

ZyXEL ES-3024 V3.50(DT.4)C0

Release Note/Manual Supplement

Date: Jan 12, 2004

This document describes the features in the ES-3024 product for its 3.50(DT.4)C0 release.

Support Platforms:

ZyXEL ES-3024 V3.50(DT.4)C0 supports models: Dimension ES-3024

Version:

ZyNOS Version: V3.50(DT.4) | 01/12/2004 10:49:14

BootBase Version: V0.6(ES-3024) | 04/24/2003 10:54:18

Known Issue:

1. It will take more time to configure the device when there are more setting entries such as VLAN, Static MAC Forwarding, Filtering, Mirroring and Bandwidth Control in device.
2. Using Cluster Management web GUI to upgrade member's firmware or configuration is not supported.
3. Active mirroring rules can only be deleted when the Monitor Port is active.
4. Radius UDP port can't apply the value more than 32767.
5. After enter cluster member page via cluster mechanism, it need to wait for 3 minutes to access cluster member page directly via ip itself.
6. Sometimes, because of Internet Explore issue, it need to close IE and wait for 3 minutes to re-login DUT web successfully.

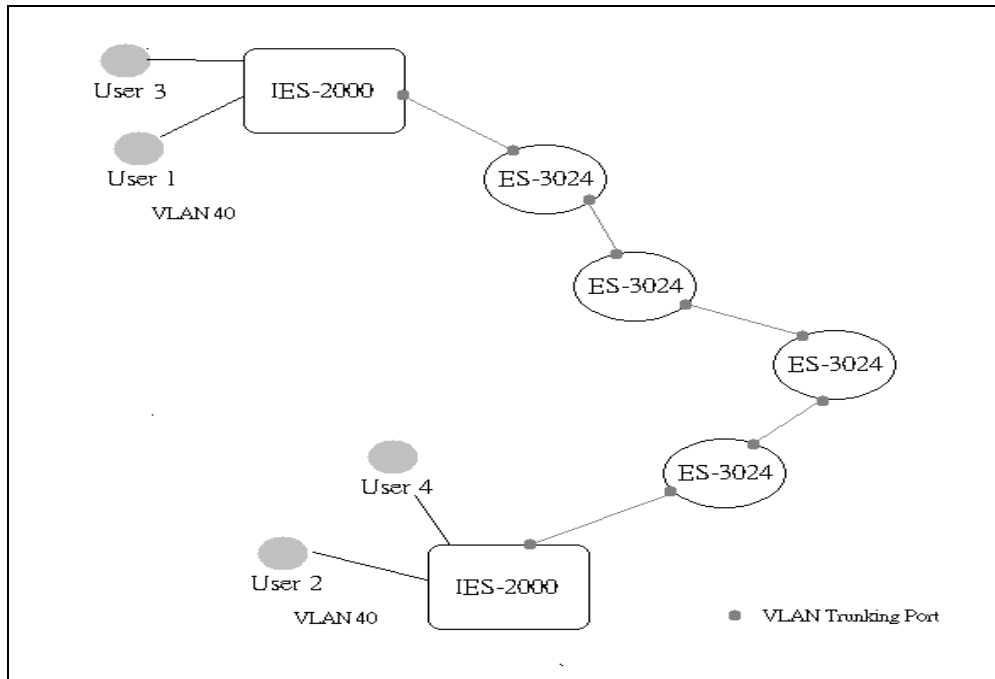
Bug Fix:

- 1.

Features:

1. VLAN Trunking:

The goal of VLAN Trunking is that pass unknown VLAN packets. It is useful for ISP. If ISP wants to create a new VLAN between 2 end users, they don't set all switches in the path of the end users. For example: Refer to the following figure. Now, ISP wants to create a new VLAN 40 for User 1 and User 2. ISP just needs create VLAN 40 in devices of IES-2000. In all switches in the path, VLAN40 isn't necessary for it. In other days, ISP maybe creates VLAN41 for User 3 and User 4; ISP just needs create VLAN 40 in devices of IES-2000.



How to configure VLAN Trunking?

Enter “Advanced Application”->”VLAN”->”VLAN Port Setting.” In “VLAN Port Setting ” pages, users can set PortN as VLAN Trunking Port.

The screenshot shows the ZyXEL Web Configurator interface. The 'VLAN Port Setting' page is active, displaying a table for configuring ports 1 through 13. The table includes columns for Ingress Check, PVID, GVRP, Acceptable Frame Type, and VLAN Trunking.

