Interview Room Considerations

USE THIS DOCUMENT AS A GUIDE WHEN CHOOSING YOUR INTERVIEW ROOM EQUIPMENT, SOFTWARE, HARDWARE, AND MORE!

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Interview Room Considerations

Interview Recording Procedure

At the basic level, interview recording may seem like "a quite simple process". At the end, all we need to do is start a recording while we are interviewing a suspect or a victim. However, the reality is way more complex. The reason we are recording an interview is to gather information to convict a criminal. This means researching, playing, annotating, sharing, and distributing the recordings. If you try to do so with a recording application that has not been tailored for law enforcement interview recording, you could miss important details to your case. This will cost you much more time and money than a professional interview recording system. A professional interview recording system should be simple to use. The system must be so intuitive, that an officer can start an interview recording by simply pressing a button. The system must integrate metadata information to easily retrieve the recording. Finally, the system must integrate flagging information to easily retrieve a specific point in an interview.

Audio and video performance

We all understand the importance of using high definition cameras to properly capture body posture and facial expressions, but we often forget that the audio performance is more important than video. Low quality audio capture can end with a poor interpretation of what was stated. This can be fatal to a case, when brought before a judge. There are a wide variety of cameras to consider from HD-SDI, USB and IP; each one of them capable of being fixed or PTZ (Pan, Tilt and Zoom). Each of those cameras brings their pros and cons when considering quality and capacity to synchronize with audio. There is also the consideration of deciding if you want your cameras to be visible or hidden to the interviewee. Finally, the lens consideration: do you need a wide-angle lens to capture the whole room, one that zooms on the suspect, or one that can do both? All those factors should be considered when choosing your interview recording system.

Managing your recordings

Your actual interviews are probably stored on a DVD on a shelf, or somewhere on a hard drive. Today's technology offers video library applications that will save you a substantial amount of time storing, retrieving, and distributing your recorded interviews. There are many considerations when deciding to acquire a video library system. First, a choice needs to be made about if you will maintain your recordings in-house or if you will go with a cloud solution. Each of those solutions offers their pros and cons. Features that need to be considered are ease of access, security (in terms of making sure that hackers don't have access to the content), reliability to retrieve the content and protection on recovering in case of disaster.

Distribution and compatibility

Your recordings are as good as their capacity to be shared with others. We experienced a situation where the interview recording was distributed on a blue ray. During the trial, the lawyer of the defendant complaint that he was not capable of monitoring the video. The judge simply rejected that evidence during the procedure. Whatever the technology being used to record interviews, it is crucial that the recordings are standard enough to allow anyone to view it without the necessity to install a third-party software.

The physical interview rooms

We often forget to consider the physical interview rooms when acquiring an interview recording technology. The objective of the interview is to obtain the truth from suspects, victims, or witnesses. It's important to build an interview room that will create this environment. The old technique of bolting chairs to the floor has been proven to be the wrong way to obtain confidences. There are two types on interview rooms. One called hard room and the other the soft room. The first one is designed to interview suspects. It is normally not too comfortable. It is proven that discomfort will make the interviewee more fatigued and may help in getting the truth faster. The soft room is designed to interview witnesses. It is way more comfortable and sometimes designed with couches. There is also the sound proofing to take into consideration. First, it is important that our suspect is not disturbed by cell phone noises, door slams, or chatter coming from the other side of the door. Insulating the room for blocking sound from going in or out of the room is essential. Second, the small size of a regular interview room creates a lot of echo. This echo sounds negligible for a person sitting in the room, because the human brain can discriminate unwanted noise. It is not the same for a microphone. It will be important to add acoustical tiles to prevent sound from bouncing from a wall to another. Finally, the same applies for the ventilation system. Sitting in the room, the sound of the ventilation system appears negligible, but not for the microphone. It will be important to use a technique, using an audio equalizer to reduce the unwanted noise. There is more information about this in "The microphone and audio processing" section.

