

Kaunas University of Technology

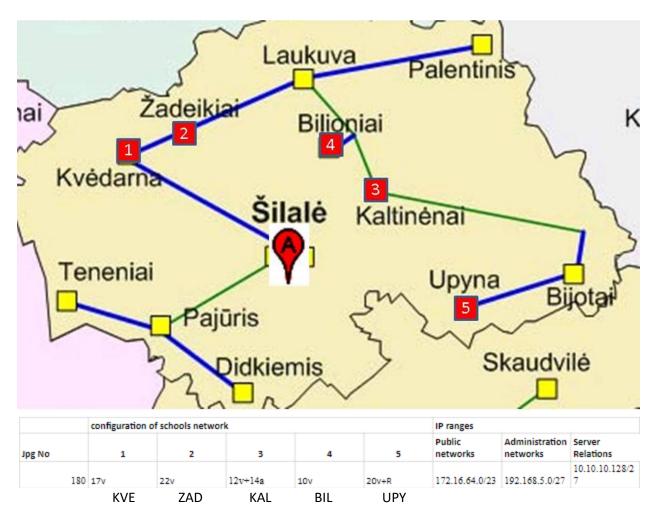
Faculty of Informatics

Networks

Name: Zalal

Surname: YOUSSEF

Group: IFU-1



LAN	Number of interfaces	Subnet type	Subnet size	Prefix	Mask	Address range from - to
Rsil-Rkve	1+1	Server-R	4	/30	255.255.255.252	10.10.10.128-10.10.10.131
Rkve-Rzad	1+1	Server-R	4	/30	255.255.255.252	10.10.10.132-10.10.10.135
Rzad-Rkal	1+1	Server-R	4	/30	255.255.255.252	10.10.10.136-10.10.10.139
Rkal-Rupy	1+1	Server-R	4	/30	255.255.255.252	10.10.10.140-10.10.10.143
New	1+1	Server R	4	/30	255.255.255.252	10.10.10.144-10.10.10.147
KVE	17+1	Public	32	/27	255.255.255.224	172.16.64.0-172.16.64.31
ZAD	22+1	Public	32	/27	255.255.255.224	172.16.64.32-172.16.64.63
UPY	20+1	Public	32	/27	255.255.255.224	172.16.64.64-172.16.64.95
BIL	10+1	Public	16	/28	255.255.255.240	172.16.64.96-172.16.64.111
KAL-v	12+1	Public	16	/28	255.255.255.240	172.16.64.112-172.16.64.127

KAL-a	14+1	Admin	32	/27	255.255.255.224	192.168.5.0-192.168.5.31
Ssil-Rsil	1+1	Admin	4	/30	255.255.255.252	192.168.5.32-192.168.5.35

In the last column, we are going to write the beginning and the end addresses of the address segment: According to the task provided:

Public School Networks	172.16.64.0/23
For administrative networks	192.168.5.0/27
Server Relation networks	10.10.10.128/27

It's useful to know when addressing addresses that the address segments are left unused so that we can expand the network by performing tasks specified in the job defense.

Purpose	Given segment	Used	Left free
Public School Networks	172.16.64.0/23	172.16.64.0- 172.16.64.127	172.16.64.128- 172.16.65.255
For administrative networks	192.168.5.0/27	192.168.5.0- 192.168.5.35	192.168.5.36- 192.168.5.223
Server Relation networks	10.10.10.128/27	10.10.10.128- 10.10.10.147	10.10.10.148- 10.10.10.159

In order not to make mistakes in calculating the Gateway addresses manually and by assigning IP addresses to computers, we create an additional table:

LAN	Number of interfaces	Mask	Address range from - to	Gateway (Router connection) address	Computer Addresses
KVE	17	255.255.255.224	172.16.64.0- 172.16.64.31	172.16.64.30	172.16.64.1-17
ZAD	22	255.255.255.224	172.16.64.32- 172.16.64.63	172.16.64.62	172.16.64.33-54
UPY	20	255.255.255.224	172.16.64.64- 172.16.64.95	172.16.64.94	172.16.64.65-84
BIL	10	255.255.255.240	172.16.64.96- 172.16.64.111	172.16.64.110	172.16.64.97-106
KAL-v	12	255.255.255.240	172.16.64.112- 172.16.64.127	172.16.64.126	172.16.64.113- 124

KAL-a	14	255.255.255.224	192.168.5.0-	192.168.5.30	192.168.5.1-14
			192.168.5.31		
Ssil-Rsil	1	255.255.255.252	192.168.5.32-	192.168.5.34	192.168.5.33
			192.168.5.35		

Rsil:

Marking	Network IP Address	Network Mask	Through which router	The next hop address
sat	172.16.0.192	255.255.255.240	Rsat	
not	172.16.0.160	255.255.255.224	Rsat	
bar	172.16.0.64	255.255.255.192	Rbar	
Ylak-v	172.16.0.0	255.255.255.192	Rylak	
Ylak-a	192.168.0.0	255.255.255.248	Rylak	