Port	Ingress Check	PVID	GVRP	Acceptable Frame Type	VLAN Trunking
1	<input type="checkbox"/>	1	<input type="checkbox"/>	All	<input type="checkbox"/>
2	<input type="checkbox"/>	1	<input type="checkbox"/>	All	<input type="checkbox"/>
3	<input type="checkbox"/>	1	<input type="checkbox"/>	All	<input type="checkbox"/>
4	<input type="checkbox"/>	1	<input type="checkbox"/>	All	<input type="checkbox"/>
5	<input type="checkbox"/>	1	<input type="checkbox"/>	All	<input type="checkbox"/>
6	<input type="checkbox"/>	1	<input type="checkbox"/>	All	<input type="checkbox"/>
7	<input type="checkbox"/>	1	<input type="checkbox"/>	All	<input type="checkbox"/>
8	<input type="checkbox"/>	1	<input type="checkbox"/>	All	<input type="checkbox"/>
9	<input type="checkbox"/>	1	<input type="checkbox"/>	All	<input type="checkbox"/>
10	<input type="checkbox"/>	1	<input type="checkbox"/>	All	<input type="checkbox"/>
11	<input type="checkbox"/>	1	<input type="checkbox"/>	All	<input type="checkbox"/>
12	<input type="checkbox"/>	1	<input type="checkbox"/>	All	<input type="checkbox"/>
13	<input type="checkbox"/>	1	<input type="checkbox"/>	All	<input type="checkbox"/>

CLI for cluster management:

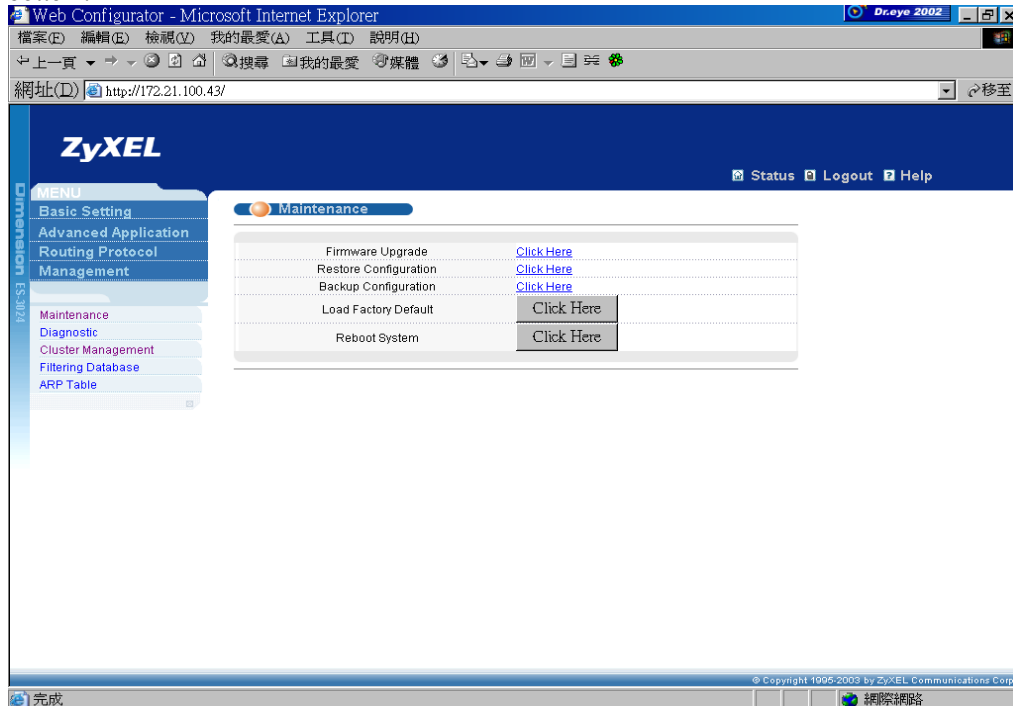
```
sys switch vlanlq port vlanTrunking <port> <enable/disable>
```

2. Load Factory Default:

Load factory default feature is added in this version. User can use it to restore factory default.

How to restore factory default?

Enter “Management”->”Maintenance”, In “Maintenance” page, click “Load Factory Default” bottom.



3. Upgrade and download FW/Config files of members by FTP

In clustering environment, user can upgrade FW by FTP. The member's firmware/config name in ES-3024 are fw-<MAC address> and config-<MAC address>.

