Technology Special Interest Group

2014 – 2015 Schedule

Sept: **Backing Up Your Data**

Oct: **Archiving 1: Organizing Your Files**

Nov: **Home Networking**

Dec: **Archiving 2: Metadata**

Jan: **Security**

Feb: **Archiving 3: Storage Methodologies**

Mar: **De-Mystifying Digital Images**

Apr: **Archiving 4: Archival File Formats & File/Media Migration**

May: **Digital Afterlife**

If you cannot attend in person...

- I will make a PDF version of the presentation available before the live meeting
- Every presentation will be recorded
- The video will be available on the web page as soon as I can make it happen
  - Maybe a Podcast of the audio too
- You can participate on the Blog....

Dallas Genealogical Society

Talk to us!

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Backing Up Your Data

Posted on 23 August 2014 by Tony Hanson

The next Technology Special Interest Group meeting will be held on Sept 4 from 6:00 to 7:30 pm in the Hamon room on the 5th floor of the J. Erik Jonsson Central Library (Directions).

The topic of this meeting will be *"Backing Up Your Data"*. The discussion will help you determine your backup priorities and allow you to understand the alternatives you can choose from to protect your digital files, images and pictures.

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- Backing Up Your Data
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- Genealogy and the Law
- Possible Good News for Library Funding

Backing Up Your Data

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This session will be recorded and made available on the Technology SIG page following the Sept 4 meeting. If you are not going to be able to attend the meeting but have a question you would like to have addressed during the discussion please leave a comment below.

We have a great lineup of topics, and will be using this blog to discuss issues in between meetings. **Your** comments and questions are welcome!

Posted in Technology SIG | Tagged Backups | Leave a comment

One Response to *Backing Up Your Data*

Suzan Younger *says:*

3 September 2014 at 8:55 pm (Edit)

Question: considering the most recent news about hacking personal photos (which may have been calculated guessing of online credentials), how should we address backups of sensitive data (tax returns, account numbers, etc) when using a cloud or online back-up service? Should we use local methods of back up (external drives, cd, etc.)? Can we discuss options for data we don't want backed-up if we use an on-line, cloud service for backups and if we use local, how to store the media? Are you going to discuss encryption?

Reply

Leave a Reply

Logged in as Tony Hanson. Log out?

Comment

Backing Up Your Data

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Posted in Technology SIG | Tagged Backups | 1 Comment

Tony Hanson *says:*

4 September 2014 at 6:45 am (Edit)

Just about all of the cloud services offer some kind of encryption. A few allow you to specify your own encryption key, which means that nobody (not even the service provider) can read your files without knowing that key.

I suspect that most security breaches are caused by poor password habits (using the same password on multiple sites, not changing then on a regular basis) but I have not researched this area deeply (yet... Security is on the agenda for our January meeting).

Thanks for asking about this... I planned to discuss security but I'll be sure to emphasize it even more now and (hopefully) address your concerns.

Reply

Please Join The Conversation!

http://www.dallasgenealogy.org/wp/

Backing Up Your Data

Tony Hanson

Webmaster
Technology Special Interest Group Leader

Backup or File Sharing?

- Backups
  - Making a copy of your data so you can restore your files if they are deleted or corrupted

- File Sharing
  - Storing selected files on the internet so you can share them with others and/or access them when ever you want to from where ever you are

Backup

- Backups
  - Making a copy of your data so you can restore your files if they are deleted or corrupted
  - **The focus of this discussion**

What do you have to lose?

Your backup strategy will be greatly influenced by the value of your data and the difficulty you would have re-creating it.

If your data cannot be replaced or recreated easily or quickly, you need a '"good" backup strategy

Elements of a "Good" Backup Strategy

Files are saved:
- With minimal effort on your part
- On-site
- Off-site
- As often as necessary
- On reusable media that is occasionally replaced

Multiple copies in several locations

What do you have to use?

Developing your backup strategy will require one, two or all of these three assets:

- Time
- Money
- Technical Skills

Considerations

- How much data
- Back up how often
- Individual user/system or shared
- Operating System(s) (Mac, Windows)
- Platform(s) (PC, Laptop, iDevice, etc.)
- Fee or Free
- How quickly you need to recover from a problem

Methodologies

1. Manually copy files & manage media

2a. Utilize what your Operating System provides

- – Windows Backup Tools
- – Apple's Time Machine

2b. Utilize third party software

3. Commercial cloud based service

Media Choices

- Your PC's hard disk

- Flash Drive

- CD's, DVD's or Blue Ray disks

- USB connected storage device

- 2nd Hard Internal Drive (desktop systems)

- Network Attached Server (NAS)

- Cloud based storage

Methodologies

Manual Process

- Make copies of your files on a regular basis
- Manually transport media to off-site location

