SMART
MOBILE
LABS

Press Release

5G Ready Product Announcement

Munich, Germany, Jan 17th, 2020 is shaping up to be a big year for Smart Mobile Labs AG with the first 5G Campus networks with real-time video on order and many more on offer. To kick it off, we are proud to announce our new ingest products for the 5G era with record breaking performance:

1. **Android Sender App**

   (HD, 0.1sec delay Phone-to-Phone, FREE download on MySML)

2. **Hardware Encoder**

   (HD/4k, 0.1sec delay Camera-to-Phone, Price under NDA, 4 week delivery)

3. **Linux GPU Server Encoder**

   (up to 8k, ultrafast 20 msec Server-to-Phone, Software download)

All 3 products support SML's AR / VR360 features and vertical markets:

- Remote TV Production
- Security / Surveillance / Drones
- Entertainment / Stadium services
- Car2x / Autonomous and Remote driving
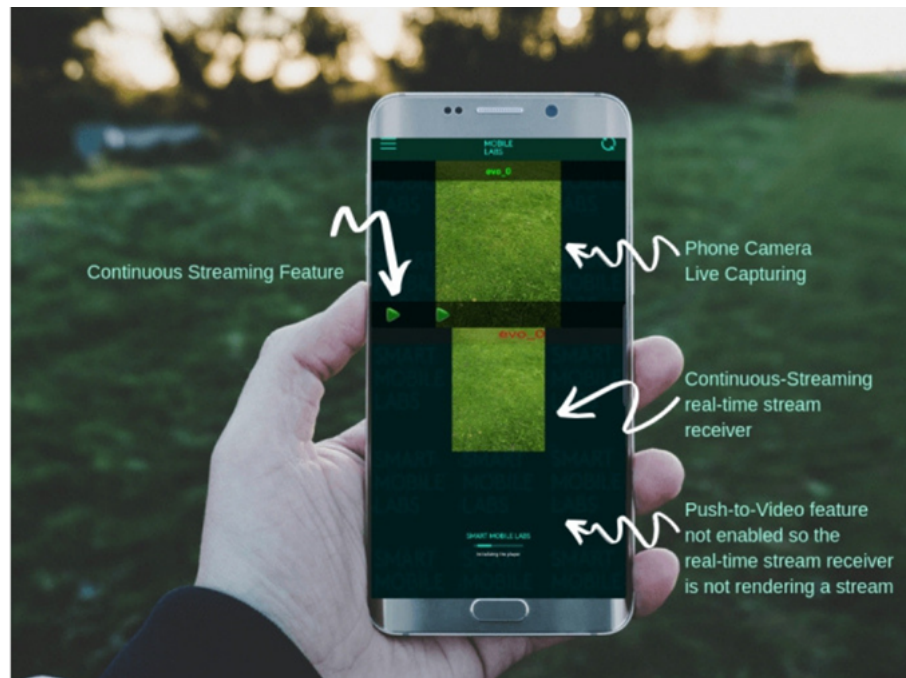- Industry 4.0 / Remote machine control
- Cloud Gaming

1. Android Sender App

Our new Sender app turns every Android phone into a Bodycam, TV camera, consumer realtime live stream device. The Sender app is stream compatible with all other SML encoders and SML playback types.

Major features are:

- Push-to Video Feature which allows a member of the secured talk-group to stream certain content within the rest of the talk-group. This feature enables highlighting important mission critical scenario to give the rest of the group insight.
- Continuous Streaming to share live updates of a situation with the control room and the rest of the talk group.

The app can be installed on Android smartphones as well as Tetra-LTE hybrid devices. Functionality can be as a stand alone app can stand alone to share content among multiple users within a talk-group between themselves or multiple streams from multiple handheld devices and fed into the director app in the control room.

Using the SML EVO server as switching core, streams are transmitted and received bidirectionally in hyper low latency (< 100 msec phone to phone) with perfect quality.

Our new sender app is especially interesting for the Public Safety and Entertainment/TV-production industry. The SML App creates real time situational awareness to empower first responders and control centers for better decision making.

2. Hardware Encoder

The new Barracuda encoder is the successor product to the TARGA encoder and allows H.264/265 en/de-coding of SDI cameras via Gigabit Ethernet / 4G/5G and WiFi transport. The product allows especially to stream directly to band 42/43 networks (3.4-3.8 GHz) as used in 5G.

Major Features are:

- Low Latency Streaming (0.1 sec for encoding + decoding)
- Capacity per device:
  - 1x 4Kp60 or
  - 2x 4Kp30 or
  - 4x 1080p60 or
  - 5x 1080p30
- Audio Streaming AAC with Input/Output in SDI or Mic in 3.5 mm jack
- integrated Power / Menu control for ATOM cameras

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Depending on the architecture deployed, encoders are an integral part of the infrastructure needed to support a range of video streaming over a wide range of use cases including but not limited to SML's business areas.

Encoders enable quality mobile video streaming through enhanced multimedia compression compatibility and efficiency. SML has enhanced these encoders with its software to reduce latency where time is critical situations such as live broadcast.

Examples of use cases supported:

1. OTT video editing and production
2. TV Broadcasting
3. Multiscreen viewership including, but not limited to, live events, sports immersive fan experience, public safety and security

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3. Linux GPU Server Encoder

Major Features are:

- Hyper Low Latency Streaming
  (< 20 ms for Server encoding + CDN distribution + Phone decoding)
- Nvidia GPU (V100, GTX1080, GTX1050 tested) based screen encoding up to 8K
- SML EVO compliant authentication & streaming format
- Adaptive streaming with asynchronous i-frame requests, 4G/5G basestation control, dynamic FPS / bitrate change in case of 4G/5G cell overload
- Mobile carrier solution to outperform OTT cloud gaming providers

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Our Linux GPU server encoders enable a range of cloud gaming and industry 4.0 applications through improving the powerful computation requirements needed (especially those requiring AI). It enhances the speed and efficiency of parallel computations and complicated algorithms handling which is especially useful for real-time tracking in a wide range of fields from Automotive to Sports and Public Safety.

Use cases which benefit from the latter include:

- Cloud gaming enabling and acceleration
- AR/VR 360 applications
- Tracking: Traffic, CCTV, Drones, cars and sport players

About Smart Mobile Labs

Smart Mobile Labs is developing special solutions for the LTE and upcoming 5G mobile radio standard. Our focus is real-time with hyper-low latency as a managed service. Our work is based on our extensive expertise in the area of the campus and private LTE networks and our experience in the high-quality transmission and distribution of video signals. We are also working together with leading technology partners to implement complete solutions into live networks of mobile operators, and to build specialised networks for enterprises and industrial campuses. For more information please visit http://smartmobilelabs.com
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