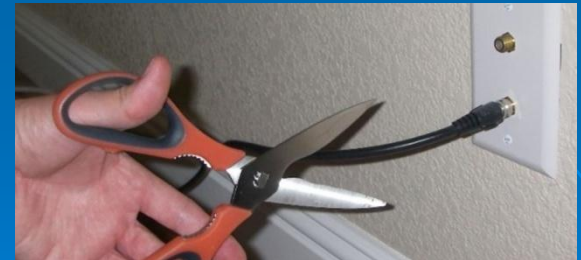


Cut the Cord ?

(Consider the Alternatives)



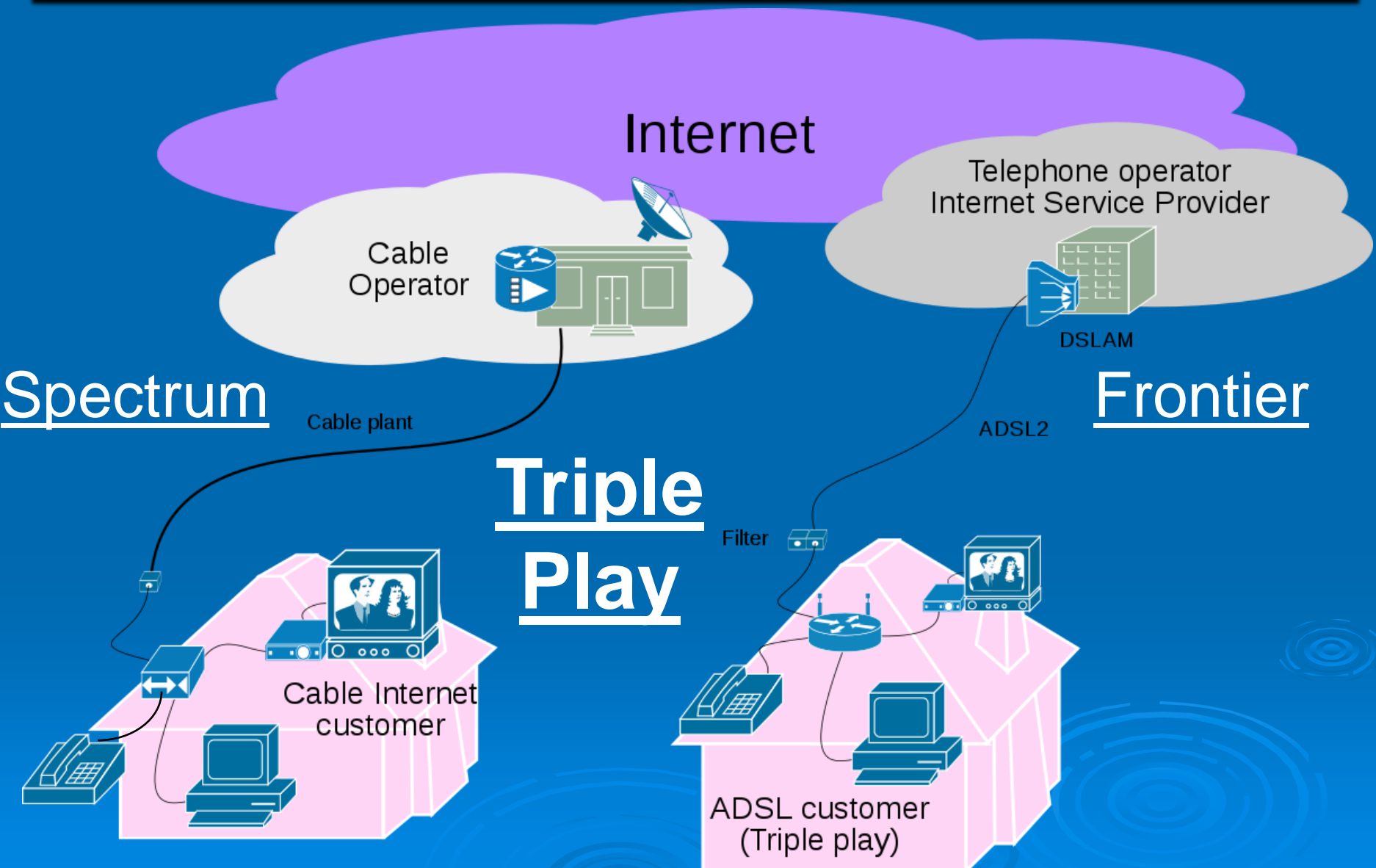
Many of us think of “Cutting the Cord”

...about once a month
(when the bill comes in)

Is it really worth it?



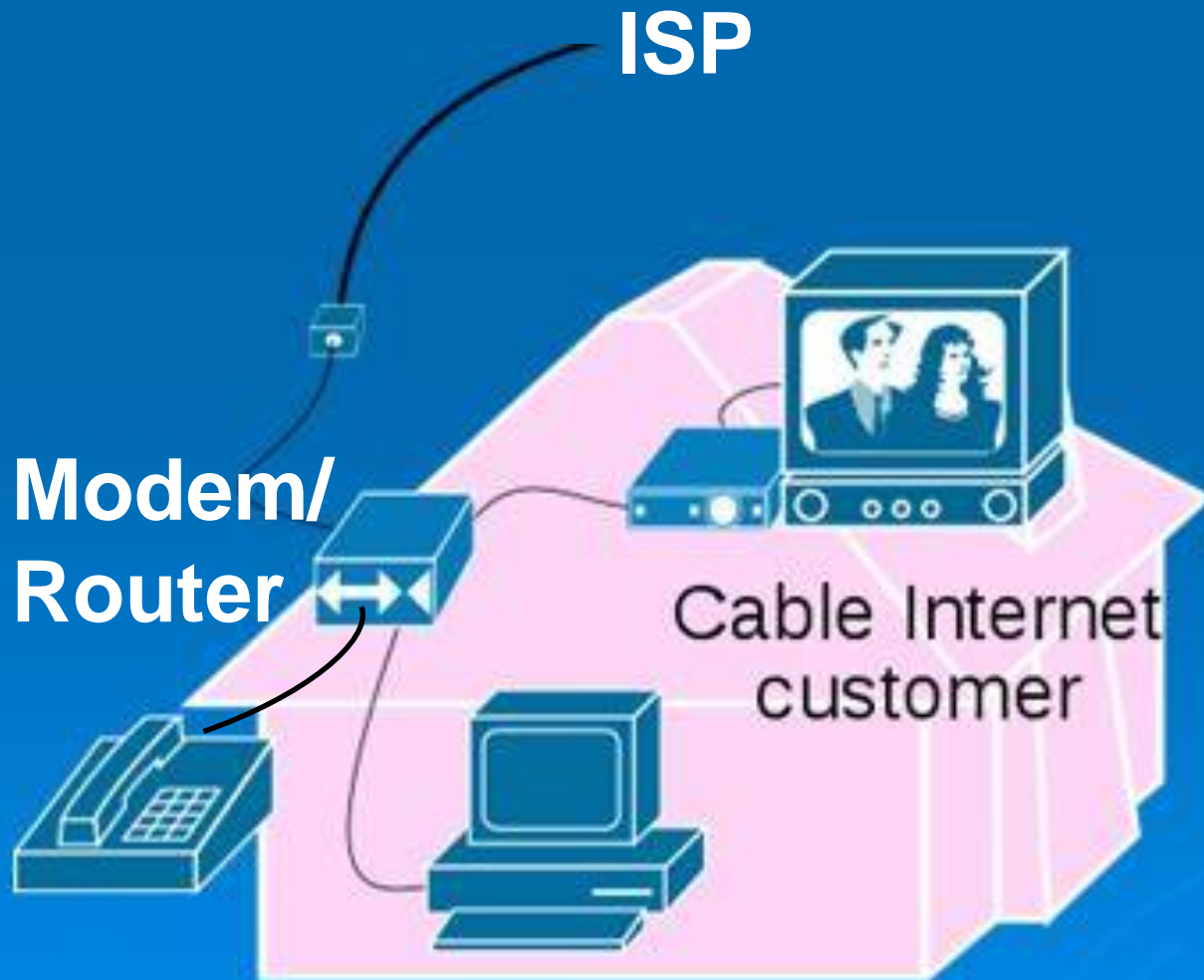
Information-Entertainment



The “Cord” is your Connection to the Outside World via

- Telephone
- Cable TV
- Internet

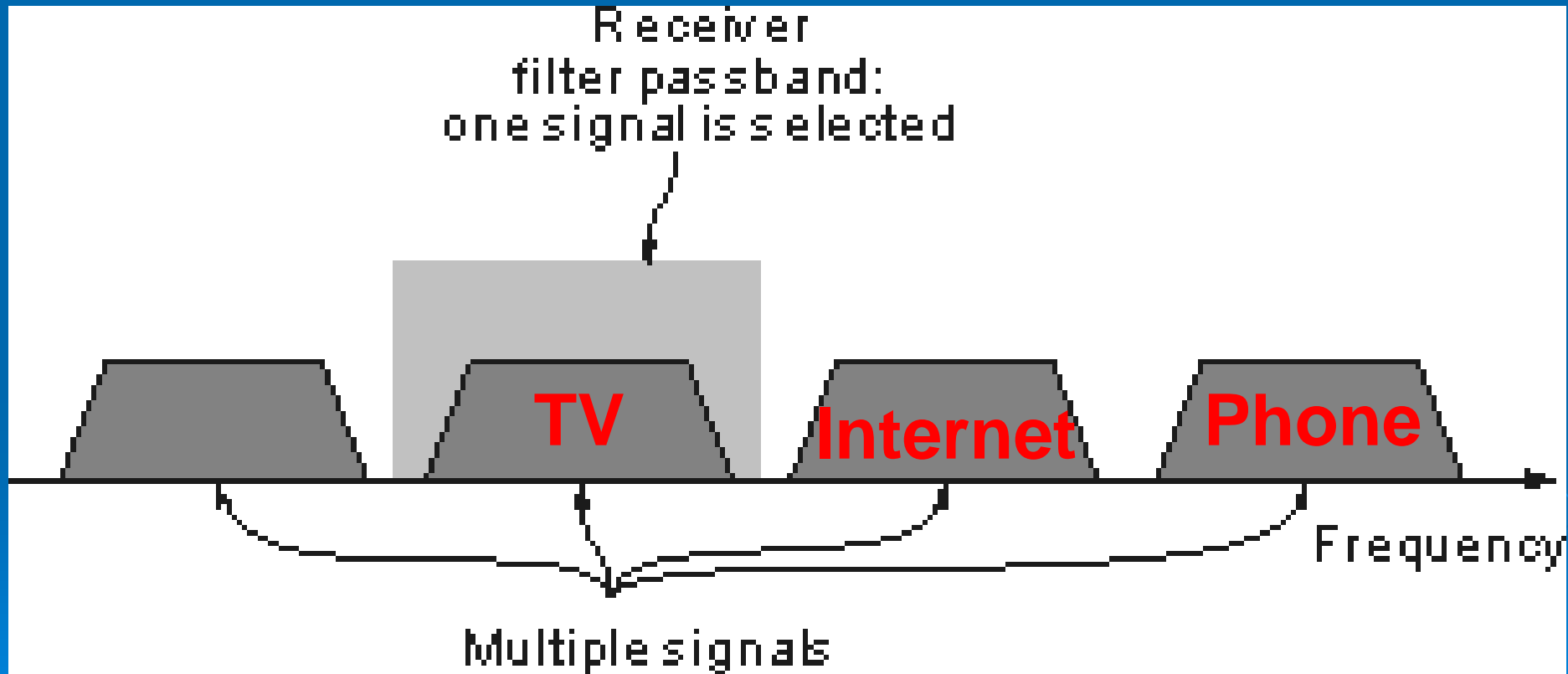
Modem/Router Separates Phone, TV, & Internet Signals



Frequency Division - History

Analog Modem Separates Phone – TV - Internet

Over-Simplification



Analog Signals

Digital Time Division - Current

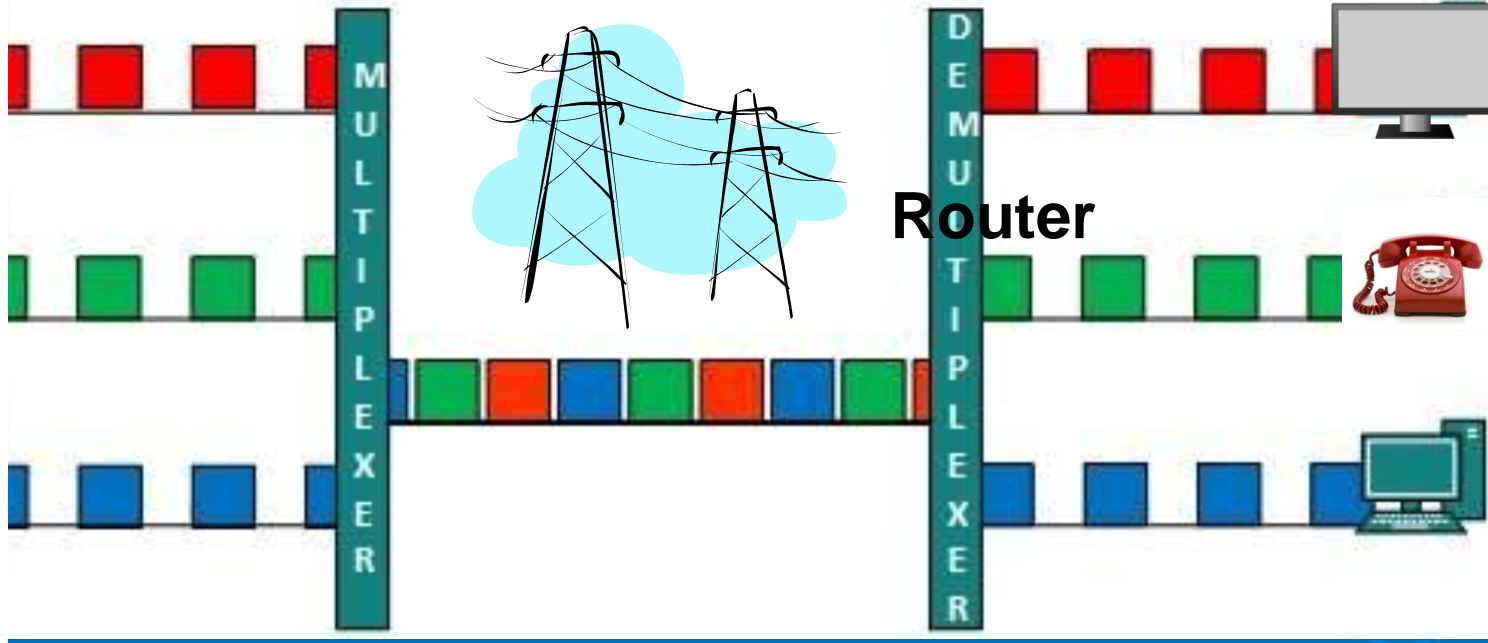
Digital Modem Separates Phone – TV - Internet

