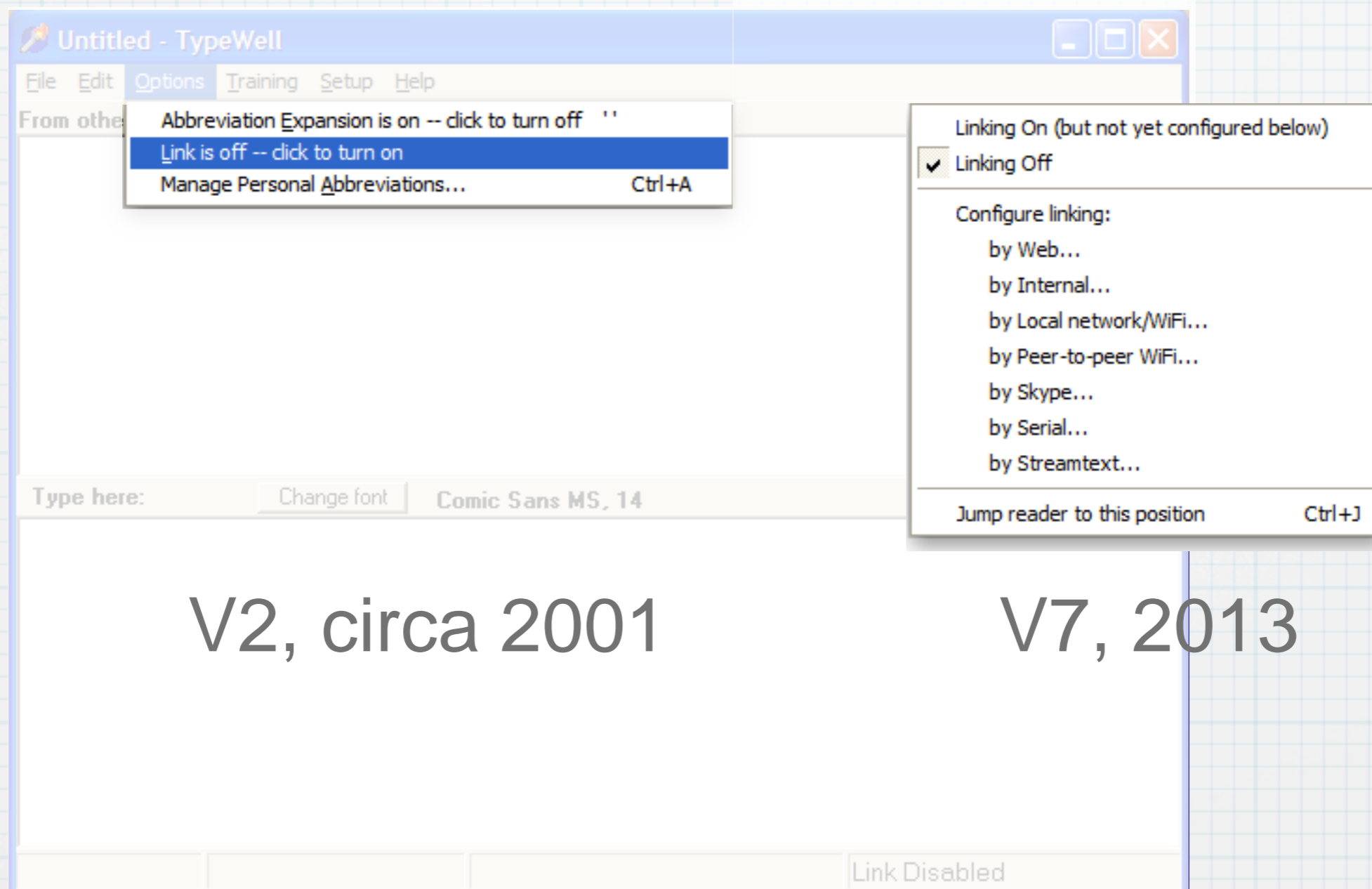


Learn to Link Well

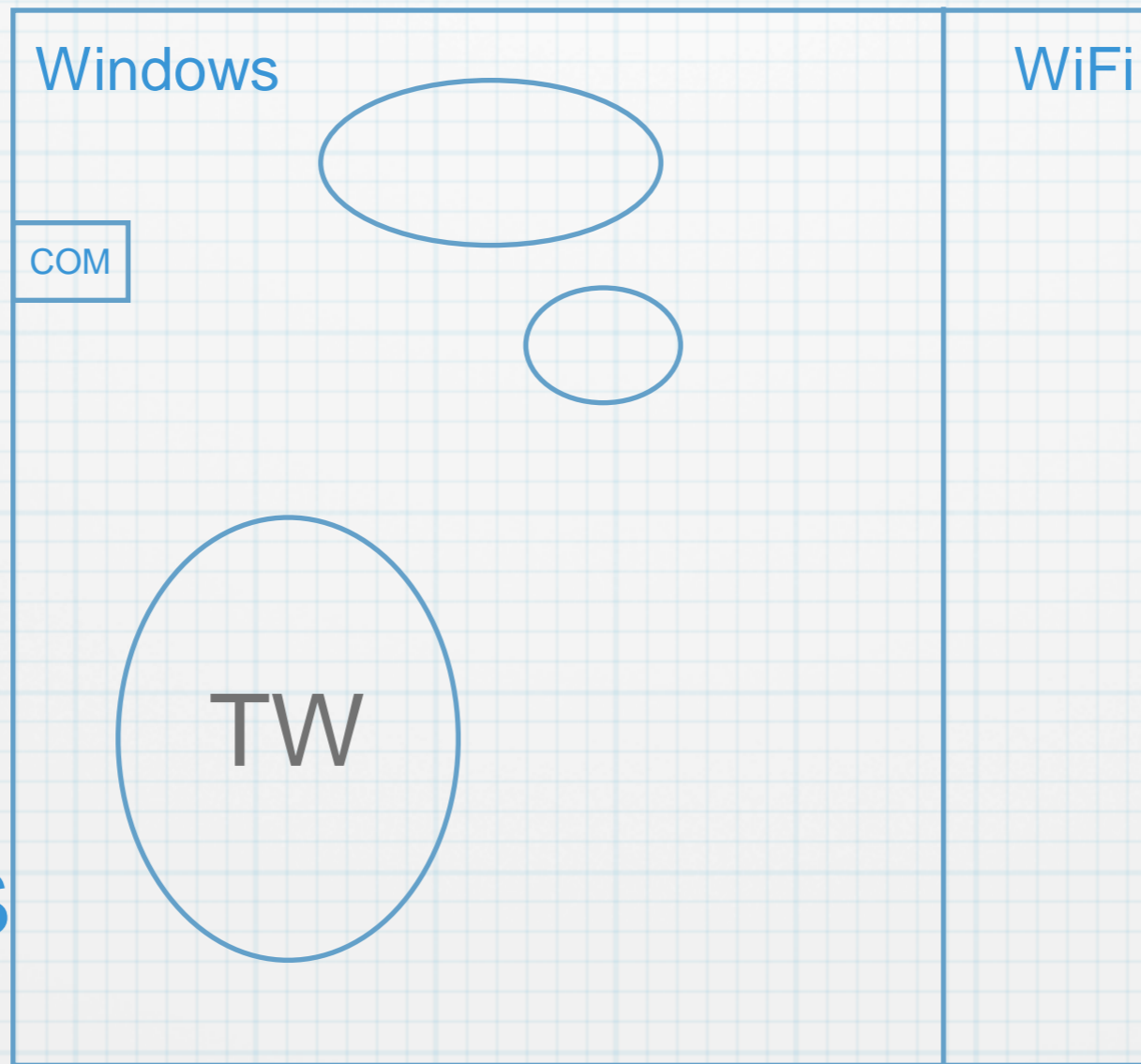
How linking works, what goes wrong, and how to fix it

