Intel® vPro™ Technology with Location Based Services Deployment Guide

A simple guide to assist you during the deployment process.

About
This deployment guide describes how you deploy Intel® vPro™ technology with Location Based Services (Intel® vPro™ technology with LBS), an indoor location-based services (LBS) solution that uses the AeroScout® Asset Visibility System for determining the indoor location of any business client based on a 4th generation Intel® Core™ vPro™ processor platform.
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1 Introduction

Intel vPro™ technology with LBS uses an organization’s existing Wi-Fi network, together with STANLEY AeroScout® Wi-Fi radio frequency identification (RFID) software, which is built into 4th generation Intel® Core™ vPro™ processor platforms. Deploying this solution, along with a free Intel vPro technology with LBS version of AeroScout software, can provide organizations with the opportunity to experience the benefits of location services while minimizing additional costs for hardware and software.

1.1 What Is Indoor Location Based Services?

Generally speaking, indoor LBS makes it possible to determine the location of objects inside a building where other location technologies, such as GPS, are not reliable. The location of assets within the enterprise can be tracked by attaching Wi-Fi tags to them. This location information can be used by other applications and services to enable a wide range of new use cases. LBS can help users locate any number of assets, such as computers, printers, medical equipment, forklift vehicles, rooms, people, tools, equipment, and anything else with a Wi-Fi tag that can be read by the LBS solution.

1.2 Why Use Location Based Services?

Enabling enterprise class tablets or 2 in 1 mobile devices with location services opens the door to new and compelling business opportunities. The integration of location-enabled contextual information with business process applications is fast becoming the next level of true enterprise mobility. Organizations across a broad range of industries, from retail to healthcare and all sorts of industrial environments, can and will benefit by taking advantage of these capabilities as enterprise-based location services enables new use models. Location-enabled mobile devices make new usages possible, which can lead to increased worker productivity, reduced cycle time, and improved customer service.

End users can see increased productivity through the following LBS use cases:

- **Indoor navigation**: LBS lets you discover where you are in unfamiliar environments and obtain directions to where you need to be.
- **Resource location**: LBS empowers you to find the resources you need to get your job done. Resources related to any industry can be securely mapped within your site and be visible in the LBS system to authorized users.
- **Scheduling**: With LBS, you can find a conference room near to you—you don’t want to schedule one that will take 20 minutes to walk to. Similarly, you may want to take advantage of LBS to tackle jobs in order of their distance from you and the path between them.

IT personnel can also benefit from the added intelligence that location awareness provides their management and business process applications. Policy enforcement and resource management based on location is highly specialized, depending on the environment where it is used. Some examples of using location data to enhance policy enforcement or resource management are:

- **Regulatory compliance**: LBS can be used to warn users when they are attempting to access sensitive documents or complete certain business processes in insecure locations, such as a cafeteria.
- **Intellectual property protection**: You can use LBS to protect intellectual property. For example, you can use it to disable a device’s camera when the device is near prototype products.
- **Billing**: With LBS, you can use location information to track and allocate time that is required to complete a specific task, such as a work order.
- **Scheduling**: LBS can help increase efficiency by scheduling a series of jobs based on proximity to one another. You can use LBS to reserve shared resources closest to the individuals that need them.

**Note**: The use cases described in this section are general LBS use cases. Not all of the use cases described in this section are enabled with the free Intel vPro technology with LBS version of AeroScout software. All of the general use cases described in this section can be enabled with other versions of AeroScout software that are available for purchase.

Typically, productivity, policy enforcement, and resource management systems are already in use by a company that wants to add location capabilities. To accomplish these goals, extensible software can easily access location data for specific resources through the application programming interface (API) of a location service provider, such as AeroScout. Likewise, end-user applications can be revised to add new features in updates or enterprise upgrades.