Over-Simplification

TV
Data →

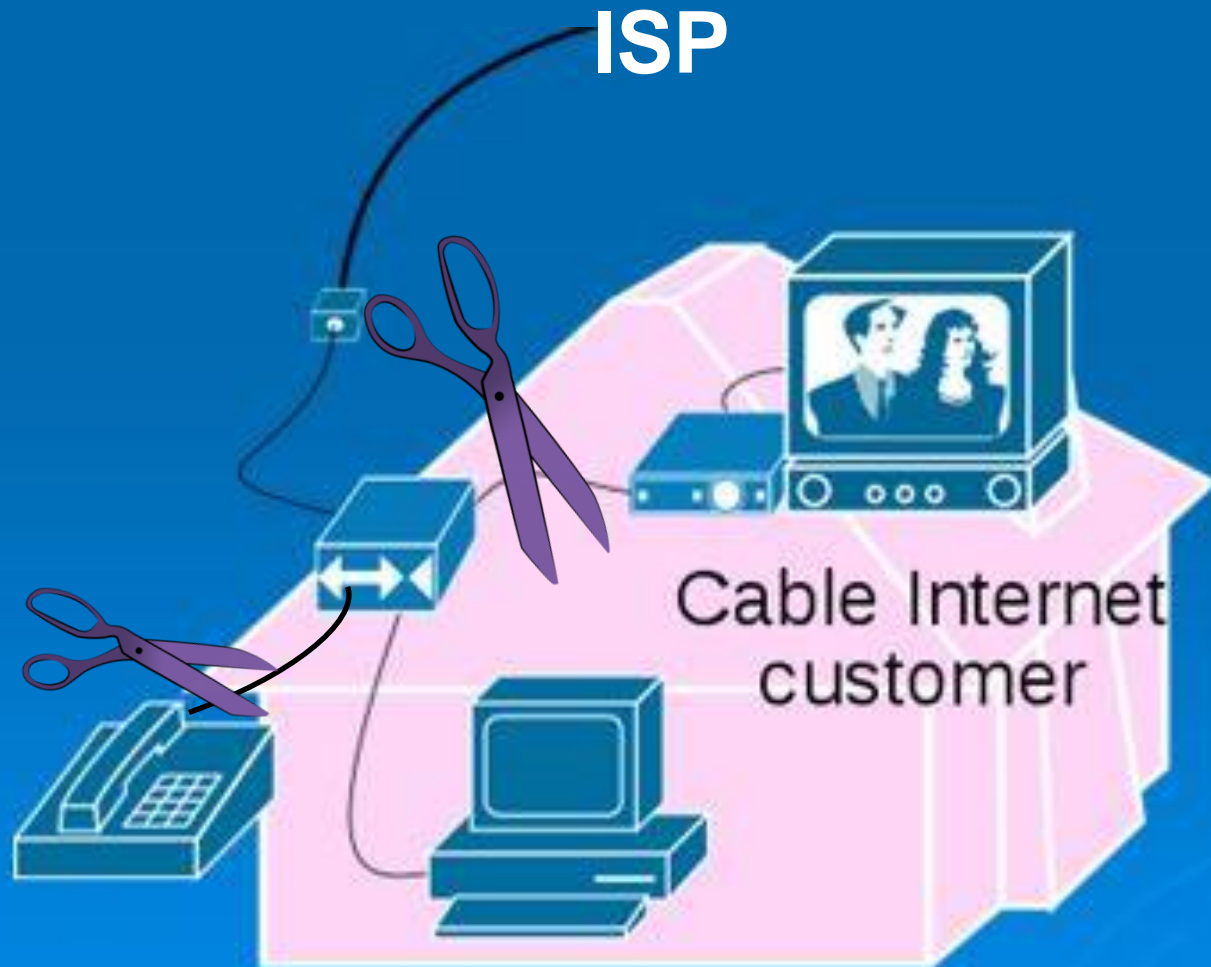
Phone
Data →

Internet
Data →



Digital Signals

“Cutting the Cord” is eliminating the TV & Phone



Leaving Only the Internet

ISP

No CableTV

Cable Internet
customer

No Phone
(VoiceOverIP)

Only Internet Service

3 Million Subscribers Cut the Cord in 2018

BEYOND TESLA: TOP ELECTRIC VEHICLES FOR EVERY BUDGET |  BAKE-OFF: SLOW COOKERS vs. AIR FRYERS vs. PRESSURE COOKERS

SEPTEMBER 2019 **CR** Consumer Reports®

REVIEWS & RATINGS

- Mattresses
- Portable Generators
- Streaming Devices
- Vacuums
- Toyota RAV4 Hybrid

CABLE WANTS YOU BACK

Fighting competition from streaming services, cable vows it's new & improved.
How to build the best TV package for you.



+ 5 COSTLY HOME INSURANCE MISTAKES

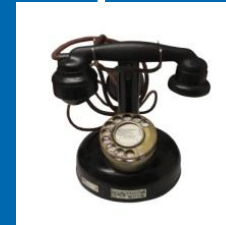
2.5 Million
Expected
In 2019

Telecommunications in the Home

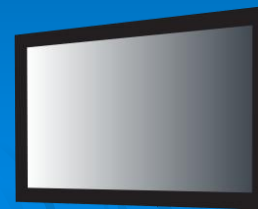
Before 1940 Telephone



By 1950 Television & Telephone



By 1990 Internet & Television & Telephone



Telephone



- Invented 1876 by Alexander Bell
- By 1900 there were .6 million phones
- By 1910 there were 5.8 million phones

- Mobile phone invented in 1973
 - By 2019 96% Americans owned some type of Mobile Phone



- The iPhone (Smartphone) was invented in 2007
 - 2011 35% Americans owned Smartphone
 - 2019 81% Americans owned Smartphone



Television



- Invented 1927 by Philo Farnsworth
- First public demonstration in 1934
 - WW II interrupts but spurs development
- By 1950 9% of homes in the US had a TV
- By 1960 90% of homes in the US had one
- Cable TV became popular in the 60s and 70s
- By 2006, in almost 60% of American Homes
- Analog to Digital Conversion 2009 (June 12)

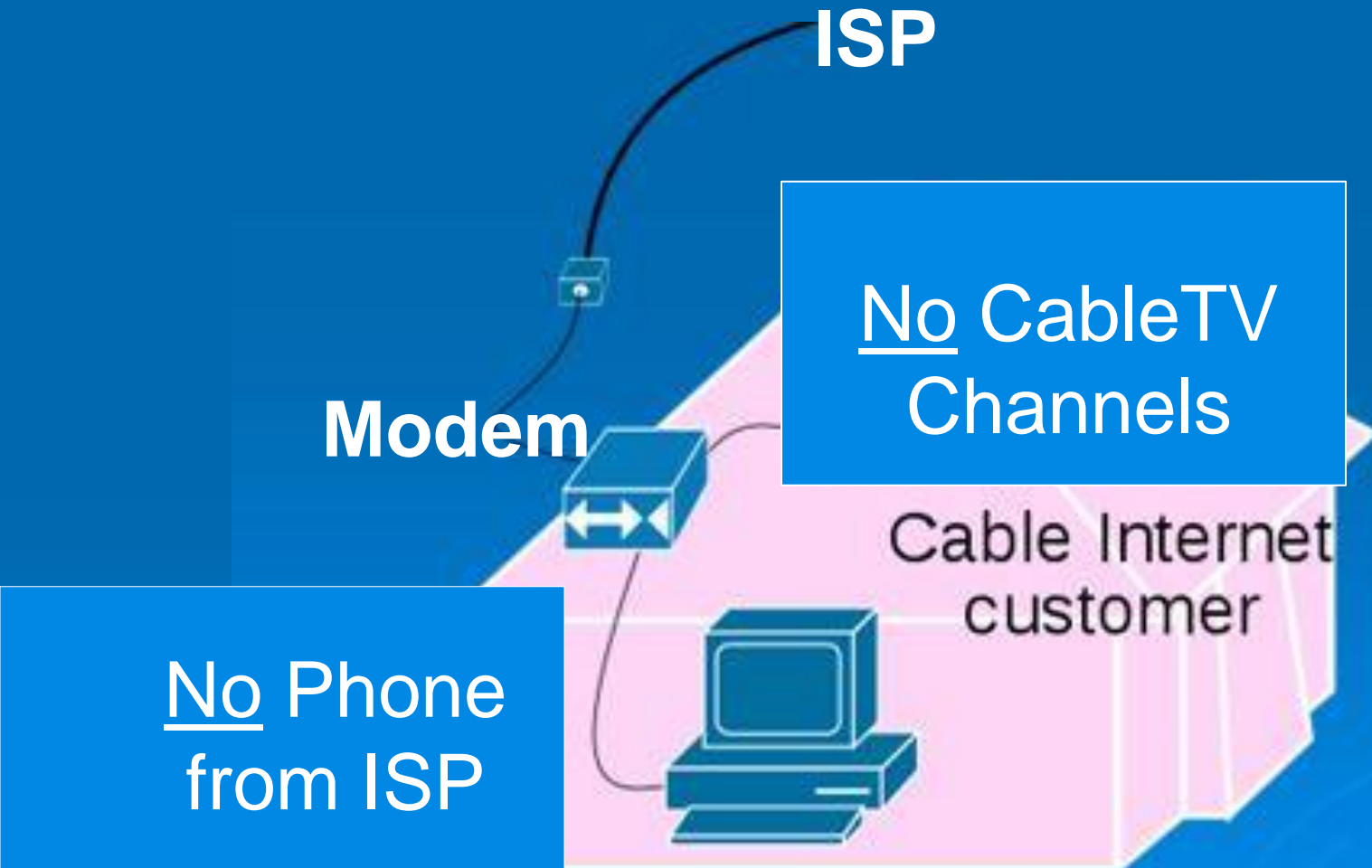
Internet



- Began as a DARPA project in the '60s
- TCP/IP was adopted in 1983 (Internet protocol)
- The world wide web was invented in 1990
- www. Became mainstream around 1993

- By 1997 it carried 1% of telecom traffic
- By 2007 it carried 97% of telecom traffic

Cutting the Cord Means Getting Only Internet



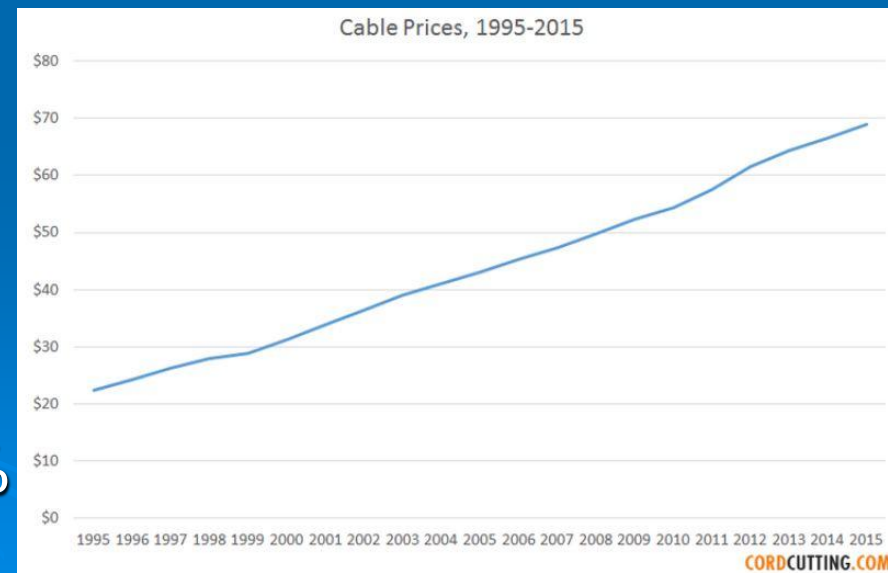
Reasons to Cut the Cord

➤ Use (or lack there of)

- According to Nielsen Ratings “On average, Americans have 189 cable TV channels and only watch 17”

➤ Cost (ever increasing)

- 20 Yr. Average Inflation
 - Increase 2.2%
- 20 Yr. Avg. Cable Price
 - Increase 5.8%
- The last 4 years
 - Cable Increase 8% to 10%



TV Alternatives

➤ Browser

Chrome or Safari

- www.nbc.com, www.abc.com



➤ Broadcast TV

Need Antenna

- Over-the-Air (OTA)
- ABC, NBC, CBS, FOX, EDU

Main

- Buzzr, Grit, This, Cozi, Ion, Bounce, Get, Qubo

Sub

➤ Streaming devices

Need Device
(and maybe a Subscription)

- Over-the-Top (OTT)
- Roku, Amazon Fire, ChromeCast
- AppleTV, Nvidia ShieldTV

Broadcast TV



Familiar with Communications Theory

Communications Theory

Find $\frac{dy}{dx}$; if $y = \int_x^{x^2} \sqrt{e^t + 1} dt$.

$$\begin{aligned} y &= \int_x^0 \sqrt{e^t + 1} dt + \int_0^{x^2} \sqrt{e^t + 1} dt = - \int_0^x \sqrt{e^t + 1} dt + \int_0^{x^2} \sqrt{e^t + 1} dt \\ &= \int_0^{x^2} \sqrt{e^t + 1} dt - \int_0^x \sqrt{e^t + 1} dt \end{aligned}$$

$$\text{Since } y = \int_0^{x^2} \sqrt{e^t + 1} dt - \int_0^x \sqrt{e^t + 1} dt$$

$$\frac{dy}{dx} = \left(\frac{d}{dx} \int_0^{x^2} \sqrt{e^t + 1} dt \right) - \left(\frac{d}{dx} \int_0^x \sqrt{e^t + 1} dt \right)$$

$$= \left(\sqrt{e^{x^2} + 1} \right) \frac{d}{dx} (x^2) - \left(\sqrt{e^x + 1} \right)$$

$$= 2x\sqrt{e^{x^2} + 1} - \sqrt{e^x + 1}.$$

Can You Receive Local Broadcasts?

