Table of Contents

1 T3 Findings

1.1 Survey Items

1.1.1 Movie Nights

The survey suggests the community is interested in movie nights. Comcast business does not offer business DVR or On Demand. They only offer special events like sporting events. We basically watch live TV. Swank was contacted and the pricing and interaction suggests that movies may be viable. The license requirements need to be investigated and then events planned. If a committee forms with a reasonable startup plan, funds may need to be allocated.

See Background and Details section for more information.

Recommendations: Solicit membership for committee interest.

1.1.2 Live Music

The survey suggests the community is interested in live music. The license requirements need to be finalized and then events planned. There are some PDF files on the topic and these are associated links http://www.ascap.com/mylicense or http://www.ascap.com. If a committee forms with a reasonable startup plan, funds may need to be allocated.

Recommendations: Solicit membership for committee interest.

1.1.3 Website

The survey suggests the community is interested in a website. The issue is how to implement the website. See Background and Details section for more information.

Recommendations: Solicit membership for committee interest.

1.1.4 Board Room Monitor

As part of the survey response the community is not interested in a Board Room Monitor. It could be because the question was phrased incorrectly and suggested a TV for the Board Room.

Recommendations: Board decision.

1.1.5 Other TV Locations

As part of the survey response other TV locations were suggested: Arts & Crafts Room and Pool Room.

Recommendations: None.

1.1.6 Exercise Room

As part of the survey response the community is interested in possible technology upgrades for the Exercise Room.

Recommendations: Solicit membership for committee interest.

1.1.7 Other Items from Survey

There is an interesting suggestion to add a Wii Gaming system to the TV in the Grande Ball Room. There are various Wii group activities that community members may want to investigate if given the opportunity.

Recommendations: Solicit membership for committee interest.

2 Board Items Considered Not In Survey

2.1 Grande Room TV

The TV in the Grande Room was replaced in early 2018. An alternative would have been to consider a large screen and projector combination. However this alternative may have led to some lighting issues during daytime operations. It is unclear if a projector screen combination could offer reasonable quality.

As part of the TV installation it was connected to the sound system and various issues were discovered and partially corrected with the sound system. Various sound system manuals were located on the Internet and temporarily saved. The manuals were used to develop an instruction manual that is used to operate the TV and sound system. Hardcopy was placed on the credenza.

Recommendations: None

2.2 Security Cameras

Cameras can be placed at the clubhouse and or on the street community entrance exit points.

Recommendations: None

2.3 Motion Based Security Lighting

Motion based security lighting is different from constant lighting because some studies suggest that a motion lighting system will deter trespassers more often than constant lighting. Currently there is motion based security lighting in the outdoor pool area.

Recommendations: None

2.4 Grande Room Sound System

2.4.1 Reconfigure for Better Access

The Sound system is currently located inside the credenza. There is a safety heat issue especially if the credenza doors are closed. Also it is difficult to access the controls leading to possible bad settings that will cause users to become confused on how to proceed. The suggestion is to move the CD Player and Power Amplifier to the top of the credenza. This will allow users to easily insert CD's, control volume settings, and prevent the power amplifier from overheating.

The wireless microphone receivers and Yamaha mixer will remain inside the credenza because adjustments are rare and those pieces of equipment do not generate much heat.

Recommendations: Grant permission to move equipment as suggested.

2.4.2 Wall Mounted Speakers Installation

The speakers have been mounted on the wall. The primary issue is the hanging cables. The alternative is to move the speakers back towards the credenza and place them to minimize prevent microphone feedback, run the wires through the walls / attic, or purchase decorative wire runners from a building supply store.

There is an additional advantage associated with sound quality by moving the speakers back to the credenza if the feedback can be removed by proper placement. Speakers need to be placed near the floor or all base frequency responses tend to be lost. This is our current situation. It is able to be compensated partially because this is a professional system meant to operate in a loud setting with 100-200 people. However the sound would be better if the speakers were placed closer to the floor.

