

Issue Analysis Form



Date: December 11, 2018
Item: Video Recording/Streaming Meetings Online
Lead Department(s): IT Dept & Clerk of Board
Contact Person(s): Kirsten Cherry & Teresa Knott

Description and Current Status

Mrs. Waymack requested that staff investigate the ability to live-stream board meetings, have a video archive, and be able to have it air on television after each meeting.

Besides Swagit Productions LLC, staff has researched Granicus and iCompass, but did not find another source who has full-service options for recording during the meeting itself. By purchasing a full-service solution, there will be no need for additional staff or staff time with this solution.

The system is a three-camera system, capturing both the Board of Supervisors and the person speaking from the podium. It will also focus on the Board Member speaking on an issue.

This solution is a hands-free solution. Swagit will record the meetings and run the cameras. Swagit server hosts the streaming and archived content, so neither additional bandwidth nor server storage will be needed by the County. Swagit's network has redundant servers for reliable service.

Staff is requesting the board to authorize:

- Authorize the live streaming of Board of Supervisors meetings;
- County Administrator to sign a contract with Swagit Productions LLC; and
- Appropriation from Fund Balance (not currently budgeted);

Entry is Increase:

Revenues - Fund Balance (0100-40-900-8208-399999)	\$53,134
Expenditures – Board Info Tech Equip 0100-01-001-0100-48107	\$53,134

Government Path

- Does this require IDA action?** Yes No
- Does this require BZA action?** Yes No
- Does This require Planning Commission Action?** Yes No
- Does this require Board of Supervisors action?** Yes No

Does this require a public hearing?

Yes No

If so, before what date?

Yes No

Fiscal Impact Statement

One-time costs for equipment and installation: \$41,194

Yearly cost: \$11,940

Total project cost: \$53,134

County Impact

This solution will allow citizens to watch meetings live on their computer, tablet, or smartphone. At a later date, the same recording will be replayed on a local television station.

The solution will archive all recorded meetings so citizens can view them online at any point. They can view the entire meeting or jump to different locations in the meeting by the agenda.

Notes

Virginia customers of the service are:

- Town of Middlesburg
- Portsmouth County Public Schools
- Manassas City Public Schools
- York County
- City of Newport News
- Norfolk City Public Schools
- Chesterfield County Public Schools
- Alexandria City Public Schools

Board of Supervisors
County of Prince George, Virginia

Resolution

At a regular meeting of the Board of Supervisors of the County of Prince George held in the Boardroom, Third Floor, County Administration Building, 6602 Courts Drive, Prince George, Virginia this 11th day of December, 2018:

Present:

Vote:

Alan R. Carmichael, Jr., Chairman
Donald R. Hunter, Vice-Chairman
Floyd M. Brown, Jr.
Marlene J. Waymack
T. J. Webb

A-5

On motion of _____, seconded by _____, which carried unanimously, the following Resolution was adopted:

RESOLUTION; AWARD OF CONTRACT AND BUDGET AMENDMENT AND APPROPRIATION (\$53,134 RECORDING & STREAMING OF BOARD MEETINGS)

WHEREAS, Board Members expressed interest in recording and streaming board meetings; and

WHEREAS, Multiple vendors were contacted to provide services and Swagit Productions LLC is the recommended company to provide a full-service solution; and

WHEREAS, The total estimated cost for implementation (Year 1) is \$53,134; and

WHEREAS, This project is not currently budgeted and staff recommends an appropriation from fund balance; and

WHEREAS, Staff is requesting authorization for the County Administrator to enter into a contract with Swagit Productions LLC in the amount of \$53,134 to move forward with this project.

