

# Data Management for Non-Profits

The Cloud, Security,  
and Other Useful Things  
You Should Know About IT

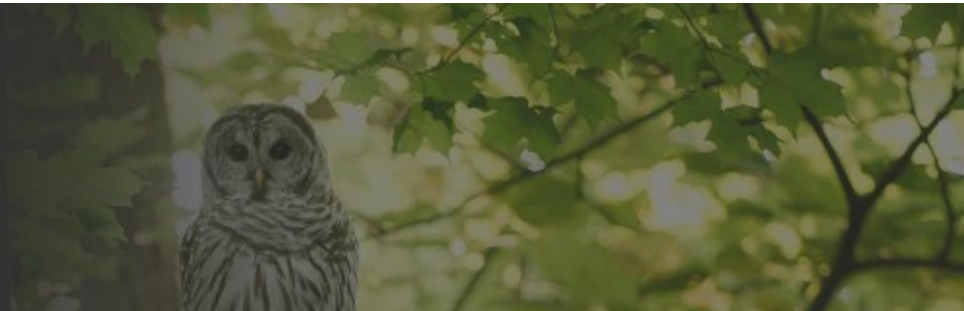


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**Founder**

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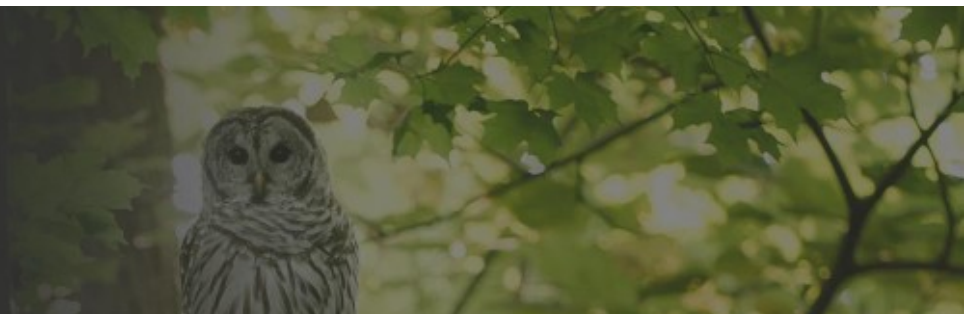
# What Comes First?

- Technology for the Mission, not the other way around. Your processes should *always* come first.
- Your goal: Good stewardship



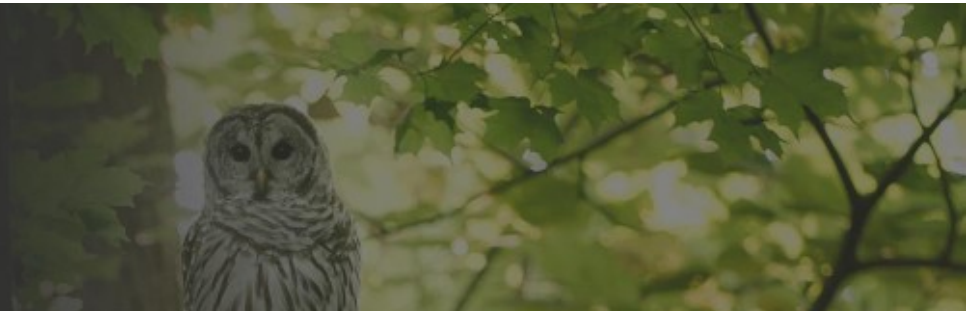
# CRM Software

- What do you need to do?  
(Microsoft Excel probably doesn't do the job)
- NTEN + Idealware report: “A Consumer's Guide to Low Cost Donor Management Systems”



