# Practical Paranoia. macOS 10.13 Security Essentials

The Easiest
Step-By-Step
Most Comprehensive
Guide To Securing Data and Communications
On Your Home and Office macOS Computer

The Practical Paranoid

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Practical Paranoia: macOS 10.13 Security Essentials

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## Dedication

To Candace, without whose support and encouragement this work would not be possible

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## PRACTICAL PARANOIA MACOS 10.13 SECURITY ESSENTIALS

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## 19 Internet Activity

If you go to a coffee shop or at the airport, and you're using open wireless, I would use a VPN service that you could subscribe for 10 bucks a month. Everything is encrypted in an encryption tunnel, so a hacker cannot tamper with your connection.

-Kevin Mitnick<sup>1</sup>

## What You Will Learn In This Chapter

- Virtual Private Network
- Search for a VPN host
- Install and configure VPN
- Create a mesh VPN
- File share within a Hamachi VPN
- Resolve email conflicts with VPN

<sup>&</sup>lt;sup>1</sup> https://en.wikipedia.org/wiki/Kevin\_Mitnick

## 19.1 Virtual Private Network

In case you have been sleep reading through this book, let me repeat my wake-up call: *They are watching you on the Internet. They* may be the automated governmental watchdogs (of your own or another country), government officials (again, of your own or another country), bored staff at an Internet Service Provider or broadband provider, a jealous (and slightly whackadoodle) ex, high school kids driving by your home or office or sitting on a hill several miles away, or criminals.

Regardless, your computer and data are at risk.

Perhaps one of the most important steps that can be taken to protect you is to encrypt the entire Internet experience all the way from your computer, through your broadband provider, to a point where your surfing, chat, webcam, email, etc. cannot be tracked or understood. This is accomplished using a technology called *VPN–Virtual Private Network*<sup>2</sup>.

<sup>&</sup>lt;sup>2</sup> http://en.wikipedia.org/wiki/Virtual\_private\_network

## 19.2 Gateway VPN

There are two fundamental flavors of VPN. The most common is called a *gateway VPN* (mesh VPN is discussed later.) Historically, gateway VPN involved the use of a VPN appliance resident at an organization. Telecommuting staff can use the gateway so the Internet acts like a very long Ethernet cable connecting their computer to the office network. In addition, all data traveling between the user's computer and the gateway is military-grade encrypted. The downside to this strategy is that these appliances are relatively expensive (from \$600 to several thousand dollars), and they require significant technical experience to configure correctly.

In greater detail the concept works like this:

- Your computer has VPN software installed and configured to connect to a VPN server at the office. This server is connected to your office network. macOS/OS X comes with VPN software built into the Network System Preferences that works with many of the commercially available VPN servers, including the most popular–Cisco. Other VPN servers require their own proprietary client software to be installed.
- 2. On your computer, you open the VPN software and instruct it to connect to the VPN server. This typically requires entering your authentication credentials of user name and password, along with a long key.
- 3. The VPN server authenticates you as an allowed account and begins the connection between itself and your computer.
- 4. As you send data from your computer to the network connected to the VPN server (typically the regular business network), all of it is military-grade encrypted. When the data is received at the VPN server or at your computer, the VPN software decrypts it.
- 5. Once your data reaches the VPN server, it is then forwarded to the appropriate service on your organizations network (file server, printer, mail server, etc.)

Although this may sound a bit complex, all a user must do is enter a name, password, and key. Everything else is invisible. The only indicator that anything is

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different is that speed slower than normal. This is due to the overhead of encryption/decryption process.

We can use this same strategy so that instead of securely exchanging data with our office server, we can securely surf the Internet. The workflow is just slightly different:

- 1. Your computer has VPN software configured to connect to a VPN server that is not associated with your office, but is just another server "on the Internet."
- 2. On your computer, you open the VPN software and instruct it to connect to the VPN server. If you are using our recommended software, it is pre-configured with all the settings necessary-nothing much more to do but launch.
- 3. The VPN server authenticates you as an allowed account and begins the connection between itself and your computer.
- 4. As you surf the web, all data is military-grade encrypted. When the data is received at the VPN server or your computer, the VPN software decrypts it.
- 5. Once your data reaches the VPN server, it is then forwarded to the appropriate service on the Internet.

Using this strategy (a VPN Internet server), all your Internet traffic is militarygrade encrypted between your computer and the VPN server. It is not possible to decipher any of your traffic (user names, passwords, data) or even the type of data coming and going.

One downside is that once the data exits the VPN server, it is readable. However, your data is intermingled with thousands of other user's data, making the process of tweezing out your data a task that perhaps only the NSA can accomplish.

Another concern is that some VPN providers maintain user activity logs. This is law in most countries, so that government agencies can review who is doing what through the VPN. Ideally, you want to work only with a VPN provider operating in a country doesn't require logs, and in fact, do not keep logs.

There are thousands of VPN Internet Servers available. Most of them are free. I don't recommend using the free services for two reasons:

1. You get what you pay for (typically here today, gone tomorrow, unstable, etc.)

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2. You don't know who is listening at the server side of things. Remember, your data is fully encrypted up to the server. But once the data reaches the server on the way to the Internet, it is readable. There needs to be a high degree of trust for the administration of the VPN server. I see no reason to have such trust with free services.

There are hundreds of legitimate VPN hosts. Thousands of illegitimate VPN hosts. When determining the best VPN provider for your use, there are some key variables to look for:

- **Privacy Jurisdiction.** Does the VPN host have to comply with US National Security Letters, or other governmental requirements for disclosure of your information? If you don't care about the government access to all of your Internet information, this doesn't apply. If you do care, the geographical location of the host headquarters becomes important.
- **Logs**. Are logs kept on client activities? In many countries, it is required by law that all Internet providers maintain logs of client activities. If so, although the logs may not record *what* you were doing, they keep a record of *where* you traveled. It is ideal to have a VPN provider that keeps no logs whatsoever.
- **Speed**. How fast is your Internet experience? Using VPN introduces a speed penalty due to the encryption/decryption process, as well as the need to process all incoming and outgoing packets through a server instead of point-to-point. VPN providers can reduce this penalty in several ways, including; faster servers, reducing the clients:server ratio, better algorithms, filtering content to remove advertisements and cookies, and faster server internet connections.
- **Support**. VPN adds a layer of complexity to your Internet activities. Should something not work correctly, you don't want to be the one troubleshooting. Ideally, your VPN provider has 24/7/365 chat support. Even better if they offer telephone support.
- **Cross-Platform Support**. Most of us have more than one device. Perhaps a Windows and macOS/OS X computer, an Android phone, and an Apple iPad. It would be madness to have to use a different VPN product for each of these. Look for a provider that supports all your current and potential devices.

- **Multi-Device Support**. Most, but not all, providers now offer from 3-5 concurrent device licensing. This allows your VPN service to be operational on all your devices at the same time. Providers that offer only single-device licensing may be quite costly should you have multiple devices.
- **DNS-Leak Protection**. Although VPN encrypts all data that comes and goes from your device, before you can reach out to the Internet to connect to your email, a website, or text, your device must connect to a DNS server for guidance on where to find the mail, web, or text server. If you are using your default DNS server (typically one by your Internet broadband provider, data between your system and the DNS server is not encrypted *and* is recorded. It is ideal if your VPN provider offered their own DNS servers. Using this strategy, then the data between your device and the DNS server is now either encrypted, or is not logged.
- **VPN Protocol.** There are several network protocols that may be used for encryption. We currently recommend IKEv2. This is the most current, and the only protocol with the ability to automatically activate upon accessing the Internet, and deactivate when not in use.
- **Pricing.** This is sometimes directly related to the quality of service, and occasionally directly related to the greediness of those running the business. Look for reasonable pricing for the services offered, as well as how many concurrent connections you are allowed. Some hosts allow only 1 connection. Others offer 6 or more. This would allow for you to have your computer, phone, tablet connected via VPN, as well as those of a family member.

Right about now you may be asking yourself: *If VPN is so great, why doesn't everyone know about and use it?* 

Great question! As with everything else in life, there is bad that comes with the good. Each person needs to weigh the pros and cons for each situation for themselves. I personally *always* have VPN active, but I'm *always* doing work! I hope you don't have that disease. There are two primary downsides to VPN. It slows down your Internet performance. Often by 50% or more. If all I want to do were to stream Netflix to my computer, I'd turn VPN off to reduce the pauses induced by a slow Internet connection. Second, if you have selected a VPN server outside of your home country, you may have unintended consequences due to the

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*Internet* servers thinking you are resident in that other country. For example, Google searches will be displayed in the language native to that country. This is considered a feature of the *Proxy Server* function built into VPN, and is used by those in restrictive countries to view news across the border that are normally filtered out by their home country.

## 19.2.1 Assignment: Search for a VPN Host

In this assignment, you will search for at least three VPN hosts that best meet your needs.

- 1. Based on the list of criteria listed above, make a list of VPN Host *must-haves*, and *prefer-to-haves*.
- 2. Open a web browser to *https://thatoneprivacysite.net/simple-vpn-comparison-chart/*, or for a more detailed checklist, *https://thatoneprivacysite.net/vpn-comparison-chart/*.



3. Click the *Show <pop-up menu> entries*, and then select *All*.

4. To sort by your first *must-have*, click in that column header. For this assignment, click on *Privacy Logging*.

THAT	Simple V	'PN Cor	nparis	on Ch	nart						
ONE PRIVACY	Show All centries Search:										
SITE	VPN SERVICE	PRIVACY Jurisdiction	PRIVACY Logging	PRIVACY Activism	TECHNICAL Serv Conf	TECHNICAL Security ^	TECHNICAL Availability	BUSINESS Website	BUSINESS Pricing ^	BUSINESS Ethics ^	
Welcome	AzireVPN										
	BlackVPN										
VPN Section	BolehVPN										
	CactusVPN										
Email Section	FrootVPN										
	IVPN										
Reviews / Blog	LiquidVPN										
	Mullvad										
FAQs	oVPN.se										
	SecureVPN.to										
Donate	VPNSecure										
	BlazingVPN										
Contact	NordVPN										

5. To sub-sort by a second *must-have* feature, hold down the *Shift* key, and then click on the header matching that must-have. For this assignment, click on *Privacy Jurisdiction*.

THAT	Simple V	PN Cor	nparis	on Ch	art					
ONE PRIVACY	Show All rentries Search:									
SITE	VPN SERVICE	PRIVACY Jurisdiction	PRIVACY Logging	PRIVACY Activism	TECHNICAL Serv Conf	TECHNICAL Security A	TECHNICAL Availability	BUSINESS Website	BUSINESS Pricing -	BUSINESS Ethics A
Welcome	BlackVPN									
VPN Section	BolehVPN CactusVPN									
Email Section	AzireVPN FrootVPN Mullvad									
Reviews / Blog	oVPN.se									
FAQs	VPNSecure SecureVPN.to									

- 6. By performing a sort and sub-sort, we have filtered potential hosts from almost 200, to just a few.
- 7. From the few hosts meeting these minimum requirements, view their websites to evaluate if any meet your needs.
- 8. Outside of this course, you may sign-up with one or more of the hosts meeting your needs, put its service through an evaluation, unsubscribe and request a refund if they don't meet with your expectations, or keep them if they meet your needs.

## 19.3 Perfect-Privacy

One of our favorite VPN providers is *Perfect-Privacy*<sup>3</sup>. Although they do not offer a free or trial option, they offer subscriptions as short as a month, as long as two years. With this you get servers in almost every country you can name, use on multiple devices, unlimited bandwidth, and highly responsive bandwidth. The only major complaint we have with them is that the geolocation reporting of their servers is inconsistent. For example, if you are connected to their Los Angeles, CA, USA VPN server, and then browse to https://google.com, it is likely that Google will see you as being located in a European country, and then reroute your browser to https://google.ru, displaying everything in Russian. However, if you are using DuckDuckGo for web searches, there should rarely be an issue with geolocation.

## 19.3.1 Assignment: Create a Perfect-Privacy Account

In this assignment, you create a paid account with *Practical-Privacy.com*, and then configure VPN services.

