Министерство образования и науки Российской Федерации

Федеральное государственное автономное образовательное учреждение высшего образования

«Национальный исследовательский Университет ИТМО»

Факультет информационных технологий и программирования

Кафедра компьютерных технологий

Практическая работа № 4

Выполнили студенты группы М3435, М3436:

Бурцева Полина Сергеевна

Кочетков Никита Олегович

Проверил:

Береснев Артем Дмитриевич

Санкт-Петербург

2020

General

Файл модели и скрипты (3 шт) приложены в письме.

VLAN

VLAN-ID	Name	Address	Information
10	MainOffice	10.10.0.0/24 10.10.0.1	PC - 18 pieces (Main office) printer - 1 pieces (Main office) access point - 1 (Second office)
20	SecondOffice	10.20.0.0/24 10.20.0.1	PC - 4 pieces (Second office) printer - 1 pieces (Second office)
30	Cams	10.30.0.0/24 10.30.0.1	Cam - Main office, Second office, Server
40	Server	10.40.0.0/24 10.40.0.2	Server

IP addresses

Devices	IP address	Default gateway
Server	Static address - 10.40.0.1	10.40.0.2
PCs, printer, Wi-fi in Main office	Dynamic address from 10.10.0.4/24	10.10.0.1
PCs, printer in Second office	Dynamic address from 10.20.0.4/24	10.20.0.1
Cams in both offices	Dynamic address from 10.30.0.4/24	10.30.0.1

Commutators

Device name	Port info	Connection info
Main Office	Fa0/1-19 - access ports (vlan 10) Fa0/20 - access port (vlan 30) Fa0/21 - trunk port	Fa0/1-18 - PCs (in Fa0) Fa0/19 - printer (in Fa0) Fa0/20 - cam (in Fa0) Fa0/21 - Multilayer Switch (in Fa0/3)

Second Office	Fa0/1-5 - access ports (vlan 20) Fa0/6 - access port (vlan 30) Fa0/7 - access port (vlan 10) Fa0/8 - trunk port	Fa0/1-4 - PCs (in Fa0) Fa0/5 - printer (in Fa0) Fa0/6 - cam (in Fa0) Fa0/7 - access point (in Eth0) Fa0/8 - Repeater (Multilayer Switch) (inEth1)
Multilayer Switch	Fa0/1 - access port (vlan 40) Fa0/2 - access port (vlan 30) Fa0/3 - trunk port Fa0/4 - trunk port	Fa0/1 - Server (in Fa0) Fa0/2 - cam (in Fa0) Fa0/3 - Main Office (in Fa0/21) Fa0/4 - Repeater (Second Office) (in Eth1)
Repeater 1	Fa0 - access port Eth1 - trunk port	Fa0 - Repeater 2 Eth1 - Multilayer Switch
Repeater 2	Fa0 - access port Eth1 - trunk port	Fa0 - Repeater 1 Eth1 - Second Office

Physical connection

Connection type	Connector
PC to switch, printer to switch, cam to switch, access point to switch, Server to switch	Copper straight-through
switch to switch, repeater to switch, repeater to repeater	Copper cross-over