REDCOM SIGMA®

Unified C2 software platform with voice, video, chat, & console

REDCOM Sigma is an intuitive software-based C2 platform designed to increase the warfighter's operational flexibility while drastically reducing size, weight, and power (SWaP) requirements. Designed specifically for government and military users at all echelons, Sigma's feature set includes voice, video, chat, conferencing, radio interoperability, and an integrated C2 Console.

REDCOM Sigma is based on open standards with a focus on interoperability, flexibility, and ease of use. Sigma is listed on the DoDIN Approved Products List (APL), and is the default C2 platform for multiple programs of record with the U.S. Army and U.S. Air Force.

REDCOM Sigma key benefits

- Voice, video, chat, console and radio interop in a single software instance
- Military-grade software built for the tactical edge
- One platform for controlling all IP and RF comms
- Interoperable, standards-based, and fully scalable
- Intuitive user interface is incredibly easy to use
- Reduces complexity, lifecycle costs, & training time
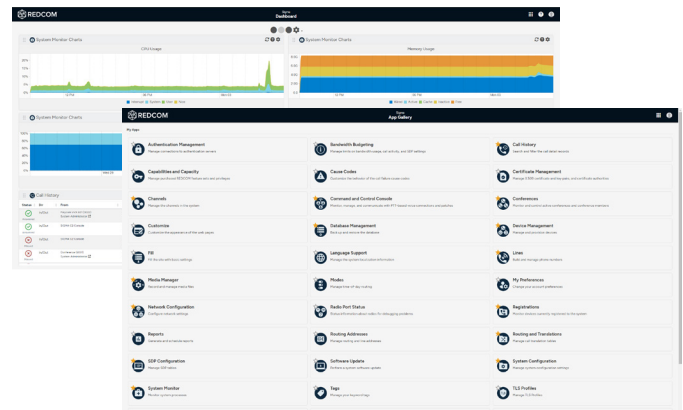
REDCOM Sigma takes formerly disparate hardware and software components and combines them into a lightweight, unified software instance. This provides tactical users with just one platform to buy, configure, deploy, and train on, greatly reducing complexity, reducing costs, and boosting operational flexibility.

Chat · Transcoding · Conferencing · Console · Video · TSM Integration · Voice · Sigma Client → **REDCOM SIGMA®**
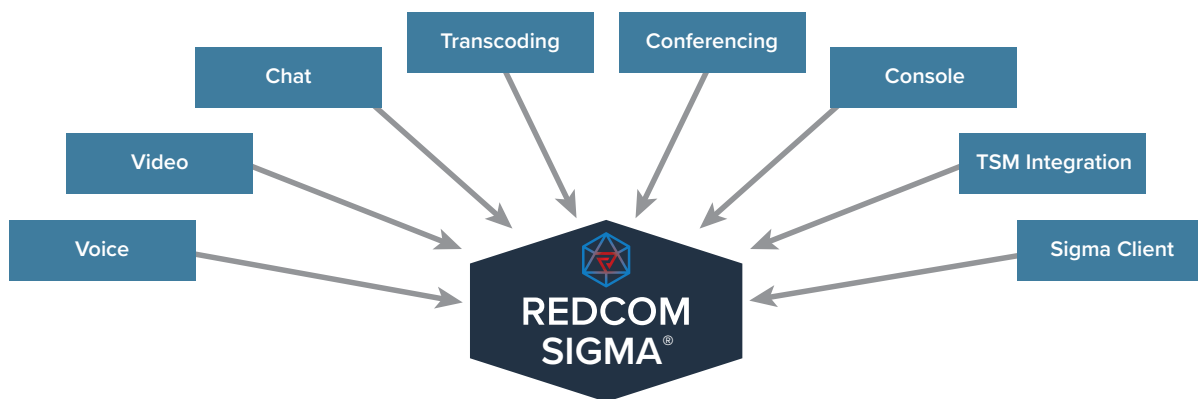
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Reduce complexity

REDCOM Sigma reduces complexity at the tactical edge, replacing multiple pieces of hardware and software from different vendors with one integrated platform. This improves the operational tempo by providing forces with just one efficient platform to buy, configure, deploy, and train. Sigma supports the most popular hypervisors and can run on a single processor core with as little as 2GB RAM and 20GB hard drive space. The small software footprint allows you to maximize your investment in a virtual infrastructure by leaving more resources for other services.

Drastically reduce training requirements

Sigma's user interface is highly intuitive and easy to learn. New users can be trained on Sigma in hours or days — not weeks. Not only does this immensely cut training costs, but it also improves the "tooth-to-tail" ratio by enabling the team on hand to confidently implement, operate, and maintain core C2 comms without the need for IT specialists or field service reps.

One interface for controlling all comms

REDCOM Sigma's C2 Console provides warfighters with a unified interface for monitoring and controlling all IP and RF comms on the C2 network. Operators can listen to any conversation across multiple devices and talk groups and they can then build patches on-the-fly simply by dragging and dropping connections together.

Built for mobility

REDCOM built Sigma from the ground up to meet the demanding requirements of today's mobile warfighter. No matter where you go communications can be fully operational within minutes, enabling expeditionary forces to secure a tactical advantage by maintaining mobility at all times. Sigma is resilient to hard shutdowns and boots up in about a minute.

