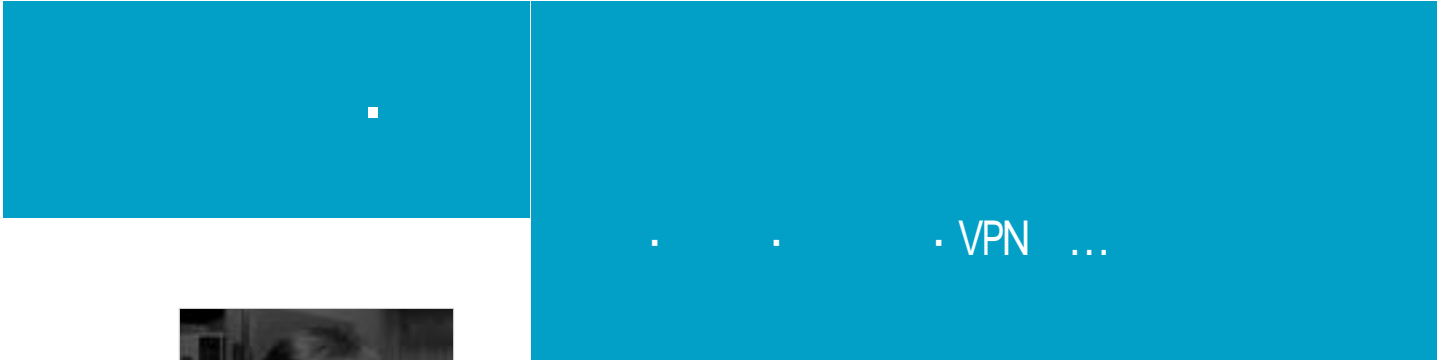


SLB

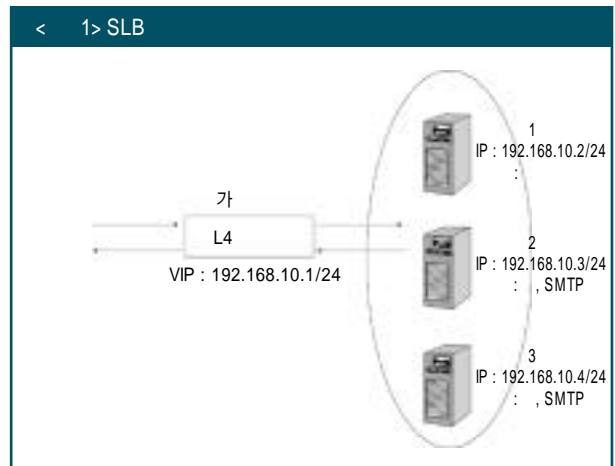
가



<jyc@piolink.com>

(real server) , (cluster) 가  
 (virtual server) < 1> .  
 < 1>

(HTTP, TCP = 80)  
 (S-MTP, TCP = 25) 가



. SLB

가

(bridge mode)

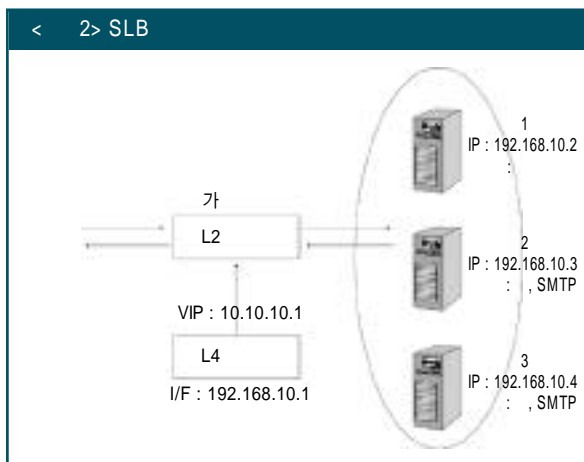
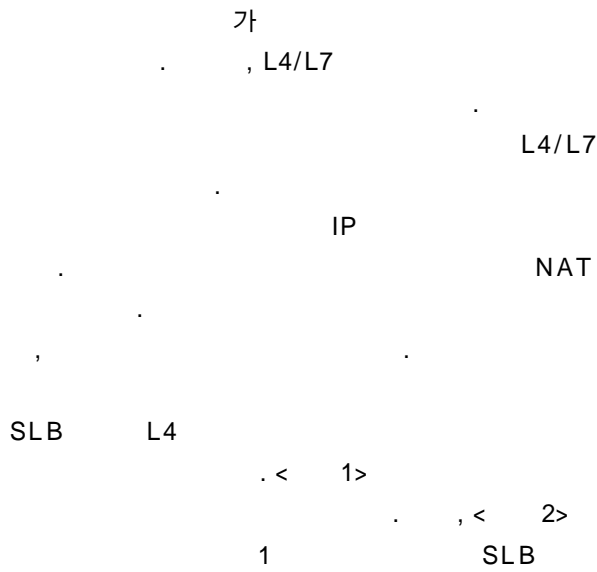
(routing mode)  
 (one-armed) (two-armed) .  
 가

< 1> 가 IP(VIP)  
 192.168.10.1/24 ,  
 192.168.10.x/24  
 (x = 2,3,4) . < 1>  
 SLB .