  - **Time:** High
  - **Cost:** Low
  - **Skill**: Medium
  - **Risk:** High... Too easy to forget to do this on a regular basis

Native/OS Solution

- Well integrated into your systems software
- Can be scheduled
- Wide variety of media choices

Windows Backups

- Uses local disk drives
  - Windows 7: Must have Pro version to utilize NAS
- Can be scheduled
- Backs up "user" files
  - Files you create
  - eMail, Calendar
- Does NOT backup system files
  - Assumption: These will be 'easy' to restore in the event of a failure

Apple's Time Machine

- Uses local drives
  - Supports use of multiple backup devices
- Backups can be scheduled
- Backs up "user" files
  - Files you create
  - eMail, Calendar
- Does NOT backup system files
  - Assumption: These will be 'easy' to restore in the event of a failure

Third Party Software

- Advantage: Many allow you to clone your entire hard disk
  - Creates a disk that can replace your failed/corrupted disk drive in a matter of minutes
- Two that get good reviews:
  - **NovaBackup** (Windows)
    - http://www.novastor.com/en
  - **Carbon Copy Cloner** (Mac)
    - https://www.bombich.com/

Native/3rd Party Software

- **Time:** Medium
- **Cost:** Low to Medium
- **Skill**: Medium
- **Risk:** Low, although by itself they not not provide an off site solution

Commercial Cloud Based

- BackBlaze
- Bitcasa
- Carbonite
- Crash Plan
- Live Drive
- Mozey
- SOS Online Backup
- Many Others….
  – See "*38 Online Backup Services Reviewed*"

Considerations

- Cost
  - Average appears to be around $60/year
- Time to create initial archive
  - You must have a high speed internet connection
  - Some services reportedly throttle your upload

Considerations (Continued)

- Support for 2nd local disk drives
  - Free with some services, extra cost for others
- Time/process/cost to recover your data in the event of a total failure
  - Network only, DVD, USB Drive (extra cost)
- Security
  - Some provide extra layer of encryption
  - Not even they can read the files without <u>your</u> key

Commercial Cloud Based

- **Time:** Low
- **Cost:** Medium
- **Skill**: Low
- **Risk:** Low – addresses the off-site requirement

Tony's Personal Opinion:
You can't afford to <u>NOT</u> use one of these providers!

Media Choices

Existing Hard Disk

- Very low cost
- But… it will eat up a lot of space
- Will not protect you against a failure of that disk drive
  - Both your original files and your backups would be lost

Flash Drives

- Relatively Inexpensive
- Easy to transport
- May not be a realistic alternative if you have a lot of data (I am approaching 200 GB)
  - 32 GB - $15
  - 64 GB - $25
  - 128 GB - $40
  - 256 GB - $115
  - 512 GB ~ $1750
  - 1 TB – Not available _YET_…. but they are coming soon!

CD/DVD/BlueRay Disks

- May not be a realistic alternative if you have a lot of data (I also have 110 GB of pictures)
  - CD: 700 Megabytes (442)
  - DVD: 4.7 Gigabytes (66)
  - BlueRay: 25/50/100 Gigabytes (13/7/4)
    - 100G Disks cost $25 – $60 each!
- MDISC version is a great choice for making <u>archival</u> copies...

USB Attached Drives

- Cost is really dropping
  - Seagate **4 TB** USB 3.0 - $137
  - Seagate **5 TB** USB 3.0 - $177
- USB 3 reduces file transfer time
- Portable versions available

IMHO, This is the most flexible, cost effective option available today.

2nd Internal Disk (Desktop Systems)

- If your PC has a place to mount one (and the required data and power connections available) you can install a 2nd internal hard disk

- This drive can be used for any purpose

- Good place to make backups

- Can be easily replaced with a higher capacity drive as your needs increase (and as costs drop)

- Not much help if your PC is stolen or destroyed

Network Attached Server (NAS)

