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Cyber Security Awareness

Protect Your Identity & Securing Your Home Network

Handout

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1.0 Securing Passwords

- Make your password a sentence: A strong password is a sentence that is at least 16 characters long.

  Example: I love country music > Il@vec@ountrymus1c

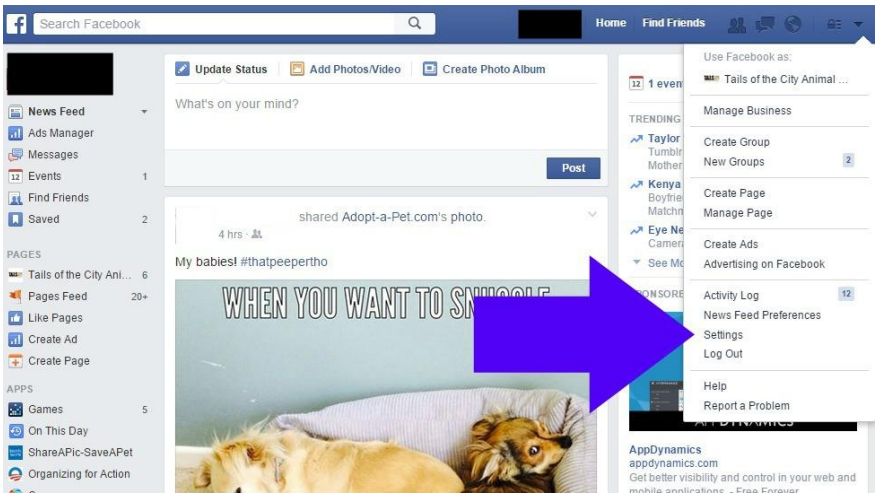
- Unique account, unique password; having separate passwords for every account helps to thwart cybercriminals. At a minimum, separate your work and personal accounts and make sure that your critical accounts have the strongest passwords.

- Write it down and keep it safe: Anyone can forget a password. Keep a list that's stored in a safe, secure place away from your computer. You can alternatively use a service like a password manager to keep track of your passwords.

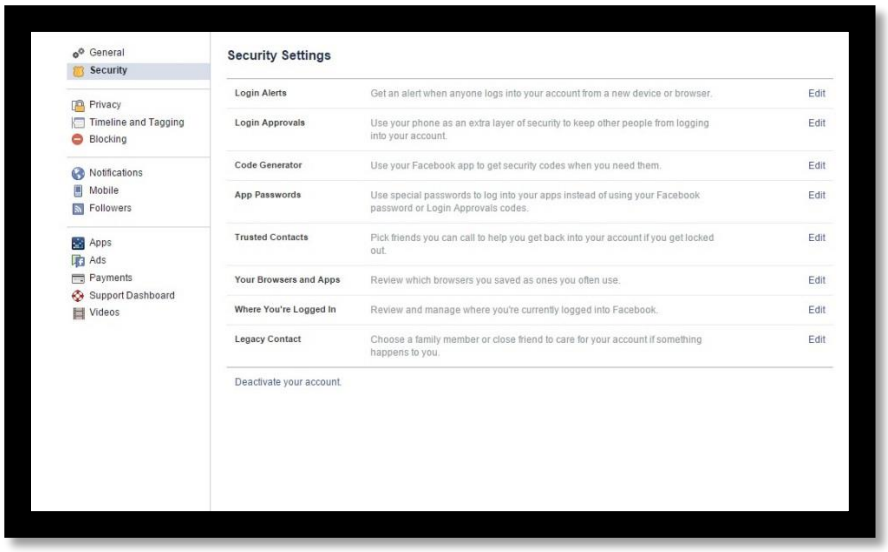
1.1 Two –Factor Authentication (2FA)