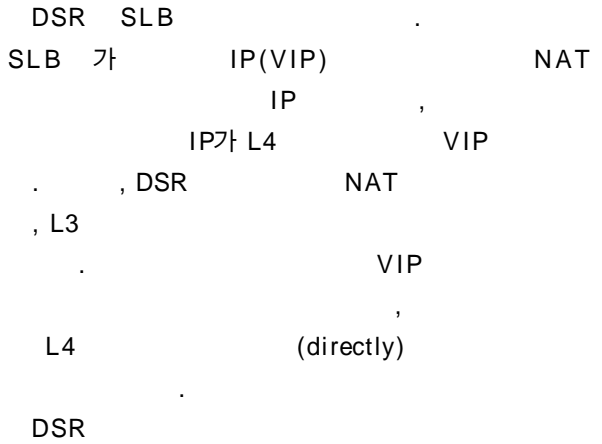
< 1> SLB	
	(bridge mode)
	(routing mode)
	(one-armed)
	(two-armed)

연·제·순·서

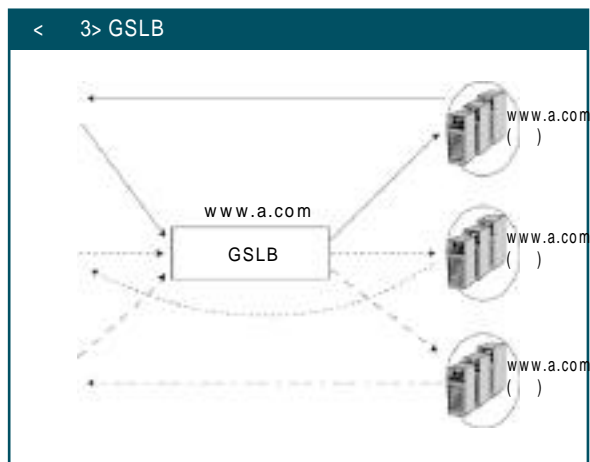
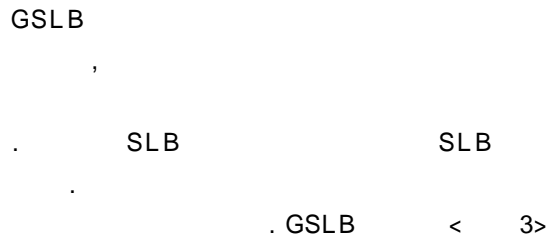
1. L4/L7
2. L4/L7 ( )
3. L4/L7



### DSR(Direct Server Return)



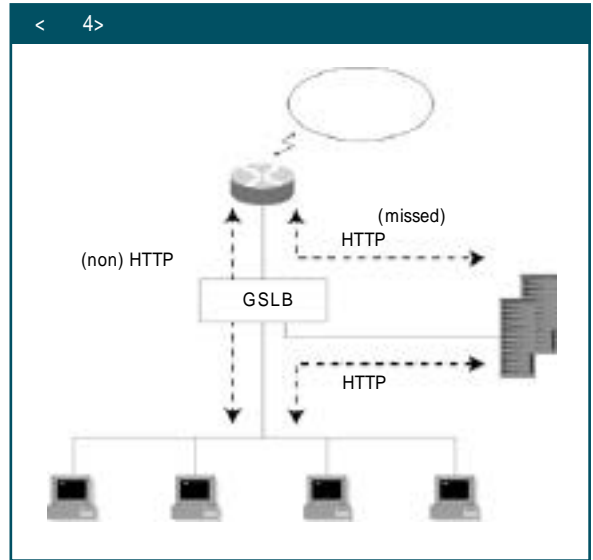
### SLB(GSLB)



. www.a.com 가  
 ( , , )  
 SLB 가 가  
 , 가 가  
 .  
 GSLB ( , www.a.com)  
 , DNS  
 . DNS  
 ,  
 .  
 , GSLB GSLB  
 가 DNS(Authoritative DNS)  
 DNS (proxy)  
 DNS www.a.com  
 , 가  
 ( , , )  
 .  
 DNS GSLB DNS  
 , DNS  
 , GSLB DNS  
 , 가 가  
 . GSLB  
 , e-  
 ,  
 e- . GSLB  
 SLB  
 ,  
 가  
 , CDN(Contents Delivery Networks)

(Cache Redirection)

(WWW) 가  
 가 (transparent)  
 (TCP = 80 )



(URL ) L4  
 . URL  
 (hit), 가  
 (missed) 가 URL

RTSP(Real Time Streaming Protocol : TCP, UDP=554), NNTP(Net News Transfer Protocol : TCP=119)

L4 (Packet Redirection)

가  
 ( ) 가  
 L4

(FWLB)

(single point of failure)