Recommendations: Experiment with speaker placement. If speakers stay on the wall, purchase decorative wire runners and have volunteers install and paint as needed. Also see Wireless Speakers topic.

2.4.3 Wireless Speakers

This item addresses the Wall Mounted Speakers Installation wire issues. The approach is to purchase Wireless or Bluetooth powered speakers. This will mean the existing speakers and power amplifier will be retired. It could be stored and used for future outdoor activities or it could be sold. This is a professional system designed for commercial applications in a hall or club setting with 100-200 people.

If the system is replaced it needs to be replaced with the same quality commercial grade system. Specifications on the current system are available and they need to match or exceed those specifications. One of the key elements of a commercial system is its ability to produce about the same sound level at the far end, middle, and front of a room. This is accomplished with

transducers that move large amounts of air. This is why lesser systems sound good close to the speakers but then become completely silenced several feet away with just a few people in a room. Our TV is a good example. A few people in the Grande Room and the TV sound is okay. At a major event it is impossible to hear any TV sound. Midsized systems will be very loud near the speaker sources, offer bad sound quality in the middle of a room, and at the end of the room it just squeaks – there is nothing intelligible that can be heard.

The point is the solution needs to be a professional commercial grade solution that can accommodate a 100-200 person setting.

Recommendation: Ongoing research.

2.4.1 Replacement Cables and TV Connection

While going through the sound system to get the new TV audio connected, various broken cables and connectors were found. Also there needs to be a direct connection made between the TV and sound system.

See Background and Details section for more information.

Recommendations: Buy the list of recommended cables and converters.

2.5 Music Service

This involves introducing a better selection of music into the Club House and Pool Area. Currently the choice is Radio and CD player. It is unclear if external Bluetooth is available which would allow members to play music from their devices (smartphone).

This involves introducing satellite music or Comcast music. Comcast was contacted but a commercial account in our case will not allow for Comcast Music. This leaves Satellite Music as an option.

Recommendation: This is currently being addressed.

2.6 Portable Sound System

This involves purchasing a reasonable quality Bluetooth player that can be used in the game rooms or pool areas. It is a floating player available on a first come first serve basis.

Recommendations: Rejected.

2.7 Coordination of Grande Room and Building Sound Systems

This involves integrating the clubhouse sound system with the Grande Room sound system. The implication is that FM radio would be available in the Grande Room and any music or Microphone activity in the Grande Room would be available in the clubhouse.

Recommendations: Rejected.

2.8 Laptop / Computer for Public Access

This involves providing one or more computers in the clubhouse for public access. The issue is maintenance, who will take care of the computer(s). Also it is assumed that every household now has access to a personal computer. It has become a standard appliance.

Recommendations: Rejected.

2.9 Laptop / Computer in Board Room

This involves providing a computer for official Board access. It would be used to store HOA records and provide a website maintenance area. It could be located in the locked office area or the reception desk area.

Recommendations: Rejected.

2.10 Server Based Network

This involves installing a server in the clubhouse to support official Board access. It would also be linked to the management company computer and allow for seamless file transfers.

Recommendations: Rejected.

2.11 Facebook / Social Media

This involves establishing a mechanism to monitor social media for adverse information about the community. It may also include establishing a social media presence.

Recommendations: Rejected.

2.12 Photo-Gallery

This involves maintaining an electronic photo gallery of events and members in various social settings. The primary issue is privacy especially as the years click by and people leave the community.

Recommendations: Rejected.

2.13 Connectivity of homes to Clubhouse Network

This allows homeowners to connect to a VGEM computer network infrastructure not unlike what exists in a work setting. The approach could be a dedicated server or a cloud service like Office365.

Recommendations: Rejected.

2.14 Telephone

The telephone lines were investigated. There are currently 6 lines. The goals is to reduce the number if lines. The issue is dedicated lines are needed for each pool (2), fire and security alarms (2), management company (1), HOA Board Use (1).

