BIOSTREAM™

BioStream is an efficient communication protocol and on-device session runtime manager with an interface that controls the operation and compilation of biometric samples collected by wearable devices.

All BioStream communication with any application is serialized and encoded for transmission across wireless communication technologies such as Bluetooth LE and LTE 5G networks.

The BioStream protocol provides key benefits for communication over wireless interfaces:

- Communication is accomplished using a programmatic mechanism for serializing structured data providing flexible configuration and efficient data transfer across low bandwidth networks.
- Lossless data compression reduces transmission size for sampling biometric waveforms (e.g. ECG, bioimpedance, etc.)
- Source code is provided to easily write and read BioStream structured data to and from a variety of data streams using numerous languages including C, C++, Java, Python, Objective-C and Go.
- BioStream protocol supports a backwards-compatible data format to avoid breaking deployed programs that are compiled against an “old” format.
- Dynamic configuration of sensor data sampling on a per session basis based on use-case is possible.
- New sensor and configuration fields can be added, and intermediate servers can simply parse that new data and pass it through without involving the new fields.
- BioStream can be stored and later read back from a persistent storage medium (e.g. flash) while preserving data and time sequence.

603.417.4017 | www.braveheart.life

P/N 800067 Rev 01

BraveHeart®
Wearable Life Sensors

The BioStream™ session runtime manager module communicates with controller applications using Bluetooth BLE receiving commands. It sends sensor data via the BioStream protocol service to both configure and control the following functions:

- Session Control tracking including session activation, session identification and initiator.
- Streaming of physiological information.
- Support for live streaming, spot check telemetry, and store-and forward use cases.
- Support for on-device recording of physiological data.
- Support for monitoring of vital signs to generate alarms for parameters exceeding a threshold.

603.417.4017 | www.braveheart.life

P/N 800067 Rev 01