

Metro Rolling Out Reva's Reader Network Appliance

The retailer is installing Reva's reader networking platform at 200 distribution centers and retail locations.

By Mary Catherine O'Connor

June 26, 2007—As part of its transition from pilot projects testing the effectiveness and functionality of RFID technology to a production-ready rollout of its RFID infrastructure, European retailer [Metro Group](#) is installing the Tag Acquisition Processor (TAP) RFID reader network infrastructure platform made by Chelmsford, Mass.-based [Reva Systems](#). The platform is designed to enable central control of all readers within a facility. Each facility in a multi-site RFID deployment can employ a TAP to centralize the readers at each site.

The TAP acts as a central command and control center for a network of RFID interrogators. This rack-mountable device plugs into a network of interrogators and the user's local area network (LAN). The TAP filters and aggregates tag reads before sending the tag data to software applications running at the enterprise level.

Metro has already installed TAPs at roughly 10 locations, and plans to install them at a total of 200 distribution centers and stores (its Cash & Carry and Real retail locations). According to Reva Systems' Chairman and cofounder, Ashley Stephenson, Metro is using the TAPs to control readers used to collect data from tags attached to shipments of goods being received at and shipped from the distribution centers. It is also using them for receiving tagged shipments at the retail locations.

"The readers [linked to the TAP devices] are in the loading docks of these areas and used for receiving processes," says Stephenson. "Metro has demonstrated the use of readers and TAPs for other applications, but this part is for receiving goods."

Metro first began testing the Reva hardware last year as part of a project initiated by a [European Telecommunications Standards Institute](#) (ETSI) task group exploring ways to improve the performance of large numbers of interrogators used in close proximity under existing RF regulations Europe (see [ETSI Group Plans Dense-Reader Trial](#)).

"Reva's box had good filtering, remote management, was easy to handle and integrate and did very well on performance tests," says Gerd Wolfram, managing director of [MGI METRO Group Information Technology](#), regarding Metro's decision to install Reva's reader networking platform.

Reva is managing the distributed network of TAPs at the various Metro locations, and is sending pertinent data culled from the RFID reader infrastructure to Metro's enterprise software. Designed for use with EPC Gen 2 UHF readers, the Tap uses [EPCglobal](#) standards to process tag data and communicate with the readers. It uses the application level events (ALE) standard protocol for filtering tag data collected from readers, as

well as the low-level reader protocol (LLRP) for reader-to-network communications, control and management.

RELATED_ARTICLES Each TAP also uses a set of proprietary algorithms to determine the origin of each tag read it captures, by analyzing the strength of the signal received from each reader antenna mounted around, for example, a docking area. This prevents the TAP system from falsely reporting tags read by antennas mounted near a given dock door, rather than from those around the door.

According to Stephenson, by using a network architecture to handle RFID readers—similarly to how other hardware devices that feed data into its enterprise system are handled—Metro is providing validation to the Reva approach. "Metro chose a standards-based, purpose-built piece of equipment to operate its readers, rather than discrete servers for controlling each reader," he says. "We think this is a sea change; this is the real thing. RFID is not a trial technology anymore."

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