There may be an issue with the fire and security alarms where it might be better to go with a wireless approach for each and remove 2 of the dedicated telephone lines.

A conference room phone was also discussed but rejected because of issues associated with running cables.

Recommendations: Investigate wireless fire and security alarms.

2.15 Security System and Fire Alarm System

The security and fire alarm systems have been recently upgraded. They each use a dedicated telephone line. The issue is if the telephone lines are cut, a typical scenario, the alarms will become ineffective. This needs further investigation to determine what insurance requires and why the current approach was proposed by the current alarm company.

Recommendations: Call the alarm company and have them address the wireless versus wired issues.

2.16 HOA Data

This involves ensuring that HOA data is always available regardless of management companies, equipment failure, or disaster scenarios. It includes: Document storage and Retrieval, Converting Owner Files to - electronic Media, Community Data Bases.

Recommendations: Establishing a website may address all the issues except for Converting Owner Files to - electronic Media

2.17 Smart Thermostats

No one seems to be able to set the thermostats in the building correctly. This is leading to excessive ware on equipment such as fans and possible increased utility costs.

Recommendations: This is currently being addressed.

2.18 Smart Lighting

Smart lighting turns on and off based on activity. There are issues with these system where the lights turn off when least expected.

Recommendations: Rejected

2.19 Smart Locks

This involves placing smart locks on the outdoor pool area and tennis courts.

Recommendations: Continue investigation.

2.20 Technology Training for Membership

This involves allowing for technology training in the community. This was tightly coupled with a HOA computer asset but the HOA computer asset was rejected so this is somewhat irrelevant. Today people can offer classes at any time. This does suggest that without enabling equipment this will not happen.

Recommendations: Monitor.

3 Background and Details

3.1 Movie Nights

3.1.1 Umbrella Licensing

Umbrella Licensing allows for many movies to be shown during the license period, typically 1 year. Corporations make deals with individual studios for the use of their property and act as the intermediary to pass on the rights. The companies have different lists of what movie studios their umbrella license covers. These lists should be compared side-by-side when making a decision. Considerations are how many major versus minor studios are on the lists and if any of the studios have closed in the past few years. In general, Movie Licensing USA tends to cost more, but they have more major studios on their list. In both cases, the cost for the license is based on either community population or number of registered patrons or students. Movie Licensing USA part of Swank. Motion Picture Licensing Corporation

MPLC Annual fee is $325 for a senior center, we are not a senior center.

https://www.ncoa.org/national-institute-of-senior-centers/nisc-member-resources/movie-license
https://www.ncoa.org/wp-content/uploads/MPLC-2017-NCOA_NISC-Brochure-Application.pdf
(senior center application)

https://www.mplc.org (license)
http://library.mplc.org/wp-content/uploads/2016/12/Public-Libraries-Producer-List.pdf

3.1.2 Full Licensing

Full Licensing is paying a full licensing fee for a specific movie per showing. This is done by contacting individual studios or through companies that act as intermediaries. Prices for licensing one movie at a time usually runs in the hundreds of dollars. This is expensive if showing several films over the year, but it does have benefits. Full licensing allows for full advertising rights to use the name of the movie and the image of the movie poster in any marketing medium. The licensing corporations also provide a copy of the film. Swank Motion Pictures

3.1.3 COMCAST

Comcast business does not offer business DVR or On Demand. They only offer special events like sporting events. We basically watch live TV. This is the Comcast Info:

www.business.comcast.com
1-800-391-3000

Account:
1 Village Grande Road

Village Grande At English Mill
609-788-8405
Roxane Mellow

Everything triggers off phone number. Need to talk to sales to get viewing rights info. Someplace there is a contract that should also state the rights. Can we as a group of 50 people watch TV, On demand, DVR content. We currently only pay for TV.

