

Streamlined Video Streaming with Epiphan Pearl



Source of Knowledge is a leading educational content capture and distribution company. They've captured over 1000 conferences, seminars and tradeshows handling more than 40 concurrent sessions. Their customers include education, medical and Fortune 500 companies.

In live event streaming the stakes are high. The team at Source of Knowledge needs to get high quality results on the first try. There is no room for re-takes or "do-overs". When the speaker is on, so too must be the capture, streaming and recording solution.

To ensure success, Source of Knowledge trusts Epiphan Pearl. Pearl is a sleek all-in-one unit that lets Source of Knowledge flawlessly capture and stream multiple video and audio sources combined into a picture-in-picture layout. They configure Pearl to also record the original sources at high bitrate and full resolution. This provides Source of Knowledge the ability to



Michael W. Doane

create different viewing combinations in post-production after the event and gives clients the widest range of options for how to use the captured data. *"It's crucial to our business to stream picture in picture but at the same time capture the individual components in high resolution. Often times, clients use the picture in picture format for educational purposes but after the event they come back to us with a need for just the talking head or just the video graphics for marketing purposes. Pearl gives us those pieces without any extra effort."* stated Michael W. Doane, President at Source of Knowledge.

To capture an event, Source of Knowledge used to bring multiple laptops with external video grabbers connected and zip-tied together. Not only was this a mess of cables, the laptops themselves were a source of trouble. Changing manufacturer specifications made it difficult to source laptops year after year with identical specifications and the laptops needed attention to ensure they had the latest OS updates, software updates and drivers for their external grabbers. While this isn't too much work for a single unit, with over 250 laptops in the field at once, and sometimes capturing 30, 40 or 50 sessions simultaneously, the task of ensuring all systems have the same set of software, updates and drivers is substantial!

If not constantly monitored, laptops are also attractive to thieves looking for items easy to pawn or conference participants who view laptops as open computers available to surf the net or check email. On one occasion, Source of Knowledge momentarily left their capture laptop unsupervised while setting up another room and an event attendee took advantage of a seemingly available USB port on the laptop to plug in and charge a mobile phone. *"I couldn't believe it when I found someone's mobile phone plugged into our capture laptop! This person's actions showed me how susceptible our capture setup was to interference from external parties. This time it was something benign, but the next time it could be someone with an executable on a USB stick. We needed to resolve this problem!"* said Mr. Doane.



When looking for a solution to this complex mess of capture gear, Source of Knowledge turned to Epiphan, a company they had worked with before. Positive experience with Epiphan's first class support team led them to evaluate Epiphan's latest streaming and recording solution, Pearl.

Pearl reduces the complexity of the process used by Source of Knowledge to capture, record and stream events. With ports for dedicated capture video from SDI, HDMI/DVI and VGA and audio inline or via TRS, there are fewer pieces to ship, setup, and watch over. *"It provides the scaling, encoding and streaming formats and protocols we previously would have done with software on our capture laptops; and its all-in-one package means we've reduced the amount of equipment we need to have onsite."* reports Mr. Doane. Additionally, each unit has its own hard-sided carrying and shipping case, which means everything to capture, record or stream a room arrives a single box.

The dedicated hardware comes from a single vendor, and there is only one update process to manage for the entire suite of systems deployed at an event. Pearl's professional AV form factor doesn't resemble a laptop, meaning it doesn't invite unwanted attention from conference attendees or thieves. With less to setup, configure and upkeep, Source of Knowledge can now capture even more parallel sessions using Pearl. *"Moving from laptops to Pearl means less setup, less supervision and higher overall confidence. Furthermore, we like the fact that the USB ports are at the back of the system. This is perfect for show setup, but makes them inaccessible to attendees."* explains Peter Monta, Vice President – Technology with Source of Knowledge.

The quality and reliability Pearl exhibits in capturing video and audio means reduced post-processing for the Source of Knowledge team. There is no need to worry about poor quality video or missing audio. They can monitor video quality from Pearl's front-mounted screen and can glance at the VU meter for confidence that audio is being successfully captured. Pearl also encodes directly to H.264 unlike their previous solution which produced large mezzanine files that required post-processing before they were ready to share with customers. *"Every event capture has its share of failures. From hardware malfunction, cable issues and human error, there are a variety of reasons, yet every content capture company strives to achieve 100% success. We're really pleased to say that using Pearl to capture events has pushed our already high success rate to more than 99.4%!"* says Mr. Monta.

"Pearl takes things to the next level for us!" reports Mr. Doane, *"We're extremely excited about Pearl because it reduces cables, connections and setup time while increasing our product offering and dramatically reducing the time and effort required to bring final end products to our customers."*

Source of Knowledge is a leading company in the field of conference capture and live streaming having produced over 15,000 hours and 250 events in 2014 alone. www.sok-media.com

Epiphan Systems Inc. builds some of the world's most reliable AV communication solutions for education, healthcare, live event production, manufacturing, security and transportation. www.epiphan.com

SCHEDULE A DEMO – epiphan.com/demo

Pearl is Epiphan's portable all-in-one streaming/recording system.

Connect and capture 4 HD sources at 30 fps or 2 at 60 fps. Stream them individually or choose to create and stream custom multi-source layouts with branding and background mattes of your choice. Simple CDN integration with RTSP/RTMP or stream directly to up to 50 users using HTTP Live Streaming, Flash, MPEG-TS or RTSP.

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