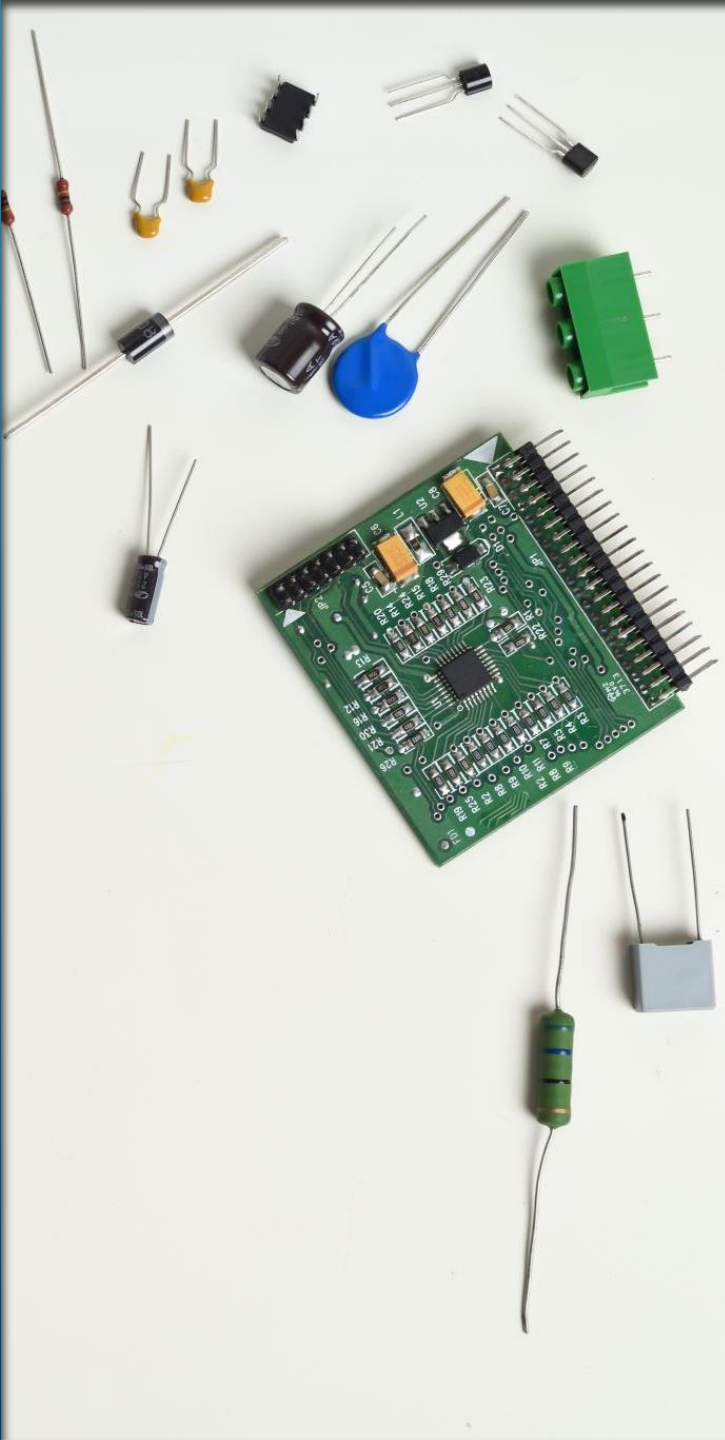# INTRODUCTION TO LIVESTREAMING

Presented on May 17, 2023 by Andrew Porter, Dennis Tkalec, Pastor Rylan

ABOUT US

- Andrew currently manages the Information Systems department at the Guam Seventh-day Adventist Clinic

- Dennis is a Systems Analyst at the Guam Seventh-day Adventist Clinic

- Pastor Rylan Kuartei is the Lead Pastor at Agana Heights Seventh-day Adventist Church

WHY STREAM?

- Reach people around the world
- Sick or homebound members
- Stay connected with members after they relocate
- Sharing tool
- Overflow seating
- Friends and family who can't attend in person
- Consider negative impacts
  - Low quality / reputation
  - Privacy

WHAT TO STREAM & WHAT TO KEEP?

▸ What to stream?