1.3 The Intel vPro Technology with Location Based Services Solution

Intel, working with AeroScout, delivers the Intel vPro technology with LBS solution. Traditionally, tracking an object required attaching a battery-powered active RFID tag to the object. Now, the Intel vPro technology with LBS solution integrates AeroScout Wi-Fi active RFID technology directly into business clients with 4th generation Intel Core vPro processors. This solution can locate devices with the latest Intel vPro technology platform (including mobile, 2 in 1, and Ultrabook™ devices)
without having to attach separate tags to them, making it possible for IT and end-users to benefit from location information with no additional hardware. This solution also tracks objects that have AeroScout-compatible Wi-Fi tags. Intel vPro technology lets IT remotely configure groups of business clients with 4th generation Intel Core vPro processors instead of configuring tags individually.

The AeroScout Asset Visibility System provides real-time asset location tracking. At no cost, you can download the Intel vPro technology with LBS version of AeroScout software. After installing and configuring the AeroScout Asset Visibility System, users of business clients based on 4th generation Intel Core vPro processor platforms have access to the following two asset location use cases built in:

- **Find Near Me** helps users quickly locate physical assets (conference rooms, printers, building facilities, and equipment) within an enterprise facility.
- **Enterprise IT asset tracking** can help quickly locate devices based on 4th generation Intel Core vPro processor platforms within your campus, even when the device is in sleep mode.

You can use the Intel vPro technology with LBS version of AeroScout software indefinitely to take advantage of these two use cases. AeroScout offers other versions of their software for purchase that provide more features and enable other use cases.

1.4 **How to Use This Guide**

This guide

- Describes how the Intel vPro technology with LBS solution works
- Identifies deployment requirements
- Provides high-level instructions for setting up, installing, using, and troubleshooting the AeroScout Asset Visibility System

This is not a comprehensive deployment guide. You will need to consult various AeroScout documents for detailed instructions and, in some cases, you might need to receive training from AeroScout.

To find the AeroScout documents referenced in this guide, go to [www.aeroscout.com/support](http://www.aeroscout.com/support), and then click **Downloads and Documentation**.

**Note** The first time you access this site, you will need to log on. Unless you already have an account, you will need to create one. To do so, click **Create New Account**; fill in the form, and then click **Register**. You will receive email instructions to complete your registration and receive your logon credentials.

Using the search tool, you can find a document by entering its title or AeroScout document number. If you search for a valid AeroScout document number, the document will automatically download. If you search by title, find the document you want in the search results, and then select it to download it.

1.5 **Deployment Guide Overview**

The remainder of this deployment guide contains the following sections:

- **AeroScout Asset Visibility System**: describes the principal AeroScout components of the Intel vPro technology with LBS solution.
- **Deployment Requirements**: describes the infrastructure, hardware, and software requirements for deploying the Intel vPro technology with LBS solution.
- **Installation and Setup**: tells you how to download, install, and configure the required software.
- **Using Intel vPro Technology with Location Based Services**: explains how to enable and disable Intel vPro technology with LBS and where to find the user guides.
- **Troubleshooting**: identifies troubleshooting guidance for different system components.
- **Additional Resources**: provides resources that are not provided elsewhere in this guide.
- **API References**: tells you where to find guidance on using the AeroScout MobileView API to integrate third-party applications with MobileView.
- **Appendix AeroScout Best Practices for Maps**: a copy of AeroScout’s tips about maps for this deployment.
2 AeroScout Asset Visibility System

The AeroScout Asset Visibility System uses a wireless LAN and consists of the following principal components:

- Assets (tracked objects)
- AeroScout-compatible wireless access points from a variety of suppliers
- AeroScout Location Engine
- AeroScout MobileView
- AeroScout Find Near Me

The figure shows these principal components within the AeroScout Asset Visibility System architecture:

**Note** Not all components shown in Figure 1 are supported with the free Intel vPro technology with LBS version of AeroScout software. Contact AeroScout for a complete list and description of features that can be enabled for a licensing fee.

The following sections describe each of the principal components of the AeroScout Asset Visibility System.

2.1 Wireless LAN

The AeroScout Asset Visibility System uses standard Wi-Fi (IEEE 802.11) technologies as a communications infrastructure. Existing wireless LAN devices from leading wireless technology vendors can communicate with Wi-Fi tags and deliver information to the AeroScout Location Engine. This capability has been enabled and tested through joint technology development work of AeroScout and leading wireless LAN networking suppliers.