NOW, THEREFORE, BE IT RESOLVED That the Board of the Supervisors of the County of Prince George this 11th day of December, 2018, hereby authorizes the County Administrator to execute a contract with Swagit Productions LLC to implement year 1 of recording and streaming of board meetings \$53,134;

AND BE IT RESOLVED That the Board of Supervisors of the County of Prince George this 11th day of December, 2018, does hereby authorize and appropriate the following increase of funds within the 2018-2019 Budget, such line items increased as follows, which monies shall be expended for purposes authorized and approved by the Board of Supervisors of the County of Prince George:

<u>FUND/ORGANIZATION</u>		<u>AMOUNT</u>
<u>General Fund (0100)</u>		
Revenues:		
0100-40-900-8208-399999	Fund Balance	\$53,134
Expenditures:		
0100-01-001-0100-48107	Board IT Equipment	\$53,134

A Copy Teste:

Percy C. Ashcraft
County Administrator

EXECUTIVE SUMMARY

Company History and Information

Swagit Productions, LLC, founded in 2003, is a privately held company headquartered in Dallas, Texas. Swagit is a progressive company that is pioneering the broadband multimedia communication service industry by providing clients a **hands-free** approach to always being connected to end-users' information needs. In combining Swagit's EASE™ and Avior™ HD solutions, clients are offered the most comprehensive **hands-free** experience possible.

Swagit specializes in providing streaming media solutions to cities, counties, states, school districts, and health providers. In addition, Swagit is a complete video production entity, providing services such as post-production, studio and recording booth sessions.

Swagit began with a mission to supply clients an affordable solution to stream their own content in an overpriced, complicated, hands-on video industry. From its beginnings as a company specializing in turnaround streams for cities, counties, states and school districts, Swagit has grown significantly and provides an open API which allows for integrations with all major Agenda/Document Management and Voting Solutions. This lets our clients choose the best Agenda/Voting Solution for their unique needs.



With Swagit's EASE™ streaming video solution, clients are able to stream their public content live and on-demand through the jurisdiction's website. HTML5 compatibility makes getting to the content even easier and more convenient as viewers are able to access all of the video content via their computers, smart phones or tablets. Archived meetings are indexed and broken up into clips by agenda item for a superior end-user experience.

Avior™ HD is Swagit's hands-free broadcast solution: a complete package of 3+ HD cameras, professional video switching equipment, and associated components that allows either Swagit's video department to remotely control the cameras or on-site camera control by government staff. When bundled with Swagit's hands-free EASE™ video streaming system, Avior™ HD can offer a full end-to-end hands-free broadcast solution that requires no client staff involvement for operation of cameras and streaming of an event or meeting.

The Swagit network stretches across North America, ensuring fast connect times from the closest point-of-presence (POP) to an end-user's location. Swagit's network is fully redundant, giving clients peace of mind and keeping with the Swagit motto, "Always Connected."

Points of Difference

- Swagit's EASE™ solution is completely **hands-free** and requires no staff time or resources
- Sound Search™ allows residents to search for the spoken word in a meeting which is synced to video
- Swagit's open API allows integrations with agenda management solutions
- Swagit is the only government streaming provider that has developed its own content delivery network, ensuring quick and reliable connections for your constituents
- Unlimited storage for Specialty Content and Meetings
- Swagit's unique **hands-free** solutions typically qualify as a sole-source purchase, allowing for quick deployments

OVERVIEW OF PROPOSED SOLUTION

EASE™ Hands-Free Streaming

Swagit's **Extensible Automated Streaming Engine (EASE™)** solution meets all current and future needs for government without creating additional work for staff. EASE™ is a hands-free tool that eliminates the need for client staff members to index, edit, or time-stamp their video content. Each EASE™ package includes on-demand archiving, a 24/7 live stream via internet and PEG, streaming to mobile devices, and up to 120 hours of additional generic specialty content each year. If live streaming is not applicable, clients can upload media via FTP.

Avior™ HD Broadcast System

Swagit's **Avior™ HD Broadcast System** is a complete package of high-definition PTZ (Pan, Tilt, and Zoom) cameras, professional video-switching equipment, and associated components, that enables any client to fully outsource the operation and production of a multi-camera broadcast for public meetings. Avior™ also offers video graphics/titles overlay and Real Time Captioning support.