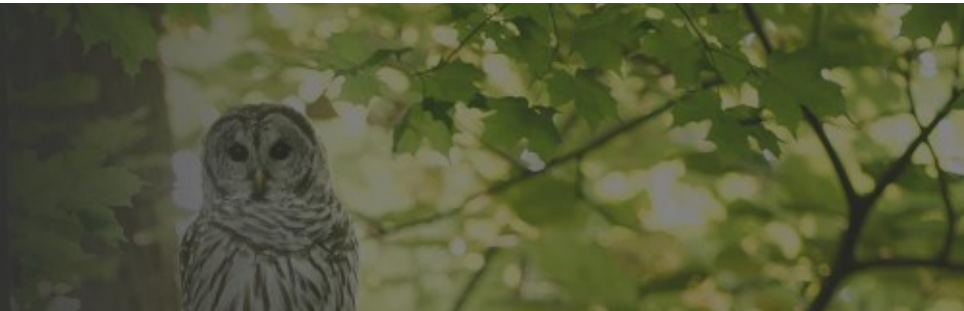
# CRM Software

- CiviCRM
- Salesforce
- eTapestry
- Raiser's Edge



# Introduction to “The Cloud”

- On-line services, software, and servers
- Sophisticated, highly available computer network
- Files backed up in multiple places

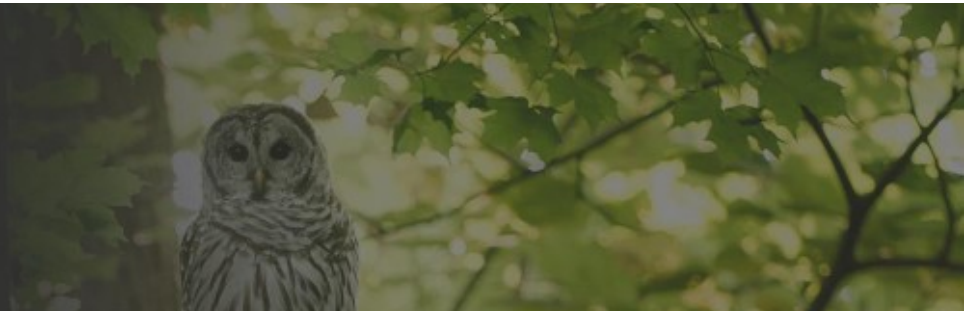




# Types of Clouds



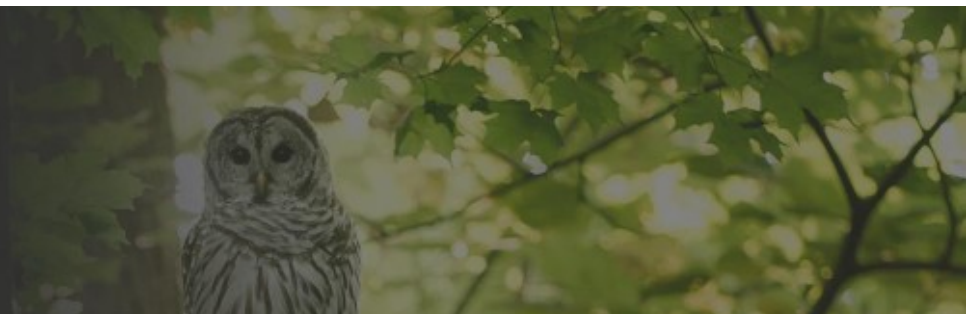
- **Public Cloud Services**
  - Website subscription services
  - Managed by a 3<sup>rd</sup> party
  - Multiple clients use the same service
- **Private Cloud**
  - 2 or more servers setup so that if 1 server crashes, all your programs and data will still be available.



