KENWOOD

# NEXEDGE®

## Release Notes

NX-3000 Series R3.20

KPG-D3/D3N R3.20

NX-5000 Series R4.20

KPG-D1/D1N R4.20

Last Updated: 11th November 2019
Language: English
Document No.: RN-19-0008

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# 3 Release Information

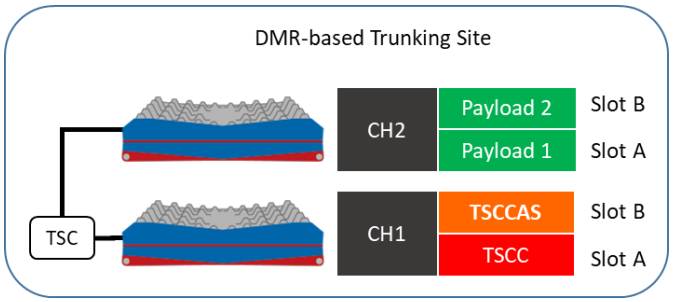
This document is described to inform NX-3000 Series R3.20 with KPG-D3/D3N and NX-5000 Series R4.20 with KPG-D1/D1N for version up features. In this document, “SU” shows “Subscriber Unit”, “Programing Software” shows “Field Programing Unit (FPU)”.

## 3.1 Additional DMR-based Trunking Features

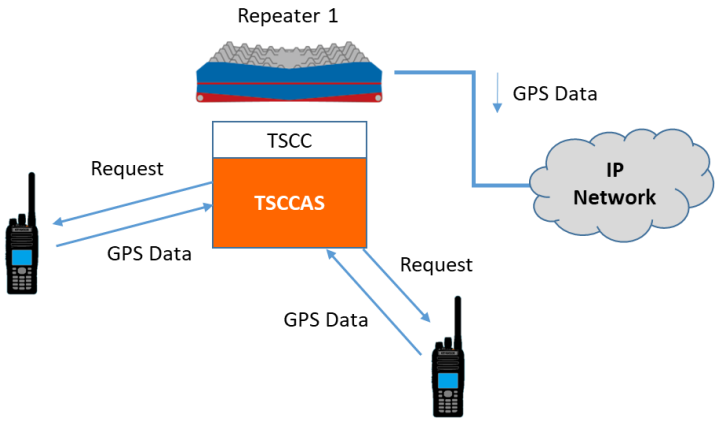
This section introduces additional features for DMR-based Trunking. The contents written here are common to DMR Tier III Trunking and S-Trunking unless otherwise noted.

### 3.1.1 Unified Single Block Data (USBD) Polling Service

USBD Polling Service enables GPS data to be polled from a SU on a TSCC.
If a repeater has a Trunk Station Control Channel (TSCC), the other timeslot is able to be set as Trunk Station Control Channel Alternate Slot (TSCCAS).




TSCCAS is used as a dedicated timeslot for GPS polling, and data protocol is USBD Polling Service defined in DMR Standard (ETSI TS 102 361-4).

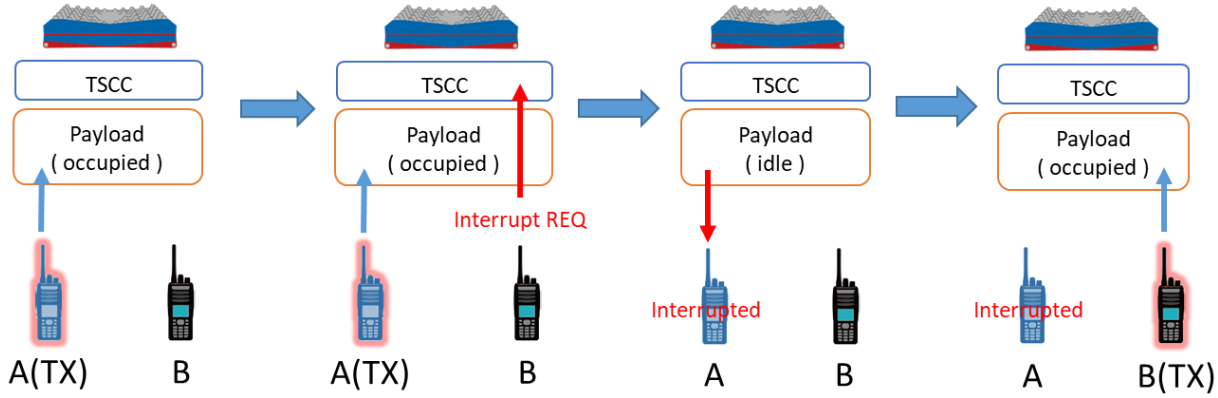



This service is very efficient, allows data to be packaged minimizing, reduces delays between one sending and the other, avoids conflicts and supports large quantities of location updates.
In DMR Tier III Trunking, we expect that TSCCAS has a theoretical maximum capacity of 1000 terminals / minute at full rate.

Note: In the software released in November 2019, KAIROS doesn’t support this feature on the S-Trunking mode. Therefore, it can only be used in DMR Tier III Trunking mode until KAIROS has a version up.