Designed for DIL environments

Sigma is purposely designed to live in the edge, not the cloud. This allows warfighters to maintain C2 comms in even the harshest of distributed, intermittent, and limited-bandwidth (DIL) environments.

Maximum interoperability

Sigma is standards-based and is interoperable with any SIP-capable endpoint. Sigma works with the handsets, gateways, and radios already deployed in the field. This delivers cost savings because Sigma doesn't require you to rip and replace your existing network or devices.

Interoperable with TSM mesh networks

Sigma includes native interoperability with TSM mesh networks, which effectively extends voice talk groups beyond the TSM network by linking them with other analog radios and the rest of the C2 network. A simple IP connection to a TrellisWare gateway radio followed by quick setup in Sigma is all that is required, providing Sigma with access to all of the talk groups on a TSM mesh network. Because each talk group is a virtual radio network, Sigma treats each talk group as its own independent radio net. This greatly reduces radio requirements at the tactical edge.

Channels

New in Sigma 4.1 is the powerful Channels feature which improves the flow of communication up and down echelons and across domains by intuitively and functionally grouping endpoints together. Voice channels can either be pre-configured by an admin, or set up ad-hoc by the end user. Channels is a critical part of the Sigma Client for Windows and ATAK, enabling quick and efficient PTT comms.

Strategic conferencing engine

Sigma's built-in conferencing engine is endpoint agnostic and works with any device. The Conference Manager web app allows an operator to visually monitor and control conference attendees. Sigma can even control access to a conference by user ID, ANI, PIN code, or clearance level.

Video optimized for the tactical edge

Sigma's video conferencing is built for chaotic, congested, or contested environments. Sigma can broadcast a single video stream to multiple endpoints, and these streams can switch based on priority or active speaker or be controlled by an operator.

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Military-grade software

Security cannot be achieved through a "bolted on" approach. Sigma was built from the ground-up as a military-grade software suite. Sigma includes the latest forms of encryption, including Suite B, TLS/SRTP, IPsec, and FIPS 140-2 validation.

Hypervisor agnostic

While Sigma can be installed on bare metal, most customers prefer to install Sigma on a hypervisor. If you already have an established virtualization environment, adding Sigma to your environment is straightforward and seamless. Because Sigma is hypervisor-agnostic, it can run on your platform of choice including VMware, Hyper-V, VirtualBox, KVM or Xen.

Admin features

Sigma is loaded with features that make setup and administrative tasks a breeze, including:

- **Flexible media engine:** Sigma supports numerous call translating trigger points and it can translate on both numeric and URI addressing. Enables customers to tailor the software's functionality to meet their requirements.

- **Quick end device provisioning:** Sigma comes with built-in provisioning templates for the most popular devices, and allows users to create their own templates.

- **Reporting made easy:** Sigma supports on-demand and scheduled reports in multiple formats such as DOC and PDF.

- **Simple and scalable licensing:** The vast majority of Sigma's capabilities are included in the base license, with only a few optional feature capabilities. All capability licensing is accomplished by the deployment of a single license file. This reduces the complexity of pricing, ordering, integrating, and deploying Sigma.

INFINITE INTEROP

REDCOM Sigma® can run on a variety of industry-standard compute devices. In the example to the right, Sigma is running on the REDCOM Sigma XRI low-SWaP hardware platform. Sigma enables full interoperability between a variety of SIP and RF endpoints, and all of these connections can be controlled on-the-fly from the Sigma C2 Console app.
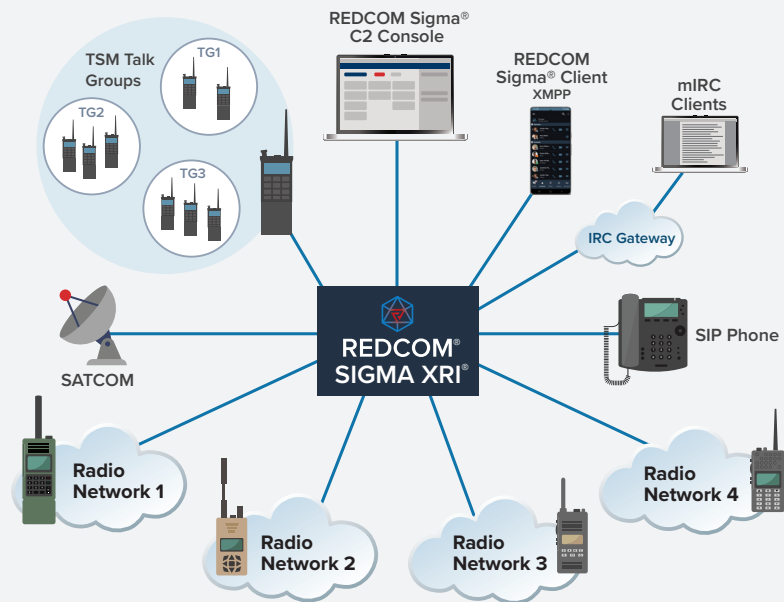
*Note: some features, such as the REDCOM C2 Console and TSM radio compatibility, require a feature license. Please consult with your REDCOM solution advisor for pricing and configuration options.

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