



# Hytera PD41X Patrol System

**Hytera**   
Respond & Achieve

## Hytera PD41X Patrol System



**Part 1 : Challenges in Guard Tour System**



Part 2 : Patrol System Overview



Part 3 : Patrol System Features



Part 4 : Data Transmission Process



Part 5 : Patrol System Solutions

# Challenges in Guard Tour System

## For guard tour kit:

- Inconvenient
- Extra cost
- Low efficiency
- Only support offline data transmission



## For analogue radio:

- Low voice quality
- High interference
- Short working time
- Limited channel resources
- Few functions

With the concerns from customers about their existing guard tour system, we have prepared **Hytera Patrol System Solution**.

# What can Hytera Patrol System change? Hytera

## Existing Guard Tour System



| Data Gathered                | Delete One | Delete All   | Print Out  | Export to Excel    | Back |
|------------------------------|------------|--------------|------------|--------------------|------|
| Guard Tour Kit ID: 2283      |            | Location ID  | Location   | Installed Position |      |
| New Location ID: 0000DA13D00 |            | 0000FB83D00  | Front Gate | Main Gate          |      |
|                              |            | 0000487E3D00 | Office     | 2nd Floor Office   |      |
|                              |            | 0000A6C23D00 | Factory    | Manufactory        |      |
|                              |            | 0000BC8D3D00 | Parklot    | Basement Parklot   |      |
|                              |            | 0000CDA13D00 | Back Gate  | Back Gate          |      |

### Data gathering



- Provide convenient operation
- Avoid patrol data delay
- Prevent human errors

### Data uploading



- Reduce cost
- Promote efficiency
- Simple to manage and maintain

### Data reporting



- Emergent case handled in time
- Massive data applications

## Hytera Patrol System



## Hytera PD41X Patrol System



Part 1 : Challenges in Guard Tour System



**Part 2 : Patrol System Overview**



Part 3 : Patrol System Features

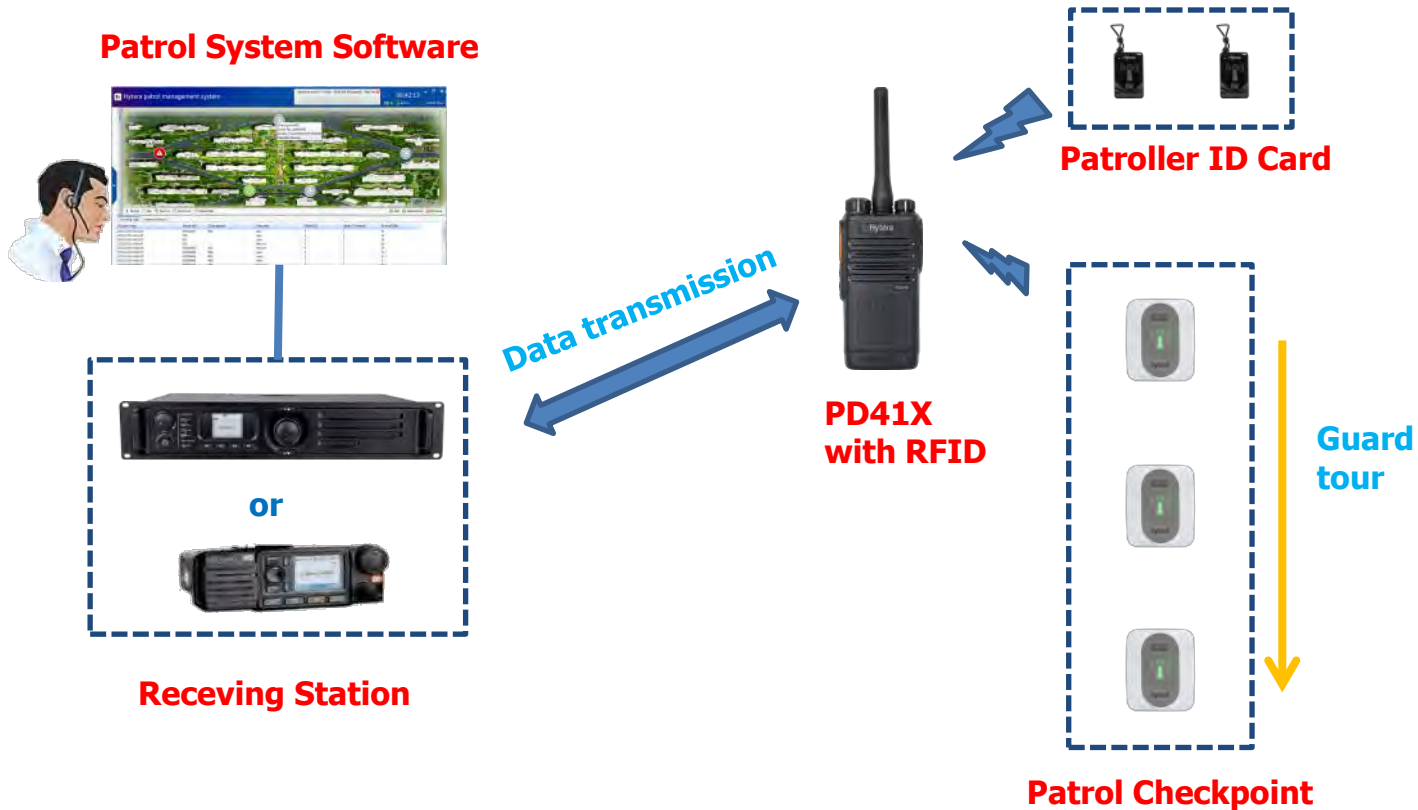


Part 4 : Data Transmission Process



Part 5 : Patrol System Solutions

# Hytera PD41X Patrol System Overview






- Patrol Checkpoint:** A RFID tag, standing for guard tour location. Its information can be read by RFID reader.
- Patroller ID Card:** A RFID tag, standing for patroller ID. Its information can be read by RFID reader.
- Receiving Station:** A repeater (RD62X/RD96X/RD98X/RD98XS) or a mobile radio (only MD78X) can work as a patrol data receiving station.
- PD41X Radio:** With embedded RFID reader, it can read the RFID tag and send the information to a receiving station automatically.

# Hytera PD41X Patrol System Overview



## Patrol devices

| Item   | Power Supply          | Working Temperature | Frequency     | Valid Distance |
|--|-----------------------|---------------------|---------------|----------------|
| <br>Patroller ID Card | No extra power supply | -22~55 °C           | 13.56~14.2Mhz | 3cm            |
| <br>Patrol Checkpoint | No extra power supply | -40~85 °C           | 13.56~14.2Mhz | 4 cm           |

|   |  |                   |
|---|--|-------------------|
| <br>PD41X<br>Patrol Radio | UHF: 400-470Mhz                                  | 4W(High); 1W(Low) |
|   | VHF: 136-174Mhz                                  | 5W(High); 1W(Low) |
|   | 16 Hours (1500mAh); 22 Hours (2000mAh)           |                   |
|   | U.S.A Military Standard & IP54                   |                   |
|   | Analog & Digital auto detect                     |                   |
|   | Embedded RFID (Open API)                         |                   |
|   | Up to 250 pieces of offline data could be stored |                   |

## Hytera PD41X Patrol System



Part 1 : Challenges in Guard Tour System



Part 2 : Patrol System Overview



**Part 3 : Patrol System Features**



Part 4 : Data Transmission Process



Part 5 : Patrol System Solutions



# Patrol System Features

- **Patrol monitor**

Support visualized interface and real-time monitor.

