

1 –

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-

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Broadcast Storm Control

(Broadcast),

(Multicast)

,

DLF (Destination Lookup

Failure). DLF

,

MAC-

,

MAC

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.

,

CLI

storm-control <cr>

interface port-channel <port-list> broadcast-limit <cr>

interface port-channel <port-list> broadcast-limit <pkt/s>

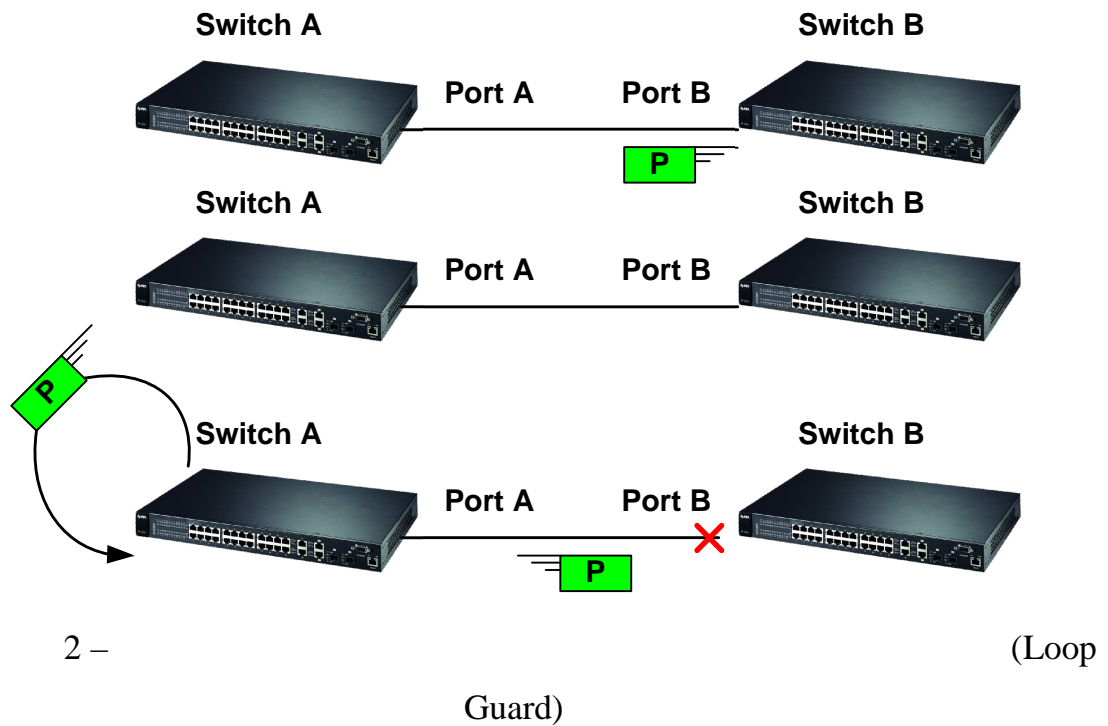
interface port-channel <port-list> multicast-limit <cr>

interface port-channel <port-list> multicast-limit <pkt/s>

interface port-channel <port-list> dlf-limit <cr>

interface port-channel <port-list> dlf-limit <pkt/s>

Loop Guard



Loop Guard – ,

:
 - B, Loop Guard B, probe-
 , multicast- .
 - , A , probe-
 , ,
 .
 - , A ,
 .
 , probe- ,
 , B
 (,
 ,),
 trap- SNMP.

 Loop Guard

Active ☒

Port	Active
*	<input checked="" type="checkbox"/>
1	<input checked="" type="checkbox"/>
2	<input checked="" type="checkbox"/>
3	<input checked="" type="checkbox"/>
4	<input checked="" type="checkbox"/>
5	<input checked="" type="checkbox"/>
6	<input checked="" type="checkbox"/>
7	<input checked="" type="checkbox"/>
8	<input checked="" type="checkbox"/>
9	<input checked="" type="checkbox"/>
10	<input checked="" type="checkbox"/>
11	<input checked="" type="checkbox"/>
12	<input checked="" type="checkbox"/>
13	<input checked="" type="checkbox"/>
14	<input checked="" type="checkbox"/>

