

## How to setup the cluster for DWS switch



DWS-1: 10.90.90.90    DWS-2: 10.90.90.80

### Introduction:

For DWS's cluster, it helps the customer easy to control the wireless network.

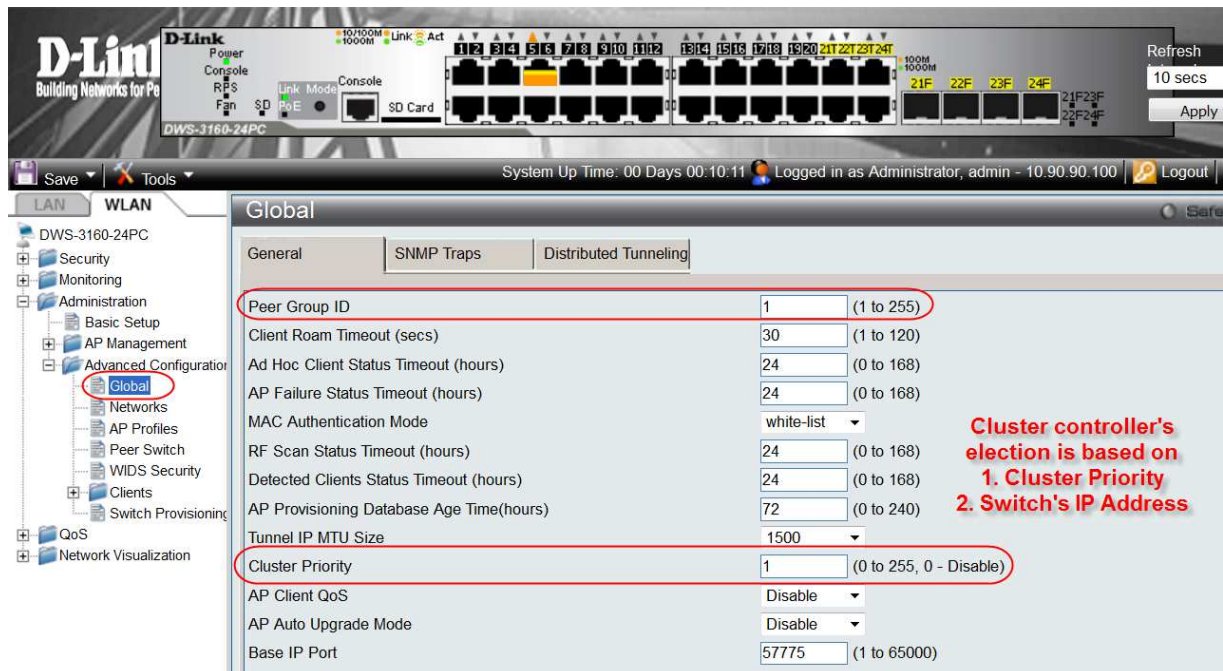
For the maintenance purpose, the customer can watch the whole APs, and clients by login to the cluster controller.

For easy deployment, the customer can push the wireless configuration from one of the switch to all DWS in the network.

Here I attach the step to setup the cluster.