2.2 Assets

Assets are any objects whose location is tracked by the AeroScout Asset Visibility System, such as computers, printers, medical equipment, forklift vehicles, rooms, and even people. The assets' locations are tracked with AeroScout-compatible Wi-Fi tags that are attached to the assets. The tags send data packets with unique identifiers for each tag. AeroScout Wi-Fi tags are built into devices that are based on 4th generation Intel Core vPro processor platforms (including mobile, 2 in 1, and Ultrabook devices), so these devices can be tracked as assets without attaching a separate Wi-Fi tag to them.

In this deployment, the tracked assets can be an unlimited number of devices based on 4th generation Intel Core vPro processor platforms and a limited number of objects with attached AeroScout-compatible tags. To purchase Wi-Fi tags, contact AeroScout:

- Tel: +1 (650) 596.2994
- Fax: +1 (650) 596.2969
- E-mail: info@aeroscout.com
- Web: www.aeroscout.com

2.3 AeroScout-Compatible Wireless Access Points

Wireless access points are part of the wireless LAN, and they receive data packets from the Wi-Fi tags. The data packets are forwarded to the AeroScout Location Engine, along with the associated tag’s receive signal strength indication (RSSI) detected by the access point.

2.4 AeroScout Location Engine

This software component processes the tag packet and signal strength data received by the access points. The AeroScout Location
Engine combines a tag's RSSI measured at various access points together with the access point location data to determine the location of an asset. The AeroScout Location Engine delivers real-time location information to AeroScout MobileView.

The AeroScout Location Engine consists of the following:

- **Engine Server**: Processes and analyzes positioning data with multiple visibility modes and communicates with infrastructure devices.
- **Engine Manager (Administration Client)**: Performs the engine’s administration and configuration tasks, including importing and managing site maps, setting up the system topology, and recording location data.

### 2.5 AeroScout MobileView

The Intel vPro technology with LBS version of AeroScout MobileView is a real-time asset visibility platform that lets you:

- Track assets as they travel throughout the site, so you can view their locations on maps and search for them by using a wide variety of criteria.
- Monitor conditions of assets, such as whether they are in motion, their status, and other information transmitted by the tag attached to the asset.

AeroScout MobileView provides a flexible, standards-based Simple Object Access Protocol (SOAP) API that gives developers bidirectional communication with MobileView for obtaining location data. SOAP is supported by most popular development languages and platforms. Custom capabilities can be easily added to any application that queries MobileView or responds to alerts from MobileView.

Querying MobileView for the location of a given asset simply requires sending a SOAP request to the MobileView server. The request includes an identifier for the asset to be located, typically the MAC address.

MobileView can be configured to proactively notify a third-party application of a particular event. The Intel vPro technology with LBS version of AeroScout software supports a limited number of event notifications. An event is an occurrence, such as an asset leaving or entering an area. Any one of the following event action types can be configured:

- HTTP Post (.xml or map)
- JMS (.xml or map)
- Web Service (.xml or text based)
- SMTP (configurable message)

Applications can implement any one or more of these protocols to receive events from MobileView to trigger some location-based behavior.

### 2.6 Find Near Me Application

The Find Near Me application (FNM) is a location-based solution available as an add-on to MobileView version 5.0. With FNM, the MAC address of a device based on a 4th generation Intel Core vPro processor platform is auto-detected and all the nearest fixed assets are displayed, for example, the nearest printer or meeting room, as shown in the figure.

![Figure 2 Find Near Me application](image.png)
3 Deployment Requirements

This section describes the infrastructure, hardware, and software requirements for deploying the Intel vPro technology with LBS solution.

3.1 Physical Infrastructure

This deployment requires an existing physical infrastructure, such as an office building, a warehouse, or a hospital. To take full advantage of this deployment, use devices based on 4th generation Intel Core vPro processor platforms (including mobile, 2 in 1, and Ultrabook devices) that require location tracking at this facility. The facility should also contain physical assets that can be tagged for location tracking, such as printers, medical equipment, and forklift vehicles.

