University of Liège
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Securing network with firewalls and NATs

Step 2: high-level rules

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1 High-level rules

The rules for each firewall are defined in Tables 1, 2, 3 and 4. For each zone, from more secured to less secured, we define first the rules for incoming traffic and then the rules for outgoing traffic. We end with a rule that deny all and log.

1.1 Firewall 1

#	Source	Port	Destination	Port	Protocol	Action	Comments
Incoming traffic *z_servers_1*							
1	*	*	*	*	*	*	*
Outgoing traffic *z_servers_1*							
2	*	*	*	*	*	*	*
Incoming traffic *z_public*							
1	*	*	*	*	*	*	*
Outgoing traffic *z_public*							
2	*	*	*	*	*	*	*
Other							
3	*	*	*	*	*	deny, log	Should not happen. Log to be sure.

Table 1: Rules for firewall *FW1*.

1.2 Firewall 2

#	Source	Port	Destination	Port	Protocol	Action	Comments
Incoming traffic *z_subnet_2*							
1	*	*	*	*	*	*	*
Outgoing traffic *z_subnet_2*							
2	*	*	*	*	*	*	*
Incoming traffic *z_lweb*							
1	*	*	*	*	*	*	*
Outgoing traffic *z_lweb*							
2	*	*	*	*	*	*	*
Other							
3	*	*	*	*	*	deny, log	Should not happen. Log to be sure.

Table 2: Rules for firewall *FW2*.

1.3 Firewall 3

#	**Source**	**Port**	**Destination**	**Port**	**Protocol**	**Action**	**Comments**
Incoming traffic *z_nfs*							
1	*	*	*	*	*	*	*
Outgoing traffic *z_nfs*							
2	*	*	*	*	*	*	*
Incoming traffic *z_u3*							
1	*	*	*	*	*	*	*
Outgoing traffic *z_u3*							
2	*	*	*	*	*	*	*
Other							
3	*	*	*	*	*	deny, log	Should not happen. Log to be sure.

Table 3: Rules for firewall *FW3*.

1.4 Firewall 4

#	**Source**	**Port**	**Destination**	**Port**	**Protocol**	**Action**	**Comments**
Incoming traffic *z_subnet_1*							
1	*	*	*	*	*	*	*
Outgoing traffic *z_subnet_1*							
2	*	*	*	*	*	*	*
Incoming traffic *z_servers_2*							
1	*	*	*	*	*	*	*
Outgoing traffic *z_servers_2*							
2	*	*	*	*	*	*	*
Other							
3	*	*	*	*	*	deny, log	Should not happen. Log to be sure.

Table 4: Rules for firewall *FW4*.

2 Explanations

to do