

NEXEDGE®

Release Notes

P25 Enhanced Encryption/P25 OTAP

NX-5000 Series R4.5

KPG-D1 R4.5

KPG-180AP R4.0

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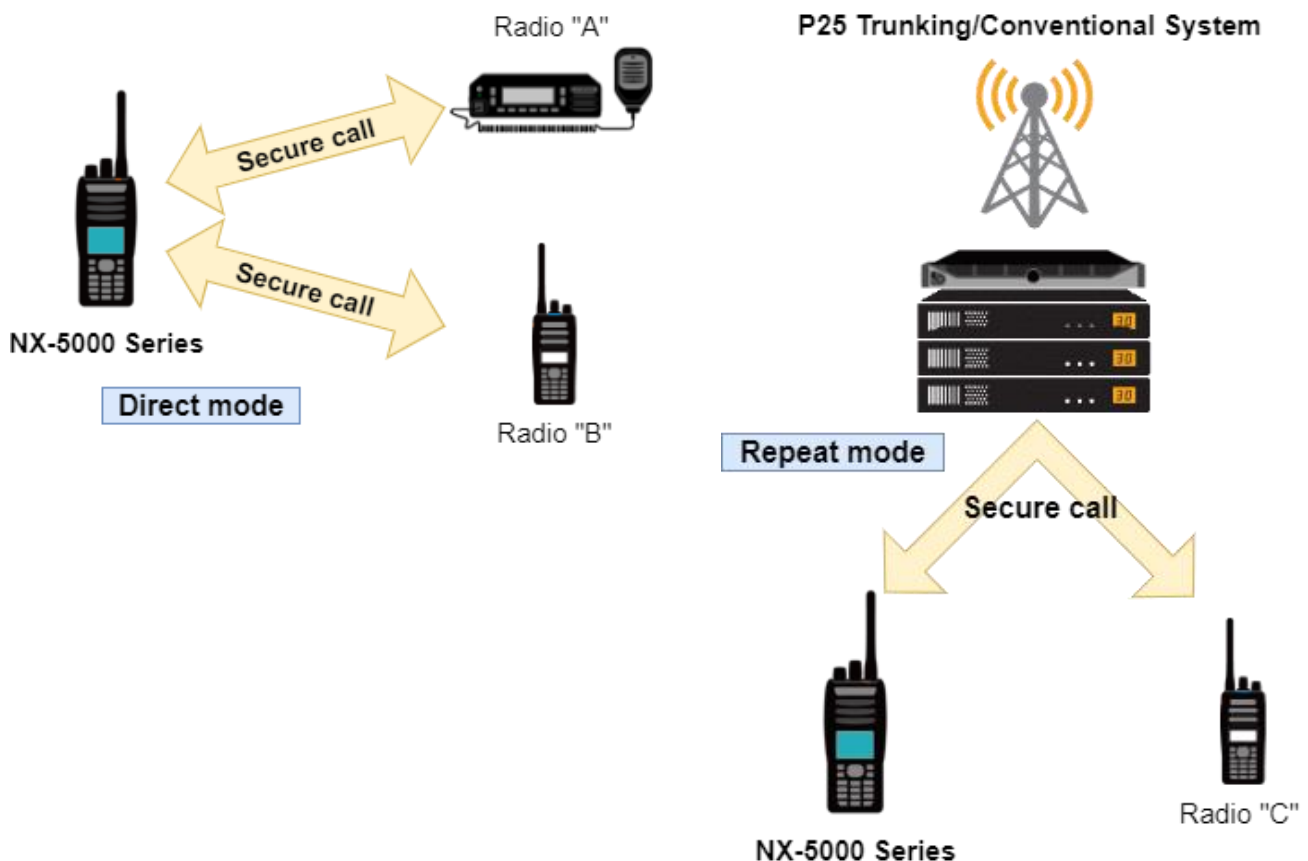
1. Release information

1.1. Features

Please prepare for the upcoming upgrade of NX-5000 Series. With a firmware update to be scheduled in September of 2021, NX-5000 series will equip two brand-new features i) P25 Enhanced Encryption (ARC4) and ii) P25 OTAP. The version upgrade will be initiated once the applicable license is purchased (see 1.2). Check information below for enabling all new features.

1.1.1. P25 Enhanced Encryption

NX-5000 Series start to offer more enhanced security in Voice and Data through a new built-in technology, **P25 Enhanced Encryption (ARC4)**. To initiate the version upgrade, KPG-D1/D1N must be accordingly upgraded. Please therefore update the existing FPU (KPG-D1/D1N : Filed Programing Unit) to the latest version. With this, you will be able to set up Encryption Key to start to experiment P25 Enhanced Encryption in these series.