Maximize Your Television Reception

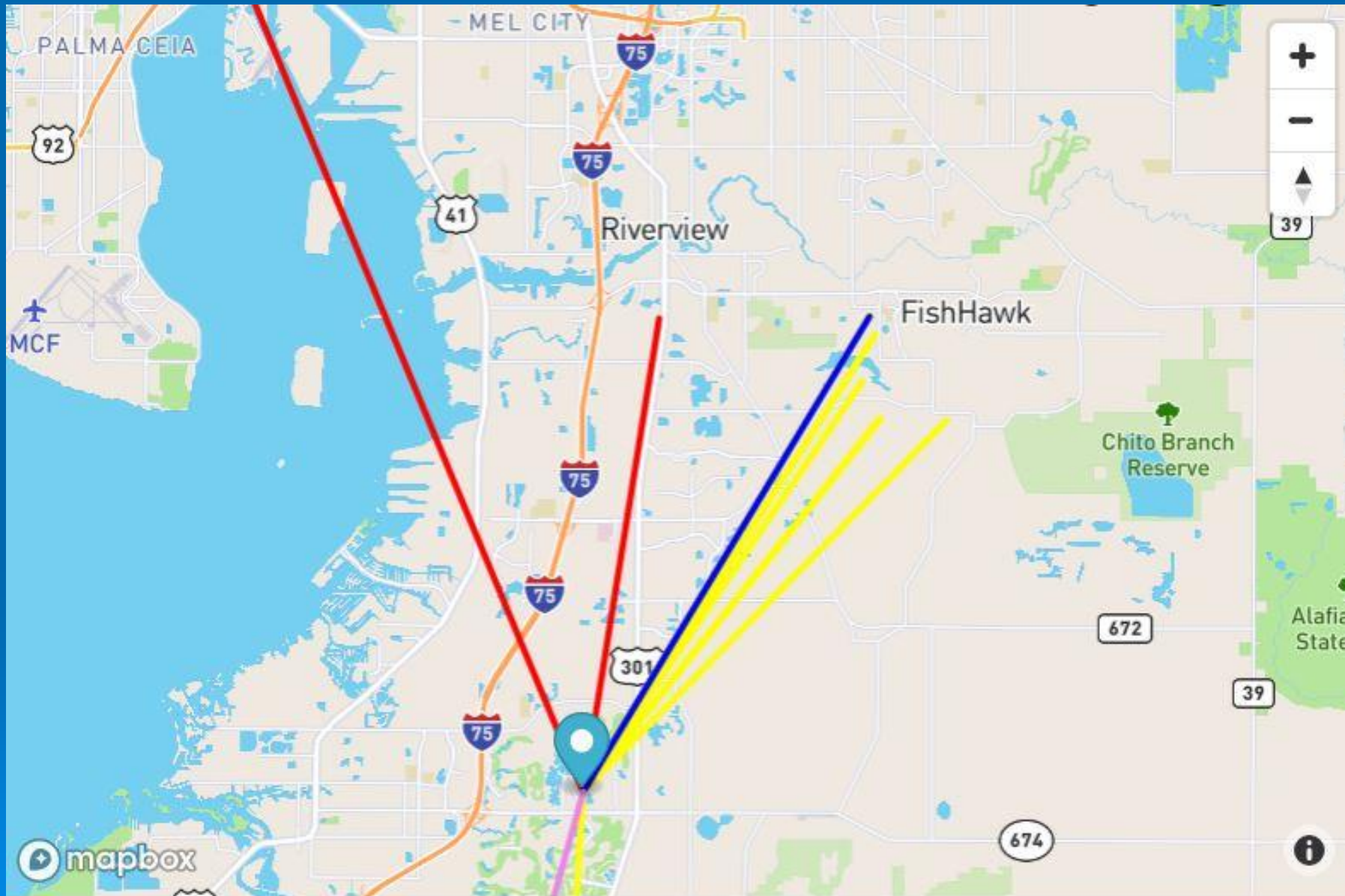
Discover how many FREE channels are available from your local broadcasters. AntennaWeb also helps you choose the antenna type that matches your viewing preferences.

Enter your address and click Go to start.

Sun City Center, Florida 33573, United States

Go

AntennaWeb.org Results Zip=33573



AntennaWeb.org Results

Up to 68 channels from 21 over-the-air stations may be received

WEDU-DT 3.1 PBS

RF Channel: 13

10 miles at 37°



Yellow

WFLA-DT 8.1 NBC

RF Channel: 7

10 miles at 38°



Yellow



WMOR-DT 32.1 IND

RF Channel: 19

9 miles at 44°



Yellow



WTVT-DT 13.1 FOX

RF Channel: 12

10 miles at 50°



Yellow

WTTA-DT 38.1 MNT

RF Channel: 7

10 miles at 38°



Yellow

WTSP-DT 10.1 CBS

RF Channel: 10

9 miles at 44°



Yellow

WTOG-DT 44.1 CW

RF Channel: 44

9 miles at 40°



Yellow




Antenna Type Color Codes

- Yellow - Small multi-directional
- Green - Medium multi-directional
- Lt Green - Large multi-directional
- Red - Medium directional
- Blue - Medium directional w/pre amp
- Violet - large directional w/pre amp

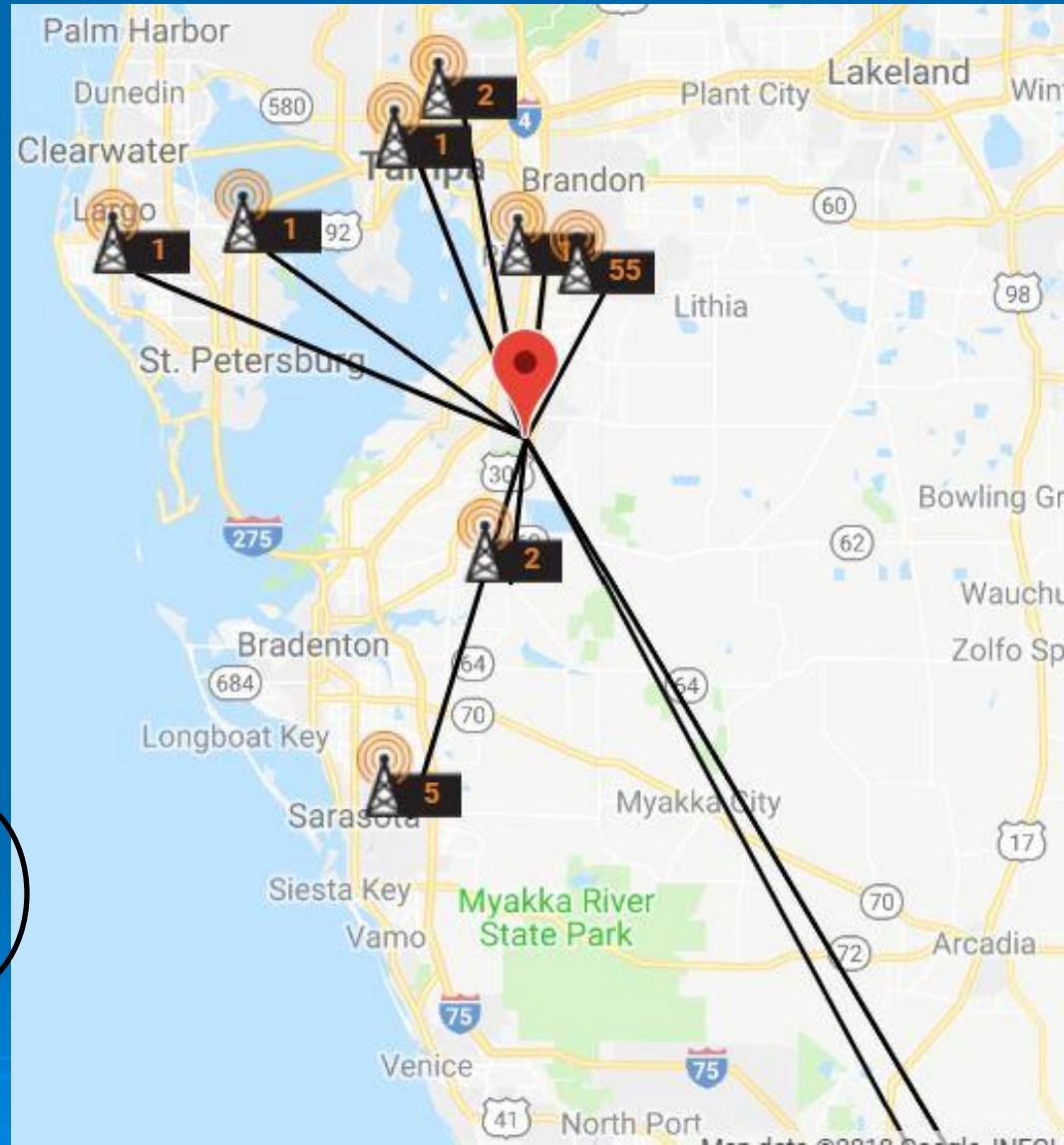
ChannelMaster.com Results

8.1 NBC	11 mi	Hi-V
Call Sign: WFLA-DT1		
RF Channel: 7		
Direction: 26° NNE		
8.2 METV	11 mi	Hi-V
Call Sign: WFLA-DT2		
RF Channel: 7		
Direction: 26° NNE		
8.3 ESCAPE	11 mi	Hi-V
Call Sign: WFLA-DT3		
RF Channel: 7		
Direction: 26° NNE		

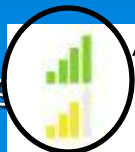
186 deg South

40.1 ABC	9 mi	UHF
Call Sign: WWSB-DT1		
RF Channel: 24		
Direction: 186° S		
40.2 HSN	9 mi	UHF
Call Sign: WWSB-DT2		
RF Channel: 24		
Direction: 186° S		
18.1 DAYSTAR	10 mi	UHF
Call Sign: WSVT-CD1		
RF Channel: 18		
Direction: 31° NNE		

31 deg N-NE



12/5/2019

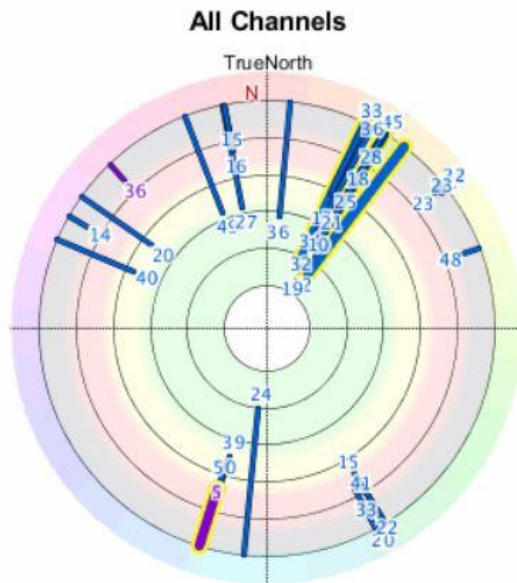


Indoor "set-top" antenna is probably sufficient to pick up these channels
Attic-mounted antenna is probably needed to pick up channels at this level and above

TVFool.com Results

TV Signal Locator

Real & Virtual Channel Numbers



Search Criteria

Address: exact
Sun City Center, FL
Postal code 33573

db datecode
201801291705

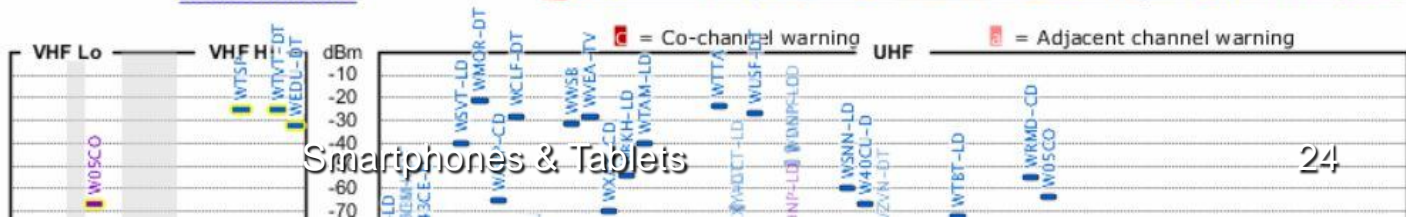
www.tvfool.com

Callsign	Channel		Netwk	Signal			Dist miles	Azimuth	
	Real	(Virt)		NM(dB)	Pwr(dBm)	Path		True	(Magn)
WMOR-DT	19	(32.1)	Ind	69.9	-20.9	LOS	10.2	31°	(37°)
WTTA	32		MyN	67.5	-23.3	LOS	11.5	27°	(32°)
WTSP	10		CBS	65.9	-25.0	LOS	10.2	31°	(37°)
WTVT-DT	12	(13.1)	Fox	65.5	-25.4	LOS	10.9	37°	(42°)
WUSF-DT	34	(16.1)	PBS	63.9	-27.0	LOS	11.9	26°	(31°)
WCLF-DT	21	(22.1)	Ind	62.9	-27.9	LOS	10.2	31°	(37°)
WVEA-TV	25		Uni	62.2	-28.6	LOS	10.2	31°	(37°)
WWSB	24		ABC	59.6	-31.3	LOS	9.5	186°	(192°)
WEDU-DT	13	(3.1)	PBS	58.9	-31.9	LOS	11.8	25°	(31°)
WWSV-LD	18		ABC	51.2	-39.7	LOS	10.2	31°	(37°)
WTAM-LD	28	(30.1)		50.6	-40.2	LOS	10.2	31°	(37°)
WSPF-CD	36			48.8	-42.0	LOS	10.7	28°	(33°)
WDNP-LD	36	(36.1)		42.4	-48.5	LOS	10.7	6°	(12°)
WBKH-LD	27			36.3	-54.5	LOS	16.8	349°	(354°)
WRMD-CD	49			35.8	-55.1	LOS	18.9	339°	(344°)
WSNN-LD	39			30.9	-60.0	LOS	25.3	197°	(202°)
W05CO	50	(5.1)		27.5	-63.4	LOS	25.7	197°	(203°)
WARP-CD	20			25.7	-65.1	LOS	20.8	305°	(311°)
W40CU-D	40			24.3	-66.5	LOS	27.7	293°	(299°)
WGCT-LD	33			22.9	-67.9	LOS	11.8	25°	(31°)
WXAX-CD	26			21.3	-69.6	LOS	11.8	25°	(31°)
WTBT-LD	45			18.8	-72.1	LOS	10.2	31°	(37°)
W05CO	5			12.0	-66.8	LOS	25.7	197°	(203°)
WBBH-DT	15	(20.1)	NBC	11.5	-79.4	2Edge	69.8	149°	(155°)
WZVN-DT	41	(26.1)	ABC	10.0	-80.8	2Edge	69.8	149°	(155°)
W43CE-D	16			5.3	-85.6	LOS	21.1	349°	(355°)
WRXY-DT	33	(49.1)	Ind	4.1	-86.7	2Edge	71.0	151°	(157°)
W15CM-D	15			0.6	-90.3	LOS	21.1	349°	(355°)
WUCU	22		PBS	-4.7	-95.6	2Edge	70.3	149°	(155°)
WDNP-LD	36			-8.1	-86.9	1Edge	34.4	316°	(322°)
WPDS-LD	14			-8.8	-99.7	1Edge	31.3	299°	(305°)
WLZE-LD	20			-10.5	-101.3	2Edge	71.0	151°	(157°)
WOPX-TV	48		ION	-10.5	-101.4	2Edge	79.4	69°	(75°)
WKCF	23		CW	-12.8	-103.6	Tropo	98.7	51°	(57°)
WUCF-TV	23	(24.1)		-14.8	-105.7	Tropo	98.9	50°	(56°)
WOFL	22	(35.1)	Fox	-15.5	-106.3	Tropo	99.3	51°	(56°)
WRBW-DT	41	(65.1)	MyN	-15.5	-106.4	Tropo	100.8	51°	(57°)
WACX-DT	40	(55.1)	Ind	-16.0	-106.9	Tropo	98.7	51°	(57°)
WTGL-DT	46	(45.1)	Ind	-16.1	-107.0	Tropo	98.7	51°	(57°)
WRDQ	27		Ind	-16.4	-107.2	Tropo	99.3	52°	(58°)
WESH-DT	11	(2.1)	NBC	-21.4	-112.3	Tropo	100.8	51°	(57°)
WKMG-DT	26	(6.1)	CBS	-21.8	-112.6	Tropo	100.8	51°	(57°)
WUFT-DT	36	(5.1)	PBS	-22.7	-113.5	Tropo	138.9	359°	(4°)
W23CN-D	23			-23.2	-114.0	2Edge	60.0	106°	(111°)
WOTF-DT	43	(43.1)	Te1	-23.3	-114.1	Tropo	98.7	51°	(57°)
WPTV-DT	12	(5.1)	NBC	-23.5	-114.3	Tropo	151.9	120°	(125°)
WOGX-DT	31	(51.1)	Fox	-24.7	-115.6	Tropo	114.8	1°	(6°)
WZRA-CD	15			-25.1	-116.0	2Edge	45.5	329°	(335°)
WPEC	13		CBS	-26.1	-116.9	Tropo	152.1	119°	(125°)
WVEN-TV	49		Uni	-26.2	-117.1	Tropo	105.2	36°	(42°)
WTVX	34	(34.1)	CW	-26.4	-117.2	Tropo	126.6	108°	(113°)