How to Turn On 2FA for Facebook

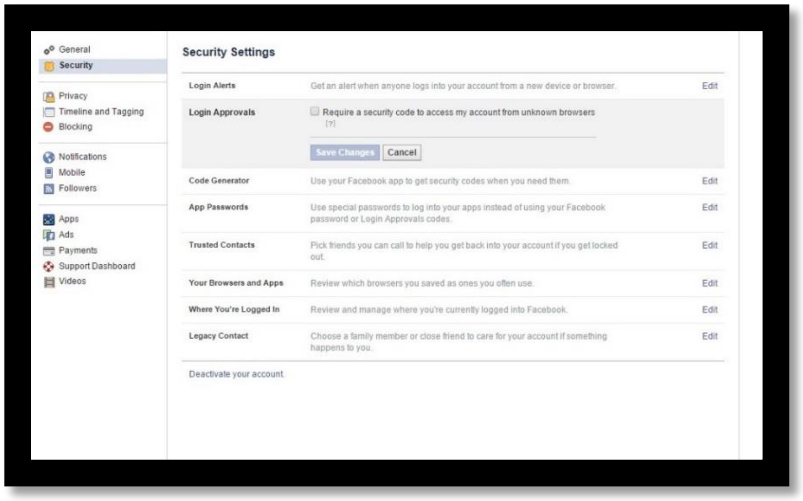
1. Go to your Settings page, found in the top right drop down menu at the top of the page.



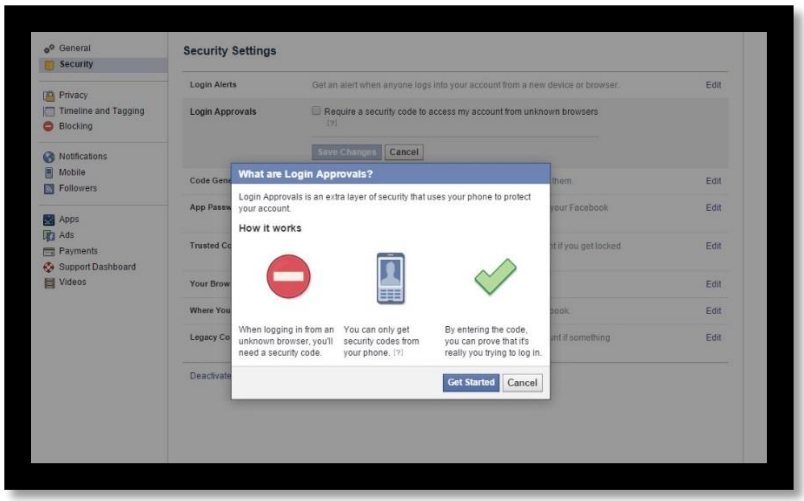
2. Click on Security from the menu on the left. This page will show you options for Login Alerts and Login Approvals.



3. Turn on 2FA by going to Login Approvals, and clicking on Edit. Next you will be asked if you want to require a security code to access your account from unknown devices. Check this box.

