

Connectivity – a la carte

Turmoil in internet services and
How You Might Save Money by “Cutting the Cord”

Loring Green
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The New Connectivity Environment

“We’re not in Kansas anymore”

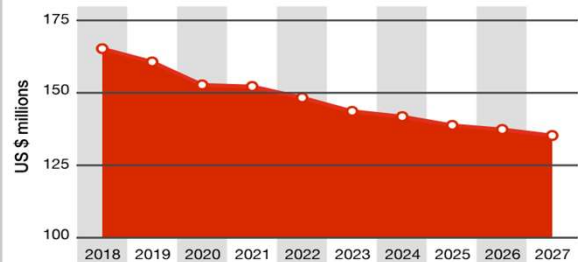
- Traditional Cable (linear TV) is losing hundreds of thousands of subs every month, 11% this year
- < 30% subscribe to a live TV service, net loss 8%
- 2 main factors - 5G Networks and new viewing habits
- Similar decline in print media, similar reasons
- Cell phones & tablets are mobile computers, changing uses
- Some costs are dropping, some are increasing
- “A la carte” means you’ll buy only what you’ll use and want

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Declining revenue for traditional TV



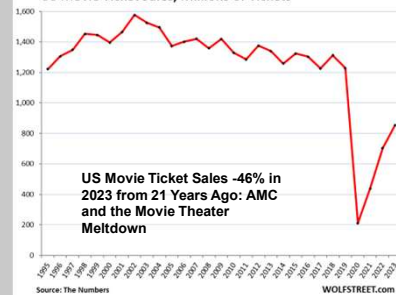
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Streaming

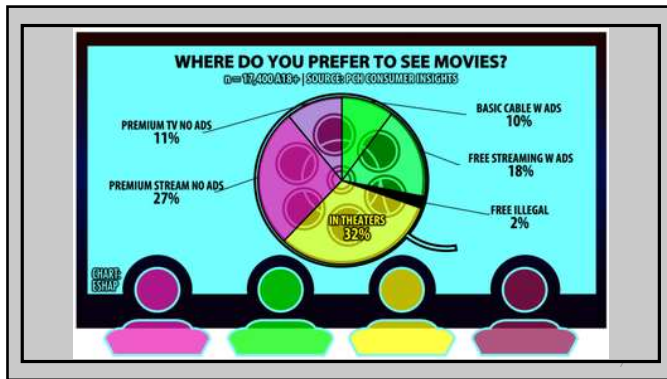
- Entertainment provided on demand vs linear
- Vast libraries of movies & TV shows, new and old
- Truly free or close to it PBS Passport, Kanopy, Hoopla
- “Free” with ads ... many options
- Free with voluntary support - Patreon
- With monthly subscription, w/ and w/o ads Netflix, YouTube, et al

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US Movie Ticket Sales, Millions of Tickets



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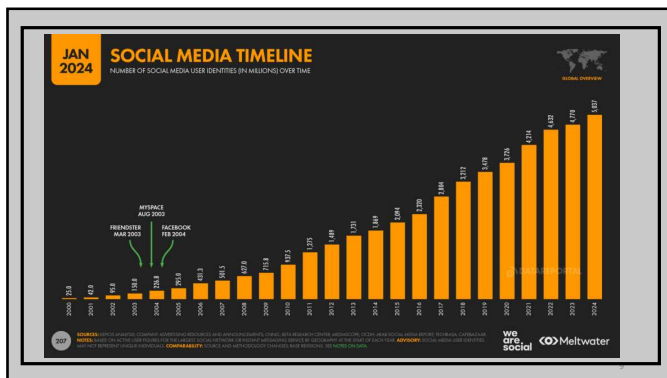


