

NOT JUST ANOTHER DVRS: P25-IPR vs. DVRS

Do you know the differences?

Have you ever been in a situation where your mayday call never got through because you were out of range of your radio network? The [Skymira P25-IPR \(P25 IP Relay\)](#) and Motorola DVRS (digital vehicular repeater system) are designed to make sure that never happens again.

To keep portable radios light and small enough to carry, they only have about 5 watts of power. This results in a very limited range. Mobile radios, on the other hand, are bigger and have greater transmission coverage.

The P25-IPR and DVRS connect portable radios to nearby mobile radios to achieve extended coverage. Using a relay or extender, transmissions, GPS locations, and emergency IDs flow straight through to dispatch ensuring everyone is safe and accounted for.

SIMILARITIES & DIFFERENCES

While it's true that the P25-IPR and DVRS both extend the range of portable radios, the P25-IPR has additional capabilities and flexibility. This makes it a good option for those who can't use the DVRS or have other radio problems they need to solve.

If you're wondering what the differences are between the two and/or if the DVRS doesn't provide all of the capabilities you need, this comparison will help you evaluate which solution is a better fit for your application.

The differences between the P25-IPR and DVRS are especially important if you:

1. Need PTT in areas without RF or LTE coverage
2. Want to use non-Motorola radios
3. Can't afford DVRS-required infrastructure
4. Don't like required equipment upgrades
5. Need interoperability with other departments/agencies

Let's look at how the DVRS and P25-IPR compare.

	Motorola DVRS	Skymira P25-IPR
Motorola DVRS vs. Skymira P25-IPR		
The differences matter if you...		
1. Need PTT in areas without RF coverage		
2. Use non-Motorola radios		
3. Want to save on infrastructure & upgrades		
4. Need interoperability with other departments/agencies		
Extend range of portable radios	Yes	Yes
Encrypted communications	Yes	Yes
Efficient satellite connectivity	No	Yes
Low infrastructure requirements	No	Yes
Works with any P25 radio	No	Yes
Interoperability	No	Yes

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RANGE & COVERAGE

The main reason agencies and departments look into the P25-IPR or DVRS is because they serve in places their radios don't work. These coverage gaps create major safety hazards and negatively impact operational efficiency.

The P25-IPR and DVRS take different approaches to filling these coverage gaps.

The DVRS relies on RF networks using a mobile radio's connection to local radio towers. When your vehicle is within range of a radio tower the DVRS will connect your portable radio to that tower via your mobile radio.

The P25-IPR, in contrast, harnesses the power of IP networks to eliminate gaps and distance limitations for radio communications. This means that when your vehicle is out of range of a radio tower - due to distance, topography, or obstructions - you still have strong, secure coverage. The P25-IPR provides efficient LTE and satellite connectivity to ensure you have radio coverage even where RF networks are patchy or non-existent.

When radio towers are compromised by natural or man-made disasters, having an alternative network is critical to provide reliable communications during emergencies. The P25-IPR is like an insurance policy you use every day - getting reliable coverage in both regular and emergency situations.

So, if your vehicles always have good RF coverage and don't experience outages, other factors will be more significant in your decision. If, on the other hand, you need to extend comms to areas without strong RF coverage or where disasters can disable radio towers, the P25-IPR provides secure coverage even beyond the reach of RF networks.

SATELLITE OPTIONS

When you're operating beyond the reach of radio towers and LTE, satellite can fill in the gaps to give you complete coverage.

For the DVRS, satellite capability is a recent add-on which requires significant infrastructure. Because it was not designed or optimized for satellite, the DVRS is not data efficient. These characteristics make the DVRS too costly for most departments and agencies looking to improve their LMR coverage.

The P25-IPR is designed to be satellite compatible. It connects directly and simply while using very low bandwidth. This makes it highly efficient for metered connections. Pair these capabilities with Skymira's flat-rate, unlimited PTT satellite plans, and what was once out of reach - world-wide satellite coverage - is affordable so you can be sure your radios will work everywhere.

VENDOR & NETWORK OPTIONS

Another big difference is that the DVRS works exclusively with compatible Motorola radios while the P25-IPR works with any P25 radio. As a vendor-agnostic option, the P25-IPR allows you to use the radios of your choice including Motorola, Kenwood, EF Johnson, Harris, Tait, and BK.

If you exclusively use compatible Motorola radios, this may not make a difference for your team. However, if you use other brands and devices, the P25-IPR will connect with whatever equipment works best for you.

INFRASTRUCTURE & UPGRADES

When it comes to infrastructure and upgrade requirements, the P25-IPR and DVRS couldn't be more different. The Motorola DVRS system requires extensive infrastructure to provide satellite connectivity and requires regular equipment upgrades on a schedule determined by the manufacturer.

In contrast, the Skymira P25-IPR is simple to set up and use, and it works with any P25 radio. This means that you can get coverage without purchasing and continuously upgrading major infrastructure while continuing to use radios and equipment you already own.

If you already have the correct infrastructure in place along with the budget to upgrade it whenever required for the DVRS, this factor may not influence your decision. But if you want to control your own system lifecycle, the P25-IPR will give you that flexibility.

INTEROPERABILITY

Operations and incidents often call for various departments and agencies to work together. This can quickly become a communications nightmare when radios and comms devices are not compatible.

The DVRS only works with compatible Motorola radios. While the vendor-agnostic P25-IPR provides improved interoperability in the field for collaborating agencies by supporting all P25 radios. This seamless interoperability improves safety and efficiency for officers and agents in the field as well as incident command and dispatchers.

CONCLUSION

In conclusion, both the Skymira P25-IPR and Motorola DVRS provide extended range for portable radios. However, there are significant differences when it comes to important factors such as:

1. Getting PTT in areas without RF coverage
2. Using non-Motorola radios
3. Saving on infrastructure
4. Avoiding required equipment upgrades
5. Gaining interoperability with other departments/agencies

If you have questions or want to learn more about how you can make sure your radios work every time, contact our systems engineers. We would love to help you find the best solutions for your team.

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