1. Open a browser, visit Perfect-Privacy at *https://perfect-privacy.com*, and then select the *Prices* button.



<sup>3</sup> https://perfect-privacy.com/

2. Select the Sign Up Now button.



3. At the *Choose Duration* page, select your desired subscription term (the longer, the lower per month cost). Then select the *Continue* button.



4. At the *Username* page, select *New user*, create a *Username*, enter your *e-mail address*, and then click *Continue*.

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Perfect 💌 Privacy		HOME WHY VPN NEWS	PRICES INFO CHECKS MEMBER
CHOOSE DURATION		PAYMENT METHOD	ENJOY VPN
	New user     Choose your username	<ul> <li>Account extension</li> </ul>	
		letters and numbers (six to fourteen ters length).	
	Your e-mail address		
		il address, as your login data is sent there.	
		unoro,	
	We don't need any	y more data from you!	
	cont	tinue »	

5. At the *Payment Method* page, select your desired method of payment, and then click *Buy Now*. For this assignment, I've select *PayPal*.

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Perfect 🗷 Privac	Y HOME WHY VPN NEWS PRICES INFO CHECKS MEMBER
CHOOSE DURATION USERNAM	AE PAYMENT METHOD ENJOY VPN
SECURE PAYMENTS BY A Paymentwall More than 60 payment options available. Show all.	Pay with PayPal Payments with PayPal are processed automatically, this usually takes just a couple of minutes.  Subscription (may be canceled at any time) Express Checkout
PayPal Obitcoin	Cash
	BUY NOW
For inquiries please contact our custo	omer support by contact form or e-mail: support@perfect-privacy.com.
By placing your binding order y	ou accept our Usage Policies as well as our Terms & Conditions.
Terms and Conditions Privacy Policy We try to store as little data as po don't have in the first place. Data we need to store:	ossible, as we can't be forced to give away something we
VECTURA DATAMANAGEMENT LIMITED CON	IPANY · Chambres Commerciales · Chamerstrasse 172 · 6300 Zug/Switzerland

- 6. Log in to PayPal.
- 7. At the *PayPal Payment* page, select your *Way to pay*, and then click *Continue*.

D COMPANY			
matin			
PayPal is the safer, easier way to pay			
No matter where you shop, we keep your financial information secure.			

8. At the *PayPal* page, verify payment information, and then click *Agree & Continue* to process the payment.

P PayPal		
You're logged in with 0	Dne Touch™, Marc. Not you?	
Information from the m	erchant	
Perfect Privacy VPN monthly	subscription, 13.49 EUR	
Ship to	Change >	PayPal is the safer, easier
Marc Mintz		way to pay
		No matter where you shop, we keep your financial information secure.
Pay with	Change >	
to VECTURA DATAMANAGEMEI understand that if this payment m	ethod is declined or expired, the <b>PayPal Policies</b> and that if I have Il be used first to complete my ayment method or cancel this	
View PayPal Policies and your pa	avment method rights.	

9. You are returned to Perfect-Privacy.



## 19.3.2 Assignment: Configure IKEv2 VPN With Perfect-Privacy

We recommend using the IKEv2<sup>4</sup> protocol for VPN, both for its strong encryption, and for its automatic activation when accessing the Internet.

In this assignment, you will configure a VPN connection with Perfect-Privacy using the IKEv2 protocol.

- 1. Open a browser to the Perfect-Privacy download section<sup>5</sup>, and then login with your username and password.
- 2. Scroll down to the *IPSec IKEv2* section, and then click *Show configurations for download* button.



<sup>&</sup>lt;sup>4</sup> https://en.wikipedia.org/wiki/Internet\_Key\_Exchange

<sup>&</sup>lt;sup>5</sup> https://www.perfect-privacy.com/member/download/

3. Select the location configuration profile to download. For this example, select *LosAngeles.mobileconfig.*.

* Albuquerque, United States · 97.123.155.73 · More details »	🥅 Deu	itsch	f	<b>¥</b>	Forum   Conta	act   🕞
Porfact - Drivacy	HOME WH	Y VPN NE	NS PR	ICES II	NFO CHECKS	MEMBER
Perfect 💌 Privacy	CONFIG	SERVER	DOW	NLOAD	ACCOUNT	SUPPORT
IPSec IKEv2						
OS X El Capitan required		100		National	1 847	
One-click setup			Location Name (-)	Autoratio		
Quick and easy setup on OS X, no additional software needed			araat ina 0	Server Address ( 1975).	perfect principion	
<ul> <li>Stronger encryption as manual configura</li> </ul>	<ul> <li>Stronger encryption as manual configuration</li> </ul>			Renate (2) and a	perfect privacy com mot an declarati antitudion Settings	
IKE SA: AES-256-GCM/SHA2-256/Diffie-Hellmann Group 18				Car		
Child SA: AES-256-GCM/SHA2-256			•		and the second	
Guide: IPSec (IKEv2) with MacOS						
Choose a location						
Amsterdam.mobileconfig (14.34 KB)						
Basel.mobileconfig (14.31 KB)						
Bucharest.mobileconfig (14.34 KB)						

4. Double-click the downloaded profile *LosAngeles.mobileconfig*.
5. The profile installer will launch. Select the *Continue* button.

	Profiles	Q Search
Install "LosAngel This profile will confi	es (IKEv2)"? gure your Mac for the following: Certificate and VPN	Service.
Show Profile	Ca	ncel Continue
No profiles installed		
+ -		?

6. At the confirmation window, select *Continue*.

000 <		Profiles	Q Search
		want to install profile "LosAngeles (IKE ect Privacy IPSEC CA" will be trusted on this Mar	
	Show Details		Cancel Continue
No profil	es installed		
+ -			?

7. In the *Enter Settings for <profile name>* window, enter your *Perfect-Privacy Username* and *Password*, and then click *Install*.

000		Profiles	Q Search	
	Enter settings for	"LosAngeles (IKEv2)":		
		🐼 VPN		
	Enter settings fo	VPN profile "LosAngeles (IKEv2)":		
	Username:	Dptional		
	Password:	Optional		
	Cancel	Previous	Install	
+ -				2
T				

8. At the authorization window, enter an administrator *User Name* and *Password*.

$\bigcirc$	Configuration Profile Tool wants to make changes.
	Enter an administrator's name and password to allow this.
	User Name:
	Password:
	Cancel OK

- 9. The location profile will install.
- 10. Open *System Preferences > Network*. You will see the profile listed.



11. Unlock System Preferences.

12. Enable *Connect on demand*, enable *Show VPN status in menu bar*, click *Apply*, and then close System Preferences. With this enabled, whenever you connect to the Internet, the profile will automatically launch, creating a VPN connection with your VPN server.

	Network	Q Search
Locati	on: Automatic	•
<ul> <li>Wi-Fi Connected</li> <li>LPSS Sapter (1) Not Configured</li> <li>LPSS Sapter (2) Not Configured</li> <li>Bluetooth PAN Not Connected</li> <li>Thundet Bridge Not Connected</li> <li>LosAng(IKEV2) Not Connected</li> </ul>	Status: Not Connected Server Address: losangeles.perfect-p Remote ID: losangeles.perfect-p Local ID: Connect on demai Authentication Set Connect	nd
+ - *	✓ Show VPN status in menu bar	Advanced ?
Click the lock to prevent	further changes. Assist Me	Revert Apply

13. A new icon may be found in your menu bar, reporting your connection status.

#### IIII Connecting IIII 00:01:07

### 19.3.3 Assignment: Advanced Perfect-Privacy Settings

Most quality VPN hosts provide for advanced account configuration. Perfect-Privacy offers several unique options.

In this assignment, you will configure your advanced Perfect-Privacy settings.

- 1. Open a browser to the Perfect-Privacy configuration page<sup>6</sup>. If you receive an authentication prompt, enter your Perfect-Privacy *Username* and *Password*.
- 2. Read each of the options, and then configure to your taste. Listed below are my settings.



<sup>&</sup>lt;sup>6</sup> https://www.perfect-privacy.com/member/config/





#### Done!

# 19.4 Mesh VPN

Another way in which VPN can be configured is a *mesh VPN*. This strategy places multiple computers within the same virtual network regardless of where they are geographically located on the Internet. All the computers operate as if they are on the same physical network, and all traffic between each of the computers is military-grade encrypted. Mesh VPN is ideal for groups of people to exchange files, screen share, and access databases from each other, while maintaining full privacy from the outside world.

We now have software that enables mesh networks for a trivial cost. Keep in mind that VPN is only as secure as the provider, and the vendor of choice is a US company, subject to US federal laws and National Security Letters giving the NSA full access to logs and data crossing the vendor servers.

# 19.5 LogMeIn Hamachi

LogMeIn<sup>7</sup> is a US-based company with a line of top-grade cloud services. They are best known for their *LogMeIn* remote support software, allowing technical support staff both attended and unattended access to client and server computers.

One of their lesser-known, but game-changing products is *Hamachi*<sup>8</sup>. Hamachi is a cloud-based VPN, eliminating the need for expensive VPN boxes. As if that weren't enough, it also allows for three different types of VPN configurations: Gateway, mesh, and hub & spoke. We will restrict discussion here to the mesh option.

As of this writing, Hamachi is free for use with 5 or fewer nodes (computers). Up to 32 nodes on one network is available for \$29/year. Up to 256 nodes on a network is available for \$119/year.

## 19.5.1 Assignment: Create a LogMeIn Hamachi Account

In this assignment, you create a LogMeIn Hamachi account, so that you can deploy a free Hamachi network for up to 5 computers. Should you eventually need more computers on the network, your account can easily be upgraded at any time.

<sup>&</sup>lt;sup>7</sup> https://logmein.com

<sup>&</sup>lt;sup>8</sup> https://secure.logmein.com/products/hamachi/

1. Open a browser, and go to the Hamachi home page at *https://secure.logmein.com/products/hamachi/default.aspx*. The Hamachi home page opens. Click the *Sign up link*.



2. Select the *Try it Free* button. In the *Sign Up* field, enter all requested information, and then select the *Create Account* button.

LogMe	
	Sign up or log in
	This is your <b>LogMeIn ID</b> – A single username and password for LogMeIn services.
	💌   email
	a   password
	l retype password
	$\ensuremath{\overline{\checkmark}}$ I trust this device. Keep me logged in.
	Create account
	Cancel
	By creating an account, you agree to the Terms of Service and to receive product information unless you choose otherwise.

3. In the *Complete Your Registration* page, enter all requested information, and then select the *Register* button.

Lo	ogMe <b>(n</b>
OI	mplete your registration
Ŧ	Marc
<u>+</u>	Mintz
±	President
ç	5054530479
₿ŗ	MIT
<u>+</u>	Outsourced IT Professional
Ĩ	51 - 100 computers -
Rec	ister
	Skip

4. At the *Get LogMeIn* page, select the *Download and Install Software* button to install the software on this computer. If you don't need the software on this computer, but want to install on other computers, click the *Add a different computer link*, and then follow the on-screen instructions.



5. The software will begin to download, and the guide page will appear. **Do not** select the *Continue* button quite yet.

LogMe 🕞 Your Lo	ogMeln down	load should begin automatically. If it does	marc@mintzit (finite in the download.
. Open the Installer	>	2. Allow the Installer to Run	3. Complete Installation
Cear 1 Download	0	This package contains a program that determines if the software can be installed. Are you sure you want to continue? Wou're not sure about the source of this package, cick Carcel to protent if from running the program and installing the software.	Comparing and a second se
ocate and open the saved .pkg file	в.	When your Mac asks if you want to continue with the installation, click Continue. Follow the instructions to proceed with the installation.	Follow the installation instructions. When installation is complete, click below to see your list of connected computers.

6. Go to your Downloads folder, and open the *LogMeIn Installer.app*. Enable the *I have read and agree*... checkbox, and then select the *Install* button.



- 7. At the authentication prompt, enter an administrator username and password, and then select the *Install* button.
- 8. At the prompt, enter a name for your computer, and then select the *Continue* button.



9. At The Installation Was Successful pane, select the Finish button.

10. The *LogMeIn Client Log In* window appears. Enter the same email and password used to create the account, and then select the *Log In* button.