Real Channels

VHF Low 2 to 6
VHF High 7 to 13
UHF 14 to 83

12/5/2019



Smartphones & Tablets

OTA TV Real Channels

Reference

Real Channels

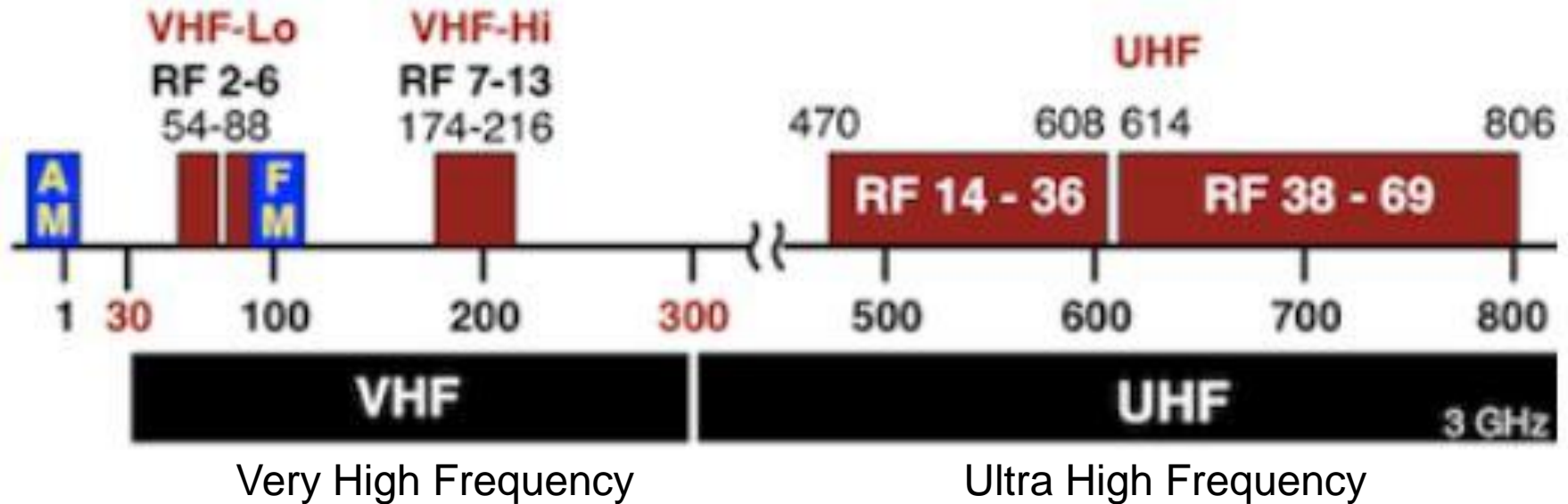
VHF Low 2 to 6

VHF High 7 to 13

UHF 14 to 83

Channel designation	Frequency band, MHz	Channel designation	Frequency band, MHz	Channel designation	Frequency band, MHz
2	54-60	30	566-572	57	728-734
3	60-66	31	572-578	58	734-740
4	66-72	32	578-584	59	740-746
5	76-82	33	584-590	60	746-752
6	82-88	34	590-596	61	752-758
7	174-180	35	596-602	62	758-764
8	180-186	36	602-608	63	764-770
9	186-192	37	608-614	64	770-776
10	192-198	38	614-620	65	776-782
11	198-204	39	620-626	66	782-788
12	204-210	40	626-632	67	788-794
13	210-216	41	632-638	68	794-800
14	470-476	42	638-644	69	800-806
15	476-482	43	644-650	70	806-812
16	482-488	44	650-656	71	812-818
17	488-494	45	656-662	72	818-824
18	494-500	46	662-668	73	824-830
19	500-506	47	668-674	74	830-836
20	506-512	48	674-680	75	836-842
21	512-518	49	680-686	76	842-848
22	518-524	50	686-692	77	848-854
23	524-530	51	692-698	78	854-860
24	530-536	52	698-704	79	860-866
25	536-542	53	704-710	80	866-872
26	542-548	54	710-716	81	872-878
27	548-554	55	716-722	82	878-884
28	554-560	56	722-728	83	884-890
	560-566				

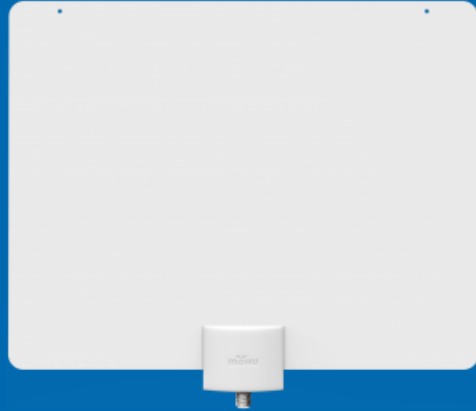
Frequency Spectrum -Reference



AM Radio around 1MHz
FM Radio 88-108MHz

Indoor Antennas

Omni-Directional



✓
Sun City Center



Outdoor Antennas

Directional

STEALTHenna 50



ULTRAtenna 60



Multiple TVs



Antenna Mount
the higher, the better



Signal Splitter



Major Broadcast Channels

Through the magic
of Digital Modulation

(Sun City Center)

3.1 WEDU-HD (**EDU**)

3.2 WEDU WD, 3.3 WEDU FL, 3.4 WEDQ,
3.5 WEDQK, 3.6 WEDU CR

8.1 WFLA HD (**NBC**)

8.2 MeTV, 8.3 Escape

10.1 WTSP-HD (**CBS**)

10.2 Antenna, 10.3 Justice, 10.4 Quest

13.1 WTVT-DT (**Fox**)

13.2 Movies!, 13.3 Buzzr, 13.4 Heroes

28.1 WFTS-HD (**ABC**)

28.2 WFTS D2 Laff, 28.3 WFTS D3 Grit

Other Broadcast Channels

32.1 MORTV, 32.2 ThisTV, 32.2 Estrell

38.1 WTTA, 38.2 COZI

40.1 WWSB-TV (ABC-Sarasota), 40.2 HSN

44.1 WTOG, 44.2 StartTV, 44.3 LightTV

50.1 WVEA, 50.2 Bounce, 50.3 GetTV, 50.4 Escape

62.1 WFTT, 62.2 LATV, 62.3 Comet, 62.4 Charge!

66.1 ION, 66.2 Qubo, 66.3 IonLife,

66.4 Shop, 66.5 QVC, 66.6 HSN

Broadcast Television Channel

A television channel is allocated 6 MHz of bandwidth for Over-the-Air transmission in the VHF or UHF frequency band.

Analog TV

One Channel
(Channel 8 for example)

6 MHz

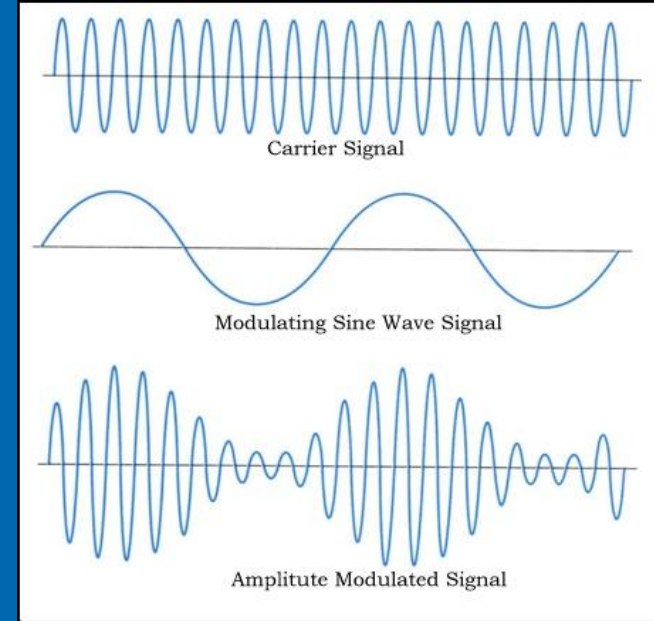
Digital TV

HD Channel	SD Channel	SD Channel	SD Channel
8.1	8.2	8.3	8.4

Digital Modulation
packs more
information
into the allotted
Bandwidth

Modulation

The process of putting audio/video information onto a carrier signal



Broadcast

8VSB (8-level Vestigial Sideband)



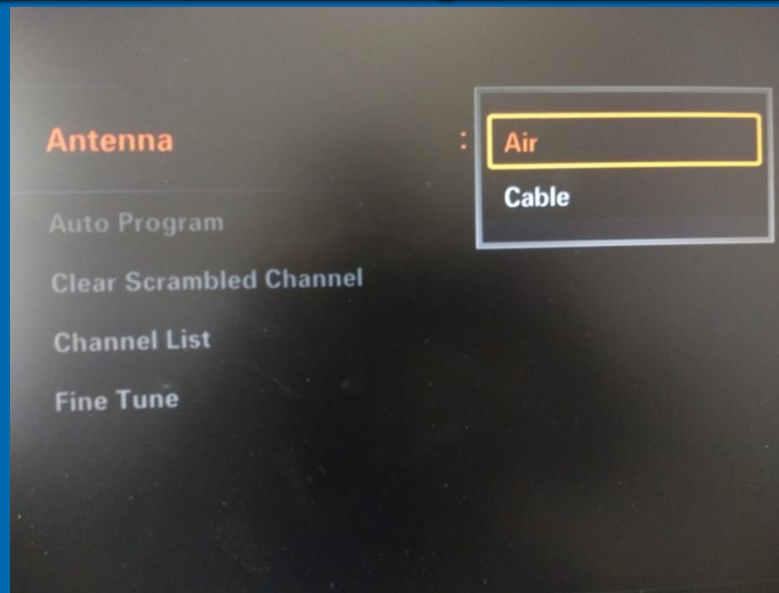
Cable

QAM (Quadrature Amplitude Modulation)



Antenna (Air or Cable)

TV
Settings



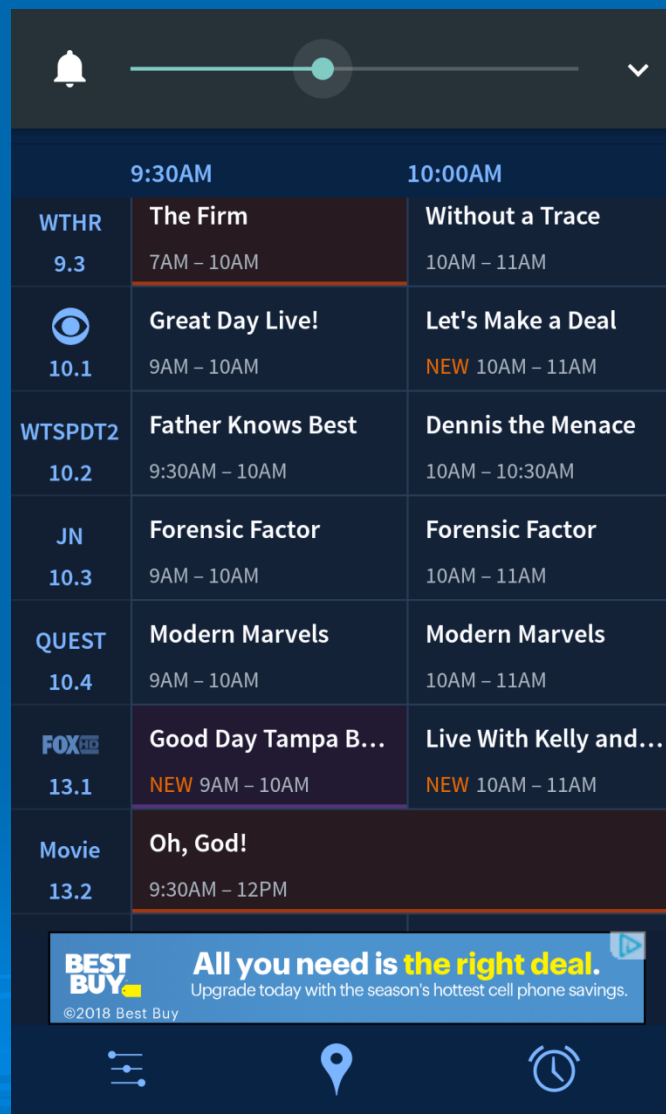
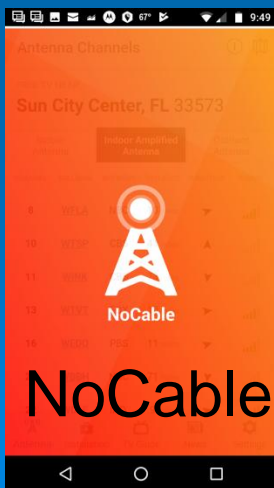
De-Modulator
Choice

Search for
Channels



Broadcast TV Guides

SmartPhone Apps



Broadcast TV -Recording

- Amazon Fire TV Recast
- ChannelMaster Stream+
- HD HomeRun Scribe Duo
- Tablo DualLite OTA
- TiVo Bolt Ota
- Dish AirTV Player

Broadcast TV -DVR

Fire TV Recast

Introducing
fire tv recast
Watch and record live TV everywhere



ABC CBS NBC The CW FOX

Roll over image to zoom in

Fire TV Recast, over-the-air DVR, 500 GB, 75 hours

by Amazon



184 customer reviews | 221 answered questions

Price: **\$229.99** ✓prime

or 5 monthly payments of \$46.00

FREE Delivery by **Monday**

if you order within 22 hrs 47 mins, or

Get it **Friday** if you order within 25 hrs 2 mins and choose paid One-Day Shipping at checkout [Details](#)

In Stock.