Example:

```
C:\> ftp <ES-3024 IP address>
User : <Enter>
Password: 1234
230 Logged in
ftp> ls
200 Port command okay
150 Opening data connection for LIST
--w--w--w-   1 owner    group      1399654 Jul 01 12:00 ras
-rw-rw-rw-   1 owner    group      262144 Jul 01 12:00 rom-0
--w--w--w-   1 owner    group         0 Jul 01 12:00 fw-00-a0-
c5-05-02-34
-rw-rw-rw-   1 owner    group         0 Jul 01 12:00 config-00-
a0-c5-05-02-34
226 File sent OK
ftp: 296 bytes received in 0.01Seconds 19.73Kbytes/sec.
ftp> put 350DT3b1.bin fw-00-a0-c5-05-02-34
ftp> bye
```

Where:

- User name : just press <Enter>
- Password : the management password, 1234 by default
- 350DT3b1.bin : the name of firmware file you want to upgrade

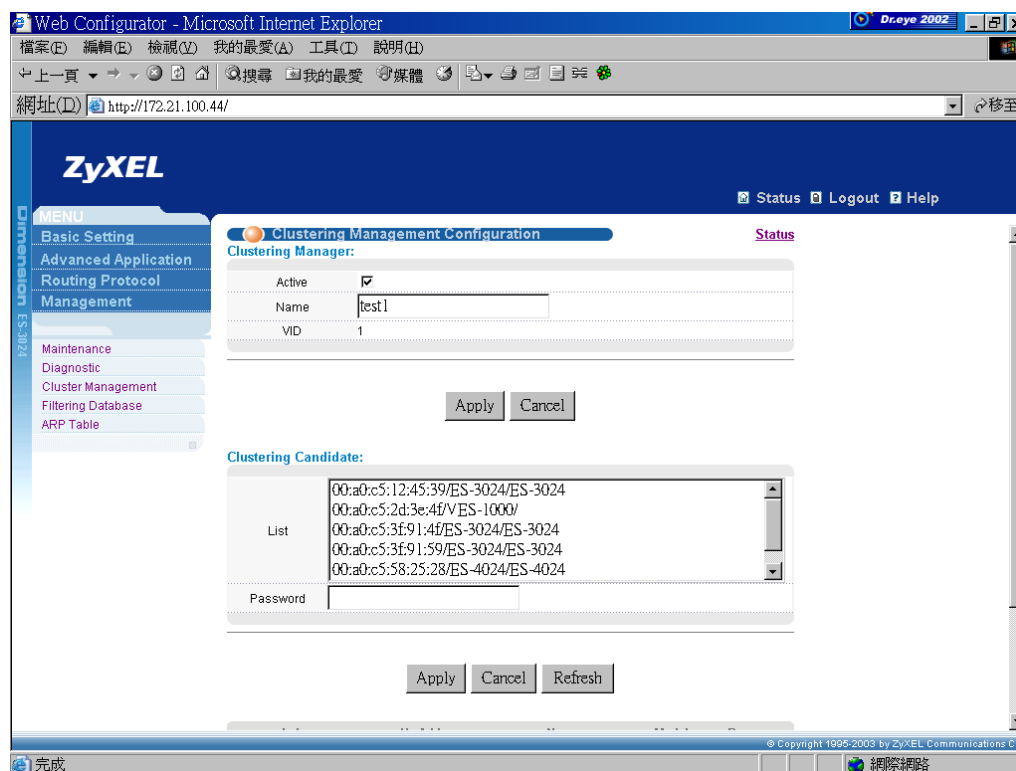
- fw-00-a0-c5-05-02-34 : the member's firmware name in ES-3024. fw-<member's MAC address>

4. Cluster management:

Using single IP to manage multiple devices simultaneously. The max device number is 8. If this feature is enabled, ES3024 will discover cluster management aware devices. User can select up to 8 devices adding to the cluster.

