Local Positioning Systems

LBS Applications and Services

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Chapter 8 Service Deployment

Step 1: Site Survey

Creating the Signal Strength Model (Radio Map)

Site Survey and the Resulting Data

Step 2: Create a Positioning Model

Step 3: Calibrate the Positioning Model

Using Ekahau Manager

Using WRAPI and JWRAP1

General Recommendations

Step 4: Access Point Placement and Configuration

Locales

Resolution

Interference of Other Devices

Tips for Increasing the Number of APs

WLAN Management and Location-Based Security

Step 5: Tracking

Step 6: Maintenance (Periodic Accuracy Test)

Creating Floor Maps

Step 1: AutoCAD DXF to UniGrafix Conversion

Step 2: Feature Recognition

Step 3: Path Extraction

Step 4: Labeling

Three-Dimensional Indoor Maps

Using the Ekahau Positioning System

Ekahau Java SDK

YAX Protocol

YAX Telnet Example

Understanding Location Estimates in Ekahau

Understanding Location Maps and Logical Areas in Ekahau

Using and Refreshing LocationContext

Getting the Map Image of a Location Context

Application/Service Example: HawkTour

HawkTour System Architecture

HawkTour Application Architecture

Location Service

Content Service

Map Service (Map Manager)

Hardware Interface Service

HawkTour Application Implementation