Is Roxane Mellow still a valid account contact? If so perhaps she has the contract? Does Cynthia have the contract?

3.1.4 SWANK

The specific licensing fee for your event will vary based on the number of films you plan to screen throughout the year and your audience size. If you need a DVD shipped to you for your showing, please keep in mind that roundtrip shipping and handling is $28.

Licensed to use your own DVDs/Blu rays

For audiences of 50 people or less:

- 0-11 movies/year -- $140/title
- 12-23 movies/year -- $115/title
- 24-39 movies/year -- $95/title
- 40+ movies/year -- $85/title

For audiences of 51-100 people:

- 0-11 movies/year -- $190/title
- 12-23 movies/year -- $165/title
- 24-39 movies/year -- $135/title
- 40+ movies/year -- $115/title

When possible, license your movies at least two-three weeks prior to your screening to allow enough time to promote your event. After your movies are licensed, you will have access to digital images to promote your event. For our newest releases, we have images you can use on your Facebook page, your website or flyers.

Attached is our exhibition request form, which I will use to create an account for your organization, obtain billing information, and license your screenings. Please complete this at your convenience and return to me via fax or email. I've also included a New Customer information sheet, which details our policies.

When you are ready to move forward with your screenings, return the attached form and I can take care of the rest.

Thanks,

Kelly

Kelly Eldridge | Account Executive | P:800.876.5577 | F:314.909.0879 | Email: keldridge@swankmp.com

Swank Motion Pictures, Inc. | 10795 Watson Road | St. Louis, MO 63127 | United States of America | www.swank.com

3.2 Replacement Cables and TV Connection

While going through the sound system to get the new TV audio connected, various broken cables and connectors were found. Also there needs to be a direct connection made between the TV and sound system. Currently the cable box and DVD player is connected to the sound system. This takes up 2 channels instead of 1 on the sound system and does not allow a user to use the TV volume control to adjust the sound level. Freeing up 1 channel would also allow members to play music from their devices (smartphone) using Bluetooth or a direct interface.

We have lost our local retail outlets that carry these things, so when you need something it is problematic. The local Guitar shop has some items but they are very expensive. Walmart stock is sporadic, being phased out, and even their prices are high for these items. Bestbuys is a nonstarter because of the extremely high prices for the few cables they stock. I identified the local sources for each item.

Connect Numark CD to Cable Box and DVD or other future devices
6 ft RCA Audio Cable (Walmart $4.99?)
C2G/Cables to Go 40464 Value Series RCA Type Audio Cable (6 Feet, Black) $2.99 X 4
https://www.amazon.com/C2G-Cables-40464-Value-Audio/dp/B0019MGITK

RCA Female to Female Coupler Adapter (Walmart $5.00 for 2 not in stock I bought last pack)
Electop 10 Pack Audio Video RCA Female to Female Coupler Adapter Gold $5.69 X 1
https://www.amazon.com/Electop-RCA-Female-Coupler-Adapter/dp/B01CJ5SCGW

Connect external devices like computer or MP3 audio players
Male 1/8" Plug to RCA Stereo Audio Adapter
WAWPI 3.5mm Male 1/8" Plug to 2 Dual RCA Stereo Audio Adapter Y Cable Speaker Cord (6Feet(2pack)) $7.99 X 1
https://www.amazon.com/WAWPI-3-5mm-Stereo-Adapter-Speaker/dp/B01KUMO8GE

Connect Yamaha to Numark CD and other Input Devices
Mono Plug Male to RCA Female Audio Adapter (Guitar Shop $6.00 for 2 not in stock I bought

last pack)
10-PACK RCA Female Jack to 6.35mm (1/4inch) Mono Male Plug Audio Adapter, Gold Plated,
AV-A21K-10 $10.49 X 1
https://www.amazon.com/CablesOnline-10-PACK-Female-Adapter-AV-A21K-10/dp/B00WKFWG7S

