

## NEXEDGE®

### Release Notes

#### Information for October 2025 Update

|                 |      |
|-----------------|------|
| NX-5000 Series  | R5.3 |
| NX-3000 Series  | R4.3 |
| NXR-1000 Series | R2.4 |

|               |                     |
|---------------|---------------------|
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## 1. Release information

### 1.1. Indoor Location Feature

The following new versions will be released at the end of October 2025.

- NX-5000 series: R5.3
- NX-3000 series: R4.3
- NXR-1000 series: R2.4

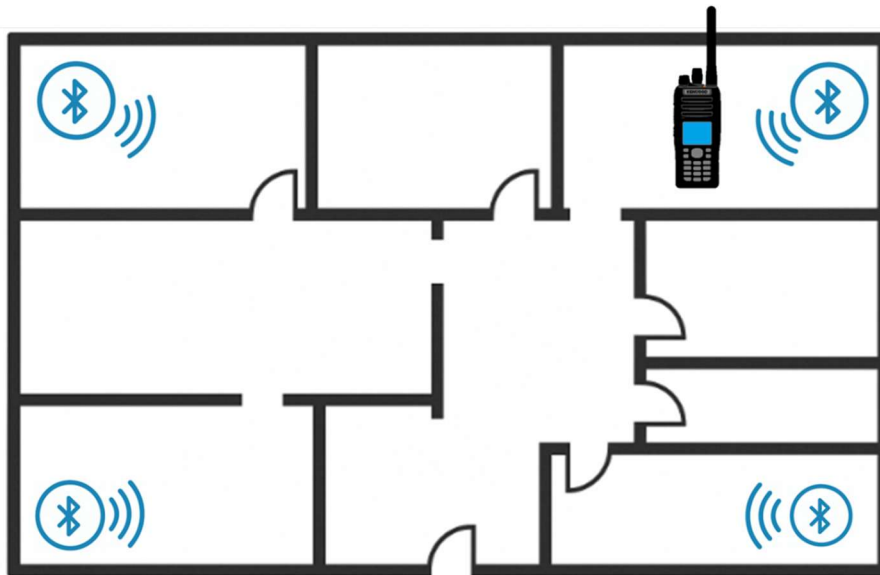
This update introduces the Indoor Location Feature.

The Indoor Location Feature enables the identification of a user's current position in environments such as inside buildings where GPS signals are difficult to receive, using Bluetooth equipment that supports BLE (Bluetooth Low Energy).

At the end of October 2025, KAS-20E (Indoor/Outdoor Location and Dispatch Software) will also be released. This KAS-20E includes a console function to manage Indoor Location, and by combining compatible Bluetooth equipment, KAS-20E, and NEXEDGE series radios, a facility location management system can be realized.

#### 1.1.1. System Configuration and Operation Overview

BLE (Bluetooth Low Energy) beacons are placed throughout the building. The radios (NX-5000/NX-3000) receive signals from the installed BLE beacons.