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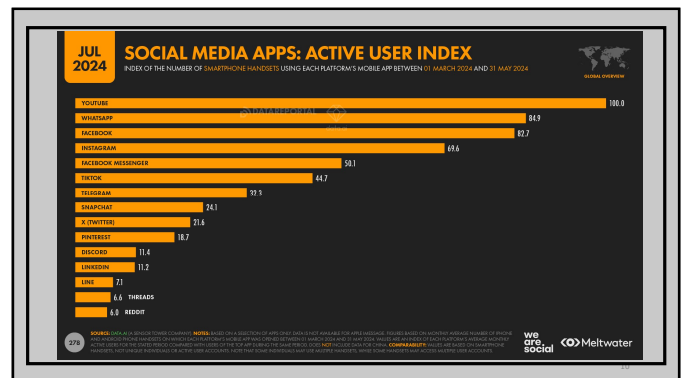
User Generated Content (UGC)

- Social Media - Facebook and Instagram to TikTok & YouTube
- YouTube's business model
 - YouTube - 300,000 hours, 200 million hours, 46 minutes
- Content producers, cat videos vs pro content
- Blogs, reviews
- Attractive/Addictive
- YouTube Premium ~\$15/mo

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Who are the Cord Cutters?



- All users: 58% Traditional Cable subscribers, 42% Cutters
- Cable Subscribers are Boomers and Gen X (44 plus)
- Cutters are Millennials, et al (43 minus)
- Live TV (B'cast + cable) represents <50% of all "screen time"
- The rest is streamed on demand or UGC, esp Gen Z

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What's in the traditional cable package from Cox or Comcast/Xfinity?

- Internet access
- plus
- A live news and entertainment package
- plus
- A landline, maybe
- Called a double or triple play.
- These legacy plans are way overpriced
- You might also have an unrelated streaming (on demand) account

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The Old and New of Our Connectivity

Internet, TV and Landline (Xfinity Triple Play)	\$240+/mo.
Two Verizon cell phones 4GB shared data	<u>\$115+/mo</u>
	\$355+/mo
Xfinity Connect More (internet) 300 Mbps	\$35/mo.
YouTube TV (TV)	\$80/mo
Ooma Premium (landline)	\$10/mo
Xfinity Mobile (2 cell phones)	<u>\$62/mo</u>
	\$187/mo

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The 5 Steps

1. A new "Operating System"?
2. A cheaper/better internet access provider?
3. Another source for live entertainment (TV)
4. Cheaper/better on demand content (streaming)?
5. Will a UHD antenna do it free?

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Why Bother?

- The \$ ☺ >\$100/mo
- One size does not fit all
- User Generated Content (UGC)
- Find your niche, one man's junk ☺
- Flexibility – Seasonal sports - On/Off
- Special interests - tennis, golf, Olympics
- Water well drilling?

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3 ways to look at Cord Cutting

- "I know and like my cable package, cost is not the issue. I want content and convenience without the hassle."
- "I'll take the time to learn how to cut the cord, I expect to save at least \$100/mo., but I plan to "set it and forget it."
- "I'll cut the cord and continue to monitor this dynamic environment to reduce costs and only pay for services when I use them."

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The Quick Links

- 50+ Links to many services you might find useful
- Links to 3 Cord Cutting advisory services
- The 4 links labeled "Very Useful"
 - Where antenna reception is good/bad in Tucson
 - Who provides the service for MVNOs
 - Which Live TV service provides the content you want, plus ☺
 - Test your connection speed

Coming to your inbox this evening ☺

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Questions so far?

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The Process of Cord Cutting

1. Review your current cable bill – Costs, Contract? Buy out price? Live chat for details, Negotiate by phone
2. Get quotes from other providers for Internet only
3. Decide what you must have and where to find it
4. Buy (maybe) a basic streaming stick –Roku or Amazon Fire, other
5. Try out Live TV service still connected to cable DECIDE Y/N
6. Cancel your cable package online, return the box and remote
7. Buy other services, avoid contracts, but for the right price
8. Continue to check for changing features, charges and incentives

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The 5 Steps

The decisions you'll make
Some providers will stay the same, just cheaper. 😊

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Step #1 – The OS or User Interface

2 choices: Native to the TV and External

Some smart TVs are smarter than others 😊

Really smart TVs can use native interface

- Connected to the internet
- Have built-in voice commands
- Use a built-in OS installed by the TV maker
- Cable box and cable remote no longer needed
- Use the remote that came with the TV, for better or worse
- No more hardware to buy
- Maybe less flexible and less user friendly than external devices