Mono Plug Male to RCA Female Audio Adapter Right-Angle (none)
Hosa GPR-123 RCA to 1/4 inch TS Right-Angle Adaptors, 2 pieces $3.45 X 1
https://www.amazon.com/dp/B000068O3W

Connect Yamaha to Power AMP
XLR Male to RCA Male Cable Adaptor (Guitar Shop $35 +)
Monoprice 104778 10-Feet Premier Series XLR Male to RCA Male 16AWG Cable $13.94 X 2
https://www.amazon.com/Monoprice-104778-10-Feet-Premier-16AWG/dp/B009GURYL8
OR
Monoprice 104777 6-Feet Premier Series XLR Male to RCA Male 16AWG Cable $10.37 X 2
https://www.amazon.com/Monoprice-104777-6-Feet-Premier-16AWG/dp/B001VLW398
AND / OR
XLR Male to RCA Male Adaptor (none) Very handy to have perhaps buy these instead of above
cables, abandon above cable approach...
Hosa GXM-133 RCA to XLR3M Adaptor $7.99 X 2
https://www.amazon.com/Hosa-GXM-133-RCA-XLR3M-Adaptor/dp/B000068O4D

Connect TV directly to PA
A Digital Optical Coax to Analog RCA Audio Converter will connect the TV directly to the PA
System. This should allow the TV volume remote to control both the TV and DVD on the PA
system. Also the sync between the TV sound and picture might be better. There may be better
alternatives than these:

Digital Optical Coax to Analog RCA Audio Converter
ROOFULL Digital Optical to Analog Audio Converter, ... Converter Adapter (192KHz 24bit)
with Fiber and Coax Cable $13.95
https://www.amazon.com/ROOFULL-Digital-Optical-Converter-Toslink/dp/B07142SV1D
OR
Musou Digital Optical Coax to Analog RCA Audio Converter Adapter with Fiber Cable $12.59
https://www.amazon.com/Musou-Digital-Optical-Converter-Adapter/dp/B01AWBA8U8

Bluetooth Receiver To RCA Connectors

REIIE B06 APT-X HIFI Bluetooth APT-X Audio Adapter with 3D and DSP. $26.95

https://www.amazon.com/REIIE-B06-APT-X-Bluetooth-Adapter/dp/B079H9CBDP

3.3 Website

There are 2 broad approaches to establishing and maintaining a website:

- Use Volunteers
- Hire Someone including using an existing management company

When using volunteers there are 2 broad approaches they can use for website maintenance:

- Buy a Service and Use Their Framework, HOA data storage many not be available without management service
- Use tools to build and maintain the website and maintain HOA Data storage

There is a prototype website that has been developed based on the approach of using volunteers:

- www.cassbeth.com/vgem

3.3.1 Frameworks

The following are links to solutions that would use a framework. They tend to be all-encompassing solutions that include HOA + Community needs. This can be used by both the volunteers and someone for hire.

- www.hoa-sites.com
- www.hoa-express.com
- www.hoaspace.com
- www.athomenet.com
- www.home-owners-assoc.com
- www.ismynest.com
- www.associaonline.com
- www.doodlekit.com
- www.capterra.com
- www.capterra.com/hoa-software

3.3.2 Prototype

The following is the proposal that was offered in August 2017 for the volunteer based website. This is a follow-up to our discussion about a VGEM website. These are the things I am volunteering to do:

- Setup the website

- Add initial content
- Maintain content
- The website will be plain and minimalistic but functional
- Start / head up a website committee and train others
- If a committee takes off they can take the website where ever but first we get a stable platform and process in place
- I can walk away at any time and VGEM keeps everything (no IP claims)

So here is an overview of the process.