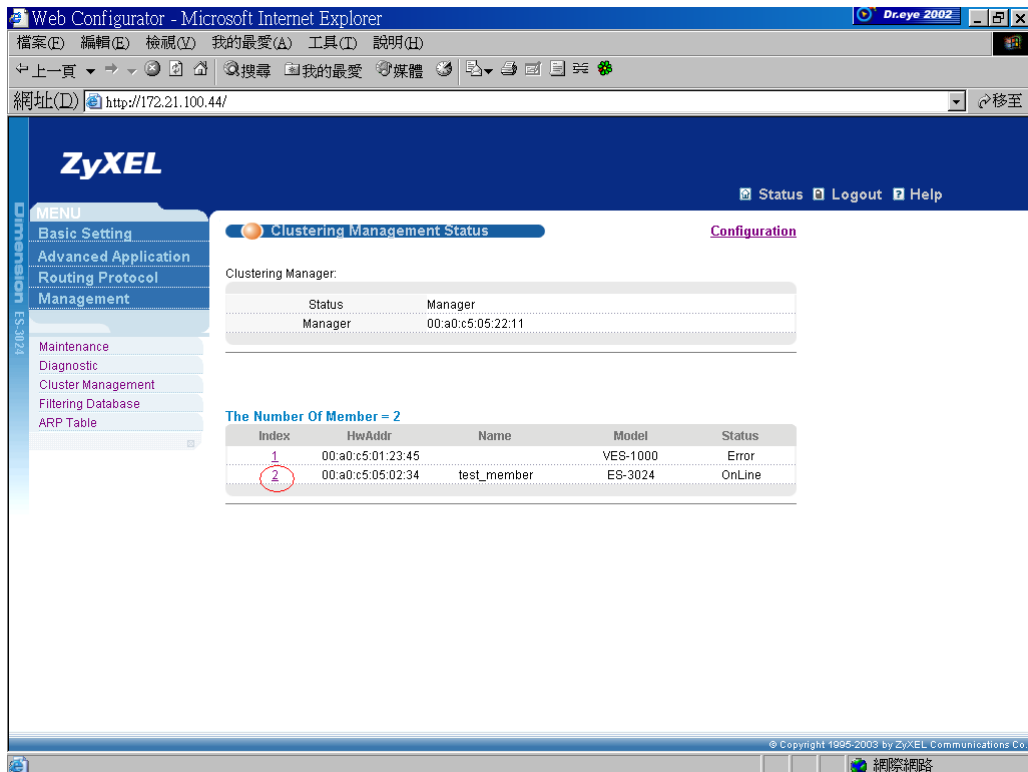
How to configure the clustering?

Enter “Management”->“Cluster management”->“Clustering Management Configuration.” In “Clustering Management Configuration” pages, select devices adding to the clustering. In the bottom of this page, show the members of this cluster. Warning picture with yellow color means the member is in Error state.



How to browse members?

Enter “Management”->“Cluster management”->“Clustering Management Status”, this page direct you to member's pages.



CI for cluster management:

sys cluster active	<name>	Active cluster
inactive	<name>	Inactive cluster
add	<MAC addr> <password>	Add a member into cluster
remove	<MAC addr>	Remove a member from cluster.
showMemeber		Show member list
showCandidate		Show candidate list
status		Show cluster status

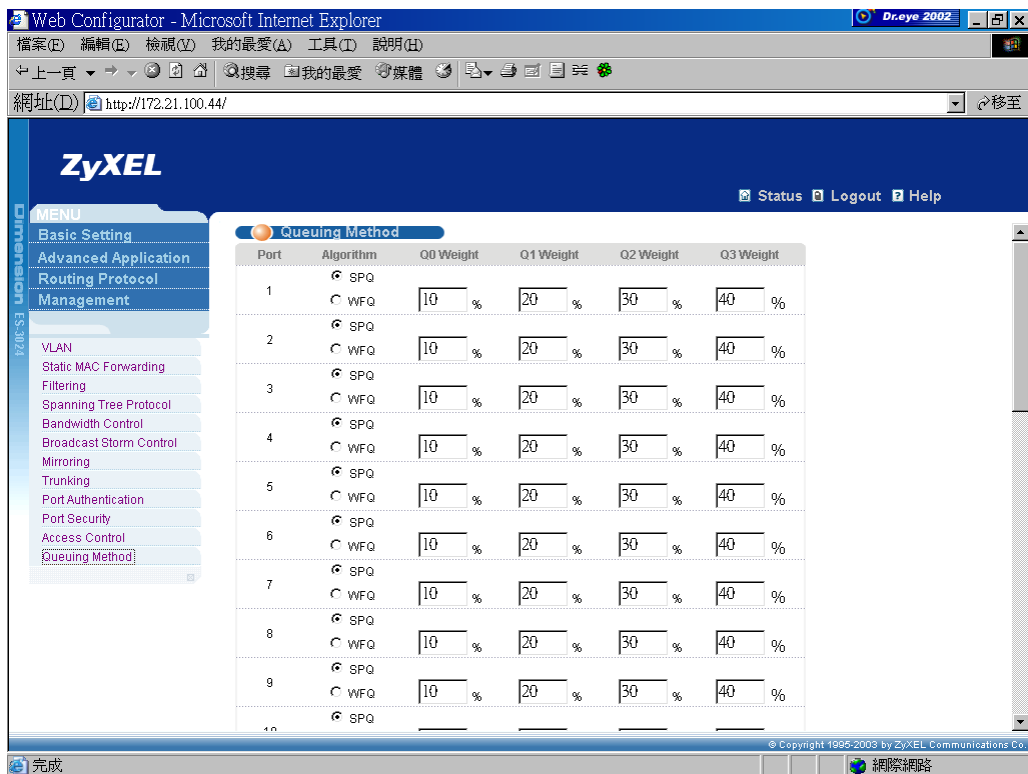
5. New type GUIs:

Follow ES4024 GUI style.

6. Queue method:

There are two queuing algorithms: strict priority queue and weight fair queue. If using strict priority algorithm, a higher priority queue always go first.

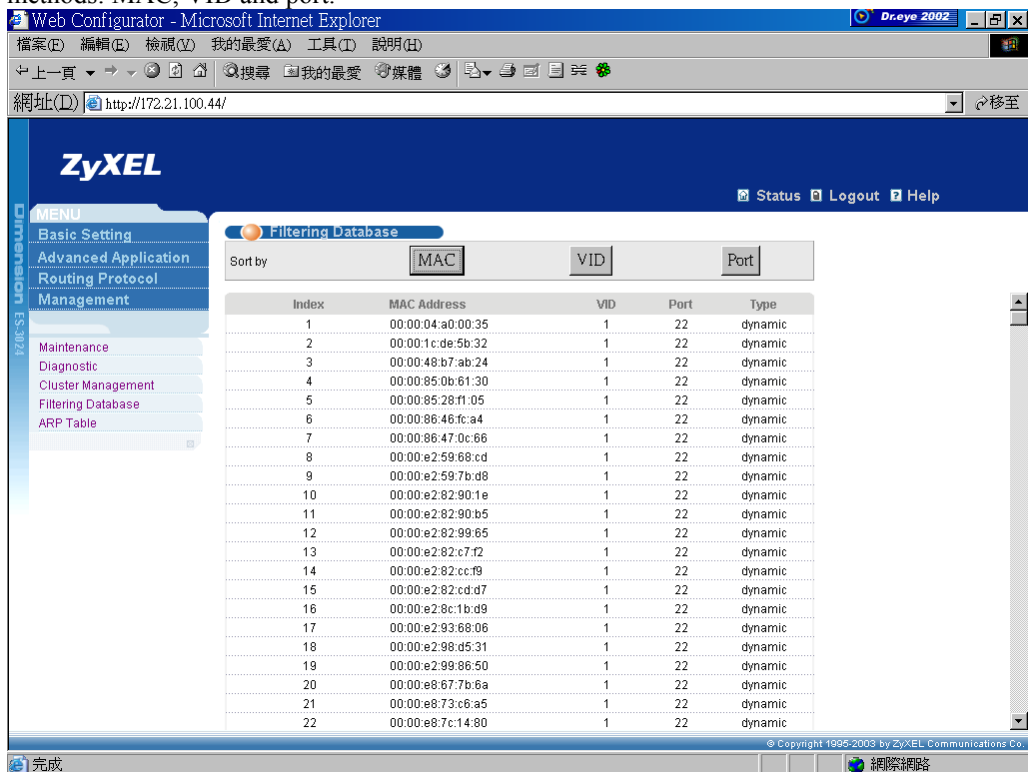
Please enter “**Advanced Application**”->“**Queuing Method**” to configure this feature.



7. Diagnostic information: Filtering Database and ARP Table

Filtering Database:

Please enter "Management" -> "Filtering Database" to get information. The system support 3 sorting methods: MAC, VID and port.



***ARP Table:**

Please enter “Management”->”ARP Table” to get information.