- **Patrol alarm**

On touch alarm can be triggered by radio and displayed on computer monitor.

- **Basic data management**

Patroller ID and checkpoint ID can be easily managed.

- **Patrol plan (Expert mode)**

Establish strict plan to carry out a better guard tour work.

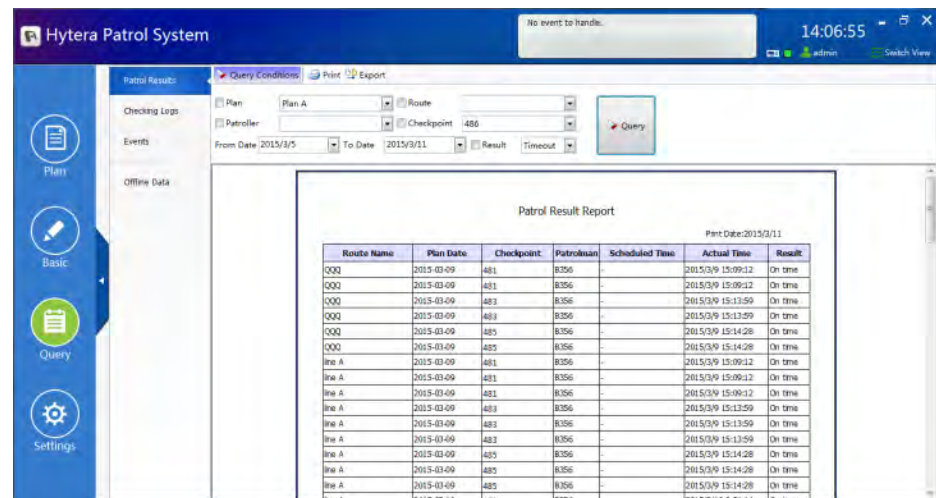
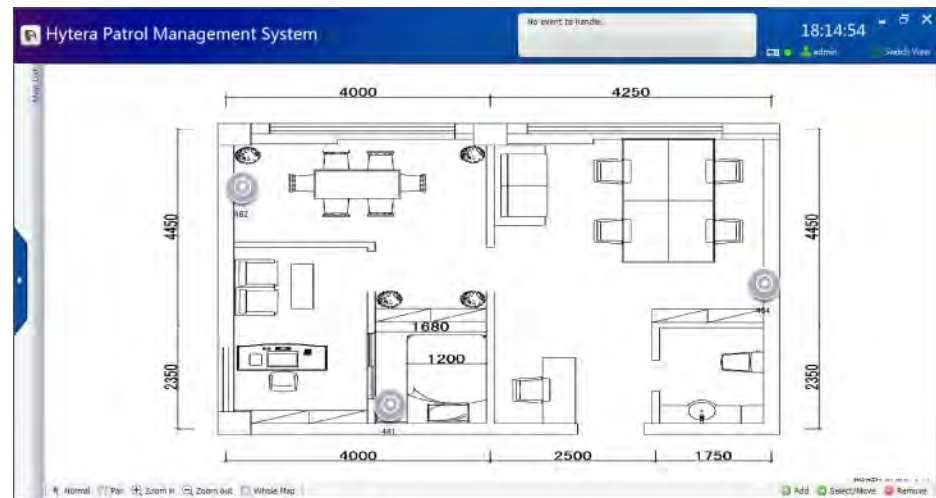
- **Patrol data management**

Query and statistics;

Report export;

Offline data upload;

Patrol data backup.



# Patrol System Features

## --Patrol Monitor

### Visualized interface

- Support customized map imported and checkpoint added.
- Support latest checking and patrol alarm display in different color.

### Real-time monitor

- Checking logs and patrol results will be updated in real time.
- The radio channel is displayed on the screen allowing an operator to get in touch with patrollers in time.

The screenshot displays the Hytera Patrol Management System interface. At the top, a blue header bar contains the system name and a real-time event notification: "Real-time event—Time: 18:18:31 Checkpoint: 481 Patr 1". The main area shows a floor plan with dimensions (4000, 4250, 4450, 2350) and several checkpoints marked with green 'L' icons. One checkpoint, 481, is highlighted with a red dashed box and a red warning triangle. A tooltip for checkpoint 484 provides details: "Checkpoint:484, Serial No.:10000484, Status:Ready, The next planned time: From 2015/3/17 to 2015/3/17 23:59:59". Below the map is a table with tabs for "Checking Logs" and "Realtime Events". The table lists patrol activities with columns for Access Time, Serial No., Checkpoint, Patroller, Radio ID, Radio Channel, and Event(Y/N).

| Access Time        | Serial No. | Checkpoint | Patroller | Radio ID | Radio Channel | Event(Y/N) |
|--------------------|------------|------------|-----------|----------|---------------|------------|
| 2015/3/16 18:20:15 | 10000482   | 482        | Alex      | 9        | 3             | N          |
| 2015/3/16 18:18:31 | 10000481   | 481        | Alex      | 9        | 3             | Y          |
| 2015/3/16 18:18:12 | 10000482   | 482        | Jack      | 8        | 3             | N          |
| 2015/3/16 18:17:59 | 10000481   | 481        | Alex      | 9        | 3             | N          |
| 2015/3/16 18:17:51 | 10000486   | 486        | Alex      | 9        | 3             | N          |
| 2015/3/16 18:17:37 | 10000481   | 481        | Jack      | 8        | 3             | N          |
| 2015/3/16 18:17:30 | 357        |            | Jack      | 8        | 3             | N          |
| 2015/3/16 18:17:24 | 10000485   | 485        | Alex      | 9        | 3             | N          |

Real-time checking logs

# Patrol System Features

## --Patrol Alarm



### Real time alarm report

- Alarm is displayed in window on the top and user could click to handle the alarm.

### Alarm notice

- The latest checkpoint before alarm is marked with alarm sign and the software play alarm tone.

### Event Logs

- Every result of handling is recorded in the event logs.

The screenshot displays the Hytera Patrol Management System interface. At the top, a blue header bar contains the system name and a real-time event notification: "Real-time event—Time: 10:00:44 Checkpoint: 481 Patr". The main area shows a floor plan with dimensions and a red warning icon at checkpoint 481. Below the map is a table of event logs.

| Occurred Time      | Checkpoint | Patroller | Event                        | Radio ID | Radio Channel |
|--------------------|------------|-----------|------------------------------|----------|---------------|
| 2015/3/17 10:00:44 | 481        | Tommy     | Click here to input event... | 9        | 3             |

Event logs

# Patrol System Features

## --Basic Data Management



### Patroller Management

- The system allows the administrator to add/delete the information of patroller, including name, phone number and working unit.

### Patrol checkpoint Management

- The system allows the administrator to add/delete the information of patrol checkpoint, including checkpoint name and description.