Ships from and sold by Amazon Digital Services LLC.

Configuration: **2 tuners, 500 GB, 75 hours**

2 tuners, 500 GB, 75 hours

\$229.99

✓prime

4 tuners, 1 TB, 150 hours

\$279.99

✓prime

- Fire TV Recast is a DVR that lets you watch and record over-the-air TV at home with Fire TV or Echo Show, or on-the-go with a compatible mobile device—with no monthly fees.
- Watch and record live sports, local news, late night shows, and other can't miss TV from channels available through an HD antenna (sold separately) like ABC, CBS, FOX, NBC, PBS, and The CW.
- With 2 tuners, you can record up to 2 shows at once. Plus, store up to 75 hours of HD programming.
- With a compatible Alexa-enabled device, you can use your voice to search for shows, manage and schedule

Broadcast TV –Recording

Tablo -DVR



Tablo 4-Tuner Digital Video Recorder [DVR] for Over-The-Air [OTA] HDTV with Wi-Fi for LIVE TV Streaming

by Tablo

★★★★☆ 991 customer reviews | 515 answered questions

Amazon's Choice for "tablo"

Price: \$199.00 ✓prime

Broadcast TV -Recording TiVo Bolt -DVR



TiVo Bolt OTA Antenna – All-in-One Live TV, DVR Streaming Apps Device

by TiVo



9,701 customer reviews | 1000+ answered questions

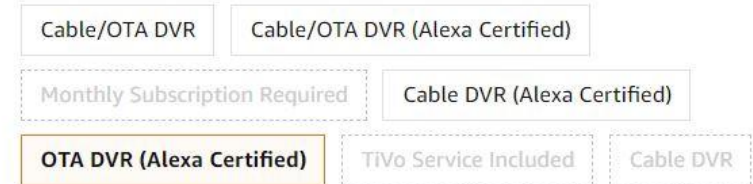
Price: \$246.25 ✓prime

Your cost could be \$236.25. Eligible customers get a \$10 bonus when reloading \$100.

Capacity: 1000 GB



Style: OTA DVR (Alexa Certified)



Streaming

The Other Way to get Entertainment

**The Process of Delivering
Digital Media (Video or Audio)
to a User (Subscriber)**

Very Brief History

1920s -George Squier granted patent for a system for the transmission and distribution of signals over electrical lines -eventually became Muzak

Streaming Today

Circa 2012 –Netflix, then Amazon appeared, followed by HBO Now, HULU, etc.

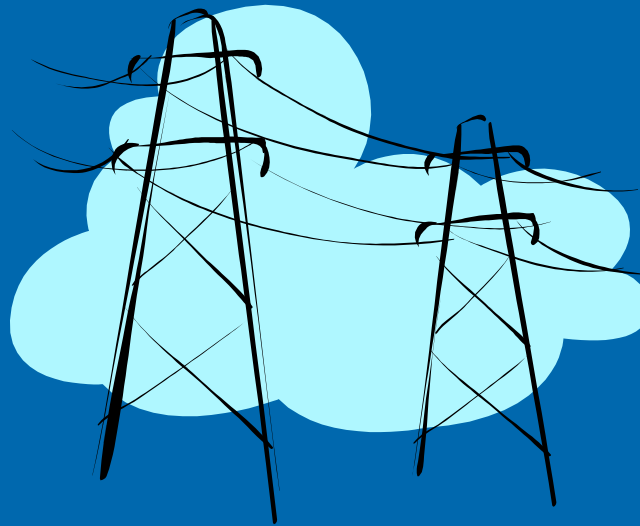
Streaming

The Other Source
of TV Entertainment

Streaming Device

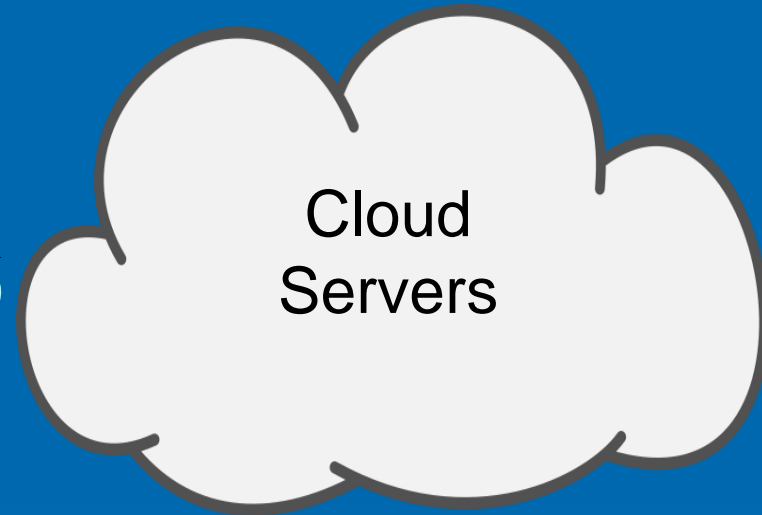


Smart TV



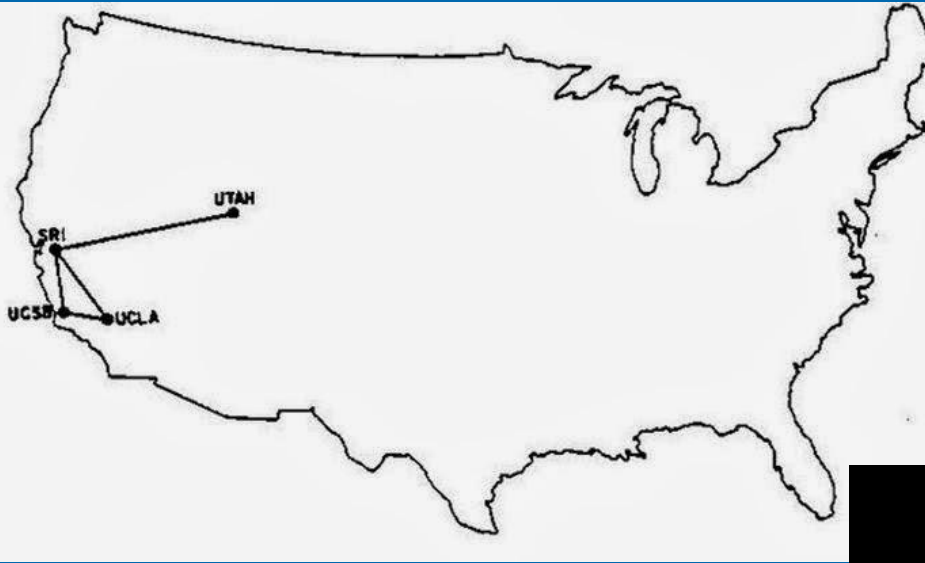
Internet

Streaming Service



The Process of Delivering
Digital Media (Video or Audio)
to a User (Subscriber)

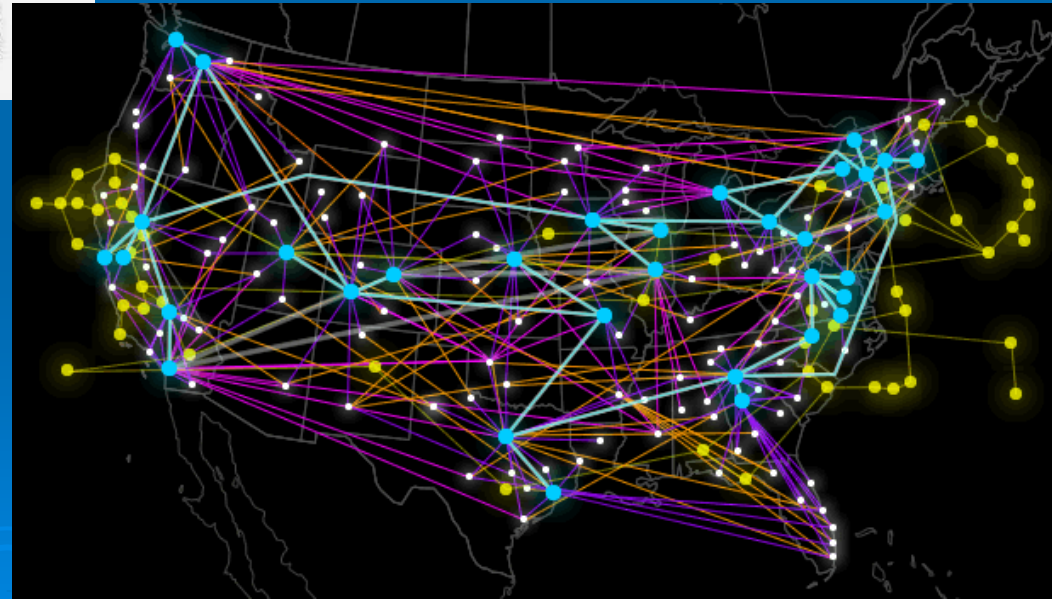
The Internet Then & Now



Global System of
Interconnected
Computer Networks

Circa 1968

Originally, a Government
Research experiment



Present

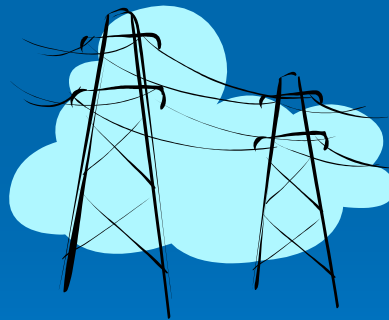
Streaming (Video & Audio)

Provided by a Device (Client)
and a Cloud Service (Server)
Connected by the Internet



Devices

Clients



Internet

Client – Server Technology

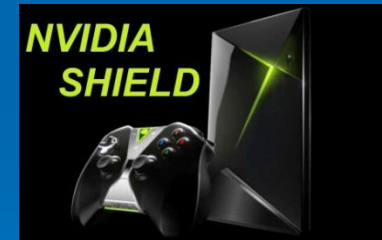
Smartphones & Tablets



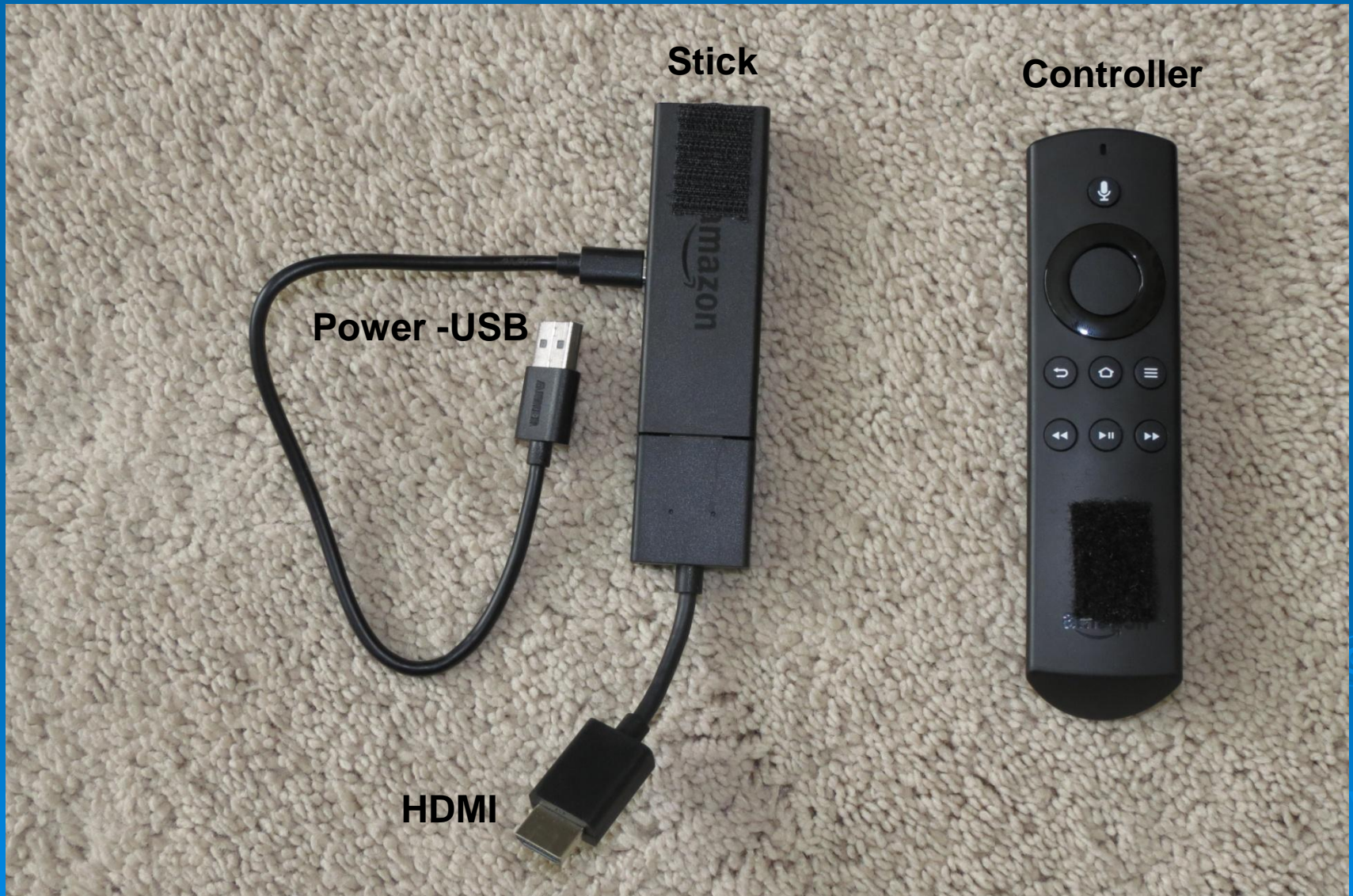
Servers

Streaming Devices

- Roku
- Amazon Fire
- Chromecast
- Apple TV
- Nvidia ShieldTV
- Smart TVs



Streaming Device – Amazon Fire Stick



Streaming Devices



Google Chromecast (3rd gen)



Google Chromecast Ultra



Roku Streaming Stick+



Roku Premiere+



Amazon Fire TV Stick

Price	\$35	\$69	\$60	\$50	\$50
Video	1080p	4K UHD	4K UHD	4K UHD	4K UHD
Dedicated remote	No	No	Yes	Yes	Yes
Controller app	Android, iOS, MacOS, Windows, Chrome OS	Android, iOS, MacOS, Windows, Chrome OS	Android, iOS, Windows Phone, BB10	Android, iOS, Windows Phone, BB10	Android, iOS
Voice search	Yes, via Home app	Yes, via Home app	Yes	Yes	Yes, via app or remote
Cross-platform search	Limited	Limited	Yes	Yes	Yes

Streaming Devices

From 2019
Consumer Reports

Ratings > **Streaming Media Devices** These are an easy, inexpensive way to give any TV internet capability. Even many smart-TV owners still prefer to use a stand-alone streaming player.

