SmartHotelLock.com

# PMS Integration Guide

Complete Guide to Property Management System Integration

This guide provides comprehensive information on integrating smart hotel lock systems with major Property Management Systems (PMS). Proper integration is essential for streamlined operations, automatic key encoding, and real-time room status updates.

## 1. Integration Architecture Overview

Modern smart lock systems integrate with PMS through three primary methods:

### 1.1 Direct API Integration

Real-time bidirectional communication using REST APIs or SOAP protocols. Provides instant updates and full automation.

**Advantages:**

- Real-time synchronization
- Automatic key generation
- Full feature access

**Considerations:**

- Requires technical expertise
- Initial setup complexity

### 2.2 Middleware Integration

Third-party software bridges PMS and lock system. Common for legacy PMS platforms.

**Advantages:**

- Supports older PMS systems
- Vendor support available
- Proven reliability

**Considerations:**

- Additional licensing cost
- Potential latency
- Extra maintenance point

### 3.3 File-Based Integration

Scheduled file transfers (CSV, XML) between systems. Most basic integration method.

**Advantages:**

- Simple implementation
- Works with any PMS
- Low technical requirement

**Considerations:**

- Not real-time (delays)
- Manual intervention needed
- Error-prone

## 2. Major PMS Platforms & Compatibility

| PMS Platform | Market | Integration Type | Typical Setup Time |
|---|---|---|---|
| Opera (Oracle) | Enterprise/Luxury | Direct API/OHIP | 2-4 weeks |
| Cloudbeds | Boutique/Small | Direct API | 1-2 weeks |
| Mews | Modern Hotels | Direct API | 1-2 weeks |
| Protel | European Market | Direct API/XML | 2-3 weeks |
| RoomKey PMS | Independent Hotels | Direct API | 1-2 weeks |
| eZee Frontdesk | Small-Medium | API/Middleware | 2-3 weeks |
| Hotelogix | Cloud-Based | Direct API | 1-2 weeks |
| WebRezPro | North America | API/File Transfer | 1-3 weeks |
| Maestro PMS | Full Service | Middleware/API | 2-4 weeks |
| Apaleo | Modern Cloud | Direct API | 1-2 weeks |

## 3. Pre-Integration Checklist

### & PMS Information Required

& PMS vendor name and version number

& Database type (SQL Server, MySQL, Oracle, etc.)

& API access credentials (if applicable)

& Server IP addresses and ports

& Current room structure and naming convention

& User roles and permission levels

### & Network & Infrastructure

& Network topology diagram

& Firewall rules and port opening requirements

& VPN or secure connection method

& Backup and failover procedures

& Internet bandwidth availability

### & Business Requirements

& Check-in/check-out workflows

& Key card encoding rules

& Staff access levels and schedules

& Guest privacy requirements

& Compliance needs (GDPR, PCI DSS)

# 4. Key Data Flows & Processes

## 4.1 Guest Check-In

1. PMS creates reservation with room assignment
2. Lock system receives room number, guest name, dates
3. System generates unique key credentials
4. Front desk encodes physical key card or sends mobile key
5. Guest credentials activated with check-in time
6. Access audit trail begins

## 4.2 Guest Check-Out

1. PMS processes check-out transaction
2. Deactivation command sent to lock system
3. Guest key credentials immediately expire
4. Housekeeping status updated to "dirty"
5. Access history archived for compliance

## 4.3 Room Status Synchronization

1. Lock system monitors door events (open/close)
2. Housekeeping updates sent to PMS
3. Maintenance alerts trigger work orders
4. Energy management integration (HVAC, lights)
5. Real-time dashboard updates

# 5. Common Integration Issues & Solutions

## & þ  Issue 1: Keys not encoding

**Common Causes:**

- Network connectivity loss
- PMS data not synchronized
- Encoder offline

**Solutions:**

' Verify network connection<br>
' Check PMS-lock sync status<br>
' Restart encoder, verify power

## & þ  Issue 2: Duplicate room assignments

**Common Causes:**

- PMS room mapping incorrect
- Lock ID mismatch

**Solutions:**

' Re-verify room-to-lock mapping<br>
' Update lock database<br>
' Rebuild room structure

## & þ  Issue 3: Delayed status updates

**Common Causes:**

- File-based sync delay
- Network latency
- Server overload

**Solutions:**

' Switch to real-time API<br>
' Check network performance<br>
' Upgrade server capacity

## & þ  Issue 4: Authentication failures

**Common Causes:**

- Expired API credentials
- IP whitelist not updated
- Certificate expiration

**Solutions:**

' Renew credentials<br>
' Update firewall rules<br>
' Install new SSL certificates

## 6. Integration Best Practices

1. Always test integration in a staging environment before production deployment
2. Document all API endpoints, credentials, and configuration settings
3. Implement comprehensive error logging and monitoring
4. Schedule regular synchronization audits to catch discrepancies
5. Maintain backup communication channels (manual encoding) for emergencies
6. Train staff on both automated and manual processes
7. Keep all software components (PMS, lock system, middleware) updated
8. Perform load testing to ensure system can handle peak check-in times
9. Establish clear escalation procedures for integration failures
10. Review security settings quarterly (firewall, VPN, credentials)