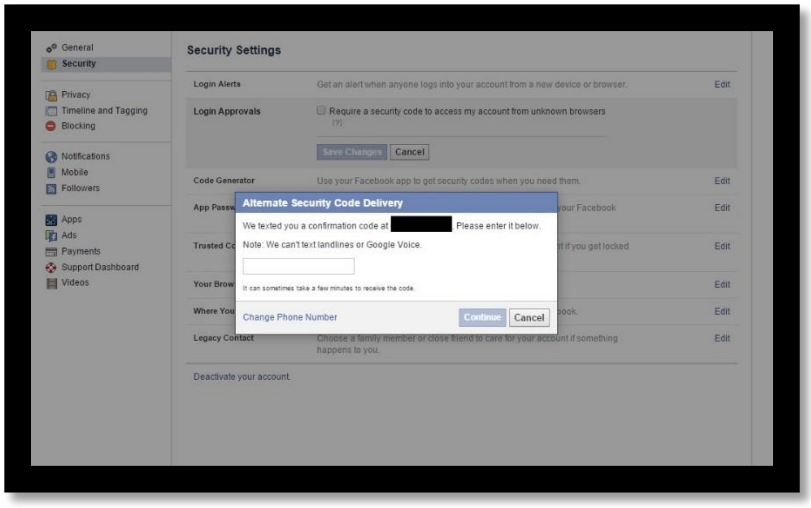


4. A pop-up then explains how this works. Click Get Started.

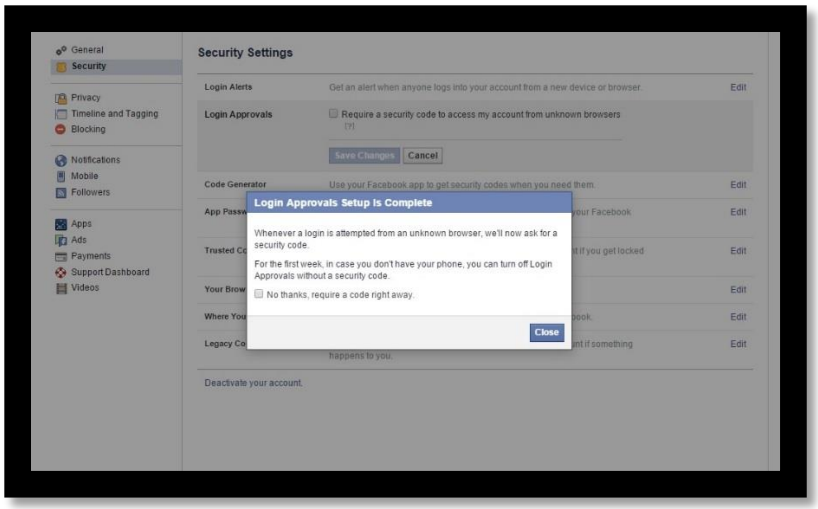


5. You will be asked for a phone number (if you have not already provided one for your account) and a confirmation code will be sent via SMS to this number.

6. Once you receive the SMS with the confirmation code, enter it and click Continue.



7. Login Approval setup is complete.



2.0 Configure Wi-Fi Router with OpenDNS

1. Open the Wi-Fi router console by typing router IP address

2. Find the DNS server settings.

Scan for the letters **DNS** next to a field which allows two or three sets of numbers, each broken into four groups of one to three numbers. It may look like this:

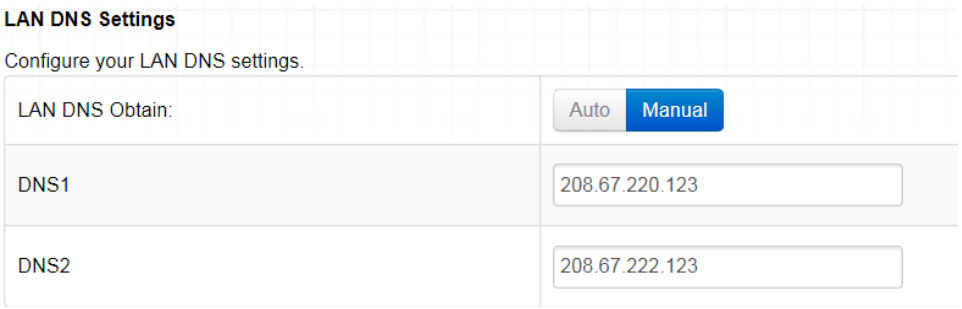
64 . 158 . 219 . 100

64 . 158 . 219 . 200

3. Put in the FamilyShield OpenDNS server addresses as your DNS server settings and save/apply.

Please write down your current settings before entering the OpenDNS addresses, just in case.