# Public Cloud Examples

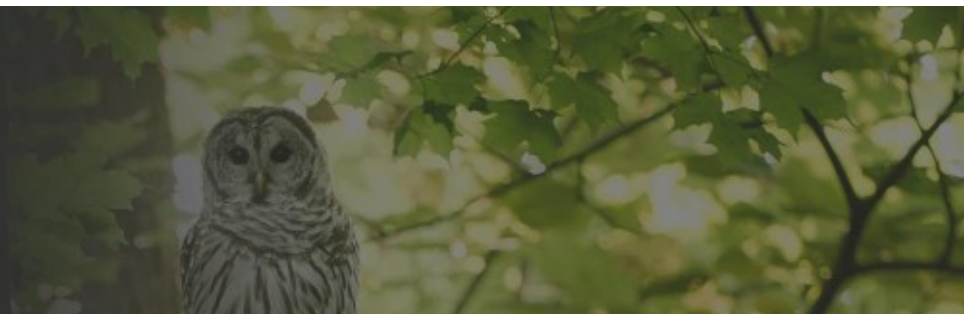


**The Common Theme?**  
**All of these are entirely web-based!**



# G Suite for Nonprofits

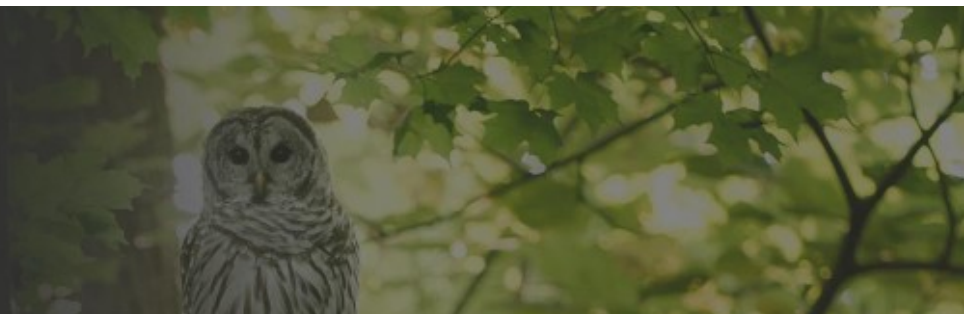
- **Free** for nonprofits
- *Can be* HIPPA compliant
  - You must sign paperwork
- Includes all the Google features you're used to:  
Drive, Gmail (for your domain), and more
- Signup at <https://www.google.com/nonprofits/>





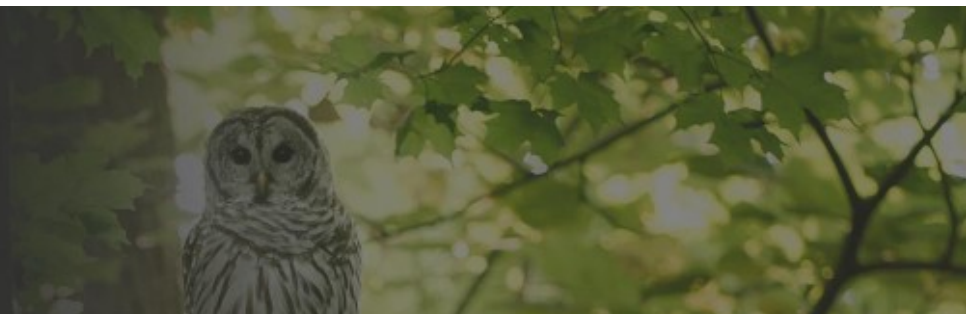
# Private Cloud Example

- 2 Offices with a storage device in each office
  - Secure network between the two offices
  - Data is replicated (copied) from 1 device to the other



# Example: Synology NAS

- “NAS” - **N**etwork **A**ttached **S**torage
- File server with several hard drives in a RAID array

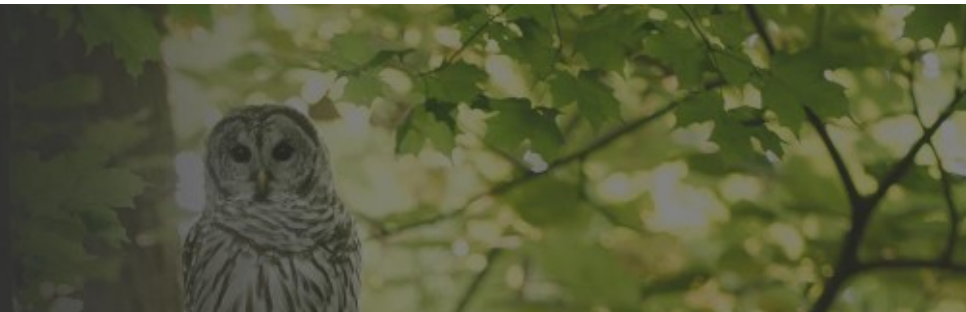


# Staying Secure in The Cloud

## What is “Security”?

*Preserving the integrity, availability,  
and confidentiality of Information  
System Resources.*

