

Part 3

Dovetail Boost Panel: Router Meter Option

Background

Project Dovetail incorporates BARB's intention to integrate panel operation with external census based data for online TV viewing. This is with a view to creating consistency between BARB's demographic panel audiences and site centric equivalents, and increasing the precision and granularity of BARB's audience analytics, such as cross-platform reach.

In this context, BARB is exploring how to capture the in-home viewing of panel members who have explicitly agreed to the monitoring and recording of activity on their connected devices including Smart TVs, PCs, laptops, tablets and smartphones. This part of the specification describes the ideal dataset and technology framework for monitoring the home networks of panel members who have explicitly agreed to such monitoring and whose demographics are known.

As a general principle, BARB expects interested contractors' proposed usage monitoring solutions to minimise disruption to these panel members. The technology must also be easy to maintain, configure and operate.

We recognise that alternative data or information may provide an adequate substitute to what is specified, and data may be usable in a different format, so some discussion of requirements is expected. BARB is not necessarily aware of the full potential of network monitoring systems and would welcome suggestions and advice from potential contractors and data suppliers.

The sample design for this panel is described both in the overview on page 1 and throughout part 1 of the specification.

3.1 Installation

BARB expects that the monitoring solution will involve a combination of hardware and software that may include an appropriately configured router. The contractor will be expected to provide the support necessary for the solution to be installed and maintained properly in panel member homes.

- ▶ Meters will need to be line-tested
- ▶ Authorised contractor staff must be able to make configuration changes remotely and securely.
- ▶ All broadband homes must be measured for all IP delivered broadcaster content. The router meter being installed in all qualifying households and *in addition* to set meters for those with TV set(s).
- ▶ Broadband-only homes (with no TV set) must be included in the router meter samples.

3.2 Device capabilities

The solution must enable BARB to monitor panel member activity in the home and capture high-quality information on this activity, i.e. *viewing statements*. The specific fields to be captured and expected data format are outlined in section 3.3 below.

3.2.1 Hardware and operational capabilities

The solution must be able to fulfil the following hardware requirements.

Discover and connect to, or replace, the panel member's home network

If the solution integrates with an existing network, perhaps by connecting to the household's existing router, it must self-discover and automatically connect to the network. The solution provider must assure that the hardware chosen is compatible with all reasonable implementations of home networks (ISPs, router versions etc.).

Capture identifiers of all devices that use the home network

All devices must be uniquely identified so that their own activity can be captured and isolated. The contractor must ensure that they are regularly updated with information about all the devices in the home, such as device type, main user and main streamer.

Store and upload the viewing statements logged when devices on the home network engage in viewing online.

The contractor must explain the process used to store and upload the viewing statements, in particular the frequency of upload, the expected traffic load on the monitored network and fail-safe mechanisms to cope with, for example, lack of network connectivity or malfunction in the monitoring system. Data must be uploaded with sufficient regularity to conform to the overnight processing specified in Section 3.3 below.

Quality control information about the uploaded viewing statements must be available for each day to enable evaluation of the quality of each household's set of viewing records. This must include:

- ▶ date and time when viewing statements were uploaded
- ▶ upload response codes (e.g. data collected successfully)
- ▶ logged technical faults (e.g. engineer visit requested/pending, service down in locality), and
- ▶ any other suitable information which confirms correct operation of the system and quality and completeness of data.

3.3. Data capture capabilities

Within each home, we need to understand viewing on a second-by-second basis, and therefore need to capture detailed information about the viewing sessions, also known as viewing statements.

These viewing statements will feed into the data processing and modelling system outlined in 2.5. Resulting data will be delivered to BARB's appointed contractors as part of Project Dovetail, which is designed to produce equivalent audience analytics to those available for the core BARB panel.

The data captured must therefore be converted to a format which is meaningful to allow for the processing outlined in section 2.5 to be conducted either by the supplier or BARB's data modelling contractors. The output must be a clean set of processed, edited statements. Tenderers are requested to provide a spec for the output file from their router as part of their submission. The following fields are a minimum requirement. This will effectively create a stripped-down version of the standard BARB Panel Viewing File for basic analytic functionality:

- ▶ Identifier of the device (each smart TV; PC/laptop; tablet and smartphone in the home)
- ▶ Where possible, identity of the owner/main streamer of the non-TV device so that devices can be mapped to individuals
- ▶ Identifier of the household
- ▶ Start date and time (to the second) of viewing session
- ▶ Duration of viewing session (to the second)
- ▶ Session identifier
- ▶ Type of activity (e.g. live streaming, on-demand play, download play etc.)
- ▶ Broadcaster content identifier of the content being viewed (if live, can optionally be replaced by channel identifier)

Any change of state, such as changing channels, must instigate a new session. Both programmes and commercials must be assigned content identifiers; advertising content identifiers must meet a known industry standard where available, such as the Clearcast clock number.

To fit with BARB's reporting cycle, the captured data must be made available overnight on a daily basis.

Broadcaster apps

The BARB analytics tags embedded into broadcaster players and detectable by a properly configured monitoring solution will already capture much of this information. The key requirement for the monitoring contractor is to provide a reliable link between this census analytics and the panel member household's devices using appropriate identifiers as specified above.

Other online video content

BARB's mission is to capture and understand the patterns of all viewing in the home. To this end, BARB is interested in additional information on viewing of online video on players and apps that are not yet tagged with the BARB analytics referred to above. Contractors are expected to outline how they will measure video viewing on such untagged players.

Some video players of interest communicate via the encrypted HTTPS (secure HTTP) protocol rather than simple HTTP. The solution provider must therefore:

- ▶ explain to what extent information about non-tagged players and, in particular, encrypted viewing can be captured;
- ▶ explain, if using technology that is claimed to see inside HTTPS traffic, the process used to BARB and obtain explicit agreement from panel members that these elements of their secured data flows can be recorded;
- ▶ demonstrate how it will reassure panel members that the scope of monitoring relates specifically to TV audience measurement only, explain the extent of monitoring to the panel member on request.