  ▸ Church service

  ▸ Sabbath school kids programs

  ▸ Special events: weddings, funerals, seminars, baptisms, dedications, etc

▸ What to keep or post online?

  ▸ Just the sermon vs whole service

  ▸ Can trim after the live event

▸ Copyright Considerations

  ▸ https://us.ccli.com/streaming/

  ▸ https://christiancopyrightsolutions.com/worshipcast/

WHAT DO YOU NEED TO GET STARTED?

- Internet connection
- Device with a camera
- Streaming destination
  - Free / low cost options
    - Zoom
      - Free version has a time limit
      - Can get discounted licenses through GMM
    - Facebook
    - YouTube
  - Advantages of a paid streaming destination
    - Maintain control
    - Avoid unexpected ads
    - Lower risk of copy right issues
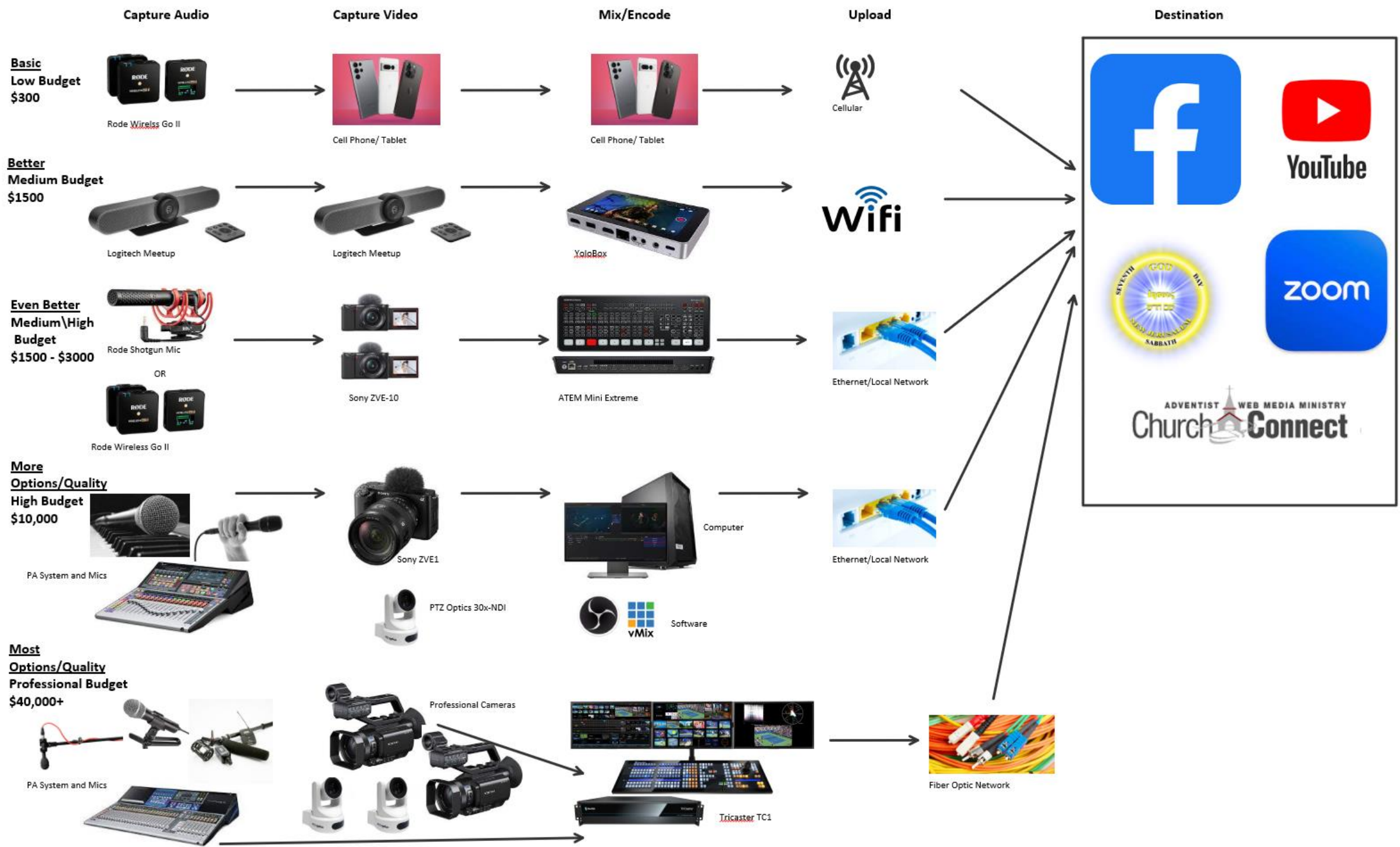
DEFINING REQUIREMENTS

- Budget
  - Low: $300
  - Medium: $1500
  - Medium/High: $3000
  - High: $10,000
  - Professional: $40,000+
- How many viewers?
- How much bandwidth?