ZyXEL Status Logout Help

MENU

- Basic Setting
- Advanced Application
- Routing Protocol
- Management
- Maintenance
- Diagnostic
- Cluster Management
- Filtering Database
- ARP Table

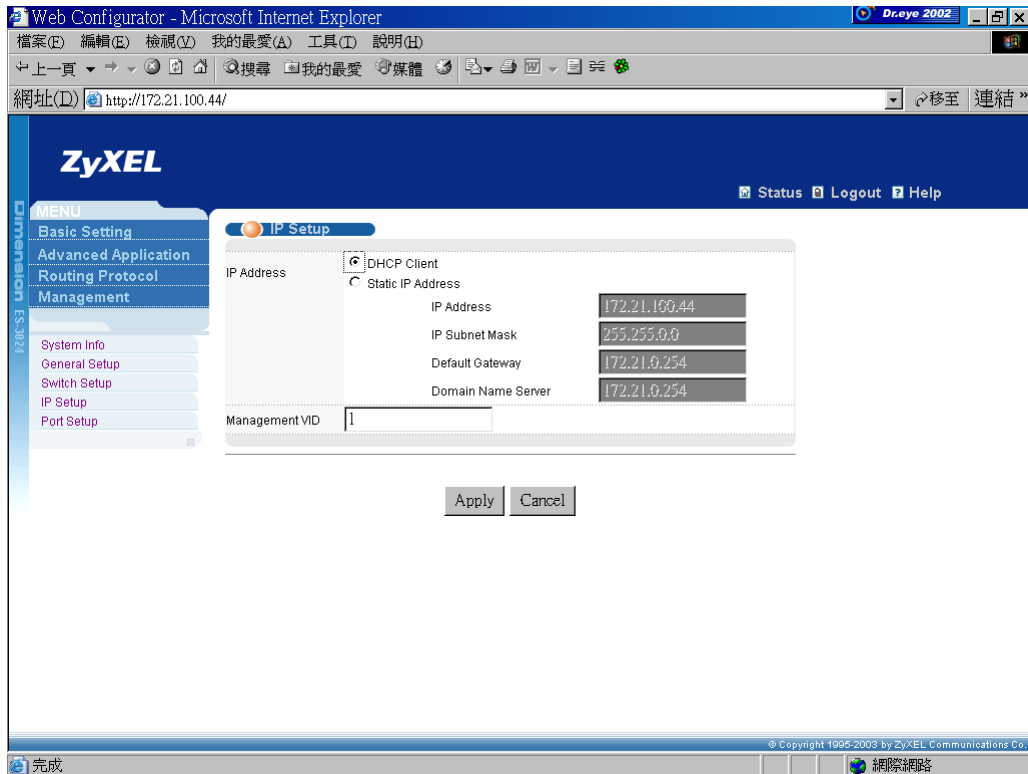
ARP Table

Index	IP Address	MAC Address	Type
1	127.0.0.100	00:a0:c5:31:c4:bb	dynamic
2	127.0.0.101	00:a0:c5:12:65:43	dynamic
3	127.0.0.102	00:a0:c5:31:c4:b9	dynamic
4	127.0.0.103	00:a0:c5:11:22:55	dynamic
5	127.0.0.104	00:a0:c5:32:71:95	dynamic
6	127.0.0.105	00:a0:c5:f1:12:6c	dynamic
7	127.0.0.106	00:a0:c5:17:2a:f8	dynamic
8	127.0.0.107	00:a0:c5:7d:ae:4b	dynamic
9	127.0.0.110	00:a0:c5:4b:d6:67	dynamic
10	127.0.0.111	00:a0:c5:49:b7:4c	dynamic
11	127.0.0.112	00:a0:c5:4b:d6:63	dynamic
12	127.0.0.113	00:a0:c5:49:b7:3d	dynamic
13	172.17.2.1	00:60:b0:d6:e1:ad	dynamic
14	172.17.2.5	00:00:85:0b:61:30	dynamic
15	172.17.2.6	00:10:83:95:30:a1	dynamic
16	172.17.2.254	00:01:30:b8:16:40	dynamic
17	172.21.0.2	00:05:5d:04:30:f1	dynamic
18	172.21.0.254	00:01:30:b8:16:40	dynamic
19	172.21.1.166	00:02:b3:2c:79:93	dynamic
20	172.21.3.4	00:50:ba:ad:69:59	dynamic
21	172.21.3.5	00:50:8d:47:9fb1	dynamic
22	172.21.3.7	00:50:ba:ad:75:dd	dynamic
23	172.21.3.8	00:05:5d:e1:90:b0	dynamic
24	172.21.3.12	00:00:e8:89:89:4d	dynamic
25	172.21.3.14	00:40:ba:7c:70:a1	dynamic

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8. DHCP client:

This feature support ES3024 getting IP address automatically. Please enter “Basic Setting”->”IP SetUp” page to enable this feature.



CI for DHCP client:

ip	dhcp	<Iface>	mode	<none client>	Change DHCP mode for interface <Iface>
			status		Show DHCP status
			client	release	Release the IP address
				renew	Renew the IP address.