How to select your equipment

Finance consideration

It's a fact that your budget will determine the type of equipment you can afford. It is important when estimating the funds available to finance your project that you put everything into consideration. The highest cost of a law enforcement entity is its work force. Taking in consideration the time saved when using the proper technology will make a huge difference. We are all overwhelmed with work to do and we normally fix this by hiring new staff that costs a lot more than investing in new technology. A proper interview room technology will save you a lot of time in preparing, recording, searching, sharing, and distributing the interviews, thus saving your current staff time.

For entities that have no budget for equipment, they can always use a smart phone or any type of camera available at a consumer electronic retailer. However, you have to understand that these systems (like what they use in commercial interviewing, human resources, loss prevention and private security) are designed for non-governmental operations and non-governmental personnel. Non-law enforcement systems tend to be more difficult to use and can lead to chain-of-custody issues with the court system.

The cameras

There are three main types of cameras available today that are proper for interview recordings: IP, USB and HD-SDI. We will compare each of them and evaluate their pros and cons.

IP cameras

IP stands for internet protocol. The IP cameras are to most popular on the market. The camera was especially designed for surveillance. It is very easy to install and can be located miles away. To install an IP camera, you simply need to connect it to an ethernet router. You do not even have to power it since the router will provide the power via a technology called PoE (Power over Ethernet). Because of its popularity in the surveillance market, there is a wide variety of IP cameras. From fixed to PTZ, in dome, bullet or hidden case, if you search on the web, you will find whatever type you want.



Figure 1 – IP Camera

How it works

The IP camera encodes the video capture by its sensor into a h.264 video format. The video is then encapsulated in packets. Connected to the internal Ethernet router, those packets are then accessible by any computer connected to the router, or worldwide if the router is configured accordingly. This means more than one computer can have access to the packets. Those packets are then recognized by a software installed in the computer that will decapsulate the video content and generate the video on the screen.

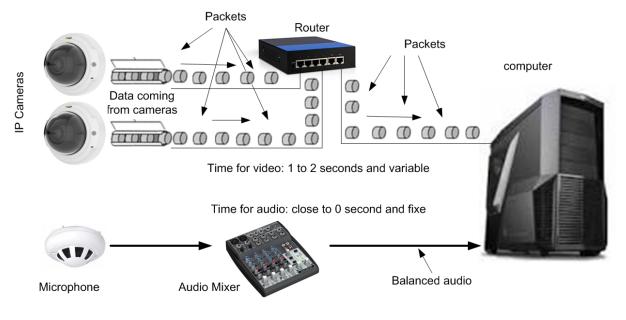


Figure 2 – IP Cameras audio and video capture

The pros

The major pros of an IP camera are the variety of camera available and its easiness of installation. The video generated in an IP camera is already encoded in h.264. This makes uncomplicated for manufacturers to develop applications for it. The IP cameras are easy to install and configure.

The cons

The IP cameras offer a much less video and audio quality than other types of cameras. As previously mentioned, this camera was manufactured for surveillance where high quality is not the priority. The reason comes from the way the signal is encoded. The encoding is created from a small chip installed on the camera. Because of cost benefit, the algorithm used in IP camera offer a much lower quality.

The audio is even worse. The audio connection on an IP camera is unbalanced. This type of audio connection provides a much less audio bandwidth, and the audio cable cannot be longer than twelve feet. The result is poor audio quality that makes it hard to understand if the person interviewed said "S" or "F".

Most Interview recording installer will bypass the audio situation by connecting the audio directly to the recording computer, but because to video is send in packets and the audio in real time, it makes it

impossible to synchronize the audio with the video. The result creates a situation where the lips are not following the voice sound in playback.

Because this technology connects to the internal Ethernet router, in situation where there are multiple interview room in the building, if there is a breakdown of the network, all the interview rooms will become out of service.

Finally, because again the IP cameras are connected to the network, they become more likely to be vulnerable to hackers.