Recommended	Rank	Brand & Model	Overall Score	Price	Test Results					
					Picture quality	Features	Everyday use	Connectivity	First-time setup	Built-in voice search
HD STREAMING MEDIA DEVICES										
✓	1	Google Chromecast (3rd generation)	76	\$35	↑	↑	↑	↓	↑	
✓	2	Amazon Fire TV Stick With Alexa Voice Remote	74	\$40	↑	↑	↑	↓	↑	•
✓	3	Roku Streaming Stick (2017)	72	\$40	↑	↑	↑	↓	↓	•
Ⓢ	4	Roku Express (2017)	69	\$30	↑	↑	↑	↓	↓	
4K STREAMING MEDIA DEVICES										
✓	1	Roku Ultra (2018)	83	\$80	↑	↑	↑	↑	↓	•
✓	2	Amazon Fire TV Cube	82	\$120	↑	↑	↑	↓	↑	•
Ⓢ	3	Amazon Fire TV Stick 4K	81	\$50	↑	↑	↑	↓	↑	•
✓	4	Google Chromecast Ultra	80	\$70	↑	↑	↑	↓	↑	
✓	5	Apple TV 4K (32GB)	77	\$180	↑	↑	↑	↓	↓	•
Ⓢ	6	Roku Streaming Stick+	77	\$50	↑	↑	↑	↓	↓	•
Ⓢ	7	Roku Premiere+ (2018)	76	\$50	↑	↑	↑	↓	↓	•
Ⓢ	8	Roku Premiere (2018)	72	\$40	↑	↑	↑	↓	↓	

HOW WE TEST: **Picture quality** includes image clarity, color accuracy, and contrast of the streaming video at the native

output resolution. The **Features** score reflects the presence or absence of features. The **Everyday use** score indicates how

easy it is to use the device. **Connectivity** relates to the number and types of connections included. **First-time setup**

reflects how easy it is to set up the product. **Overall Score** is based on the performance of the product in all our tests.

Supercharged 4K Player

ROKU ULTRA
\$80

83

Best Stick-Style Model

AMAZON FIRE TV
STICK 4K \$50

81

Budget Model for the Smartphone-Savvy

GOOGLE
CHROMECAST \$35

76



Smart TV



A Smart TV is a traditional television set with internet features that allow you to use Apps to Stream Movies, TV, & Videos over Wi-Fi.

Basically, it allows a user to Stream Media without the use of another device.

The technology is also incorporated into other devices such as Blu-ray players.

Streaming Devices built into Smart TVs



Amazon Fire TV

-Toshiba, Insignia

Android TV

-Sony, Philips, Hisense, more

Roku TV

-RCA, Sharp, TCL, Hisense, more

SmartCast

-Vizio

Tizen

-Samsung

WebOS

-LG

Streaming Device Security

Automatic Content Recognition -Feature

Allows the device to collect user data

For Details, see Consumer Reports Article

How to Turn Off Smart TV

Snooping Features

Dec. 2019

For Example

Amazon Fire TV -To turn off programming data collection, go to Settings, then Preferences, and scroll to the Right to Privacy Settings. Turn off the setting labeled Disable Collect App and Over-the-Air Usage Data.



Internet Speed?

Number of Devices	Light Use	Moderate Use	High Use	Very High Use
1-3	5-10 Mbps	15 Mbps	25 Mbps	50 Mbps
4-8	15 Mbps	25 Mbps	50 Mbps	100 Mbps
8-10	25 Mbps	50 Mbps	100 Mbps	150 Mbps
10+	50 Mbps	100 Mbps	150 Mbps	200+ Mbps

Light use: emails, web browsing, social media, SD video streaming

Moderate use: music streaming, occasional online gaming, streaming HD video on one or two devices

High use: Multiple devices streaming HD video simultaneously, real-time gaming, video conferencing

Very high use: Multiple devices streaming HD or 4K video simultaneously, large file downloading, real-time gaming, video conferencing

Streaming Services

- Netflix \$ubscription
- Hulu \$ubscription
- Tubi Free
- Philo \$ubscription
- Fubo \$ubscription
- DirectTV Now \$ubscription
- CBS All Access \$ubscription
- PlutoTV Free
 - (Also phone App)

The Netflix logo, featuring the word "NETFLIX" in white, bold, sans-serif capital letters on a red rectangular background.The Hulu logo, featuring the word "hulu" in a lowercase, green, sans-serif font on a white rectangular background.The Tubi logo, featuring the word "tubitv" in a lowercase, orange and white, sans-serif font on a black rectangular background.The Philo logo, featuring the word "PHILO" in red, uppercase, sans-serif letters on a black rectangular background.The Fubo TV logo, featuring the word "fubo" in orange and "TV" in white, lowercase, sans-serif letters on a dark blue rectangular background.The DirectTV Now logo, featuring the words "DIRECTV" and "NOW" in black, uppercase, sans-serif letters on a white rectangular background, with the AT&T globe logo integrated into the "O" of "NOW".The CBS All Access logo, featuring the CBS eye logo, the word "CBS" in white, uppercase, sans-serif letters, and "ALL ACCESS" in smaller white, uppercase, sans-serif letters on a blue rectangular background.

Streaming Services

From Nov 2019
Consumer Reports

LIVE TV STREAMING SERVICES THAT WANT YOU TO DUMP CABLE

DirecTV Now

\$50 to \$70 per Month for Featured Plans
Like the satellite service but without the dish. You get more than 45 live TV channels in the basic plan, plus on-demand titles and even HBO.

FuboTV

\$55 per Month
A cable-style streaming service for sports fans. The base plan has about 100 channels with live sports, shows, and movies. You can add more DVR storage for \$10 per month and 30 extra channels for \$6 more.

Hulu + Live TV

\$45 per Month
A good option for those who like both local channels and cable networks, because you also get everything in Hulu's \$6-per-month streaming library. You get more than 60 live and on-demand channels, including TV shows, movies, and Hulu originals. Includes a cloud DVR; you can pay more to get more storage or additional content.

Sling TV

\$25 to \$40 per Month
An option for cord cutters on a budget. Sling TV offers two \$25 plans—Sling Orange and Sling Blue—plus a \$40 option with about 50 channels that combines both. (Orange has ESPN but no locals; Blue has NBC and Fox but no ESPN.) You can pay for additional channel packs; a cloud DVR costs \$5 per month.

Sony

PlayStation Vue






\$50 to \$85 per Month
The streaming service that gets closest to a cable TV package. You get between 50 and about 100 live TV and on-demand channels, including local broadcasts, regional sports networks, and cable channels. The priciest plan includes HBO and Showtime. A cloud DVR with 28-day storage is included.






YouTube TV

\$50 per Month
A good choice for those looking to save money without giving up sports or major cable channels. YouTube TV offers 70-plus broadcast and cable channels, plus major sports networks such as CBS Sports, ESPN, and Fox Sports. A cloud DVR with unlimited storage for up to nine months is included.



Streaming Services -Prices

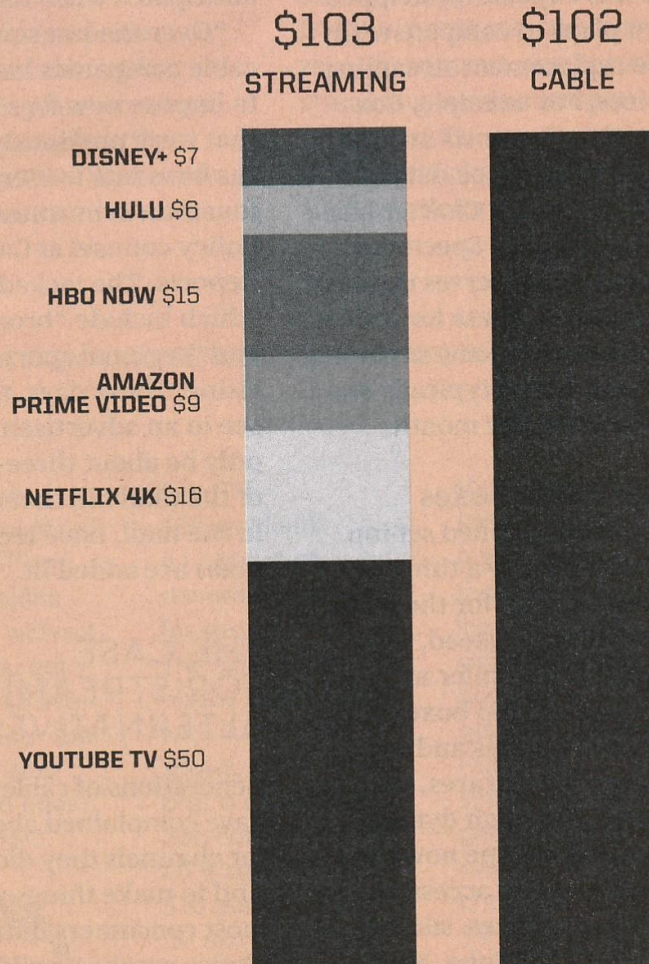
	Hulu	Sling TV	CBS All Access	fuboTV	Amazon Video
Product					
Starting Price	\$5.99/month \$7.99/month	\$15-40/month \$20/month	\$5.99/month	\$44.99/month	\$12.99/month \$8.99/month

	Philo	Netflix	HBO Now	DirecTV NOW	YouTube TV
Product					
Starting Price	\$16/month	\$8.99/month \$7.99/month	\$14.99/month	\$50-70/month \$40/month	\$50/month \$40/month

Cost Comparison

STREAMING VS. CABLE TV

(Cost of cable is national average; prices don't include internet service. Disney+ is coming in November 2019.)



So, Streaming
may not always
be Cheaper

Alternate Entertainment

➤ What Channels Do You Want to Replace?

- History Channel
- Food Network
- Golf Channel
- Hallmark Channel
- The Learning Channel (TLC)
- A&E, AMC, TNT, CMT, FX, USA
- CNN, CNBC, Fox-News

➤ At what Expense?

Get a Collection of Cable Channels

Philo

Remember who Invented TV?

• **43 Channels** \$16/mo



• **55 Channels** \$20/mo

Everything above plus...



Another Collection of Cable Channels

Fubo

fuboTV

CHANNELS

APPS

HELP

SIGN IN

START WATCH

Top channels of movies, shows & more. Just \$39.99 for your first month.



Activate Windows
Go to Settings to activate

And another Collection of Cable Channels

DirectTV Now



BASE PACKAGES

Get live TV, breaking news, and non-stop sports streaming across your favorite devices.

LIVE A LITTLE \$40/month Get 65+ Channels	JUST RIGHT \$55/month Get 85+ Channels	GO BIG \$65/month Get 105+ Channels	GOTTA HAVE IT \$75/month Get 125+ Channels	TODO Y MÁS \$45/month Get 90+ Channels
---	--	---	--	--



GET ONE WEEK FREE

Still another Collection of Cable Channels

Sling TV

Frequently Asked Questions

What's Sling TV?

We're a streaming service that lets you watch live TV, movies & more over the Internet.

What can I watch?

30+ channels like ESPN, HGTV & more. 40k+ FREE On-Demand titles (included with your base service). You can also customize your channel lineup with Extras.

Is it hard to install?

Nope! With an Internet connection, you can start watching Sling TV in minutes!

GET THE BEST OF LIVE TV™ FOR LESS
VISIT SLING.COM/SLINGMAIL



Based on the number of subscribers publicly reported as of March 1, 2019. Compared to the average cable bill of \$107 reported by LRG on 10/31/2018, Sling can save over \$70/mo. This is an advertisement for Sling TV. All prices, fees, charges, packages, programming, features, functionality and offers subject to change without notice. Other restrictions may apply. See sling.com website for details. All trademarks are property of their respective owners. ©2019 Sling TV L.L.C. All rights reserved. DM777B



Save Up to \$70/mo on TV

compared to the average cable bill of over \$100/mo*

Get 30+ Channels Starting at \$15

for the first month – after first month your Sling service will start at \$25/mo

Customize your channel lineup

Watch on all your favorite devices

Enjoy no long-term contracts



Find Your Favorite Channels on Sling TV

Start by picking your base service – \$15 for your first month

- Sling Orange**
30+ channels for \$25/mo after your first month
- Sling Blue**
40+ channels for \$25/mo after your first month
- Sling Orange + Sling Blue**
50+ channels for \$40/mo after your first month

Base Service Channels

A&E	•	•
AMC	•	•
AXS TV	•	•
BBC America	•	•
BET	•	•
Bloomberg	•	•
Bravo	•	•
Cheddar Big News	•	•
Cheddar Business	•	•
CN/Adult Swim	•	•
CNN	•	•
Comedy Central	•	•
COMET	•	•
Discovery	•	•
Disney Channel	•	•
E!	•	•
EPIX Drive In	•	•
ESPN	•	•
ESPN2	•	•
ESPN3	•	•
Food Network	•	•
FOX!	•	•
Free Form	•	•
FS1	•	•
FS2	•	•
Fuse	•	•
FX	•	•
FXX	•	•
HGTV	•	•
History	•	•
IFC	•	•
Investigation Discovery	•	•
Lifetime	•	•
Local Now	•	•
Mototrend	•	•
Nat Geo	•	•
Nat Geo Wild	•	•
NBC!	•	•
NBC RSN	•	•
NBCSN	•	•
Newsy	•	•
NFL Network	•	•
Nick Jr.	•	•
Paramount Network	•	•
Stadium	•	•
Syfy	•	•
TBS	•	•
TLC	•	•
TNT	•	•
Travel Channel	•	•
truTV	•	•
USA	•	•
Viceland	•	•