- A stand alone device
- Connected using an IP connection
  - Requires some kind of IP network in your house
- Many features/capabilities available
  - Can be a multi-disk device
    - Offers some redundancy if a single drive fails
  - Can support multiple PC's
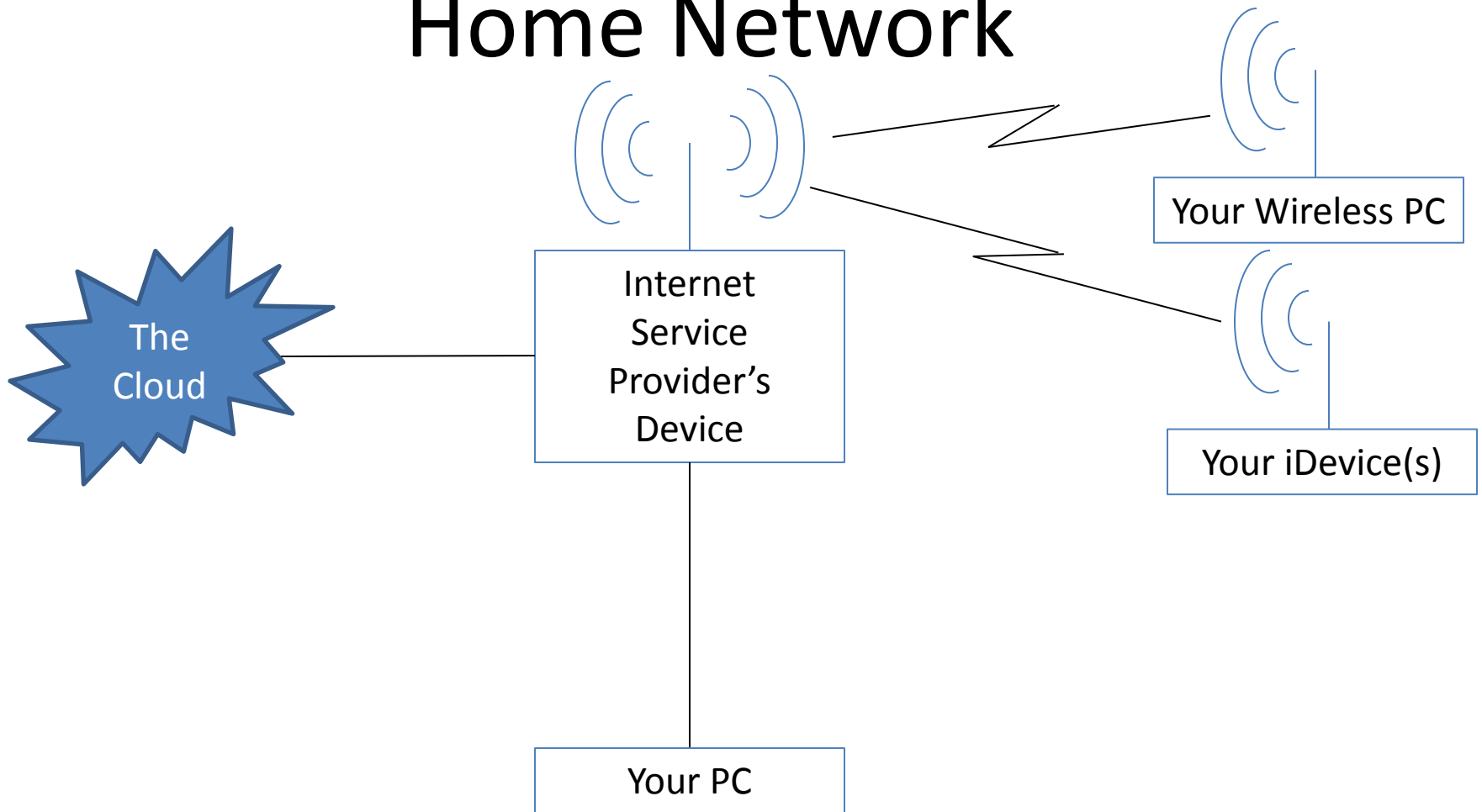 - Multimedia support
  - Remote access

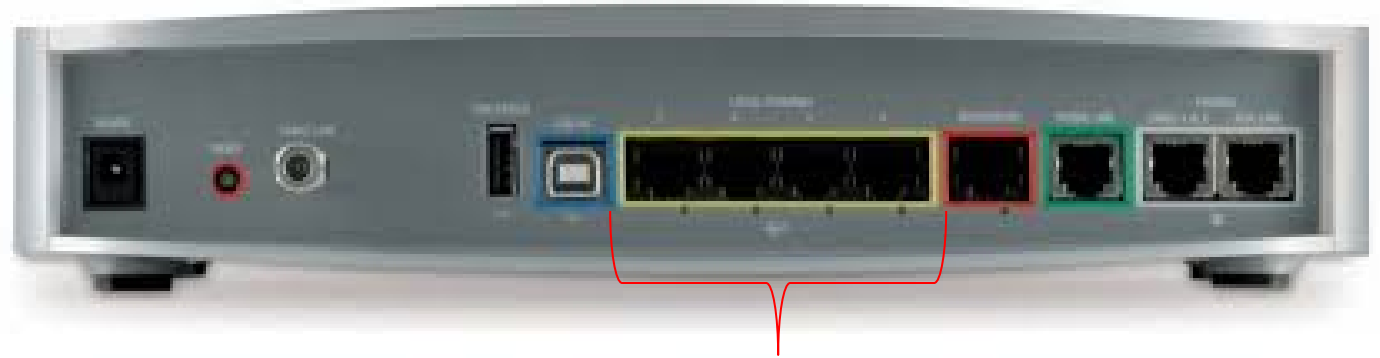# WD My Cloud 4TB Personal Cloud Storage - NAS