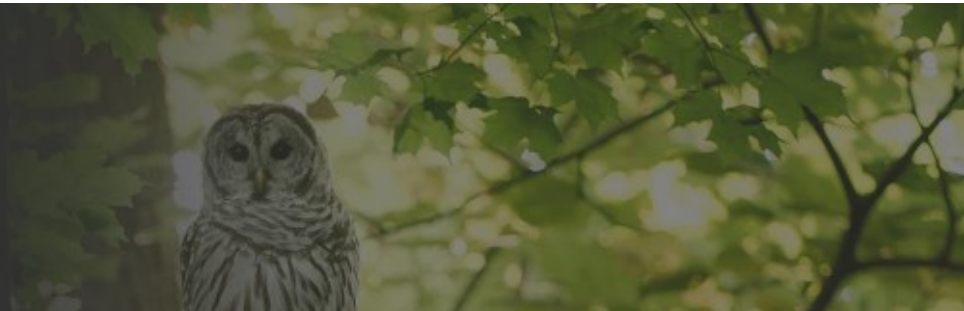
(NIST Handbook: Special Publication  
800-12)



# Security & The Cloud

## Use Encryption

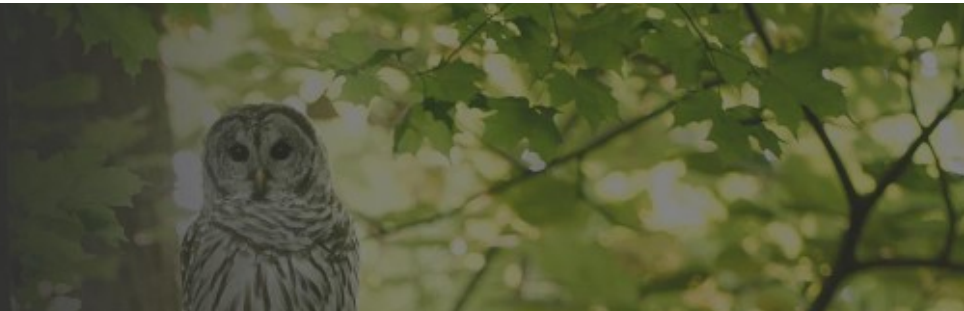
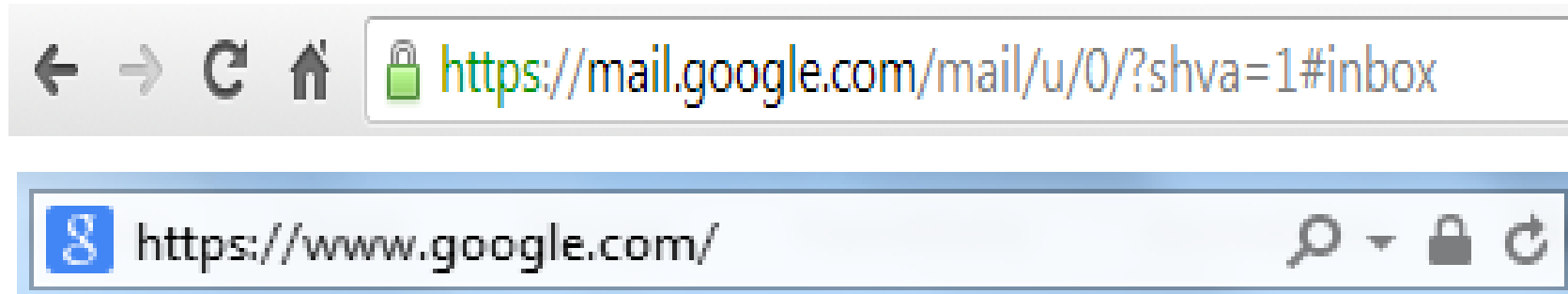
- Data (files)
- Use VPNs for your connection to the Cloud Service



# Security & The Cloud

## How do I protect myself?

- Use Secure Browsing (HTTPS)





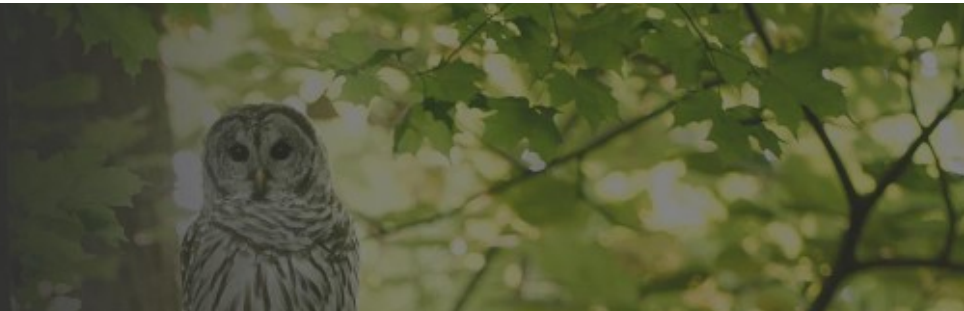
# How to be Secure

## Strong Passwords

What's a secure password?



