

# 1. What type of signal

## a. Analog vs Digital

### Analog TV

- Transmitted similarly to radio.
- Subject to interference, such as ghosting and snow.
- Color wasn't added until 1953.

### Digital TV

- Transmitted as data bits of information, like computer data.
- The signal is composed of 1's and 0's.
- No gradual signal loss as the distance from the transmitter increases.

The **Digital Television Transition and Public Safety Act of 2005** is a [United States Congress](#) legislation enacted on October 20, 2005. This act deals with the cessation of the broadcasting of [analog television](#) and the subsequent implementation of [digital television](#). This transition took place on June 12, 2009, which had been scheduled for February 17, 2009.

George W. Bush

The **DTV Delay Act** February 11, 2009

The **American Recovery and Reinvestment Act of 2009**

Barack Obama

**Switch over date: June 12<sup>th</sup>, 2009**

**Numerous issues / delays**

**Last Analog TV Broadcast – Alaska -- July 13th, 2021**

**The only signals we receive now are digital.**

## **2. What is “STREAMING”**

**Streaming is the term used when your digital device receives a digital signal from a source.**

### 3. What is a “SMART” TV?

#### Has the Wi-Fi receiver is built in.

A **smart TV**, also known as a **connected TV (CTV)**, is a traditional **television set** with integrated **Internet** and interactive **Web 2.0** features that allow users to stream music and videos, browse the internet, and view photos.

Smart TVs are a **technological convergence** of **computers**, **televisions**, and **digital media players**.

#### You can operate with only the power cord going to the wall.

Requirement: **Internet Download (WiFi) with 5Mbps**

[Speedtest by Ookla - The Global Broadband Speed Test](https://www.speedtest.net)

<https://www.speedtest.net>







**Cox cable basic plan**

**Download speeds – 110-120 Mbps**

**Upload speeds – 5-6 Mbps**

# Evolution of the Television

Revolves around the input connections and how many electrical outlets you need

	Port	Purpose	Quality
	HDMI	Video/audio/computer	Best
	DVI	Computer	Better
	VGA	Computer	Good
	Antenna in	OTA TV	Better
	USB	Incidental	N/A
	Ethernet	Internet	N/A



Ex-Link

Samsung updates

N/A

## 4. How do we get the digital signal (What are the sources?)

### a. TV station broadcast signals

Technical Information						
Channel	Call Sign	Network	RF Channel	Distance	Direction	Magnetic Signal (dBm)
3.1	KTVK-DT1	IND	24	25	260°	-43.83
5.1	KPHO-DT1	CBS	17	25	260°	-41.15
8.1	KAET-DT1	PBS	8	25	260°	-46.37
10.1	KSAZ-DT1	FOX	10	25	260°	-45.57
12.1	KPNX-DT1	NBC	18	25	260°	-49.61
15.1	KNXV-DT1	ABC	15	25	260°	-44.02
15.2	KNXV-DT2	CW	15	25	260°	-44.02
33.1	KTVW-DT1	UNIVIS	33	25	260°	-45.83
39.1	KTAZ-DT1	TELEMUND	29	25	260°	-44.56

### b. Cellular Towers

2 – Next to the Golf Course Club House

Controlled by Telecom Industry

Some Telecom's offer to be your ISP

(Internet Service Provider)

Cost and availability vary greatly

## c.Cable – Cox Communications

**Note: Sunland Springs wired for cable**

### Cable History

1. Analog - plugged directly into TV
  - a. Splitters allowed numerous TV's for same cost.
2. Analog w/ Cable Boxes
  - a. For special channels (example HBO, Pay per view) - each TV required a Cable Box
  - b. Still plug in regular TV to get the cable stations



3. Digital Cable Boxes
  - a. Must have a Cable box for each TV
  - b. High Definition Channels now available
  - c. Internet Access now available – Need Router / Modem
  - d. Telephone (VOIP) now available – Need Router / Modem



## **Problem with Cable Now – COST**



**Cable fee – local stations**

**Specialty channels**

**Cable Box fee - rent**

**Remote fee - rent**

**Router fee - rent**

**Telephone (VOIP) fee - rent**

## **Why did the prices go up?**

**Media companies started charging cable providers more and more for the right to broadcast their stations.**

# **“CUT THE CORD”**

**The national media companies now control television and not your local community.**



# How do I get my local channels?

Digital Antenna

Cable Box

Applications — using the WiFi Antenna

## Note: Locast.org

Local stations are required to broadcast free.

Locast.org placed these free stations into an app for local markets.

All the local station cable showed were on the app.

Started in January 2018 – expanded to 35 markets

Charged \$5.00 per month donation.

August 2021 – ABC, CBS, NBC and FOX sued.

September 2021 – Locast.org was shut down.

## Free Sites

Here are some **free TV streaming apps**:

- **Tubi**: Best Overall for Free TV and Movies 55+ channels 50,000 movies
- **Pluto TV**: Best for Free Live TV Channels 250+channels
- **Crackle**: Best for Free Movies 360+ TV Shows 3600+ movies
- **Freevee (formerly known as IMDb TV)**: 13,000 movies 2000+ TV Shows
- **NewsON**: Best for the News 270+ TV Local News 160 markets
- **Xumo Play** 190+ channels
- **Sling Freestream** 400+ channels
- **The Roku Channel** 350+ channels 80,000 TV Shows
- **Peacock TV** 3 tier service – Free, Premium, Premium Plus
- **Airy TV** 100+ channels

# Pay Sites

**YouTube TV**      100+ Channels      10 Local Channels

**Hulu + Live TV**      85+ Channels      7 Local Channels

**Fubo**      280+ Channels      8 Local Channels

**DirectTV Stream**      150+ Channels      7 Local Channels

**Sling TV**      45+ Channels      3 Local Channels

**Amazon Prime**      **10,000 movies**      **Live TV**      **Thursday Night Football**

## Reduce Costs:

### What it's like to use your own equipment

Here are some benefits and drawbacks to consider when using your own equipment:

#### Pros of bringing your modem

- A wider variety of equipment to choose from for every budget.
  - Purchase a new modem whenever you want.

#### Cons of bringing your modem

- Device support is limited to equipment rented/purchased from Cox.
  - Installation, maintenance and upgrades may be expensive.
    - You'll need both a modem and a router.
  - None of the free perks included with Panoramic Wifi:
    - Advanced Security—helps to protect devices connected to your network
    - Upgrade Commitment—free equipment upgrades every three years
    - Panoramic Wifi app—manage your Cox wifi network, change wifi settings and more.

See more [benefits of renting a Panoramic Wifi gateway](#).

#### [Cox Certified Cable Modems](#)

<https://www.cox.com/residential/support/cox-certified-cable-modems.html>