### Step:

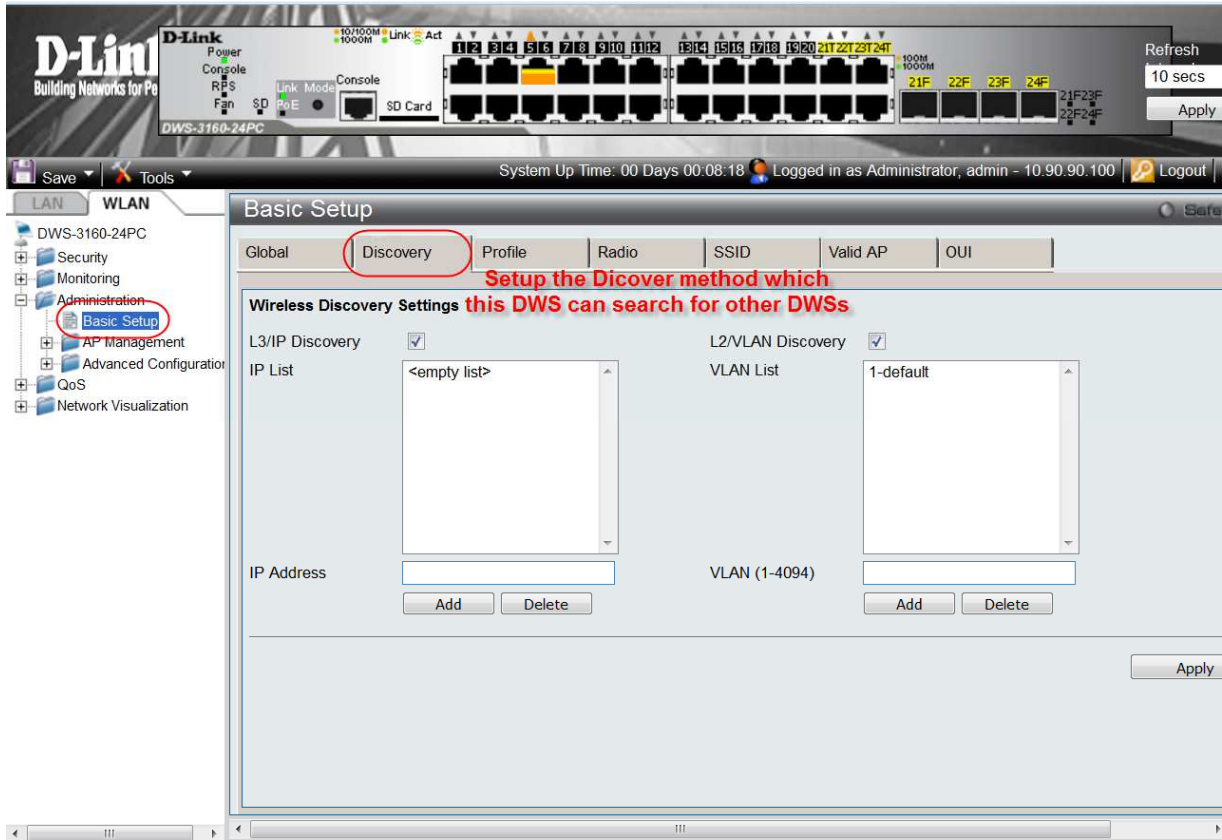
1. Decide which switch will be the cluster controller. The priority of choosing the cluster is
  - a. Cluster Priority (the highest priority switch will be the cluster controller)
  - b. If the priority is the same, the less IP address will be the cluster controller.



The screenshot shows the D-Link web interface for a DWS-3160-24PC switch. The 'Global' configuration page is open, with the 'Peer Group ID' and 'Cluster Priority' settings highlighted by red circles. The 'Peer Group ID' is set to 1, and the 'Cluster Priority' is also set to 1. A red text box on the right side of the interface states: 'Cluster controller's election is based on 1. Cluster Priority 2. Switch's IP Address'. The interface also shows a navigation tree on the left with 'Global' selected under 'Advanced Configuration'. The top of the interface displays the switch's status, including power, console, and link modes, and a system up time of 00 Days 00:10:11. The user is logged in as Administrator with IP 10.90.90.100.