USB Cameras

The USB cameras are becoming more popular. Like the IP cameras, there are a lot of choice available on the market from fixed, PTZ, dome, bullet, hidden and more. This type of camera was designed to connect directly to your computer via the USB port. It is widely use for teleconferencing, classroom recording or other application like Facetime or Skype.



Figure 4 – USB Camera



How it works

Like any camera, the USB camera capture the video with its sensor. At the opposite of the IP camera, the USB camera does not encode the video in h.264 format. This process is done by a software install on the computer. The encoding software uses a much better encoding algorithm that generates a superior audio and video quality than the IP camera. Therefore, the length of a USB cable cannot be longer than fifteen feet. Same as the IP cameras, the USB camera offers either integrated microphone or unbalanced audio inputs.

The beauty of the USB technology is that many devices can simulate a USB connection. By example, you can install a software on your computer that will generate a USB stream. It is also possible to convert an HDMI connection to USB. This provide the possibility to simultaneously record a monitor installed in an interview room.

The pros

The USB cameras are offered in a wide variety. The quality of the video is acceptable for interview recording. The limitation of fifteen feet in the length of the cable can be compensate by using a USB extension module that will provide up to 330' between the camera and the computer. Because USB technology utilize real time transmission of video, it is possible to connect the audio directly to the computer and get full synchronization between video and audio. This type of camera can be used for either fixed or portable interview recording technology

The cons

The weakness of USB cameras comes from the fact that the encoding occurs in the computer. This means a high utilization of the CPU. Depending on the computer used, the number of simultaneous recording can be limited to three. The USB technology happens to be less stable than the HD-SDI technology. A disconnection and reconnection of the USB cable will sometimes require to close and restart the recording application.

HD-SDI cameras

HD stands for High-Definition and SDI for Serial Digital Interface. This technology was developed and are still used today by television stations. The SMPTE (Society of Motion Picture and Television Engineers) created this format for the highest quality of video and audio required by broadcasters. This technology provides a stunning result when encoded in h.264 format. To obtain such outcome, the video is encoded utilizing hardware encoders installed in the computer. The hardware encoder uses the best algorithm to provide the highest quality of audio and video. This technology is available for law enforcement for their interview recording. Because of limiting applications outside of the broadcast industry, the number of HD-SDI cameras are more limited. You have a choice between fix bullet, fix dome, and PTZ dome. Therefore, for interview recording, if hidden cameras are not required those are more than what is needed.



Figure 5 HD-SDI PTZ Camera

The pros

This is from far the best technology for interview recording. It provides the highest audio and video quality. If you are looking for reliability, HD-SDI technology offers a stunning stability. There is a perfect synchronization between audio and video. The HD-SDI technology offers the possibility to record a monitor screen. The connection of the audio is in balanced audio. This provides the highest bandwidth and the clearest sound quality

The cons

Because of the hardware encoder card, this solution is more expensive. The variety of cameras is more limited.

The lens

The choice of the lens is very important. We sometimes qualify the power of a lens by its capacity to zoom, but this is a mistake. Especially in interview room the wide-angle capacity is more important than how close you can zoom on an object. At the end, we never zoom to the nose of the suspect.

It is important in an interview room to have a camera that will cover the whole room. This is to ensure that the suspect will not say he was threatened by the officer while he was outside the field of view of the camera. A camera installed in the corner of the room, with a 90 degrees lens will cover the whole room. To cover 90 degrees, you need a lens that has a focal distance of 2.8 mm. Go on the specifications of the lens and make sure you get those requirements.

You also need a camera that will zoom on the suspect. You may also want to zoom of the intelligent phone or a piece of paper. In an interview room that is 10' X 10' in order to zoom on an object that is 4'' X 3'' you will need a focal lens of 132mm.

You will not find a camera that offers from 2.8mm to 132mm focal lens. You will need two different cameras. For sure, you need one of them at 2.8mm, for the other one it is up to what you want. The idea is to make sure you are not making your decision on the zoom capability, but on the focal distance required.