The Link menu, then and now



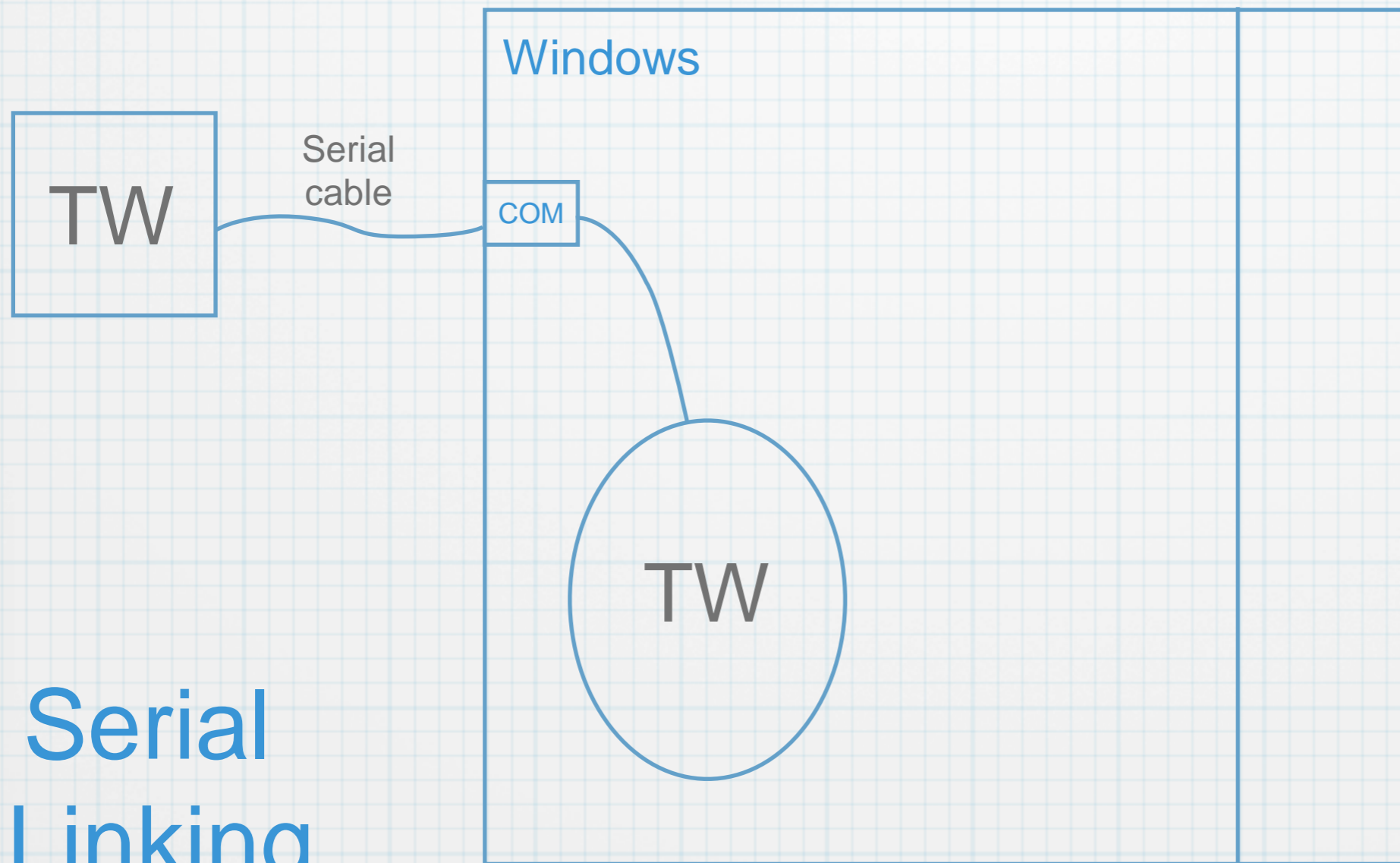


TW

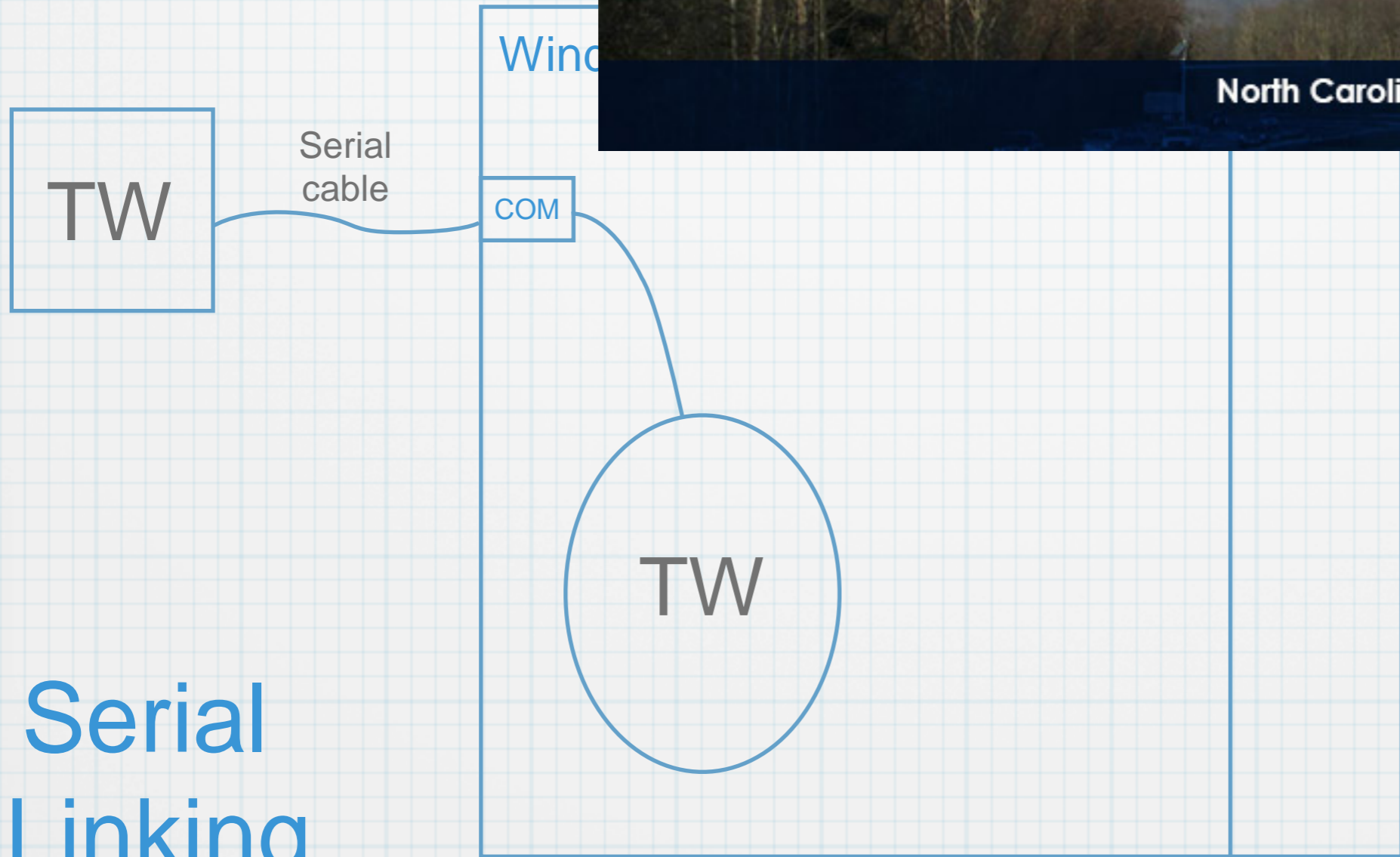


TW

3 Computers
in a Room



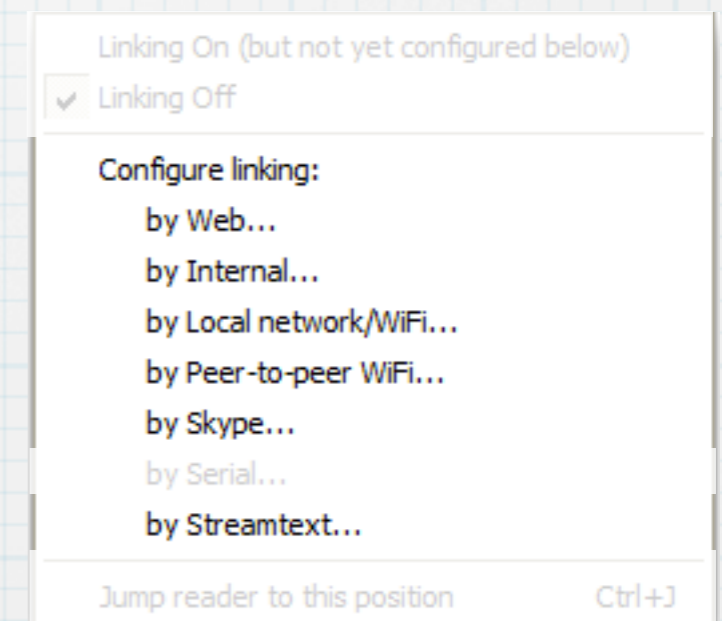
Serial Linking

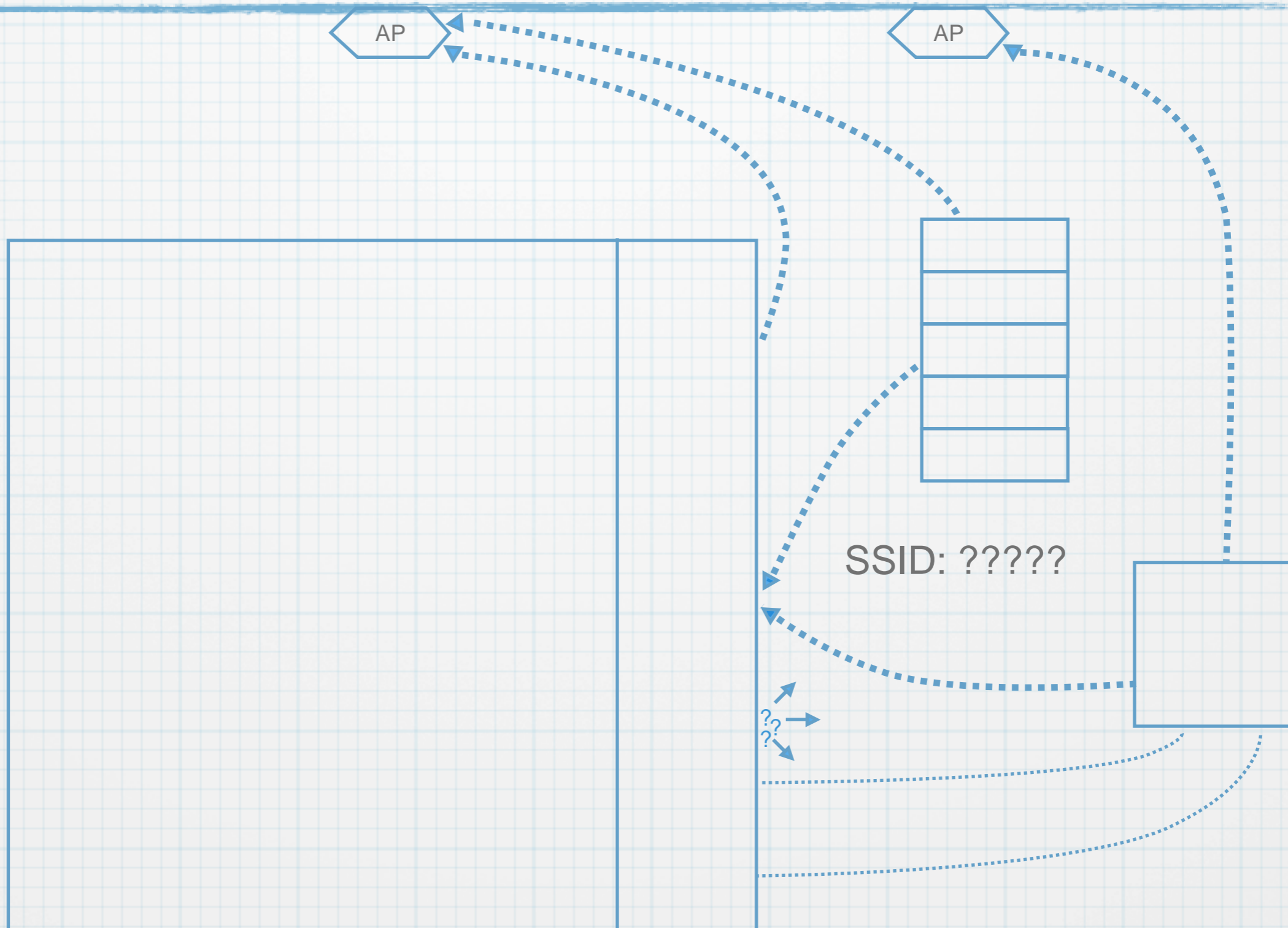


Serial Linking

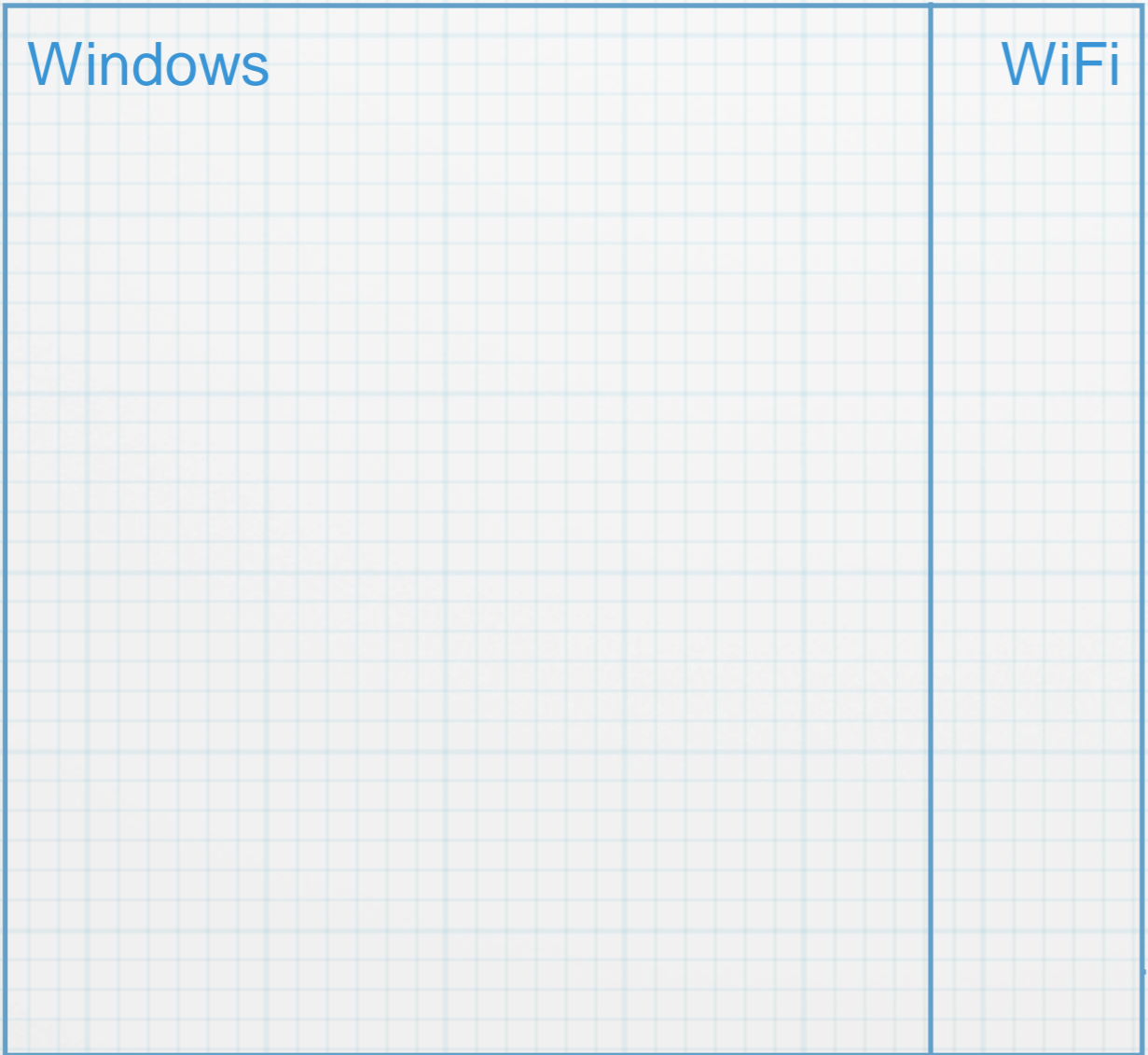
WiFi Linking

- * First connect in Windows:
 - * SSID (Network name) and password
 - * IP address
- * Then in TypeWell:
 - * Link



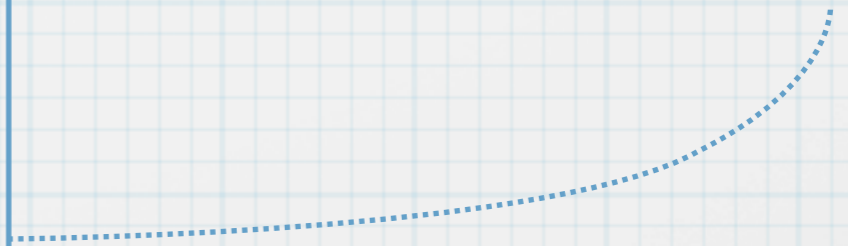
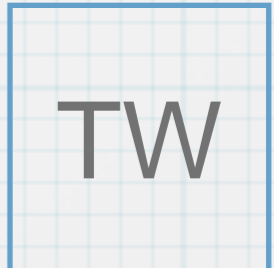


Why
SSID?



