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FOR IMMEDIATE RELEASE

Software Upgrades to the Multimode Digital Voice Modem (MMDVM) Project are Underway

The Multimode Digital Voice Modem (MMDVM) project aims to consolidate all existing MMDVM-based projects into one open-source project.

September 29, 2023— Funded by a grant from Amateur Radio Digital Communications (ARDC), Jonathan Naylor (G4KLX) has been hired as a full-time software developer. Jonathan is a pioneer of digital voice software, developing software for D-STAR, DMR, System Fusion, M17, NXDN, P.25, and POCSAG.

With a full-time software developer dedicated to the MMDVM project, many important tasks can be carried out, such as:

- Bug mitigation
- Improving the core code module (MMDVMHost) relating to both the display interfaces and digital modes
- Adding support for industry standards, such as Message Queuing Telemetry Transport (MQTT), which is analogous to a fast and reliable texting system that allows devices to communicate efficiently
- Creating a web-based configuration and monitoring solution
- Creating a portable UI on additional hardware platforms
- Adding KISS/AX.25 packet support along with higher speed data rates to run on existing MMDVM hardware
- Porting firmware to next generation microcontrollers

Work has started on the aforementioned software upgrades to MMDVM, and many of the long-term bugs in the software have been fixed. Regarding their progress toward improving MMDVMHost, they have added support for AX.25, and they now provide full support for amateur-driven M17 digital voice protocol.

Work is currently underway to develop 9600, 19200, and 38400 baud packet modes that support narrow bandwidth using a modulation (4FSK) similar to Digital Mobile Radio (DMR). The packet modes include support for IL2P, which is a new link layer protocol with integral forward error correction (FEC).

To learn more about the MMDVM project, visit mmdvm-project.org.

About Multimode Digital Voice Modem (MMDVM)

Multimode Digital Voice Modem (MMDVM) is an open source project that combines the hardware and software development of a modem to handle the vast majority of amateur radio digital voice modes. MMDVM supports DMR, D-STAR, legacy analog FM, M17, NXDN, P.25, POCSAG (pager), and System Fusion. Though the MMDVM project began in 2015, its code history dates back to 2007. To-date, more than 80% of hotspots/repeaters on the Brandmeister DMR network are utilizing MMDVM, and the number of users that are registered DMR ID members exceeds 250k. Additionally, there are several repositories on GitHub that are part of the MMDVM project. For more information about MMDVM, please visit mmdvm-project.org.

About Amateur Radio Digital Communications (ARDC)

Amateur Radio Digital Communications (ARDC) is a California-based foundation with roots in amateur radio and the technology of internet communication. The organization got its start by managing the AMPRNet address space, which is reserved for licensed amateur radio operators worldwide. Additionally, ARDC makes grants to projects and organizations that follow amateur radio's practice and tradition of technical experimentation in both amateur radio and digital communication science. Such experimentation has led to advances that benefit the general public, including the mobile phone and wireless internet technology. ARDC envisions a world where all such technology is available through open source hardware and software, and where anyone has the ability to innovate upon it. To learn more about ARDC, please visit https://www.ardc.net/.

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