Radio frequency identification (RFID) technology uses radio waves to identify objects. A radio transmitter (called a tag) is attached to the object to be identified. A radio receiver (called a reader) decodes and reports the tag transmissions within its coverage zone. The reader forwards this information over wired or wireless networks.

Each RF Code tag has its own on-board power supply, a CR2032 coin cell battery. Tags operate with a very low duty cycle; every 10 seconds, the tag will wake-up and broadcast an extremely short status message at 433 MHz before going back to sleep. The tags are one-way, transmit-only communicators. RF Code readers do not use high-powered radio or magnetic fields to energize or trigger the tags. RF Code readers are dual-channel radio receivers that are tuned to receive signals at 433 MHz.

Typical RFID applications include item tracking, inventory control, asset management and physical security. A specific example is the tracking of servers and network equipment in the data center. The impact of RFID on IT systems depends on three factors: the power of the transmission, the distance from the emission source, and the type of equipment in the path of the transmission. Transmission power is strictly regulated by governments to ensure that IT devices can coexist with RFID systems. Part 1 of the US FCC Part 15 mandates that a certified wireless device may not cause harmful interference. Moreover, most IT equipment is enclosed in a metal casing that is RF-opaque to UHF transmissions at 433 MHz. RF Code tag transmissions do not penetrate the metal casings of typical IT equipment.

RF Code systems do not have any negative affect on IT equipment in a data center or in similar environments like telecommunications centers. Over half a million RF Code tags have been deployed in the past decade, with more than 100,000 tags mounted directly on IT servers. There has never been a report of data loss or degradation in any storage or security device due to the presence and/or operation of RF Code tags and readers.

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