CogMeIn Client
Log in or sign up
LogMeIn ID:
🛛 🛛 marc@mintzit.com
I trust this device. Keep me logged in.
Log in
Forgot your password?

11. The *LogMeIn Client* window will now display all users who are members of this network (currently, just yourself.) To add additional users, skip to step 13.

•••	LogMeIn Client
All Online Č	Q
▼ DEFAULT GROUP	
MIT Marc MBP	
+ Add computer	

12. Open your email to check for a verification message from LogMeIn. Click the reply link.



13. Returning to your browser, in the *Hamachi* screen, select *Networks* > *My Networks*, and then select *Create Networks*.



14. In the *Add Network* page, in the *Network Name* field, give your network a human-readable name, select the *Network Type* (in this example, we are creating a *Mesh* network), and then select the *Continue* button.

•	Central 🖏	Moto				narc@mintzit.com 🔻	
Ø	Buy subscription		Add Network (Step 1)				
Q	Computers						
	Deployment		Network type and name				
-	Users		Network name:				
+	Users	•	MIT VPN				
т	One2Many	•	Network description (o	And the second se			
0	Updates		Private network for MIT	staff communications			
al	Reports		Network type:	0	0		
4	Alerts		Mesh	Hub-and-spoke	Gateway		
۰	Configuration						
	Networks	-					
	A My Networks						
	Deployment		UT UT				
	Chart Dashboard		Mesh Network	w member is connected to	every other member. It is a	a typical choice when it's essential	
	Report Viewer		to reach every member of		every outer member, it is a	a typical choice when it's essential	
	Network Settings						
	Report Configuration		Continue Cancel				

15. In Add Network (Step 2), in Join Requests:

- In *Join Requests*, specify how users will be able to join the VPN network. If security is a concern, we recommend *Must be approved* to keep strangers out.
- In *Network password*, configure if a password is required to join the network. Assuming all user computers have strong passwords, and full-disk encryption, it would be extremely unlikely anyone other than the authorized user would be attempting network connection. However, if security is a concern, enable the password requirement, and then set a strong password.
- In *Subscription*, specify what subscription level is requested. For the purposes of this assignment, select *Multi-network via Control (up to 5 members, any number of networks.)*

16. Select the *Continue* button.

0			🕼 marc@mintzit.com 🔻 🌐	
	Buy subscription	Add Network (Step 2)		
Q	Computers	Join Requests		
ø	Deployment	Accept automatically		
	Users	Must be approved		
	One2Many	<ul> <li>Members can be added on the web on</li> </ul>	ly	
	Updates	Network password		
	Reports	A password is required to join this network	vork	
	Alerts	Network password	Clients requesting to join the network must enter the password.	
0	Configuration	Confirm password	If you do not set a password, we recommend setting the Join	
	Networks		Request behavior to Must be approved or Members can be	
	A My Networks		added on the web only.	
	Deployment	Subscription		
	Chart Dashboard Report Viewer Network Settings Report Configuration	Multi-network via Central (up to 5 members, any number of networks)      Buy Standard (up to 32 members per network) - \$29.00/year     Buy Premium (up to 256 members per network) - \$119.00/year     Buy Multi-network (up to 256 members, any number of networks) - \$199.00year		
0	Backup Bulletin Board NEW	Continue Cancel		

17. The Add Network (Step 3) appears. Select the Finish button.

	😗 marc@mintzit.com 💌
🗞 Buy subscription	Add Network (Step 3)
Computers	Network: MIT VPN
Deployment	Select computers to join this network.
🛓 Users 🔷 🔸	Clients from other accounts can also request to join this network from the client interface.
The One2Many	
😎 Updates 🔸	
I Reports	Select network members
Alerts	No eligible members to list.
Configuration	
TT Networks -	Continue to Add Client
A My Networks	
<ul><li>Deployment</li><li>Chart Dashboard</li></ul>	Finish Cancel

18. In the *Edit Network* page, make note of your network *ID*, as this will be used when joining the network. Select the *Save* button.

0	Central 🖏	10 <b>0</b>				marc@mintzit.com •
0	Buy subscription		Edit Network			
Q	Computers		MIT VPN \$			
0	Deployment		Members Join Requests Settings	Password	Subscription	Delete
•	Users			Settin	gs saved.	
T.	One2Many	.1	ID Name		Туре	Description
0	Updates		289-1 MIT VPN		Mesh	Private network for MIT staff communications
al	Reports		Use the ID when joining this network from the H	lamachi client.		
•	Alerts		No members to show or add to this ne	etwork.		
٠	Configuration					
	Networks	-	Save Cancel			
	A My Networks					
	<ul> <li>Deployment</li> <li>Chart Dashboard</li> </ul>					

Congratulations, your account is created and you are ready to add users to your mesh VPN network.

## 19.5.2 Assignment: Add Users to a Hamachi VPN Network

In this assignment, you add users to the Hamachi VPN network created in the previous assignment.

- Prerequisite: Completion of the previous assignment.
- 1. Open a browser and go to *https://secure.logmein.com*, and then login with your username and password. The *LogMeIn Central* page appears.

2. Select the *Networks* > *Deployment* link, and then select the *Add New Link* button.

6	Central 🖏	Met				marc@mintzit.com 🔻	
0	Buy subscription		Networks	Deployment			
Q	Computers		Add New Link	Delete Selected			
Q	Deployment						
	Users				You have no installation links.		
л	One2Many						
0	Updates						
al	Reports						
4	Alerts						
•	Configuration						
	Networks	-					
	A My Networks						
	Deployment						
	Chart Dashboard						

- 3. In the *Add Client* page, you will create a link that can be used to allow a custom installation of Hamachi.
  - In the *Description* field, enter information for your own reference.
  - In the *Maximum number of remote installations* field, enter, well, the maximum number of installations permitted (with a free account, this is 5.)
  - In the *Expiration* pop-up, specify when the link expires.
  - In *Networks*, enable the checkbox for the network this link will be used.

4. Select the *Continue* button.

0	Central 🛛	M=0				marc@mintzit.com •	
Ø	Buy subscription		Add Client				
Q	Computers		Deploy LogMeIn Hamachi to ren	note compute	er(s) (Step 1 of 2)	)	
ø	Deployment		Note: You are about to create and sen				
-	Users		Hamachi client. Each client will be atta	ached to this Log	gMein account (ti	he account you are using right now).	
đ,	One2Many		Description (for your reference only)	MIT VPN Link			
•	Updates		Maximum number of remote installations	5			
al	Reports		Expiration	Never	•		
4	Alerts		Networks	MIT VPN			
٠	Configuration						
	Networks	-		Continue C	-		
	A My Networks			Continue	ancei		
	Deployment						
	Chart Dashboard						

5. The *Add Client* link page appears. You have the option to *Copy* or *Send* the link. For our assignment, select *Send*.

0	90	Central 🛛	Mo@						0	marc@mintzit.com	• (	
Ø	Bu	y subscription		Add Client								
o	Co	mputers		Deploy LogN	lein Hamac	hi to remote o	computer(s)	(Step 2 of 2)				
٠	De	ployment										
	Us	0.00		Description	Installations	Created at	Expires at	Status	Networks			
-	05	ers		MIT VPN Link	0 of 5	Mar 28, 2015	Mar 15, 2020	Enabled	MIT VPN			
л	On	e2Many										
•	Up	dates		Your customize	d installation li	ink is below (sen	d this to remote a	users/compu	ters)			
al	Re	ports		https://secure.lo	gmein.com/han	nachi/			-			
•	Ale	erts										
٠	Co	nfiguration		Сору	Copy this li	nk and paste it in	to an email or ins	tant messag	e			
	Ne	tworks	-	Send	Create an e	email message th	at automatically of	contains this	link			
	٨	My Networks		Test	This will sh	ow you what the	and user will see	when they d	lick on the ins	tallation link		
	Q	Deployment		Tuat	This will sh	on you what the	010 030 Will 300	mon they o	non on the inte			
	e	Chart Dashboard										

The default email client will open, with the link pre-entered in the body area, awaiting entry of recipient(s) and a message.

- 6. Enter recipient address(es).
- 7. Enter a subject.
- 8. Enter additional information in the body area explaining what to do next. Something like: *Listed below is a link to download LogMeIn Hamachi. This*

software will allow all of us to create a private encrypted network within which we may continue our plans for world domination.

9. Send the email.

● ● I IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII			New Message	Attach	A Format	Photo Browser	S/MIME Show Station
	Arial	0 12 0	■ B I ⊻ Ξ	≡≡ :	<ul> <li>✓</li> </ul>	~	
To:							
Cc:							
Bcc:							
Subject:							
From: Marc Mintz -	- marc@mintzit.	com		Sig	nature:	Aristotle	\$
https://secure.logmein	.com/hamachi/				-		
https://secure.logmein Warmly, Marc Mintz, MBA-IT, Ac Chief Information Offi Mintz Inforce, Inc/ Local: 505.614.1413 marc@mintz!T.com Chat with "mermintz" Author of the Practical "Quality is not an act,	erc, ACSP ber • Toll-Free: 888.4 www.mintzlT.com on: <u>Skype   Goog</u>   Paranoia series:	ale   AOL   iCha		ter Recover	,		

10. When the recipient clicks the link, they are taken to the *Hamachi Installer* page. Enable the *I have received this link from a trusted source* check box, and then select the *Continue* button.



11. At the Download page, select the Download Now button.



12. The *LogMeIn Hamachi Installer* will download. Once complete, launch the installer, enable the *I have read*... check box, and then select the *Install* button.



13. The Attach client to LogMeIn account screen appears. Select the Next button.



14. When the installation completes, select the *Finish* button.



- 15. Open *LogMeIn Hamachi.app*, located in */Applications/LogMeIn Hamachi*. In my case, there are networks that I currently belong to listed, one of which I am connected (the green button), and one I am not connected with (white button). Neither of which is the MIT VPN network (yet).
  - If your target network appears in the *LogMeIn Hamachi* window with a green button, all is done!
  - If your target network doesn't appear in the *LogMeIn Hamachi* window, we have a few more steps to complete.



16. In LogMeIn Hamachi select Network menu > Join an existing network...



17. Enter the *Network ID* as displayed in step 18 of the previous exercise, and then select the *Join* button.

	омоФ					marc@mintzit.cor	••
S Buy subscription		Edit Network					
Computers		MIT VPN \$					
Deployment		Members Join Reg	uests Settings	Password	Subscription	Delete	
Lusers			lasara permila		ings saved.		
Cne2Many		ID Nam	•		Туре	Description	
9 Updates		289-1 MIT	VPN		Mesh	Private network for MIT staff or	mmnications
Reports		Use the ID when joining t	his network from the	Hamachi client	t.		
Alerts		No members to s	how or add to this	network.			
Configuration							
T Networks	-	Save Cancel					
A My Networks							
<ul> <li>Deployment</li> <li>Chart Dashboard</li> </ul>							
		Network ID:	280.				
		Network ID:	289-				
		Password:					
			Leave bla	nk i <mark>f unk</mark> no	wn.		
					_		
			C	ancel	Jo	bin	
	. L.						

18. At the dialog box asking *Would you like to submit a request for membership?* Select the *Yes* button.



19. Back at your computer, or the computer used to administer this network, in the LogMeIn Central page > Networks > My Networks will be found all the users who have received and responded to their links from the previous steps. Select the Edit link.

•	00	Central 🖏	Melli					marc@mintzit.	com 🔻 🌐
Ø	Buy	y subscription		Networks					
al	Re	ports		You have 1 pending join request.					
4	Ale	erts	•	🗔 Add Client 📑 Add Netw	ork		••	Show all networks	¢ Q,
¢	Co	nfiguration		Client	Client ID	Virtual IP	Version	Tag	Edit
	Ne	tworks	-						
	A	My Networks		MIT VPN Mesh • Multi-net	work • 1 / 256 Clients •	none onlin	ne • 1 join i	request	Edit
		Deployment		<ul> <li>Marcs-MacBook-Pro.local [Gu</li> </ul>	est] [pendin: 127-948	25.97.8.5	4 osx10.1	0	
	c	Chart Dashboard							
	9	Report Viewer							

20. In the *Edit Network* page, select *Join Requests*. If the pending join request is from someone who should join the network, select the *Accept* radio button. If they are someone who should not join the network, select the *Reject* radio button, and then select the *Save* button.