EASE™ HD/SDI Premium Captioning Encoder with SDI CC Encoding Unit

Swagit's **EASE™ HD/SDI Premium Captioning Encoder** is a high definition and/or standard definition (HD-SDI) encoding unit for video plus captioning. The package includes:

- Web-based multi-encoder management and closed captioning support
- Web Based caption GUI
- EASE™ HD-SDI Remote Video Indexing Kit (includes Scheduler)
- HD/SD Encoding/Transcoding Software - server or cloud deployable encoding/transcoding software
- HD/SD Baseband or IP Encode/Transcode single-channel license (enables encoding/transcoding of 1 HD/SD channel)
- SDI CC Encoding Unit (to provide audio captions over IP, for real-time captioning service)

Closed Captioning

Live Automated Transcribing is intelligent assisted real-time speech-to-text automation for captioning. Swagit's **Caption Sync** service works in conjunction with Live Automated Captioning; Swagit cleans up existing transcripts and synchronizes them with meeting video for on-demand viewing.

Social Media eXstream

Social Media eXstream connects meetings and events with live social platforms such as Facebook Live and YouTube Live. Jurisdictions can instantly live-stream local events to followers and engage with viewers in real time with Swagit's Social Media eXstream Package.

Sound Search™

Sound Search™ is an innovative product which improves the search for specific content in archived videos. A positive search hit for a spoken word or phrase will take the viewer to the exact location that it was spoken within a meeting video.

Note: Some features listed in this document may be system options or may require equipment not included in the provided pricing proposal.

SERVICE DESCRIPTIONS

EASE™ Streaming Appliance

Video Capture, Encoding, and Streaming

The Extensible Automated Streaming Engine (EASE™) is a software framework consisting of foundation and extension modules that work together to automate many otherwise manually intensive tasks. This completely hands-off solution meets the current and future needs of your entity without creating any additional work for your clerks or webmasters.

▪ **Video Capture and Encoding**

EASE™ Streaming Appliance records content according to your broadcast schedule and transfers the recorded audio/video to the Swagit Content Network via a secure Virtual Private Network (VPN) connection, making it available for live and/or on-demand streaming.

▪ **Indexing and Cross Linking**

Using your published meeting agendas as a guide, Swagit's Managed Service Division (SMSD) indexes the meetings without any work from the city. SMSD will annotate your content by adding jump-to points with specific item headings, giving users the greatest flexibility to find the specific content they need. With these jump-to points, users can step through video by searching for or clicking specific items.

▪ **Agenda Management Integration**

If meeting packets or other related information is available online, SMSD will link them directly to the video player for easy access.

Swagit's EASE™ solution integrates with all major Document/Agenda Management solutions.

▪ **Archiving**

Client audio/video can be stored securely on the Swagit Content Network indefinitely. Fault tolerance and high availability is assured through replication of audio/video content to multiple, geographically redundant, Storage Area Networks (SAN). Our packages offer unlimited storage.

▪ **Presentation**

By navigating through the video library, users can view a list of meetings chronologically and once in a selected meeting you can unleash the power of the jump-to markers to search for specific points within individual audio/video clips.

▪ **Delivery**

In order to deliver on-demand content to end users in a format that is compatible with their computer's operating system, Swagit can deliver content in all major streaming video formats: Flash, Windows Media, QuickTime, Real, and HTML5. Swagit is proud to support Flash as its default format, which has proven itself as the format of choice from such vendors as YouTube, Google Video, ABC and NBC/Universal. With HTML5 streaming, Swagit provides content to mobile devices including iPhones, iPads and Android devices.

■ **Monitoring**

Swagit is monitoring all aspects of the Swagit Content Network to ensure its health and availability. This monitoring extends to cover remote Swagit EASE™ streaming appliances that are deployed on client premises. In the rare event of trouble our engineers are promptly notified so that they may dispatch a swift response in accordance with our support procedures.

■ **Statistics**

Swagit collates log files from our streaming servers monthly and processes them with the industry recognized Google Analytics. Google Analytics generates reports ranging from high-level, executive overviews to in depth quality of service statistics. These reports help to highlight growth trends and identify popular content.

■ **Support**

Beyond our proactive monitoring and response, Swagit offers ongoing, 24/7 technical support for any issues our clients may encounter. While our choice of quality hardware vendors and a thorough pre-installation testing phase go a long way toward ensuring trouble-free operation of our EASE™ streaming appliances, we do recognize that occasionally unforeseen issues arise. In the event that our engineers detect a fault, they will work to diagnose the issue. If necessary, next business day replacement of parts will be completed. Swagit offers continual software updates and feature enhancements to our services and products for the life of your managed services contract.