- Combination of memorial phrases and numbers  
– “ILovetheCenter4Nonprofits”
- At least 15 characters & symbols

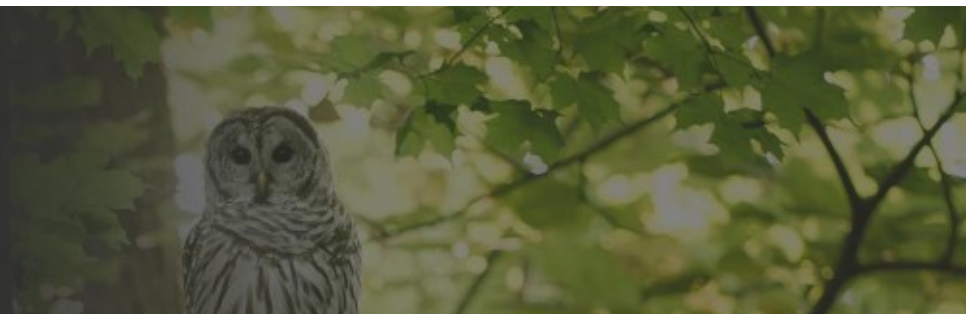
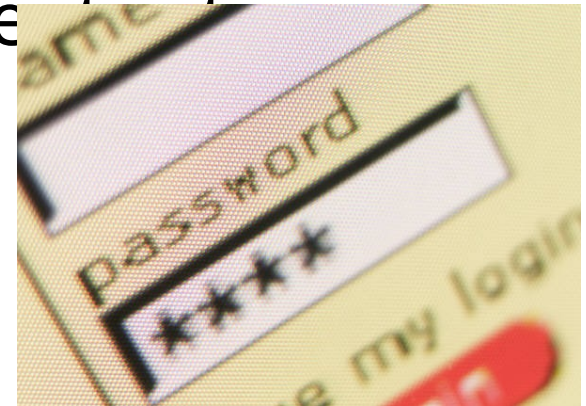


# How to be Secure?


## 2-Factor Authentication

Authenticating (logging in) to a service via two or more of the different means of authentication:

- What you know (password)
- What you possess (token)
- What you are (biometrics)
- What you do (voice recognition)



# Google's 2-Step Verification


 2-Step Verification

2-Step Verification is ON since Sep 28, 2014


TURN OFF


Your second step


After entering your password, you'll be asked for a second verification step. [Learn more](#)




**Tired of typing verification codes?**  
Get a Google prompt on your phone and just tap **Yes** to sign in. [ADD GOOGLE PROMPT](#)



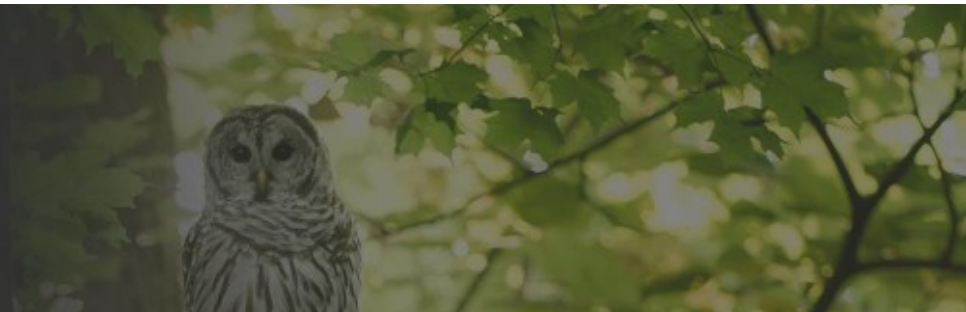
**Voice or text message (Default)** ⓘ  
(423) [REDACTED] **Verified**  
Verification codes are sent by text message. 