0		🔞 marc@mintzit.com 🔻 🌐
Ø	Buy subscription	Edit Network
al	Reports +	MIT VPN 🗘
4	Alerts +	Members Join Requests Settings Password Subscription Delete
٠	Configuration +	Accept Reject Client Name Client ID
<b>T.T</b>	Networks +	Marcs-MacBook-Pro.local 127-948-819
	A My Networks	
	Deployment	
	Chart Dashboard	Save Cancel
	Report Viewer	

21. In the *LogMeIn Central* page > *Networks* > *My Networks* > *Members* you will see that this user is now part of the group.

0	Central 🛛	Mol						marc@mintzit.com 🔻	] ∉
Ø	Buy subscription		Edit Netw	ork					
al	Reports		MIT VPN	\$					
4	Alerts		Members	Join Requests	Settings	Password	Subscription	Delete	
•	Configuration		ID	Name			Туре	Description	
	Networks	*	289-903-664	MIT VPN			Mesh	Private network for MIT staff communication	atic
	A My Networks		Use the ID whe	en joining this netw	ork from the	Hamachi client.			
	Deployment								
	Chart Dashboard		View current m	nembers Add/Re	emove memb	ers			
	Report Viewer		Name			Client ID	Tag	Details	8
	Network Settings		Marcs-MacBoo	ok-Pro.local [Guest	1	127-948-	819	Edit	
	Report Configuration		Save C	ancel					
0	Backup								

22. Returning to the user who has just been accepted into the group, their Hamachi window will now reflect they are part of the network (the network appears in the window) and that they are actively joined to the network (green button next to the network name.)



*Awesome!* You have your first member of the VPN network. Of course, you can't do anything with just one person. The value of VPN comes with additional members. Repeat the steps in this assignment to have at least one more computer part of your network, and then move on to the next assignment.

## 19.5.3 Assignment: File Sharing Within a Hamachi VPN Network

In this assignment, you file share within a Hamachi VPN network.

• Prerequisite: Completion of the previous assignment.

In the typical macOS network environment, one Mac can see another Mac over the network using an automatic discovery protocol, *Bonjour*. This protocol isn't in effect over a VPN connection, so we will need a different method of accessing other computers for file sharing and other network activities.

Before we begin, please make sure the other computer has *System Preferences* > *Sharing* > *File Sharing* enabled, that SMB file sharing is enabled, and that you know a username/password allowed to file share.

1. Launch *Hamachi*, and verify the target computer is showing as *Online*. In this example, the other computer is named *MIT-Spare-MBA.local*.



- On your macOS/OS X computer, in the *Finder*, select the *Go* menu > *Connect* to Server. Enter afp://<name of computer> (to create an Apple Filing Protocol connection), or smb://<name of computer> (to create a Server Message Block connection) and then select the *Connect* button.
  - Although AFP<sup>9</sup> is the legacy standard of communication between Apple computers. As of OS X 10.10, Apple is moving away from it in favor of SMB, the long-time Windows standard. SMB<sup>10</sup> is the preferred protocol for macOS. You will likely have faster network throughput using SMB.

00	Connect to Server	r
Server Addre	ss:	
smb://MIT	-Spare-MBA local	+ 0~
Favorite Serv	ers:	
<u>/***</u>		
<i>m</i>		

3. When the *Authentication* window appears, select *Registered User*, and then enter your authorized *Name* and *Password*, and then select the *Connect* button.

<i>ŤŤ</i> Ť	Enter your name and password for the server "MIT-Spare-MBA.local".
	Connect as: Guest Registered User Using an Apple ID
	Name: mintzit
	Password:
	Remember this password in my keychain
	Cancel

<sup>&</sup>lt;sup>9</sup> https://en.wikipedia.org/wiki/Apple\_Filing\_Protocol

 $<sup>^{10}\</sup> https://en.wikipedia.org/wiki/Server\_Message\_Block$ 

4. The available volumes (sharepoints) will appear. Select the desired volume, and then select the *OK* button.



- 5. The volume will mount to your desktop. Double-click to open and navigate it just as if it were located on your physical network.
- 6. To file share, all you need do is drag and drop between your computer drives and the mounted volume.
- 7. When you are ready to disconnect from the remote computer, drag the mounted volume into the *Eject* Dock icon.

## 19.5.4 Assignment: Screen Share Within Hamachi VPN

In this assignment, you screen share within the Hamachi VPN environment. If you have followed the previous assignment, then screen sharing is almost identical to file sharing.

Before we begin, please make sure the other computer has *System Preferences* > *Sharing* > *Screen Sharing* enabled, and that you know a username/password allowed to screen share.

1. Launch *Hamachi*, and verify the target computer is showing as *Online*. In this example, the other computer is named *MIT-Spare-MBA.local*.



 On your macOS/OS X computer, in the *Finder*, select the *Go* menu > *Connect* to Server. Enter vnc://<name of computer> (to create a Virtual Network Control connection), and then select the *Connect* button.

Server Addre	ss:	
vnc://MIT-	Spare-MBA.local	+ 0*
Favorite Serv	ers:	
<u>m</u>		
<u></u>		
? Re	move Browse	Connect

3. At the authentication prompt, enter the authorized *Name* and *Password*, and then select the *Connect* button.

		Screen Sharing
	Enter your name and password for "MIT-Spare- MBA.local"	
-	Name:	mintzit
	Password:	•••••
		Remember this password in my keychain
		Cancel Connect

- 4. The screen of the remote computer will appear. You will be able to control it with your mouse and keyboard.
- 5. To exit out of screen sharing, close the *screen sharing* window.

### 19.5.5 Assignment: Exit the Hamachi VPN Network

In this assignment, you stop VPN so that you are no longer connected to the VPN network.

1. On your computer, in the Hamachi window, right-click on the connected network name, and then select *Go Offline* menu. The network button will turn from green to white, indicating you are no longer connected.


2. You may now *Quit* LogMeIn Hamachi.

Great work! You can now create a military-grade, encrypted network, on the fly, so that your friends or business associates can share files, screen share, etc. without fear of data or activities being spied upon.

## 19.6 Resolving Email Conflicts with VPN

Some email servers will send up a red flag and then block user access to email when the user switches to a VPN connection. This is a good thing as it indicates the email provider is highly sensitive to any possible security breach. In all cases there is a resolution available, although the steps to take will vary with each provider.

As an example, I have outlined below what occurs when using VPN with a Gmail account, and how to gain access to your email after the blockage.

- 1. The user starts a VPN program to encrypt all data between the user's computer and the Internet.
- 2. The user attempts to receive Gmail.
- 3. Google sees attempted access from an unknown machine (the Proxy Server), and blocks access to the account.
- 4. Both an email and a text from Google are sent notifying the user of suspicious activity. Select the link in either message.
- 5. The first support file opens. Select the link.
- 6. In the authentication window, enter your email and password, and then select the *Sign In* button.
- 7. Another support window opens, explaining the next steps to take. Select the Continue button.
- 8. The final support window opens. Following the instructions, return to your email application and access your Gmail within 10 minutes. This will provide Google with the authentication to release your account.

A lot of people say that social media is making us all dumber, but I not think that. -Unknown author

## What You Will Learn In This Chapter

- Create strong passwords for social media sites
- Enable Login Approvals/Two-Factor Authentication
- Configure Facebook, LinkedIn, and Google privacy settings

## 20.1 What, me worry?<sup>1</sup>

There is no denying that social media<sup>2</sup> has provided us with new levels of connectivity and communication. Victims of natural and man-made catastrophes can instantly assure family and friends of their location and health. Job searches have been reduced to a couple mouse clicks, and those who once would have had no voice, may now have a voice that is heard around the world.

It's this last feature that is a true double-edged sword.

Virtually all social media is free to the user. Few users ever question how a service such as Facebook, that may have operating expenses of 12 *billion* dollars<sup>3</sup>, not only can afford such expense, but then go on to have a profit of 10 *billion* dollars. The business model for social media is based somewhat on advertising, but far more so on selling information about *you* to the advertisers.

Social media knows more about you than your mother. Their systems know what you are doing on their site-as well as all ancillary sites such as games, messengers, etc. that are in any way associated with the social media main site-how long you stay on each page, where you came from to land on that page, where you jump off to, what you have purchased, your interests, issues that prompt strong emotion, and more. The data and metadata held by social media sites has been shown to be an extremely accurate predictor of behavior. It is *this* information that is so very valuable to advertisers-and to potential employers, and the government.

It has become the norm for HR departments to scan all social media of a potential employee. The belief is that what a person expresses in social media is a more accurate and honest representation than the employment form or initial interview.

It should be needless to mention that government agencies closely track social media to predict and stop the next terrorist attack, as well as other lesser crimes.

<sup>&</sup>lt;sup>1</sup> Alfred E. Neuman, https://en.wikipedia.org/wiki/Alfred\_E.\_Neuman

<sup>&</sup>lt;sup>2</sup> https://en.wikipedia.org/wiki/Social\_media

<sup>&</sup>lt;sup>3</sup> https://finance.yahoo.com/quote/FB/financials?ltr=1

## 20.2 Protecting Your Privacy on Social Media

Privacy on social media starts with understanding that social media watches *everything* you do, when you do it, how long you do it, and who you do it with. It also becomes your *brand*, intentional or not. It colors how others–friends, family, employers, and government–will see you. To this effect, you must manage your brand. This is done by being fully mindful of *everything* about your social media pages. Does it represent you in the best light? If taken out of context, how would it be interpreted?

The next step is to take whatever measures the social media site provides to ensure only those you want in, get in.

## 20.3 Facebook

Facebook is the reigning king of social media. Whether due to lax security concerns, or the wild popularity of the site, account breaches and hacks are common. Fortunately, Facebook has taken user-centric security controls out of the shadows, and made them easily accessible.

## 20.3.1 Assignment: Facebook Security and Login

### Where You're Logged In

Facebook allows you to see what devices have logged in with your account credentials. Should you not recognize one of these devices, you can immediately log it out of Facebook.

#### Password

The need for a strong Facebook password is no different than that for your computer. In this assignment, you change your current Facebook password to a strong password.

- 1. Open a browser to *https://facebook.com/*, and then log into your account.
- 2. Click the downward triangle at the top right corner of the Facebook window, and then select *Settings*.
- 3. From the sidebar, select *Security and Login*.

4. Under the *Security and Login* main heading > *Where You're Logged In*, review all of the devices logged in with your credentials.

f Search	Q 🔮 Marc Home 20+ 🐰 👁 🥮 😗 👻
♦ <sup>®</sup> General Security and Login	Security and Login
<ul> <li>Privacy</li> <li>Timeline and Taggi</li> <li>Blocking</li> <li>Language</li> </ul>	Choose friends to contact if you get locked out Nominate 3 to 5 friends to help if you get locked out of your account. We recommend this to everyone.         Edit
Notifications Mobile Nublic Posts	Where You're Logged In  Mac · Deming, NM, United States Chrome · Active now
∰ Apps I Ads Payments	iPhone 7 Plus · Barton Creek, TX, United States       :         Facebook app · September 14 at 10:00pm       :         See More       :
<ul> <li>♦ Support Inbox</li> <li>♥ Videos</li> </ul>	Login
	Change password It's a good idea to use a strong password that you're not using elsewhere
	Log in with your profile picture     Tap or click your profile picture to log in, instead of using a password     Edit

5. If a device is not recognized as yours, select the 3 dots to the right of the device > *Not You*?



6. Repeat for each device you don't recognize.

#### Create a new strong password

A strong password is just as vital for your social media sites as it is for your banking sites.