Setting	Value	Range
Peer Group ID	1	(1 to 255)
Client Roam Timeout (secs)	30	(1 to 120)
Ad Hoc Client Status Timeout (hours)	24	(0 to 168)
AP Failure Status Timeout (hours)	24	(0 to 168)
MAC Authentication Mode	white-list	
RF Scan Status Timeout (hours)	24	(0 to 168)
Detected Clients Status Timeout (hours)	24	(0 to 168)
AP Provisioning Database Age Time(hours)	72	(0 to 240)
Tunnel IP MTU Size	1500	
Cluster Priority	1	(0 to 255, 0 - Disable)
AP Client QoS	Disable	
AP Auto Upgrade Mode	Disable	
Base IP Port	57775	(1 to 65000)

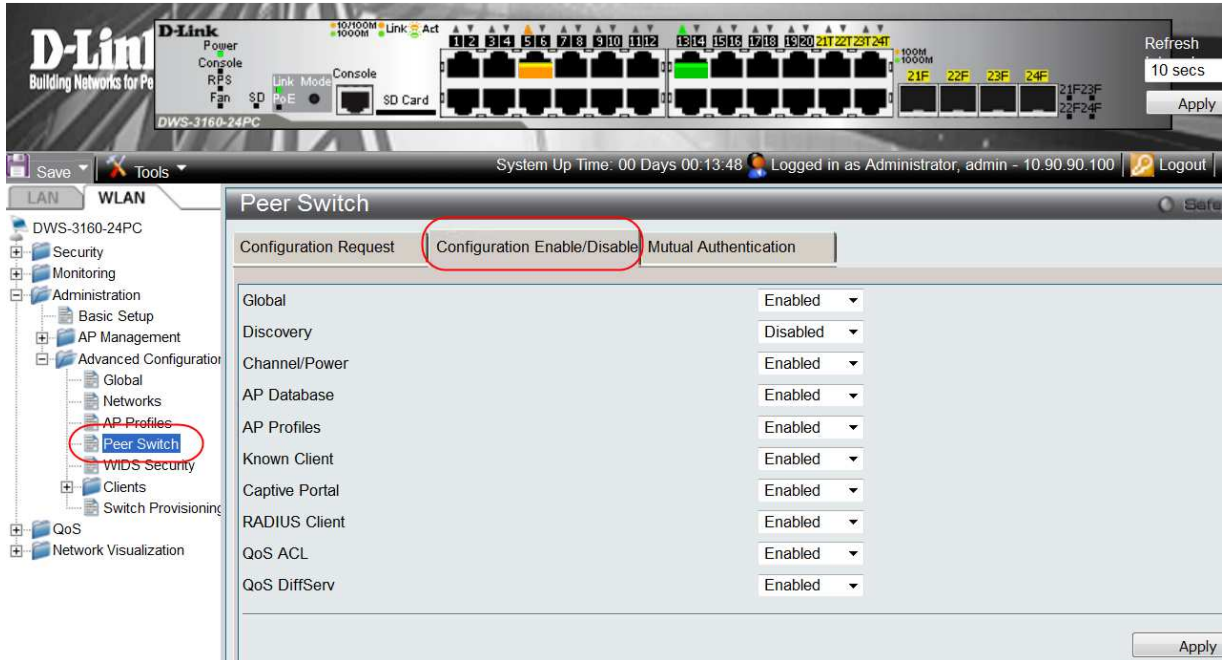
2. Setup the discover method so that the switch can communicate to each other.