I can spare you the calculation, but you are interested, go to:

https://www.fujifilmusa.com/products/optical_devices/machine-vision/lens-calculator/

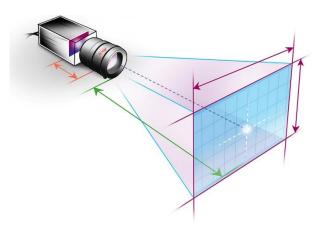


Figure 6 – Lens Calculation

The microphones and audio processing

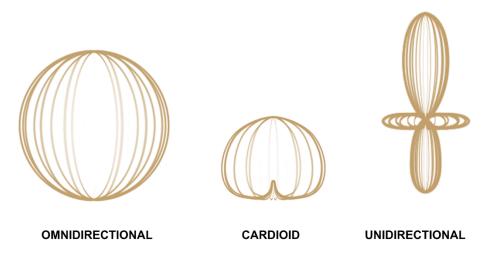
The audio is certainly more important than the video. An interview is more about what the person said than his behavior in the interview room. For that reason, it is crucial that we put a particular attention to the audio process.

The choice of microphone

There are three types of microphones available to you. There is omnidirectional, cardioid, and unidirectional. A cardioid microphone is made to capture the voice of someone that has a microphone in his hand, the unidirectional microphone is to capture sound coming from a specific direction, and the omnidirectional microphone is to capture audio in a room. So, the microphone needed in an interview room is definitely an omnidirectional microphone.

Because of the usual small size of an interview room that is 10' X 10', one omnidirectional microphone installed in the ceiling, is normally more than sufficient to capture everything in the room. Some interviewers will prefer to have a second one near the table, but by experience, it is not required.

It is important to choose a microphone designed to capture high-quality speech and voice. Make sure it is equipped with a 3 pin XLR connector and requires phantom power to operate. The microphone is the start of the audio process and must not be neglected.



Microphone patterns

Figure 7 – Microphone pattern

Audio Equalizer

Very often, interview rooms are equipped with a ventilation system. It is barely perceptible when you are sitting in the room, but once recorded, the sound of the ventilation become very annoying. To

reduce the frequencies generated by the ventilation system, acquire a multiband audio equalizer. This system offers the possibility to manage frequencies that are recorded. To setup, simply put headphones, rise the volume to the maximum, and vary different frequency band until you find the ones that improve the best the result wanted. It will not be perfect, but much better than it was.



Figure 8 - Audio Equalizer

Other considerations

There are other considerations to take into account to make sure we will have a crystal-clear audio recording: Echo removing in the room and elimination of unwanted noise coming from the other side of the door.

We will cover those two issues in the chapter "The physical room".

The Interview Recording Software

There are not that many companies that manufacture expert Interview Recording Software. This application is some how very specialised and demand specific characteristics, especially in the domain of security. The objective of acquiring an expert Interview Recording Software is also to save time and money. The software needs to provide that saving

Ease of use

One main characteristic for the software is to be very intuitive. Starting a recording must not require technical assistance. It is very common for an outsider officer to use the interview room. Recording should be able to start by a simple button, but again, a simple switch turned on the wall, does not certify the session is actually in record mode. There should be a feedback from the recording application confirming the session is recording.

Live streaming

It is quite common during an interview, that other team members require to assist outside the interview room. For that purpose, all cameras inside the interview room must be available to be viewed by other people. There must be a secured connection requiring username and password to make sure only authorized team members have access to the streaming.