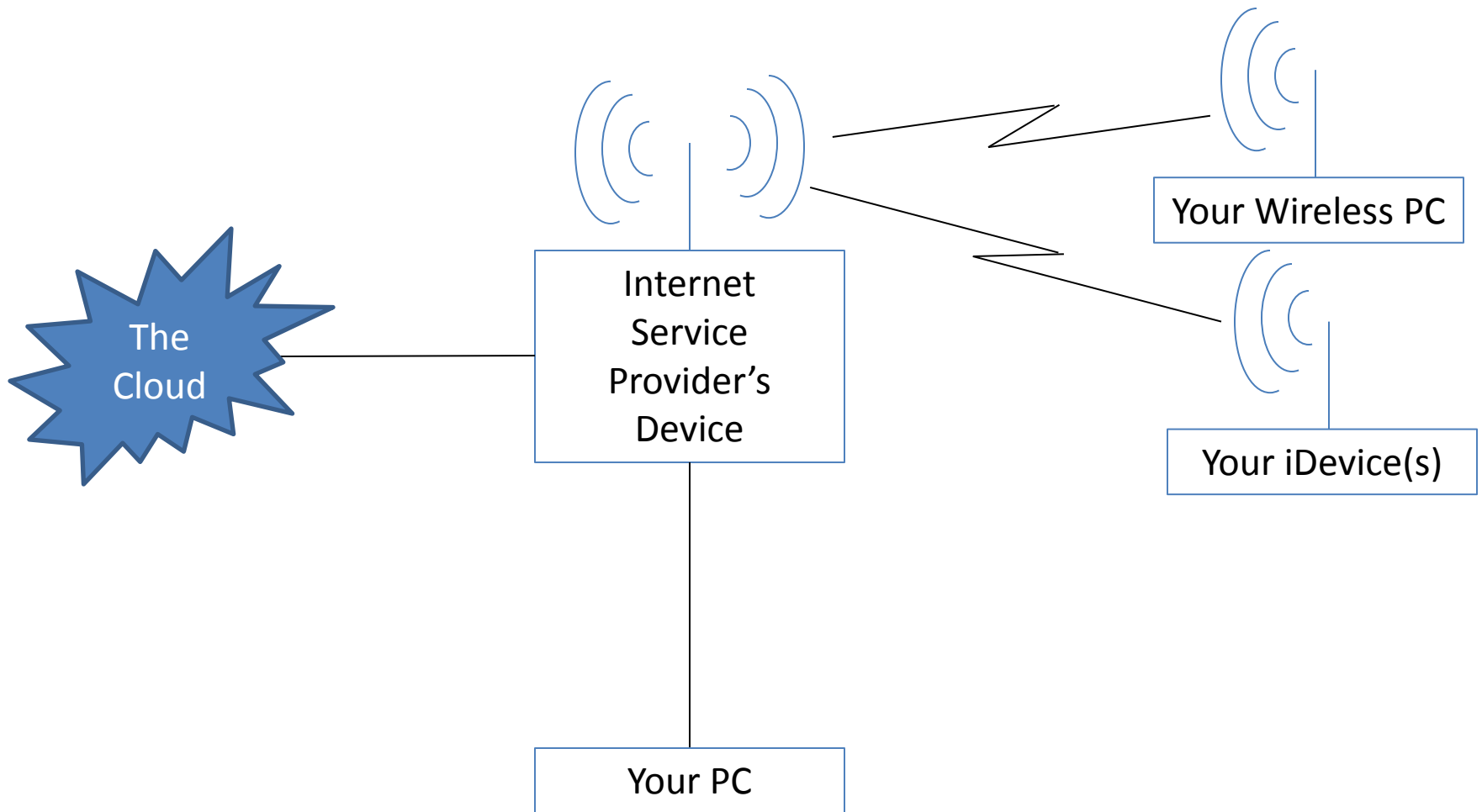Typical Example of a device in this class