3.2 Wireless LAN Infrastructure

An existing enterprise wireless LAN infrastructure is a prerequisite for this deployment. The wireless access points, controllers, and all necessary hardware and software must be supported by AeroScout technology. Wireless LANs and components that are compatible with this deployment are identified in “AeroScout Location Engine Compatibility with Wireless LAN Infrastructure” (AeroScout document number 5259).

3.3 Detailed Maps

This deployment requires detailed maps of the physical infrastructure. The maps must accurately represent the locations of the building’s features, such as walls, doors, and corridors. The more accurate the map is, the better the service will work, and the better the user experience will be.

See Appendix: AeroScout Best Practices for Maps for guidance on choosing and formatting maps for AeroScout Location Engine and AeroScout MobileView. If you need help producing maps of sufficient quality, you should consider using a mapping service provider.

3.4 Tracked Assets

The only assets that can be tracked by using this deployment of the free Intel vPro technology with LBS version of AeroScout software are devices based on 4th generation Intel Core vPro platforms with any of the following Intel wireless adapters:

- Intel® Dual Band Wireless-AC 7260
- Intel® Dual Band Wireless-N 7260AN
- Intel® Dual Band Wireless-N 7260NB
- Intel® Wireless-N 7260BN
- Intel® Centrino® Advanced-N 6235, Dual Band
- Intel® Centrino® Advanced-N 6205, Dual Band
- Intel® Centrino® Ultimate-N 6300, Dual Band
- Intel® Centrino® Advanced-N + WIMAX 6250

3.5 Location Engine

This section identifies the requirements for deploying AeroScout Location Engine Version 5.0. Additional information can be found in AeroScout Location Engine Version 5.0 release notes and user guide.

The AeroScout Location Engine consists of the AeroScout Engine Manager and the AeroScout Engine Server and the requirements for each are identified in the following sections.

3.5.1 AeroScout Engine Manager

According to AeroScout release notes dated August 29, 2013, AeroScout Location Engine Version 5.0 requires one of the following operating systems:

- Windows Server* 2008 R2 Standard (64 bit)
- Windows Server 2008 R2 Enterprise (64 bit)
- Windows* 7 (64 bit)
- Windows 7 (32 bit)

For current requirements, you should check the latest AeroScout Location Engine release notes.

3.5.2 AeroScout Engine Server

The AeroScout Engine Server can run on a dedicated virtual machine that is running VMware* ESX 4.1 or later, or on a physical appliance running Windows. The virtual machine can be on the same physical machine that runs a virtual machine with a virtual Cisco Mobility
Services Engine* (MSE) or on a different physical machine.

The minimum hardware requirements for the AeroScout Engine Server are as follows:

- Intel® Core™ 2 Duo processor (minimum 2 GHz)
- 4 GB RAM
- 100 GB hard drive
- Standard Ethernet network interface card 1000 Mbps

### 3.6 AeroScout MobileView

This section describes the requirements for the AeroScout MobileView server and client.

#### 3.6.1 MobileView Server

This section describes the requirements for the MobileView server.

##### 3.6.1.1 Operating System

MobileView version 5.0 will support Intel vPro technology with LBS. For current operating system requirements, you should check the latest MobileView release notes.

##### 3.6.1.2 Virtualization Software

The MobileView server can run on a physical server or on a virtual machine. To run the MobileView server on a virtual machine, the following virtualization software is required:

- VMware ESX server, version 4.1 or later
- VMware Infrastructure Client version 4.1 or later

**Note**: If you run MobileView on a virtual machine, it is not recommended using virtual machines as database servers because of potential performance degradation.

##### 3.6.1.3 Database

AeroScout MobileView version 4.4 requires one of the following database systems:

- Microsoft SQL Server* Express 2008 for Limited FNM solution
- Oracle Database* 10g, 10.2.0.4 (Standard and Enterprise Editions)
- Oracle Database 11g (Standard and Enterprise Editions)
- Microsoft SQL Server 2005, 9.0.4035 (Standard and Enterprise Editions)
- Microsoft SQL Server 2008 Standard Edition, 10.0.1600.22
- Microsoft SQL Server 2008 Enterprise Edition, 10.0.2531.0

To find database system requirements for later versions of MobileView, check the latest MobileView release notes.