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Not so smart TVs – No Voice

- New hardware to control the TV – Streaming stick
- This replaces your cable box and remote
- Controls the user interface
- Roku Express 4K and Amazon Fire TV 4K
- A one-time expense \$25-\$75 Frequently on sale
- A little box or dongle and a voice remote
- Includes access to lots of free stuff



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A Good Basic Device



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Roku vs Roku TV vs modern smart TV

- The Roku device makes any TV with HDMI, a modern smart TV
- A Roku TV is a TV that has the Roku operating system installed
- A modern smart TV has one of a number of OSes installed
- Other operating systems sold as Android, Google, etc
 - Majors have their own, others share

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Step #2 - Access to the Internet

- Cable – Cox (Tucson) and Xfinity (Pima County)
- 5G Network – Verizon, T-Mobile & AT&T, maybe - 100 Mbps 5G modem Test with OOKLA
- Secondary providers, Starlink, Century Link/DSL, Fiber, Direct/Dish
- You'll probably stay with your current provider, but unbundle & re-negotiate
- Subsidized access for seniors and low income
- Put all your connection charges on one credit card and watch carefully
- When/if you get a discount, there will be a date when you go back to full rate.

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About Internet Speed (Bandwidth)

- Measured in megabits per second Mbps
- Two measurements, download and upload in that order
 - Download is when you are receiving files from the internet 100Mbps+
 - Upload is when you're sending files 8-20 Mbps
- Speed is not the only thing, daytime vs evening
 - How steady is it?
 - Congestion on cable or tower
- Low bandwidth – text, audio, numbers, browsing
- Medium bandwidth – pictures, video, Zoom, movies
- High Bandwidth – Gaming, 4K movies, multiple users

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How much internet speed do I need?

0-5 Mbps	5-40 Mbps	40-100 Mbps	100-500 Mbps	500-1,000+ Mbps
Works for:	Works for:	Works for:	Works for:	Works for:
<ul style="list-style-type: none"> • Checking email • Streaming music on one device • Searching on Google 	<ul style="list-style-type: none"> • Streaming video on one device • Video calling with Skype or FaceTime • Online gaming for one player 	<ul style="list-style-type: none"> • Streaming HD video on a few devices • Multiplayer online gaming • Downloading large files 	<ul style="list-style-type: none"> • Streaming video in UHD on multiple screens • Downloading files quickly • Gaming online for multiple players 	<ul style="list-style-type: none"> • Doing a lot of almost anything

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Step #3 - Live Content Providers

- This can be the most expensive puzzle piece, but very flexible
This is the piece that replaces your Basic or Premier content package on cable – Turn On/Off
- Ad supported – Free, hundreds of channels, with your stick and/or antenna
- Budget - limited channels, no local stations, some sports - \$10-\$40/mo
 - Sling TV, NOW TV, Philo, Frndly, Peacock
- Full featured – Local Channels, Cable News networks, RSNs
 - YouTube TV, Hulu Plus, Fubo Unlimited Cloud DVR - \$70- \$90/mo
- Quick Links - use "Suppose", read "How it Works"

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Step #4 - Streaming (on demand)

- If you have a Netflix, etc account, this decision is already made
- Stream unlimited movies and TV shows on any device
 - Free with ads: Freevee, Tubi, Pluto TV, many others
 - With subscription w/ or w/o ads: Netflix, Prime Video, Hulu, Apple TV, et al Free, Rented or Purchased
- Movie buffs - watch for bundles, watch Kanopy to save
- Individual profiles for each user
- Download shows to watch anywhere, any time, any device
- Don't usually involve contracts Turn On/Off

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Streaming –Ads or no Ads? It depends

Streaming Service	Cost with Ads	Cost without Ads	Est. Minutes of Ads per Hour
Netflix	\$6.99	\$15.49	4
Hulu	\$7.99	\$17.99	8-12
Disney+	\$7.99	\$13.99	4
Paramount+	\$8.00	\$12.99	4
Max	\$9.99	\$16.99	4
Peacock	\$7.99	\$13.99	5

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Step #5 - OTA and Home DVR

Over The Air = Broadcast = Antenna

- Free local stations plus hundreds of other channels
 - User interface takes some getting used to
 - Good combo with streamers and budget live content providers, Philo
- An indoor antenna – One time cost \$25 - \$100
 - Easy to install
 - w/ and w/o amplifier - Mohu Leaf
- Reception is variable
 - In town, great! – Foothills, OV, not so much ☹️ LOS to Mt Bigelow
 - Cheat sheet for a Coverage Map
- OTA has no DVR
 - Available on Amazon and apps and external hard drive



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Questions on the 5 Steps?