- $214 from Amazon.com
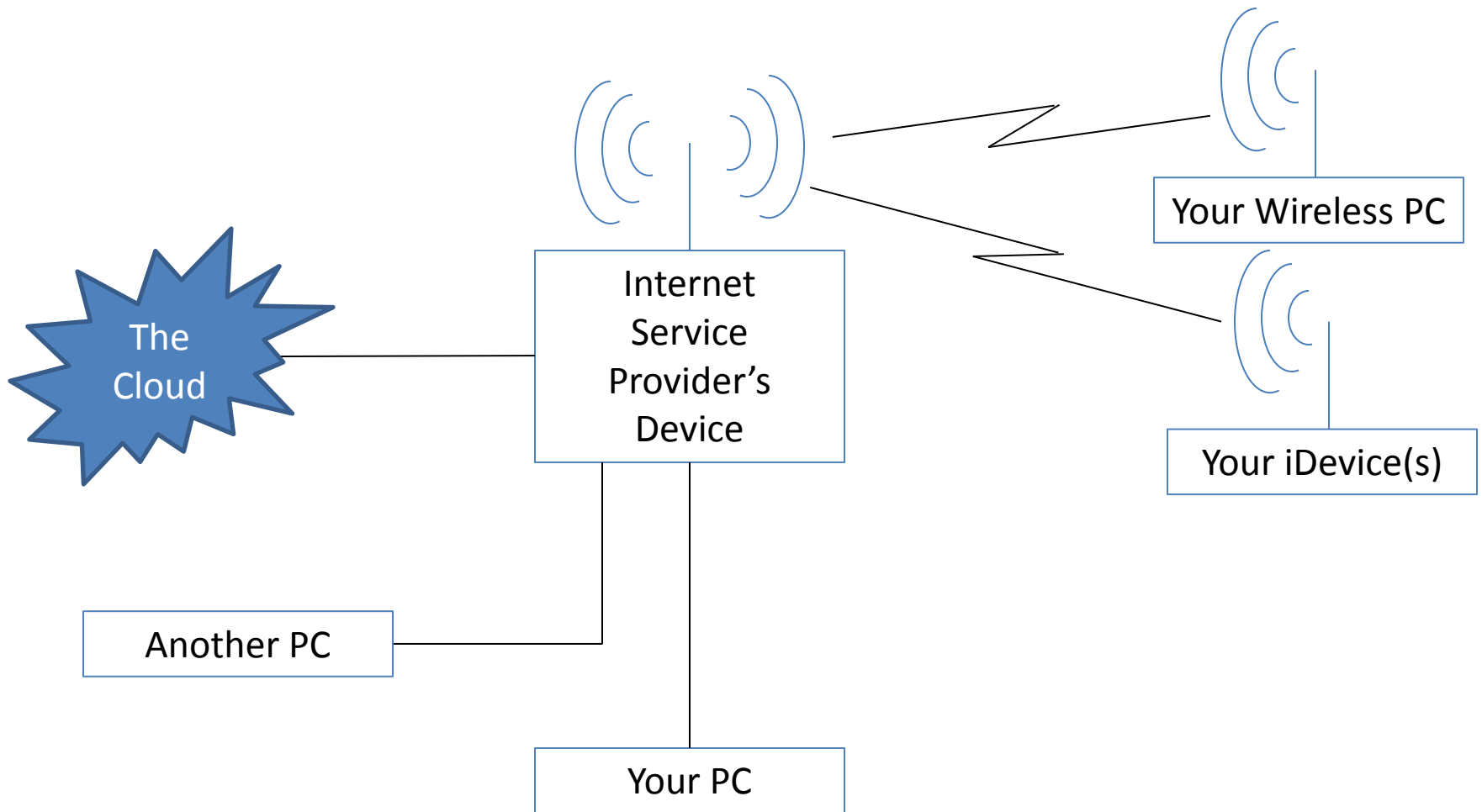- See "*I Added Four Terabytes to My Personal Cloud*"

