

Integrated communication for the Tactical Edge



Software Router by Saab connects and secures the digital battlefield.

Secure and reliable communication is critically important for the digital battlefield. Fused sensor data is curated and shared between units for common situational awareness. The functional chain from sensor to effector requires assured data at all times. Troops depend on voice and other collaborative communication services for command, control and tactics.

Software Router (S-Router) connects and secures the digital battlefield. It provides an integrated experience for common situational awareness. Defence applications span many domains, including NATO-led Joint Multi-Domain Operations.

Flexible integration
S-Router flexibly integrates defence communication products by leading vendors. Programmable policy-based routing automates selection of the best transmission available – fiber, V/UHF Radio, or Satcom.

Collaborative Communication
Communication services include a rich set of secure networking functions, transmission control and timing distribution. In addition, the S-Router hosts Collaborative applications such as voice, chat and email.

Future Proof

The modular software design makes the S-Router easily deployable in different environments to fit application needs – switching, ports and custom functionality.

The design is future-proof. It can be upgraded to support future emerging defence products such as enhanced EW, jam protection waveforms, Satcom or military adapted 5G.

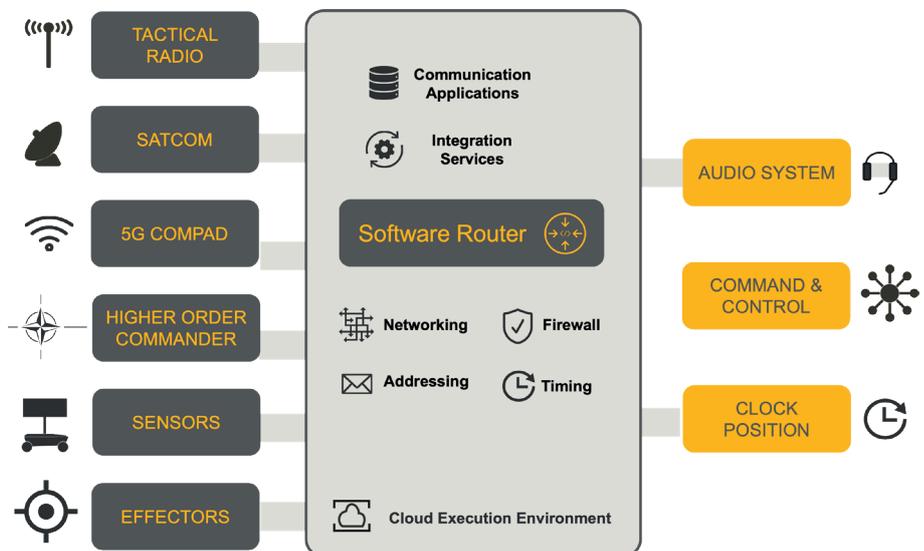
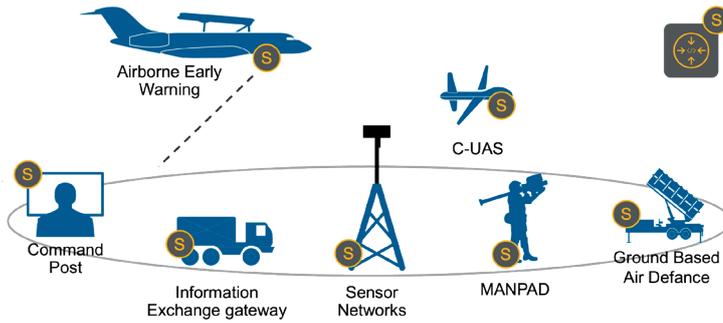


Figure 1. S-Router integrates Communication and Collaborative Services.

Applications



Integrated communication experience across many defence applications.



S-Router for AEW in operations since 2019.

Deployment options



RES-8
8 port rugged switch



RES-16/26
16/26 port rugged switch



RTR-18
18 port rugged switch
and compute



T2156
56 port T-Router



Cloud Execution
Environment

Figure 2. Applications and Deployment Options.

Key benefits

- Integrated Collaborative Voice, Chat and Network Data Services
- FMN Core services 'in-a-box'
- Automation of best-connectivity and bandwidth selection
- Radio silence operation
- Integration to MANET Mobile Ad-hoc Networking
- Range of deployment options; Stationary command posts, combat vehicles, and MANPADs.
- Zeroization
- Software developed by register-controlled personnel

Specifications

System security

- Certificate management
- Encryption HTTPS/SSL
- Role based login
- Secure Syslog
- AppArmor
- Secure Trusted Linux

FMN Communications Services – Network functions

- IPv4 unicast, multicast
- IEEE VLAN
- Tunneling: GRE
- Encryption: IPsec
- Routing: OSPF, IGMP, Policy-based routing
- Traffic Management and Quality of Service: Diffserv, Shaping
- Stateful firewall
- Time: NTP
- Addressing: DHCP, DNS

FMN Core Services – Collaboration functions

- Chat XMPP
- Mail SMTP

Cloud Execution Environment or bare-metal

- Virtual Machines
- KVM

Integration Services

- Tactical Radio: R&S VR5000 HDR-AJ, Trellisware Shadow TSM, L3Harris Falcon Wraith and other
- SATCOM Modems: iDirect, Viasat and other
- Wide Band Data Link: Radionor CRE2
- Time Distribution: Safran VersaSync, Spectracom SecureSync and other
- Ancillary Interfaces: MediaGW, Voice Servers, Tactical Data Link Processors, Crypto Units and other
- Communication system performance optimization services and functions
- Customization as per customer project