7. In the *Facebook Settings* > *Security and Login*, next to *Login* > *Change password*, select *Edit*.

f Search	Q 🧐 Marc Home 🤱 👁 👎 🖓 👻				
<ul> <li>General</li> <li>Security and Login</li> </ul>	Security and Login				
<ul> <li>Privacy</li> <li>Timeline and Tagging</li> <li>Blocking</li> <li>Language</li> </ul>	Recommended  Choose friends to contact if you get locked out Nominate 3 to 5 friends to help if you get locked out of your account. We recommend this to everyone.  Edit				
Notifications     Mobile     Public Posts	Where You're Logged In  Mac · Deming, NM, United States Chrome · Active now				
Maps     iPhone 7 Plus · Barton Creek, TX, United States       Ads     Facebook app · September 14 at 10:00pm					
Support Inbox	▼ See More				
	Change password     It's a good idea to use a strong password that you're not using elsewhere     Edit				
	Log in with your profile picture     Tap or click your profile picture to log in, instead of using a password     Edit				

8. Enter your *Current* password, enter your *New*, strong password in the *New* and *Re-type new* fields, and then click *Save* Changes.

#### Get alerts about unrecognized logins

If someone does get around your security precautions and logs into your Facebook account, have Facebook alert you, so that you can log them off (step 1 in this assignment). 9. In the Facebook Settings > Security and Login, under the Setting Up Extra Security section, select Get alerts about unrecognized logins.

Settin	g Up Extra Security	
٠	Get alerts about unrecognized logins On • We'll let you know if anyone logs in from a device or browser you don't usually use	Edit
۲	Use two-factor authentication On • Log in with a code from your phone as well as a password	Edit
11	Choose 3 to 5 friends to contact if you get locked out Your trusted contacts can send a code and URL from Facebook to help you log back in	Edit

10. Enable *Get Notifications*, and then add the email address(es) to which notifications are to be sent. When done, click *Save Changes*.

Settin	g Up Extra Security Get alerts about unrecognized logins On • We'll let you know if anyone logs in from a device or browser you don't usually use	Close
	Get an alert when anyone logs into your account from an unrecognized device or browser.	
	Notifications	
	<ul> <li>Get notifications</li> <li>Don't get notifications</li> </ul>	
	🖾 Email	
	<ul> <li>Email login alerts to marcmintz@mac.com, marcmintz@gmail.com, marc@marclmintz.com, marc@mintzit.com</li> </ul>	
	ODon't get email alerts	
	Add another email or mobile number	
	Save Changes	

#### Facebook two-factor authentication

Every password can be broken. It is only a matter of resources (time and cpu cycles). Two-factor authentication can prevent a criminal from using your Facebook credentials.

11. In the *Facebook Settings > Security and Login*, under the *Setting Up Extra Security* section, select *Use two-factor authentication*.

Settin	ng Up Extra Security	
٠	Get alerts about unrecognized logins On • We'll let you know if anyone logs in from a device or browser you don't usually use	Edit
٢	Use two-factor authentication On • Log in with a code from your phone as well as a password	Edit
11	Choose 3 to 5 friends to contact if you get locked out Your trusted contacts can send a code and URL from Facebook to help you log back in	Edit

12. The *Use two-factor authentication* area opens. In this screenshot, it has been partially configured.



- 13. Turn On two-factor authentication, adding your mobile phone number.
- 14. Select Recovery Codes Get Codes.
- 15. At the prompt, enter your Facebook password.
- 16. The *Your Recovery Codes* window appears with a list of 10, 1-time use codes. These may be used to authenticate with Facebook if you don't have access to your mobile phone.

- 17. Securely record these numbers (you can copy/paste).
- 18. Close the Your Recovery Codes window.

## 20.3.2 Assignment: Facebook Privacy Settings

Facebook Privacy Settings allow you to filter who can see your posts, contact you, and look you up.

In this assignment, you configure your Facebook Privacy Settings.

1. From Facebook 3-line menu, select *Settings*, and the sidebar select *Privacy*.

f Search	1	Q. 🧐	Marc Home 20+	Al 🗞 🍋 3
🇳 General	Privacy Settings and	d Tools		
a <b>.</b> .	Who can see my stuff?	Who can see your future posts?	Public	Edit
<ul> <li>Privacy</li> <li>Timeline and Taggi</li> <li>Blocking</li> <li>Language</li> </ul>		Who can see your friends list? Remember, your friends control who can see their friendships on their own Timelines. If people can see your friendship on another timeline, they'll be able to see it in News Feed, search and other places on	Only me	Edit
Notifications Mobile		Facebook. If you set this to Only me, only you will be able to see your full friends list on your timeline. Other people will see only mutual friends. Limit the audience for posts you've shared with		Limit Past Posts
-		friends of friends or Public?		
Apps Ads	Who can contact me?	Who can send you friend requests?	Everyone	Edit
Payments Support Inbox	Who can look me up?	Who can look you up using the email address you provided?	Everyone	Edit
Videos		Who can look you up using the phone number you provided?	Everyone	Edit
		Do you want search engines outside of Facebook to link to your profile?	Yes	Edit

#### Who can see my stuff?

2. To the far right of *Who can see my stuff?* > *Who can see your future posts?* click *Edit.* Configure to your taste.

• Note: Although mine is set to *Public*, I don't recommend this setting for most others. My site is strictly for business, and not a personal Facebook page.



3. To the far right of *Who can see your friends list?* click *Edit*. It is generally considered a breach of etiquette to share the identity of your friends. Select *Only me*.



4. To the far right of *Who can contact me?* > *Who can send you friend requests,* select *Edit.* Configure to your taste.

5. To the far right of *Who can look me up*? > *Who can look you up using the email address you provided*? select *Edit*. Configure to your taste. However, for your privacy, it is recommended that only *Friends* be selected.



6. To the far right of *Who can look me up? > Who can look you up using the phone number you provided?* select *Edit.* Configure to your taste. However, for your privacy, it is recommended that only *Friends* be selected.



7. To the far right of *Who can look me up? > do you want search engines outside of Facebook to link to your profile?* select Edit. If you are interested in personal privacy, select *No.* 

## 20.3.3 Timeline and Tagging Settings

In this section, you configure who is able to post to your timeline, who can see your timeline, and how to deal with others who tag you.

1. In Facebook Settings, select Timeline and Tagging Settings from the sidebar.

<b>f</b> Search		۹ 🧕	Marc Home 20+	20 🧐 😋
General Security and Login	Timeline and Tagging	Settings		
Privacy	Who can add things to my timeline?	Who can post on your timeline?	Friends	Edit
<ul> <li>Timeline and Tag</li> <li>Blocking</li> </ul>		Review posts friends tag you in before they appear on your timeline?	On	Edit
🕱 Language	Who can see things on my timeline?	Review what other people see on your timeline		View As
Notifications Mobile		Who can see posts you've been tagged in on your timeline?	Only me	Edit
Public Posts		Who can see what others post on your Timeline	e? Everyone	Edit
Apps	How can I manage tags people add and tagging suggestions?	Review tags people add to your own posts before the tags appear on Facebook?	ore On	Edit
<ul> <li>Payments</li> <li>Support Inbox</li> </ul>		When you're tagged in a post, who do you wan to add to the audience if they aren't already in i		Edit
Videos		Who sees tag suggestions when photos that lo like you are uploaded?	ok No One	Edit

## Who can add things to my timeline?

2. To the far right of *Who can add things to my timeline?* > *Who can post on your timeline?* select Edit. Configure to your taste.



• Note: This controls what is allowed on your Timeline. Posts you are tagged in will still appears in the Facebook search, News Feed, and other places on Facebook.



3. To the right of *Who can add things to my timeline?* > *Review posts friends tag you in before they appear on your timeline?* select Edit. Set this to *On*, or be prepared for your site to turn into a Wild West show.

#### Who can see things on my timeline?

4. To the right of *Who can see things on my timeline?* > *Review what other people see on your timeline* select *View As.* Your Facebook page opens, allowing you

to view the page as others do. From the top of the page you can change *This is what your profile looks like to:*\_\_\_\_\_



- 5. If horror has just run up your spine, it may be a good time to edit your Facebook account.
- 6. Click the *Back* button to return to *Settings*.
- 7. To the right of *Who can see things on my timeline?* > *Who can see posts you've been tagged in on your timeline?* select *Edit*, and then configure to your taste. I recommend setting to *Only me*.
- 8. To the right of *Who can see things on my timeline?* > *Who can see what others post on your timeline?* select *Edit*, and then configure to your taste.

#### How can I manage tags people add and tagging suggestions?

9. To the right of *How can I manage tags... > Review tags people add to your own posts before the tags appears on Facebook* select *Edit*, and then set to *On*.

- 10. To the right of *How can I manage tags... > When you're tagged in a post, who do you want to add to the audience if they aren't already in it?* select *Edit*, and then configure to taste. I recommend setting to *Only me*.
- 11. To the right of *How can I manage tags... > Who sees tag suggestions when photos that look like you are uploaded?* select *Edit*, and then set to *No One.*

## 20.3.4 Assignment: Facebook Manage Blocking

Although Facebook has a financial stake in sucking you into everything that happens on the site, they do allow some freedom to block users, messages, apps, invites, and pages.

1. Open Facebook Settings > Blocking.

<b>f</b> Search		Q	🌒 Marc Home 20+	🕂 🔗 👎 🛛 🗸	
	Manage Blocking				
Restricted List       When you add a friend to your Restricted List, they won't see posts on Facebook that you share only to Friends. They may still see things you share to Public or on a mutual friend's timeline, and posts they're tagged in. Facebook doesn't notify your friends when you add them to your Restricted List. Learn more.         Blocking       Blocking				a mutual friend's	
Language     Notifications	Block users Once you block someone, that person can no longer see things you post on your timelini invite you to events or groups, start a conversation with you, or add you as a friend. Not include apps, games or groups you both participate in.				
Mobile Public Posts		Block users Add name or email Block			
Apps					
Image: Payments     Block messages     If you block messages and video calls from someone here, they won't Messenger app either. Unless you block someone's profile, they may be tag you, and comment on your posts or comments. Learn more.					
Videos		Block messages from Ty	pe the name of a friend		

## **Restricted List**

When a friend is added to the *Restricted List*, they won't see posts on Facebook that are shared only to Friends.

- 2. To the right of *Restricted List* select *Edit List*.
- 3. If you have Facebook Friends that you don't want to see posts restricted to your Friends, add their name to this list, and then click *Finish*.

## **Block Users**

If you block a Facebook user, they can't see your timeline posts, tag you, invite you, converse with you, or add you as a friend.

4. Should you have a troll bothering you that should be blocked, in the *Block users* field add their name.

## Block app invites

Once you block app invites from a Facebook user, all future app requests from them are ignored.

5. If you are bombarded with app invites from a Facebook user, in the *Block invites from* field, add their name.

## Block event invites

Once you block event invites from a Facebook user, all future event invitations from them are ignored.

6. If you are bothered with event invites from a Facebook user, in the *Block invites from* field, enter their name.

## Block apps

When blocking an app, it can no longer contact you or access no-public information about you through Facebook.

7. To block an app, in the *Block apps* field, enter the name of the app.

#### **Block Pages**

When blocking a Page, there can be no more interaction between you and the Page.

8. To block a page, in the *Block Pages* field, enter the name of the Page.

## 20.3.5 Assignment: Facebook Public Posts

Think deep about who you wish to see your posts. Remember that colleges, recruiters, human resource departments, and more may be watching for you.

1. Open Facebook Settings > Public Posts.

f Search		Q	🌒 Marc	Home 20+	1 🔊	<b>(15</b>	0	•
<ul> <li>General</li> <li>Security and Login</li> </ul>	Public Post Filters a	nd Tools						
<ul> <li>Privacy</li> <li>Timeline and Taggi</li> <li>Blocking</li> <li>Language</li> </ul>	Timeline and Taggi         posts. Use this setting to choose who can follow you.           Blocking         Each time you post, you choose which audience you want to share with.					Public •		r
<ul> <li>Notifications</li> <li>Mobile</li> </ul>	Public Post Comments	Who can comment on your public posts?	Public				Edit	t
Public Posts	Public Post Notifications	Get notifications from Public					Edit	t
Apps	Public Profile Info	Who can like or comment on your public	profile pictures a	nd other profile info?	Public		Edit	t
Ads	Comment Ranking	Comment ranking is Off					Edit	t
Payments Support Inbox	Username	http://www.facebook.com/marclmintz					Edit	t
Videos	Twitter	Connect a Twitter account					Edit	t
	Follow Plugin	Add a follow button to your website by cop	ying the code be	low. Visit our docs fo	r more inf	o and o	ptions.	
		Preview:					&am X;	1
		Follow 698 people are following Marc Mint	z. Be the first of yo	ur friends.				