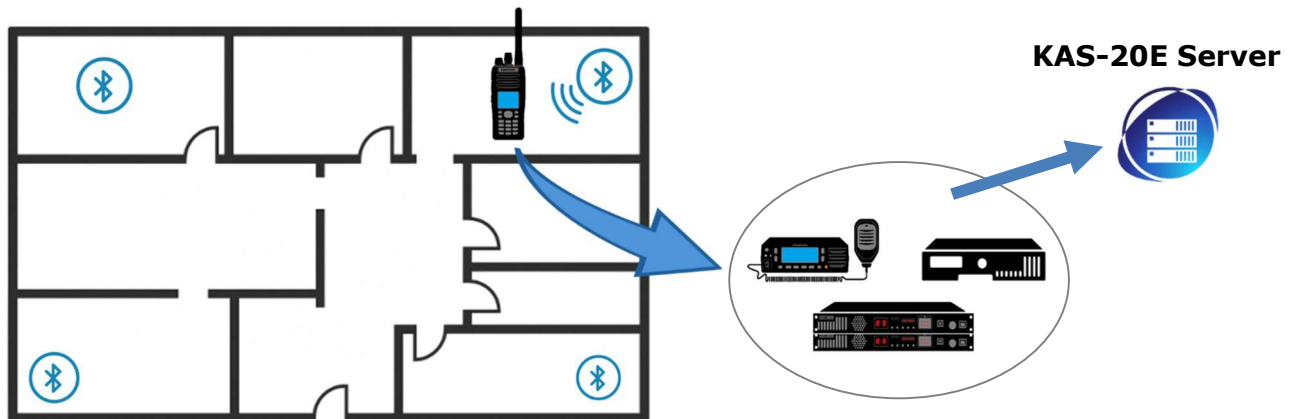


The radios then report the information from the most suitable BLE beacon as location information.

The transmission of location information can be selected from two methods: RF System method and Bluetooth System method. In either case, the location information is transferred to the KAS-20E server software.

### **RF System method**

Similar to the GPS reporting function, the radios (NX-5000/NX-3000) use NXDN or DMR messages to transmit BLE location information to the base station radio or repeater. The BLE location information is then transferred to the KAS-20E server software via serial communication from the base station or IP communication from the repeater. In this method, the base station or repeater receiving the BLE location information must also support the Indoor Location Feature.



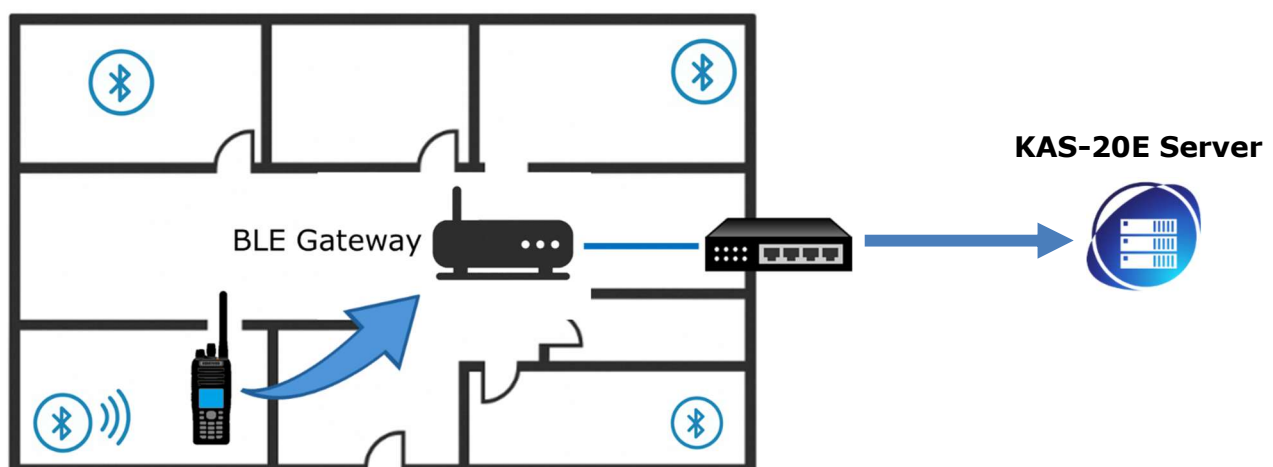
### **Bluetooth System method**

In this method, a device called a BLE Gateway is prepared, which receives location information signals from BLE-capable devices (radios) and transfers them over the IP network.

The radios (NX-5000/NX-3000) send BLE location information to the BLE Gateway using Bluetooth instead of RF communication.

The BLE Gateway then transfers the received BLE location information to the KAS-20E server software via IP communication.

This is effective when the base station or repeater does not support the Indoor Location Feature or when it is necessary to reduce RF communication traffic load.



### 1.1.2. Applicable BLE Equipment

The following BLE (Bluetooth Low Energy) equipment is used when building an Indoor Location system.