Personalize your channel lineup by adding Extras to your base service, starting at \$5/mo

Sports Extra \$10/mo

ACC Network	•	•
ACC Network Extra	•	•
beIN Sports	•	•
ESPN Bases Loaded	•	•
ESPN Goal Line	•	•
ESPNNEWS	•	•
ESPN	•	•
Golf Channel	•	•
MLB Network	•	•
MLB StrikeZone	•	•
NBA TV	•	•
NFL Redzone	•	•
NHL Network	•	•
Olympic Channel	•	•
Outside TV	•	•
Pac-12 Network	•	•
SEC Network	•	•
SEC Network+	•	•
Tennis Channel	•	•

Kids Extra \$5/mo

Baby TV	•	•
Boomerang	•	•
Disney Jr.	•	•
Duck TV	•	•
Disney XD	•	•
Nick Jr.	•	•
Nicktoons	•	•
Teen Nick	•	•

News Extra \$5/mo

BBC World News	•	•
CGTN	•	•
CNBC	•	•
Euro News	•	•
France 24	•	•
Free Speech TV	•	•
Fusion	•	•
HLN	•	•
MSNBC	•	•
NDTV 24/7	•	•
News 18	•	•
NewsMax	•	•
Russia Today	•	•
Science	•	•
The Blaze	•	•
Weather Nation	•	•

Heartland Extra \$5/mo

American Heros	•	•
Destination America	•	•
Cowboy Channel	•	•
PX Sports	•	•
Outdoor	•	•
Pixl	•	•
RFD-TV	•	•
Ride TV	•	•
Sportsman	•	•
World Fishing	•	•

Comedy Extra \$5/mo

CMT	•	•
GSN	•	•
Logo	•	•
MTV	•	•
MTV2	•	•
Paramount Network	•	•
Revolt	•	•
truTV	•	•
TV Land	•	•

Lifestyle Extra \$5/mo

BET	•	•
Cooking Channel	•	•
DIY	•	•
FYI	•	•
Hallmark	•	•
Hallmark Drama	•	•
Hallmark M&M	•	•
Lifetime Movie	•	•
Oxygen	•	•
VH1	•	•
we TV	•	•
Z Living	•	•

Hollywood Extra \$5/mo

Cinémoi	•	•
HDNet Movies	•	•
REELZ	•	•
Sundance	•	•
TCM	•	•
The Film Detective	•	•

Best of Spanish TV Extra \$5/mo

¡HOLA! TV	•	•
Azteca	•	•
BabyTV Español	•	•
beIN SPORTS	•	•
beIN SPORTS en Español	•	•
Cbeebies	•	•
Cine Sony	•	•
Cinelatino	•	•
Discovery en Español	•	•
Discovery Familia	•	•
El Financiero	•	•
Bloomberg TV	•	•
Estrella TV	•	•
Historia en Español	•	•
Ingles Para Todos	•	•
INTI Network	•	•
NTN24	•	•
Pasioness	•	•
PX Sports	•	•
Unimás	•	•
UNIVERSO	•	•
Vme Kids	•	•
Zee Familia	•	•
Zee Mundo	•	•

Premiums

EPIX	\$5/mo
Showtime	\$10/mo
Starz	\$9/mo

A La Carte (No base service needed)

Comedy Dynamics	\$5/mo
CuriosityStream	\$3/mo
DogTV	\$5/mo
Genius Brands	\$4/mo
Hallmark Movies Now	\$6/mo
Monsters & Nightmares	\$3/mo
NBA League Pass	\$29/mo
Pantaya	\$6/mo
Showtime	\$10/mo
Starz	\$9/mo
Stingray Karaoke	\$7/mo
Up Faith & Family	\$5/mo

Total TV Deal \$20/mo (Includes 7 Extras + Cloud DVR)

Sports Extra	•
Kids Extra	•
News Extra	•
Lifestyle Extra	•
Heartland Extra	•
Hollywood Extra	•
Comedy Extra	•

4 for \$10 Deal \$10/mo

Kids Extra	•
News Extra	•
Lifestyle Extra	•
Comedy Extra	•

Want Spanish Channels?
Visit sling.com/latino

Want International Channels?
Visit sling.com/international

CHANNEL KEY		
•	Sling Orange	
•	Sling Blue	
•	Sling Orange + Sling Blue	

12/5/2019

SEE CHANNELS Smartphone



*Available in select markets.

Sports

**WATCH SPORTS,
LIVE OR LATER,
ANYTIME, ANYWHERE**



Welcome to the DAZN Media Centre

DAZN is the first global pure-sport live and on-demand streaming service. It is available around the world, offering affordable access to sport anytime, anywhere. Using cutting-edge digital technology, DAZN guarantees no long-term contract and provides access on connected devices including smart TVs, smartphones, tablets, and mobile apps. DAZN has been created by fans, for fans to give them a better and fairer way to watch sports. It is powered by iPlayer and backed by American-British industrialist Len Blavatnik's Access Industries. DAZN is available in Austria, Switzerland, Japan, Canada and soon to launch in the U.S. and Italy.

WELCOME TO DAZN

Get over 100 fight nights a year. Without the pain of pay-per-view.
Just **\$9.99/month**. Sign up and get your first month free.

Next up: Bivol vs. Smith
Saturday, March 9

START YOUR FREE TRIAL >

Already subscribed? [Sign in](#)

STREAMING WARS: THE BIG PLAYERS

NUMBER OF SUBSCRIBERS

NETFLIX
139M

amazon
prime video
100M

hulu
25M

HBO NOW
5M

CBS ALL ACCESS[†]
2.5M

ESPN+
2M

~~COMING SOON~~

\$4.99/Mo
Apple TV
~~\$9.99/Mo~~
November

Disney+
\$6.99/Mo

NBCUniversal
OFFERING

WARNERMEDIA
OFFERING
HBO Max
\$14.99

YAHOO!
FINANCE

SOURCE: MOST RECENT NUMBERS SHARED BY THE COMPANIES

As of
6/3/19

12/5/2

STREAMING WARS: HEAD TO HEAD

NETFLIX

hulu

amazon prime video

Disney+

Apple TV+

MONTHLY PRICE



MAJOR OFFERINGS



Stranger Things, The Crown, Dear White People, BoJack Horseman, Glow, third-party shows, and movies.



The Handmaid's Tale, Casual, Shrill, The Path, Castle Rock, third-party shows, and movies.



The Marvelous Mrs. Maisel, Sneaky Pete, Bosch, Goliath, The Man in the High Castle, third-party shows, and movies.



All Disney vault movies, **Star Wars: The Mandalorian**, Marvel movies and shows (Loki, WandaVision), The Simpsons.



The Morning Show, For All Mankind, **See**, Dickinson, Little America, two Oprah documentaries.

1-MONTHLY BREAKDOWN OF AMAZON PRIME ANNUAL FEE
 2-DISNEY+ BUNDLE INCLUDES HULU AND ESPN+
 3-FREE APPLE TV+ WITH PURCHASE OF NEW IPHONE, IPAD, OR MAC
 *AS OF 9/25/19

SupposeTV.Com

An attempt to help you decide
what Subscriptions satisfy your desires

Suppose...

Home How It Works About

TV MARKET AREA
Tampa Bay Area

SHARE FEEDBACK RESET

Select

your preferred channels

search channels

Local

ABC - WTFS
CBS - WTSP
FOX - WTVT
NBC - WFLA
▼ show more

Premium

HBO
Showtime
STARZ
▼ show more

Entertainment

NBC - on demand
TNT
USA
AMC
A&E
TBS

Suppose compares
billions of combinations of TV services
and finds the **best for you.**

To begin,
update your location if necessary
and **select your favorite channels.**

Spectrum

DIRECTV

dish

sling

AT&T tv NOW

PlayStation.Vue

You Tube

hulu and more

SupposeTV.Com

Choose the Cable TV channel
And it suggests the Subscriptions

Suppose...

Home How It Works About

TV MARKET AREA
Tampa Bay Area

Select

your preferred channels

Prioritize

by dragging up or down

Refine

get more

save more \$

1+ simultaneous stream

DVR required

Any Provider

Any Device

search channels



Showing top 52 of 60,058,623,644,008,450 combinations analyzed



FOX Sports 1
NFL Network
NBC Sports Network
CBS Sports Network
▼ show more

Kids & Family

Disney Channel
Cartoon Network
Nickelodeon
▼ show more

News

The Weather Channel
CNN
FOX News Channel
MSNBC
▼ show more

Movies

TCM
IMN

The Weathe...

TCM

HGTV

ESPN

CNN

FOX News C...

BEST FIT	SAVE \$9.99				
hulu +2 Live TV + Frndly Classic	sling +1 Orange + Hollywood Extra + Frndly Classic	YouTube +1 YouTube TV + Frndly Classic	hulu Live TV Unlimited Screens + Frndly Premium	PlayStation Vue +1 Core + Frndly Classic	sling +3 Orange + Total TV Extra + Frndly Classic
\$52.98 /mo see offers worth \$85	\$42.99 /mo see offers worth \$122	\$57.98 /mo see offers worth \$10	\$64.97 /mo see offers worth \$85	\$62.98 /mo see offers worth \$11	\$52.99 /mo see offers worth \$122
The Weather Channel	The Weather Channel	The Weather Channel	The Weather Channel	The Weather Channel	The Weather Channel
TCM	TCM	TCM	TCM	TCM	TCM
HGTV	HGTV	HGTV	HGTV	HGTV	HGTV
ESPN	ESPN	ESPN	ESPN	ESPN	ESPN
CNN	CNN	CNN	CNN	CNN	CNN
FOX News C...	FOX News C...	FOX News C...	FOX News C...	FOX News C...	FOX News C...
+ 78 more channels 2 streams	+ 46 more channels 1+ stream	+ 87 more 2+ str	+ 87 more 2+ str	+ 87 more 2+ str	+ 87 more 2+ str

enter email address to receive alerts



PLUTO TV		Live TV	On Demand
Movies		5:30 PM	6:00 PM
67	BLACK CINEMA	Hustle & Flow The tale of DJay, a pimp whose hustle selling sexy Nola leaves him wondering if this is it for him. Only when he t	
71	Gravitas MOVIES	Magnum Opus Spy thriller pits veteran-turned-artist, Daniel Cliff, against US intelligence, and secrets from his past lead to a he	
74	THE ASYLUM	Mega Shark vs ... The California coast is t...	Pirates of Treasure Island An innkeeper's life of monotony suddenly changes when he comes into posses
News			
105	TODAY'S TOP STORY	Today's Top Story: First Lady Calls F... TODAY'S TOP STORY: First lady Melania Trump deman...	Today's Top Story: First Lady C... TODAY'S TOP STORY: First lady Melania Trump c
108	NEWS 24/7	Headline News: DOJ: Matt Whitaker ... The latest headline news from NBC News, Associated ...	Headline News: DOJ: Matt Whit The latest headline news from NBC News, Assoc
109	CBSN	Live CBS News is your destination for the day's biggest stories. Never miss out on breaking news with CBSN, the pre	
110	NBC NEWS	Top Stories	Top Stories

Telephone



Telephone Alternatives

➤ VOIP Service Providers

- Vonage
- Ooma
- OBi200 + Google Voice
- Magic Jack

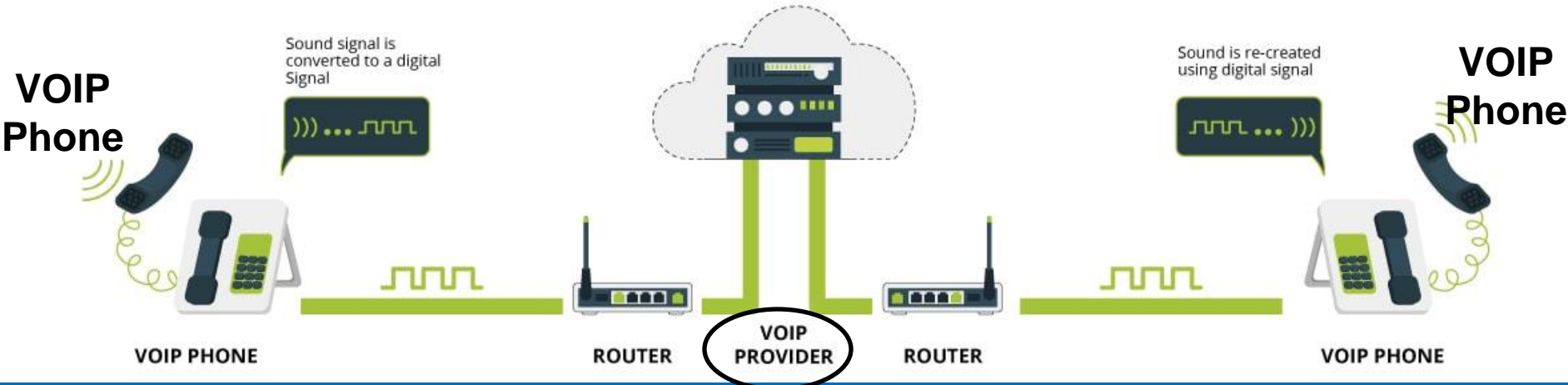
➤ Use your Wireless Smartphones

How VOIP works

data packets data packets

Convert Sound to Digital data **Internet Cloud** **Convert Digital data to Analog sound**

Data travels through the Internet



Spectrum
Frontier
Ooma
Vonage

} VOIP Providers

Vonage



[Why Vonage](#)

[Plans](#)

[Features](#)

[Offers](#)

[To Order Call 1-800-608-5590](#)



SAVE
60%
on your first year
as compared to standard
month-to-month
pricing

Vonage[®] North America Unlimited¹ Nationwide calling.

NEW! Unlimited calling to Mexico. Plus Canada & Puerto Rico.

\$9.99

/mo for the first 6 months

FREE Phone Adapter
FREE Shipping
FREE Activation
\$119 Value

Plus taxes & fees, with 1-year agreement.
High-speed internet required.

[View Offer Terms.](#)

ORDER NOW

[LEARN MORE](#)

How Vonage home phone service works

Magic Jack

Connect with High-Speed Modem

magicJack is easy to set up with your existing high-speed internet connection and home phone. You are only a few quick steps away from making ultra-low cost internet phone calls.



- 1 Plug your provided Ethernet cord into the port labeled "INTERNET"
- 2 Plug your phone into the port labeled "PHONE" on your magicJack.
- 3 Connect the provided power adapter to your magicJack USB.
- 4 Plug your magicJack into a power outlet.