SSID
Sorts it
Out

SSID: "TypeWellA"



IP Address

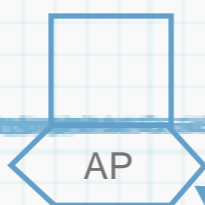
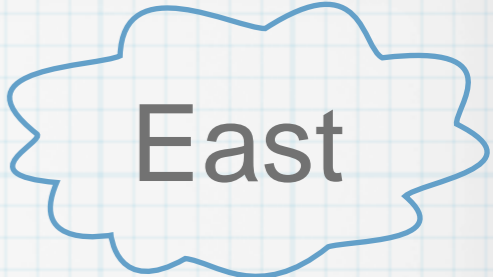
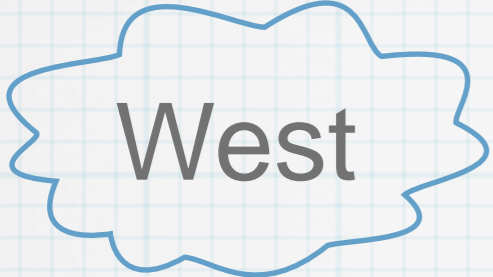
- * Like a phone number
- * Local addresses are like “Hotel extensions”:
 - * 192.168.247. 1
 - * 10.34.244.72



50.18.189.235

107.20.178.111

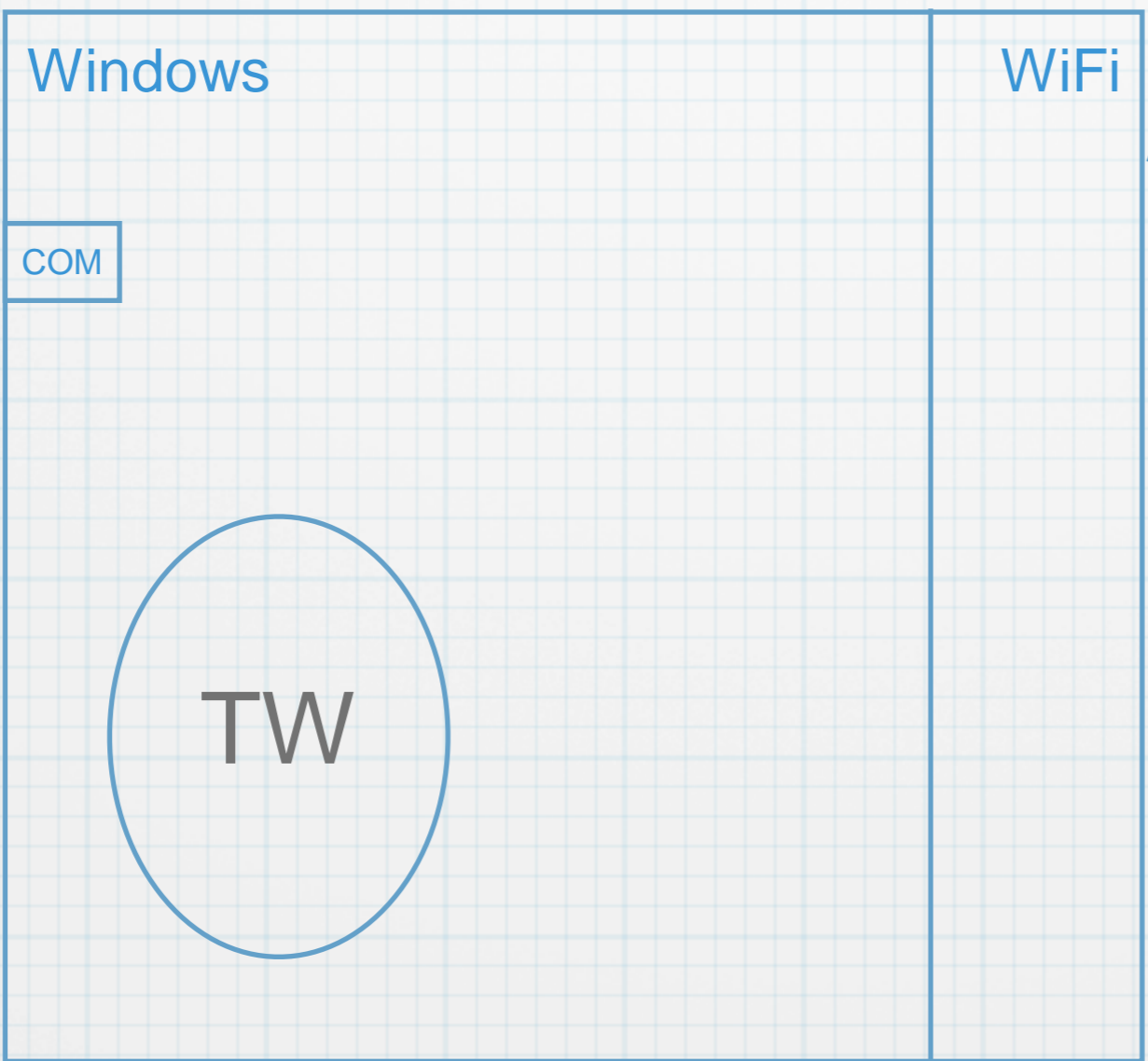
Internet



10.1.1.1

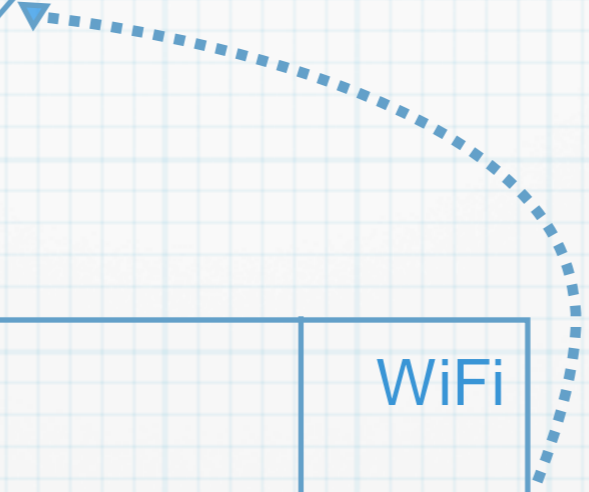
Room

SSID: "Campus1"



10.1.2.23

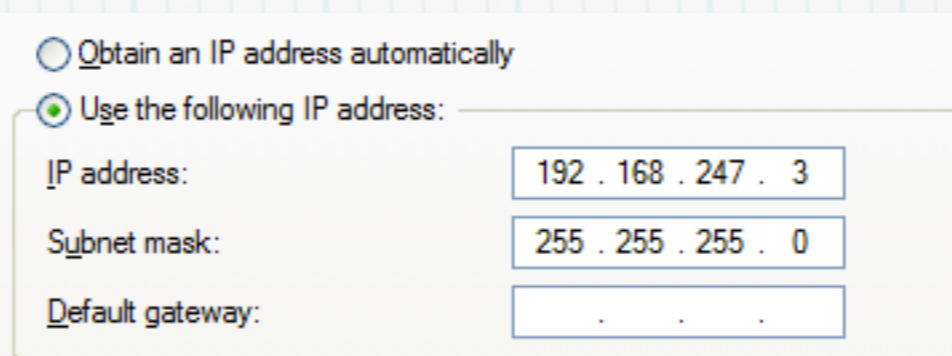
IP Address



Choosing an IP Address

* “Extension” assigned one of three ways:

* fixed by us:



The screenshot shows a network configuration window with two radio button options. The first option, "Obtain an IP address automatically", is unselected. The second option, "Use the following IP address:", is selected. Below this, there are three input fields: "IP address:" containing "192 . 168 . 247 . 3", "Subnet mask:" containing "255 . 255 . 255 . 0", and "Default gateway:" containing ". . .".

<input type="radio"/> Obtain an IP address automatically	
<input checked="" type="radio"/> Use the following IP address:	
IP address:	192 . 168 . 247 . 3
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	. . .

* automatically = random “10.” for p2p

* by the Access Point (AP)



Linking On (but not yet configured below)

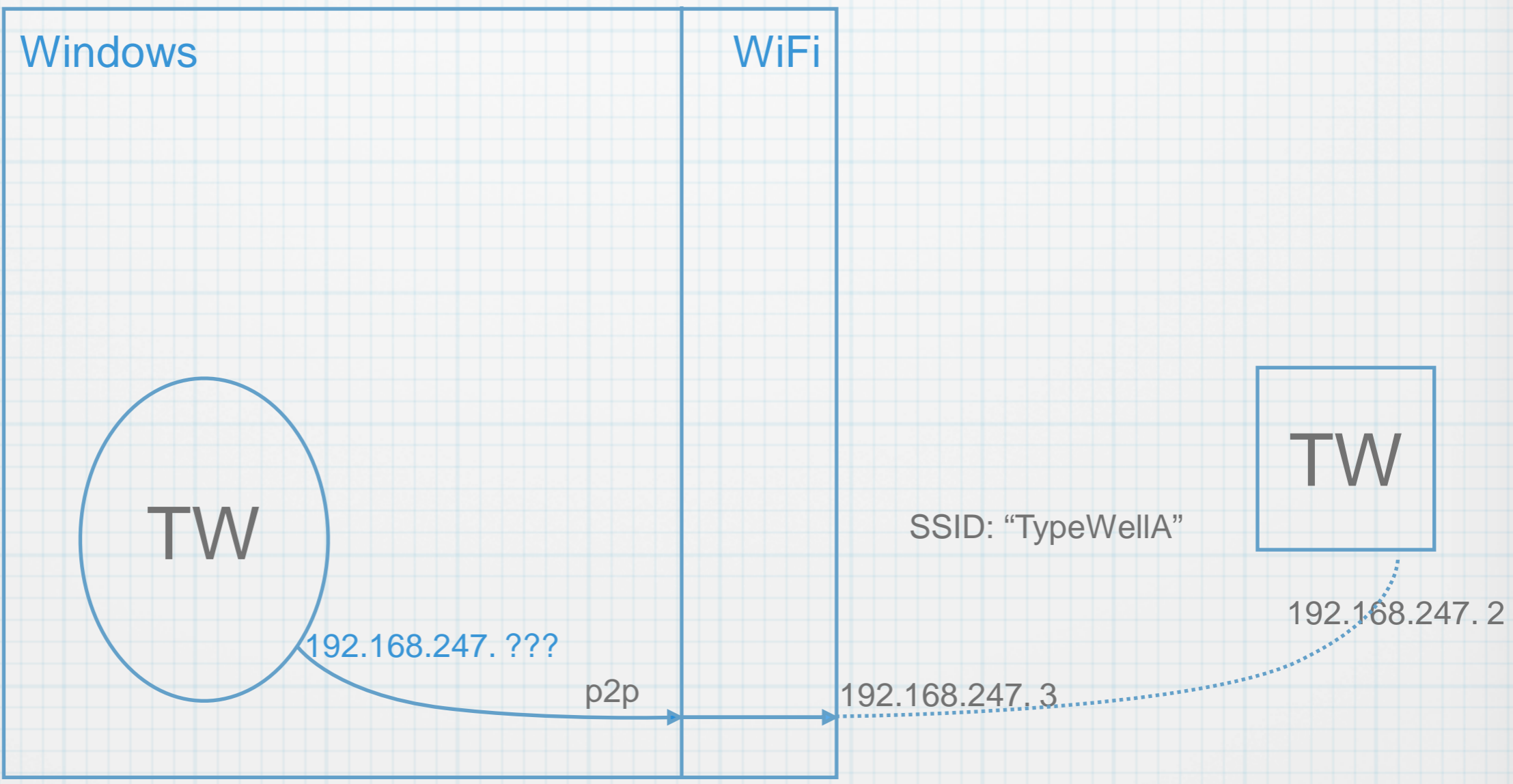
Linking Off

Configure linking:

- by Web...
- by Internal...
- by Local network/WiFi...
- by Peer-to-peer WiFi...**
- by Skype...
- by Serial...
- by Streamtext...

Jump reader to this position Ctrl+J

p2p Linking





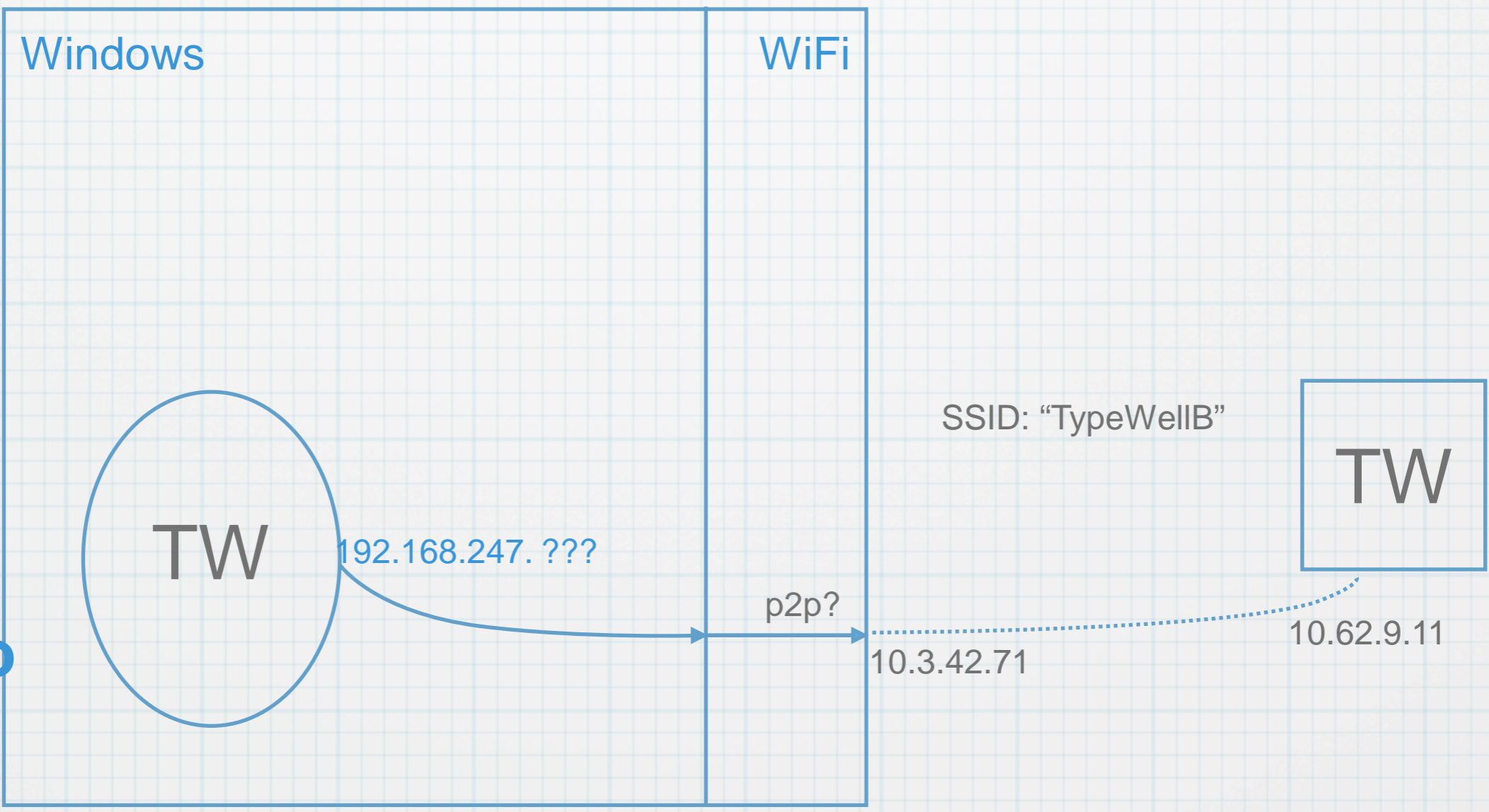
Linking On
Linking Off

Configure linking:

- by Web...
- by Internal...
- by Local network/WiFi...
- + by Peer-to-peer WiFi (Wrong IP: must be 192.168.247.*?) ...**
- by Skype...
- by Serial...
- by Streamtext...