2. To the right of *Who Can Follow Me*, select who can follow your posts by default.



3. To the right of *Public Post Comments*, select who can comment on your public posts.



4. To the right of *Public Post Notifications*, select if you wish to be notified when people who aren't your friends follow you, like or comment on your public posts.



5. To the right of *Comment Ranking*, select if you wish to see the most relevant comments on your public posts first.



6. You may change your Facebook username from the Username field.

## 20.3.6 Assignment: Facebook Apps

Developers that have their apps and games on Facebook are monetizing through *your* information. When signing up for these items, you give the developer authorization to see your profile, and know almost everything that Facebook knows about you. They may then take your information and use it for their own marketing projects, or sell the information to others.

In other words, if you indulge in Facebook apps or games, you've come close to giving up on privacy.

However, you can still use these apps and games. All you need do is to create another Facebook account *just* for this purpose, and provide minimal personal information in your Facebook profile.

It must be noted that some of your apps were intentionally selected by the Facebook user, but most are unintentionally selected. This can happen when you respond to a Friend's request to play a Facebook game, or take a quiz on Facebook. Because it can happen with just a single click, and appear completely innocent, it's a good idea to schedule a weekly review of your Facebook apps.

## Logged in with Facebook

1. Open *Facebook Settings > Apps*. The *Logged in with Facebook* field displays the apps for which you are logged in with your Facebook account display.



2. Click on either the name, icon, or pencil (edit) icon for the app. For my example, I'm selecting *Quora*. This opens the *App Information Window*. Give deep thought as to what info you wish the developer to have. You may disable some of these options. However, if you have been using the app for longer than a second, the developer already has all this data. Although there is the option to *Remove Info Collected by the App*, if you believe that has an effect in the real world, I have a bridge to sell you.

Q Quora	×	Q Quora	
App visibility and post audience  This setting controls who on Facebook can see that you use this app. It also allows you to choose the audience for posts the app makes on your behalt. Learn More	Public 🔻	Education history Western Governors University, University of California, Santa Barbara and 2 others	C
app makes on your benan. Learn wore		Hometown Your hometown	•
NFO YOU PROVIDE TO THIS APP:			
Public profile (required)		Current city Albuquerque, New Mexico	
Aarc Mintz, profile picture, 21+ years old, male and other public info		Likes	
Friend list	ø	- Carling Course - Anna Carling Carlos - Annald	
and 4,702 others		Email address	
Birthday	<b>o</b>	marc@mintzit.com	
		THIS APP CAN:	
Nork history Aintz InfoTech, Inc. and Apple Inc.	0	Post Lets the app post on your behalf. These posts may appear on	
Education history		your Timeline and in News Feed. View them all in your Activity Log.	
App Terms · App Privacy Policy · Remove App · Report App	Cancel Save	App Terms · App Privacy Policy · Remove App · Report App	ancel Sa



- 3. If there are data points you want to block this app from accessing, you can click the target check mark. Understand, this is shutting the barn door after the cows are out.
- 4. If you wish to remove this app, so that it no longer has access to your Facebook information, select the *Remove App* at the bottom of the window.
- 5. When you have completed configuring your app settings, click Save or Cancel.
- 6. The app will no longer appear in the *Logged in with Facebook* field.

#### Apps, Websites, and Plugins

7. Select *Facebook Settings > Apps > Apps, Websites, and Plugins*, and then click *Edit*.

f Search	Q	🌒 Marc   Home   20+ 🛛 👥 🕶 👎   📀 👻
🇬 General 👸 Security and Login	App Settings	
Privacy	Logged in with Facebook 6	Search Apps
<ul> <li>Timeline and Taggi</li> <li>Blocking</li> <li>Language</li> </ul>	On Facebook, your name, profile picture, cover photo, gender, n both people and apps. Learn why. Apps also have access to your	
Notifications	d divr.it the Friends Honey ⊕ Only my	e QuizzStar
Public Posts           Apps	Q Quora E StackSon	
Ads		
Payments		
<ul> <li>Support Inbox</li> <li>Videos</li> </ul>	Apps, Websites and Plugins	Game and App Notifications
	Lets you use apps, plugins, games and websites on Facebook and elsewhere. Enabled.	This setting controls game requests from friends and game status updates, and app notifications from app developers on Facebook and Gameroom. Changing these settings will not impact your abilitit to use apps or play games.
	Edit	Notifications are turned off
		Edit

8. By default, *Apps, Websites and Plugins* is *Enabled*. If you wish to disable it, click the *Edit* button. The *Turn Platform Off* window appears. Read the warning well. You may not be able to function well on Facebook with these features disabled.

Turn Platform Off ×	
Platform is on.	
If you turn Platform off you can't use the Facebook integrations on third party apps or websites. If you want to use these apps and websites with Facebook, turn Platform back on. Using Platform allows you to bring your Facebook experience to the other apps and websites you use on the web and to your mobile device and apps. It allows Facebook to receive information about your use of third party apps and websites to provide you with better and more customized experiences. Learn more.	
If you turn off Platform apps:	
<ul> <li>You will not be able to log into websites or applications using Facebook.</li> <li>You will not be able to log into mobile games or applications using Facebook.</li> </ul>	
<ul> <li>Your friends won't be able to interact and share with you using apps and websites.</li> <li>Instant personalization will also be turned off.</li> </ul>	
<ul> <li>Apps you've previously installed may still have info you shared. Please contact these apps for details on removing this data.</li> </ul>	
<ul> <li>Apps you've logged into (with Facebook or Anonymously) will be removed.</li> </ul>	
<ul> <li>Posts by apps will be removed from your profile.</li> </ul>	
Cancel Disable Platform	

9. Once you have reviewed the warning, select either *Cancel* or *Disable Platform*.

### Game and App Notifications

10. Select *Facebook Settings > Apps > Game and App Notifications*, and then select *Edit*.

f Search	Q	🌒 Marc   Home 20+ 🛛 📌 🖑   😮 👻
<ul> <li>♦<sup>®</sup> General</li> <li>♥ Security and Login</li> </ul>	App Settings	
Privacy	Logged in with Facebook 6	Search Apps
<ul> <li>Timeline and Taggi</li> <li>Blocking</li> <li>Language</li> </ul>	On Facebook, your name, profile picture, cover photo, gender, n both people and apps. Learn why. Apps also have access to your	
Notifications	d divr.it the Friends Honey ≜ Only my	e QuizzStar
Public Posts Apps	Q Quora StackSor	
Ads		
Payments		
Support Inbox Videos	Apps, Websites and Plugins	Game and App Notifications
	Lets you use apps, plugins, games and websites on Facebook and elsewhere. Enabled.	This setting controls game requests from friends and game status updates, and app notifications from app developers on Facebook and Gameroom. Changing these settings will not impact your ability to use apps or play games.
	Edit	Notifications are turned off
		Edit

11. This setting has no impact on privacy or security. However, if you would prefer that Facebook games and apps not send notifications to you, click the *Edit* button, and then click the *Turn off* button.

## Apps Others Can Use

When someone on Facebook who can see your information then uses an app, by default that app has access to a great deal of your Facebook data. This setting allows you to manage what information apps that others are using has access to.

12. Select *Facebook Settings > Apps > Apps Others Use*, and then select *Edit*.



13. In the *Apps Others Use* window, you can manage what information the apps other people are using have access to. When complete, click the *Save* button.

they use apps. This makes their	e your info can bring it with them when experience better and more social. Use the egories of information that people can pps, games and websites.
Bio	Posts on my timeline
Birthday	Hometown
Family and relationships	Current city
Interested in	Education and work
Religious and political views	<ul> <li>Activities, interests, things I like</li> </ul>
My website	My app activity
If I'm online	
information (like your friend list,	ites to access other categories of gender or info you've made public), you It remember, you will not be able to use any

### Ads

Not only does Facebook and all the games and apps associated with it make money from your information, they also are in the (gasp) advertising business. Although you can't get away from being inundated with ads while on Facebook, you can request that they have less access to your personal information during the process. 14. Select *Facebook Settings > Ads*. This will open the *Your ad preferences* page.

f Search	۹ (	Marc Home <sub>20+</sub>	11. 🚰 👎 🕜 🔹
Your ad preferences Learn what influences the ads you see and take control over your ad experience. Learn about Facebook Ads 🛙			
Your interests			
Advertisers you've interacted with			
Your information			
Ad settings			Close 🔨
Ads based on your use of websites and apps Can you see online interest-based ads from Facebook?			No
Ads on apps and websites off of the Facebook Can your Facebook ad preferences be used to show you ad and connected TVs?	Companies s on devices such as computers,	mobile devices	No
Ads with your social actions Who can see your social actions paired with ads?			No One
Hide ad topics (test)			
i How Facebook ads work 🖸			

15. If you would like to see ads based on your stated interests, click *Your interests*, and then select your target areas of interest. Or better yet, remove your interests so that the advertisers know less about you.

16. To see which advertisers have you on their mailing list due to interacting with them on Facebook, click *Advertisers you've interacted with*. When done, click *Close*.

Advertisers you've interacted with		
Advertisers with yo	Advertisers whose website or app you've used	
~	nose ads you may be seeing currently because you're on their customer list. Learn more.	
Amazon.co.uk	Amazon.com	

## 17. Click Ad settings.

Ad settings	Close ^
Ads based on your use of websites and apps Can you see online interest-based ads from Facebook?	No
Ads on apps and websites off of the Facebook Companies Can your Facebook ad preferences be used to show you ads on apps and websites off of the Facebook Companies?	No
Ads with your social actions Who can see your social actions paired with ads?	No One

- 18. To prevent ads based on websites and apps associated with Facebook that you have visited or used, set *Ads based on your use of websites and apps* to *No*.
- 19. To prevent ads based on websites and apps not associated with Facebook that you have visited, set *Ads on apps and websites off of the Facebook Companies* to *No*.
- 20. To prevent your friends from seeing ads stating *<Your Name> Likes This*, set *Ads with your social actions* to *No One*.
- 21. Click Close.

22. If you have difficulty falling to sleep at night, click *How Facebook ads work*.

## 20.4 LinkedIn

While Facebook is the current reigning king of non-business social media, LinkedIn holds the crown for business. Whether it be to market one's services, look for a new job, or simply network with other business people, LinkedIn is the place to be.

But just as with all other social media sites, it is vital to be mindful of privacy and security on LinkedIn. It could be business suicide to have anything but the very best be associated with your account.

## 20.4.1 Assignment: LinkedIn Account Security

The need for a strong LinkedIn password is no different than that for your computer.

In this assignment, you change your current LinkedIn password to a strong password.

- 1. Open a browser to *https://linkedin.com/*.
- 2. From the tool bar, select the *Me* icon > *Settings & Privacy*.