**Backup phone**  
(423) [REDACTED] **Not verified**  
Verification codes are sent by text message.   
[ADD PHONE](#)

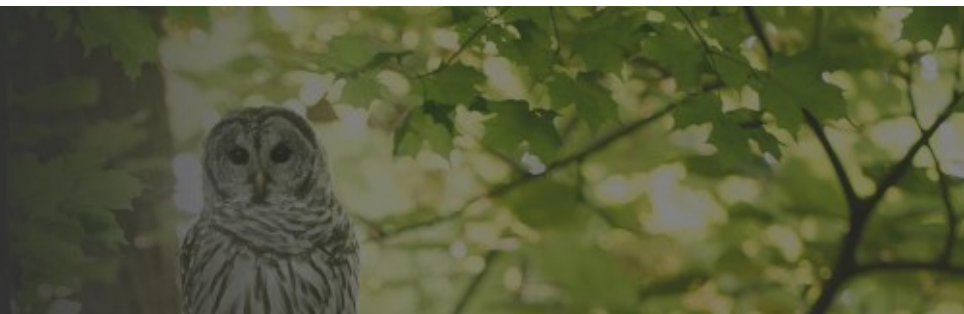


BARRED  
OWL | WEB



# Local Data Storage & Backups

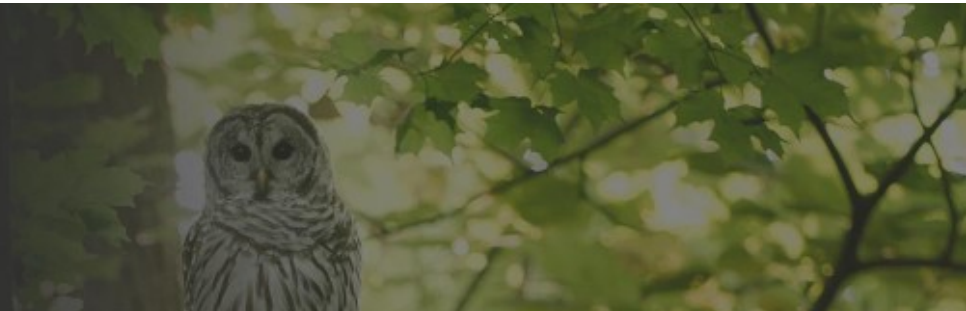
- RAID – 2 (or more ) hard drives that mirror each other, so that if 1 fails, the server keeps working
  - NOT the same thing as a backup
- You should *always* backup the data on your server
  - A “sync” is not a backup either!
    - Example: Dropbox, Google Drive (not a backup)





# Ransomware

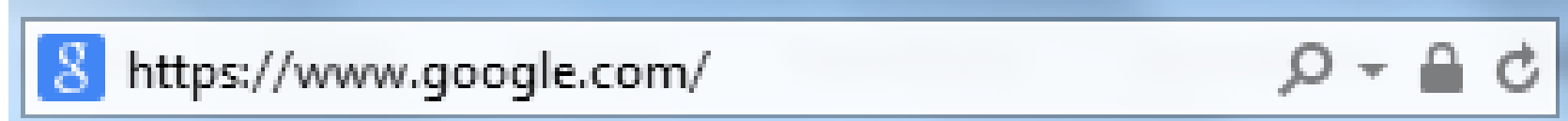
(1 reason why a “sync” isn’t a backup)



