

The benefits of digital radio (DMR) over analogue radio

and why you should consider changing over

Digital radio or DMR has been around for a while. Many people still use their old analogue radios. But there are compelling reasons to change over.

- With one repeater it has two voice time slots instead of one. This means greater flexibility when configuring systems. For instance you could have one department on one time slot and another on the second. Or have a dedicated slot for emergency traffic e.g. fire, process or lone worker alarms
- Four time slots are possible with two repeaters. This is far more cost-effective than a trunked system. And XPT Enhanced Pseudo Trunking will even offer the benefits of dynamic channel/slot allocation without the cost of a control channel
- Coverage is improved because digital radio can still produce perfect audio quality even when receiving a very low signal level
- Background noise cancelling using DMR radios is phenomenal. Even in extremely noisy environments the radios will produce amazingly clear voice audio by removing all background noise.
- Digital radio can easily connect to an IP network enabling radio communication across sites (even across regions or countries). Radios can also roam and automatically log on from one site to another
- You can connect digital radios to your existing telephone system and calls can be made from one to the other without blocking the radio system. (Telephone calls will use up one slot of capacity)
- You can also connect digital radios to an analogue system so you don't have to replace your entire infrastructure – you can migrate across gradually
- It is a waste of money to keep spending on old analogue radio technology that will not be available and will need to be replaced. If you have an analogue trunked system using MPT1327 we can provide radios that will perform in MPT1327 mode with an F.O.C. upgrade. You then have the possibility of using those radios when upgrading to a tier III DMR digital trunked system



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- Digital radio can link to better more advanced and feature-rich applications. It can integrate into building or process monitoring systems and have alarms routed to the team that need to address the problem. Staff that work alone can be protected more effectively with GPS location or indoor beacons to locate the injured party on a site map or a specific plant area more easily. Text messaging and alarms are handled far better as the messages and alarms are acknowledged, so the person initiating the action is aware that their emergency has been received. Also, even when a normal voice call is made through a repeater, you will only be able to make that call if you are within range of the repeater. Again, this means that the caller is aware as to whether their call is being received by someone. With analogue there is no call acknowledgement by the system, so you have no idea as to whether anyone is listening to you
- The 2-slot operation of a DMR radio means that you almost double your battery life in comparison to a non DMR radio as the radio only needs to transmit for half of the transmit time.
- All of our DMR radios (apart from PD3 series and PD5 series) are rated at IP67 for dust and water ingress.

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