3. The Settings & Privacy page opens.

in		Back to LinkedIn.com 🏼 🍈
Marc Mintz, MBA-IT, A	nfoTech, Inc. Virtual CIO & IT Dept., Author, Practical entials series	account. 12974 connections
Account	Privacy	Communications
Basics Partners and Services	Basics	
Subscriptions	Email addresses Add or remove email addresses on your account	Change 5 email addresses
Account	Phone numbers Add a phone number in case you have trouble signing in	Change 1 phone number
	Change password Choose a unique password to protect your account	Change Last changed: October 17, 2016

#### Set a strong password

4. Select the *Account* tab, *Basics* from the sidebar, and then to the right of *Change Password*, click *Change*.

5. In the *Change password* area enter your current password, your new password, retype your new password, and then select *Save*.

in		Back to LinkedIn.com
Account	Privacy	Communications
Basics	Basics	
Partners and Services Subscriptions	Email addresses Add or remove email addresses on your account	Change 5 email addresses
Account	Phone numbers Add a phone number in case you have trouble signing in	Change 1 phone number
	Change password Choose a unique password to protect your account Passwords are case-sensitive and must be at least 6 characters.	Close Last changed: October 17, 2016
	Type your current password Type your new password	
	Retype your new password	
	Require all devices to sign in with new password	

### Verify where you're signed in

If someone has penetrated your LinkedIn account, you will be able to see unknown devices signed in. If so, you can kick them off. 6. In *LinkedIn Settings & Privacy* page, *Account* tab, *Basics* sidebar > *Where you're signed in* area, select *Change*. View where you are currently logged in to LinkedIn.

in			Back to LinkedIn.com
Account		Privacy Co profile fields appear to other members	mmunications
Basics	Where you're signed in		Close
	See your active sessions, and sign	out if you'd like	2 active sessions
Partners and Services	You're currently signed in t	o 2 sessions.	
Subscriptions Account	see details about each sess	you're signed into LinkedIn right now. You can on, sign out of individual sessions, or sign out of n also sign out of apps you've authorized with d services setting.	
	Current session	Details	
		Albuquerque, New Mexico, United States (Approximate location)	
		Chrome on Mac OS X	
		IP Address: 71.36.58.225	
		IP Address Owner: Qwest Communications Company Llc	
	Other active sessions (1) Si	gn out of all these sessions	
	Last accessed	Details	
	24 seconds ago	Canoga Park, California, United States (Approximate location)	Sign out Details
		Mobile Safari on iOS	

7. If you don't recognize any of these devices, you may kick them off individually by selecting *Sign out*, or kick everyone off by selecting *Sign out of all these sessions*.

## Showing profile photos

You may have reason not to want your face to be seen or recognized by the LinkedIn community. You can choose who gets to see your profile photos.

8. In *LinkedIn Settings & Privacy* page, *Account* tab, *Basics* sidebar > *Showing profile photos* area, select *Change*. Configure to your taste.

Close Only you
Change No

#### **Partners and Services**

Most LinkedIn members don't realize they have authorized many organizations to access their data. LinkedIn allows you to see who has been authorized, and if desired, cut them off.

9. In *LinkedIn Settings & Privacy* page, *Account* tab, *Partners and Services* sidebar > *Permitted Services* area, select *Change*. Configure to your taste.


# 20.4.2 Assignment: LinkedIn Privacy Settings

In this assignment, you configure LinkedIn privacy settings.

1. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Profile privacy* sidebar > *Edit your public profile* area, select *Change*. Configure to your taste. When complete, select *Save*.

in		Back to LinkedIn.com 🛛 🎯
Account	Privacy	Communications
Profile privacy	Profile privacy	
Blocking and hiding Job seeking Data privacy and advertising	Edit your public profile Choose how your profile appears to non-logged in members via search engines or permitted services	Change
Security	Manage active status Choose how your active status is displayed to your connections	Change



#### Manage active status

You are able to choose who can see when you are online.

2. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Profile privacy* sidebar > *Manage active status* area, select *Change*. Configure to your taste.

in	Back to LinkedIn.co	m 🍘
Account	Edit your public profile Privacy engines or permitted services Choose how your profile appears located by the search engines or permitted services	Change
Profile privacy Blocking and hiding Job seeking Data privacy and advertising Security	Manage active status Choose how your active status is displayed to your connections Display your active status Show my connections when I'm active on LinkedIn or available on mobile Yes *Changes may take up to 30 minutes	Close
	Hide active status from select people *When hiding your status from someone, you'll also lose the ability to see when they're online	

#### Who can see your connections

LinkedIn is in large part about networking. You may choose to let others see your connections.

3. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Profile privacy* sidebar > *Wo can see your connections* area, select *Change*. Configure to your taste.



# **Profile viewing options**

You may configure how transparent your identity is on LinkedIn.

4. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Profile privacy* sidebar > *Profile viewing options* area, select *Change*. Configure to your taste.



# Notifying connections when you're in the news

This could be good or bad news. A national merit award, or a best-forgotten night on the town. Choose wisely.

5. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Profile privacy* sidebar > *Notifying connections when you're in the news* area, select *Change*. Configure to your taste.

in		Back to LinkedIn.o	om 🍘
Account	Profile viewing options Privacy Choose whether you're visible or viewing in private mode	Communications	
Profile privacy	Notifying connections when you're in the news		Close
Blocking and hiding	Choose whether we notify people in your network that you've been mentioned in an article or blog post		Yes
Job seeking	Want to let your connections and followers know when you're mentioned in the news?		
Data privacy and advertising	Yes		
Security			

# Who can see your last name

This ties in with your level of transparency.

6. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Profile privacy* sidebar > *Who can see your last name* area, select *Change*. Configure to your taste.



## Followers

Choose who can follow you and see your public updates.

7. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Blocking and hiding* sidebar > *Followers* area, select *Change*. Configure to your taste.

in		Back to LinkedIn.com 🏼 🌘
Account	Blocking and hiding	Communications
Profile privacy Blocking and hiding Job seeking Data privacy and advertising	Followers Choose who can follow you and see your public updates Choosing "Everyone" lets people outside your network follow your public updates. If you switch from "Everyone" to "Your connections," you'll lose any out-of-network followers you have now. Any changes you make will take effect in about 24 hours.	Close Everyone
Security	Veryone on Linkedin Your connections	

# Blocking

This area displays who you are currently blocking. If you need to block a LinkedIn user, Go to their profile, and then select *Block or Report*.

8. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Blocking and hiding* sidebar > *Blocking* area, select *Change*.



# Job seeking-Sharing your profile when you click apply

If you want to share your full profile with a job poster after clicking *apply*.

9. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Job seeking* sidebar > *Sharing your profile when you click apply* area, select *Change*, and then configure to your taste.

in	Back	to LinkedIn.com	0
Account	Privacy Communi	cations	
	Job seeking		
Profile privacy	Sharing your profile when you click apply	c	lose
Blocking and hiding	Choose if you want to share your full profile with the job poster when you're		Yes
Job seeking	taken off LinkedIn after clicking apply		
Data privacy and advertising	Increase your chances of being viewed by sharing your full profile with the job poster wher LinkedIn to apply	you're taken off	
Security	Yes		

# Let recruiters know you're open to opportunities

Setting this option to *Yes* will let job recruiters know that you are interested in changing jobs. However, your own company may see this as well.

10. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Job seeking* sidebar > *Let recruiters know you're open to opportunities* area, select *Change*, and then configure to your taste.



Data privacy and advertising–Manage who can discover your profile from your email address

This setting allows you to choose if just by having your email address your profile can be found.

11. In LinkedIn Settings & Privacy page, Privacy tab, Data privacy and advertising sidebar > Manage who can discover your profile from your email address area, select Change, and then configure to your taste.

in		Back to LinkedIn.com	0
Account	Share that you're open and appear in recruiter searches matching your career interests <b>Privacy</b>	Communications	No
Profile privacy	Data privacy and advertising		
Blocking and hiding Job seeking	Manage who can discover your profile from your email address	E	Close veryone
Data privacy and advertising Security	Choose who can discover your profile if they have your email address		

# Manage who can discover your profile from your phone number

Save as above, but using your phone number to locate your profile.

12. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Data privacy and advertising* sidebar > *Manage who can discover your profile from your phone number* area, select *Change*, and then configure to your taste.

in	Back to Linkedin.co	om 🇿
Account	address Privacy Communications Choose who can discover your profile if they have your email address	Everyone
Profile privacy	Manage who can discover your profile from your phone number	Close
Blocking and hiding	Choose who can discover your profile if they have your phone number	
Job seeking	✓ Everyone	
Data privacy and advertising	2nd-degree connections         J           Nobody         elp them discover your profile or	
Security	connect with you. Learn more	

# Representing your organization

Choose if LinkedIn can show your profile on your employer's LinkedIn pages.

13. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Data privacy and advertising* sidebar > *Representing your organization* area, select *Change*, and then configure to your taste.

in		Back to LinkedIn.co	om 🇿
Account	Manage who can discover your profile from your phone number Choose who can discover your profile II they have your phone number	Communications	Change Everyone
Profile privacy	Representing your organization		Close
Blocking and hiding	Choose if we can show your profile information on your employer's pages		Yes
Job seeking	Show my picture and profile information in this section of a job detail page?		
Data privacy and advertising	Yes 💽		
1			

# Profile visibility off LinkedIn

Choose how your profile appears via partners' and other permitted services.

14. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Data privacy and advertising* sidebar > *Profile visibility off LinkedIn* area, select *Change*, and then configure to your taste.



# Advertising preferences

LinkedIn exists for only one reason-to monetize the information they have harvested regarding you and all other members. Choose whether Linked can serve interest-based advertising (as opposed to random advertising).

15. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Data privacy and advertising* sidebar > *Advertising preferences* area, select *Change*, and then configure to your taste.

in		Back to LinkedIn.con	n 🇿
Account	Profile visibility off Linkediprivacy Choose how your profile appears via partners <sup>*</sup> and other permitted services	Communications	Change Yes
Profile privacy Blocking and hiding	Advertising preferences Choose whether LinkedIn can serve interest-based advertising through our platform for services		Close No
Job seeking	LinkedIn may serve interest-based advertising through its platform for third parties.		
Data privacy and advertising Security	Your change may take 24 hours to become effective, and afterwards, you may continue to see (1) ads that are personalized but are not interest-based advertising and (2) opt-out options in ads.		
	No O You can also find the industry opt outs for interest-based advertising on these pages: DAA; DAA Europe; DAA Canada. Learn more.		

# Security-Two-step verification

Every password can be broken. The current best solution to blocking criminals from accessing your password-protected accounts is with Two-step verification, also known as 2-factor authentication.

16. In *LinkedIn Settings & Privacy* page, *Privacy* tab, *Security* sidebar > *Two-step verification* area, select *Change*.



17. If Two-step verification is turned off, click Turn On.

18. In the authentication window, enter your LinkedIn *Password*, and then click the *Done* button.

this change	
Password	

19. Your mobile device will be sent a verification code. In the Two-step verification window, enter it, and then click the *Verify* button.

in			¢3
@ Account	Adverdising preferences	☐ Communications	Change No
Profile privacy	Security		
Blocking and hiding	Two-step verification		Close
Data privacy and advertising	Activate this feature for enhanced account security		Off
Security	We've sent a verification code to		
	+US 1 5054530479		
	Enter verification code Resend code		
	Cancel Verify		

20. Once verified, click Close.



The next time that you log in to LinkedIn, you will receive a verification code via SMS which must be entered to access LinkedIn.

# 20.5 Google–More Than a Search Engine

Although most people think of Google as a search engine, it has become far more than that. Over one billion people use their mail, maps, YouTube, and Google Play services<sup>4</sup>. Chances are that you use Google every day. The result is a tremendous warehouse of data points about your searches, site visits, hangout partners, purchases, and so much more.

And yet, at the same time Google provides the tools to help guard your privacy. NOW is a good time to put this to use.

# 20.5.1 Assignment: Manage Your Google Account Access and Security Settings

In this assignment, you begin the process of securing a Google account.

• Prerequisite: Access to an existing Google account.

<sup>&</sup>lt;sup>4</sup> http://www.digitaltrends.com/web/gmail-joins-the-billion-users-club/

1. Open a web browser to the Google Security page *https://myaccount.google.com/intro/security*, sign in, and then click *Sign-in & security* from the side bar.

Google	III O M
My Account	Sign-in & security
Welcome Sign-in & security	Manage your account access and security settings
Signing in to Google Device activity & notifications Connected apps & sites	Your Google Account is protected by the most advanced online security. Keeping these settings up-to-date safeguards your account even more.
Personal info & privacy Your personal info Manage your Google activity Ads Settings	Security Checkup Protect your account in just a few minutes by reviewing your security settings and activity. GET STARTED

2. Under Security Checkup, click GET STARTED.

3. In the event Google detects unusual activity on this account, or if you get locked out, you will need to have a recovery phone and recovery email on record with Google. These are used to authenticate your identity.