Video format

Picture-to-picture or multiple video streams? The advantage of multiple video streams is you have all videos in full size. During playback, you can select to view all video simultaneously, or choose one full screen. It has therefore the disadvantage of utilizing more space on the hard drive. In any case, those videos need to play in a specialized application, and here is why. The viewers need to access important information that are the videos, the audio vu meter, the annotations, and the thumbnails. The application must allow fast forward, rewind, pause and jump functionalities. Those features are not available on standard video players. Nevertheless, it is also better to have an application that does not require the installation of a third-party software



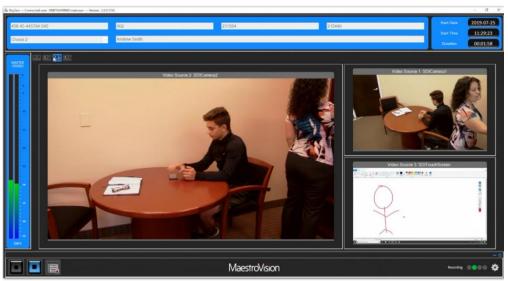


Figure 9 – Picture to picture video format

Figure 10 – Multiple video stream

Annotation's functionality

To save time, the application software must include annotation functionality. During or after the interview, information must be entered to retrieve quickly those segments in the future. Simple tags are not sufficient, to retrieve a segment with this concept, you need to go from one tag to another and it takes too much time. It is also ideal if the system could also generate thumbnails of the activity in the interview room. This allow for quick retrieval of a specific moment during the interview.



Confidence monitoring

An important feature of a good interview recording application is its capacity of offering confidence monitoring of the recording. Here is how it works. If you want to make sure your session has recorded, you need retrieve your file and play it. It is a reflex to always do that. Somehow, we are never 100% certain our session has recorded properly including the proper audio levels. Confidence monitoring does that for you. While you are recording, the system will read almost simultaneously the recorded track, and play it back in your monitor. The delay between the live action and the playback in the monitor is almost five seconds. With this technology, you know in advance, and not after the interview is done, that your recording is effective.

Retrieving and Distribution of interviews

At the end, the importance of an interview recording software is not during the interview, but after. Once the interview has been recorded, it must be quick and easy to retrieve that recording among the thousands we already possess. Simple metadata information entered during or after the interviews most allow to classify the interview cleverly. The software must allow for easily reviewing, finalizing, and distributing if necessary, the information. Being able to transfer a file thru a thumbnail key or a DVD is good, but offering a temporary link is better. The temporary link has the advantage that the files can't be copied, and you can remove the link whenever you want.

Security

Security is a major concern in interview recording. The content is very sensitive, and you don't want to see a confidential interview appearing on television news. There are ways to make sure your content will not end up in unwanted hands.

There are lots of technologies that offers encryption of video files. The principle is that you need a key to view the content. If someone mistakenly receives a DVD in which the video file is encrypted, they will not be able to use the content if they don't have the key. This concept may sound interesting, but the on the downside, it's heavy to operate and it slows down the viewing process.

The same kind of technology also exists for video streaming. It is possible to encrypt the video being streamed and prevent any unauthorized viewing. Like video file encryption, there are a lot of technologies offered to secure your content. You must discuss those with your Interview Recording Provider and see what technology will work best for you.

The other critical security feature guarantees the file presented before the judge has not been altered in any way. There is an easy and complex way to achieve this. The easy way is to ensure that the camera timestamps each frame of the video during the recording. Utilizing a timestamp process ensures that editing cannot be made to the video discreetly. If a specific part of a recording is removed, the

discrepancy between timeframes will appear. For that reason, it is very important that your Interview recording software provider offers timestamping functionality. The complex way requires an engineer to come testify before the judge. It is possible to compare the original with the one presented and make a calculation of the data bits to confirm the originality. This can be a very complex process that should be avoided.