Coming up, Phones, cell and land line

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Break Between Sessions

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Connectivity – a la carte Second Session

You could
save 20
Benjamins
in the next
year!!



(If you're overpaying
Comcast and Verizon by
as much as we were.) ☺️

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Review

The 5 drivers of Cord Cutting

1. Cost! – packages vs a la carte
2. New Viewing habits
Anywhere, any time, any device
3. 5G Internet from cell towers
Finally, competition for the cable, portable
4. Streaming movies and TV vs theaters
An old lady in a new dress
5. UGC/Social media
Some completely new creature

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The 5 Steps of Cord Cutting

1. Select an operating system/User Interface
Native to TV or external (Roku)
2. Select an internet access provider
Cable, 5G, satellite
3. Select a live content provider
Replaces cable content package, on/off
4. Select an on demand content provider (streaming)
Movies and TV shows on your schedule, on/off
5. OTA and the Antenna Choice
For live content that is local and free

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Peacock	\$7.99	\$13.99	5

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Cell Phone Service Providers

- MNOs - Mobile Network Operators
 - Verizon, T-Mobile & AT&T - own and operate the towers
 - Quick Links for rankings by RootScore Reports
- MVNOs - Mobile Virtual Network Operators
 - Xfinity Mobile, Cox Mobile, NOW Mobile, Mint, Boost, Visible and others
 - They buy bulk time from the MNOs
 - Do sales, billing, customer service, etc.
- 5G about 10X as fast as 4G and can compete for your internet
- If you have an MNO preference, use the Quick Links
- Packages for market niches, int'l, travelers, seniors, low income

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Cell Phones (cont.)

- When shopping for a new phone provider look for:
- Special deals for a new phone, cash cards, autopay, other incentives vs contracts
- Want a new device or BYO? Compatible? CDMA vs GSM
- Price? prepaid vs post paid, short vs long term monthly charges
- Preferred MNO?, speed, coverage and service
- Check the Quick Links for the MNO and the fine print behind each service

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Cell Phones (cont.)

- Switching? – line up your ducks
- Carefully read your statement, what are all the charges?
- Are you subject to a contract? How much longer? Buy out cost?
- Live chat to understand details, print chat when finished
- What are your current features? Unlimited talk and text is basic
- Unlimited data vs limited vs no data, overage charges
- How much data needed for Google Maps, etc
- Hot spot? Sharing to computer or tablet when traveling

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Land Lines (If you still have one 😊)

- Copper wire is going to internet based in 2025 – VoIP
- Demand for landlines dropping, cost, features, 5% left by 2030
- Many providers of VoIP services, many more features
 - Spam/scam filters, various types
 - Can listen to vmail anywhere
 - One time purchase of hardware
 - Free to \$20/mo (fees apply)
- Check the Quick Links for reviews and providers

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Any Questions/Comments on Phones?

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Tips for the Active Cutter

- Sports coverage is a chance to save or spend a lot, on/off
- Take advantage of free trials
- If there's a show you must see, subscribe for one month, w/ ads
- Some services allow various forms of sharing, legally
 - Beware of password sharing
- Pause or cancel services that are not being used
- Don't pay for more speed/data/features than you use
- Change speed/data/features, up or down, as your needs change

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NOW -Xfinity's answer to 5G

- NOW Home Internet – 2 speeds, 100 and 200Mbps, \$30/\$45
 - Gateway included, no hidden fees , only sales tax
- NOW TV – 40 Channels, No local networks, No PBS, \$20/mo
- NOW Mobile – Unlimited talk, text and data \$25/line/mo, plus \$25/line setup
 - On the Verizon network ☺ No higher speeds, aimed at home users, that's us! ☺
- NOW Mobile and/or NOW TV must have Now Home Internet

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A Great Package on Xfinity

For a "Cable Replacement" package plus phone(s) with no commitments:

NOW Internet @ 100 Mbps	\$30/mo.
NOW Mobile Unlimited TT&D	\$25/mo.
YouTube TV	<u>\$75/mo.</u>
Total/mo.	\$130

COX may not have a similar package yet, but will have to compete, so stay in touch for current offers. 5G? Satellite?