Google :		0	M
← Security Checkup			?
Time for your Security Checkup Protect your Google Account by reviewing these important settings. You're only a few minutes away from better online security!			
Complete your recovery information Help us get in touch with you if there's unusual activity in your account or you accidentally get locked out. For your security, you may need to re-enter your password to edit recovery information Recovery phone Edit Number not verified - verify now Recovery email Edit	n.		
Done			
Check your recent security events			
Check your connected devices			

- *Recovery Phone:* If the listed number is not correct, click *Edit*, and then enter the correct phone number.
- *Number not verified:* If the recovery phone number is not verified, click *verify now.* The phone number can't be used for authentication until it is verified. After clicking *Get code*, a code will be sent to the phone number. Enter the received code, and then click *Verify*.

	Verify phone $ imes$
Verify phone ×	<b>F</b>
	We just sent you an SMS with a code. Enter it to verify your phone. Please note that SMS delivery can take a minute or more. Didn't receive an SMS? Try again.
To make sure everything works, we'll send you an SMS with a verification code.	Enter code .g. 123456
Get code Cancel	Verify Cancel

- *Recovery email:* If the listed address is not correct, click *Edit*, and then enter the correct address.
- 4. When complete, click *Done*.

# **Check Your Connected Devices**

5. The Check your connected devices section appears.

← Security Checkup		?	
	<b>ted devices</b> ices connected to your Google Account. Let us know if any of t rou, and we'll work together to ensure no one else has access to		
Mac	New Mexico, USA CURRENT DEVICE	~	
iPhone	United States - Yesterday, 8:55 PM	~	
🔲 Мас	New Mexico, USA - May 30, 10:50 AM	~	
LOOKS GOOD SOMETHING LOOKS WRONG			

- If anything looks suspicious, click the *Something looks wrong* button, and then follow the on-screen instructions.
- If everything looks ok, click the *Looks good* button.

## **Check Your Account Permissions**

Many websites and apps offer to connect to your Google account. In my example below, Google Chrome, Brother iPrint&Scan, BusyCal, and BusyContacts are all applications that connect to Google for data feeds. Websites may do the same, or

you may have an app or website that you can log into using your Google credentials.

Be mindful that all of these apps and websites may have access to some or all of the information that Google holds about you.

- 6. The Check your account permissions section appears.
- 7. If you see any item that should not have access to your Google account, click the *REMOVE* link.

÷	Security Checkup				?
	Check your account	permissions			
		osites, and devices connected to your G nem all, or remove the ones you don't. L	0		
	🎉 Google Chrome	Has full access to your Google Account	~	REMOVE	
	🎉 Brother iPrint&Scan	Has access to Google Cloud Print, Google Drive, basic account info	~	REMOVE	
	27 BusyCal	Has access to Google Calendar, basic account info	~	REMOVE	
	BusyContacts	Has access to Google Contacts, basic account info	~	REMOVE	

8. When complete, click the *DONE button*.

## **Check Your App Passwords**

Some apps and applications that connect with your Google account do not support 2-Step Verification. To ensure the security of the data managed by these apps if you do have 2-Step Verification active (and you should), they must have a separate *app password*.

- 9. The *Check your app passwords* section appears.
- 10. If you see any apps that you don't use, click the trash icon to the right of the app to remove its app password. This way, nobody else will be able to use the app with your Google account.

←	Security Checkup			?
Γ	Check your app pa	isswords		
	We generate passwords for apps that don't use 2-Step Verification. Please make sure you only store passwords for apps you know, use and trust. Learn more.			
	Your app passwords			
	Name	Created	Last used	
	Mail on my Mac	Oct 8, 2015	Mar 25	
	Mail on my iPhone	Oct 8, 2015	Nov 20, 2016	
	DONE			

11. When complete, click the *DONE* button.

## **Check Your 2-Step Verification Settings**

- 12. If you already have Google 2-Step Verification active, the next section to appear is Check your 2-Step Verification settings.
  - If you do not currently have 2-Step Verification enabled, skip to *Account Settings.* In the next assignment, you will enable Google 2-Step Verification.

÷	Security Checkup	?
	Check your 2-Step Verification settings	
	2-Step Verification adds an extra layer of security to your account. Please make sure your 2-Step Verification settings are up to date. Learn more.	
	Verify by Prext message to (505) 453-0479	
	To update your settings please visit the 2-Step Verification page.	
	DONE	

- 13. If you need to make changes, click the 2-Step Verification page link
- 14. When complete, click DONE.

# 15. Click CONTINUE TO ACCOUNT SETTINGS.



## **Account Settings**

- 16. You are returned to the *My Account* page.
- 17. From the sidebar, select *Personal info & privacy*, and then click the *GET STARTED* link.

My Account	Personal info & privacy
Welcome Sign-in & security	Decide which privacy settings are right for you
Signing in to Google Device activity & notifications Connected apps & sites	You control your personal information. With these settings you can manage what info you keep private, and what data is saved to your account to improve your Google experience.
Personal info & privacy Your personal info Manage your Google activity Ads Settings Control your content	Privacy Checkup         Take this quick checkup to review important privacy settings and adjust them to your preference.         GET STARTED         Last checkup: April 29, 5:13 PM

# 18. In the *Welcome* page, click *START NOW*.

← Privacy Checkup	?
Welcome, Choose the privacy settings that are right for you Review and adjust what data Google uses to personalize your experience, and update what information you share with friends or make public.	

19. In the *Manage what you share on YouTube* page, configure to your taste. Shown below is my recommendation for highest privacy.

	ivacy Checkup
1.	Manage what you share on YouTube
	bose who can see your YouTube videos, likes, and scriptions, and decide where you share them.
Lik	es and subscriptions
You	can share your liked videos, saved playlists, and subscriptions with other YouTube users.
$\checkmark$	Keep all my liked videos private
<ul> <li></li> </ul>	Keep all my saved playlists private
$\checkmark$	Keep all my subscriptions private
Υοι	ur YouTube activity feed
You	can choose to automatically have your public YouTube activity show up in your channel's vity feed. Don't worry, we'll never share information about activity on private videos.
	rn more 🖸
	Post to feed when I add a video to a public playlist
	Post to feed when I add a video to a public playlist

20. In the *Help people connect with you* page, configure to your taste. My recommendation for highest privacy is shown below.

÷	Privacy Checkup	?
	2. Help people connect with you	
	Let people with your phone number find and connect with you on Google services, such as video chats.	
	(505) 453-0479	
	Help people who have your number connect with you across Google services. Learn more 🖸	
	Also help them find your name, photo, and other information that you've made visible on Google. Learn more 🛛	
	EDIT YOUR PHONE NUMBERS	
	NEXT	

21. When complete, click NEXT.

22. In the *Choose what Google+ profile information you share with others*, configure to your taste. My recommendation for highest security is shown below.

÷	Privacy Checkup	?		
	3. Choose what Google+ profile information you share with others Decide who can see your information, and choose what information you make public or keep private. Learn more ☑	Marc Mintz Works at Mintz InfoTech, Inc. Attends Western Governors University Lives in Albuqueruque, NM 58 followers		
	EDIT WHAT OTHERS SEE ABOUT YOU 🛛			
	Google+ communities			
	Show your Google+ community posts on the Posts	tab of your profile. Learn more 🖸		
	Photos and videos			
	✓ Don't feature my publicly shared Google+ photos as background images on Google products & services. Learn more			
	NEXT			

23. When complete, click *NEXT*.

24. In the *Personalize your Google experience* page, configure to your taste. My recommendation for highest security are shown below.

÷	Privacy Checkup	?
	4. Personalize your Google experience	
	From better commute options in Maps to quicker results in Search, Google tools and services get faster and more useful with the activity data you let us save with your Google Account. Only you can see your activity.	
	These controls are not currently enabled:	
	(I) Web & App Activity	~
	U Location History	~
	U Device Information	~
	U Voice & Audio Activity	~
	U YouTube Search History	~
	(I) YouTube Watch History	~
	NEXT	

25. When complete, click *NEXT*.

## **Ads Personalization**

All the information Google has on you may be shared with advertisers. This is done to provide targeted ads. If you prefer not to have your information shared with advertisers, you will still see ads, but they won't be targeted to you.

# 26. In the *Make ads more relevant to you* page, click *MANAGE YOUR ADS SETTINGS*.



# 27. To stop Google sharing your information with advertisers, turn *Ads Personalization* to *OFF*.

		ee more useful to you Google uses to show you ads
		e signed into Google services as ently when you are on one of the 2+ million e to show ads. Control Ads Personalization
Ads Per	sonalization	OFF
Make the a	ads you see more useful to you when u	ising Google services (ex. Search, YouTube).
		TOPICS YOU DON'T LIKE (0)
you. Topics on YouTube	e). We're working to include topics from c pic you like, click or tap <b>+ New Topic</b> belc	gle services (ex: when you watch a video ther Google services.

28. Return to the *Privacy Checkup* section, *Make ads more relevant to you* page, and then click *NEXT*.



# 29. In the *Your privacy settings are now updated* page, click *BACK TO MY ACCOUNT*.

4	Privacy Checkup	?
	Your privacy settings are now updated	
	You're always in control of your data and information. Return here to adjust your privacy settings anytime you want.	
	✓ 1. YouTube settings reviewed	
	<ul> <li>2. Phone numbers reviewed</li> </ul>	
	✓ 3. Google+ settings reviewed	
	<ul> <li>4. Activity controls reviewed</li> </ul>	
	✓ 5. Ads settings reviewed	
	BACK TO MY ACCOUNT	

30. From the *My Account* page, you may further configure your personal preferences from the sidebar, or exit. If you haven't yet configured your Google 2-Step Verification, stay right where you are for the next assignment.

# 20.5.2 Assignment: Enable Google 2-Step Verification

As we have discussed before, passwords may be cracked or discovered with a bit of social engineering. Two-factor authentication, or as Google calls it, 2-step verification make it significantly more difficult for someone else to access your account.

In this assignment, you enable Google 2-step verification.

- If you have just completed the previous assignment, continue to step 2. If not, open a web browser to the Google Security page
   *https://myaccount.google.com/intro/security*, and then click Signing in to
   Google from the side bar.
- 2. Scroll down to *2-Step Verification*. If it reports *On*, your account is already protected. If it reports *Off*, click the > icon to continue.

My Account	Sign-in & security
Welcome	Signing in to Google
Sign-in & security Signing in to Google Device activity & notifications Connected apps & sites	Control your password and account access, along with backup options if you get locked out of your account. Make sure you choose a strong password
Personal info & privacy Your personal info Manage your Google activity Ads Settings	A strong password contains a mix of numbers, letters, and symbols. It is hard to guess, does not resemble a real word, and is only used for this account.  Tired of typing passwords? Try using your phone to sign in.  Get started >
Control your content	
Account preferences Language & Input Tools Accessibility Your Google Drive storage Delete your account or services	Password & sign-in method Your password protects your account. You can also add a second layer of protection with 2-Step Verification, which sends a single-use code to your phone for you to enter when you sign in. So even if somebody manages to steal your password, it is not enough to get into your account. Note: To change these settings, you will need to confirm your password.
About Google Privacy Policy	Password Last changed: 41 minutes ago
Help and Feedback	2-Step Verification Off

3. At the *Protect your account with 2-Step Verification* page, click the *Get Started* button. The Google login window appears.



4. At the login window, enter your password, and then click the *Sign-In* button.

- 5. In the *What phone number do you want to use?* field, enter the number you will use, select to get your codes via *Text message* or *Phone call*, and then select *Next*.
  - Note: US-CERT has recently recommended to *not* receive authentication codes via text as this is easier to intercept.



6. In the *Confirm that it works* page, enter the code you received, and then select *Next*.

Confirm that it works Google just sent a text messa Enter the code	ge with a verification code to	
Didn't get it? Resend		
ВАСК	Step 2 of 3	NEXT

7. In the It worked! Turn on 2-Step Verification page, select TURN ON.

It worked! Turn on 2-Step Verification? Now that you've seen how it works, do you want to turn on 2-Step Verification for you Account thepracticalparanoid@gmail.com?	our Google
Step 3 of 3	TURN ON

Your Google account is now hardened with 2-step verification.

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