Alcatel-Lucent OmniAccess Stellar
Asset Tracking in Healthcare

Improve patient outcomes and operational efficiency with smart connections to people and assets in real-time
Asset tracking to optimize patient care

Asset tracking enables healthcare providers to know where critical and non-critical assets are located in real-time on a floor plan map. This includes items such as, beds, wheel chairs, infusion pumps and biometric monitors, among others. Staff, and high-risk patients such as new-born babies, and elderly patients who may wander, can also be located quickly in real-time.

Asset tracking also provides information about usage patterns – even when the equipment is not in use. Knowing if assets are overutilized or underutilized can provide information such as:

• How long people have to wait to get access to medical equipment
• Whether assets are sitting in a storage area for long periods of time
• How regularly equipment is being serviced
• How much time personnel spend looking for people and equipment

The latest technology to make its mark on asset tracking is Bluetooth Low Energy (BLE). BLE is a near-field technology that provides better location accuracy and because it uses less energy, BLE devices have a longer battery life which reduces operational and maintenance costs. A BLE solution with an intuitive smartphone app can enable staff to locate personnel and assets on a floor plan map, with a simple auto-text search. And the ability to easily register BLE tags for relevant assets or staff makes life easier for IT.

A BLE asset tracking solution:

• Provides accurate tracking of assets without additional/expensive overlay solutions
• Does not interfere with existing Wi-Fi infrastructure
• Improves battery efficiency for devices using BLE versus Wi-Fi technology
• Ensures better ROI than non-BLE solutions based on equipment, deployment and operational costs
Tackling healthcare challenges with asset tracking

Healthcare organizations face a variety of financial, operational and security challenges every day. Time spent looking for people, or equipment may not seem very high on the priority list, but wasted time means wasted money.

Whether it’s for an emergency situation, for regular use, or for maintenance, assets need to be easily located. In addition to understanding where assets are located, personnel safety and security are also important factors to address. Knowing the location of people, including patients and clinicians, means assistance can be quickly dispatched in the event of an emergency.

Analytics provided by asset tracking offers information about how assets are used, and where they are located. This information helps organizations optimize equipment utilization and reduces the cost of replacing, leasing and over purchasing equipment to ensure availability. Inventory lists can indicate that equipment is properly maintained and optimized based on the data provided. In addition, geonotifications can provide alerts such as, when service is due, or when an asset is being removed or stolen from a building.

Saving time means saving money

Nurses spend more than one hour a day looking for someone or something*. That is time that could be better spent caring for patients. And due to the fact that there are approximately 15–17 devices per bed, and about one quarter of those bedside devices are networked**, locating devices has become more important than ever.

If you can’t find a device or piece of medical equipment you can’t use it. A GE study found that many hospitals are reporting equipment utilization rates of less than 50%***. That’s well below the industry average of 70% to 80%. In addition, misplaced or stolen medical equipment (such as wheel chairs) can cost hospitals millions of dollars each year to replace or lease.

Assets need to be found quickly, whether it’s to address an emergency situation, or to ensure they are accounted for proper maintenance. If medical equipment, such as infusion pumps and patient monitors, aren’t regularly serviced, they cannot be used and must be replaced, which can further increase hospital capital expenses.

Sources:
* ROI of Locatable RTLS for Healthcare whitepaper, April 2015
** Cybersecurity: It’s Clinical, Too, Trustee Magazine, 2017
*** GE Study, 2016
When it comes to locating equipment and people, Alcatel-Lucent OmniAccess® Stellar Asset Tracking provides the smart connections that help healthcare organizations improve patient outcomes, provide a safe and secure environment, and optimize efficiency.

The ALE Asset Tracking solution enables hospitals to locate clinicians, patients and medical assets, quickly and accurately. This allows clinicians to have more time to spend with patients, leading to improved patient care and patient experience. Tracking the whereabouts of patients who may wander, identifying the location of a new-born, or locating contractors working on-site can help keep everyone safe and secure. From a business perspective, asset tracking can reduce the amount of lost or missing equipment, improve hospital workflows and reduce operating costs.

With OmniAccess Stellar Asset Tracking, healthcare organizations can:

- Free up time that can be better spent attending to patients
- Reduce the cost of replacing equipment that can’t be found
- Locate clinicians quickly in an emergency situation
- Provide an unparalleled level of security for all

**Locate patients, clinicians and assets in real-time**

OmniAccess Stellar Asset Tracking saves staff time with simple-to-use features such as:

- Easy search interface for non-technical staff
- Role-based access for locating an asset
- Search based on individual asset/person name or on a category of asset/person
- Web and mobile app-based asset search with optimized responsive design
- Customizable asset category parameters for various healthcare use cases

Tracking objects and people in real-time makes patient care more efficient and can help improve process and workflows in hospitals, clinics, and assisted living facilities.

Benefits include:

- Improved equipment utilization and reduced overhead costs
- Better tracking of assets in and around the facility to avoid theft
- Improved caregiver satisfaction by reducing the time required to locate resources
- Improved patient experiences as caregivers can spend more time with them

**View all assets**

See which assets are available then find them on a floor plan map. You'll know which equipment is nearest to you or to your patients. Equipment and role specific icons make it easy to locate the person or asset you need based on the icon graphic and color. Custom fields can be implemented to set up personalized parameters directly through the app.
**Asset Tracking solution components at a glance**

The following diagram highlights the key components of the OmniAccess Stellar Asset Tracking solution.