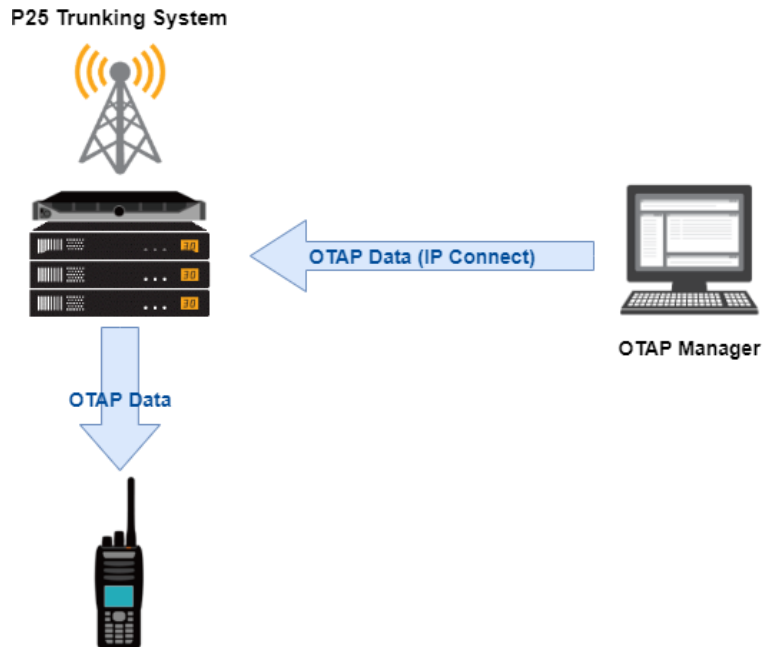


1.1.2. P25 OTAP (USA Only)

For this Version up, The KPG-180AP has supported OTAP (Over the Air Programming) on the P25 Trunking System. Previous version of KPG-180AP has supported the P25 Conventional system, but with this version upgrade, this functionality is NOW supported by

not only Conventional System but also P25 Trunking System.

Since NX-5000 Series require a pre-registration of Data Registration Server for using this feature in P25 Conventional System, several setting items have been added at KPG-D1/D1N. For more detail about P25 OTAP technically, please refer to an Application Note which will be issued later on.



1.2. Licenses

See the title and the description of licenses required for the upgrade in below.

1.2.1. Radio Feature License

To activate P25 Enhanced features, please purchase the license below:

Model Name	License Key	Description
NX-5000 Series	KWD-5107EE	License for P25 Enhanced Encryption

1.2.2. Software License

To activate KPG-180AP OTAP Manager in your P25 Trunking System, please purchase the license below:

Model Name	License Key	Description
KPG-180AP	KWD-AP6-P25T	License for P25 Trunking System

2. Compatibility of programming software

2.1. KPG-D1/D1N

This section describes compatibility among previous versions and the newest versions of Firmware and programming software (KPG-D1/D1N). Check file compatibility with earlier versions.

[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 generated by programming software Version 4.50

Old Data: A data file generated by programming software version prior to 4.40

2.1.1. Compatibility of Opening a data file

			New Data	Old Data
FPU Version	4.50	Open	✓	✓
	Prior to 4.40	Open	✓(*1)	✓

(*1): You can open the saved data written by FPU of V4.21 or greater, if P25 Enhanced Encryption of Product Information is off. Please note that you cannot open the data if this feature is on.

NB: any saved data written by the earlier versions than V4.21 cannot be opened.

2.1.2. Compatibility of Reading from a subscriber unit

			NX-5000 series Firmware	
			V4.50	Prior to 4.40
FPU Version	4.50	Read	✓	✓
	Prior to 4.40	Read	✓(*2)	✓

(*2): Similarly as (*1), You can read the saved data written by FPU of V4.21 or greater, if P25 Enhanced Encryption of Product Information is off. You cannot read the data if this feature is on.

NB: any saved data written by the earlier versions than V4.21 cannot be read.

2.1.3. Compatibility of Writing to a subscriber unit

			NX-5000 series Firmware	
			V4.50	Prior to V4.40
FPU Version	4.50	Write	✓	✓
	Prior to 4.40	Write	✓	✓

3. Product Versions

Please check newly released versions:

Product	Supported Version in this Release	
	Version	Note
NX-5000 series	V4.50	P25 Enhanced Encryption P25 Trunking OTAP
KPG-D1/D1N	V4.50	P25 Enhanced Encryption P25 Trunking OTAP
KPG-180AP	V4.00	P25 Trunking OTAP

Revision History

Version	Date of issue	Note
1.00	31 August 2021	First Release
1.01	6 September 2021	Additional information to the P25 Enhanced Encryption which is the same functionality as ARC4. Description of P25 OTAP has been changed.