

RFID Anywhere Enterprise Manager

Powerful and dynamic management for multi-site RFID and sensor networks

KEY FEATURES

- Centralized management of RFID and sensor networks, even those distributed across multiple sites or geographies
- Secure, efficient communication leveraging web standards and secure Web Services
- Exposes all hardware properties from visual console
- Ability to define configuration groups and profiles and apply settings to group members
- Define roles that provide specific access according to permissions
- Ability to monitor and troubleshoot malfunctioning hardware
- Replacement hardware automatically configured based on profile data
- Provision application logic, device firmware and supporting resources
- Powerful security covering authentication, authorization and transport encryption
- Identify device or network issues and proactively send notifications to alert of these problems

Many of today's RFID and sensor networks are designed with a distributed architecture where devices and business logic are installed at remote locations near the point of activity. A distributed deployment is typically chosen for increased performance, reliability and flexibility, but it does introduce a number of challenges – most notably around the management of these distributed networks.

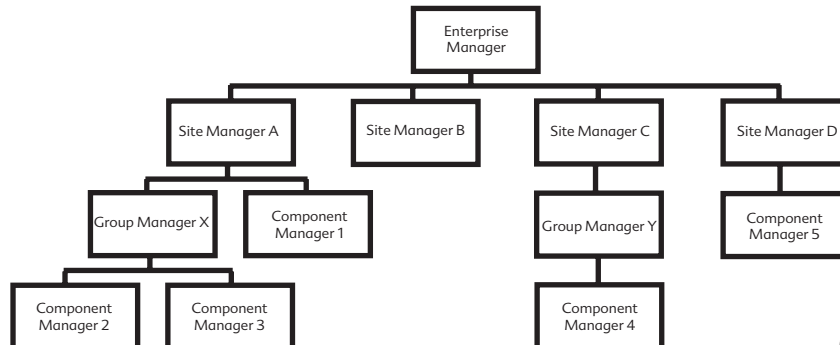
Individual hardware devices, along with many of the software and business logic properties, must be initially configured and continually managed. For a deployment that spans multiple physical locations or involves hundreds of devices the task of managing the network one device or even one node at a time becomes nearly impossible. Instead of relying on individual management interfaces, often proprietary in nature, a centralized network management tool that can configure, manage and troubleshoot the complex set of distributed components using profiles and groups is required to effectively administer such a system.

ENTERPRISE MANAGER

RFID Anywhere's Enterprise Manager enables the management of multiple RFID Anywhere nodes from a central location, which is imperative in multi-site, distributed RFID and sensor networks. Enterprise Manager provides a superset of the functionality that is exposed through the web-based management console of each individual node.

Enterprise Manager includes a rich, standalone console that provides a single view of the entire distributed network. The Enterprise Manager service is installed on its own machine, and its console is downloaded and can be accessed by a web browser from any machine on the network.

To facilitate this distributed management, Enterprise Manager communicates with one RFID Anywhere Site Manager using secure, asynchronous Web Services over HTTP, thus requiring only one integration point, and leveraging secure communication standards for the delivery of management commands and catalogs, which summarize the components on each RFID Anywhere node. This model also allows Enterprise Manager to support occasionally-connected network environments over a variety of networks, including nodes that connect using wireless or dialup networks.



SYSTEM REQUIREMENTS FOR ENTERPRISE MANAGER SERVICE

- Windows XP Professional (SP1 or SP2) or Windows Server 2003
- Single CPU or greater
- 512 MB of memory or greater

POWERFUL FEATURES TO ENABLE EFFECTIVE CENTRALIZED MANAGEMENT

Enterprise Manager offers a unique and rich feature set, providing the functionality and performance required to manage distributed RFID and sensor networks that incorporate a large, heterogeneous mix of hardware and business logic at multiple locations.

Configuration

- Exposes all hardware and business logic properties from its visual console, eliminating the need to use multiple, individual consoles
- Administrators can define configuration groups and profiles and apply settings to group members, allowing the enforcement of policies and enabling repeatable configurations

Monitoring

- Provides the ability to monitor and troubleshoot malfunctioning hardware at all locations
- Automatically configures replacement hardware using profile data, streamlining installation
- Configured messaging connectors at remote sites can send error notifications immediately

Provisioning

- Allows the scheduling or immediate deployment of updated application logic and software components, including the installation of RFID Anywhere packages to all locations
- Where supported by the hardware vendor, enables the deployment of device firmware updates

Security

- Offers authentication security enforcing users to log in before accessing management tools
- Enforces authorization security using pre-defined roles that dictate which management functions are exposed to each administrator
- Provides transport encryption, guaranteeing the security of management information sent over the network

ARCHITECTURE FOR FLEXIBILITY, SECURITY, AND PERFORMANCE

Enterprise Manager is a dynamic management tool that is able to discover the components that are available to be managed and exposes the properties of those components. This is a vastly different architecture from standard management tools that are static, requiring explicit configuration and continuous updating to define what needs to be managed. The dynamic nature of Enterprise Manager allows new RFID Anywhere nodes to come online, and automatically be managed and configured with no extra configuration steps.

Enterprise Manager is one of the first implementations of Web Services - Management (WS-M), implementing a number of the standards to facilitate Enterprise Manager's dynamic management capabilities, asynchronous communication with distributed networks, and data transfer.