#### **BLE Beacon**

BLE Beacons must support the iBeacon protocol as a mandatory condition.

The following BLE beacon products have been tested and verified by us.

| Vender Name | Product      | Note                |
|-------------|--------------|---------------------|
| Minew       | i3           | Standard BLE Beacon |
|             | E2 Max       |                     |
|             | MBM01        |                     |
| Blueup      | Forte+ BLE   | Standard BLE Beacon |
| TELTONIKA   | BTSID1EXCB02 | ATEX BLE Beacon     |
|             | BTSID1       | Standard BLE Beacon |

#### **BLE Gateway**

Be sure to use the BLE Gateway models specified by us.

The following BLE Gateway products are applicable.

| Vender Name     | Product | Note                                                                           |
|-----------------|---------|--------------------------------------------------------------------------------|
| Cassia Networks | E1000   | Standard BLE Gateway<br><u>*Operates on version 2.2.0.2503171357 or later.</u> |
|                 | ATX2000 | ATEX BLE Gateway /<br><u>*Operates on version 2.2.0.2503171357 or later.</u>   |

### 1.1.3. Supported LMR Communication Systems

The following LMR (Land Mobile Radio) communication protocols and systems support the Indoor Location Feature. Depending on the system configuration, location reporting may only be supported by the Bluetooth System method.

| Protocol and System                 | Reporting Method |                         |
|-------------------------------------|------------------|-------------------------|
|                                     | Bluetooth System | RF System               |
| <b>NXDN Conventional</b>            | ✓                | ✓<br>(See Note 1 and 4) |
| <b>NXDN 1st Generation Trunking</b> | ✓                | ✓<br>(See Note 2 and 4) |
| <b>NXDN 2nd Generation Trunking</b> | ✓                | ✓<br>(See Note 2 and 4) |
| <b>DMR Conventional</b>             | ✓                | ✓<br>(See Note 3 and 4) |
| <b>DMR Tier III Trunking</b>        | ✓                | n/a                     |
| <b>Trunking 2.5</b>                 | ✓                | n/a                     |

**Note 1:**

In an NXDN Conventional Repeater system, when operating in the RF System method, it is necessary to use the NXR-5x00 series or NXR-1x00 series as the repeater.

**Note 2:**

In an NXDN Trunking system, when operating in the RF System method, it is necessary to use the NXR-5x00 series or NXR-x00 series as the repeater.

**Note 3:**

In a DMR Conventional Repeater system, when operating in the RF System method, it is necessary to use the NXR-1x00 series as the repeater.

**Note 4:**

When installing a base station radio for the RF System method, the base station radio must be an NX-5000 or NX-3000.

## 1.2. New Radio Feature Licenses

A new Radio Feature License will be added with the release of this new version.

This license is required to use the Indoor Location Feature in the NX-5000 and NX-3000 series.

| License Key        | Description                                                                                                                                                                         |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>KWD-5020-IL</b> | Applicable to NX-5000 series Portable radios (see Note 1). This license is required to enable a radio to operate as a location target (tag) device for the Indoor Location Feature. |
| <b>KWD-3020-IL</b> | Applicable to NX-3000 series Portable radios (see Note 2). This license is required to enable a radio to operate as a location target (tag) device for the Indoor Location Feature. |

**Note 1:** Not compatible with NX-5000 series Mobile radios or NX-5x00S models.

**Note 2:** Not compatible with NX-3000 series Mobile radios, NX-3x20 C Portable radios, or NX-3400 C.

## 1.3. Product Version

| Product                                                | Supported Version in Release |
|--------------------------------------------------------|------------------------------|
| Subscriber Units:<br>NX-5000 Series                    | 5.30 or later                |
| Programming Software for NX-5000 Series:<br>KPG-D1/D1N | 5.30 or later                |
| Subscriber Units:<br>NX-3000 Series                    | 4.30 or later                |
| Programming Software for NX-3000 Series:<br>KPG-D3/D3N | 4.30 or later                |
| Repeater:<br>NXR-1000 Series                           | 2.40 or later                |
| Programming Software for NXR-1000 Series:<br>KPG-D7    | No update<br>(2.31 or later) |

## 2. Compatibility of programming software

### 2.1. KPG-D1/D1N

This section describes the compatibility of previous version of Firmware and programming software (KPG-D1/D1N).

