Zone Manager-Microsoft BizTalk RFID Provider

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Installation Guide

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Introduction

The RFCode Zone Manager Biztalk RFID provider is a driver-like point of integration that allows tag data from RF Code Zone Managers to be directed into the Microsoft Biztalk RFID message bus. Software developers can then create custom applications that use the Biztalk RFID software as a basis for data exchange. Before attempting to use the RF Code Biztalk RFID Provider, it is important to understand the prerequisites of both the required software and knowledge base needed in order to utilize the software for integration with other applications.

Requirements and Functions

Microsoft requires that BizTalk RFID and SQL server are installed for software development purposes. This RF Code provider was developed and tested on version **3.6.5022.0** of the Biztalk RFID Server. In addition to proper installation of the software, the Biztalk RFID platform requires a fairly specialized knowledge to create a successful application. The following is an excerpt from Microsoft's Biztalk RFID product documentation regarding the requirements and skills necessary for development.

A developer of BizTalk RFID applications must be experienced with the use of the following:

Necessary:

- *Microsoft Visual Studio 2005*
- *Programming with C#*
- *Web services*
- *Microsoft SQL Server 2005*

Recommended:

- *XML*
- *XML Schema Definition Language (XSD)*

Application and device-provider developers perform a series of tasks while they are developing, deploying, and administering RFID solutions in BizTalk RFID. An application developer uses BizTalk RFID to build applications that handle RFID events and take appropriate actions when required. A developer who works on system integration uses BizTalk RFID to integrate various applications and devices to build custom solutions that meet specific business needs.

An application developer uses BizTalk RFID to do the following:

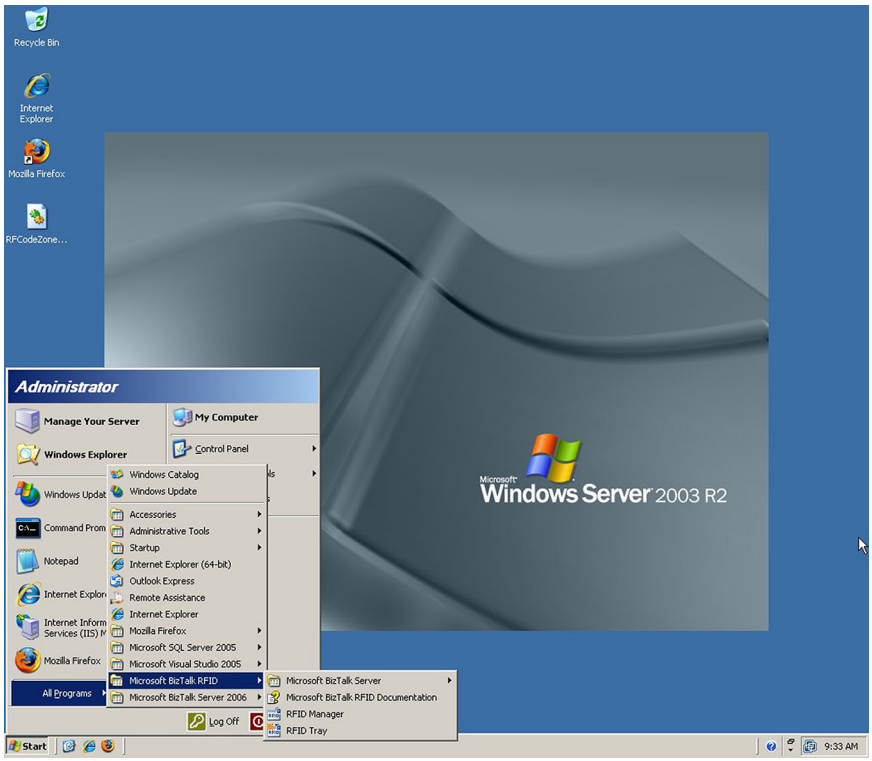
- *Interface with BizTalk RFID and devices through object models (OMs) and application programming interfaces (APIs).*
- *Develop and integrate custom business applications that use RFID data.*
- *Interact with a variety of devices from different hardware vendors.*
- *Develop customized RFID processes.*
- *Use the business scenarios, detailed technical descriptions, and sample code to quickly start development activities.*
- *Deploy and host applications.*

Installation

The installation steps outlined below will add the RF Code Provider and the Zone Manager as a device within Biztalk RFID. Please refer to the **Zone Manager – Microsoft BizTalk RFID Provider Specification** document that covers tag data format in detail available on the RF Code website for download.

