

Q. What is the difference between RFID and RTLS?

A. RFID (Radio Frequency Identification) tags are read as they pass fixed points in a structured process, while RTLS (Real Time Locating System technology) tags are read automatically and continuously, independent of the process that moves the tags. With RTLS, no intervention or controlled process is needed to determine asset location.

RFID systems, with their relatively limited read ranges (typically 2 meters or less), can detect the passage of assets past stationary points in a fixed process. For example, RFID readers might be installed as part of a manufacturing process, with all tags passing a particular point being read. For less structured processes, a business must rely on people to place assets within range of a reader or handheld readers within range of a tag. In either case, an RFID system does not necessarily report an asset's current location; rather, it reports the location where the asset was last seen. For this reason, RFID's tracking capabilities are typically deployed in conjunction with highly structured business processes.

Unfortunately, the limitations of RFID make it unsuitable to track many of the world's personnel and assets. Consider some common examples:

- Pallets or containers are stored in the wrong location in a large warehouse or yard and cannot be found when needed. A shipment of perishable goods is ruined, or a just-in-time operation is halted until the item is found.
- Expensive tools or parts cannot be found when needed, slowing production. More are purchased to make them easier to find, and asset utilization drops as capital expenditures rise.
- Critical work-in-process cannot be found among hundreds of similar-looking items.
- High-security facilities have no knowledge of personnel movements after individuals clear security checkpoints.
- Businesses have thousands of high-value mobile assets. Pilferage and inefficiency are considered unavoidable facts of life.

RTLS products are designed to address these kinds of everyday business challenges.