We need to register a domain name. I will use www.networksolutions.com. The cost is ~$30 per year. We will need to use a VGEM charge chard for the registration. It will be under the VGEM entity name. I will work with whoever has control of the charge card to show them how to find and register a name. People will suggest other companies, the answer is no because other companies claim IP ownership of the domain name and not allow the web hosting company to change if needed. Last I checked vgem.org was available, if not we will get a variant that has vgem and org.

We need a web hosting company. I use www.oneworldhosting.com. They cost ~$15 per month. Again we will need to use a VGEM charge chard for the registration. It will be under the VGEM entity name. I will work with whoever has control of the charge card to setup the account. People will suggest other companies, the answer is no because those other web hosting companies websites are blocked in work settings and they try to lay claim to IP.

Once the domain is registered we will setup the website account, probably the same day, I will then have the mechanism to start building a website.

The goal of the website is both social and business communications. Initially it will:

- Provide information on upcoming social events
- House previous social event presentations
- House the Grande Gazatte (this will NOT replace the physical paper)
- Perhaps house some community related info / links
- House the HOA bylaws
- Provide information on upcoming HOA meetings
- House the HOA Minutes
- House the budget info presented at the meetings

Shortly after initial setup:

- Previous content will be accessed and placed on the website

In the future it may include (when the committee is up and running, maintenance and privacy issues):

- Login services for private pages for pictures from social events
- Pictures from social events
- Ability for residents to upload official VGEM activities content
- resident@vgem.org emails
- The committee might want to get local businesses to pay for very limited advertizing, like being in a list of restaurants on the site
- Placing a computer in the clubhouse for people to update the website and visit its pages

A key website policy is that it will NOT replace the Gazette or any other form of paper that the community desires. It is in addition to the paper communications. I cannot stress enough the need for paper especially the Gazatte. If the paper goes away the organization will go away - this is my previous experience in multiple settings. In our case our community will fall apart and become a neighborhood of disconnected lonely people. The club house and paper in that clubhouse is key to everything good. The web site is a convenience and a library to serve our needs.

3.4 HOA Data

This is related to the Laptop / Computer in Board Room topic. The issue is how to ensure the HOA is able to easily access data and not lose data in the event of management company changes. If a website is established it can be used to house both public web pages content and private data content available only via File Transfer Protocol (FTP) services using a login mechanism. The data is not as secure as keeping it on a physical computer located in the Clubhouse but the risk may be tolerable. Especially since a computer in the clubhouse also can be compromised.

3.5 Laptop / Computer in Board Room

The office computer is not HOA property. The data is owned by the HOA and the contract has text to ensure the data gets transferred in the event of changes.

Initially NAS network access storage was described. This allows for local fault tolerant encrypted data storage. Put it in a locked on site closet. This was contrasted with cloud computing and recent major data loss and compromise on the cloud. However we cannot use NAS because we do not own the computer. We could ask Delucia to allow for a NAS. Once it is setup that may be the way to guarantee our data is always available. This is in contrast to connecting a HOA USB drive and having Cynthia drag over official electronic data.

A more detailed description of the situation is offered below.

This is some background on work setting computers:

- We are a nonprofit company (HOA) that decided to hire a subcontractor to perform certain functions as defined in the contract. The subcontractor staff is physically located on HOA property. In this scenario they use HOA facilities and equipment. HOA equipment includes phone, copiers, printers, faxes, and the computer?
- For subcontractor staff permanently assigned to a company location the computer is always provided by the company. This is a long established practice that traces to risk management. The subcontractor may be permitted to bring their company computers on site depending on security policies.
- If the subcontractor is offsite then the computer is their property and they would make official deliveries to the HOA in the form of paper and data. All final product official business data must be delivered to the HOA in a manner that the HOA can access and read including computer data files.
- Any intermediate work products can be on the subcontractor computers regardless of where they physically work. No work product content can be on personal computers unless approved by the HOA and subcontractor. Each must ensure the personal computer is properly secured.

This means that the HOA must be able to accept, control, maintain, and archive its data. If it fails to do this I suspect there are some serious legal ramifications. The question then is how to fulfill this responsibility.