To run database scripts that may be required for MobileView upgrades, the following database client applications must be installed:

- For Oracle: SQL*Plus*
- For SQL Server: SQLCMD

The MobileView installer can install SQL*Plus and SQLCMD automatically if they are not present on the machine at the time of installation.

For current requirements, you should check the latest MobileView release notes.

##### 3.6.1.4 Memory

A minimum of 4 GB of memory is required for a small deployment.

##### 3.6.1.5 Processor

A dual-core processor is required for a small deployment, and a quad-core processor is recommended for a larger deployment.

#### 3.6.2 MobileView Client

The MobileView client requires the following software:

- Internet Explorer* 7.0, 8.0, 9.0, or 10.0
- Adobe Flash* Player ActiveX* Control. (If the player is not installed, MobileView will prompt to download automatically upon first access of the system).

### 3.7 Find Near Me Application
The Find Near Me application requires the following:

- Intel® Wireless Card
- MobileView
- Microsoft SQL Server (Express, Standard, or Enterprise version) database

See “Find Near Me (FNM) – Location Based Services, Version 5.0.0.16, Release Notes”, published by AeroScout, for details about requirements and compatibility with specific components.
4 Installation and Setup

4.1 Download AeroScout Software
To download the AeroScout software that you will need for this deployment, do the following:

1. Go to the AeroScout software download page.
2. Download the following:
   a. Intel LBS MobileView Core Software
   b. The AeroScout Location Engine appropriate for your Wi-Fi environment

If you expect to use the MobileView API to integrate third-party applications with MobileView, you should download the API Integration Guide.

If you want to use Microsoft System Center Configuration Manager* with the Intel vPro technology with LBS solution, you should download Microsoft SCCM plug-in software and documentation.

Figure 3 STANLEY AeroScout download page

4.2 AeroScout Licensing
The free Intel vPro technology with LBS version of AeroScout software lets you track an unlimited number of business clients with 4th Generation Intel Core vPro processors, but has limited functionality for all the premium features. For information about other versions of AeroScout software and the licensing options, contact AeroScout. (See Section 2.2 for AeroScout contact information.)

4.3 Install and Configure the AeroScout Asset Visibility System
After you have downloaded the AeroScout software, follow these steps to install and configure the AeroScout Asset Visibility System. If you still have any technical questions, contact AeroScout. (See Section 2.2 for AeroScout contact information.)

1. Install and configure AeroScout Engine Server and AeroScout Engine Manager by following the instructions in “AeroScout Engine Manager Version 5.0, User’s Guide.” This step includes the following stages:
   a. Installation of engine server software
   b. Initial hardware setup test
      i. Power up the devices.
      ii. Connect devices to the network.
   c. System configuration
      i. Define the site structure (campuses, buildings, floors).
      ii. Load and calibrate map(s).
      iii. Set user permissions (optional).
      iv. Set system parameters.
      v. Position and configure devices on map(s).
      vi. Configure devices’ IP settings (if relevant).
      vii. Verify devices’ status.
      viii. Verify firmware versions (update if necessary).
      ix. Perform additional system configurations if applicable (cells and masks).
   d. System functionality check
      i. Locate Wi-Fi device.
   e. Device placement
i. Change IP settings (if relevant).
ii. Place devices in their actual positions on site.
iii. Connect devices to network and power.
iv. Check devices connectivity and status.

f. System testing
   i. Set up reference points and position business clients with 4th generation Intel Core vPro processors accordingly on site to perform recordings.
   ii. Record a session and analyze it.
   iii. Tune the system accordingly (ongoing), for example, device placement, antenna orientation, system parameters, and map settings.

Note: The free Intel vPro technology with LBS version of AeroScout software does not support exciters.