The screenshot displays the Hytera Patrol Management System interface. The top bar shows the system name, a status message 'No event to handle.', the time '16:30:53', and the user 'admin'. The sidebar on the left contains three main sections: 'Basic' (with a pencil icon), 'Query' (with a list icon), and 'Settings' (with a gear icon). The 'Patroller' and 'Checkpoints' options are highlighted with a red dashed box. The main area shows a table with the following data:

| Serial No. | Name   | Phone No. | Work Unit |
|------------|--------|-----------|-----------|
| 356        | Alex   |           |           |
| 355        | Nelson |           |           |
| 357        | Jack   |           |           |
| 354        | Tommy  |           |           |

# Patrol System Features

## --Easy Mode & Expert Mode

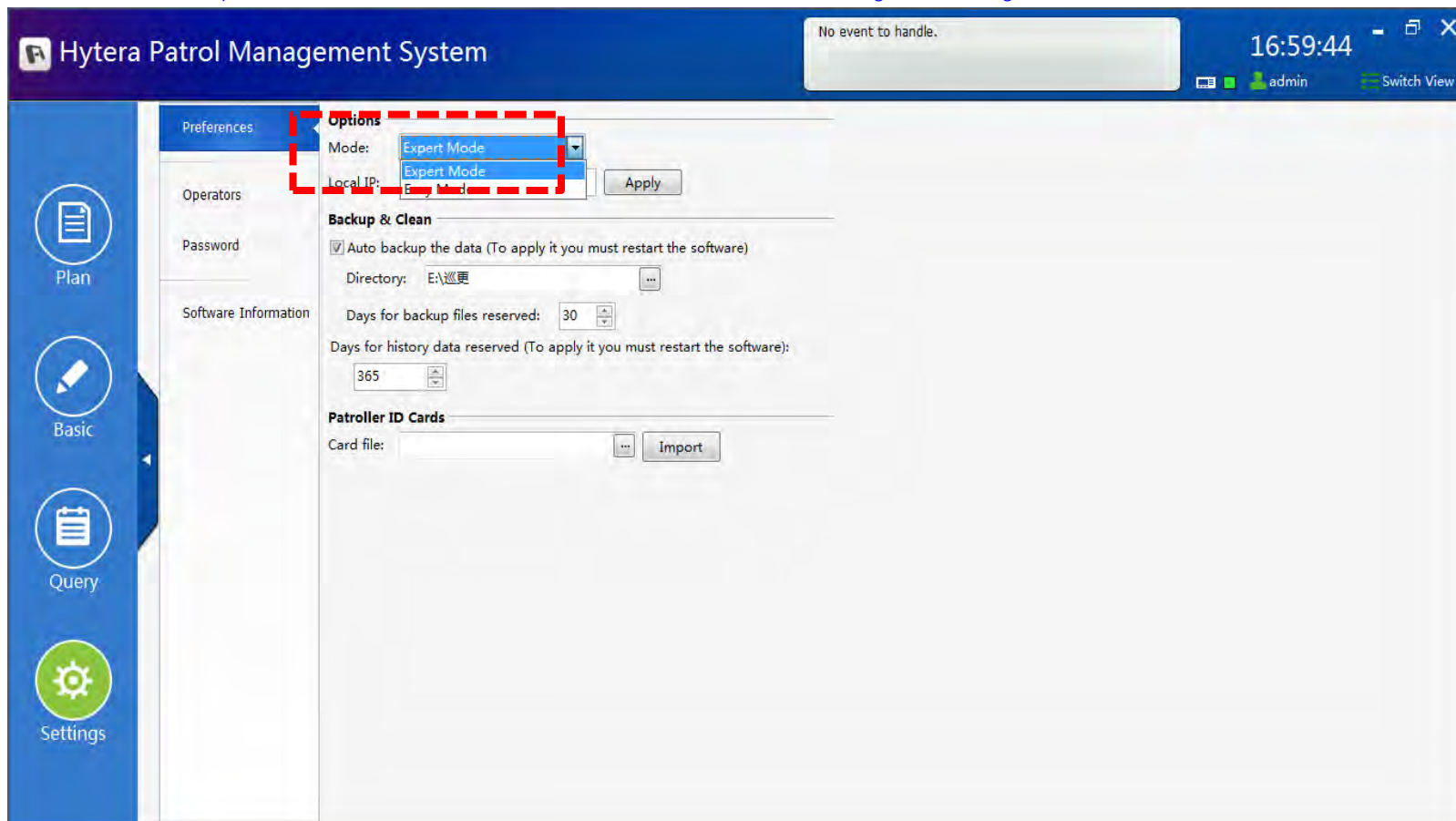


### Expert Mode

- Complicated but with more functions, including patrol route management, patrol plan management and offline data upload. **Notice:** The patroller ID card is an essential accessory for expert mode;

### Easy Mode

- Maintain basic functions for patrol monitor, data query **and export**. **It's recommended** for general users. **Notice:** The patroller ID card is not an essential accessory for easy mode.