Avior™ Hands-Free Broadcast System

HD Video Capture, Encoding, Broadcast, and Streaming System

Built on years of industry experience and developed to address the growing transparency needs of government, Swagit's Avior™ HD Broadcast System is a complete package of HD PTZ (Pan, Tilt, and Zoom) cameras, professional video-switching equipment, and associated components, that enable any client to fully outsource the operation and production of a multi-camera broadcast for public meetings.

Avior™ HD cameras are installed by Swagit personnel in one or multiple positions within a meeting room. As a meeting is being recorded, Swagit's video department controls the Avior™ system from their Dallas, Texas headquarters — switching between cameras (for views of the podium, presentation slides, and dais), while also directing and controlling those cameras through selective panning, close-ups, and wide shots. The Avior™ HD broadcast-quality robotic cameras are able to tilt and pan through wide angles of motion and can zoom through large ranges.



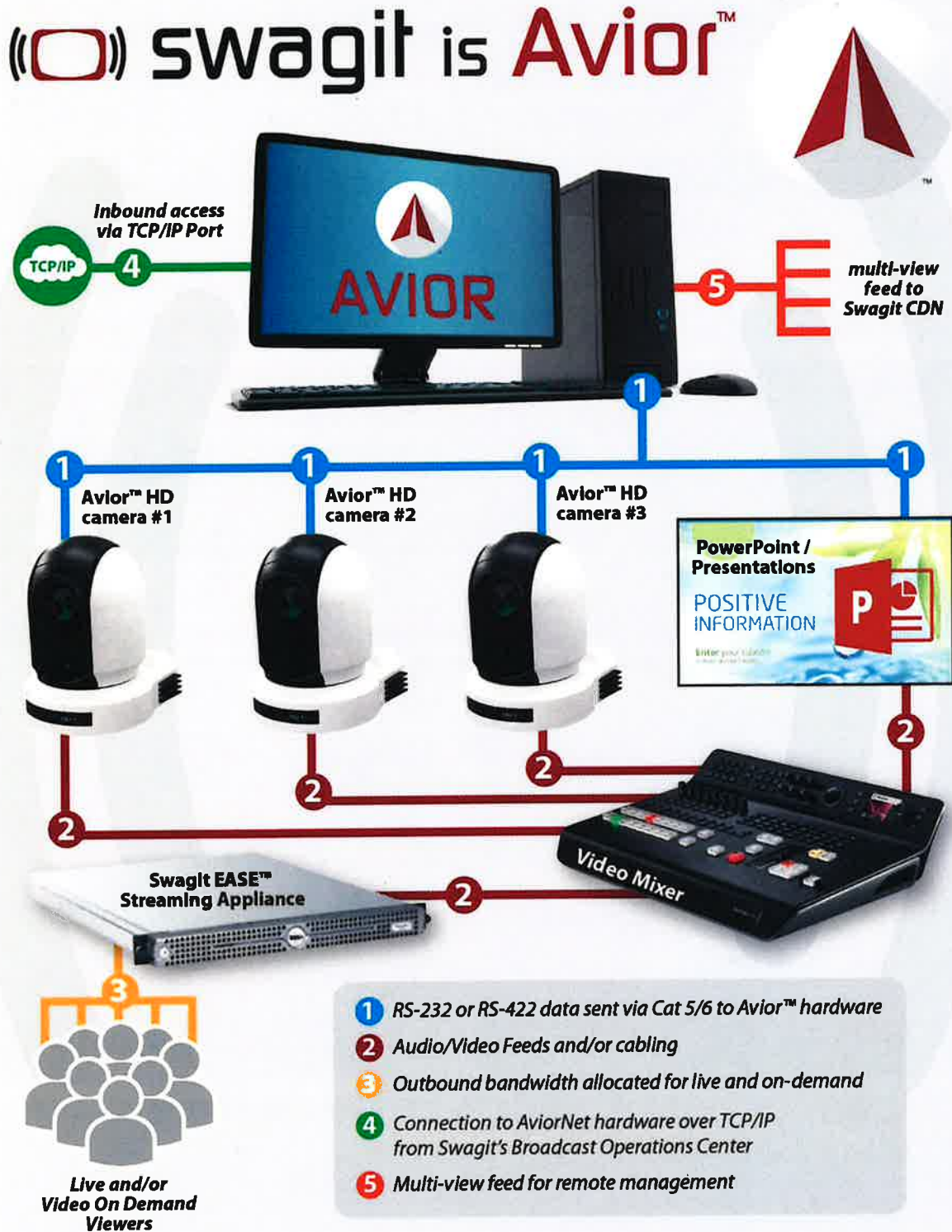
Avior™ enables detailed direct camera positioning (pan, tilt, zoom, focus, and more), preset-positions, and video settings (white balance, backlight, brightness) for the robotic cameras. Additionally, Avior™ communicates with the switcher to allow direct operation of the 'wipe' function from the camera control GUI. With this powerful package you or Swagit can control all your cameras individually and switch video sources on a video switcher locally or remotely. Avior™ is an invaluable integration of camera-control with switcher operations for use with live production setups like city chambers, churches, meeting rooms, and more.