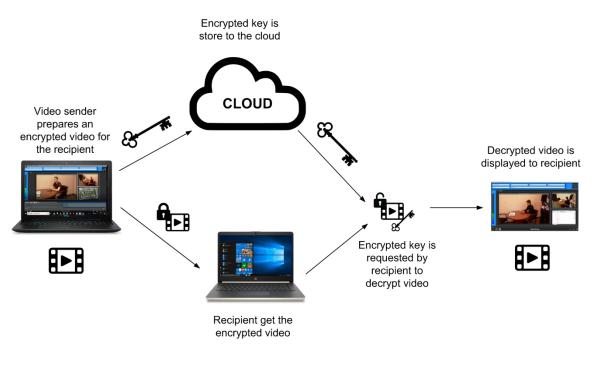


Figure 12 – Video Encryption

Fixed vs Portable

A portable interview recording application is an essential tool for law enforcement entities. Very often, interviews need to be done by law enforcement or legal professionals outside of a traditional interview recording room. Consider common situations where the suspect or witness is in the hospital, in custody or even more sensitive scenarios where the victim or witness is a minor, has suffered a sexual assault, is the victim of or witness to domestic violence or simply cannot be interviewed in a typical law enforcement or judicial setting.

When interviewing a child or victim of sexual abuse, a familiar setting such as the comfort of their own home is preferable. An environment where a victim or witness feels secure will reduce stress and put them more at ease. This will make it easier for them to discuss the event-in-question more frankly; to provide greater detail; and to better recall important facts.

In the case of a domestic assault, it is imperative that the interview occur as close to the time of the crime as possible, while events are still fresh in their mind. A timely interview visually documents their emotional state and captures any signs of trauma that limits the opportunity for their testimony to be

influenced by others and secures valuable statements before a victim or witness can reconsider cooperating with the authorities.



PORTABLE INTERVIEW RECORDING

Figure 13 – Portable Interview Recording

Hardware considerations

With the expression "software" inevitably comes the word "hardware". Any software requires hardware to work.

Many of your interviews are very sensitive. Therefore, reliability is a key factor for your interview room. Reliability is not only about the confidence the recording will occur, it is also about the recording will happen promptly. Picture this: you are ready to conduct an interview, you are well prepared, your suspect is waiting in the interview room, you feel you are on fire and the recording system does not start. You then lose your momentum; you are frustrated and suddenly the interview is not going as well.

Computer manufacturers are constantly racing to develop technologies that are the most powerful, the most performant, contain the most storage, have the fastest micro-processor, the most, the most and the most. In the end, the most important feature is not to have the latest version of the micro processor, but the most reliable technology.

You will find the most reliable hardware from industrial computer manufacturers. Very often, their components may not be the most updated version but are the most reliable because they have been

tested more thoroughly than consumer computer manufacturers. Therefore, you'll pay more for the same component on the industrial market. In the end, however, you will not pay more, because your industrial computer, will last much longer. In fact, some industrial grade computers retain twice the lifespan of a commercial grade computers!



Figure 14 – Industrial Computer

The video library

The video library is a crucial application to obtain. As we mentioned before, the whole interview process starts after the interview was done. Using a video library will allow you to store, search, retrieve, monitor, modify, distribute media content the includes your interview recordings. The role of the video library is to save time and money by giving instant access, wherever you are, to your information.



Figure 15 – Video Library

Video library features

Your new video library must not be exclusive to interview recordings. It can be a costly investment so it should be capable of centralizing all your media files.

Metadata information

Metadata is about classifying your media. Metadata may consist of the following information: the date and time, the type of media, who recorded it, the location, the names of people involved and so on. The objective of metadata information is to easily retrieve your information. As an example, you may be looking at an interview that occurred in San Diego, between 2018 and 2019, concerning a murder, that involved a man named Bob Smith. All you must do is enter the name "Bob Smith" to find the recording.

The metadata information must be configured to your specific needs. All law enforcement entities have their own requirements. It is not possible to make one a one size fits all, and the reason is simple. We heard the expression "too much is not enough". This expression makes sense when talking about metadata information in a video library system. Imagine you need to complete a document, but you

must guess which fields are important to fill and which are not. You may finish by not entering any information at all.

It is important that your Video Library supplier allows for a full configuration of metadata information.

Media files compatibility

Your media library must be compatible with all media files wherever they come from. Your media can be audio or video and they may come from your interview recordings, surveillance cameras, smart phone, video tapes, bodycams, broadcasters and more. Especially when talking about surveillance cameras, their file formats are often proprietary and cannot play with just any computer software.

