Radionect™

RUN 100A

BY DAN GROUP

For better illustration of its usage environment, RUN100A device is depicted with Motorola Solutions DM4400e donor radio.

Radionect RUN100A™ is a small but powerful edge gateway for integration of legacy two-way radios with IP technology. RUN100A contains the fully capable Radionect switching engine and therefore can be deployed in both standalone and networked scenarios. In networked scenarios, several RUN100A units can be interconnected over IP networks with fully distributed switching architecture and no single point of failure. Network of RUN100A nodes enables customers to unite in one common radio communication space their disparate radio networks situated in multiple locations, deployed in multiple frequency channels and bands, and working in analog or digital modes.

Remote radio dispatch

Geographically dispersed supervisors are enabled with voice, data and alarm communications over remote two-way radio sites using Radionect Dispatch Console applications on their Windows computers or tailored desktop appliances connected to RUN100A devices via IP networks.

Distributed logging of radio voice and data, centralized archiving
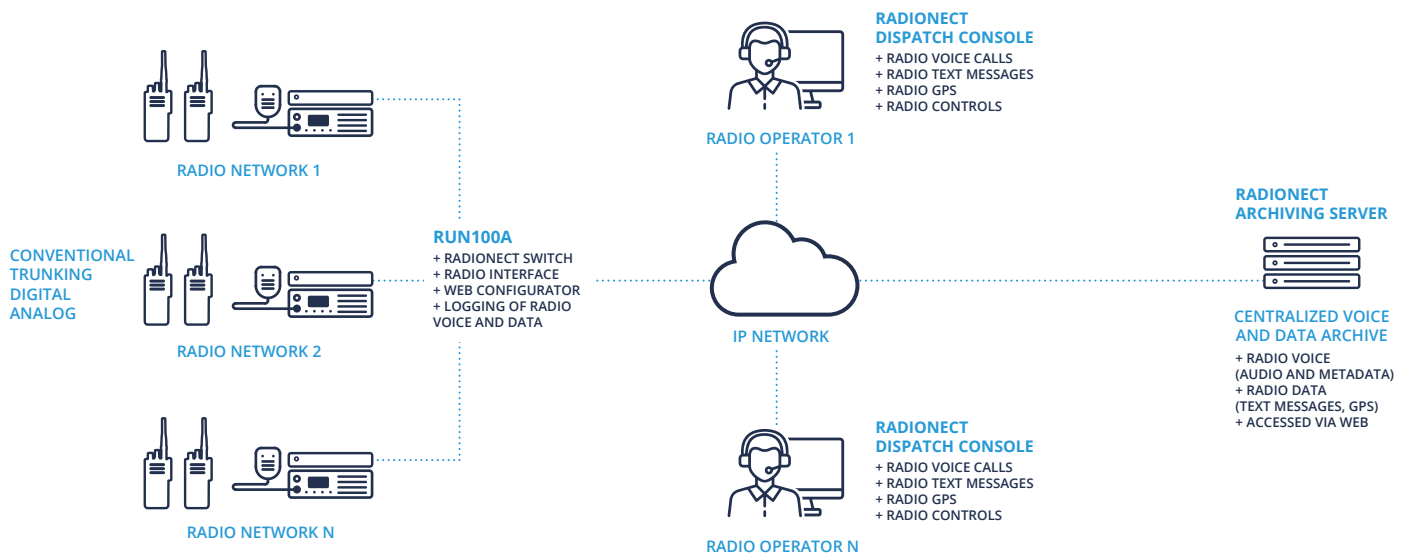
RUN100A devices log voice and data information from two-way radios to the embedded memory. The logged information can be reviewed on a per device basis via standard internet browsers. Additionally, the logged voice and data information can be automatically uploaded to the centralized vault for the archiving and review.

Proactive monitoring of radio networks health

Radio technicians are enabled with a tool for proactive monitoring and testing of radio coverage in their conventional radio networks using MOTOTRBO™ donor radios.

Radionect IP intercom at donor radios

IP intercom feature adds the second PTT button for voice calls over broadband networks at MOTOTRBO™ donor radios. In this way legacy two-way radios are enabled with the second "leg" over broadband connections for seamless communications when the radios cannot be reached over legacy radio channels.