Avior™ includes 3+ robotic (computer-controllable pan/tilt/zoom) cameras. These popular robotic cameras have excellent video quality and performance, with the ability for panning through wide angles of motion, tilting through large ranges with superb optical zoom, and dual video output of Y/C and composite. They also support both RS232 and RS422 (long distance over 1000 meters) control signals. In addition, the cameras can be mounted either "up" or "hanging upside down" for your convenience (they have built-in reversal of the picture and left/right/up/down motion controls).

Avior™ HD is a remotely operated one-of-a-kind hands-free transparency suite that will save your jurisdiction time and money. When bundled with Swagit's hands-free EASE™ video streaming system, Avior™ can offer a full end-to-end hands-free broadcast solution that requires no client staff involvement for operation of cameras and/or streaming of an event or meeting.

- Fully automated
- 3+ HD camera solution
- Hands-free broadcast system
- Video graphics/titles overlay
- Free software updates
- Can be used locally when/if applicable
- Typically Integrates with existing A/V equipment
- Small footprint — equipment is self-contained on its own rack

Avior™ Broadcast System Diagram



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Captioning for Compliance

Streaming Video Enhancement



Captioning for streaming media is the method of displaying a text version overlay for the spoken words within a video. It helps viewers who may be deaf or who have reduced hearing.

Federal agencies, contractors and employers should be acutely aware that their live streaming and broadcast events must now be captioned for accessibility, as mandated by recent updates to Section 508 of the Rehabilitation Act, plus changes to state laws that now require accessibility for federally-funded organizations such as colleges, universities, and research facilities. Even when Section 508 doesn't apply, many non-federal websites and their video content must still be accessible under other laws such as Section 504 of the Rehabilitation Act of 1973.

Swagit can help meet your accessibility obligations with captioning for live streaming and broadcast events. Whether for your one-off events or longer-term fixed placements, Swagit can provide hands-free support with compliant turnkey live video services.

FEATURES

- ▶ Meets FCC mandated ADA requirements for closed captioning
- ▶ Hands-free captioning service
- ▶ Live and/or on-demand
- ▶ Multiple captioning options
- ▶ Visible on mobile devices
- ▶ Captioning for TV broadcast
- ▶ Captioning of archival video
- ▶ Dedicated staff to exceed expectations



Captioning Services

Streaming Video Enhancement



Real-Time (Live) Captioning

Swagit can provide real-time captioning for live programming, as well as sync those captions for on-demand usage after the event has come to its completion. Captioning through Swagit can be distributed to both TV and the Web simultaneously, if needed.

- **CaptionLive**

- Human Assisted Real-time Transcription (HART); captions are created as an event takes place, utilizing a live transcriber. (Specific captioning appliance required for this service.)

Post-Event (On Demand) Captioning

- **CaptionPM**

- Human assisted post-meeting captioning for video on demand, completed and aligned with event video within 4 business days of broadcast.

