

RFID Network in a Box

Blue Vector claims that its suite of distributed-computing appliances can make installing and managing an RFID network as easy as plug and play.

By Jonathan Collins

March 4, 2004—RFID network infrastructure startup [Blue Vector Systems](#) is betting that RFID network architectures will mimic the IP networks that have gone before them and that the technology that helped IP networks become so prevalent will be replicated in RFID deployments.

“When TCP/IP was just a nascent technology, IP networks used to be run in software sitting on a server, but it took router companies to deliver everything in a box and make it easy to deploy and easy to manage and make IP such a success,” says Anurag Mendhekar, CEO at Mountain View, Calif.-based Blue Vector Systems. “We firmly believe there has to be the same approach for RFID networks. After all, RFID networks will eventually be 10 times the size of any corporate network today.”

With that in mind, Blue Vector, which was formed in August 2002, has announced its X-3000 product line: a suite of distributed-computing appliances consisting of the company’s RFIDrouters and its RFID Network Manager appliances (NMA). In addition, a global NMA can be deployed to bring the entire distributed network together. These elements combine to create an RFID network infrastructure that the company maintains can be designed, built and managed far quicker and more simply than using middleware and Savants running on PCs, which so far has been the focus of planned EPC RFID network deployments.

The Blue Vector NMA delivers a Web interface that provides hierarchical views of the entire network, starting with a reader connected to the RFIDrouter. This, says the company, enables central monitoring that can drill down to a specific dock door in a given distribution center. It also allows users to carry out complex queries on RFID network elements to access real-time data to track and trace pallets and cases in the supply chain.

According to the company, the number of RFIDrouters that need to be deployed at any site will vary according to the volume of traffic on the network, but one NMA can manage around 15 of the company’s RFIDrouters. That could mean just one NMA for an entire distribution center, according to Blue Vector.

Blue Vector says RFID networking hardware will prevent the enormous operational complexities of deploying multiple RFID networks as RFID is rolled out across nationwide supply chains. Blue Vector or a systems integrator can preconfigure the X-3000 NMA to include appropriate functionality. Such functionality includes the Object Naming Service (ONS) and EPC Information Services (EPCIS), which are integrated within the X-3000 NMA. This particular prefiguration allows instant click and connect to EPCglobal’s ONS and a prototype EPCIS solution from VeriSign, without the need for ad hoc configuration to recognize and connect with the ONS and testing per installation to ensure that data is being correctly recorded with ONS directories. “RFID networks should be as simple to install as an Wi-Fi network at home. Just take the router out of the box, set it up and it’s working. That is our goal,” says Mendhekar.

The company maintains that such preconfiguration will prove attractive to its planned systems integrator partners looking to build applications and managed services for their customers. Blue Vector will not give pricing details for its products but it says that it is planning to sell its systems directly to retail and CPG companies as well as through its systems integrator partners. The company says that it expects to make announcements about partnerships with systems integrators as well as key partnerships with reader and existing ERP systems software vendors that will have to connect to its network systems. It says its network will link to software from other vendors using XML, Simple Object Access Protocol (SOAP) and a range of software standards.

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