2. Install and configure MobileView by following the instructions in the deployment guide for AeroScout MobileView 5.0.
3. Install and configure the AeroScout Find Near Me application by following the instructions in “Find Near Me (FNM) – Location Based Solution, Deployment and Configuration Guide.”

Define assets in MobileView by following the instructions in “AeroScout MobileView 4, Version 4.4, Administrator’s Guide” (AeroScout document number 2958).

4.4 Install and Customize Intel® PROSet/Wireless Software
1. Go to the Intel wireless software download page and download the appropriate version of Intel® PROSet/Wireless Software.
Using Windows Explorer (File Explorer in Windows 8), navigate to the setup application you just downloaded and double-click it to start the software installation wizard.
2. When the dialog box shown in the screenshot appears, click the Customize button.

![Figure 4 Intel PROSet/Wireless Software install page](image)
3. When the dialog box shown in the screenshot appears, do the following:
   a. If you are an end user, select the first two check boxes only
   b. If you are an administrator, select all of the checkboxes

After making your selections, click **Install**.

The installation should begin and you should see the dialog box shown in the screenshot:
4. When the installation is finished, you should see the dialog box in the following screenshot. Click **Finish**.

![Figure 7 Intel PROSet/Wireless Software install complete](image)

5. In the **Start** menu, navigate to **WiFi Administrator Tool**, and click it. When you open the WiFi Administrator Tool for the first time, the **Create Password** dialog box appears. Fill in the text boxes, and then click **OK**.

![Figure 8 Create Password dialog box](image)
6. In the Open Administrator Package dialog box, select Create a new package, and then click OK.

7. In the Administrator Tool - New Package dialog box, in the Profiles tab, click the Pre-logon/Common tab, and then click Add...
8. In the **WiFi Profile Properties** dialog box, select **General Settings**, fill in the text boxes, and then click the appropriate checkboxes.

![Create WiFi Profile General Settings](image1.png)

**Figure 11 Create WiFi Profile General Settings**

9. In the **WiFi Profile Properties** dialog box, select **Security Settings**, fill in the text boxes, click the appropriate checkboxes, and then click **OK**.

![Create WiFi Profile Security Settings](image2.png)

**Figure 12 Create WiFi Profile Security Settings**
10. In the Administrator Tool - New Package dialog box, in the Application Settings tab, select the Enable Location-Based Services checkbox, and then select the appropriate Tag Type and Tag Transmission Interval.

![Figure 13 New Package Application Settings](image)

11. In the Administrator Tool - New Package dialog box, click File, and, in the drop-down list, click Apply to this computer.

![Figure 14 New Package, Apply to this computer](image)
12. If you completed the configuration correctly, you should see the dialog box shown in the screenshot. In the dialog box, click **Enable**.

   **Note**: Alternatively, you can enable Location Based Services from the Intel PROSet/Wireless control panel.

---

**Figure 15 Enable Location Based Services**

4.5 **IT Setup for Intel vPro Technology with LBS Use Cases**

For guidance on setting up the two use cases that the Intel vPro technology with LBS solution enables, see the following documents:

- **Find Near Me**: “Find Near Me (FNM) – Location Based Solution, Deployment and Configuration Guide.”
- **Enterprise IT asset tracking**: AeroScout MobileView 5.0 deployment guide. If you want to use Microsoft System Center Configuration Manager with the Intel vPro technology with LBS solution, download System Center Configuration Manager plug-in software and documentation as described in **Section 4.1**, “Download AeroScout Software.”
4.6 End-User Basic Setup and Settings

To set up the Intel vPro technology with LBS solution, end users work with MobileView, including the Find Near Me application, which is a MobileView add-in.

For guidance on working with MobileView, see the AeroScout MobileView 5.0 deployment guide.

For guidance on working with the Find Near Me application, see “Find Near Me (FNM) – Location Based Solution, User Guide.”

Intel vPro technology with LBS will not store a user’s location or send it to Intel. After Intel vPro technology with LBS is enabled, the user’s IT organization can give access to user location data to third-party applications. How a third-party application uses this information is governed by the third party’s privacy policy for the application.
5 Using Intel vPro Technology with Location Based Services

Each user must first enable Intel vPro technology with LBS to use it. This is usually done for the first time at the end of the installation of Intel PROSet/Wireless Software. (See the last step in Section 4.3, “Install and Customize Intel PROSet/Wireless Software.”)

