

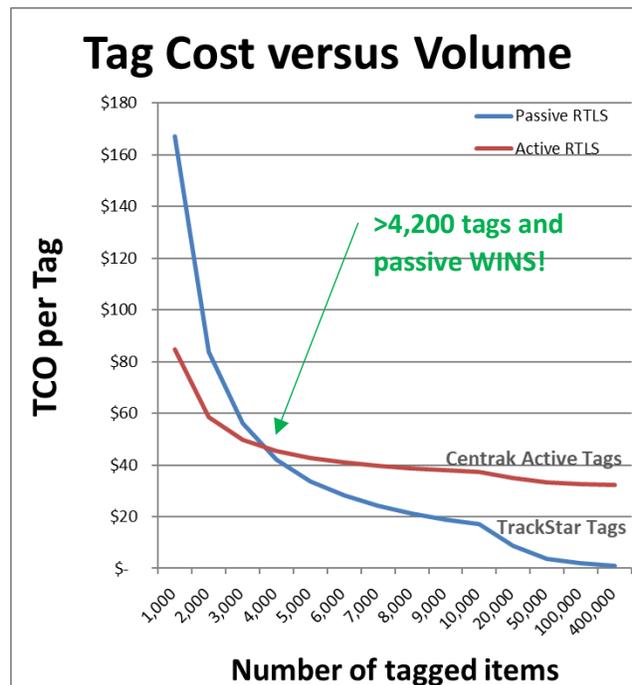
Why number of Tagged Items Matter?

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Passive tags are dramatically lower in price but require a more expensive infrastructure investment than active tags. However, the cost of active tags + active infrastructure for a whole hospital exceeds the price of the passive tags plus their infrastructure. Therefore, Passive real-time location system (pRTLS) are extremely cost effective for tracking people, inventory, mobile medical assets and work flow. By using off the shelf low cost tags it is easy to gain economies of scale versus the proprietary Centrak or other active tags. Due to the wide selection of passive tags we may now track items such as, but not limited to: Beds, Bronchoscopes, Infusion Pumps, Intermittent Pneumatic Compression Devices, Kangaroo Pumps, Narcotics via pill bottles, Oximeters, Oxygen Cylinders, Patients, PCA Pumps, Probes, Stretchers, Staff, Sutures, Surgical Instruments, Sterile Packs, Wheel Chairs, Ultrasounds and many more. By supporting hundreds of use cases, the passive RTLS (pRTLS) infrastructure generates significant ROI compared to an active Healthcare Asset Tracking system such as Centrak. The Centrak and other active tag solutions are so expensive it is not cost effective to use them for inventory. **Passive tags have no battery to wear out or replace and tags cost from 10 cents to \$10 whereas Active tags are expensive and need to have battery replacement 3 times every 5 years for a comparable real-time update.**

The chart shows the economic advantage for passive over RFID. We assume a coverage area of 175 rooms; 100,000 sq-ft. As we compare tracking items using an active Wi-Fi based system versus passive RFID we note the significant difference for the asymptotes of the investment curve of each solution. The break-even point is 4,200 items of interest. FYI - just tracking Lakeland's 16,000 assets easily eclipses that break-

even point. **The more items you tag the greater the return for pRTLS becomes.**



Passive tags have a 10+ year life expectancy. Since there is no battery to wear out they last longer and have less risk of infection. If you change the ping or beacon rate to real time updates the active tag that is claimed to last 2 to 5 years only lasts about 4 months before wearing out the battery.

Assessing total cost of ownership over 5 years allows the purchaser to see the economic advantages of using passive RFID for RTLS. It also helps that pRTLS is the most successful tag tracking technology ever invented. With the largest installed base and the most open standards. Over 7 billion of these tags were shipped in 2017. They are cost effective to tag all your items of interest