Home Network

The Cloud
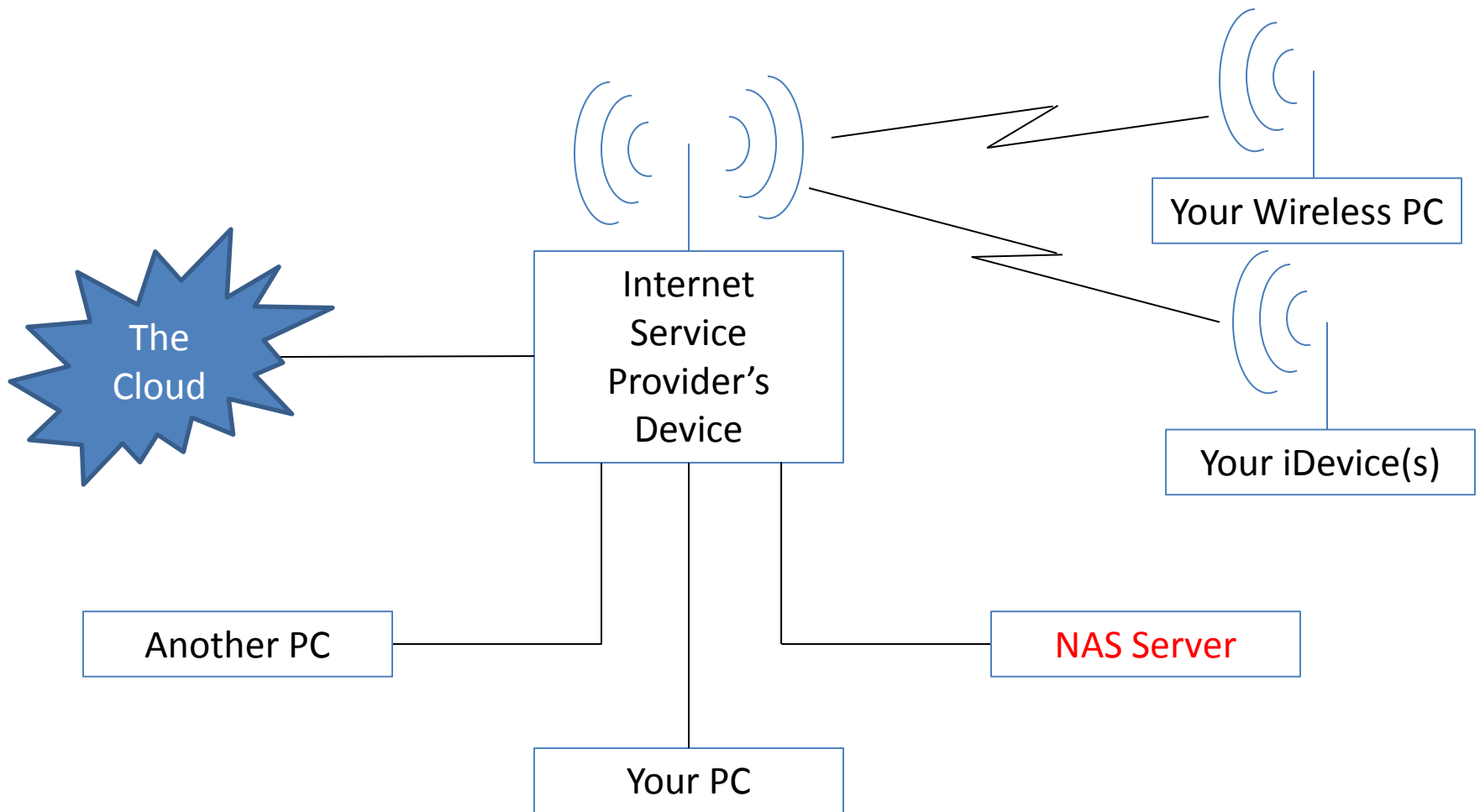
Internet Service Provider's Device

Your Wireless PC

Your iDevice(s)

Your PC

4 IP Connections

The Cloud

Internet Service Provider's Device

Your Wireless PC

Your iDevice(s)

Your PC

The Cloud

Internet Service Provider's Device

Your Wireless PC

Your iDevice(s)

Another PC

Your PC

The Cloud

Internet Service Provider's Device

Your Wireless PC

Your iDevice(s)

Another PC

NAS Server

Your PC

The Cloud

Internet Service Provider's Device

Your Wireless PC

Your iDevice(s)

NAS Server

Ethernet Hub

Another PC

Your PC

The Cloud

Internet Service Provider's Device

Your Wireless PC

Your iDevice(s)