If you give that responsibility to one of the subcontractors that also produces work products, then there is a conflict of interest. This translates to a potential compromise situation where data may be lost in a dispute.

So what can we do to maintain the HOA computer and data resources? At the highest level we can:

- Hire an IT sub-contractor / consultant
- Use volunteers as IT staff

In all cases proper procedures are in place and the staff sign appropriate documents to ensure security and privacy liability. Ideally the technology should be such that the IT staff are never able to see the data content. Data content is only accessible to those given that privilege. This brings up security. Most people are aware of the need to know and least privilege access rules. Most are not aware of the right to know. Most of the HOA data will fall into the right to know category. I would claim that even proposals with final price quotes are in that category. But that is a different topic.

So what would our computer system look like? We have a few alternatives:

1. Current approach. - do nothing

- Not sure how data is delivered to the HOA.
- Not sure if the HOA can easily access delivered data in all situations.
- Not sure how data is archived.
- Access and archiving should be public info.
- Security is not about hiding things it is about a rock solid process that cannot be compromised.

2. Buy a Server and Hire IT company / consultant to Administer

- Server is remotely maintained by IT company / consultant
- As policy all delivered HOA products are placed on the network.
- Network content is inspected by a HOA official representative (not subcontractor) prior to each HOA meeting.
- Network content is archived quarterly by an IT company / consultant.

3. Buy a Cloud Service

- Cloud is maintained by cloud company
- As policy all delivered HOA products are placed on the cloud.
- Cloud content is inspected by a HOA official representative (not subcontractor) prior to each HOA meeting.
- Cloud content is continuously archived by a cloud company.

4. Hire IT Consultant / Company

- They decide to either install server, buy cloud service, or both
- They maintain server or cloud
- As policy all delivered HOA products are placed on the server or cloud.
- Server or Cloud content is inspected by a HOA official representative (not subcontractor) prior to each HOA meeting.
- Server or Cloud content is automatically archived by a cloud company or quarterly by an IT company.

5. Add a network drive - Mom and Pop Approach

- As policy all delivered HOA products are placed on the network drive (USB or wireless).
- Network drive content is inspected by a HOA official representative (not subcontractor) prior to each HOA meeting.
- Network drive is to be archived quarterly to another drive that is locked in a fire proof closet.
- The archive needs to be done in the presence of the HOA official representative.

- Adding another computer in the clubhouse would allow the HOA to inspect the network drive content without disturbing office operations. It would also allow other non-management company HOA data to be developed, maintained, and stored (e.g. Website).
- Backup and archiving mechanisms guidance in this setting is critical. One of the functions of the operating system is to ensure data integrity especially during backup and coping of data. Do not use any third party archive tools. They always fail at some point and they force users to call the tool provider and pay to recover. Data is usually lost along with cash. Use the operating system to back up all data. Just drag and drop the highest level folder. When prompted just pick the options to copy all or if available the newest date files. The backup folder structure should always match the original source structure. Do not perform any manual activities like rename etc.
- If a wireless drive is selected they sell cloud services but this raises security issues that must be examined
- Once a computer is added, this is similar to the buy a server approach, the difference is the loss of training and discipline by not having an IT company / consultant.

The common element in all the approaches except for the current approach is:

- As policy all delivered HOA products are placed in an official area accessible by the HOA at any time.
- Content is inspected by a HOA official representative (not subcontractor) prior to each HOA meeting.
- Content is archived for recovery.

3.6 Audio Video Security Services

A company that consistently advertises in the Home Improvement free magazine is Audio Crafters Inc. The links to each are as follows:

http://homeimprovementguides.com/digital_mag.html
http://www.audiocraftersnj.com

Some sample prices from November 2017 are:

92 inch complete theater system $1999

4 Camera 180 hour surveillance system $999

TV Wall Mounting $99