Jump reader to this position Ctrl+J

p2p with Wrong IP

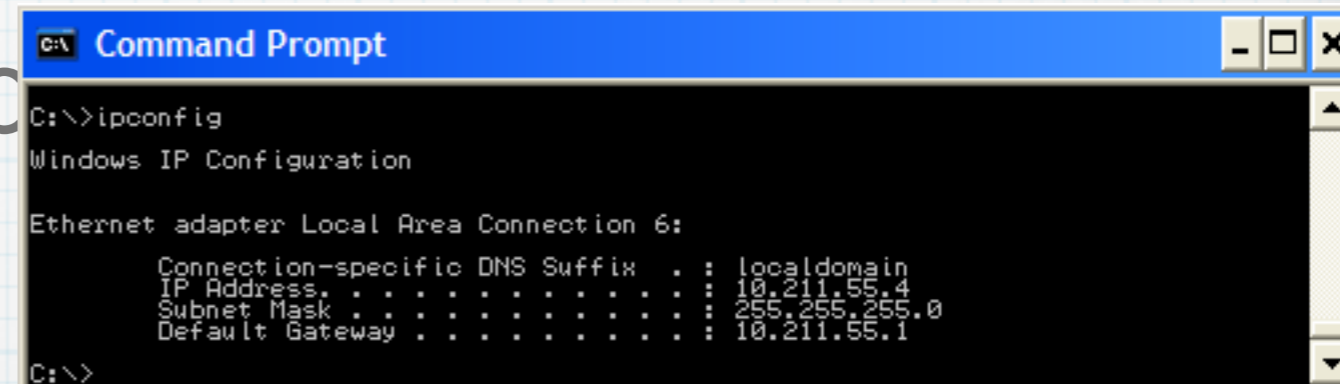


Checking the IP

* **Windows** must be connected before TW has a chance to work.

* Command Prompt

* “ipconfig”



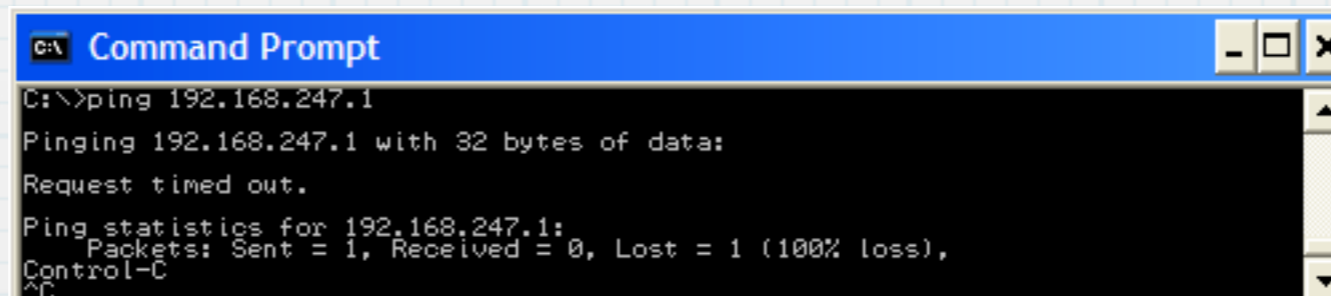
```
C:\>ipconfig
Windows IP Configuration

Ethernet adapter Local Area Connection 6:

    Connection-specific DNS Suffix  . : localdomain
    IP Address. . . . .               : 10.211.55.4
    Subnet Mask . . . . .             : 255.255.255.0
    Default Gateway . . . . .         : 10.211.55.1

C:\>
```

* “ping 192.168.247.2”



```
C:\>ping 192.168.247.1
Pinging 192.168.247.1 with 32 bytes of data:
Request timed out.

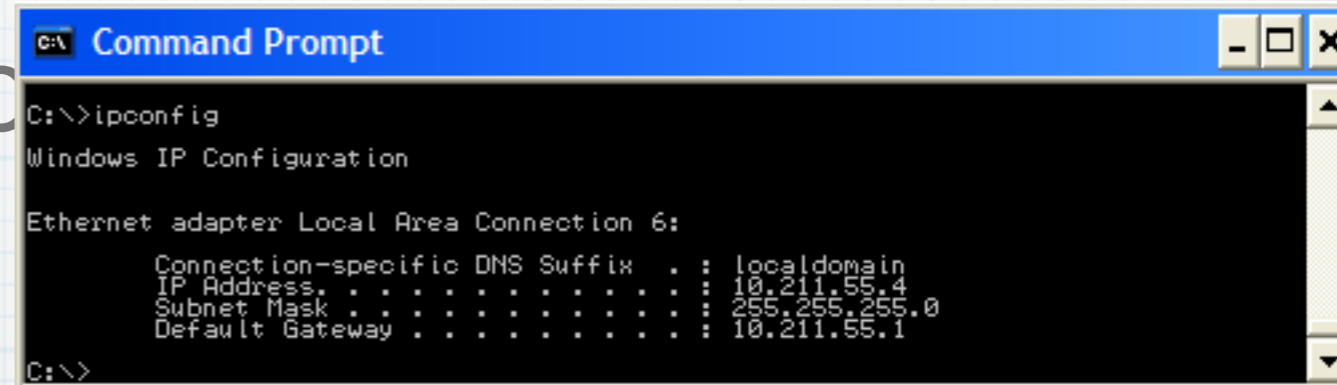
Ping statistics for 192.168.247.1:
    Packets: Sent = 1, Received = 0, Lost = 1 (100% loss),
Control-C
^C
```

Checking the IP

- * **Windows** must be connected before TW has a chance to work.

- * Command Prompt

- * “ipconfig”



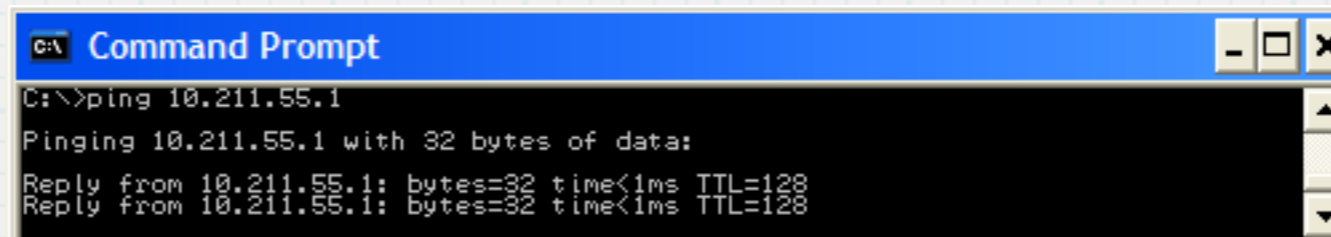
```
C:\>ipconfig
Windows IP Configuration

Ethernet adapter Local Area Connection 6:

    Connection-specific DNS Suffix  . : localdomain
    IP Address. . . . .                : 10.211.55.4
    Subnet Mask . . . . .              : 255.255.255.0
    Default Gateway . . . . .          : 10.211.55.1

C:\>
```

- * “ping 10.211.55.1”



```
C:\>ping 10.211.55.1
Pinging 10.211.55.1 with 32 bytes of data:
Reply from 10.211.55.1: bytes=32 time<1ms TTL=128
Reply from 10.211.55.1: bytes=32 time<1ms TTL=128
```

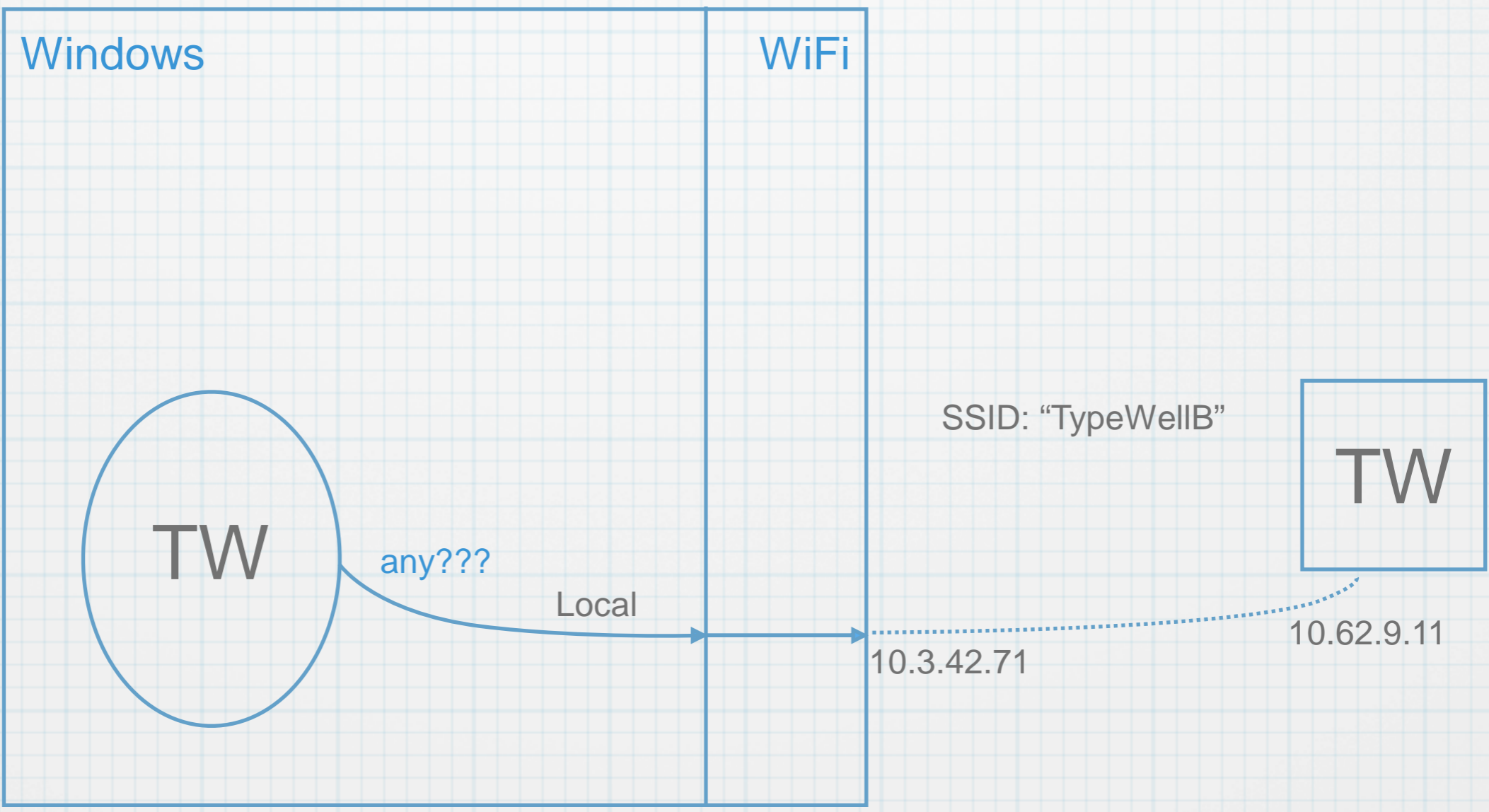


Linking On (but not yet configured below)
Linking Off

Configure linking:

- by Web...
- by Internal...
- by Local network/WiFi...**
- by Peer-to-peer WiFi...
- by Skype...
- by Serial...
- by Streamtext...

