

# VEHICLE INTERCOM SYSTEM (VIS)



## ONE SYSTEM FOR THE WHOLE FLEET

The Leonardo DRS Vehicle Intercom System (VIS) is an off the shelf product that offers a flexible, future-proof solution to platform based audio. Designed for Military, Emergency Services vehicles and command posts or any other situation where high quality intra-crew and intra-fleet voice communications is required. The Leonardo DRS VIS is fully interoperable with most existing tactical and emergency services radio and radio networks.

The Ethernet-based capability of the Leonardo DRS VIS network enables system integrators to construct audio networks using modular building blocks, which can then be deployed from mobile vehicles to Command and Control locations. All LRUs utilize a standard solution set.

## SCALABLE

The Leonardo DRS VIS is a scalable, modular system that can be used in applications from a combat vehicle, emergency response vehicle, all the way to a Command Post, offering a complete range of communication services.

## CRYSTAL CLEAR COMMUNICATION

The Leonardo DRS VIS has been designed from the ground up to be a totally digital system using a software defined architecture to support Voice over IP communications. It supports Active Noise Reduction headsets, removing the background vehicle noise from the microphone and enhancing the speech quality and intelligibility.

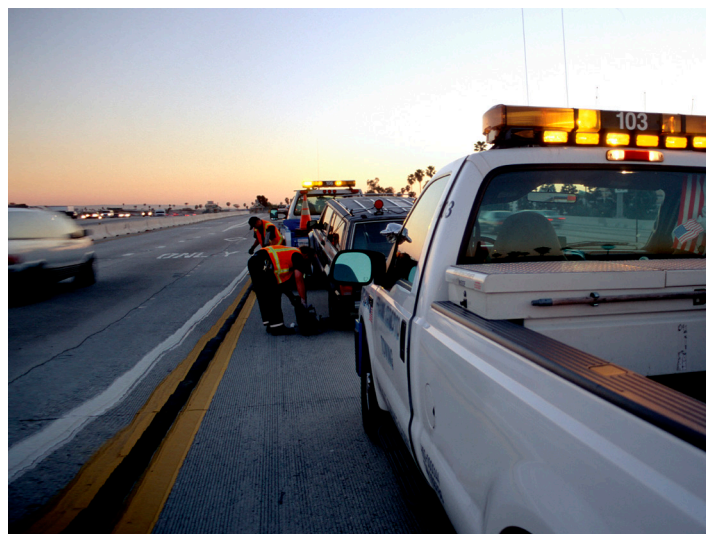
## FUTURE PROOF DESIGN

The Leonardo DRS VIS leverages an open architecture based on Ethernet interfaces. All VIS components utilize FLASH based micro-processors which are field re-programmable. The audio system supports multiple CODECs and upgradeable software modules ensure compatibility with future communication requirements.

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## KEY FEATURES

- Software defined capabilities
- Built on open standards
- Digital IP based interconnections
- Ethernet and power in the same cable
- Loop or flat networks for reliability
- Support for six network radios
- Active Noise Reduction (ANR) Support for crew headsets
- Support for up to sixteen crew members
- Independent volume control per crew member
- Interfaces to vehicle and vetronics (J1939/CAN and serial)
- Embedded internal message generator
- Voice alarm messages for vehicle status
- Interfaces to fleet management systems
- Suitable for use with Rotary Junction Box (RJB) slip ring type vehicles
- Rugged construction
- The Leonardo DRS VIS utilizes state of the art codecs to ensure high quality audio even across low-bandwidth slip-rings





COMPONENTS

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Data Distribution Unit  
- Expandable (DDUx)

Uses a combination of hardware and software to enable centralized interaction with platform C4ISR, and related systems.



Radio Interface Unit (RIU)

Extends Intercom System with further interfaces to in vehicle radio. Each RIU interfaces to two analog radios.



Crew Station Unit (CSU)

Used by each crew member to access the intercom system and in-vehicle radios. Independent volume control per user and support for ANR headset.



Loudspeaker Unit (LSU)

Rugged loudspeaker unit for reproduction of the VIS audio. Can be connected to CSU.



Headsets

A broad range of personal headsets are supported including ANR.



# VEHICLE INTERCOM SYSTEM (VIS)

## ENVIRONMENTAL

COMPONENT	DESCRIPTION
Temperature, operating	-46°C to +71°C
Temperature, storage	-51°C to +71°C
Shock	Functional, Ballistic, Road, Abrams Gunfire and High Intensity, Bench Handling. MIL-STD-810G
Altitude	15,000 ft (operational), 50,000 ft (transport) per MIL-STD-810G, Method 500.4, Proc I/II
Dust	Exposure to wind blown sand and dust particles at a rate of 20 ±3 miles per hour for 12 hours per MIL-STD-810G, Method 510.5, Proc I
Water Tightness	Blowing rain, water jet, steam jet, immersion
Climate	Fungus resistant, MIL-STD-810G Method 508.6
Explosive atmosphere	Non-explosive when tested per MIL-STD-810G, Method 511.5, Proc I
Salt and fog	48-hour exposure per MIL-STD-810G, Method 509.5
Solar radiation	Exposure per MIL-STD-810G, Method 505.5, Proc I, hot-dry
Vibration	Wheeled, Tracked, Aggravated, Bradley profiles per MIL-STD-810G, Method 514.6, Proc I, category 20
Transit drop	MIL-STD-810G, Method 516.6, Proc. IV
EMI	MIL-STD-461F (CE 102, CS 101, CS 114, RE 102, RS 103, CS 115)
ESD	2,000 V to I/O pins, non-operating, 15,000 V to controls/surfaces, operating
HEMP	MIL-STD-461F, RS105, CS116



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