**Introduction:**

The objective of this project is to set up Monstrosity Inc. with a new network that connects their various buildings, connect the database to the network, and move their emails to the cloud. The network and the emails need to be secured and tested.

**Test Items:**

For this project, we will need to test that the:

network is successfully set up and running

database is successfully connected to the network

emails were successfully transferred to the cloud

WIFI for the customers and employees are separate and their firewalls are working properly

network is properly secure

**Features not to be tested:**

User interfaces will not be tested during this project; the building and testing of the user interface will be handled by others.

**Test data necessary:**

In order to test that the network is successfully set up and running, it needs to be set up at least partially.

In order to test that the database was successfully connected to the network, the network must first be set up and running.

In order to test that the emails were successfully transferred to the cloud, the transfer process must have started.

In order the test that the WIFI for the customers and employees are separate and that their firewalls are working properly, the WIFI needs to be up and running.

In order to test that the network is properly secure, the network needs to be up and running.

**Approach:**To test that the network is successfully up and running, at each site we will attempt to ping machines at the other offices to ensure communication.

To test that the database was successfully connected to the network we will attempt to access it from each office location.

To test that the emails were successfully transferred to the cloud, we will send test emails and we will talk with the hosting service to ensure everything is going well.

To test that the WIFI for the customers and employees are separate, and that their firewalls are working properly we will attempt to access blocked sites and check that the SSIDs are properly separated.

To test that the network is properly secure we will perform vulnerability testing, we will scan the network with a port scanner, and penetration testing.

Pass/Fail Criteria:

network is successfully set up and running

Pass: The network is connected to all offices and all offices are able to use the internet

Fail: Any of the offices are unable to access the network or the internet

database is successfully connected to the network

Pass: All offices are able to successfully connect to the database and have the proper permissions and control

Fail: Any of the offices are unable to access the database, or any of the users don’t have the proper permissions and control

emails were successfully transferred to the cloud

Pass: Emails are able to be sent to, and from all emails on the cloud

Fail: Any of the emails are unable to send, or receive emails

WIFI for the customers and employees are separate and their firewalls are working properly

Pass: All employees and customers are able to access the internet and are unable to access any blocked websites

Fail: Any of the employees and customers are unable to access the internet or are able to access any blocked websites

network is properly secure

Pass: Vulnerability testing reveals a limited number of vulnerabilities if any, the port scanner reveals very few to no unsecure ports, and penetration testing results in unsuccessful penetration

Fail: Vulnerability testing reveals a large number of vulnerabilities, the port scanner reveals many unsecure ports, or penetration testing results in successful penetration

**Suspension and Resumption Criteria:**

network is successfully set up and running:

Should the tests fail, they will be stopped; the company we use to set up the network will be contacted, and once they fix the issue testing will begin again

database is successfully connected to the network:

Should the tests fail, they will be stopped; they will not resume until we are able to find and dress the error preventing the database from connecting to the network

emails were successfully transferred to the cloud

Should the tests fail, they will be stopped; the company hosting the emails will be contacted and testing will not resume until the company notifies us that the error was handled

WIFI for the customers and employees are separate and their firewalls are working properly

Should the tests fail, they will be stopped; the company hosting the network will be contacted and will not resume until they notify us that the errors have been fixed

network is properly secure

Should any of tests fail, they will continue until all the tests are complete; the results will be used to fix the issues and testing will restart once the fixes are made

**Testing Tasks:**

Define test schedule

Create test cases

Determine method of vulnerability testing

**Environmental needs**

All testing will be performed at each of the offices

**Responsibilities:**

All testing tasks will be performed by the project participants as the systems are implemented.

**Risks and contingencies:**

Accidentally having something malicious pass through the firewall

Test only safe sites to ensure sites are being blocked properly

Loss of email data

Back up important emails before transferring

Loss of database data while connecting it to the network

Create backups and remove access while connecting it to the network