Additional Captioning Services

- **Speech-to-Text Document**

- A basic text file created from spoken words in a meeting audio; does not include non-audio information such as speaker identification or graphic presentations. It is not a word-for-word legal transcript.

- **SwagitSync**

- Swagit synchronizes your 3rd-party live captioning transcript with event video for on-demand viewing; completed within 4 business days of broadcast.

Captioning rates are calculated in full hours only, and are based on total length of meeting or event, which includes breaks, closed sessions, and other non-captioned events during that length of time.

Swagit meets FCC mandated ADA requirements for closed captioning.

Specific captioning appliance may be required for these packages and services.

Sound Search™

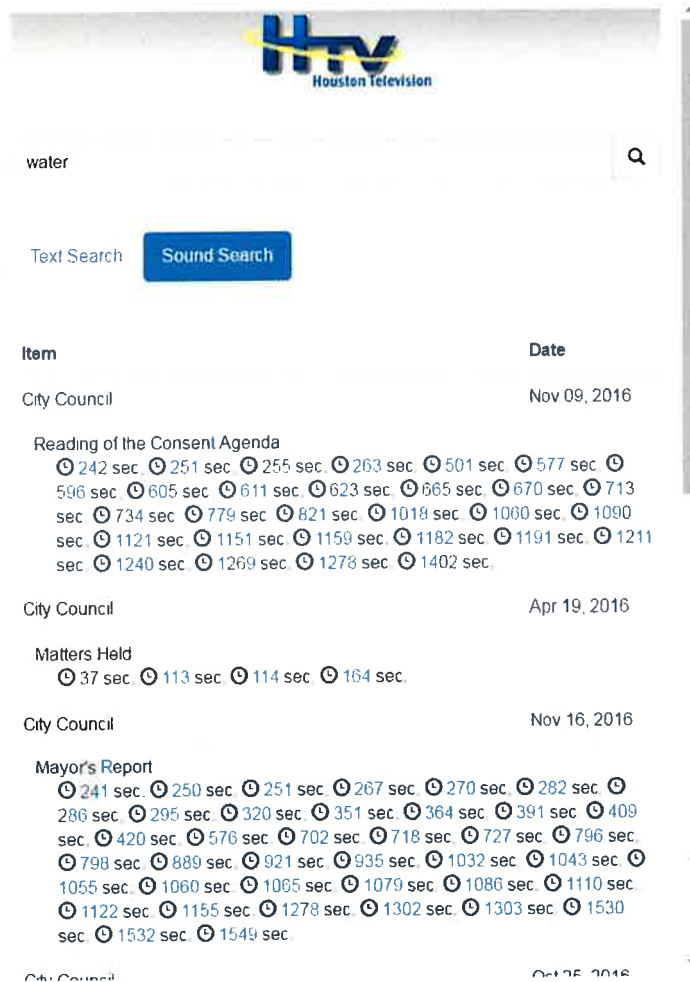
On-Demand Streaming Video Search Enhancement

Swagit’s innovative Sound Search™ dramatically improves the search for specific content in archived videos. A positive search hit for a specific spoken word will take the viewer to the exact location within any meeting that the word or phrase was spoken.

Sound Search™ results are displayed by the date and second mark, and provide a direct “jump-to” link for each instance a searched word or phrase was spoken during meetings. When a search result is selected, the audio/video clip will begin playing several seconds prior to the search result, giving greater context to the result.

Swagit’s focus is on emerging technology and pioneering features like Sound Search™ that enable increased resident engagement.

- ▶ Search results are date- and second-marked
- ▶ Direct “jump-to” link by spoken word
- ▶ Increased resident engagement



Social Media eXstream Social Live Video Streaming

Instantly stream live your jurisdiction's local events to followers and engage with viewers in real time with Swagit's Social Media eXstream Package. Live streaming is the future growth of social media and has become a part of culture that government can easily use to reach more residents online. Users can watch live broadcasts, whether on a PC or mobile device, in a matter of seconds. Social Media eXstream connects your meetings and events with live social platforms such as Facebook Live and YouTube Live.