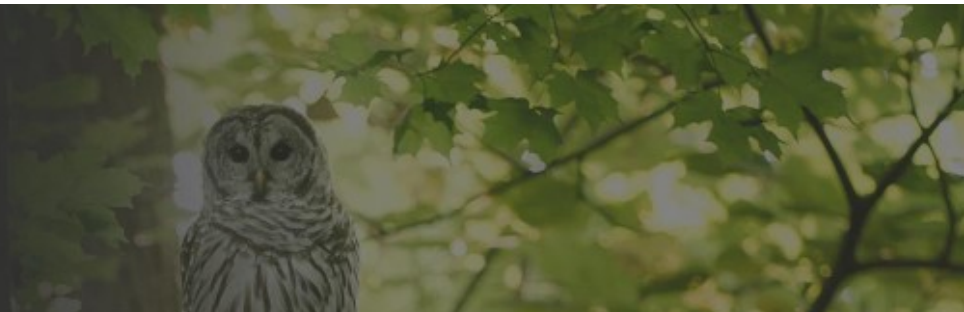


# Securing your CRM

1. DO make sure your data is stored behind an encrypted (HTTPS) connection



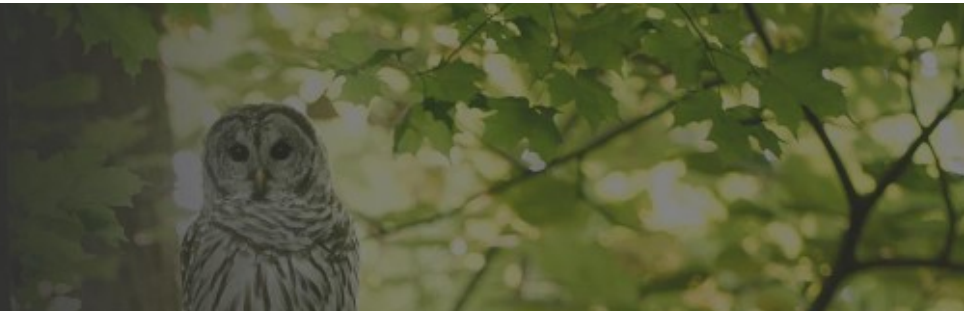
2. Keep your server *and* your Database software up-to-date
3. Do not copy your data insecurely



# The End

(Questions & Comments)

David White  
[barredowlweb.com](http://barredowlweb.com)



# Online Resources:

## **Google Apps**

<https://accounts.google.com/b/0/SmsAuthSettings#devices>

## **Sales Force Help:**

[https://help.salesforce.com/HTViewHelpDoc?id=security\\_require\\_two\\_factor\\_authentication.htm](https://help.salesforce.com/HTViewHelpDoc?id=security_require_two_factor_authentication.htm)

## **Google Apps – HIPPA Compliance**

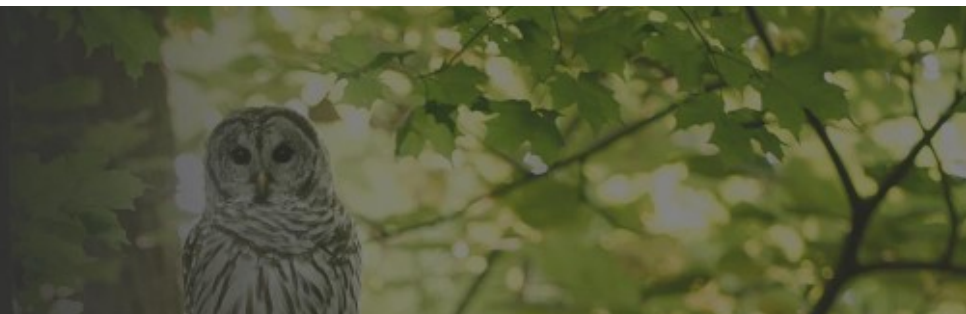
<https://support.google.com/a/answer/3407054?hl=en>

## **Our Own Blog:**

<https://developcents.com/blog>

## **A Consumer's Guide to Donor Management Systems**

<http://www.idealware.org/reports/consumers-guide-low-cost-donor-management-systems/>



# Security News Resources

**Security on Stack Exchange:**

<http://security.stackexchange.com>

**Internet Storm Center:**

<https://isc.sans.edu/>

**US-CERT mailing lists:**

<http://www.us-cert.gov/ mailing-lists-and-feeds>

**Freedom of the Press Foundation:**

“Encryption Works”

<https://pressfreedomfoundation.org/ encryption-works>

**Common Vulnerabilities and Exposures**

<http://cve.mitre.org/>

**RFC Database at IETF:**

<http://www.ietf.org/rfc.html>

**National Vulnerability Database:**

<http://nvd.nist.gov/>

**National Institute of Standards & Technology (NIST):**

“Computer Security Handbook”

<http://csrc.nist.gov/publications/nistpubs/800-12/800-12-html/>

**Brian Krebs:**