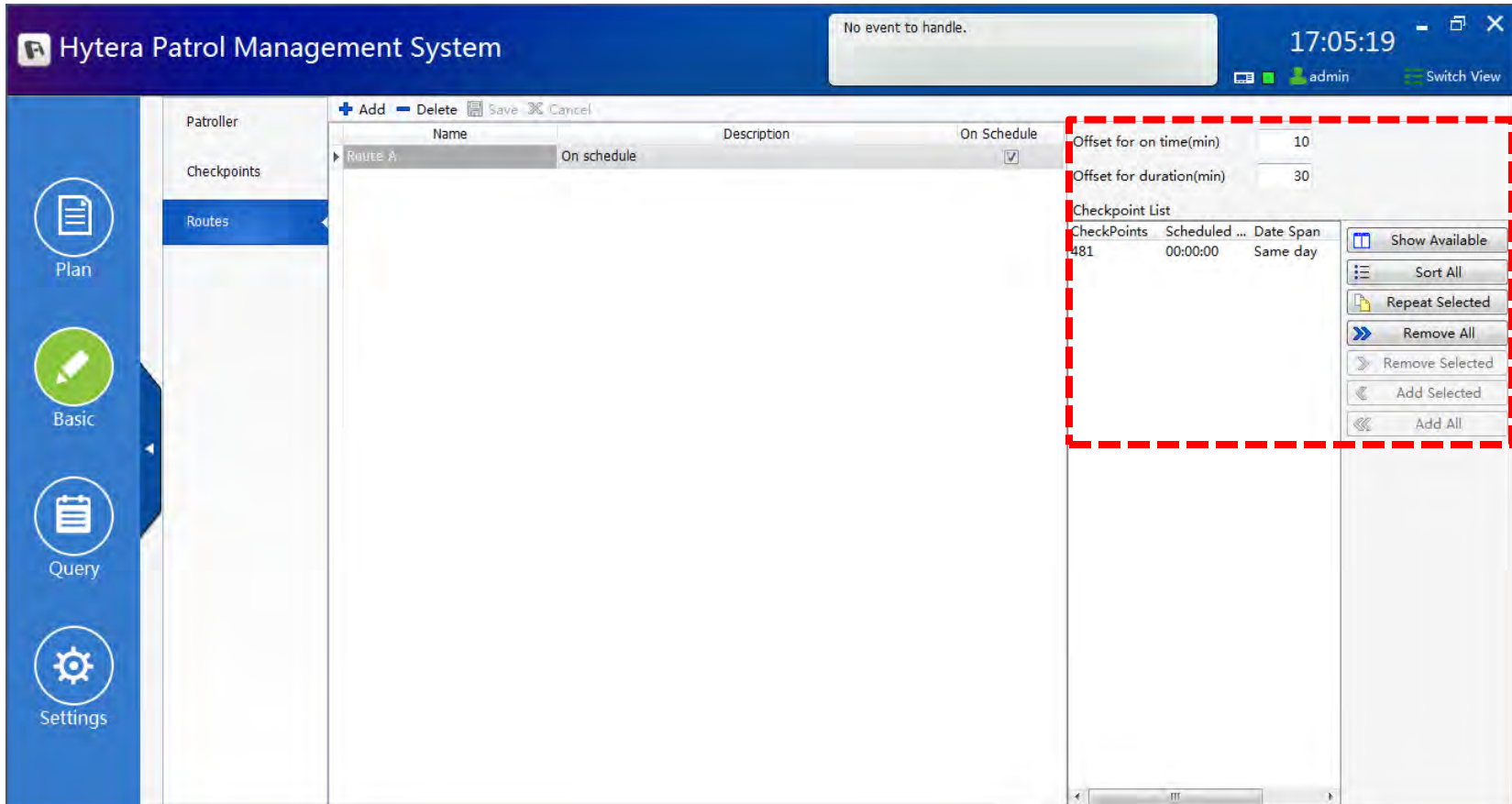


# Patrol System Features

## --Patrol Route(Expert mode only)

### Patrol Route Management

- The system allows the administrator to add/edit the patrol route through choosing the checkpoint entered in the system and setting whether it follows a certain schedule.



The screenshot displays the Hytera Patrol Management System interface. The top navigation bar includes the system name, a status message 'No event to handle.', the time '17:05:19', and the user 'admin'. The left sidebar contains navigation icons for Plan, Basic, Query, and Settings. The main content area is divided into sections for Patroller, Checkpoints, and Routes. The 'Routes' section is active, showing a table with columns for Name, Description, and On Schedule. A table titled 'Checkpoint List' is visible, with columns for CheckPoints, Scheduled, and Date Span. A red dashed box highlights the 'Route setting' area, which includes input fields for 'Offset for on time(min)' (10) and 'Offset for duration(min)' (30), and a list of checkpoints with associated actions like 'Show Available', 'Sort All', 'Repeat Selected', 'Remove All', 'Remove Selected', 'Add Selected', and 'Add All'.

| Name    | Description | On Schedule                         |
|---------|-------------|-------------------------------------|
| Route A | On schedule | <input checked="" type="checkbox"/> |

| CheckPoints | Scheduled ... | Date Span |
|-------------|---------------|-----------|
| 481         | 00:00:00      | Same day  |

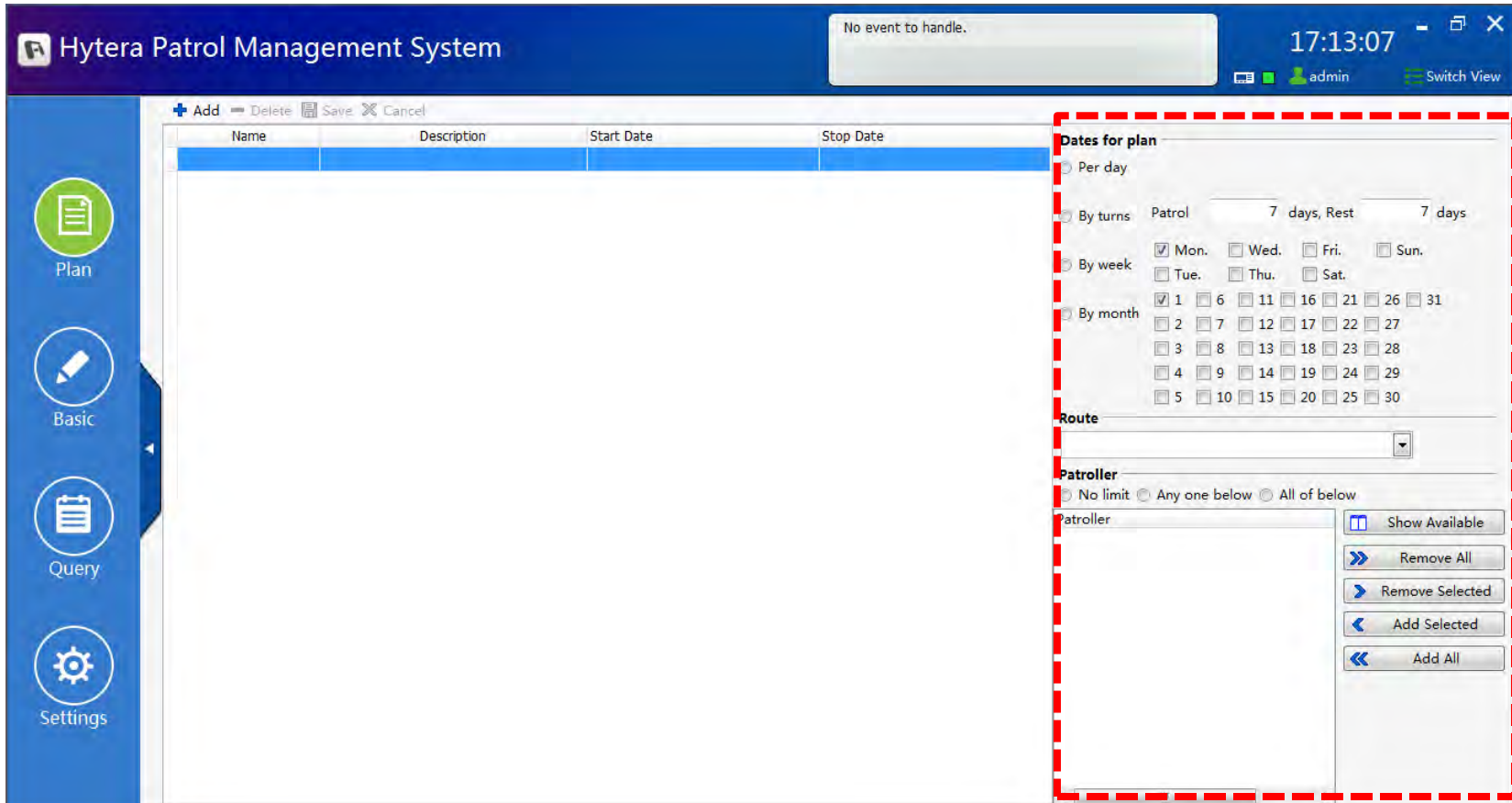
Route setting

# Patrol System Features

## --Patrol Plan (Expert mode only)

### Patrol Plan Management

- The system allows the administrator to add/edit the patrol plan through setting patrol route, patroller and the time period of the plan.