- 208.67.222.123
- 208.67.220.123



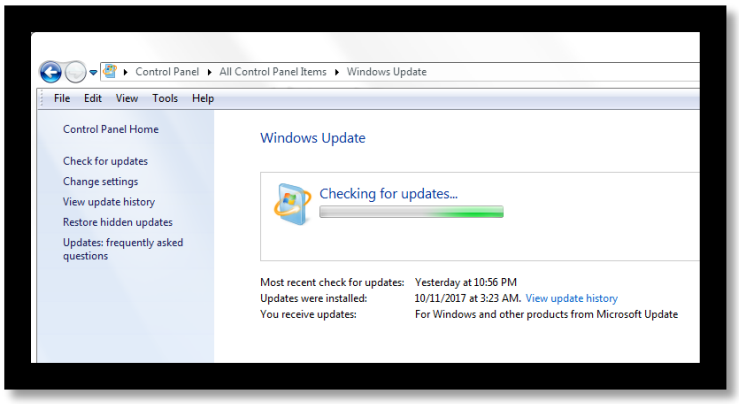
4. Test your Settings

Browse to https://welcome.opendns.com/. If you have successfully set your public DNS to your servers, you will see "Welcome to OpenDNS!".

3.0 Keep Your PC up to date

1. Install Microsoft Operating System latest Patch

Select the Start button, then in the search option type Windows Update



2. Install Anti-Virus Application

a) Windows Defender Anti-virus (Built-in to Windows 10)

b) Windows Security Essentials
https://support.microsoft.com/en-us/help/14210/security-essentials-download
c) Total AV > https://www.totalav.com/free-download
d) PC Protect > https://www.pcprotect.com/start/download
e) Avira > https://www.avira.com/en/free-antivirus-windows
f) Avast > https://www.avast.com/en-us/download-thank-you.php?product=FAV-PPC&locale=en-us&ppc=b1

3) Scan your computer if needed from Microsoft Safety Scanner
https://www.microsoft.com/en-us/wdsi/products/scanner

4.0 How to Protect PC from Ransomware

How do I protect my computer against ransomware?

- Back up your important files regularly
- Make two backup copies, store in at least two locations, with at least one offline copy. Use a cloud storage service, like OneDrive or Goggle Drive
- Install and use an up-to-date anti-virus solution.
- Don't click links or open attachments or emails from people you don't know or companies you don't do business with.
- Make sure your software is up-to-date to avoid exploits.

How do I remove ransomware from my PC?

Method 1: Use the Microsoft Safety Scanner in safe mode

Download a copy of the Microsoft Safety Scanner using a clean, non-infected PC. Copy the downloaded file to a blank USB drive or CD, and then insert it into the infected PC in safe mode.

Method 2: Use Windows Defender Offline

If you are unable to download or run Microsoft Safety Scanner, use the free standalone tool, Windows Defender Offline. Download a copy of Windows Defender Offline using a clean, non-infected PC. Insert a blank USB flash drive or CD into the PC. When you run Windows Defender Offline, you will be prompted to install the tool on the USB flash drive or CD

Reference : https://www.microsoft.com/en-us/wdsi/threats/ransomware

5.0 How to encrypt/decrypt email

How to encrypt email:

1. Download cipher software from below location

   https://encipher.it/download
2. Open Encipher application by typing "encipher it" in the search option

3. Enter your message in:
4. Enter a password to encrypt your message
5. Give the password to your recipient via any other way (phone, SMS, WhatsApp, etc)
6. Insert the ciphertext in your email message and send your encrypted email

How to decrypt email:

1. Download cipher software from below location

   https://encipher.it/download
2. Open Encipher application by typing “encipher it” in the search option
3. Click on “Decrypt it” and brose the file that you want to decrypt.
4. Enter the password that you received from sender
5. Save the file as decrypted format.