A good video library system will manage two types of files: the original and the proxy. A proxy is a copy of the original in a common file format that is usually h.264. The idea of the proxy is to have one common file type for monitoring purposes. Before the judge, you'll need to present the original file, but when you are conducting an investigation, you don't want to have to search for ways to view video evidence. The same applies for video tapes. You keep your original tape on a shelf, but you make a copy that will be uploaded to the video library. It is important for the video library to manage the original file by allowing you to upload and download the file when required. There is naturally no need to make a proxy of a file that is already in the common file format.

Annotations

Before, we mentioned the importance of metadata information. The possibility to annotate is just as important. In the interview recording software section, we stated how crucial it is to annotate interview recordings. The same applies for all video uploaded in the video library.

When an investigator is searching for information in the video library, they must be able to insert time stamp annotations. This will save them numerous amounts of time replaying a sequence.

Security

The same security features mentioned in **"the recording interview software**" section of this document also applies for the video library, but more elements need to be added when information is centralized and accessible to more people.

It is important to create different user configurations that will restraint access. For example, you may want to divide access by group so group "A" does not have access to group "B" content; or you may want a user type to just have read-only access. The configuration types must be almost illimited, be very secure and connected to the active directory for ease of access configuration. Many security features such as: prevention of multiple active login sessions; access control based on each user's privileges; protection in case of multiple invalid login attempts; automatic logout of inactive users after

30 minutes; enforcement of minimum password complexity; and use of an encrypted secured connection to access the system, must be implemented.

The system must allow for ad-hoc reports. It is important they have access to reports about the database utilization. The video library holds very sensitive information that needs to be controlled. Reports must include all information about who accessed the database, when and from where, what information was viewed, what video was downloaded and more.

On-premises solution VS Cloud

This is a question that many IT administrators need to answer today. Cloud storage is becoming the norm, but is it really a good solution for law enforcement? Let us compare both solutions with their pros and cons so you can decide what solution will work best for you.

To start with, there is no difference, software and application wise, between an on-premise and cloud solution. Both solutions offer the same metadata information, the same media file compatibility, the same annotation features, and the same security characteristics. So, what is the difference between the two? Cost wise, if you calculate on a five-year period, the cost for both solutions are very similar. The on-premises solution will cost you more to start, but after five years the cloud solution will become more expensive.

On-premises video library

An on-premises video library is an application installed at your location. It includes your computers and your hardware storage. Normally, the Information Technology specialist (IT) will install a "Virtual Server" on their existing hardware including an SQL and video library application. At the end, if the IT specialist configures the library properly, it becomes a corporate cloud application. Billing wise, on-premises applications are typically products you purchase with annual fees for the maintenance. You normally own the product.



The pros

The benefit of using an on-premises video library is the security component. Many law enforcement entities are very reluctant to have sensitive information not under physical control. Even if cloud applications are secure, it's always the providers that oversee the maintenance instead of the users. It is less expensive long term.

The cons

The downfall to using an on-premises system is, that it is more expensive in a short term. You need to purchase hardware that you may not need to purchase with a cloud application. Also, you oversee the maintenance that is not required with cloud applications. Finally, there is a question of Internet access. If you always access the library from your internal Ethernet network, you are in business, but if you want your investigator to access your database from outside your internal network, you will be required to update your Internet connection to a much higher upload speed to allow multiple users to access the video library simultaneously.

Cloud video library

A cloud video library has the same features as an on-premises solution except the application is installed outside your premise. The installation is developed in a "Data Center". The "Data Center" is not your provider, it is a service purchased by your provider. Your provider rents rack space in the "Data center" where he installs his hardware equipment. He also rents a huge upload Internet connection allowing him to service many customers at the same time. The benefits of the "Data center" is first, the

enormous pipe of data it can provide and second, the extremely high level of security to access the environment.