The screenshot displays the Hytera Patrol Management System interface. The top bar shows the system name, a status message "No event to handle.", the time "17:13:07", and the user "admin". A sidebar on the left contains navigation icons for Plan, Basic, Query, and Settings. The main area features a table with columns for Name, Description, Start Date, and Stop Date. A red dashed box highlights the "Dates for plan" configuration panel on the right, which includes options for "Per day", "By turns", "By week", and "By month", along with a "Route" dropdown, "Patroller" selection options, and a list of patrollers with associated action buttons like "Show Available", "Remove All", "Remove Selected", "Add Selected", and "Add All".

*Plan setting*

# Patrol System Features

## --Query and Statistics



### Query and Statistics

- The user could query patrol data in the checking logs or event logs applying different query conditions.

The screenshot shows the Hytera Patrol Management System interface. The top navigation bar includes the system name, a status message 'No event to handle.', the time '16:45:56', and user information 'admin'. The left sidebar contains icons for 'Basic', 'Query', and 'Settings'. The main content area is titled 'Checking Logs' and features a 'Query Conditions' section highlighted with a red dashed box. This section includes dropdown menus for 'Patroller' and 'Checkpoint', and date pickers for 'From Date' (2015/3/10) and 'To Date' (2015/3/16). A 'Query' button is also visible. Below the query section is a 'Checking Logs Report' table with the following data:

| Access Time       | Serial No. | Checkpoint | Patroller | Radio ID | Event(V/N) |
|-------------------|------------|------------|-----------|----------|------------|
| 2015/3/10 9:19:52 | 330        |            | dufei4    | 24       | 0          |
| 2015/3/10 9:20:09 | 10000469   | 469        | dufei4    | 24       | 0          |
| 2015/3/10 9:20:29 | 10000474   | 474        | dufei4    | 24       | 0          |
| 2015/3/10 9:22:02 | 10000474   | 474        | dufei4    | 24       | 0          |
| 2015/3/10 9:22:15 | 10000476   | 476        | dufei4    | 24       | 0          |
| 2015/3/10 9:22:33 | 10000469   | 469        | dufei4    | 24       | 0          |
| 2015/3/10 9:22:45 | 10000473   | 473        | dufei4    | 24       | 0          |
| 2015/3/10 9:22:58 | 10000469   | 469        | dufei4    | 24       | 0          |
| 2015/3/10 9:24:06 | 10000474   | 474        | dufei4    | 24       | 0          |
| 2015/3/10 9:24:30 | 10000469   | 469        | dufei4    | 24       | 0          |
| 2015/3/10 9:24:49 | 10000469   | 469        | dufei4    | 24       | 0          |
| 2015/3/10 9:24:58 | 10000476   | 476        | dufei4    | 24       | 0          |
| 2015/3/10 9:35:18 | 330        |            | dufei4    | 10       | 0          |
| 2015/3/10 9:35:36 | 10000469   | 469        | dufei4    | 10       | 0          |
| 2015/3/10 9:35:50 | 10000474   | 474        | dufei4    | 10       | 0          |
| 2015/3/10 9:36:00 | 10000473   | 473        | dufei4    | 10       | 0          |
| 2015/3/10 9:36:07 | 10000469   | 469        | dufei4    | 10       | 0          |

Query conditions



# Patrol System Features

## --Report Export



### Print Report

- The report could be printed into paper or PDF files.

### Export Report

- Export report into Excel files for further analysis.

The screenshot shows the Hytera Patrol Management System interface. The top navigation bar includes the system name, a status message 'No event to handle.', the time '16:45:56', and the user 'admin'. The left sidebar contains navigation icons for 'Basic', 'Query', and 'Settings'. The main content area displays the 'Checking Logs Report' table, which is titled 'Checking Logs Report' and has a 'Print Date:2015/3/16' label. The table has six columns: 'Access Time', 'Serial No.', 'Checkpoint', 'Patroller', 'Radio ID', and 'Event(V/N)'. The 'Print' and 'Export' buttons in the 'Query Conditions' section are highlighted with a red dashed box.

| Access Time       | Serial No. | Checkpoint | Patroller | Radio ID | Event(V/N) |
|-------------------|------------|------------|-----------|----------|------------|
| 2015/3/10 9:19:52 | 330        |            | dufeif4   | 24       | 0          |
| 2015/3/10 9:20:09 | 10000469   | 469        | dufeif4   | 24       | 0          |
| 2015/3/10 9:20:29 | 10000474   | 474        | dufeif4   | 24       | 0          |
| 2015/3/10 9:22:02 | 10000474   | 474        | dufeif4   | 24       | 0          |
| 2015/3/10 9:22:15 | 10000476   | 476        | dufeif4   | 24       | 0          |
| 2015/3/10 9:22:33 | 10000469   | 469        | dufeif4   | 24       | 0          |
| 2015/3/10 9:22:45 | 10000473   | 473        | dufeif4   | 24       | 0          |
| 2015/3/10 9:22:58 | 10000469   | 469        | dufeif4   | 24       | 0          |
| 2015/3/10 9:24:06 | 10000474   | 474        | dufeif4   | 24       | 0          |
| 2015/3/10 9:24:30 | 10000469   | 469        | dufeif4   | 24       | 0          |
| 2015/3/10 9:24:49 | 10000469   | 469        | dufeif4   | 24       | 0          |
| 2015/3/10 9:24:58 | 10000476   | 476        | dufeif4   | 24       | 0          |
| 2015/3/10 9:35:18 | 330        |            | dufeif4   | 10       | 0          |
| 2015/3/10 9:35:36 | 10000469   | 469        | dufeif4   | 10       | 0          |
| 2015/3/10 9:35:50 | 10000474   | 474        | dufeif4   | 10       | 0          |
| 2015/3/10 9:36:00 | 10000473   | 473        | dufeif4   | 10       | 0          |
| 2015/3/10 9:36:07 | 10000469   | 469        | dufeif4   | 10       | 0          |

Report export

# Patrol System Features

## --Offline Data Upload (Expert mode only)



### Offline Data Upload

- The PD41X radio has each patrol data stored inside. (Up to 250 pieces)
- Offline data could be uploaded to patrol system client by programming cable.

The screenshot displays the Hytera Patrol Management System interface. The top bar shows the system name, a status message "No event to handle.", the time "17:18:16", and the user "admin". The main area is divided into a left sidebar with navigation icons for Plan, Basic, Query, and Settings, and a central workspace. The workspace is currently displaying the "Offline Data" section, which includes a table with columns for Plan Name, Plan Description, Route, Patroller(s), Start Date, and Stop Date. A dialog box titled "Import Offline Data" is open in the center, featuring a "Serial:" dropdown menu set to "COM8", a progress bar at 0%, and buttons for "Import Data" and "Close". A red dashed box highlights the dialog box, and the text "Offline data import" is written next to it.

