Sirqul IoT Platform for Healthcare

Hospitals & Assisted Living
Enabling Healthcare Experiences with a Presence-Aware Ecosystem of Connected Care
The patient experience starts at home with either personal or physician provided devices that help monitor them even away from the facility.

Connected healthcare facility providers have information about patients, staff, equipment and supplies to transform patient experiences.

Expanding to the entire provider network connects patient needs with lab, pharmaceutical, and other services.

Including elements of the supply chain helps put the right supplies in the right place at the right time.
Sirqul’s platform delivers increased quality of care and service differentiation, including prevention and response, with a 360 degree view of:

- Patient Experiences
- Staff Interactions
- Asset Tracking
- Facility Management
Sirqul’s IoT platform and Edysen hardware devices (cube and light socket adapter) passively collects data from continuous, unobtrusive monitoring of patient activity without an app, tablet, or online survey.

Passively monitoring residents’ sleep, stress and activity levels from Wi-Fi and Bluetooth devices, Edysen delivers physicians, caretakers, and family insights into well-being with the ability to detect falls, proactively identify ailments, and respond to events with real-time and historic knowledge.

The suite of remote monitoring devices, sensors, and apps is an ever growing list. Sirqul offers the only future-proof, device agnostic, and interoperable remote monitoring system in one platform. Sirqul is ready and able to aggregate all health data and operations into one Brookdale-branded dashboard for easy access by both families, patient, and staff.

• Why Sirqul?
Sirqul’s Edysen Passively Collects Data

- **Track movements and behaviors:**
  Detect movements between living quarters such as the Bed, Kitchen, Living Room or within the facility. Monitor behaviors and interactions with staff and other community members as well.

- **Visualize, report, & custom queries:**
  Visit duration, frequency, zones visited, path analytics, dwell time, health trends, activity levels, and more.

- **Take action:**
  Alert staff nearby to assist, order food to room, pick-up medications, find facility rooms, send family member updates, or trigger alerts to physicians.
• Smart Edge Computing Device Family

Edysen Cube

- Android OS firmware support: 6.0 Marshmallow
- CPU: Rockchip RK3229
- Memory (eMCP): MCP-1GB LPDDR3 + 8GB eMMC
- WiFi/BT: IEEE 802.11 b/g/n and BT4.1 (BR/EDR + BLE)
- MFI IC: Authentication Coprocessor
- PMIC: Power management IC devices
- Power: USB to AC adapter or portable battery pack
- Wi-Fi and BT/BLE monitoring mode for passive tracking (no app required)

Edysen Socket

- Android OS firmware support: 6.0 Marshmallow
- CPU: Rockchip RK3229
- Memory (eMCP): MCP-1GB LPDDR3 + 8GB eMMC
- WiFi/BT: IEEE 802.11 b/g/n and BT4.1 (BR/EDR + BLE)
- MFI IC: Authentication Coprocessor
- PMIC: Power management IC devices
- Power: Edison 26/27 bulb base (additional options at request)
- Bulb compatibility: Incandescent and Halogens. Dimmable LEDs and CFLs.
- Wi-Fi and BT/BLE monitoring mode for passive tracking (no app required)
Traffic Analysis

- **Live heatmap** displays patient, employee and management traffic behavior
- **Track accurate dwell time** by area
- Detect **indoor traffic congestion** and resolve

Floor Optimization

- Identify which **areas have synergy** to increase engagement
- Discover **under-utilized areas** and allocate assets
- Optimize **placement, security, staff** and **floorplan**
- **Visualize** and report (custom queries by patient, demographic, dwell time, location)
- Determine the **value of every square foot**.
Predictive simulation allows facility to **test, measure, and iterate** floorplans, asset allocation, staffing all BEFORE incurring costs.

- **Simulate traffic, patient and staff behaviors** across healthcare professionals, employees and inventory

- **Evaluate changes and impact on KPIs** – traffic, notifications, dwell time and more

- **A/B test** asset locations, wait times and more
Personalized Healthcare Experience

Cloud
Big Data Processing & Repository, Machine Learning, AI, Social, Mobile, Online, Search etc.

Smart Mesh Edge Computing
Local data, Events, Rules, Analytics, Visualization, Triggers

- Facility Access
- Medicine Tracking
- Patient Monitoring
- Shuttle Service
- Inventory management
- Smart Carpet/Flooring
- Dwell time
- Wearables
- Location Monitoring
- Activity, sleep Mobility monitoring
Cloud
Big Data Processing & Repository, Machine Learning, AI, Social, Mobile, Online, Search etc.