- ▶ Live multi-destination streaming
- ▶ Multi-bitrates
- ▶ Affordable and simple
- ▶ Additional resident accessibility to meetings and events
- ▶ Expanded reach and audience growth
- ▶ Increased distribution channels

Streaming to social media live platforms can immediately expand your audience and increase distribution channels. For example, Facebook engages your viewers by sending a notification alert to your followers before the stream begins. Residents can then easily connect, interact and follow your event in real time.



PSA Example: Veterans Day

Implementation & Training

Once Swagit receives two signed original agreements, you'll hear from Swagit's team of deployment experts. We'll also send you a welcome packet, requesting basic information we'll need to complete your installation (such as your meeting schedule, contact info, IP information, and graphics for your video library/video player).

Phase 1 - Hardware Provisioning/Development

- ▶ Hardware ordered (out of stock items may impact delivery)
- ▶ Hardware assembled by Swagit engineers
- ▶ Operating system installed and configured per installation
- ▶ Swagit EASE™ streaming appliance software installed
- ▶ System burn-in testing conducted under fail-test load
- ▶ Hardware sign-off by Swagit
- ▶ Welcome packet information (meeting schedule, IP info, etc.) returned to Swagit

Phase 2 – Web Element Design

- ▶ Video library and player designed by Swagit in consultation with Client
- ▶ Linking instructions provided to Client Webmaster/IT
- ▶ Design sign-off by Client

Phase 3 – Deployment/Implementation

- ▶ Assembled hardware shipped
- ▶ Remote configuration and testing of audio/video feed quality by Swagit
- ▶ Confirmation of correct video library linking and integration with Client's website
- ▶ Installation sign-off by Swagit

Phase 4 - Acceptance Testing

- ▶ Dry run of meeting capture, indexing and encoding process using next available meeting rebroadcast, alternate content or live meeting
- ▶ Final signoff by Client and fulfillment of purchase order

Deliverables

- ▶ Installation checklist
- ▶ Configuration, testing and installation of Swagit EASE™ streaming appliance
- ▶ Secure FTP account for pre-edited digital content
- ▶ Customized video library
- ▶ Customized video player
- ▶ Monthly usage statistics

If your service package includes client-controlled indexing, Swagit will provide remote training to teach your staff how to index meeting videos as well as how to include links to attachments. No additional training is necessary; Swagit's traditional services are hands-free.

COST SUMMARY

EASE™ with Monthly Managed Services

Hardware, Licenses, Setup, and Support Services

Item & Description	Quantity	Up-Front Cost
EASE™ T Streaming Appliance	1	\$3,290.00
EASE™ H Streaming Appliance	1	\$6,690.00
EASE™ 2D Streaming Appliance	1	\$11,590.00
Advanced Caption Encoder/Decoder <i>(Voice over IP capable)</i>	1	\$12,690.00
Avior™ HD - Three (3) camera setup as a standard	1	\$41,194.00
Total One Time Cost:		\$ 41,194.00

Yearly Managed Service Package

Item & Description	Rate	Quantity	Yearly Cost
EASE™ Hands-Free Service – 25 <ul style="list-style-type: none"> Up to 25 indexed meetings per year Up to 120 hours of specialty video content per year 24/7 Live Stream (Mirrored Uverse live stream, if needed) 	\$ 650.00	12 mos	\$ 7,800.00
Avior™ Hands-Free Production – 25 <ul style="list-style-type: none"> Up to 25 remotely switched meetings per year with lower third character generation 	\$ 345.00	12 mos	\$ 4,140.00
Sound Search™ (Included with HD Upgrade)	FREE	12 mos	\$ 0.00
Social Media eXstream	\$ 125.00	12 mos	\$ 1,500.00
Total Annual Service:			\$ 11,940.00

Package Overages

Item & Description	Cost
Additional EASE™ Hands-Free Indexed Meetings	\$ 150.00 / meeting
Additional AVIOR™ Hands-Free Remote Switched Meetings	\$ 175.00 / meeting
PEG PSAs (Includes up to 120 Custom PSAs per year with voice-overs)	\$ 295.00 / month
AT&T U-verse Setup and Activation Fee	\$ 495.00

** Price and hardware model are subject to change after 60 days without prior notice.*