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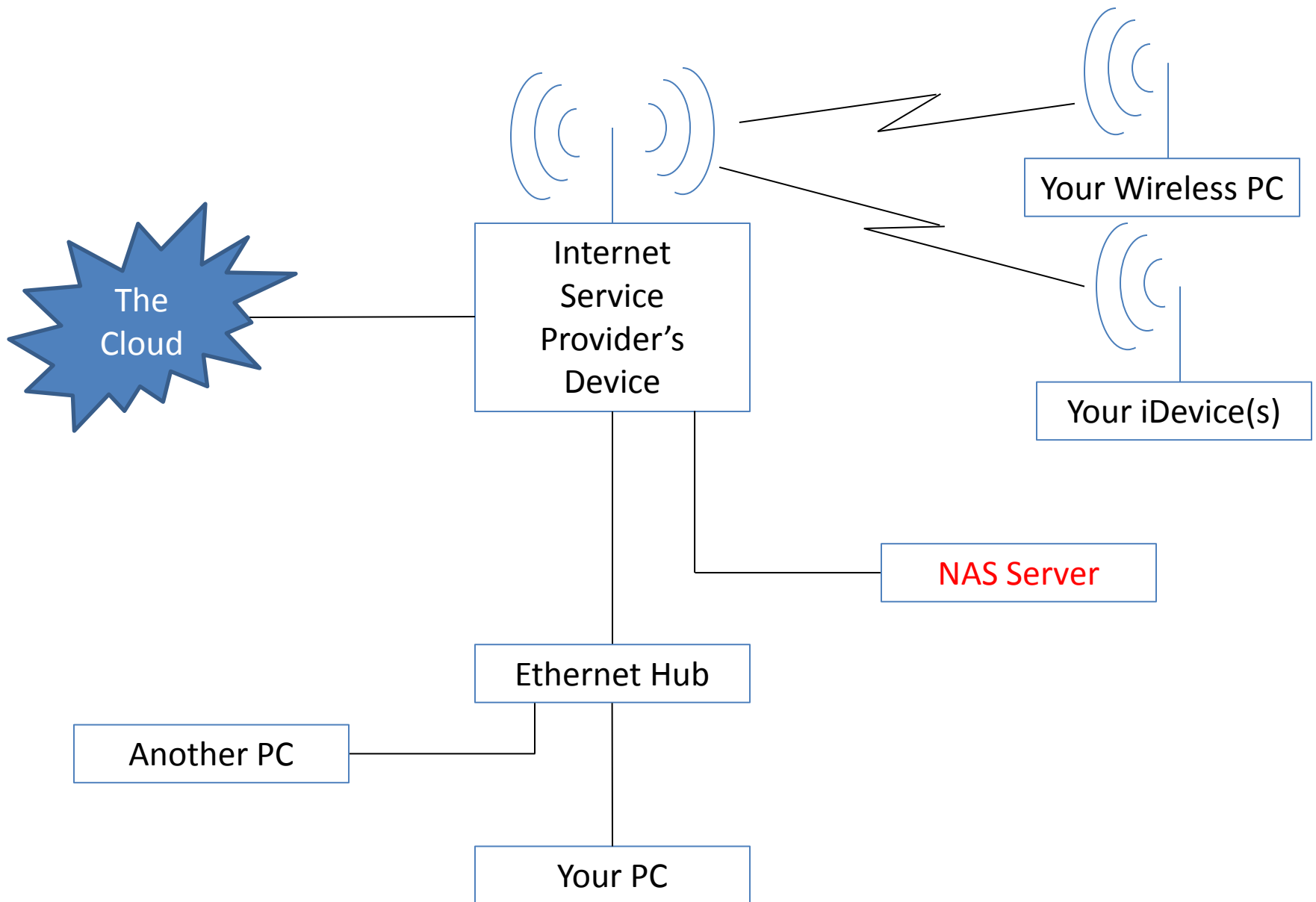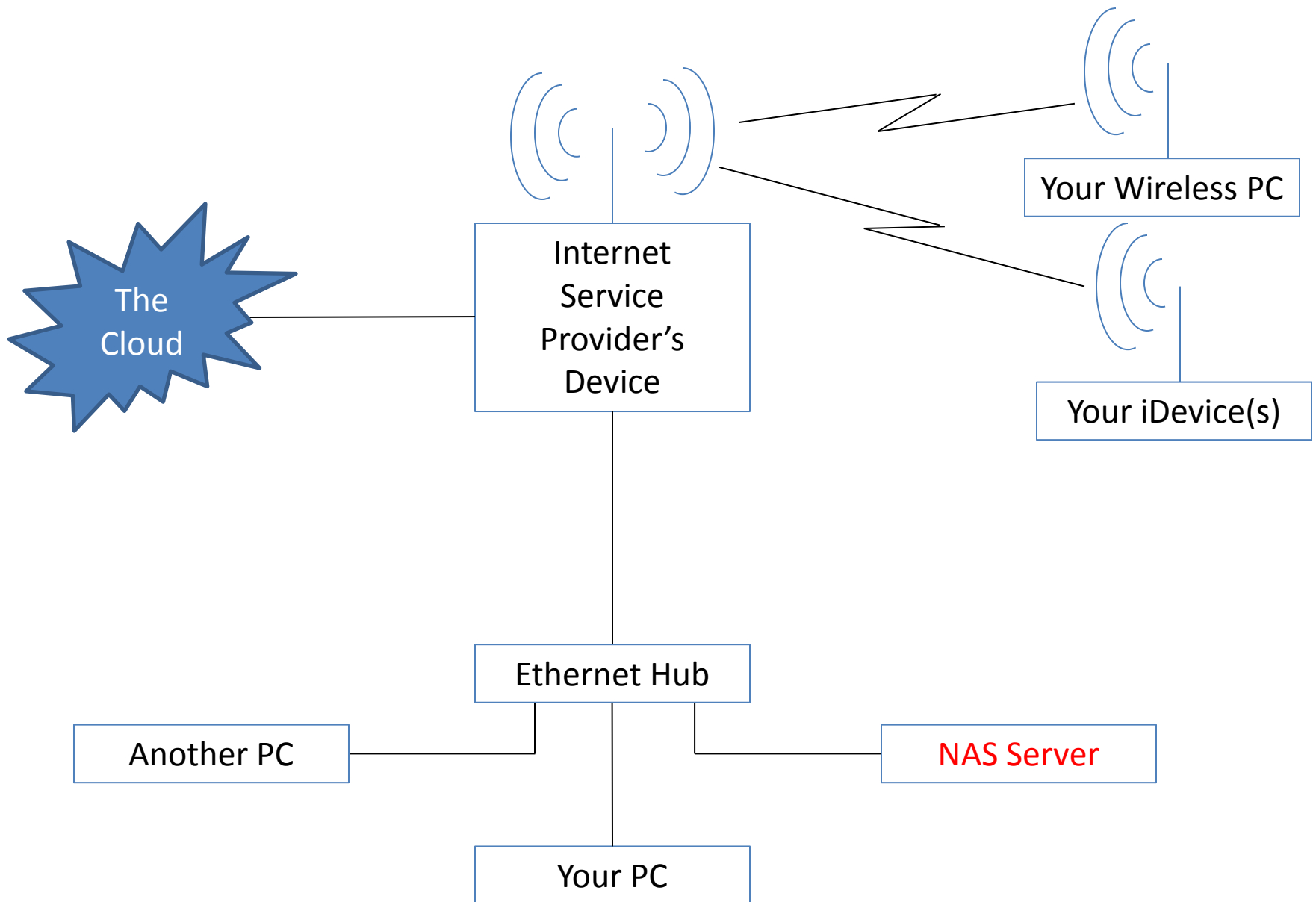
Ethernet Hubs