9. CI: IP setup:

User can use CI to setup IP and save to rom.

Example:

ES-3024>

ES-3024> ip ifconfig swif0 172.21.100.45 vid 1

ES-3024> config save

ES-3024>

10. Support multiple VLAN in IGMP Snooping:

IGMP Snooping now will support up to 16 VLANs

Firmware Upgrade:

The ES-3024 uses FTP to upgrade firmware in run-time through its built-in FTP server. You can use any FTP client (for example, [ftp.exe](#) in Windows) to upgrade ES-3024. The upgrade procedure is as follows:

Upgrade ES-3024 FW:


```
C:\> ftp <ES-3024 IP address>
User : <Enter>
Password: 1234
230 Logged in
ftp> put 350DT3b0.bin ras
ftp> bye
```

Where

- User name : just press <Enter>
- Password : the management password, 1234 by default
- 350DT3b0.bin : the name of firmware file you want to upgrade
- ras : the internal firmware name in ES-3024

Configuration Upgrade:

The ES-3024 uses FTP to upgrade configuration in run-time through its built-in FTP server. You can use any FTP client (for example, [ftp.exe](#) in Windows) to upgrade ES-3024. The upgrade procedure is as follows:

Upgrade ES-3024 configuration:

```
C:\> ftp <ES-3024 IP address>
User : <Enter>
Password: 1234
230 Logged in
ftp> put 350DT3b0.rom rom-0
ftp> bye
```

Where

- User name : just press <Enter>
- Password : the management password, 1234 by default
- 350DT3b0.rom : the name of configuration file you want to upgrade
- rom-0 : the internal configuration name in ES-3024

Commands Table:

sys

monitor status				show h/w monitor status
show				show h/w monitor statistics
vlimit	<idx>	<high>	<low>	set voltage <idx> with <high> <low> limit
tlimit	<idx>	<limit>		set temperature <idx> with <limit> limit
flimit	<bank>	<idx>	<limit>	set fan <idx> RPM limit in bank <bank>
fanmask	<bank>	[<mask>]		set fan detection mask in bank <bank>
vclear				clear voltage statistics
tclear				clear temperature statistics
fclear				clear fan statistics
clear				clear h/w monitor statistics
enable	[<on/off>]			enable/disable h/w monitor
test				test h/w monitor chip
ixe2424 lbt	intlbt	<port All>	[count]	Internal loop back test on given port or All ports.
	extlbt	<port All>	[count]	External loop back test on given port or All ports.
log	level switch	[0-4] on/off		Log level Log to tracelog. (Current display to console directly)
memdump	<start_addr>	<length>		Dump the memory map that ixe2424 mapped to.
p				Write to a register
wreg	<addr>	<value>		Read from a register
rreg	<addr>			Display port statistic counter
pkcnt	<port>			Reset port statistic counter
pkcntcle	<port>			
ar				
show_int				Display interrupt counter
_count				
clear_int				Reset interrupt counter
_count				
snmp	getComm [<community> unity]			Set or view community of GetRequest.
	setComm [<community> unity]			Set or view community of SettRequest.
	trustedHost [<host>]			Set or view trusted host.
	st			
	trapCom [<community> munity]			Set or view community of Trap
	trapDest [<destination>]			Set or view trap server.
	disp			View snmp setting.
cluster	active	<name>		Active cluster

	inactive	<name>				Inactive cluster
	add	<MAC addr>	<password>			Add a member into cluster
			>			
	remove	<MAC addr>				Remove a member from cluster.
	showMember					Show member list
	showCandidate					Show candidate list
	status					Show cluster status
config	save					Save configuration
Switch commands: The following commands are under “ sys switch ”						
garp	status					show garp timer status
	timer	<join timer(ms)>	<leave timer(ms)>	<leave all timer(ms)>		set garp timer <join timer> <leave timer> <leave all timer>
gvrp	status					show gvrp status
	enable					enable gvrp function
	disable					disable gvrp function
qos	defpri	<port>	[<0..7>]			set the default ingress User Priority for this port <port>.
	map	<0..7>	[<queue>]			User Priority to Traffic Class mapping.
vlan1q	port	status	<port>			show port <port> VLAN information.
		defaultVID	<port>	<VID>		set defaultVID<VID> of this port<port>.
		accept	<port>	<all tagged>		set acceptFrameType of this port.
				>		
		gvrp	<port>	<enable disable>		Enable/disable the gvrp function of this port <port>.
	svlan	cpu	<VLAN ID>			Set VLAN ID of cpu.
		setentry	<name>	<VID>	<port>	<adctl> <<tagctl> set static entry.<VID>
		delentry	<VID>			delete static entry<VID>
		active	<VID>			active the static entry with <VID>
		inactive	<VID>			inactive the static entry with <VID>
		list				show the static entry table.
	vlan	list	<all vid start_vid end_vid>			Show vlan1q current table.
driver	count	disp				Show the switch NDIS level counters(CPU interface)
		clear				Clear the switch NDIS level counters(CPU interface)