The cloud service is generally offered as a service on a monthly payment. Naturally, the provider will require you to sign a contract and will charge you for the configuration and installation.



Figure 16 – Data Center

The pros

A cloud video library is less expensive short term. You will not need staff-time to implement the solution. The connection to the library will be much faster and accessible worldwide by many users at the same time.

The cons

The solution will cost you more in a longer time period. Even if this solution is very safe, there is security issue perception due to the fact that other people than your own staff are in charge of the hardware.

The physical room

Police departments need to improve the way they are designing their interview rooms. We must keep in mind that the objective of interviewing a suspect is to obtain confidences. It is much easier to tell the truth with a one-on-one conversation so, any distraction coming from outside the room, such as a phone ringing or a door slamming may indicate to the interviewee that there are people other than you listening in and make him/her nervous to talk.

Interview room location

It is important to try to locate the interview room far from any distraction. In any case, the room must be soundproofed from noise coming in or out the room. Sound travels through air. This means if we block all air infiltration, there should no be any sound from outside the room coming in. Even if this is true, in theory it is not exactly reality. Low frequencies can create a movement on walls and doors that reflect the other side, acting like a speaker skin. Therefore we can only hear low frequencies from an insulated room. The best way to reduce the unwanted sound coming from the corridor is to install a soundproof door. If you do not have the budget for a soundproof door, you can always get a door sound blocker kit. They are inexpensive and better than nothing.

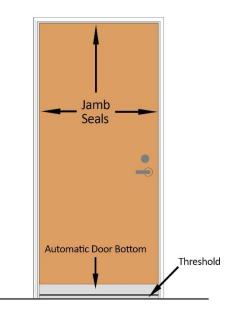


Figure 17 – Door Seal kit

Echo reduction

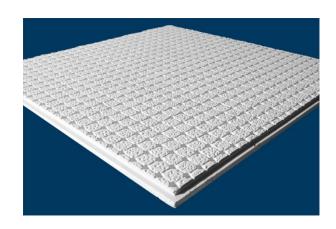
Since we are talking about soundproofing, it's important to mention how to resolve the echo problem in the interview room. We mentioned before in this document that because of the small size of the room, there are lots of unwanted sounds. Echo is created by sound bouncing from one wall to another and to the ceiling. This echo may not seem to be important when sitting in the room, but captured by a microphone it becomes a problem. So, it's important to remove as much as we can.

There are different ways to remove the echo from a room. If your room has not been built yet, you can contact an expert that will install a type of wall that prevents echoing. It is a little expensive but worth it. Another way is to install acoustical tiles on all the walls of the room. However, those tiles are easy to detach and can create a problem if a suspect left alone starts removing them. A solution that is inexpensive and proven to work well is to install a suspending ceiling. The tiles can prevent sound bouncing. You can always verify with a home improvement retailer to see which tiles will work best for you. Once your ceiling is done, apply the same suspended ceiling system for one foot (or 18 inches

depending on your tiles), from the ceiling. You will be amazed of the result. Also, cover the floor with carpet. This is easy to clean and will help in removing the echo.



Figure 19 – Wall Acoustical tiles





The furniture

The room should contain a table and three chairs. One for an observer like a parent or a spouse. The interviewee chair should be basic with no arms that prevent movement nor a swivel seat. The interviewer chair should look more comfortable than the interviewees. It is important because learning the truth from suspects, victims and witnesses is difficult enough without creating additional barriers within the room environment. The most important consideration is that the room should afford the subject privacy. Very simply, it is much easier to tell the truth to a single person than multiple individuals. Second, the environment should not remind the subject of the consequences awaiting him should he decide to tell the truth. After all, trying to avoid these consequences is what motivates the guilty subject's deception. Finally, the investigator should be aware of how the room will be perceived by a jury viewing a video-taped interrogation. Will the room's appearance raise issues of duress or coercion? These are factors to consider when deciding what furniture to install in your interview room.

For additional information, please contact us: info@maestrovision.com

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