Viewership Measurement in Panel Audiences through a Pass-through Meter

Sensara Technologies presents a new and accurate method for measuring Attention on TVs – through Ai-powered video reasoning on pass-through meters. Without requiring watermarking, this system can:

- Measure TV channels being watched by a home to a second-level accuracy
- Study ambient signals like TV being Off while the STB is On.
- Provide Industrial device management – that allows remote monitoring and inspection.
- Continuous availability through embedded 4G LTE to allow for tamper proof and timely statistics.
- Ability to conduct authentication and surveys on the panel

A much more accurate meter:

- STB input is first passed to the pass-through meter, and then to the TV. We use a proprietary logo detection algorithm. This provides resilient detection, and will work even when the sound of the signal is low/ non-existent
- The STB video images are analyzed every second. So, channel switches can be captured accurately, and the start of a certain channel can be mapped to a second accurately

- We analyze TV output sounds as well, and match against the STB input. Through this, we can infer if the TV is indeed On, and eventually allows us to even figure out if there is cross talk or the surroundings are noisy
- The meter can detect if the STB is switched On/Off, and also if the TV is switched On/Off
- The meter can also detect Landing channels and infer and validate the TV Operator. Pure audio-based meters cannot infer and verify TV Operators
- The device has an embedded battery to support uninterrupted reporting. The device also has an embedded SIM card to ensure there is no dependency on the Wi-Fi availability at the panel home

A meter that can be inspected and controlled remotely:

- Oftentimes, you'd get suspicious of what is happening in the field. This meter allows you to inspect the meter, and grab screenshots of what is happening in an individual household and inspect them
- Bundled with an Infrared blaster, the meter can also be used to remotely control the device and send our infrared commands to tune the STB to different channels. This can be used for an entirely different use case - to inspect landing channels, channel placements as well
- The ability to inspect screenshots allow measurement of EPG banners, study ads placed in EPG banners and their reach as well.

A meter that expands the panel to do surveys:

- Push messages allow for interventions and overlays on the meter screen that can ask the panel households to take part in surveys. Eg: After a brand launches a campaign, the panel members can be asked questions on the brand recall, etc.
- Surveys can be triggered at specific video contexts. Eg: After the occurrence of a certain ad on a certain channel, after the user has finished watching a full movie, etc.
- Our passthrough device allows for push-based installation of APKs on demand. Apps can be launched through a central command center as well.

Audience Viewership Sessions:

- Audience Viewership Sessions will have the following User-specific fields:
  - Time (accurate to the second)
  - User id (Anonymised Sensara user id from the passthrough device)
  - Device id (Passthrough device id)
  - Watch status (Ad seen in full, Switched in, Switched out)
  - Session id (The channel switch session in which the ad was seen)
  - Session length (This is equal to the ad length if ad was seen in full, partial otherwise)
  - City
  - Region
- Audience Advertising Sessions will be ingested into an OLAP system (Druid) for pivots analysis.

Insights Dashboards

- Dashboards to provide ready insights on performance of content, promos, ads, products, brands on the Premium Panel Audience Viewership data. The dashboards will cover pre-computed, cached insights pages.
- Dashboards will cover statistics and visualizations for:

- Overall Reach, Impressions, Reach/Frequency
- Share of Voice
- Split up of metrics across:
  - Regions
  - Languages
  - Channels
  - Time bands
- Dashboards will also support exporting reports to PDF, and incremental reach analysis on channels