



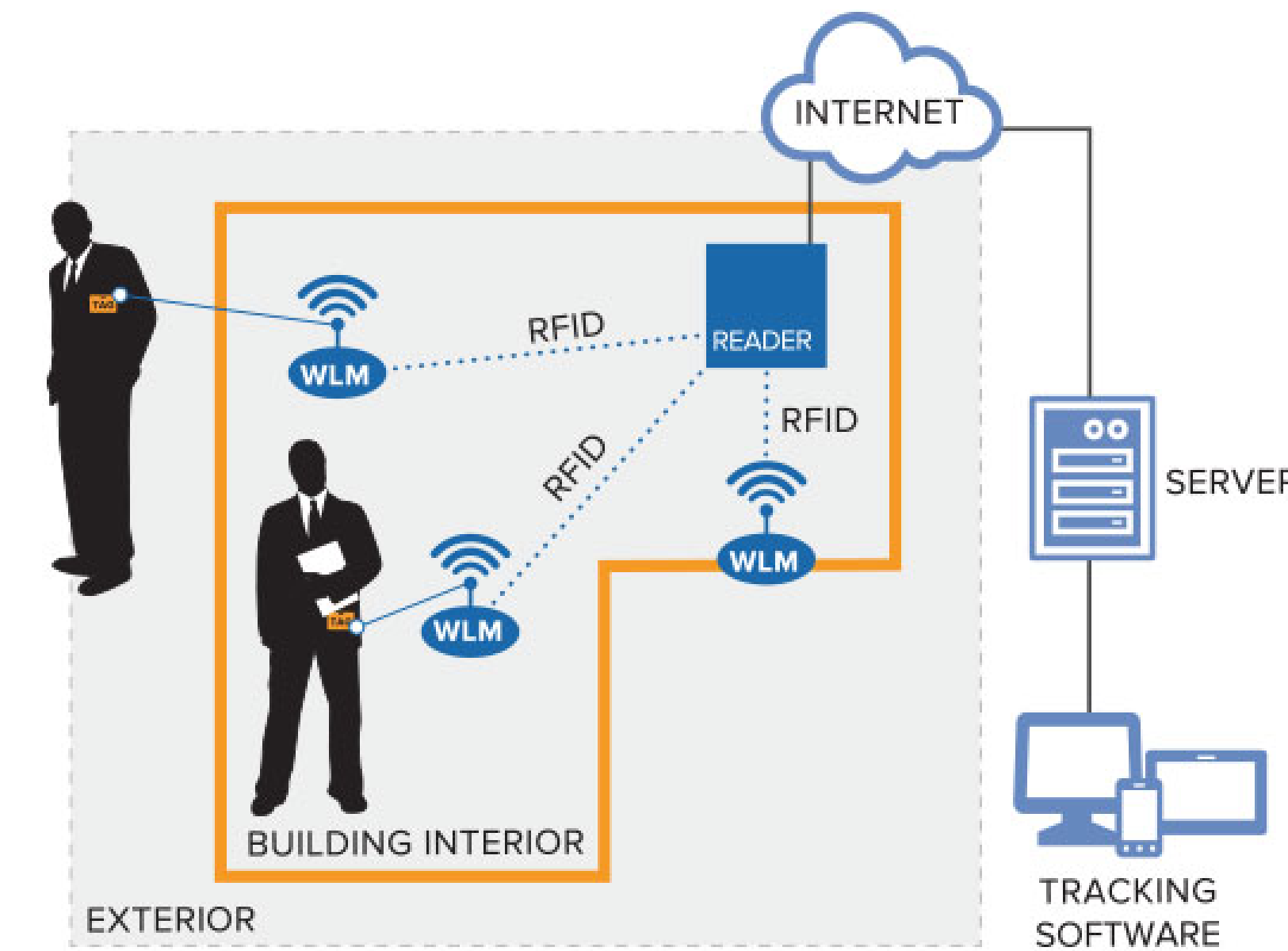
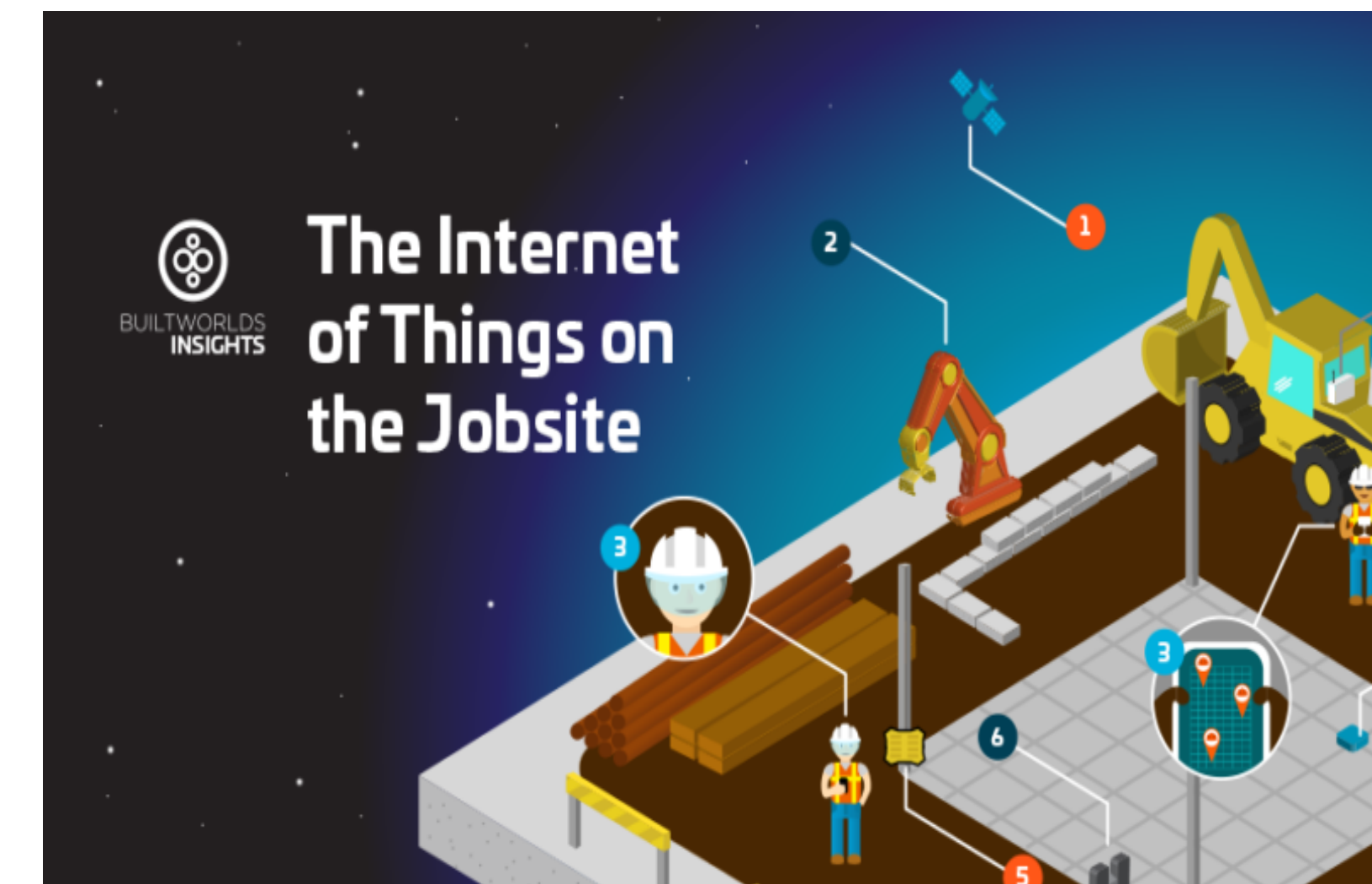
The Feasibility of Real Time Location Systems in Construction