Later Intel vPro technology with LBS can be disabled or enabled from the Intel PROSet/Wireless Tools dialog box.

Note One way to access the Intel PROSet/Wireless Tools dialog box is to view the Windows control panel by small or large icons (not by category) and find Intel PROSet/Wireless Tools in the list of control panel items.

For guidance on using the two use cases that are enabled by Intel vPro technology with LBS, see the following documents:

- Find Near Me: “Find Near Me (FNM) – Location Based Solution, User Guide.”
- Enterprise IT asset management: AeroScout MobileView 5.0 deployment guide.
6 Troubleshooting

You can find troubleshooting guidance in the following documents:

- **MobileView**: AeroScout MobileView 5.0 deployment guide.
- **Find Near Me application**: "Find Near Me (FNM) – Location Based Solution, User Guide."

You can also request help by submitting a ticket in the AeroScout self-service support portal located at [www.aeroscout.com/support](http://www.aeroscout.com/support).

**Problem**: MobileView does not show the location of devices based on 4th generation Intel Core vPro processor platforms.

**Possible solution**: In the following file:

```
[MobileView_Install_Location]MobileView\tomcat\webapps\gateway-web\WEB-INF\conf\gw-aeroscout.properties
```

make the following property setting:

```
aeroscoutEngineConf.enableMobileunits = true
```
7 Additional Resources

For more information about Intel vPro technology with LBS, visit www.aeroscout.com/IntelLBS.

For more information about 4th generation Intel Core vPro processors, visit www.intel.com/vpro.

For additional information about AeroScout, visit www.aeroscout.com.
8 API References

If you want to use the MobileView API to integrate third-party applications with MobileView, see "MobileView 5.0 Integration Guide," which you can find and download by going to www.aeroscout.com/support, and then clicking Downloads and Documentation.
Appendix: AeroScout Best Practices for Maps

This document describes the best practices for choosing and formatting maps for AeroScout Engine and AeroScout MobileView.

Map File Requirements

Best results are obtained when the map file complies with the following:

<table>
<thead>
<tr>
<th>Format</th>
<th>JPEG, best quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolution</td>
<td>More than 1 mega-pixel, less than 20 mega-pixels</td>
</tr>
<tr>
<td>File size</td>
<td>No more than 10MB</td>
</tr>
<tr>
<td>File name</td>
<td>Up to 30 alphanumeric characters. The name may include letters, digits and the underscore (_) character. Spaces or other characters are not allowed.</td>
</tr>
</tbody>
</table>

Physical Size

- The maximum size for a single map is 3,000,000ft² (1,000,000m²).
- It is recommended that maps are not larger than 750,000ft² (250,000m²).
- Divide larger areas into smaller maps.
- Make sure that the map's width and height have the same proportion. When handling the picture graphically, changes that do not preserve exactly the original aspect ratio (width-to-height ratio) of the map picture translate into wrong location information on the map.

Guidelines for Better Performance

- Crop the map as much as possible.
- Don't "draw" devices (Access Points, Location Receivers or Exciters) on the map; it will make it difficult to move the equipment later.
- Maps are displayed in landscape format. Prepare the maps in this format and make sure the legends are oriented correctly.
- Define the map resolution according to the maximum zoom needed. The resolution should be adapted to the smallest detail that needs to be read.

Comments

- Reduce the number of colors as much as possible (even to black-and-white). Specifically, avoid using shades similar to those of AeroScout System Manager icons (Access Points, Location Receivers and Exciters).
- If several floors of the same building are covered, keep the same orientation for all the maps.
- It is possible, at a later stage, to replace a map in AeroScout Engine (and consequently in AeroScout MobileView). In the Configuration menu of AeroScout System Manager, choose "Maps → Calibrate Map...". On the map itself, right-click and choose "Replace Map". After replacing the map, recalibrate it.

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