[Definition]

|           |                                                                         |
|-----------|-------------------------------------------------------------------------|
| Open:     | Opening a Data File by programming software                             |
| Read:     | Reading programming data from subscriber unit                           |
| Write:    | Writing programming data to subscriber unit                             |
| New Data: | A data file was generated by programming software Version 5.30          |
| Old Data: | A data file was generated by programming software version prior to 5.20 |

#### 2.1.1. Compatibility of Opening a Data File

|            |         |               | Definition | New Data | Old Data |
|------------|---------|---------------|------------|----------|----------|
| KPG-D1/D1N | Version | 5.30          | Open       | ✓        | ✓        |
|            |         | Prior to 5.20 | Open       | N/A      | ✓        |

#### 2.1.2. Compatibility of Writing and Reading a Data File

|            |         |               | Definition | Firmware/ NX-5000 series |               |
|------------|---------|---------------|------------|--------------------------|---------------|
|            |         |               |            | 5.30                     | Prior to 5.24 |
| KPG-D1/D1N | Version | 5.30          | Read       | ✓                        | ✓             |
|            |         |               | Write      | ✓                        | ✓*1           |
|            |         | Prior to 5.20 | Read       | N/A                      | ✓             |
|            |         |               | Write      | ✓                        | ✓*1           |

**\*1:**

writable

- In case if unsupported functions for older firmware are not included.
- In case that there will not be a possibility to cause trouble even if unsupported functions for older firmware are included. The warning message will be shown.

unwritable

- In case that there will be a possibility to cause trouble if unsupported functions for older firmware are included. This case, the error message will be shown.

## 2.2. KPG-D3/D3N

This section describes the compatibility of previous version of Firmware and programming software (KPG-D3/D3N).

[Definition]

Open: Opening a Data File by programming software  
 Read: Reading programming data from subscriber unit  
 Write: Writing programming data to subscriber unit  
 New Data: A data file was generated by programming software Version 4.30  
 Old Data: A data file was generated by programming software version prior to 4.11

### 2.2.1. Compatibility of Opening a Data File

|            |         |               | Definition | New Data | Old Data |
|------------|---------|---------------|------------|----------|----------|
| KPG-D3/D3N | Version | 4.30          | Open       | ✓        | ✓        |
|            |         | Prior to 4.11 | Open       | N/A      | ✓        |

### 2.2.2. Compatibility of Writing and Reading a Data File

|            |         |               | Definition | Firmware/ NX-3000 series |               |
|------------|---------|---------------|------------|--------------------------|---------------|
|            |         |               |            | 4.30                     | Prior to 4.26 |
| KPG-D3/D3N | Version | 4.30          | Read       | ✓                        | ✓             |
|            |         |               | Write      | ✓                        | ✓*1           |
|            |         | Prior to 4.11 | Read       | N/A                      | ✓             |
|            |         |               | Write      | ✓                        | ✓*1           |

**\*1:**

writable

- In case if unsupported functions for older firmware are not included.
- In case that there will not be a possibility to cause trouble even if unsupported functions for older firmware are included. The warning message will be shown.

unwritable

- In case that there will be a possibility to cause trouble if unsupported functions for older firmware are included. This case, the error message will be shown.

**Revision History**

| <b>Version</b> | <b>Date of issue</b>          | <b>Note</b>                                                                   |
|----------------|-------------------------------|-------------------------------------------------------------------------------|
| 1.00           | 3 <sup>rd</sup> October 2025  | First Release                                                                 |
| 1.01           | 27 <sup>th</sup> October 2025 | Modify 1.1.2. Applicable BLE Equipment (Removed ecom products from the list.) |
|                |                               |                                                                               |