For two users, Internet @ 200 Mbps, YouTube TV and two mobile lines, \$170/mo. WOW! Set it and forget it. ☺

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So...How much should you pay for ...

- | | |
|------------------------------------|-----------------|
| 1. Streaming Sticks, Roku, etc | \$30-80 once |
| 2. Internet access @100-300 Mbps | \$30-50/mo |
| 3. Live Content, YouTube TV, etc | Free -\$80/mo |
| 4. Streaming services Netflix, etc | Free - ?? |
| 5. OTA Live local w/ antenna | \$20-\$100 once |
| 6. Cell Phones unlimited TT&D | \$20-30/mo |
| 7. Land Line | Free-\$10/mo |

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After all this, you might say:

"But I don't want to build a watch,
I just want to know what time it is."



The disclaimer: These recommendations are made without knowledge of your situation and preferences, but we have to start somewhere. ☺

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The 5 Recommended TV Steps

- Step # 1 Buy and install a Roku Express 4K Plus Streaming stick
 - Step # 2 Cancel your current cable plan and continue with that internet provider with no more than 200 Mbps internet access
 - Step # 3 If you live in a poor antenna area, use YouTube TV for live local stations, sports and news. Install the PBS app
 - Step #4 If you don't already have an account, use Netflix for streaming as a starter, Amazon Prime second
 - Step #5 If you live in a good antenna area, buy and install a Mohu Leaf antenna for local stations, sports and news
- If you get stuck, look for a YT video on the topic by MichaelSaves on the Quick Links

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The Recommended Phone Steps

- Cellphones: Verizon as the MNO or MVNO
 - Unlimited TT&D
 - Hot spot
- Landline: VoIP by Ooma Telo
 - Robocall filters
 - Other features

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Installing a Roku Device

Watch the Link to the video on the cheat sheet: Basic Roku orientation

1. Select an HDMI port, note the port #
2. Plug the included HDMI cable into the port and into the box
3. Connect the USB cable to the box and a power source
4. The setup process will start, select your Wi-Fi network, provide password
5. Add apps now or later and ENJOY!

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Summary

- The process isn't as daunting as it seems, just go one step at a time
- Legacy cable packages are grossly overpriced, but they are familiar
- Connectivity was one pricey size to fit all, now it's "a la carte"
- Buy only what you want, and only when you'll use it
- This is a rapidly evolving and very competitive landscape, finally!
- Cutters come in two species: Passive and Active
- Bill Jackson is offering another class, it's excellent, and different
- Careful shoppers and managers will be well paid for their effort

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Questions/Comments?

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Antenna Coverage Map

- What channels will you receive on an antenna at home
- [DTV Reception Maps | Federal Communications Commission](#)

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Who can provide Live TV

- Who offers the best price and features for what you want
- [Suppose | Compare Streaming TV Services](#)

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Providers for MVNOs

- Which MNO is providing the service for each MVNO and what's in the fine print?
- [List of mobile virtual network operators in the United States - Wikipedia](#)

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Antenna Installation

- Use the TV reception map
- Evaluate the available antennas
 - With or without amplifier
- Remember: Need to change source



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Speed Test Site

- Testing to be sure you have what you need and have paid for
- Test in the evening in residential areas
- [Speedtest by Ookla - The Global Broadband Speed Test](#)

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I encourage you to take the Cord Cutting journey.

Many have gone before you.

The trail is well marked.



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One Time Expenses so Far

- Roku Express 4K Stick \$40
- Ooma VoIP \$70
- Antenna \$70