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**OmniAccess Stellar BLE infrastructure**

- **OmniAccess Stellar AP1201BG BLE Gateway and/or OmniAccess Stellar Access Points with built-in BLE radios** receive BLE frames from the asset tags and then relays the location information to the Alcatel-Lucent OmniVista® Cirrus Asset Manager via Alcatel-Lucent OmniAccess Stellar Access Points, or third-party Wi-Fi or LAN infrastructure.

- **Autocalibration beacons** provide fixed reference points for the gateways, which improves tag accuracy.

- **Mobile BLE tags (square or card shape)** for people and assets provide a simple and non-obtrusive way to track what’s important, whether it’s clinicians, patients, or equipment. Tags have built-in accelerometers to reduce battery consumption and precisely track movement. Tags also support programmable alarm capability to cover various uses. Assigning an asset tag is as simple as scanning the tag’s QR code into the smartphone app. Various attributes can be assigned to each tag including: asset name, department to which a tag is associated, asset category, future service date, geonotifications, etc.

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Brochure
Asset Tracking in Healthcare
Cloud management

Alcatel-Lucent OmniVista® Cirrus Asset Manager provides management, search, statistics and analytics, and geonotification capabilities. It stores and organizes every data point to enable accurate analysis and workflow optimization. It also provides real-time floor plan map views of all assets and people wearing tags, including clinicians, patients, security staff, as well as, daytime contractors.

- **Asset management**: Site configuration, subscription; assign or reassign a device or person to a tag; each device can be associated with an image, a category, customized relevant parameters like geonotifications which issues notifications when an asset is removed from a designated area or geofence.

- **Search**: Provides real-time location data on assets:
  - Simplified search for equipment, a person or a category of equipment/person
  - Advanced search with filtering feature
  - Future advanced search combining multiple choices (asset + service + availability)
  - Optimized and responsive search, which enables a user to modify and manage custom fields directly by clicking on an icon, for example: notify that a bed is not available or add a note on a new patient or new service

- **Asset inventory**: A complete inventory list of asset tags ensures all your equipment is accounted for. This simplifies IT’s role in managing and maintaining the asset tracking network, while providing real-time audit data for hospital operations, like current battery life status of all tags.

- **Statistics and analytics**: Provide real-time and historical location data that allows IT, clinicians, heads of staff, patient flow/experience and operations to fully understand the location, movement and utilization of assets. Insightful analytics like heat maps and geonotification data help organizations make better business decisions. Cloud APIs can also be leveraged by a third party system for even more business intelligence analytics.

Mobile application

The simple smartphone app and web interface are essential tools that help track objects and people in real-time. It also provides a full inventory of people and assets and their respective locations on a floor plan map. Additionally web-based and mobile app-based notifications ensure the right people get notified about a relevant event or when equipment needs maintenance.
How it works
The Alcatel-Lucent Enterprise Asset Tracking hardware components work together with the OmniVista Cirrus Asset Manager to provide location information for people and assets using ALE BLE beacons. It is necessary to install the Stellar BLE Gateways, which autocalibrate for location accuracy using calibration beacons. Based on the accuracy level expected and environment, a certain density of BLE gateways and autocalibration tags is required.

The Stellar BLE gateway collects asset tag data required for location accuracy and relays it to OmniVista Cirrus Asset Manager which accurately calculates the position of people and assets based on the built-in location engine. The location information is then displayed in the OmniVista Cirrus Asset Manager tools and mobile app. This information is never shared and only used for location accuracy and conforms to the European General Data Protection Regulation (GDPR) and similar personal security regulatory requirements.

Reinforce clinician, staff, and patient security
The OmniAccess Stellar Asset Tracking solution ensures location-aware, clinician, staff and patient security when using BLE tags with alarm capability. An asset tag with a programmable button (available Q1 2021) can be set up to relay an emergency assistance call (for medical emergencies/hostile patients or intruders), or simply be used as a method to call for assistance (moving a patient or bio-hazard cleanup).

Example scenario
1. Nurse encounters an emergency situation with a hostile patient or violent intruder
2. Nurse presses emergency/panic button on BLE tag, badge or phone which notifies the OmniVista Cirrus Asset Manager
3. The OmniVista Cirrus Asset Manager notifies security personnel of the alert which includes the location of the nurse
4. The closest security personnel respond to the nurse’s location to assist
Conclusion

Healthcare facilities need to provide the best care possible, while keeping an eye on costs. Knowing the location of patients and staff, as well as asset utilization, arms you with the tools to maximize the value of your people and your assets. Comprehensive analytics, such as historical data, management of flows within a geographic area, lets you optimize and adapt your environment for maximum results, to improve care delivery, reduce operational costs, and increase patient and clinician satisfaction.

The ALE OmniAccess Stellar Asset Tracking solution lets hospitals, clinics, and assisted living facilities locate assets and people, in real-time. Knowing where your assets are can save the cost of acquiring new equipment if it can’t be found. The ability to quickly locate equipment such as beds, infusion pumps, monitors, and wheel chairs, also reduces the time that staff spends looking for assets and frees up time to address patient care. Patient satisfaction translates into improved outcomes, which is the goal of every healthcare provider.

To learn more about the ALE Asset Tracking solution or request a demo, contact us today.