Jump reader to this position Ctrl+J



Local Linking



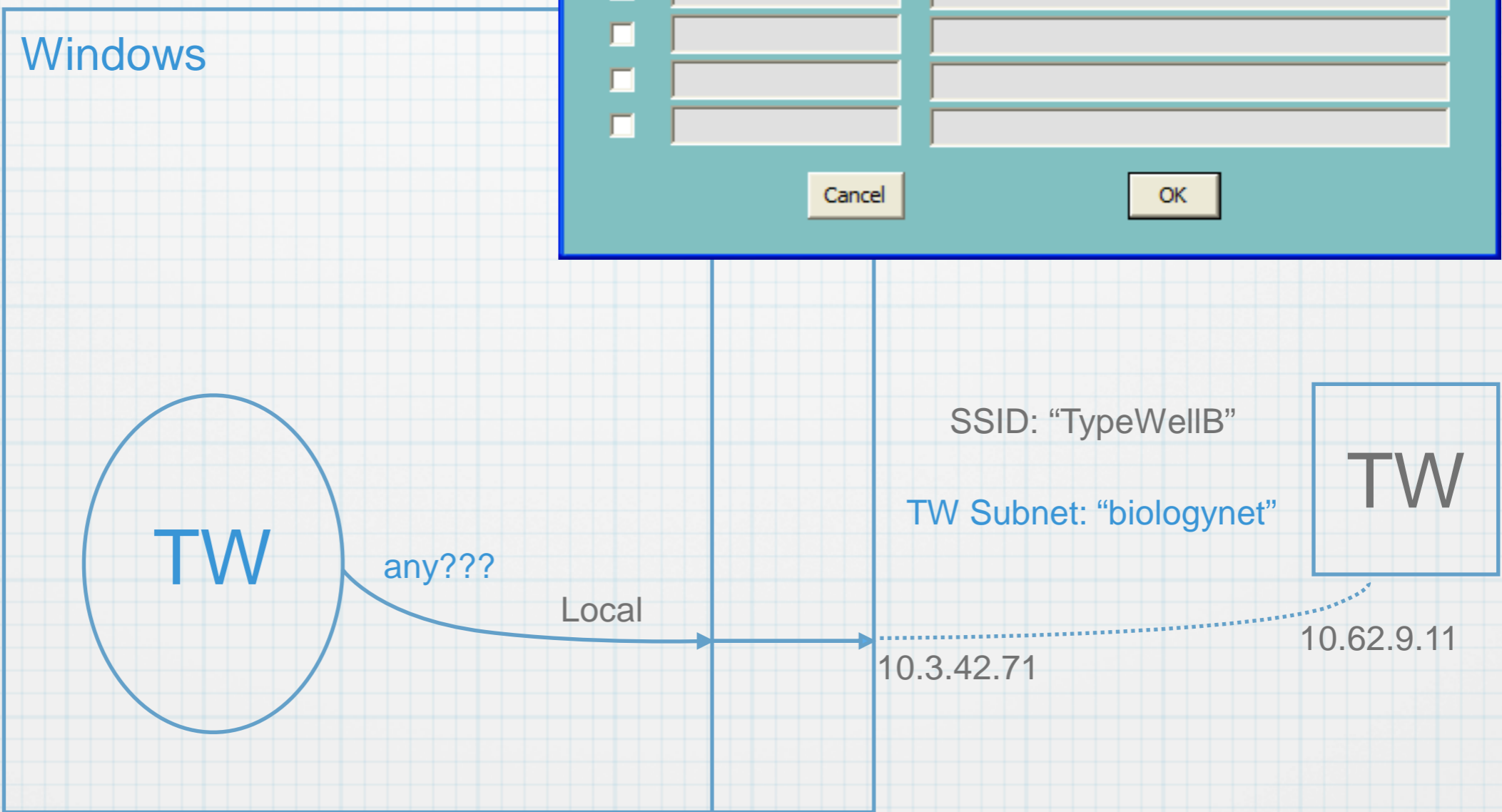
Local Linking Setup [Close]

Connect to other TypeWell V6 computers on your local or WiFi network. To link to versions of TypeWell prior to version 6, use Old-style Wireless linking instead. To link to handheld devices, use Web Browser linking instead.

Make up a subnet name and enter it, below. TypeWell will link to all computers on the local network that have Local Linking enabled with matching subnet names.

Enabled:	Subnet:	Notes:
<input type="checkbox"/>	stevenet	
<input checked="" type="checkbox"/>	biologynet	
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		

Cancel OK

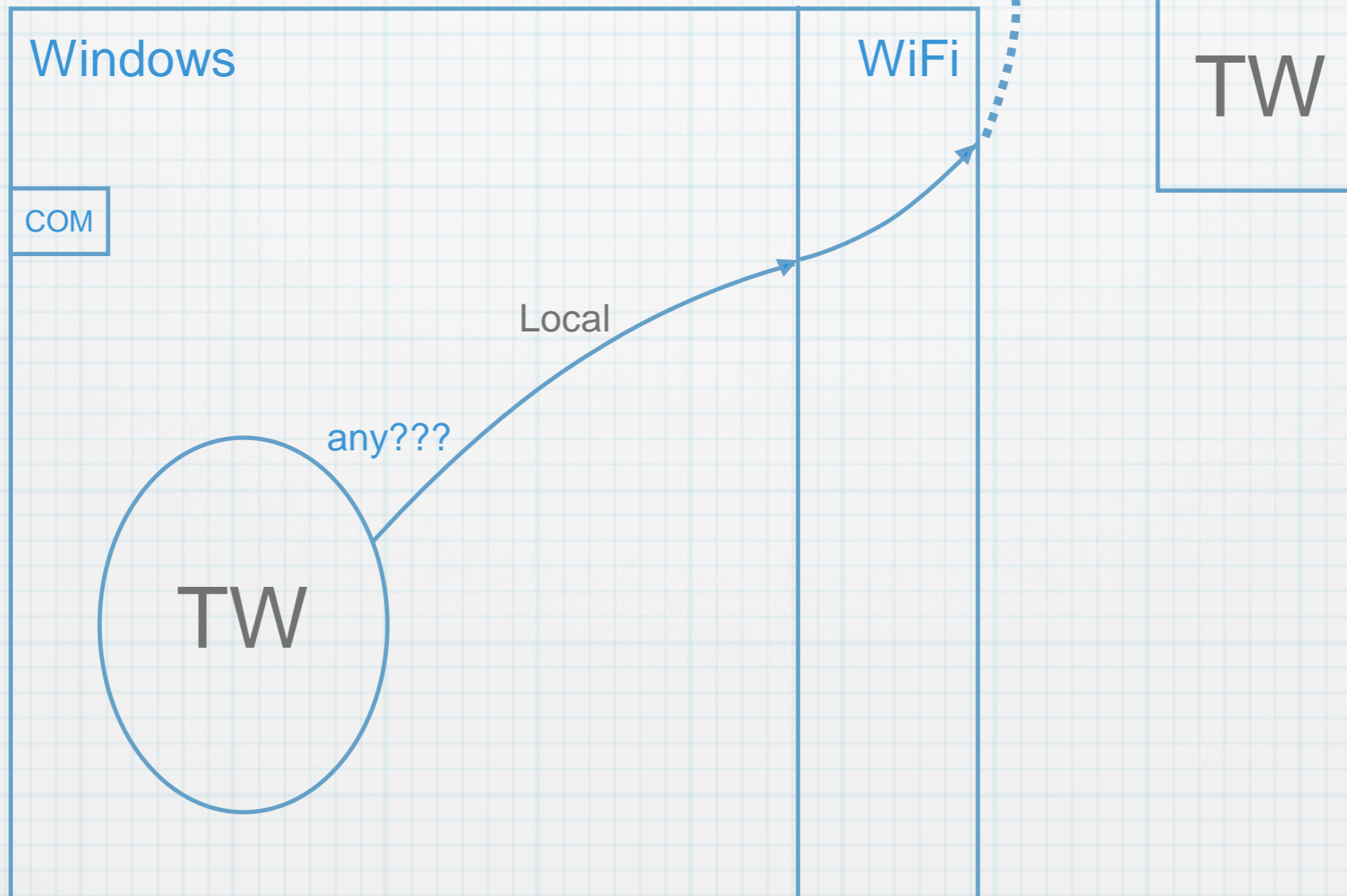


Local Linking



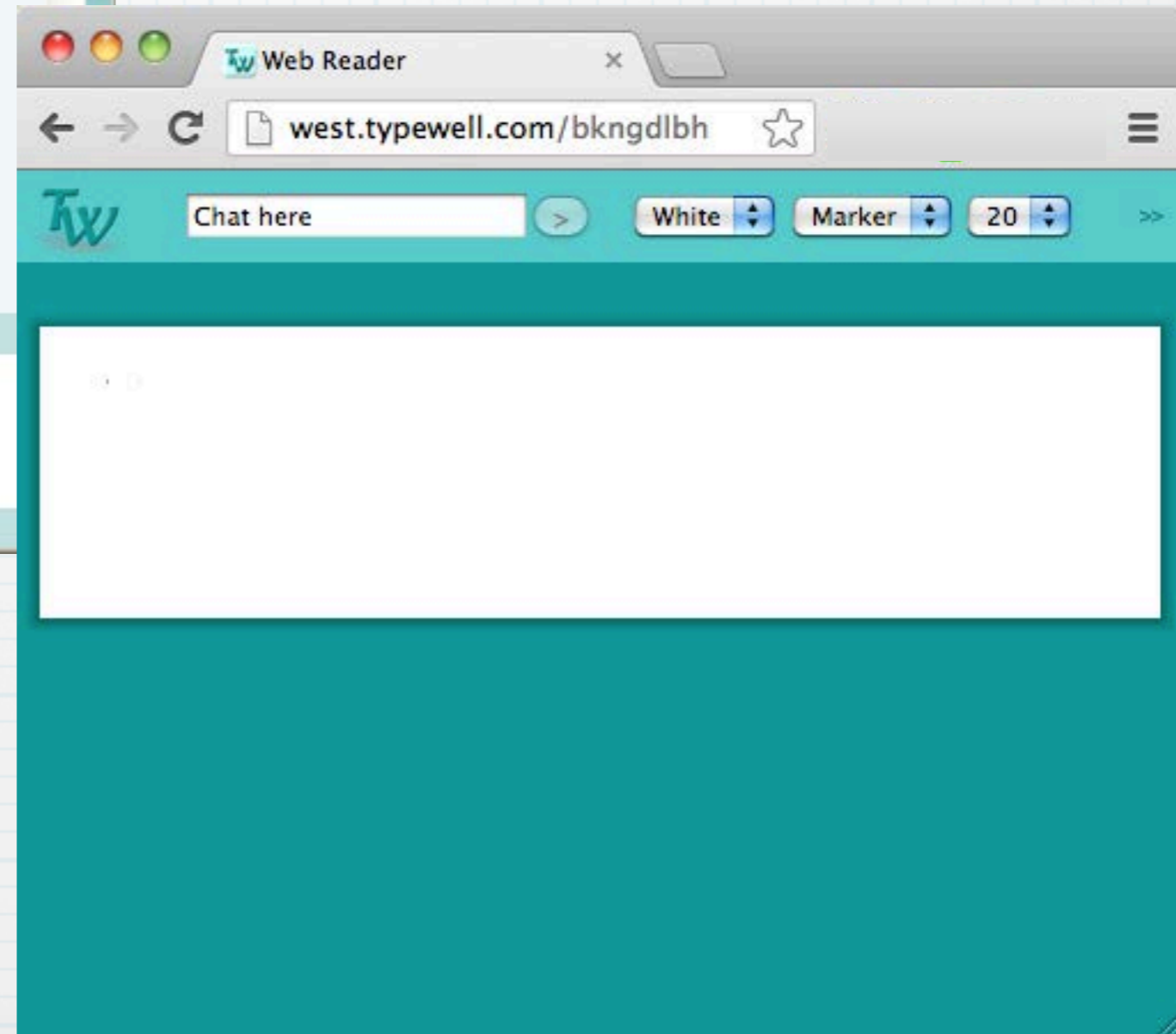
Internet

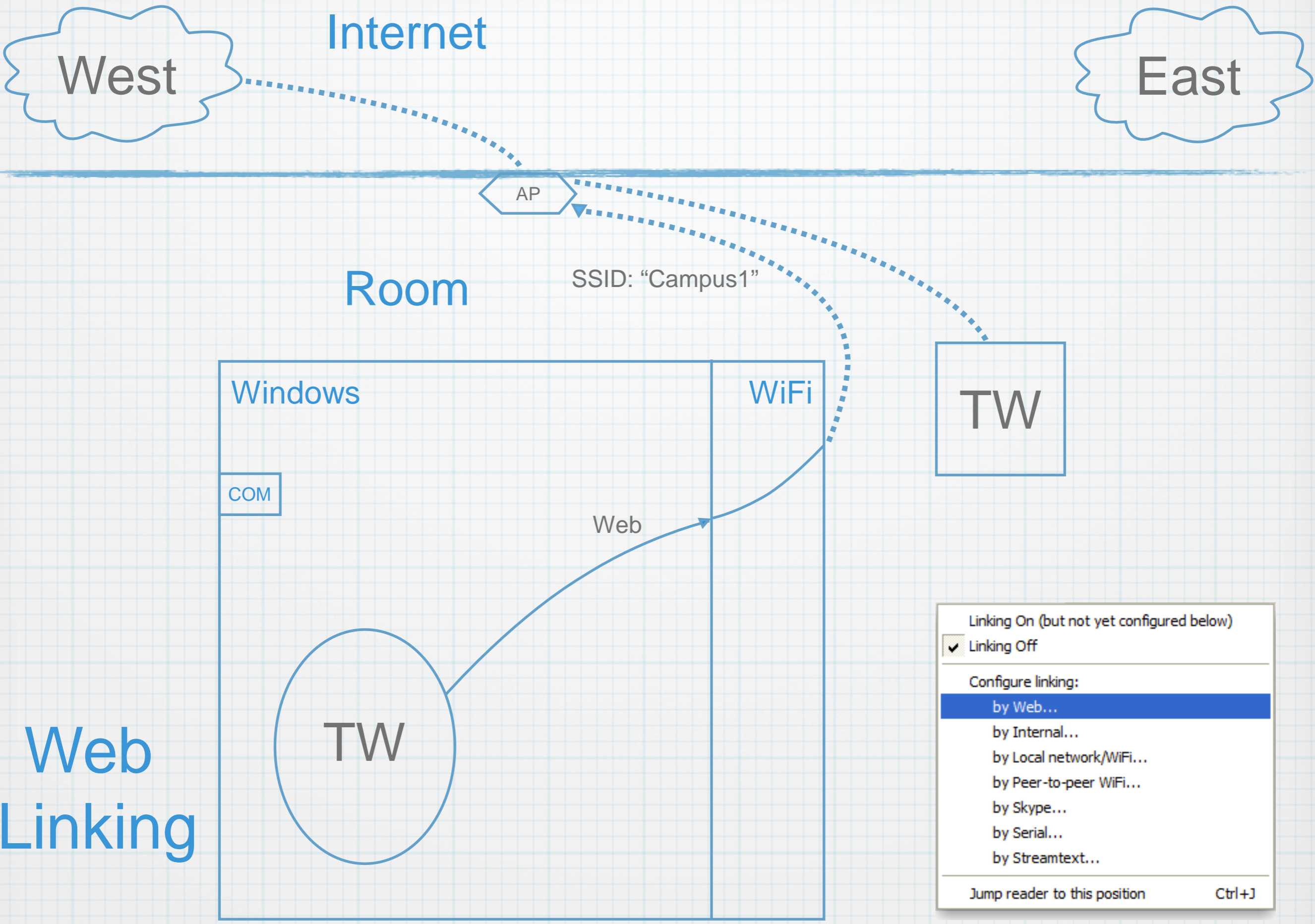
Room



Local Linking

Two Readers





Linking On (but not yet configured below)

Linking On

Linking Off

Configure linking:

- by Web...**
- by Internal...
- by Local network/WiFi...
- by Peer-to-peer WiFi...
- by Skype...
- by Serial...
- by Streamtext...