1. To begin the install Run the Microsoft RFID Manager program (Figure 1).

Figure 1: Access RFID Manager



2. Go to the **Device Providers** menu and select **Add Provider.** Type in a name for the provider and browse to the DLL that is provided for Biztalk by RF Code (Figure 2).

Figure 2: Adding DLL

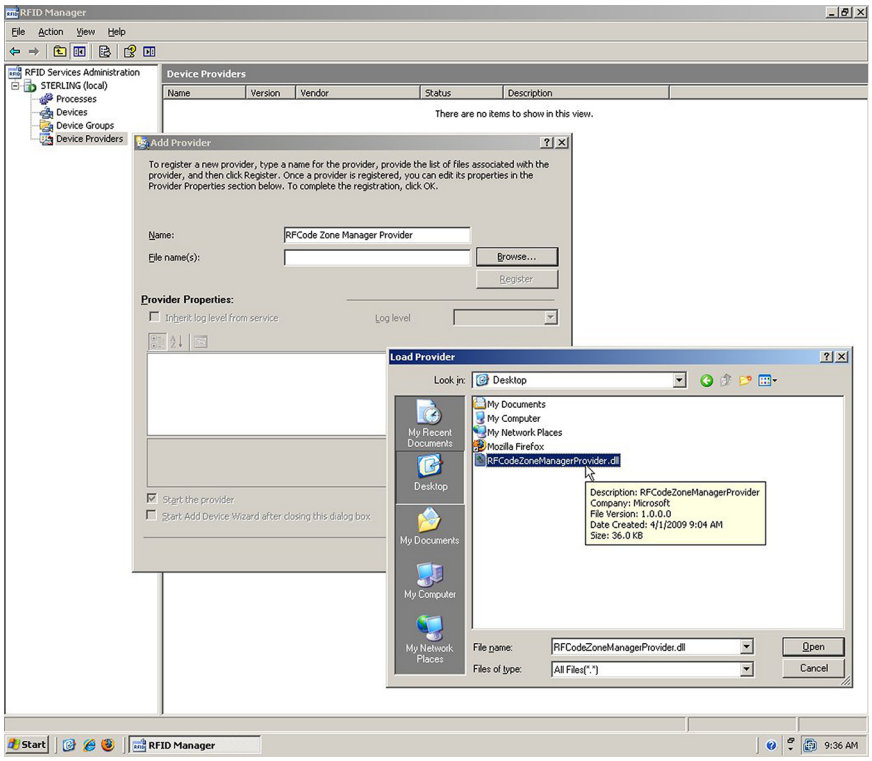
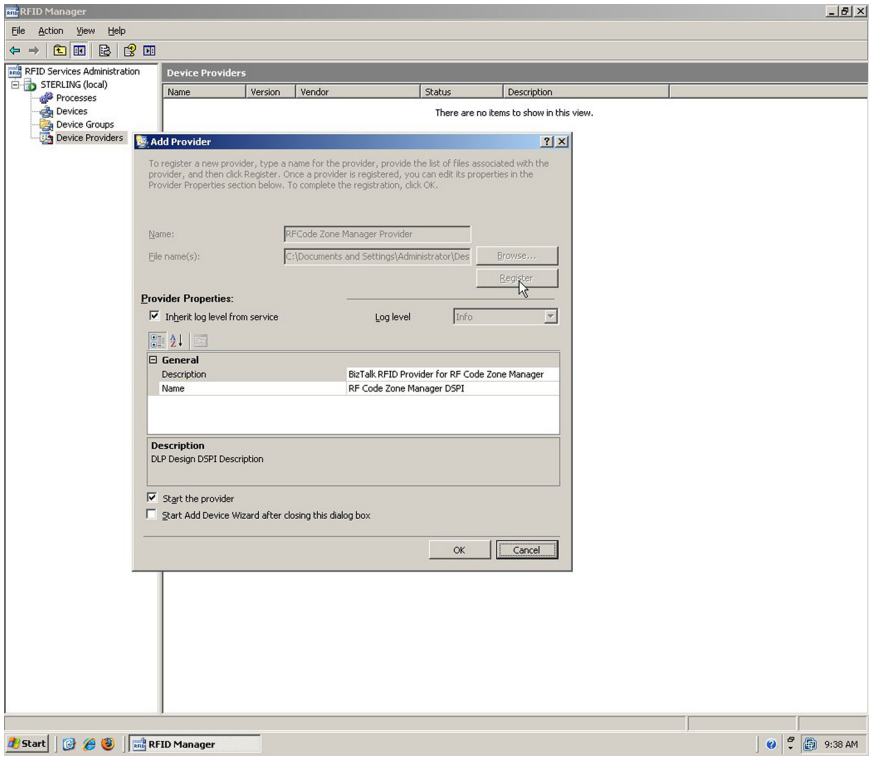
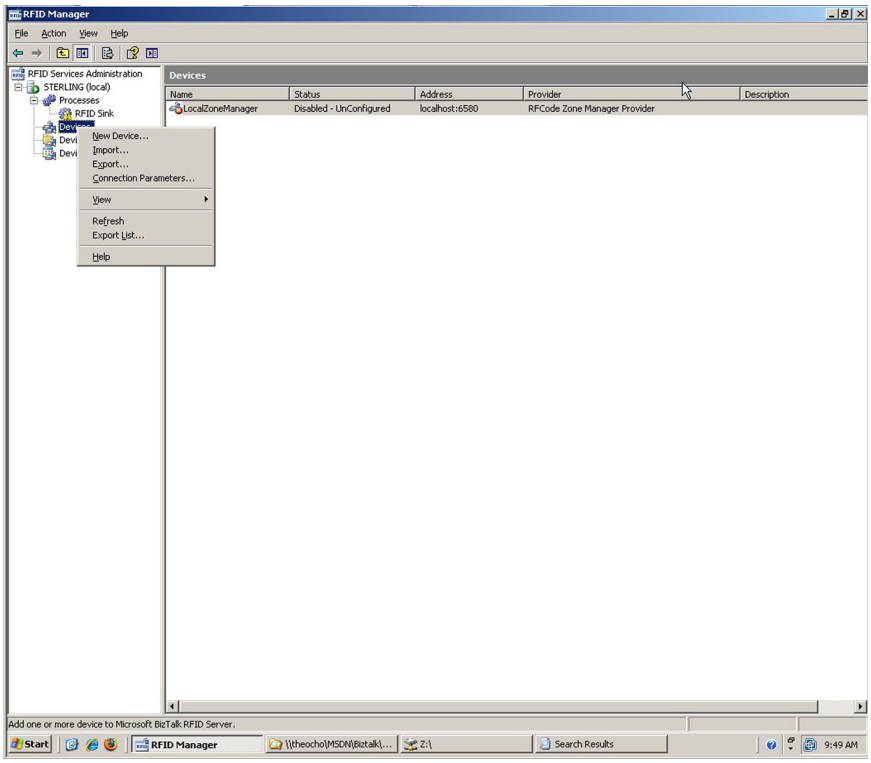