RADIONECT DISPATCH CONSOLE
+ RADIO VOICE CALLS
+ RADIO TEXT MESSAGES
+ RADIO GPS
+ RADIO CONTROLS

RADIO OPERATOR 1

RADIONECT ARCHIVING SERVER

RADIO NETWORK 1

CONVENTIONAL
TRUNKING
DIGITAL
ANALOG

RUN100A
+ RADIONECT SWITCH
+ RADIO INTERFACE
+ WEB CONFIGURATOR
+ LOGGING OF RADIO
VOICE AND DATA

RADIO NETWORK 2

IP NETWORK

CENTRALIZED VOICE AND DATA ARCHIVE
+ RADIO VOICE
(AUDIO AND METADATA)
+ RADIO DATA
(TEXT MESSAGES, GPS)
+ ACCESSED VIA WEB

RADIO NETWORK N

RADIONECT DISPATCH CONSOLE
+ RADIO VOICE CALLS
+ RADIO TEXT MESSAGES
+ RADIO GPS
+ RADIO CONTROLS

RADIO OPERATOR N

General features

+ Compatible with MOTOTRBO™ high-tier donor radios[1]
+ Self-sufficient networked node
+ Fully distributed switching architecture with no single point of failure
+ Real-time communication with radios using Radionect Dispatch
+ Consoles
+ Reliable local logging of radio voice and data to the embedded memory
+ Radio echo channel for one-person radio coverage testing
+ Web interface for viewing and replaying of locally logged information

+ Automatic and secure upload of logged information to the centralized vault [2] [3]
+ Time synchronization via NTP
+ Web interface for device management
+ Configuration backup and restore
+ Remote firmware upgrades
+ LED indication of radio and network channels' health

1) Donor radio must be purchased separately, see applicable models in the Specification section.
2) The activation license must be purchased.
3) The centralized vault, Radionect Archiving Server must be deployed.

Features with MOTOTRBO™ radio technology

+ Full radio control and digital audio via Generic Option Boards (GOB)
+ Support of MOTOTRBO™ services: XCMP/XNL, ARS, LRRP, TMS, Telemetry, Control Signaling, GOB
+ Group and individual[1] voice calls
+ Emergency alarms and calls[1]
+ Identification of talkers by radio IDs[1]
+ Radio text messages[1]
+ Radio text messages on donor radio's GPIO change
+ GPS location information from radios[1] [2]
+ Affiliation of donor radio's RSSI with logged radio calls, handy tool for

monitoring and troubleshooting
+ Actualization of current donor radio channel names (programmed aliases)
+ Switching radio channels at donor radios
+ Logging of donor radio transmit audio
+ Radionect IP intercom at donor radios via standard microphones[3] and speakers[2]
+ Remote upgrades of GOB firmware
+ Integration with MOTOTRBO™ Radio Management and IMPRES Battery Fleet Management
+ Powering from donor radios, less hardware required

1) Applicable to digital radio channels only.
2) The activation license must be purchased.
3) Radio microphones with several buttons must be used.

Specification

Cage material	Aluminum, CNC milled
Dimensions	165 mm (W) x 99 mm (D) x 27 mm (H) without mounting brackets
Weight	~ 475 g without mounting brackets
Operating temperature	-30°C to +60°C
Storage temperature	-40°C to +85°C
Power supply	12-24V DC, can be fed from the MOTOTRBO™ donor radio
Radio interfaces	1 x ST12 threaded connector
Supported MOTOTRBO™ donor radios	DM4000 and DM4000e (EMEA) and equivalents in other regiones1)
Network interface (WAN)	Ethernet, 10/100BaseTX, RJ45 connector
Local management interface (MNG)	Ethernet, 10/100BaseTX, RJ45 connector
Embedded memory	32 GB
Standard compliance	CE mark , EN 55032:2015+AC:2017, EN 55024:2011+A1:2015

1) supplied GOB must be installed in the donor radio and enabled on its radio channels.

Specification and features may change without prior notice due to constant development of the product.

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