가

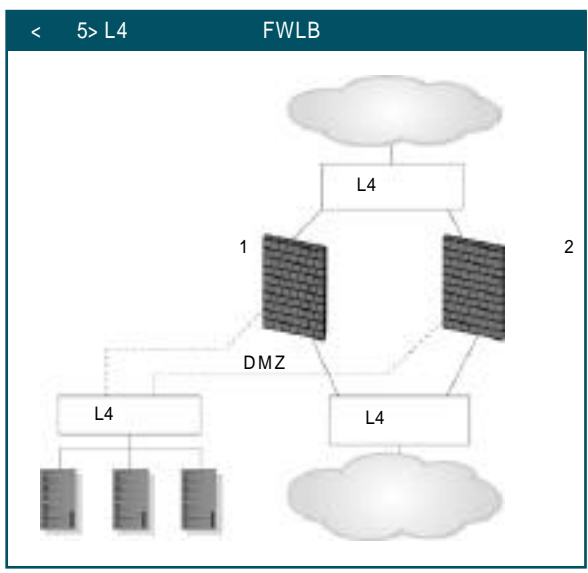
FWLB 3가

- 가 가
- 가
- 가

FWLB (Public network)  
(Private network) 2 L4 (L4, L4) L4

가 L4  
FWLB (illegal packet) L4 가 L4 L4

DMZ DMZ L4 가  
< 5> FWLB



VPN (VPNLB)

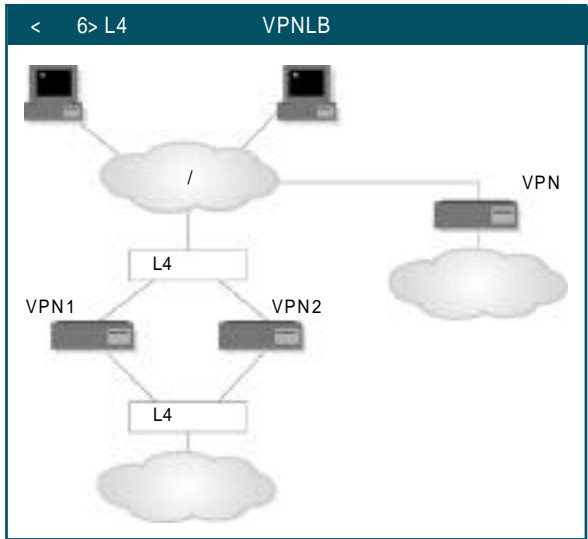
VPN

VPN

(remote access users)

IPSec, L2TP, PP2P <

6> VPN VPNLB



가

NAT IP

FWLB (hashing)

VPNLB 가 , VPN IP IP

L4 L4

(round-robin),

(least-connection),  
(weighted algorithm)

VPNLB

(NMS, ) 가

L4 VPN VPN1, 7>

가 L4 VPN

(NLB)

L4 (NLB)

. NLB L4

1508-NLB, F5

ISP(Internet Service Provider)

가

가

NLB L4  
ADSL,

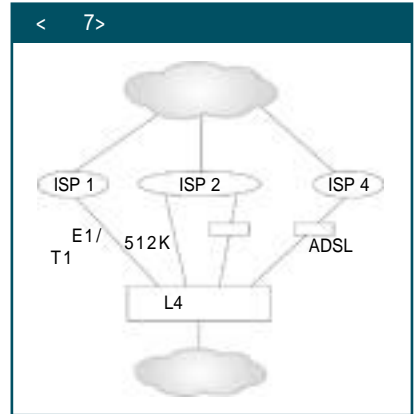
ISP

< 2> NLB			
NLB (E1 )	1/30		
NLB (E1+1 x ADSL)	1/300	1	
NLB (E1+ 3 x ADSL)	1/30000	82	

NLB

< 7>

< 7>



ISP 1 A, ISP 2

B , ISP 3 ADSL

IP A IP

B IP , IP

PAT(Port Address Translation)

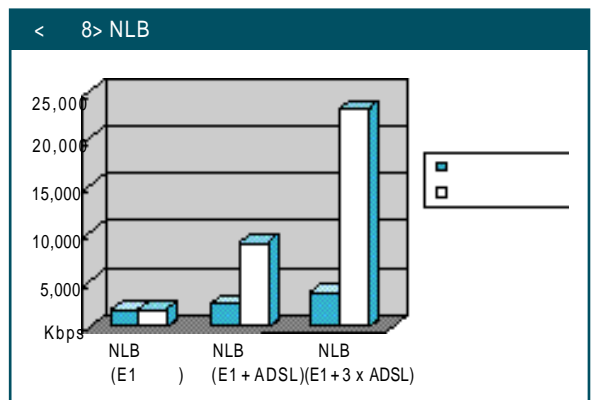
ADSL/VDSL IP가

PAT IP . NLB

< 8> E1

8Mbps ADSL 3 가 NLB

가



, NLB

. < 8> E1

ISP ADSL 3

ADSL 10 가

< 2>