Figure 3: Adding the Provider



3. Once you have added the provider it will appear listed in the Device Providers selection. Once the provider is added you may then add devices, which for use with this provider, will be Zone Managers. To add a device go to the **Devices selection** on the tree and select **New Device** (Figure 4).

Figure 4: Add New Device

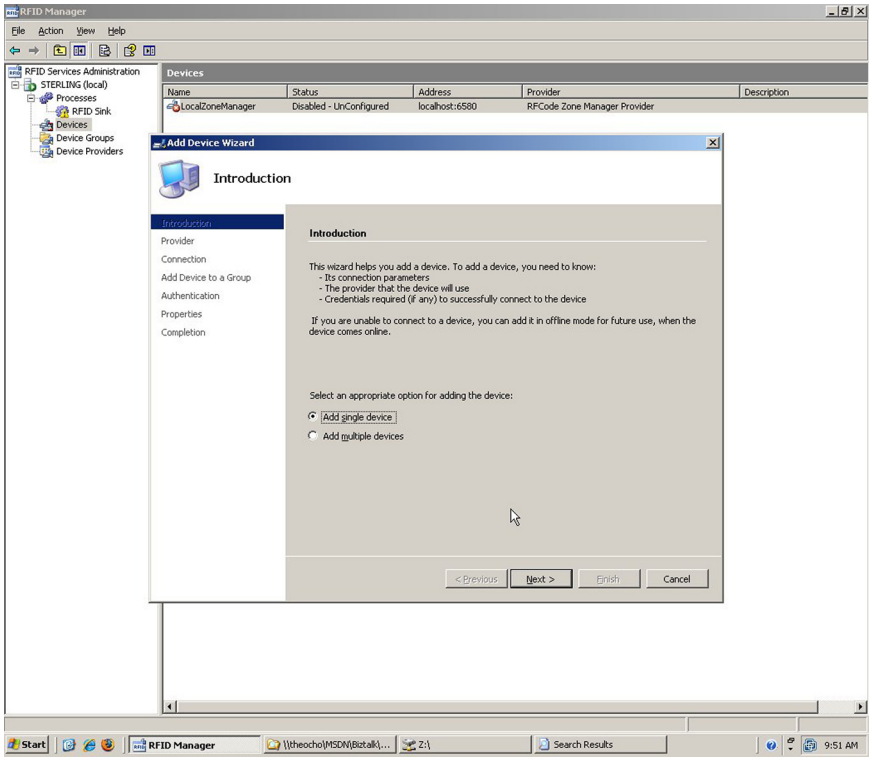


4. Choose **Add Single Device**.