CLI

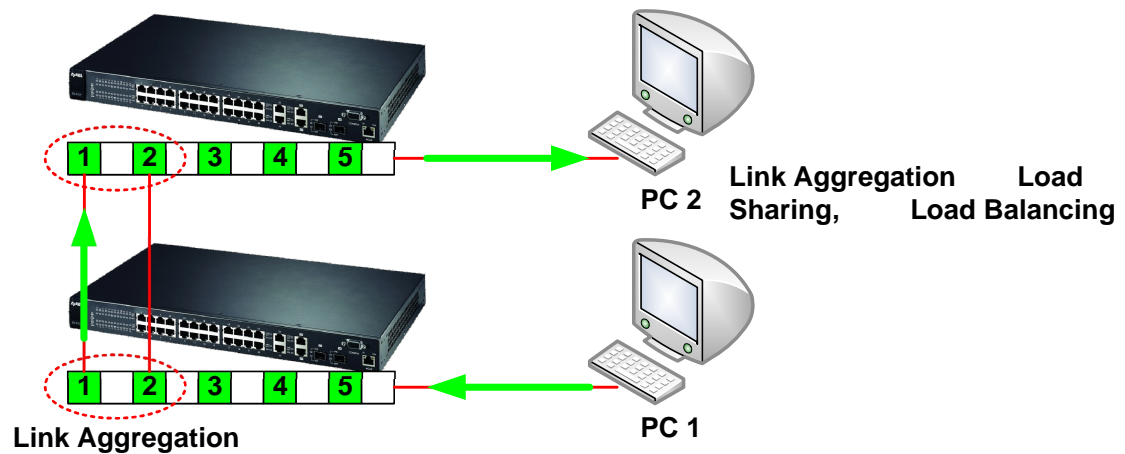
```
loopguard <cr>
```

```
interface port-channel <port-list> loopguard
```

Link Aggregation

Link Aggregation :

-
- 6 , 8
- LACP



4 –

(trunk link aggregation) –

ZyXEL (

), Link Aggregation

(Load Sharing vs. Load Balancing). Load Sharing

MAC-

MAC-

Load Sharing

MAC-

8

CLI

```
trunk <T1|T2|T3|T4|T5|T6> <cr>
trunk <T1|T2|T3|T4|T5|T6> interface <port-list>
```

Link Aggregation Control Protocol

Link Aggregation Setting

Active

☒

System Priority

65535

Group ID	LACP Active
T1	<input checked="" type="checkbox"/>
T2	<input type="checkbox"/>
T3	<input type="checkbox"/>
T4	<input type="checkbox"/>
T5	<input type="checkbox"/>
T6	<input type="checkbox"/>

Port	LACP Timeout
*	30 seconds
1	30 seconds
2	30 seconds

5 – LACP

Link Aggregation Control Protocol (LACP) IEEE 802.3ad, LACP (Link Aggregation Control Protocol). : LACP (30 1) – ,

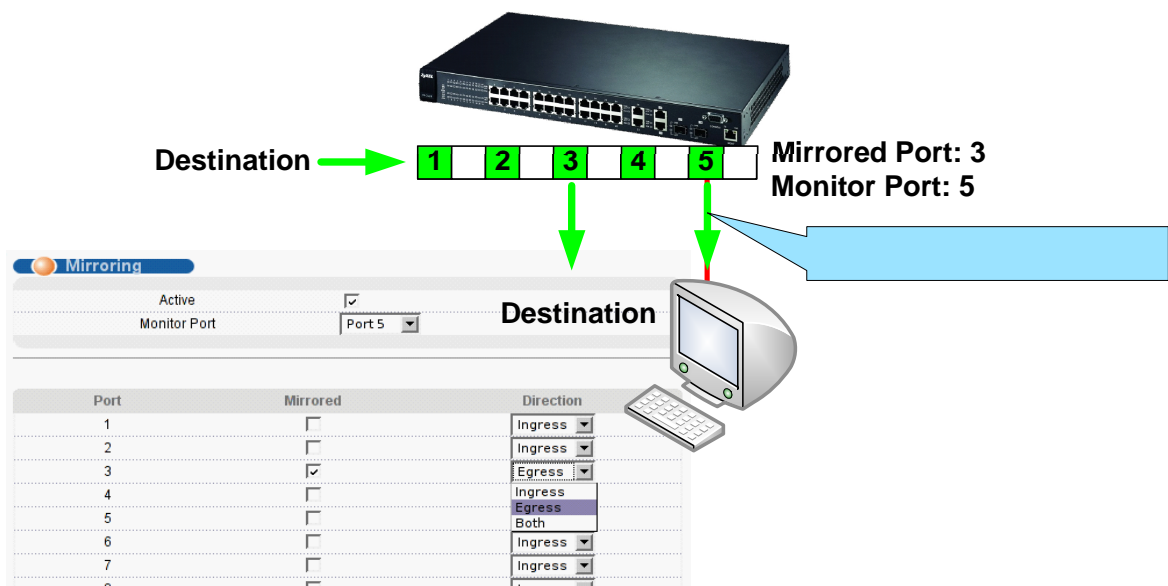
LACP

LACP

CLI

lacp <cr>

lacp system-priority <1-65535>



6 –

Port mirroring ()

(/), ,
.