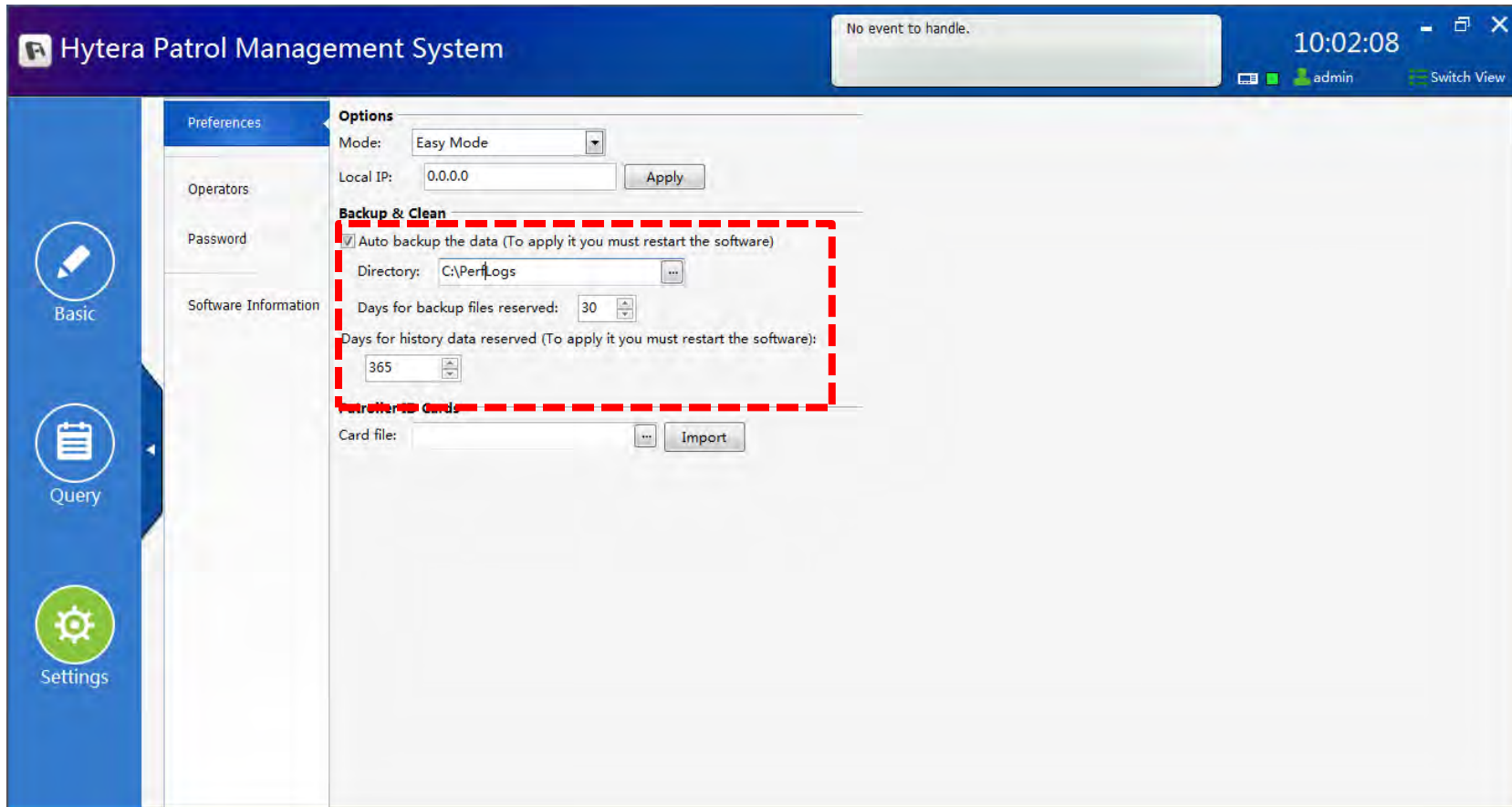
# Patrol System Features

## --Patrol Data Backup



### Data Backup

The system could automatically store all the patrol data into a external file as the data backup.