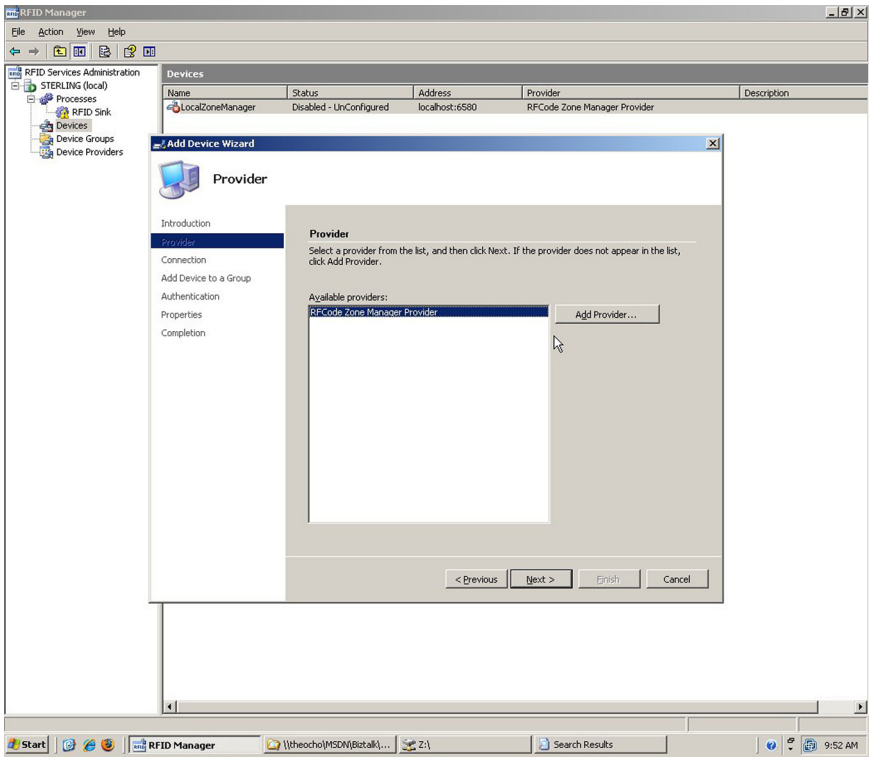
While adding multiple devices (Zone Managers) is possible, it is unlikely that you would need to do so because a single Zone Manager can utilize hundreds of readers. However, should you need to add more than one Zone Manager, repeat steps 3 - 8.

Figure 5: New Device Wizard



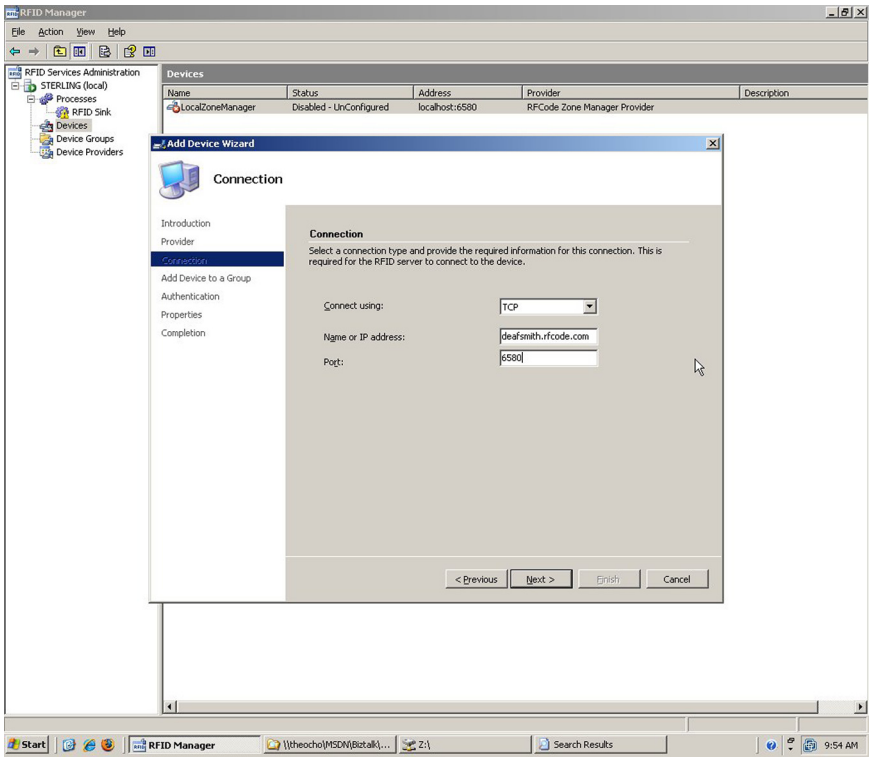
5. When prompted for a provider, choose the RF Code provider that was added earlier.