6.0 Windows Operating System Fundamentals

1. **What can be typed in the Run/Search to open the following windows features/utility?**
   a) Command line window=>**cmd**
   b) System information windows=> **msinfo32**
   c) System Properties Windows=> **sysdm.cpl**
   d) Event log Windows=>**eventvwr**
   e) Windows registry=>**regedit**
   f) Performance Monitor => **perfmon**
   g) Task Manager=>**taskmgr**
   h) Device Manager =>**devmgmt.msc**
   i) Disk Management > **diskmgmt.msc**

2. **How to open Computer Management**
   a) Right Click on My Computer, then Click on **Manage**
   b) Start > Run>type **compmgmt.msc**

3. What is the functions of the following Windows Utility?

Computer Management: Computer Management is a collection of Windows administrative tools that you can use to manage a local or remote computer. The tools are organized into a single console, which makes it easy to view administrative properties and to gain access to the tools that are necessary to perform computer-management tasks.

To launch Windows Computer Management

Click Start, click in the Start Search box, type **compmgmt.msc**, and press ENTER.

Event Viewer: Event Viewer tool is used to manage and view events that are recorded in the Application, Security, and System logs. We can monitor the logs to track security events and to identify possible software, hardware, and system problems.

To launch Windows Event Viewer

Click Start, click in the Start Search box, type **eventvwr**, and press ENTER.

Task Manager: Task Manager provides information about programs and processes running on the computer. It also displays the most commonly used performance measures for processes.
We can use Task Manager to monitor key indicators of the computer's performance.

To launch Windows Task Manager

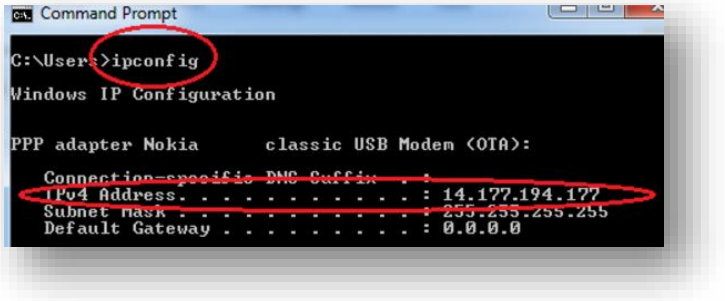
Click Start, click in the Start Search box, type **taskmgr**, and press ENTER.

Performance Monitor: Performance Monitor is used to Monitor application and hardware performance in real time, customize what data we want to collect in logs, define thresholds for alerts and automatic actions, generate reports, and view past performance data in a variety of ways.

To launch Windows Performance Monitor

4. What is IP address? What is the command to display IP Address of a computer?
Network IP address is used to identify a host (PC or any network device) in a network. IP is a 32 bit binary number divided into 4 octet groups, each octet giving a maximum of 255 in decimal. For easier addressing of these IP address octet, they are written as dotted decimals.

C:\> **ipconfig /all**



5. How to open Network TCP/IP Properties

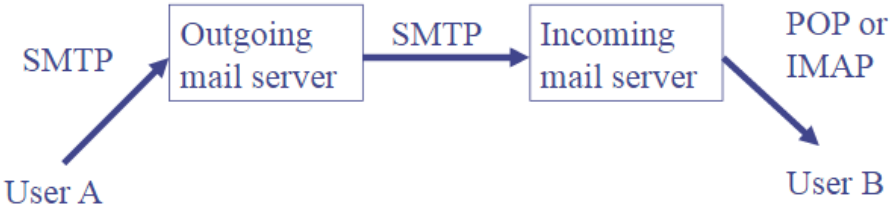
a) Start > Run >type **ncpa.cpl**
b) Right Click on **Local Area Connection,** then click on **Properties**
c) Then Choose **TCP/IP** and then **Properties**