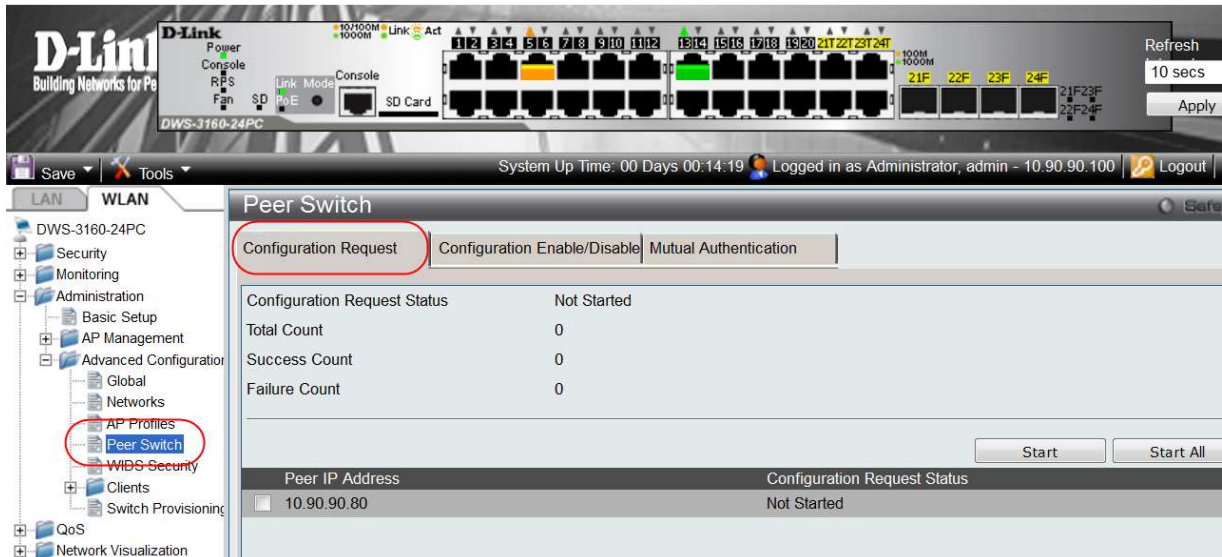
Here is the packet example for using L3 discovering to find another switch, and after discovering each other, they use TCP packet to communicate each other.

437	15:45:07.311332	D-LinkIn_63:87:80	Broadcast	ARP	60	Who has 10.90.90.90? Tell 10.90.90.80
438	15:45:07.312333	D-LinkIn_63:88:a0	D-LinkIn_63:87:80	ARP	60	10.90.90.90 is at 14:d6:4d:63:88:a0
439	15:45:07.314400	10.90.90.80	10.90.90.90	UDP	105	Source port: 57776 Destination port: 57776
440	15:45:07.316075	10.90.90.90	10.90.90.80	UDP	105	Source port: 57776 Destination port: 57776
441	15:45:07.411920	10.90.90.80	10.90.90.90	TCP	74	1024 > 57777 [SYN] Seq=0 win=8192 Len=0 MSS=1460
442	15:45:07.412966	10.90.90.90	10.90.90.80	TCP	74	57777 > 1024 [SYN, ACK] Seq=0 Ack=1 Win=8192 Len=0
443	15:45:07.414299	10.90.90.80	10.90.90.90	TCP	66	1024 > 57777 [ACK] Seq=1 Ack=1 Win=8192 Len=0
444	15:45:07.415562	10.90.90.80	10.90.90.90	TCP	116	1024 > 57777 [PSH, ACK] Seq=1 Ack=1 Win=8192 Len=0
445	15:45:07.444853	10.90.90.90	10.90.90.80	TCP	266	57777 > 1024 [PSH, ACK] Seq=1 Ack=51 Win=8192 Len=0
446	15:45:07.518364	10.90.90.80	10.90.90.90	TCP	184	1024 > 57777 [PSH, ACK] Seq=51 Ack=201 Win=8192 Len=0
447	15:45:07.557775	10.90.90.90	10.90.90.80	TCP	66	57777 > 1024 [ACK] Seq=201 Ack=169 Win=8149 Len=0
448	15:45:07.567690	10.90.90.90	10.90.90.80	TCP	109	57777 > 1024 [PSH, ACK] Seq=201 Ack=169 Win=8149 Len=0
449	15:45:07.570363	10.90.90.80	10.90.90.90	TCP	66	1024 > 57777 [ACK] Seq=169 Ack=244 Win=8149 Len=0
450	15:45:07.613303	10.90.90.80	10.90.90.90	TCP	113	1024 > 57777 [PSH, ACK] Seq=169 Ack=244 Win=8149 Len=0

3. If the customer wants to sync the wireless config to other DWSs, you need to choose what you want to sync first.



4. After choosing what you want to sync, start the request to your target switch.



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