Video Quality	Absolute Minimum Upload Speed	Recommend X 1.5 Upload Speed
720p (SD)	3.0 Mb/s	4.5 Mb/s
1080p (HD)	5.0 Mb/s	7.5 Mb/s
1440p (4K UHD)	25 Mb/s	37.5 Mb/s

- How many cameras?
- Crew size and skill level

Capture Audio | **Capture Video** | **Mix/Encode** | **Upload** | **Destination**

Basic
Low Budget
$300

Rode Wirelss Go II

Cell Phone/ Tablet

Cell Phone/ Tablet

Cellular

Better
Medium Budget
$1500

Logitech Meetup

Logitech Meetup

YoloBox

WiFi

Even Better
Medium\High Budget
$1500 - $3000

Rode Shotgun Mic

OR

Rode Wireless Go II

Sony ZVE-10

ATEM Mini Extreme

Ethernet/Local Network

More
Options/Quality
High Budget
$10,000

PA System and Mics

Sony ZVE1

PTZ Optics 30x-NDI

Computer

Software

Ethernet/Local Network

Most
Options/Quality
Professional Budget
$40,000+

PA System and Mics

Professional Cameras

Tricaster TC1

Fiber Optic Network

ADVENTIST WEB MEDIA MINISTRY
Church Connect

Capture Audio	**Capture Video**	**Mix/Encode**	**Upload**

Basic
Low Budget
$300

Rode Wirelss Go II → Cell Phone/ Tablet → Cell Phone/ Tablet → Cellular

Better
Medium Budget
$1500

Logitech Meetup → Logitech Meetup → YoloBox → WiFi

Even Better
Medium\High
Budget
$1500 - $3000

Rode Shotgun Mic

OR

Rode Wireless Go II → Sony ZVE-10 → ATEM Mini Extreme → Ethernet/Local Network

Rode Wireless Go II

PA System and Mics

Sony ZVE1

PTZ Optics 30x-NDI

Computer

Ethe

Software

vMix

Professional Cameras

PA System and Mics

Tricaster TC1

AUDIO

▶ Listen to your audio!

▶ Audio is most important, more important than video

▶ Mic placement is the biggest factor in getting good audio the closer the better

▶ Not all mics are created equal, different qualities, different purposes

▶ Live stream audio is different than front of house audio

    ▶ Can have a dedicated mixer

DESTINATIONS

- Zoom
- Facebook
- YouTube

- Adventist Church Connect
  - Plans starting at $24.95 per month
  - https://www.adventistchurchconnect.com/help/knowledge-base/live-streaming
- Sealing Time Ministries
  - Adventist supporting ministry, Streaming starting at $15 monthly
  - http://www.sealingtime.com

STATISTICS & FEEDBACK

- Why count?
  - See if the ministry is reaching people
- Feedback
  - Live feedback regarding broadcast problems
  - Interaction during the event
- Statistics
  - YouTube / Facebook

ARCHIVING & DISTRIBUTION

- Where to post the videos?
    - Your web or streaming hosting provider
    - Vimeo
    - YouTube
    - Facebook
- Podcasting
- Thumb drives
- Backups
    - What if you lose account access?

OTHER THINGS TO CONSIDER

- Projector display on site (closed circuit)
- Presenter content (slides, scripture, movies)
- Physical installation (mounting, cabling, work area)
- Lighting
- On going support & maintenance
  - Keep it simple
- Staff training & scheduling
  - Camera operator best practices

QUESTIONS?

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Additional Resources:

▸ For more technical details and to download this presentation: http://headbackup.com

▸ Adventist Church Connect Resource document:

   ▸ https://www.adventistchurchconnect.com/file/49/Live+Streaming+for+Beginners+Document.pdf