**Integration with Payroll and Biometric Systems — Data Exchange and Error Handling**

**Objective:**  
Ensure seamless, secure integration of mobile HR data with core payroll systems and biometric attendance platforms for real-time updates and accurate compensation processing.

**Detailed Components:**

* **Integration Methods:**
  + RESTful APIs or secure file transfers (SFTP/FTPS).
  + Webhooks for real-time data push to payroll.
* **Biometric System Integration:**
  + Use of biometric SDKs or middleware to push fingerprint/face data to server.
  + Matching of biometric IDs with employee master data.
  + API-based syncing with biometric attendance terminals (ZKTeco, Suprema, etc.).
* **Payroll System Integration:**
  + Periodic export of attendance, overtime, leave balances to payroll.
  + Payroll return data (net pay, deductions, payslip links) synced back to app.
  + Secure audit trails for data flows.
* **Error Handling & Recovery:**
  + Retry mechanisms for failed data pushes.
  + Logging of sync failures with status codes and timestamps.
  + Manual override or admin reconciliation panel for persistent conflicts.