rstp			Please reference to 802.1w
	bridge	enable disable priority <priority> maxAge <max age> helloTim <hello time> e forwardD <forward delay elat time> version <STP:0 RSTP:2 >	Enable RSTP Disable RSTP System Priority Max age timer Hello timer Forward delay time Operation Mode
	port	enable <Port_NO> disable <Port_NO> pathCost <Port_NO> priority <Port_NO> edgePort <Port_NO> p2pLink <Port_NO> mcheck <Port_NO>	Enable this port under RSTP protocol Disable this port under RSTP protocol Cost of this path Priority If this port is an edge port Whether the Port concerned can only be connected to exactly one other Bridge or can be connected to two or more Bridges 802.1w chapter 17.18.10
lacp			Please reference to 802.3ad
	agg		Display aggregation information
	port	enable <Port_NO> disable <Port_NO> status <Port_NO> actorAd m activity [Port_NO [0:passive 1:active]] display [Port_NO] key [Port_NO [Key]] priority [Port_NO [Priority]] timeout [Port_NO [0:long_timeout 1:s hort_timeout]] status keymgnt [on off] sysPriorit <priority> y	Actor means local side
dot1x			Please reference to 802.1x

enable					Enable dot1x
disable					Disable dot1x
status					Show dot1x global status
port	enable	<Port_NO>			Enable this port
	disable	<Port_NO>			Disable this port
	reauth	<Port_NO>	<on/off>		Re-authentication
	reauthPer	<Port_NO>	<value>		Re-authentication period
	iod				
	status	<Port_NO>			Port status
set	auth	<profile radius>			Set authentication method
	portcontr	<port-no>	<auto auth unauth>		Set port authentication status
radius	server	<IP>			Server IP
	secret	<secret>			Secret key
	port	<port>			Server port
	show				Display server setting
profile	add	<username>	<passwd>		Add a user profile
	delete	<idx>			Delete a user profile
	list				List profile setting
class	display				Class setting
	l2set	<src port>	<src MAC>	<dest port>	display run-time status
	del	<class id>	<src vid>	<dest MAC>	Set src/dest port/MAC combination
				<dest vid>	Delete this class
bmstorm	disable				Broadcast Storm Control
	type	<type>			Clear current run-time settings
	basis	<type>			Broadcast/Multicast/Both
	display	[index]			Pkt/Byte
	interval	[value]			Display ports setting
	set	<port>	<dhreshold>	<direction>	Set/display monitor interval
	del	<index>			Threshold:# of pkt can be passed in the interval
					Direction:ingress/egress
					Disable on this port
mac	static				Static MAC setting
	disable				Clear current run-time settings
	display	[port]			display run-time status
	set	<port>	<MAC Addr.>	<vid>	Set static MAC of the port
	del	<port>	<MAC>	<vid>	Delete static MAC of the

			Addr.>		port
filter	disable				MAC filter setting Clear current run-time settings
	display set	<src port>	<src MAC> <src vid>	<dest port> <dest MAC> <dest vid>	display run-time status Set src/dest port/MAC combination (Use "*" as "don't-care" in each field)
mirror	disable				Mirror setting Clear current run-time settings
	display set	<src port>	<src MAC> <src vid>	<dest port> <dest MAC> <dest vid>	display run-time status Set src/dest port/MAC combination for mirror settings (Use "*" as "don't-care" in each field)
		<input output both>			
	port	<port>			What port mirror to
bw	disable				Bandwidth Control setting Clear current run-time settings
	display set	<src port>	<src MAC> <src vid>	<dest port> <dest MAC> <dest vid> <Max BW>	display run-time status Set src/dest port/MAC combination (Use "*" as "don't-care" in each field)
trunk	disable				Trunking setting Clear current run-time settings
	display set del	<group> <group>	<# ports>		display run-time status Set trunking group del trunking group

ip	dhcp	<Iface>	mode	<none client>	Change DHCP mode for interface <Iface>
			status		Show DHCP status
			client	release	Release the IP address
				renew	Renew the IP address.