## Hytera PD41X Patrol System



Part 1 : Challenges in Guard Tour System



Part 2 : Patrol System Overview



Part 3 : Patrol System Features

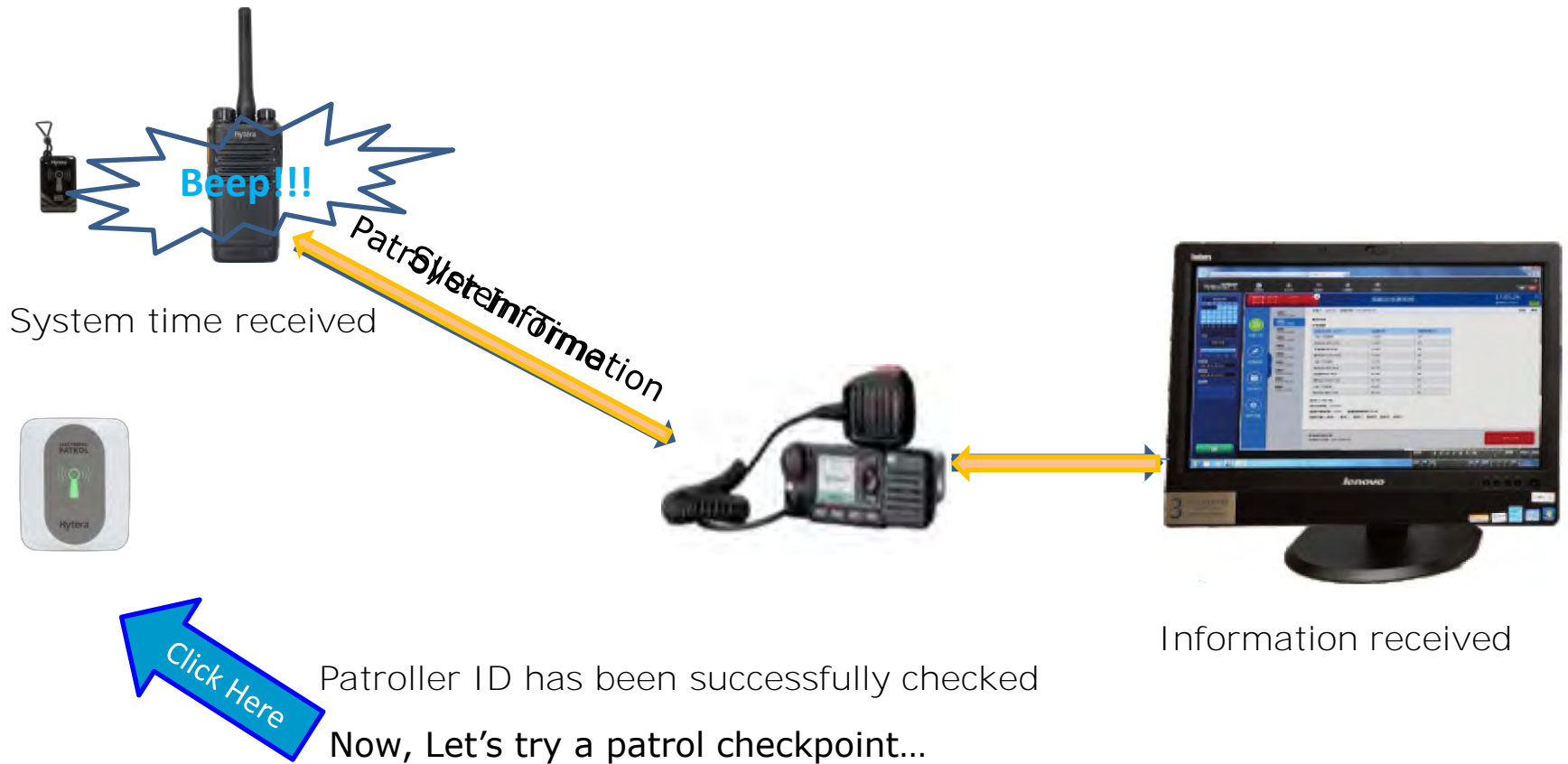


**Part 4 : Data Transmission Process**

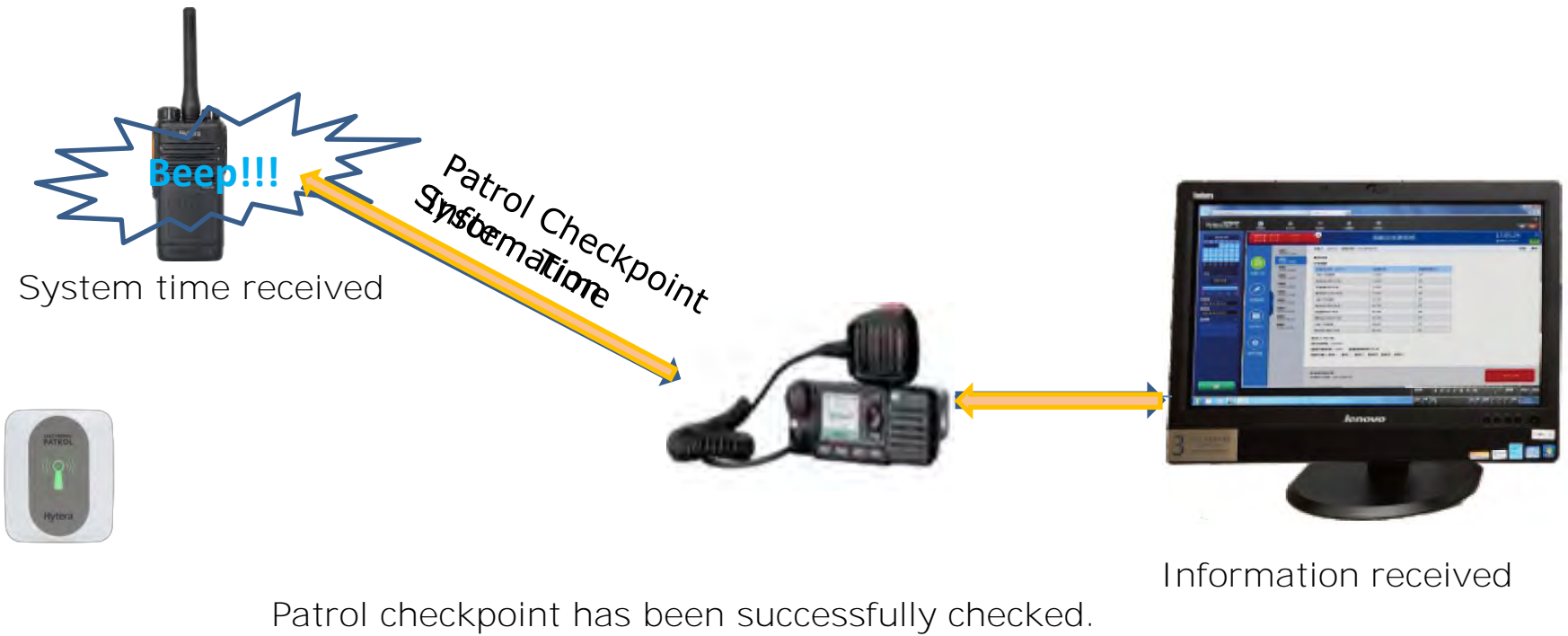


Part 5 : Patrol System Solutions

# Real-time transmission



# Real-time transmission

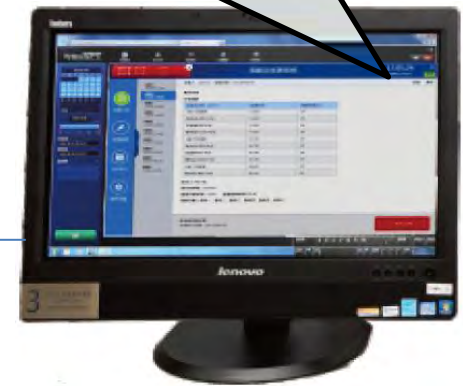


# Real-time Alarm

Alarm Information



Real-time event—Time: 14:15:28 Checkpoint: 481 Patr



Information Received

# Patrol data resend



Press a button which is preprogrammed as **Patrol data resend** function.

**Resend the last patrol data stored.**

Move to an open area  
Where there is a better  
signal.





# Offline Data Upload

Sending Information

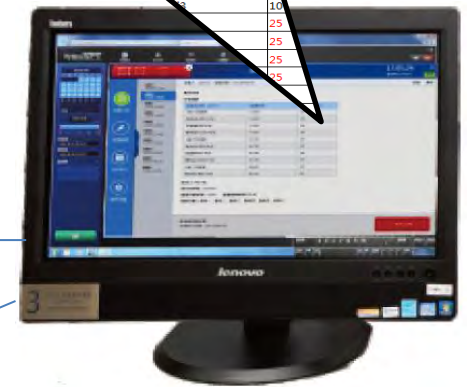


|                   |          |     |        |    |   |
|-------------------|----------|-----|--------|----|---|
| 2015/3/7 15:31:47 | 10000474 | 474 | dufei3 | 10 | 0 |
| 2015/3/7 15:31:47 | 10000476 | 476 | dufei3 | 10 | 0 |
| 2015/3/7 15:31:58 | 10000469 | 469 | dufei3 | 10 | 0 |
| 2015/3/7 15:32:08 | 10000473 | 473 | dufei3 | 10 | 0 |
| 2015/3/7 15:34:10 | 10000499 |     |        | 25 | 0 |
| 2015/3/7 15:34:17 | 10000495 |     |        | 25 | 0 |
| 2015/3/7 15:34:23 | 10000494 |     |        | 25 | 0 |
| 2015/3/7 15:34:30 | 10000478 |     |        | 25 | 0 |
| 2015/3/7 15:34:36 | 10000477 |     |        | 25 | 0 |
| 2015/3/7 15:34:42 | 10000466 |     |        | 25 | 0 |
| 2015/3/7 15:35:21 | 10000469 | 469 | dufei3 | 10 | 0 |
| 2015/3/7 15:35:24 | 10000474 | 474 | dufei3 | 10 | 0 |
| 2015/3/7 15:35:24 | 10000476 | 476 | dufei3 | 10 | 0 |

Offline data is in red



Offline data



Offline data Received

Connect to the computer and send Offline data.