Figure 6: Select the Provider



6. Enter the connection information. By default the Zone Manager Web port is 6580, which will be utilized by Biztalk RFID to acquire tag data.

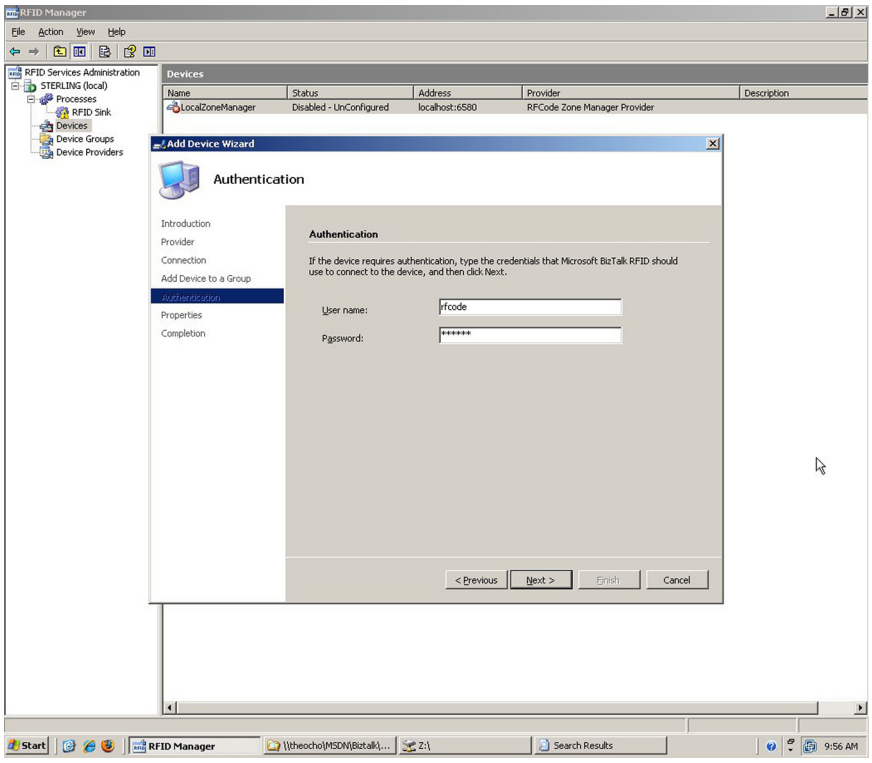
Figure 6: Selection of Hostname and Port



Note that adding the device to a group of devices is a standard practice within Biztalk RFID.

