



MRD Summary

<http://realwave.io/>

Overview: Realwave is a Video IoT tool to help operators/teams improve execution.

Key Differentiator: Realwave can leverage any video source and any IoT data in conjunction with an intelligence rules engine. This allows the system to monitor for business anomalies and/or events of interest and then trigger the appropriate action such as sending SMS, emails or in-app notifications to responsible parties, up loading to the cloud event feeds a pre/post event clip, or simply tag the event to be included in a search or web-report in the future.

Key Design Principles: Realwave is meant to be industry agnostic, allowing any data to be ingested and monitored. Realwave is cloud based hosting both web and mobile clients. Realwave uses modern js stack (MEAN or MERN) and with a modern design standard such as Material Design. Realwave will have a development API as it is assumed that a growing ecosystem of partners will add-on to the Realwave platform.

MVP: The initial deployment of Realwave is in the retail sector, providing a video auditing tool to quickserve restaurants, convenience stores and specialty retailers.

Key System Components: Realwave has three key components, the RealHub which is the server in the stores that manages the video and IoT data, the RealCloud which is the cloud instance and the RealClient which is either a web client or a mobile client.

Key RealHub functions:

- Needs to record video.
- Needs to listen for data, buffer data and post data to the RealCloud based on configuration of the rule for the data from the RealCloud.
- Needs to provide RealCloud diagnostic health information.
- Needs to have a secure connection to the RealCloud (IE reverse SSH tunnel)
- MVP data: POS, Alarm System, Temp Sensors, Video

Key RealCloud functions:

- **Aggregate secure connections to sites**



- Host secure client sessions using TLS.
- Store pre/post event clips
- Orchestrate live video streaming sessions between Hub & Client
- Orchestrate recorded streaming sessions between Hub & Client
- Configure rules - configure data feeds for alerts, event clips and/or automated reports. To set up a rule the user selects the data stream, selects the condition then selects the action; could be pre/post event clip creation, post jpeg on exception, send SMS with event clip link, etc.

Key RealClient functions:

- User configurable dashboard. Dashboards are duplicatable to speed configuration. To configure a dashboard, user selects a grid system (MVP needs one grid), then user populates grid with widgets (MVP needs five widgets - Video, Bar Chart, Pie Chart, Table Chart, Summary Card). User selects the Widget, Selects a search/rule and any display text.
- Live Video - Via Video Widgets
- Audit Page - A combination of a table widget displaying for example POS transaction information and a video widget. When a transaction line is clicked (drilled into), either the table expands or a window pops up displaying the POS transaction receipt with the video. If the video window expands to full screen, the POS receipt is overlaid. Otherwise it's selectable from sideXside video or overlaid.
- KPI / Alert Cards - Summary Card Widgets
- Event Feeds - Similar to a FaceBook feed, where all recent pre/post event clips (with summary info) are viewed (FIFO)
- Clients can be web client (HTML5) or mobile client (iOS & Android)