## Hytera PD41X Patrol System



Part 1 : Challenges in Guard Tour System



Part 2 : Patrol System Overview



Part 3 : Patrol System Features



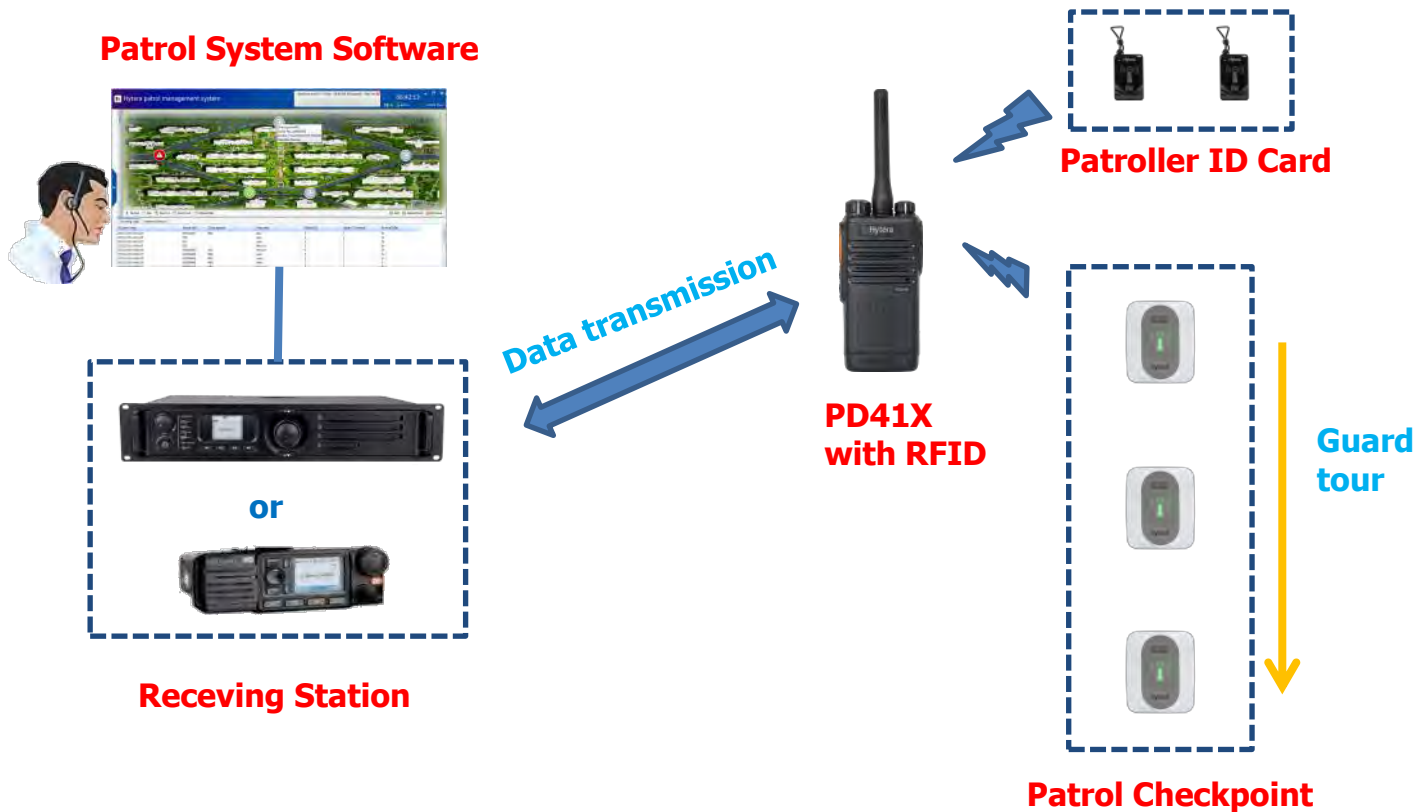
Part 4 : Data Transmission Process



**Part 5 : Patrol System Solutions**

# Hytera PD41X Patrol System Solutions

## --single site



### Single site solution

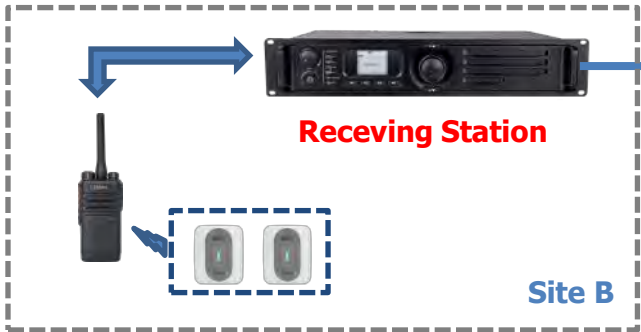
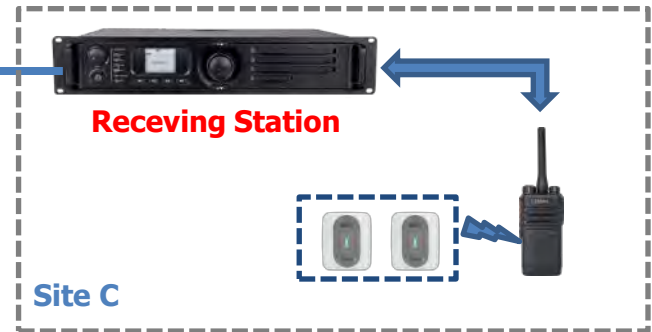
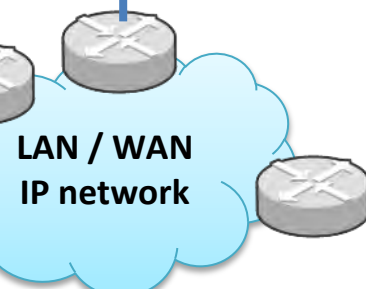
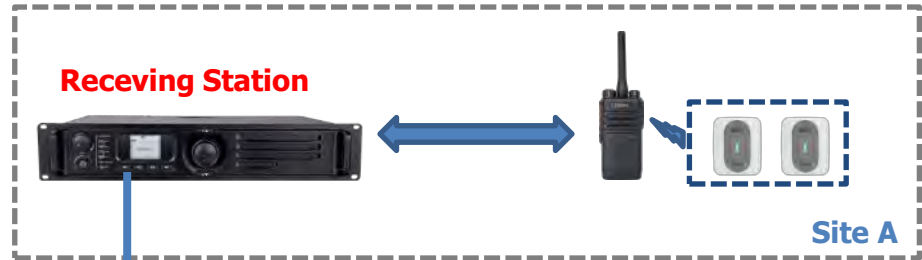
- *Easy to deploy. Only one repeater or one mobile radio can work as a receiving station.*
- *A repeater can provide two channels for patrol data transmission or voice call.*
- *A mobile radio can only provide one channel for patrol data transmission.*

# Hytera PD41X Patrol System Solutions

## --Multi-site



**Patrol System Software**



### Multi-site solution

- *With IP connection structure, guard tour in different site comes true.*

# Application Scenarios



**Retail**



**Residential & Commercial property**



**Factory**



**Bank**



**Warehouse**



**Hotel**

*Hytera Patrol System is suitable for more scenarios...*



Q & A





**Thanks!**

**Hytera**   
Respond & Achieve