Jump reader to this position Ctrl+J

Web Channels

Web Linking Setup [X]

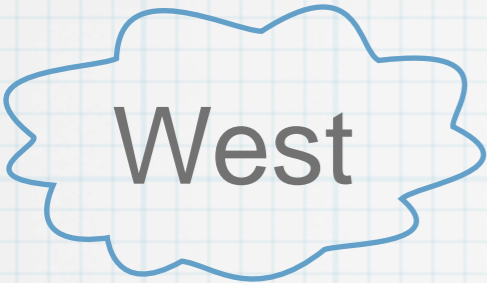
Web browser linking connects you to our web server, so a reader can read what you type using any Internet web browser. See Hosted linking for a method that does not require an Internet connection.

To use: choose a server and click Add Channel; then when you link, a web page address will be displayed in TW's upper window. Paste this address to the reader, who can use it with any web browser.

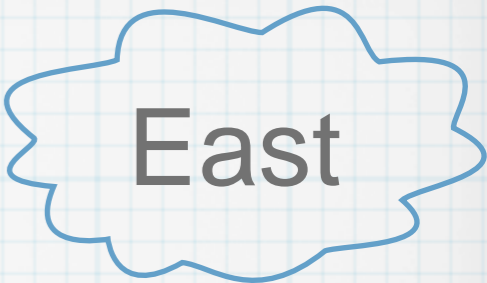
To team, click in the Channel column below to copy a channel's secret teaming name, then paste it to your partner. When your partner gives you such a team name, paste it into the "Link to" box below and click Add Channel.

Link to:

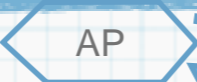
Enabled:	Server:	Channel:	Reader description:
<input checked="" type="checkbox"/>	West coast	bkngdlbh	<input type="text" value="biology"/> [X]
<input type="checkbox"/>	Beta	chcnkdb	<input type="text"/> [X]
<input type="checkbox"/>	West coast	hhkpmgcd	<input type="text"/> [X]



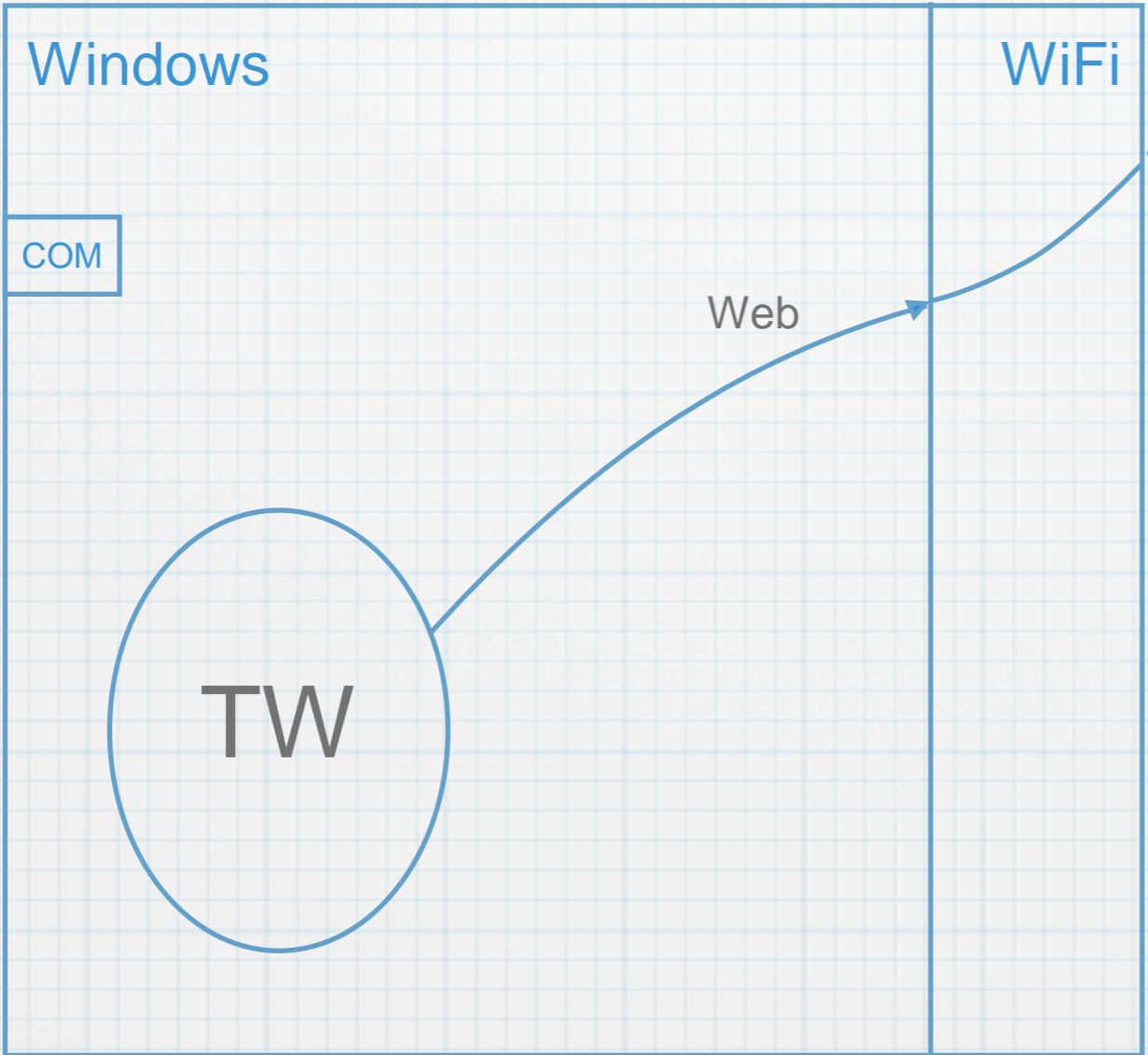
Internet



East

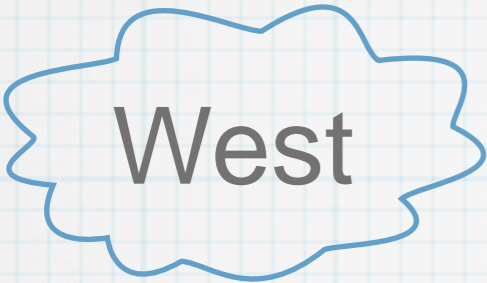


Room



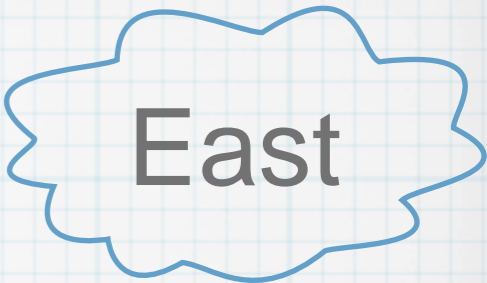
- Tablet
- Phone
- eBook
- Netbook
- PC

Web Linking



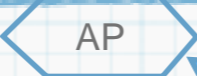
Internet

cell tower

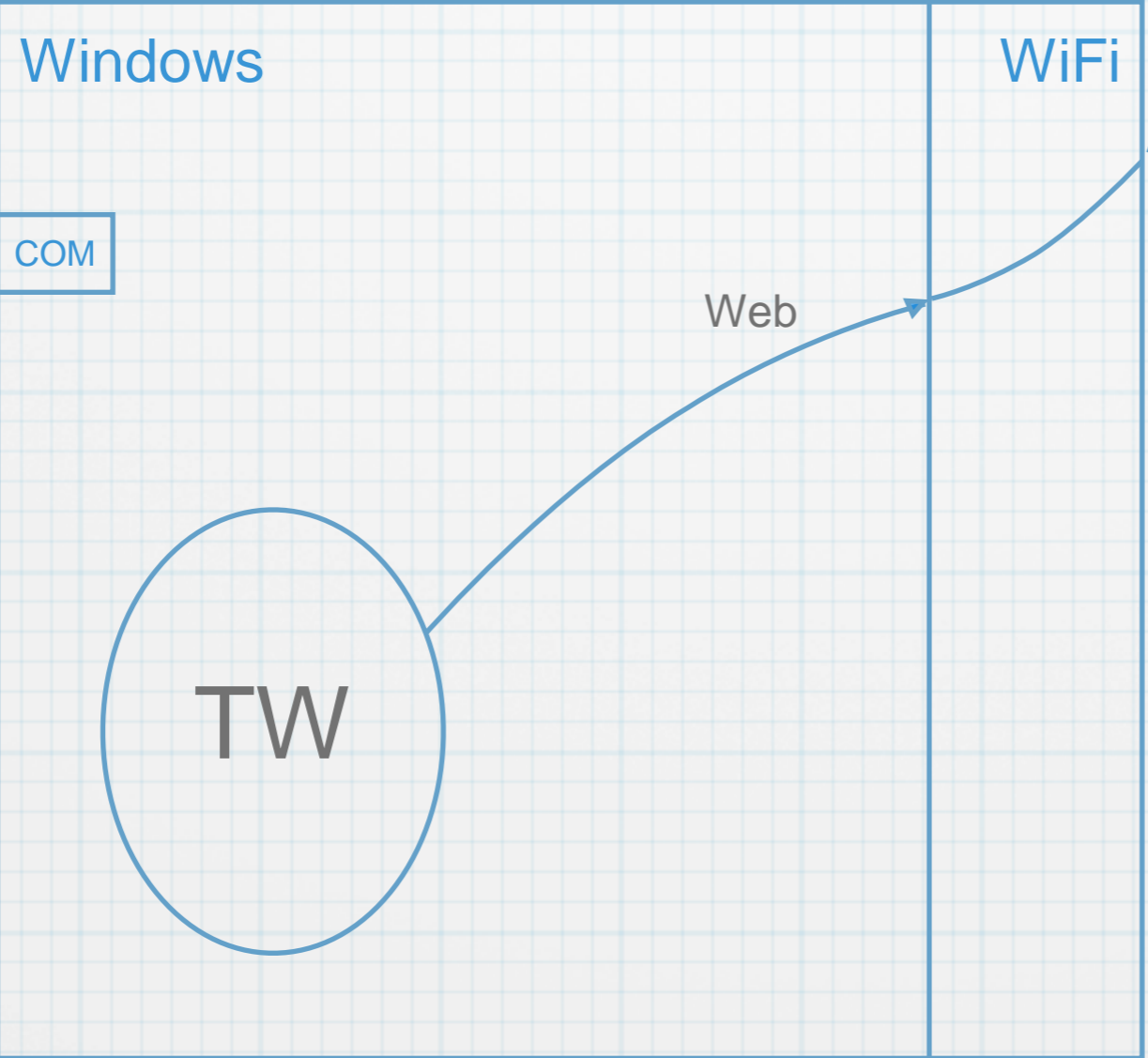


West

East

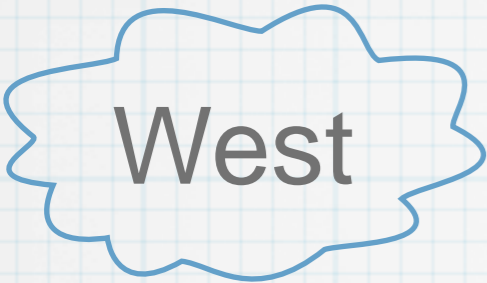


Room

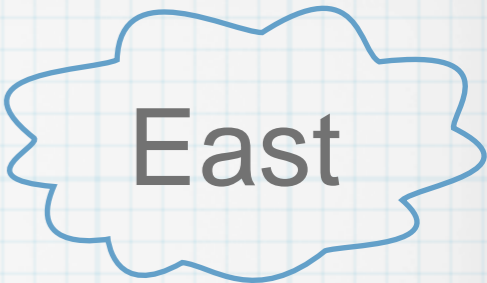


- Tablet
- Phone
- eBook
- Netbook
- PC

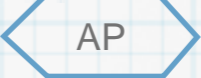
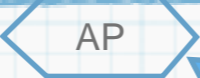
Web Linking