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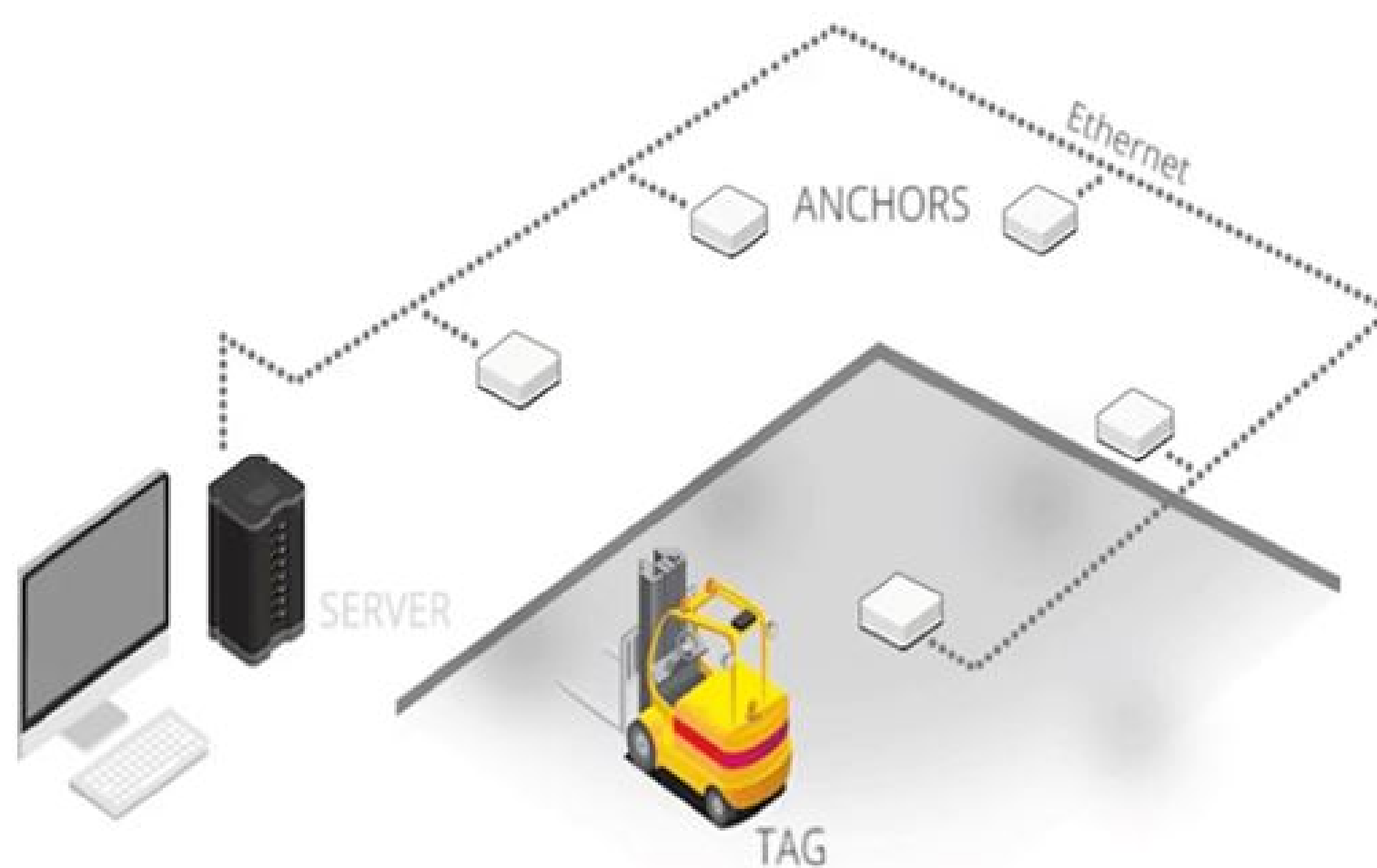
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The construction industry is becoming increasingly sophisticated by implementing new computer-based technologies to improve safety, efficiency, accountability, and many other aspects. One new type of technology that is becoming increasingly popular in other labor based industries is real time locating systems. These systems allow for managers to keep accountability of a variety of assets in a manufacturing facility or industrial center. Recent research has shown the benefits and potential uses of these systems on construction jobsites. This paper seeks to analyze the potential for Real Time Location Systems (RTLS) to be used on construction jobsites and compare the different RTLS products that are being offered for use in various industries. The goal is to increase awareness within the construction industry of this technology and to provide interested owners, contractors, and subcontractors the needed information in order to implement RTLS. At this time, RTLS is not widely adopted within the construction industry potentially because the benefits do not yet outweigh the costs. Through better understanding of RTLS products, the Architect, Engineer, and Contractors (AEC) industry may consider this option increasingly feasible on their jobsites.

Key words: RTLS, Tracking, Technology, Safety, Accountability



	Type of Technology	Primary Intended Purpose
Company 1	UWB	Indoor Location, Collision Avoidance
Company 2	UWB	Real-time location. Use cases are efficiency management and safety.
Company 3	900 Mhz Radio Frequency	Real-time location data to improve productivity, worker safety, and site risk.
Company 4	UWB, Bluetooth, UHF, GPS	Safety
Company 5	RFID, Bluetooth, WiFi, GPS, PoLTE, Cell ID	Real time location services



	Software Dashboard	Mobile Application	Real-time data	BIM Integration
Company 1	Yes	No	Yes	No
Company 2	Yes	Yes	Yes	Yes
Company 3	Yes	Yes	Yes	No
Company 4	Yes	Yes	Yes	Yes
Company 5	Yes	No	Yes	No