Smart Mesh Edge Computing
Local data, Events, Rules, Analytics, Visualization, Triggers

- Glucometer
- Blood Pressure monitor
- Wearable Fitness Tracker
- Open/close Door Sensors
- Connected Blood pressure monitor
- Connected Scale
- Temperature monitoring
- Sleep Tracker
- Bed Sensors
- Patient Graph
- Temperature monitoring
Connected Healthcare

Facility Management

Patient Experiences

Staff Interactions

Asset Tracking
• Navigate multi-building campuses

• Alert staff for assistance with preventative and responsive care

• Detect behavioral patterns and meaningful health changes

• Live a more fulfilled life that is less invasive
• Easily locate records when entering a room and quickly identify patient needs

• Monitor patient with configurable notifications and alerts

• Update family members on patient location and health

• Increase communications with patient
Resource and Staff Coordination

- Dashboards around efficiency and productivity
- Presence awareness of teams
- The ability to quickly match the right provider for patient needs
- Benchmarks speed and efficiency
- Verifications of appointments and visits
Asset Management and Tracking

- Locate equipment quickly and efficiently
- Incorporate equipment location into patient workflow (timed with response teams)
- Track inventory and manage supply chain
Facility Management

- Safety and security monitoring of patient, staff, and visitor movements
- Centralized presence awareness for emergency routing and procedures
- Location and navigation assistance
- Building management system integration for increased efficiencies and cost savings
- **Integrate with existing systems:** technologies, workflows, beacons, RFID, Wi-Fi, Bluetooth, other IoT devices, video surveillance, event calendar, weather, mobile app, and more with APIs, SDKs and web hooks.

- Integrate with a wide range of **new and existing IoT devices** via OTA app deployment

- Leverage **white-label app template** or **integrate SDKs** into existing app

- Import/export data feeds with **APIs to existing connected dashboards**
Leveraging our existing software platform to meet the most common use cases, Sirqul makes it easy for facilities to connect any device & aggregate all health data into one dashboard.
The smart cap that won’t let you forget to take your medicine. Smart packaging, software and behavioral science to improve adherence in a user-friendly way.

• Automatically Track Doses
• Intelligent Reminders
• Double-Dose Alerts
• Easier, More Convenient Refills*
• Track Side Effects and Results*
Appendix: About Sirqul
Sirqul has a global presence: Seattle, New York, Boston, Atlanta, Taipei, and a new Beijing partnership/investment.
Robert Frederick
Chief Executive Officer & President
- BlueTooth and connected devices startup acquired by Amazon.com (1999 for $22MM)
- Led mobile commerce at Amazon (1999-2004 US, Europe, Asia)
- Tech founder AWS (2002)
- Authored 33 US Patents
- Bootstrapped profitable startup for 4 years
- Formed Sirql in 2013 to take technology & platform to international customers

Scott Kurttila,
VP, Business Development
- Georgetown University, MBA
- Founding Member of Amazon Affiliate Marketing Team
- Drove Mobile Operator Deals with Rob at Amazon
- SiriusXM (Director of Affiliate Marketing)
- American Media (Corporate Vice President)

David Liu
Chairman
- SVP / General Counsel for Compal Electronics, Fortune 500 company
- Patent / IP Litigator
- Serial Entrepreneur & Angel Investor
- Drives Asia Business from Taipei/Beijing, lives in Seattle, WA
- Joined Sirql Board as a founding member, Investor
- Strong connection with International funds, and investors in Asia

Viki Zabala
Chief Marketing Officer
- University of Massachusetts Lowell, Beta Gamma Sigma Honor Society
- CMO MobPartner, acquired by Cheetah Mobile $50M (2013-2015), VP of Marketing and Inside Sales, Fiksu acquired by Noosphere (2011-2013) and advisor to several mobile apps
- Sought-after Industry speaker on mobile innovation, gamification, engagement, ad tech and social commerce
• Embed Over 73 Services and APIs into your Ecosystem

Relevance
Hyper-location, Audience, Contextual Targeting, Preference, Personalization, Recommendations

Inventory
Products, Services, Tickets, Vouchers, Coupons, Events, Search, Browse, Taxonomy, Filters, Classification

Incentives
Points, Leaderboards, Rewards, Task Management, Gamification, Goals, Achievements

Location & Presence
Tracking, Path Prediction, Geofencing, Geotasking, Resource Management, Real-time Navigation, Simulations

Crowd Sourcing
Notes/comments, Rights, Rules, Task Creation, Voting, Approvals, Media Ingestion, Chat Services

Framework
Real-time bidding, Cart, Payments, Billing, Sensor/Device Connectivity, Edge Compute

Analytics
Dashboards, Visualization, Customizable Machine Learning Algorithms
Our mission is to create a truly disruptive and virally adopted full stack IoT platform with no heavy lifting — hardware, software and mobile. From the smallest development teams to Fortune 50, innovative organizations use Sirqul to reduce the time from IoT inspiration — to reality.
Appendix: Additional Functionality
• **Operational Efficiencies and BMS**

• **Employee task management** and missions (bathroom attendance, clean-up, assistance).

• **Align staff schedules** with traffic cycles across the day, week, or year.

• **Improve security and safety** – deploy to alleviate traffic or detect unknown devices in private areas.

• **Predict maintenance** and reduce costs.

• **Save energy** with automation and control of lighting, refrigerator/freezer/cooler, media, HVAC, and electricity.

• **Automate the collection of data** aggregated across numerous physical locations.

• **Schedule maintenance** and deliver historical data records to pinpoint repair/updates.
• **Detect, locate, and monitor** all cellular, Wi-Fi, and Bluetooth assets, equipment and personnel devices **real-time**

• **Provide location accuracy** down to the foot

• Distinguish between **known** and **rogue devices**

• Receive real time alerts to enforce “**no phone / no device**” zones

• Augment traditional security policies with **location-based controls**

• Provide **detailed insights** into usage, flow, relationships, and more between personnel, assets, and visitors

• Connect to 3rd party systems, create zone-based security, document access policies, augment existing safety and security systems
Thank You!

SIRQUL™

For additional questions and information, please contact:

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