### 3.1.2 Transmit Interruption

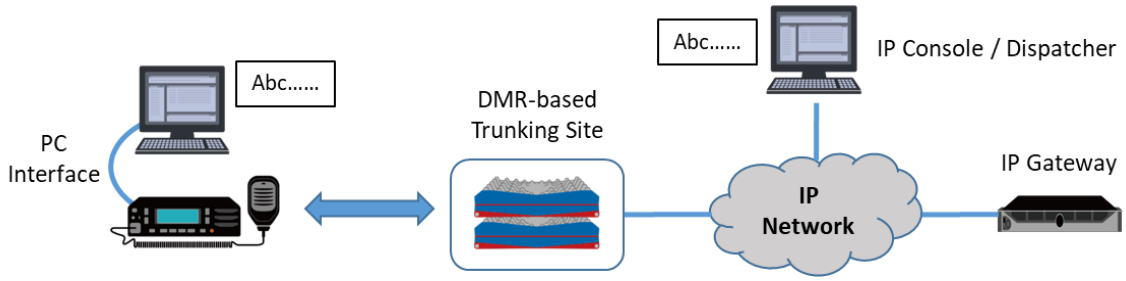
Generally, if a SU transmits on a payload channel, another SU can't transmit on same channel. Transmit Interruption feature, defined in ETSI TS 102 361-4, provides to request (or force) a SU to stop transmitting on the payload, and it allows another SU to preferentially transmit.




1. At first, SU-A keeps transmitting on a payload, and SU-B can't transmit on same channel.
2. In the next, SU-B sends an interrupt request on a TSCC.
3. After that, SU-A receives an interrupt request on the payload downlink and stops transmitting. Then, the payload turns idle state.
4. Finally, SU-B is able to transmit a voice call at the payload channel.

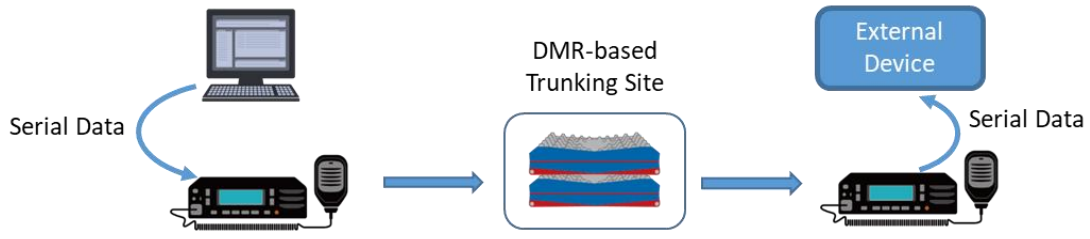
### 3.1.3 Long Data Message

Long Data Message feature is used for communication between IP Console and an external device which is connected to a SU. The maximum data size is 4096 bytes.




### 3.1.4 Transparent

Transparent feature is used for simply transferring a serial data output from an external device to the other one.



## 3.2 New Model Information

New high power mobile is added to NX-5000 series.

| | Type | Destinations | Power | Frequency Range | Description |
|---|---|---|---|---|---|
| **NX-5800H** | F2 | USA | 100W / 25W | 380 - 470 MHz | No Panel |

# 4 Compatibility of programming software

## 4.1 KPG-D1/D1N

This section describes backward 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 4.20 |
| Old Data: | A data file was generated by programming software version prior to 4.01 |

### 4.1.1 Compatibility of Opening a Data File

| | | | | New Data | Old Data |
|---|---|---|---|---|---|
| **Programming Software KPG-D1/D1N** | Version | 4.20 | Open | ✔ | ✔ |
| | | Prior to 4.01 | Open | N/A | ✔ |

### 4.1.2 Compatibility of Writing and Reading a Data File

| | | | Write / Read | Firmware version | |
|---|---|---|---|---|---|
| | | | | 4.20 | Prior 4.01 |
| **Programming Software KPG-D1/D1N** | Version | 4.20 | Read | ✔ | ✔ |
| | | | Write | ✔ | ✔*1 |
| | | Prior to 4.01 | Read | N/A | ✔ |
| | | | Write | ✔ | ✔*1 |

**Note:**

*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. This case, the warning message will be shown.
  (This is judged by Programming Software according to Firmware version and the contents of Programing data)

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.

## 4.2 KPG-D3/D3N

This section describes backward 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 3.20 |
| Old Data: | A data file was generated by programming software version prior to 3.01 |

### 4.2.1 Compatibility of Opening a Data File

| | | | | New Data | Old Data |
|---|---|---|---|---|---|
| **Programming Software KPG-D3/D3N** | Version | 3.20 | Open | ✔ | ✔ |
| | | Prior 3.01 | Open | N/A | ✔ |

### 4.2.2 Compatibility of Writing and Reading a Data File

| | | | Write / Read | Firmware version | |
|---|---|---|---|---|---|
| | | | | 3.20 | Prior to 3.01 |
| **Programming Software KPG-D3/D3N** | Version | 3.20 | Read | ✔ | ✔ |
| | | | Write | ✔ | ✔*1 |
| | | Prior to 3.01 | Read | N/A | ✔ |
| | | | Write | ✔ | ✔*1 |

**Note:**

*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. This case, the warning message will be shown.
  (This is judged by Programming Software according to Firmware version and the contents of Programing data)

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.

# 5 Product Version

| Product | Supported Version in Release |
|---|---|
| Subscriber Units:<br>NX-5000 Series | 4.20 or later |
| Programming Software for NX-5000 Series:<br>KPG-D1/D1N | 4.20 or later |
| Subscriber Units:<br>NX-3000 Series | 3.20 or later |
| Programming Software for NX-3000 Series:<br>KPG-D3/D3N | 3.20 or later |