Enabling secure mission success with Wickr RAM in Department of Defense Cloud One

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Amazon Web Services (AWS) today announced the availability of Wickr RAM (Recall, Alert and Messaging) to the U.S. Department of Defense (DoD) through Cloud One, which is a cloud hosting platform and service. Wickr RAM is an end-to-end encrypted full suite collaboration application built for the warfighter. It is available on AWS GovCloud (US) and can support workloads up to Impact Level 5.

Cloud One Wickr RAM availability provides DoD personnel access to a purpose-built application that provides messaging, file transfer, location sharing, audio/video calling, and screen share capabilities over any network—on any device—without connecting to a virtual private network (VPN) for government and personal devices. Wickr RAM is DoD compliant and able to transmit controlled unclassified information (CUI), personal health information (PHI), and personally identifiable information (PII) as defined by the Health Insurance Portability and Accountability Act (HIPAA). Wickr's Global Federation capability empowers individual users, the DOD enterprise, and the federal government to securely communicate while mobile and disconnected from secure networks.

"Using Wickr RAM in Cloud One allows our teams to collaborate at the tactical edge and higher. It helps attribute to a successful and safe mission," said Todd Weiser, chief technology officer with the U.S. Air Force Special Operations Command. "The solution fills the mobility collaboration gaps and is the only DoD-approved system supporting us at scale."

Best-of-breed technology collaborations

With the increasing use of remote communication and multi-party collaboration, data sent through unsecured channels is susceptible to intrusion and can compromise entire networks. For federal agencies and DoD entities, a data breach can be disastrous for national security.

Wickr collaborated with the U.S. Air Force Special Operations Command (AFSOC) and and General Dynamics Information Technology's (GDIT) ARMA team to build Wickr RAM using multilayered end-to-end encryption to make sure all communications are secure. Wickr RAM is built upon zero trust network (ZTN) design principles, which means user content is undecipherable in transit and deleted upon delivery. Wickr RAM protects the privacy of communications even over compromised networks. In addition, on-demand compute resources (like servers and storage) can scale to meet the high demand of large-scale government deployments of messaging, calling, and large file transfer capabilities.

The Wickr RAM solution is delivered via collaboration between AWS Wickr, GDIT-ARMA, and Science Applications International Corp. (SAIC). ARMA provides development and engineering support in addition to 24/7/365 service desk support. As the prime industry collaborator for the Cloud One program, SAIC offers secure and reliable cloud environments and services for mission-critical DoD applications.

This collaboration brings together industry and government to deliver technology to service members at the base, in the field, and at the tactical edge, providing unmatched security in even the harshest environments. This turnkey service gives DOD users access to critical communication tools in one simple public key infrastructure (PKI)-enabled application that links their individual mobile devices to the broader NIPRnet (Non-classified Internet Protocol Router Network) users.

Wickr RAM use cases

- Wickr RAM is used by DoD operators to coordinate patient evacuations and connect DoD to local mission partner medical professionals in support of ongoing operations, bringing secure communications to denied, disrupted, intermittent, and limited (DDIL) environments.
- In 2021, Wickr RAM functionality was activated to send battalion-size updates to users in the path of dangerous weather (e.g., tornado, winds up to 40 knots, and thunderstorms). Over 600 users were alerted of incoming weather in less than four minutes to afford users time to respond and take action.
- Wickr RAM provides continuity to the military during the COVID-19 pandemic. Its use supports tele-drills for guardsmen and provides a means to gather status and wellness details to improve military health and situational awareness of possible COVID-19 exposures.
- Wickr RAM connects to Wickr's software as a service (SaaS) platform, Wickr Pro, using the same commercial end-to-end encryption to protect data and sensitive communication. Friends and family might use Wickr Pro to connect with military Wickr RAM users who may be deployed abroad. Wickr Pro, which is no-cost and available in app stores, enables texts, calls, and video with Wickr RAM users.

Exceeding operational security mandates

Wickr RAM maintains an Air Force Enterprise Authority to Operate (ATO) granted by the U.S. Air Force's Air Combat Command (ACC). This ATO provides U.S. Air Force personnel access and permission to install Wickr RAM on personal phones, government furnished equipment (GFE), and even burn phones for short-term operational use.

With Wickr's multilayered AES-256 end-to-end encryption and key handling protocols, hacking an individual key would take several trillion years. This allows users to securely share mission-critical information, while exceeding operational security mandates without a VPN connection.

Messages and encryption keys are accessible only within Wickr applications and are not disclosed to network attackers or Wickr servers. Every call, message, and file is encrypted with a new random encryption key. Users may also specify when messages and files will expire (and be subsequently deleted) based on the time they were sent or the time they were read.

Getting started with Wickr RAM

This offering is available through Carahsoft facilitated by AWS Marketplace. To request a capabilities briefing or quote, contact wickr@carahsoft.com.

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