Magic Jack

Great features. Flexible Pricing.

magicJackGO
\$35

12 Months of Service Included



Unlimited Local and Long-Distance Calling to the U.S., Canada, Puerto Rico & U.S. Virgin Islands



Unlimited Mobile Calling With FREE magicApp



Choose a New U.S. or Canada Phone Number



Port Your Existing Number (One Time \$19.95 Fee)



Free Jack-to-Jack Calling Virtually Worldwide



Free Conference Calling Number



Free Caller ID, Voicemail, Call Forwarding, Call Waiting, 411



911 Service



No Contract



Ooma Telo

 ooma telo FOR HOME FOR BUSINESS

HOME PRODUCTS INTERNATIONAL CALLING CONNECTED HOME HOME SECURITY

Free Home Phone Service

Ranked #1 Phone Service

- ✓ Free Crystal-clear Nationwide Calling
- ✓ Free Shipping
- ✓ Free Activation
- ✓ Risk-Free 30-Day Return

You only pay applicable taxes and fees

Order Now >>

\$99.99
One-time purchase.

Port Existing
Number \$40
(one-time fee)

Amazon's Choice



Sponsored ⓘ

Ooma Telo Free Home Phone Service.
by ooma

\$76²⁵  FREE One-Day
FREE Delivery by Tomorrow, Nov 30

OBi200 + Google Voice



OBi200 1-Port VoIP Phone Adapter with Google Voice and Fax Support for Home and SOHO Phone Service, Blue

by Obihai

★★★★★ 3,621 customer reviews | 1000+ answered questions

Amazon's Choice for "obiwifi5g"

Price: **\$69.99** ✓prime FREE One-Day & FREE Returns

Pay ~~\$69.99~~ \$66.76 after using available Amazon Rewards Visa Card Points.

Free Amazon tech support included

Color: Blue



Service: **Get professional installation** Details

Without expert installation

Include installation
+\$141.57 per unit

What's included with service

- Works with Google Voice
- Easy to Set-Up Using OBITALK.com. USB for Obihai Accessories OBiWiFi5G and OBiBT
- Also Supports T.38 Fax and SIP Bring Your Own Device Services like Anveo, Callcentric, Voip.ms, etc.
- Works with Up to Four (4) VoIP Services Across One (1) Phone Port
- Call back service present. Application for iphone, ipad, ipod touch and android devices which makes possible placing and receiving calls to/from other OBi endpoints

*Does not support 911

Home Security (Monitor without Phone line)

Safe by HUB6 is a self-monitoring system that transforms existing home security systems into smarter systems for an affordable, one-time price of USD \$249.00.

It redirects any alerts triggered by the existing system to a user's phone or tablet as well as trusted neighbors and family.

SafeByHub6.com



Nest Aware Services -\$6/mo –Sends Alert to your phone

Cut the Cord ?

What do you think ?



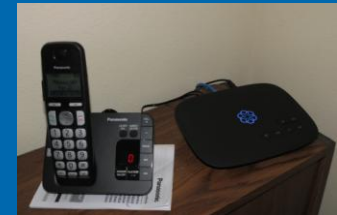
My New Triple Play



Broadcast TV
with TiVoDVR



Streaming
Video



Ooma
Phone

Savings = \$65 mo

Resources

Cord Cutters News Aug 10, 2018
by PressPad Sp. z o.o.

Free
Available instantly on compatible devices



CORDCUTTING.COM



Watch TV Now for Free
Turn Your Computer Into a Television!

NEWS

HOW-TOS

REVIEWS

ROKU CHANNELS

CORD CUTTING GUIDE

A Brief
Guide to
Cordcutting

Watch TV on the Internet without paying for
cable

TOM MERRITT



A Brief Guide to Cord Cutting: Watch TV on the Internet without paying for cable Mar 4, 2016
by Tom Merritt

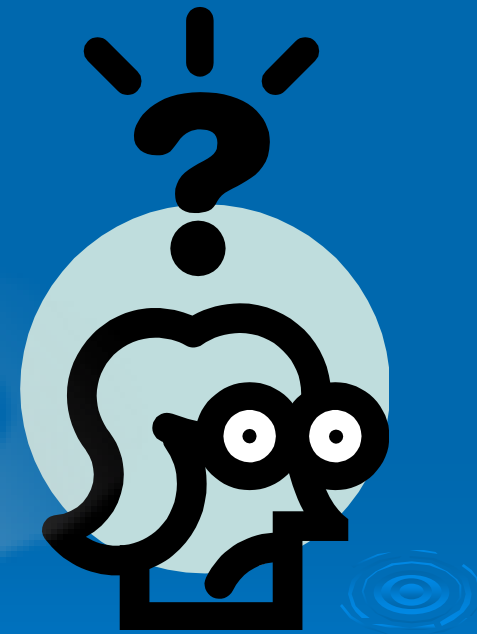
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★★★★★ ▾ 35

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Questions ?

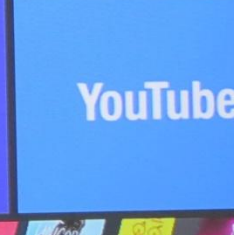
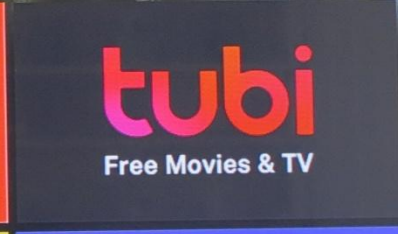


Streaming Device Demo

Home Your Videos Movies TV Shows Apps Settings [^]

PRIME ORIGINAL
HANNA

WATCH TRAILER NOW | prime video



Hear what Fire TV can do. [Get the app](#)



Netflix

Watch TV shows and movies anytime, anywhere — personalized for you.

JOIN FREE FOR A MONTH



Watch on your TV

Smart TVs, PlayStation, Xbox, Chromecast, Apple TV, Blu-ray players and more.



Watch instantly or download for later

Available on phone and tablet, wherever you go.



Use any computer

Watch right on Netflix.com.

Choose one plan and watch everything on Netflix.

JOIN FREE FOR A MONTH

	BASIC	STANDARD	PREMIUM
Monthly price after free month ends on 12/14/18	\$7.99	\$10.99	\$13.99
HD available	×	✓	✓
Ultra HD available	×	×	✓
Screens you can watch on at the same time	1	2	4
Watch on your laptop, TV, phone and tablet	✓	✓	✓
Unlimited movies and TV shows	✓	✓	✓
Cancel anytime	✓	✓	✓
First month free	✓	✓	✓

Hulu

hulu

Watch Shows and Movies Anytime, Anywhere

Watch thousands of shows and movies on Hulu, with plans starting at \$5.99/month for 1 year.*

From current episodes and original series, to kids shows and hit movies, we have something for everyone.

GET ONE MONTH FREE

*Limited time offer of \$5.99/month for 1 year, then \$7.99/month. Valid for Limited Commercials plan only. Ends 1/3/19. \$5.99/month offer and free trial offer valid for new and eligible returning subscribers only.

Tubi (Free?)



Thousands of titles

Watch amazing movies and TV shows for free. No subscription fees, and no credit cards. Just thousands of hours of streaming video content from studios like Paramount, Lionsgate, MGM and more.

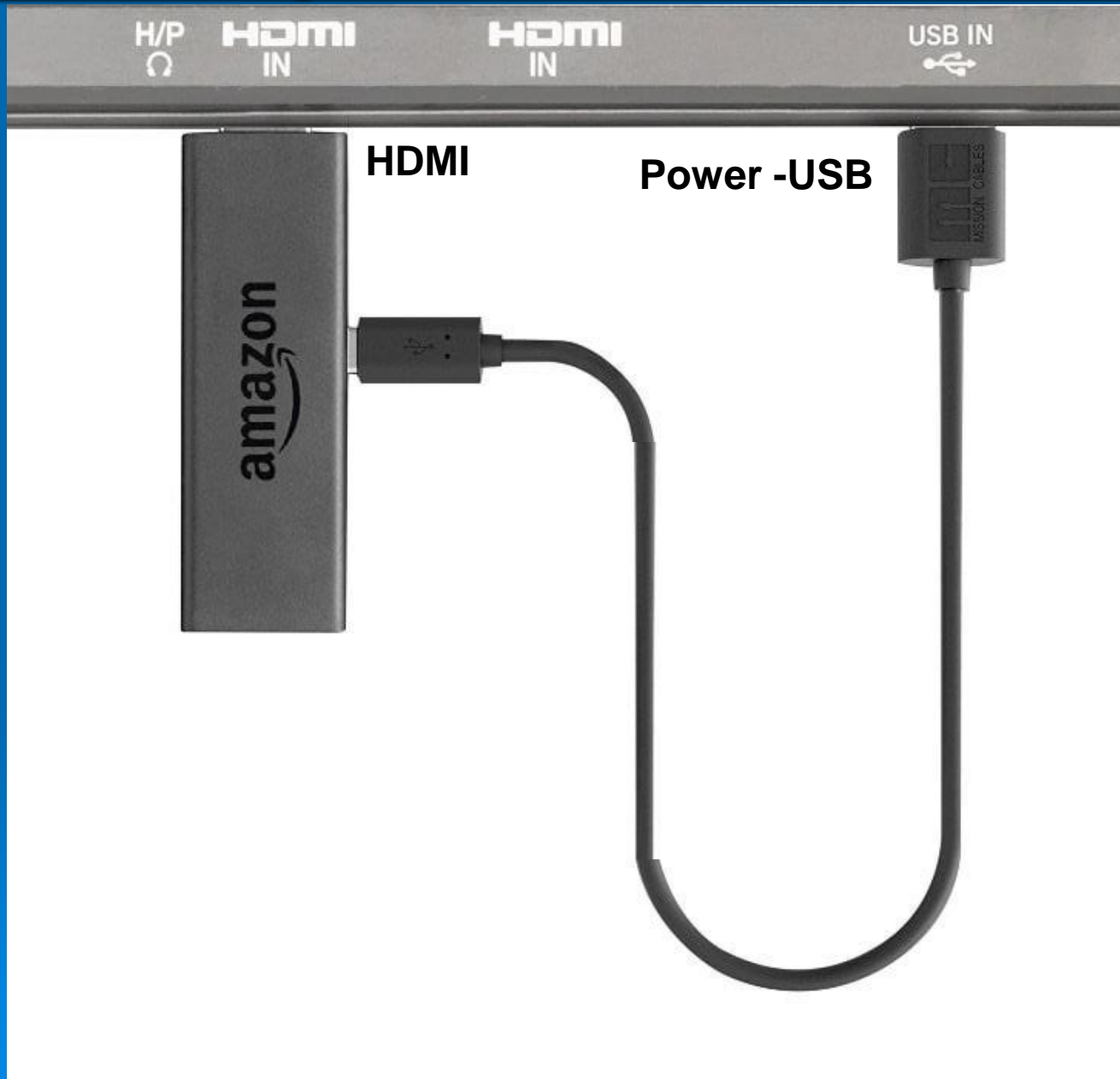
With content from over 200 partners.

LIONSGATE



starz

Streaming Device Connections



Sports

Stream **MORE** Sports with ESPN+

Daily selection of Live Sports. ESPN Originals on-demand.
See less ads on ESPN.com and the ESPN app.

START MY 7-DAY FREE TRIAL

Then \$4.99/mo. Cancel Anytime. Subject to [terms](#).

Sports Services

- **NBA League Pass**

Price: \$199.99/year, or \$119.99/year for the single-team plan.
Individual games can be ordered for \$6.99 each

- **NHL.TV**

Price: \$139.96/year or \$24.99/month, or \$111.96/year for the single-team option

- **MLS Live**

Price: \$74.99

- **FuboTV**

Price: \$9.99/month

Streaming Services Cost

➤ Netflix

- Basic - \$9/mo
- Std with HD - \$13/mo
- Premim - \$16/mo

➤ CBS All Access

- Limited commercial -\$6/mo
- Commercial-free -\$10/mo

➤ Hulu

- Monthly plan - \$8/mo
- Commercial-free - \$12/mo

Streaming Services Cost

➤ Amazon Prime Video

- Monthly - \$9/mo

➤ Starz

- Monthly Plan - \$9/mo

➤ Showtime

- Monthly plan - \$11
- Commercial-free - \$12

➤ HBO Now

- Monthly plan - \$15

➤ Sling TV

- Monthly plan - \$25

Streaming Services Cost

➤ Hulu + Live TV

- Monthly - \$40/mo

➤ DirectTV Now

- Monthly Plan -\$40/mo

➤ YouTube RV

- Monthly plan - \$40

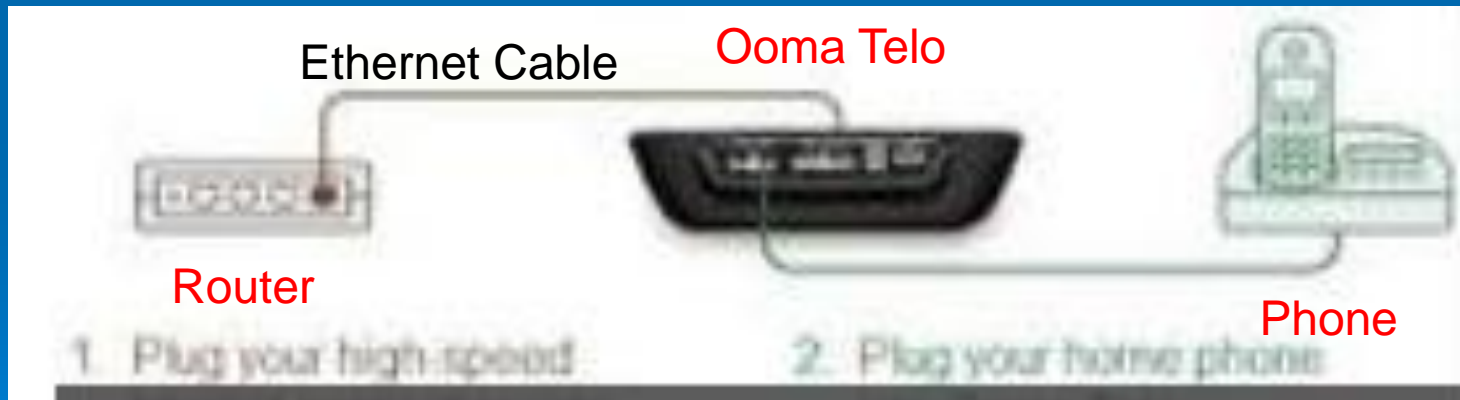
➤ Fubo TV

- Monthly plan - \$45

➤ Play Station Vue

- Monthly plan - \$45

Ooma Telo

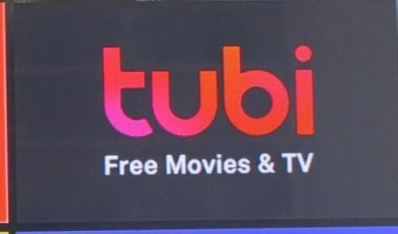


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Home Your Videos Movies TV Shows Apps Settings [^]

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