
    - ii. All four users can login to the Active Directory server. They will need to enter the credentials setup at the Active Directory server:
      - 1) User name
      - 2) Realm (domain)
      - 3) Password
  - **b** Testing permissions
    - i. When "monouser1" and "monouser2" logs in, he will not be able to copy in color or open the Device app. When color is selected, an error will appear.
  - c Testing ColorTrack
    - i. Because, "monouser1" and "coloruser1" are registered with ColorTrack, they will only be able to copy up to 10 pages. After that, an error will be displayed and be prevented from copying.
    - ii. After login, if you press the login name on the upper left of the screen, you can view the **Account Summary** and view remaining pages.
    - iii. "monouser2" is prevented from copying in color due to the permission setting but can copy limitlessly in mono. In order to set the ColorTrack limits, the "monouser2" ColorTrack account needs to be created (step 8).