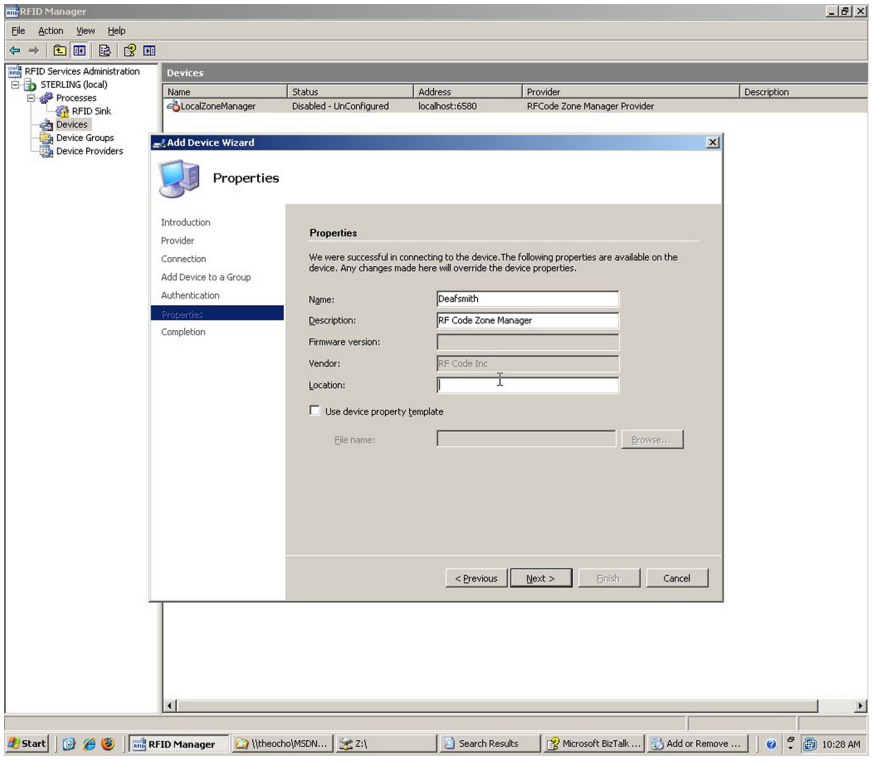
7. You will need to log into the Zone Manager. For Authentication, you must use a read-only account that has been created from within Zone Manager. An administrator account can be used as well, however, Biztalk does not write the configuration to Zone Manager, so using a read-only account is a better practice.

Figure 7: Authentication of Zone Manager



7. In the properties screen you may name the Zone Manager instance if you desire, but it is best to leave the Location field blank because this will be provided by the Zone Manager. Unlike most RFID devices that report a tag read at a single location, Zone Manager reports as many locations as have been specified in the Zone Manager's configuration.

Figure 8: Properties Screen

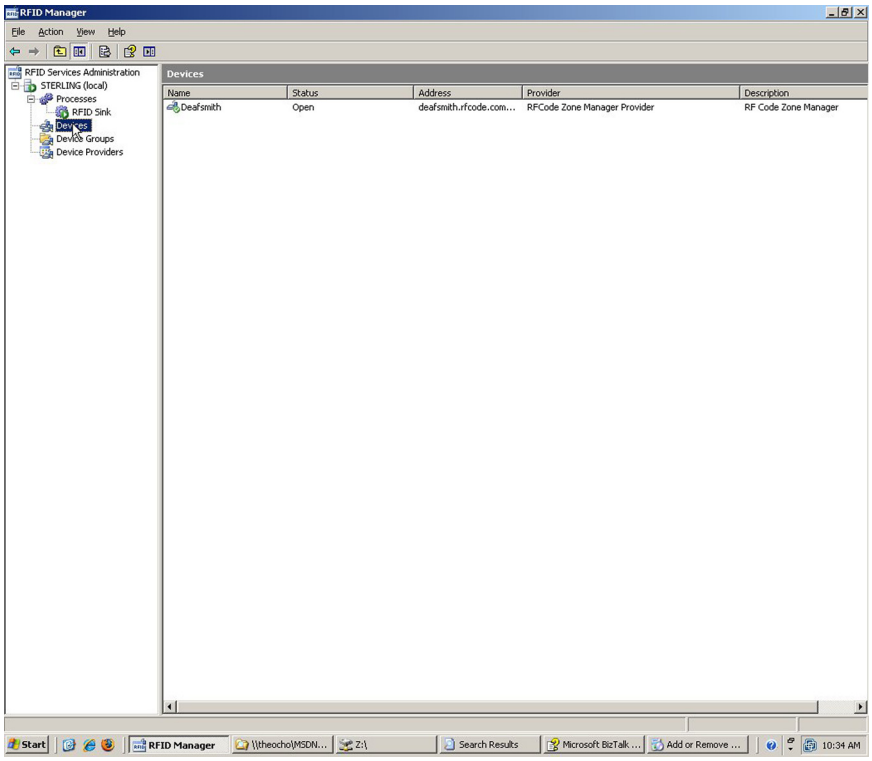


8. After the device has been added, you must then add the device to a service in order to read tags. In the below image, SQL Sync is used.

Note

Please consult the Biztalk RFID documentation on steps to install SQL Sink or any other service that consumes the tag information proved by the RF Code Zone Manager device.

Figure 9: Successful Installation




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