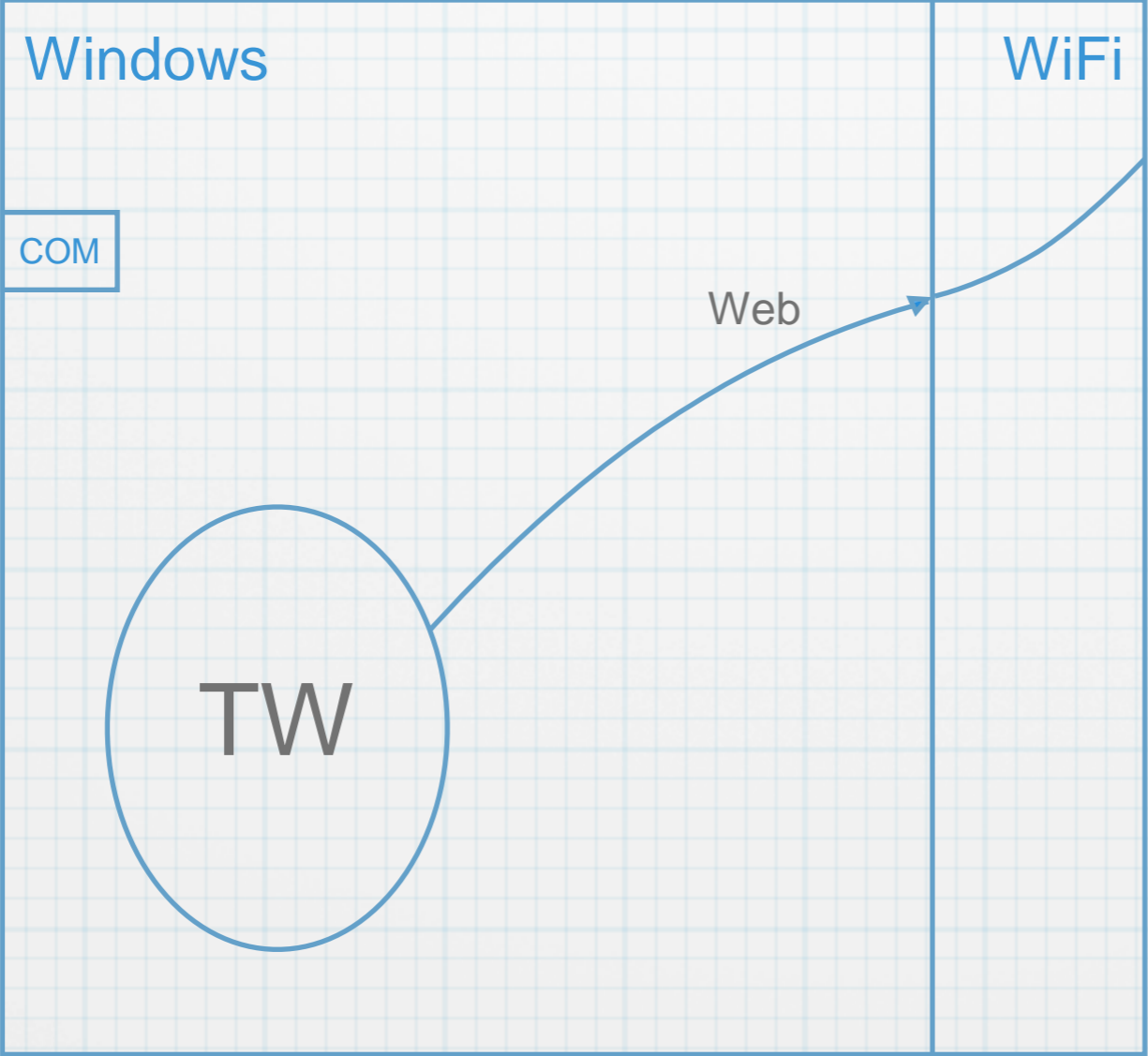
Internet



East



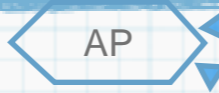
Room



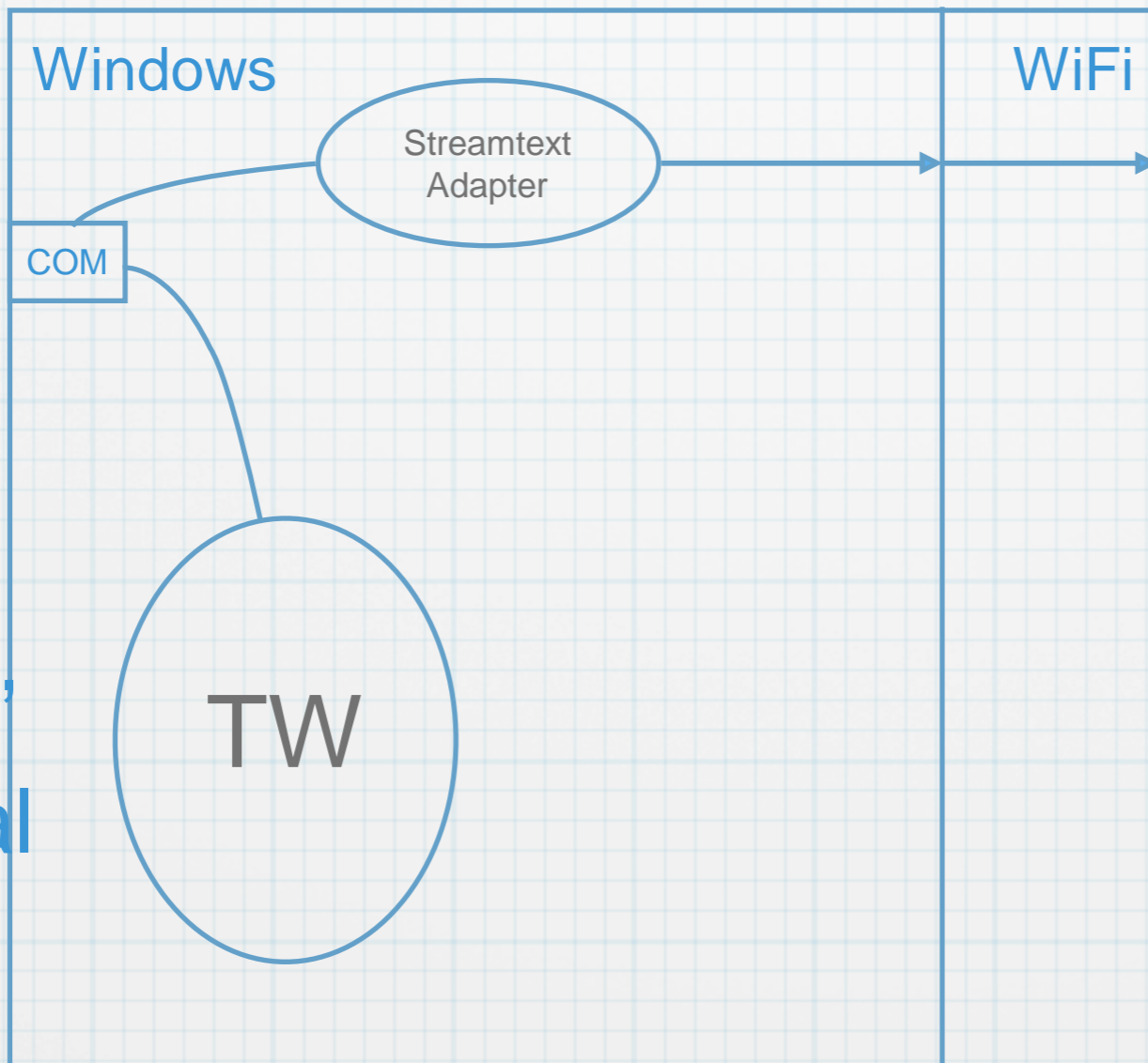
Web Linking



Internet



Room



- Tablet
- Phone
- eBook
- Netbook
- PC

“Streamtext”
Simple Serial
Linking

Protocols:

* a **simple protocol**

•-> "A simple protocol"

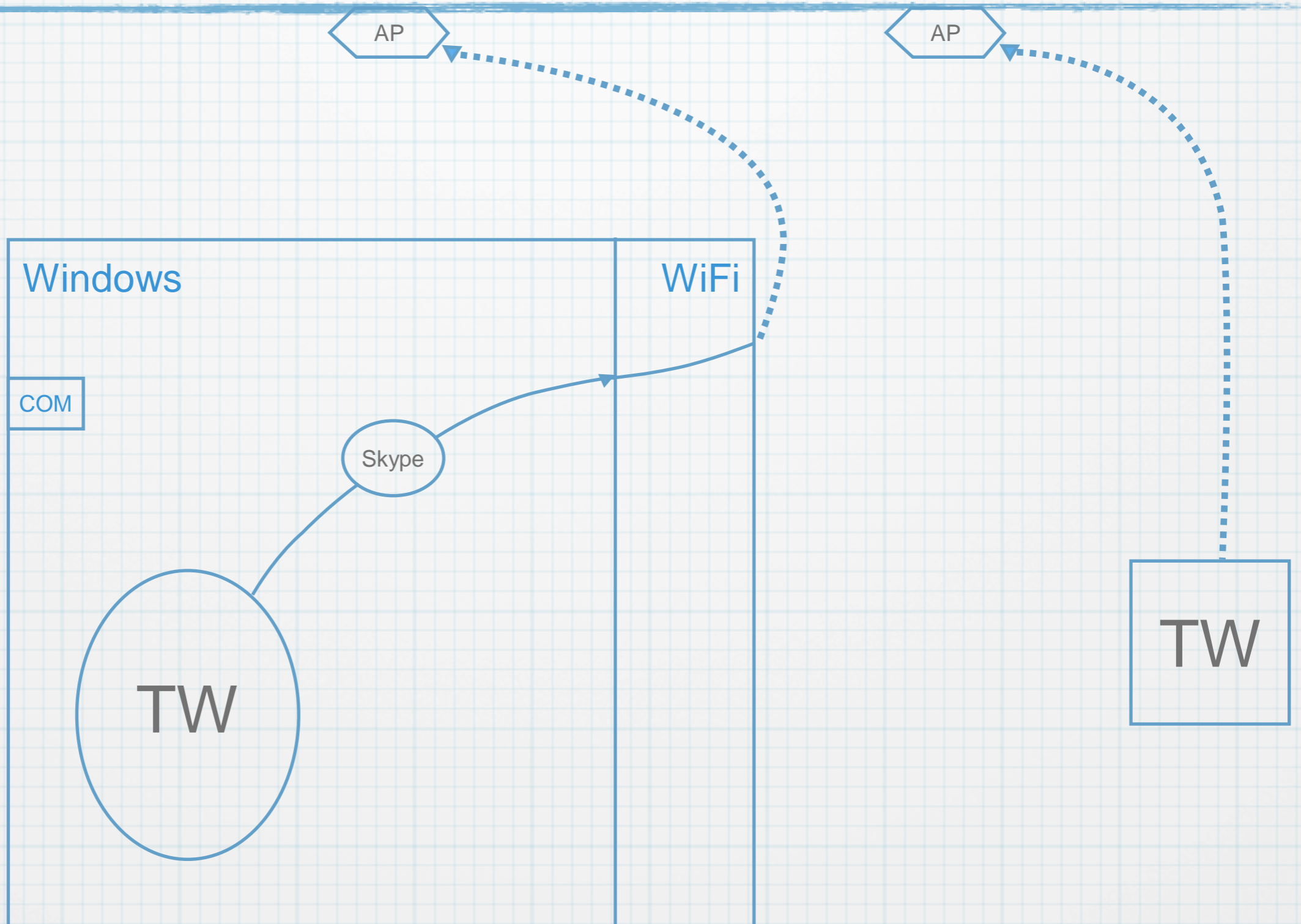
* **the complex protocol**

•-> "The complex protocol."