6. What is the function of the following Protocol?

a) SMTP b) POP/IPAM c) HTTP d) SSL e) FTP f) Telnet

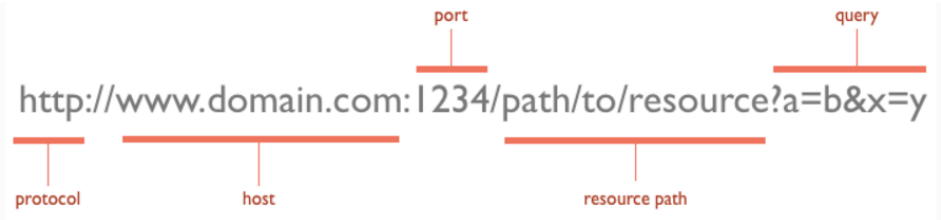
IMAP: Internet Message Access Protocol - A protocol for receiving e-mail messages from mail server

SMTP: Simple Mail Transfer Protocol - A protocol for sending e-mail messages on the Internet

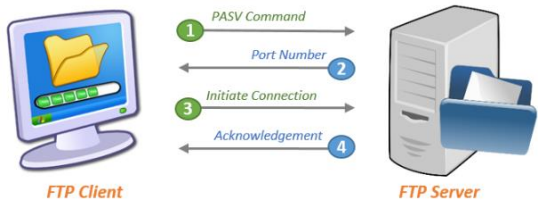


HTTP: Hypertext Transfer Protocol - An Internet-based protocol for sending and receiving webpages

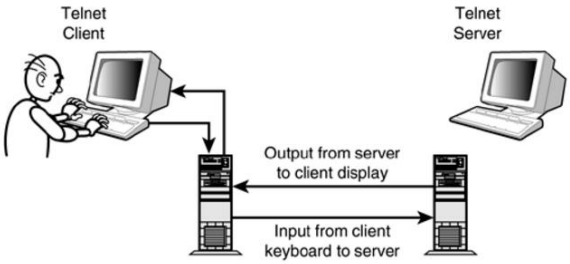
HTTPs: Secure HTTP



FTP: File Transfer Protocol is used to send or receive file from one organization to another organization.



Telnet: Telnet is a set of components that provide terminal-like access to a remote computer. A Telnet session requires a Telnet client that will serve as the remote terminal and a Telnet server, which receives the connection request and allows the connection.



7. What is a Domain?

A Domain is a group of computers and devices on a network that are administered as a unit with common rules and procedures. Within the Internet, domains are defined by the IP address. All devices sharing a common part of the IP address are said to be in the same domain.

A domain name is a way to identify and locate computers and resources connected to the Internet. No two organizations can have the same domain name.

Every company or organization that wants to be on the internet will register a domain name for use as their on-line identity or a name that clients will use to access on-line services such as the organization's website or email system.

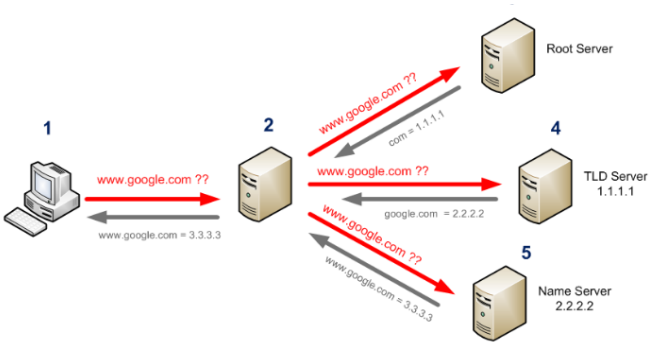
For example, Revision (6) Multicultural Council of Community Development (MCoCD) registered the domain name **mcocd.com**, so users on the internet can access their website at www.mcocd.com and send an email to MCOCD employees at workshop@mcocd.com

8. What is DNS?

DNS is a database of a network system, where it keeps all the names of the network objects and their associated IP Address. When a client is looking for a server name or URL name, it first asks DNS server to provide its IP address.

DNS = Domain Name System or Service or Server

DNS resolves/maps a Name to an IP address



9. What is DHCP?

DHCP is a network server service where it provides IP address, and DNS address to a client automatically