IP Providers Device

Ethernet Hub

NAS

What About The Cloud?

- Many free/fee alternatives
  - Dropbox
  - Google Drive
  - Microsoft OneDrive
- These are good choices for file sharing and for temporary storage of active project files
- They are an acceptable choice for your backup strategy as long as you have <u>additional copies</u> on non-cloud based media

What if you need a bigger cloud?

- MediaFire Pro
  - 50G Free
  - 1TB for $24.99/year
  - See "***Get Terabyte of Cloud Storage for $24.99***"
  - https://www.mediafire.com

What if you need a bigger cloud?

- Amazon Cloud Drive
  - 5G Free
  - 20G for $10/year
  - 50G for $25/year
  - See "**Add Gigabytes of Storage Space to your iPhone, iPad, or Android Device with Amazon Cloud Drive**"
  - https://www.amazon.com/clouddrive/learnmore

What about your iDevices?

- Apple offers iCloud
  - 5 GB storage for <u>all of your Apple Devices</u> (Mac, iPhone, iPad)
  - More storage can be purchased
    - 10G: $20/Year
    - 20G: $40/Year
    - 50G: $100/Year
  - Backs up Apps, but does NOT back up music, pictures or movies
    - Manage (and back up!) these on your PC

iDevice Alternatives

- iDrive
  - http://www.iDrive.com
  - Backs up Contacts, Photo's, Video's and your Calendar
  - Sharable across devices (including Windows)
  - 5 GB Free
  - 50 GB for $.99 per year
    - Load app on iDevice… the offer is available there
    - Purchased through iTunes store
  - 300 GB for $37.12 per year

iDevice Alternatives

- Some NAS devices also integrate with and backup your iDevices
  - One I read about: **Synology DiskStation DS413j**
    - See "**Synology DiskStation DS413j NAS Review and Giveaway**"

Cloud Security Tips

- Use complex passwords
- Don't use the same password on multiple sites
- Change your passwords occasionally
- Don't choose obvious or trivial answers to challenge questions
  - Mother's maiden name – "Lake Geneva"
  - Favorite car – "Back to the Future"
- Specify an encryption key (and REMEMBER it!)
- Don't become famous ☺

Probably Sufficient For Most People

1. Subscribe to a online cloud service

    – See "***Backblaze Online Backup Service***"

2. Buy a USB attached drive

    – Write your backup files here

    – See "***I Added Four Terabytes to My Personal Cloud***"

3. Use your systems native backup software

    – Schedule weekly backups

Advanced Needs

- Consider installing a NAS
  - See "*I Added Four Terabytes to My Personal Cloud*" and "**Synology DiskStation DS413j NAS Review and Giveaway**"
- Consider purchasing and using cloud storage
  - Amazon Cloud Drive
  - Media Fire

References

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Cloud Storage

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Questions?

Thank You!

Tony Hanson
Webmaster
Technology Special Interest Group Leader

Backing Up Your Data

http://www.dallasgenealogy.org