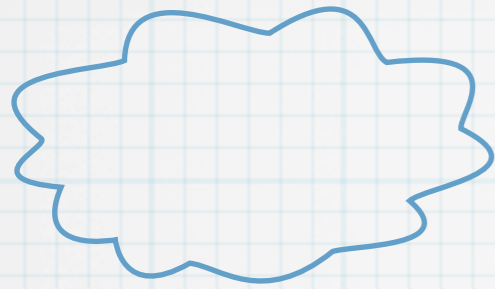
* **etc.**



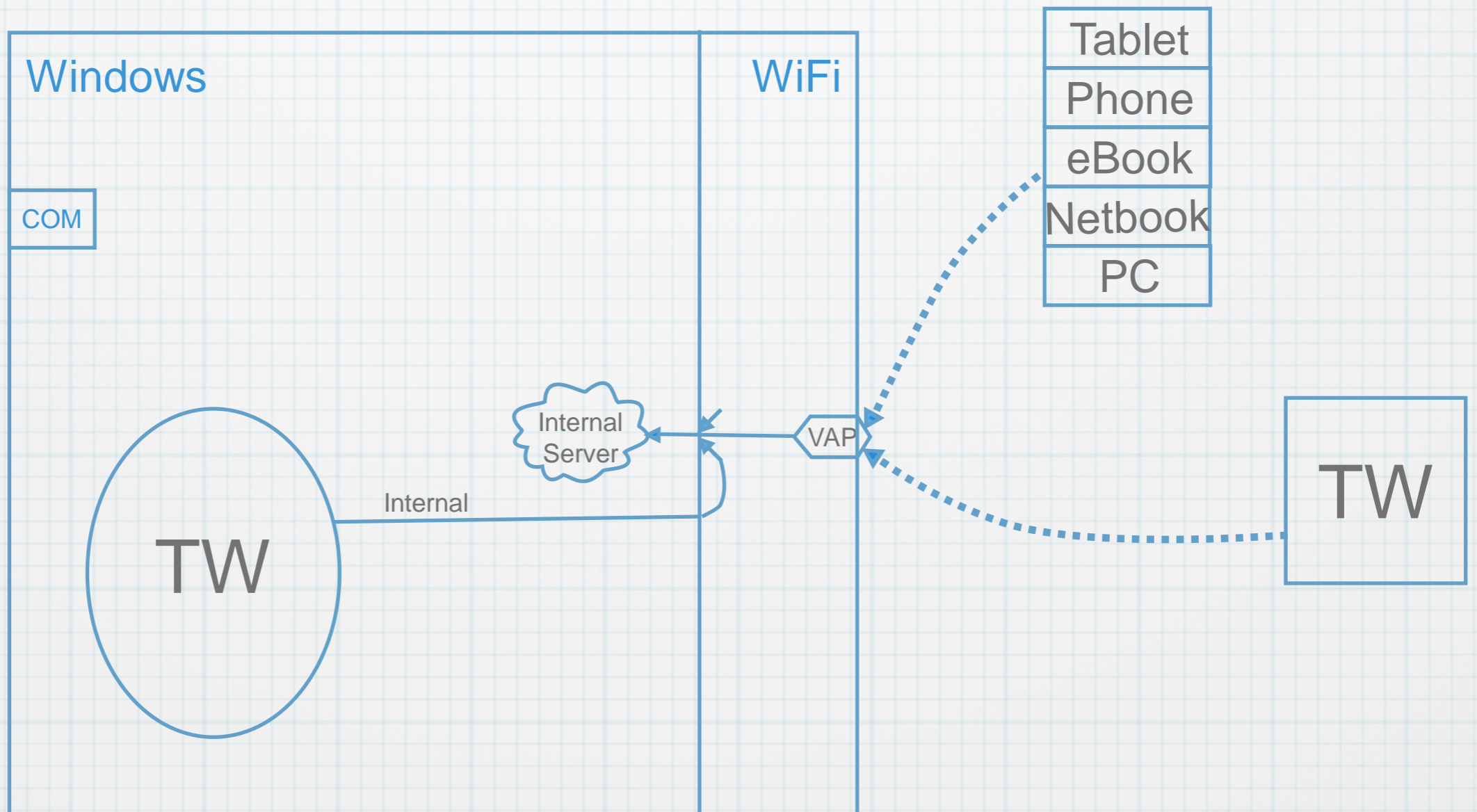
Internet



Skype
Linking



In-Room



Internal Linking (V7)

Common Issues

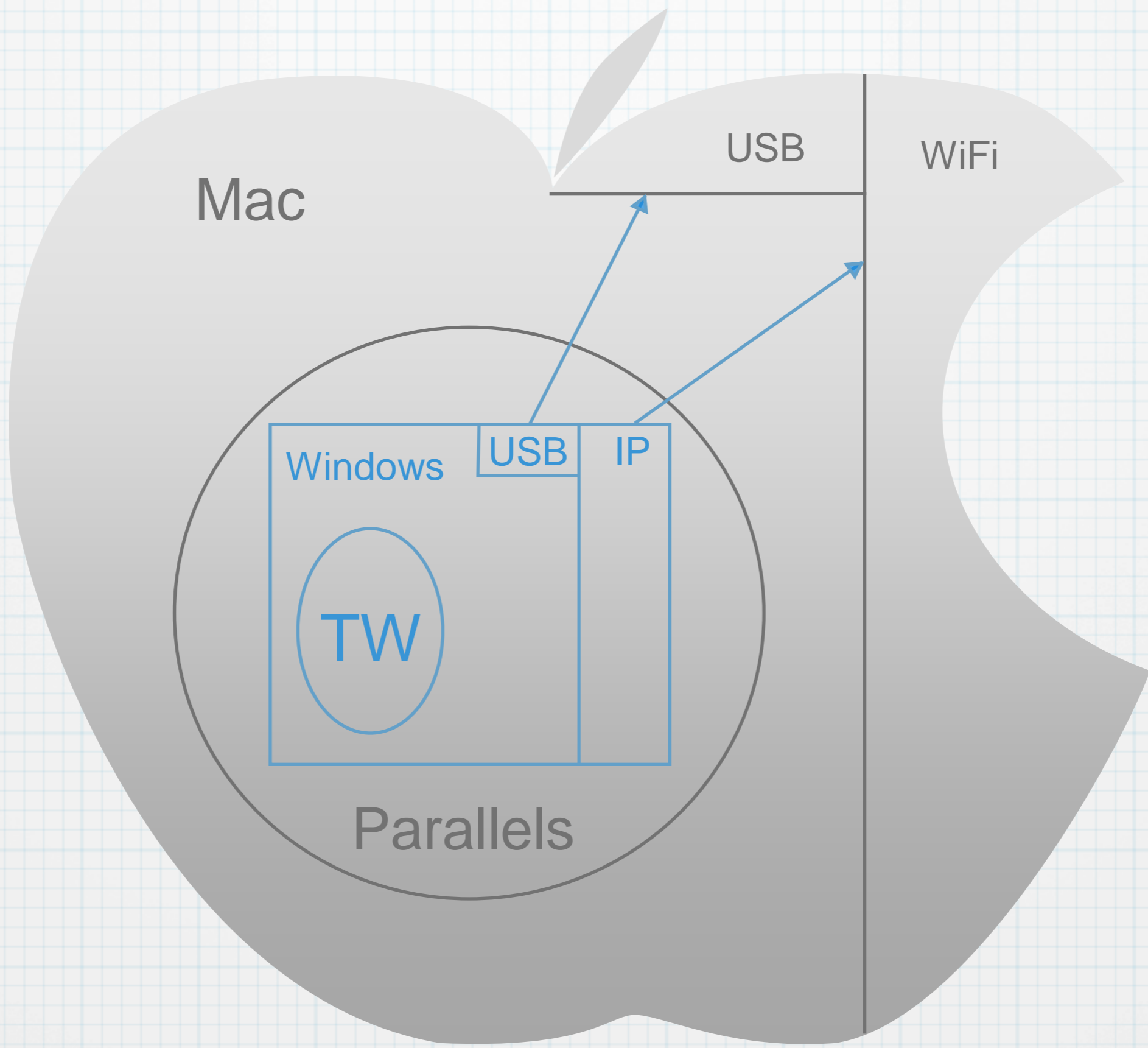
- * p2p hard to install, or Reader hard to install, or want iPad:
 - * Use Web linking
- * Need math or bold or less expense with Streamtext:
 - * Use Skype or Web linking
- * p2p link drops out intermittently
 - * Get stronger WiFi card
 - * Use campus AP: Web or Local linking
 - * If remote: use wired Ethernet instead of WiFi
- * Can't use Web at a location
 - * Use Local or p2p, or Internal (v7)

Uncommon Issues

- * Readers can see what each other types:
 - * Use Web, or Local with different channels.
- * Need Internet at same time as TW:
 - * Use Skype or Web linking, or an extra WiFi card.
- * All letters are doubled in the transcript:
 - * Turn off all links except the one you need.
- * Need 20 readers at once
 - * Use Web or Internal (v7) linking

Key Points

- * Windows connection, **then** TW link
- * ipconfig and ping and IPs, oh my
- * SSID Windows, **then**
subnet/channel TW
- * Web linking easiest and best
- * Local or Internal otherwise



Mac

USB

WiFi

Windows

USB

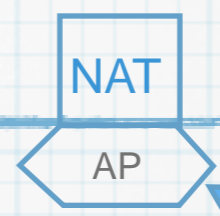
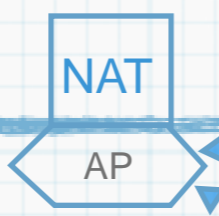
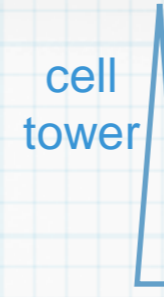
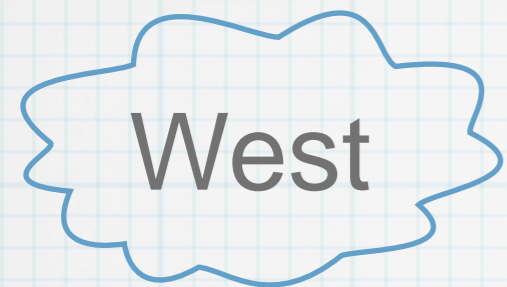
IP

TW

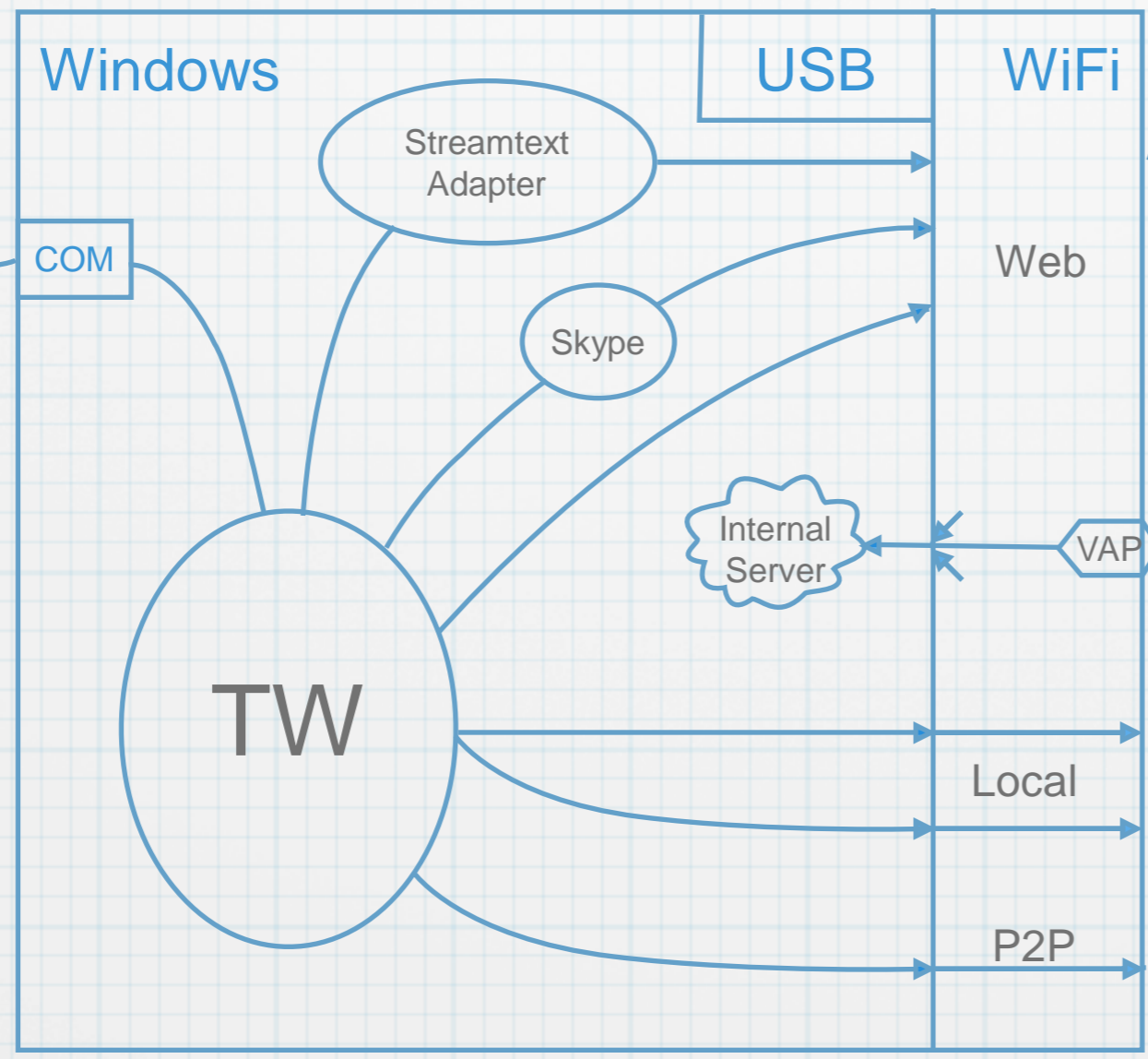
Parallels



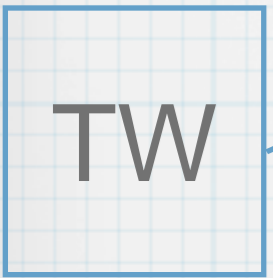
Internet



Room



- Tablet
- Phone
- eBook
- Netbook
- PC



Serial cable

COM

Windows

USB

WiFi

Streamtext Adapter

Skype

Web

Internal Server

VAP

TW

Local

P2P

??

??

cell tower

West

East

NAT

AP

NAT

AP

Tablet

Phone

eBook

Netbook

PC

TW

TW