, , (Monitor Port),
.

Mirrored,
Monitor. , Monitor
Port, Mirrored.

CLI

mirror-port <cr>

mirror-port <port num>

interface port-channel <port-list> mirror <cr>

interface port-channel <port-list> mirror dir <ingress|egress|both>

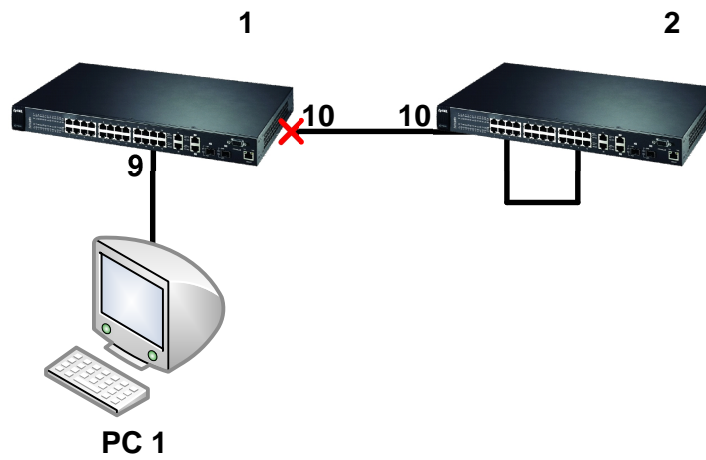
:

, . .

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Loop Guard



7 –

Loop Guard

11 12

2

,

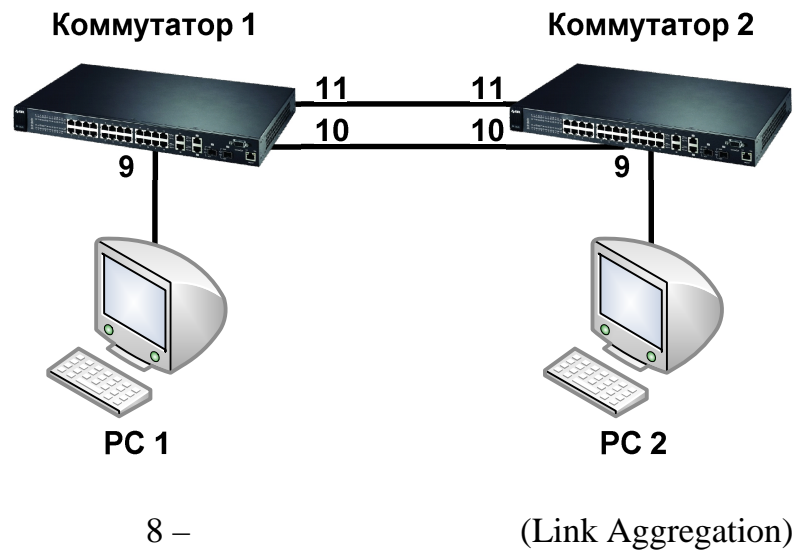
Loop Guard

1,

.

1. PC1 9 1 1
2,
2. 1 Advanced Application > Loop guard
, 10 .
3. 11 12 2,
(2
).
4. 1 (ping).
5. 1 Basic Settings > Port Setup.
Active 10 .
Loop Guard, 10,
.

Link Aggregation



,

.

1. PC1 9 1 PC2 9

2, .

2. 1 IP- 192.168.1.1, 2 IP-

192.168.1.2. IP- :

3. Basic Setting > IP Setup.

1. IP-

Inband.

2.

1. IP Address []

2. IP Subnet Mask []

3. VID [VID IP- ,] (

VID IP- 1).

4. Advanced Application > Link Aggregation > Configuration.

5. ES-3124, GS-4012F, GS-4024

,
10 11, LACP Timeout
LACP.

6. ES-4024A 10 11 , . . .
1, 9, 17 25.
LACP, , index
4, 18 , LACP
LACP Timeout 1 30 .

7. 10 11 ,
(ES-4024A 17 18).

8. PC1 PC2 ping.

9. , ,
.

10. , , . . .
,
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