VCS 3020X
INTEGRATED DEFENCE COMMUNICATION SYSTEM
THE VCS 3020X UNLEASHES THE POWER OF NETWORK CENTRIC AIR DEFENCE COMMUNICATIONS. THE VCS 3020X GIVES AUTHORISED OPERATORS ACCESS TO ALL DEFENCE COMMUNICATION RESOURCES - REGARDLESS OF THE SYSTEM LOAD - AT ANY SITE AT ANY TIME.

THE COMPREHENSIVE SET OF DEFENCE COMMUNICATION FEATURES IS DESIGNED TO BE APPLIED TO MEET ANY CUSTOMER’S DISTINCT REQUIREMENTS. INDIVIDUAL ADAPTATIONS ARE KEPT TO A MINIMUM, MAKING THE VCS 3020X THE PERFECT COTS/MOTS SOLUTION FOR A WIDE VARIETY OF DEFENCE COMMUNICATION APPLICATIONS.

The Frequentis upgrade path enables you to enhance your system at any time – to protect your investment.

THE FREQUENTIS VCS 3020X IS A SYSTEM THAT IS FLEXIBLE, COST-EFFECTIVE AND SAFE!
DECENTRALISED SWITCHING → The main part of the VCS 3020X application software runs fully distributed in the peripheral devices. The mission-critical switching and routing core software is kept simple. The fully decentralised call control leads to the system’s unrivalled resilience against software failures. Audio is switched with Time Division Multiple Access (TDMA). Data is routed within the core system via dedicated IP-based data links. Each added component increases the processing power for a no-limits system solution.

THE FIBRE OPTIC SYSTEM BACKBONE
To accomplish systems of any conceivable size, 8000 communication channels are available. Multiple VCS 3020X system nodes interconnect via a fibre optical backbone.

THE STAR ARCHITECTURE – SUPERIOR SYSTEM INTEGRITY
The VCS 3020X star topology forms the base for decentralised switching. The symmetric star topology connects line interfaces and operator positions to the system core. In the unlikely event that one branch fails, the other branches and operations always remain unaffected.
Supporting any advanced concept of operation, the system can be configured from any site connected to the network. Any authorised system user can assign roles and profiles. Controller tasks can be shifted back and forth between several VCS 3020X sites. Roles are not bound to physical positions, thus network-wide free seating is enabled. Additionally the VCS 3020X allows a role to be “pushed” or “pulled”.

A mission management tool supports a variety of operational scenarios and roles throughout the network.
The TMCS is the system’s installation and configuration tool featuring a graphical room view that allows operation supervisors to get an overview of all currently active missions and role configurations at each operator position. This is true for both stand-alone systems, as well as for networked configurations. An easy-to-use traffic & analysis tool, which increases system efficiency by providing detailed reports using historical data, is also available. In the unlikely event of a TMCS failure, the operations of the VCS 3020X will be left untouched. Thus it is possible to log-in or operate the VCS, or change hardware components, even if the TMCS is not connected.

The continuously growing number of features and services derived from several projects, as well as future standards and recommendations, are integrated into proven commercial-off-the-shelf software. However, there is plenty of room left for select individual custom adaptations.

Integrating with radar systems
It is possible to have services of the VCS 3020X interacting with radar systems, increasing the operational efficiency. This enables common login at the radar workstation or usage of the air picture derived from the radar system for best-signal-selection.

Telephone and radio services
Your special phone and radio services combined with Frequentis customer-specific solutions optimise usability.

Voice and data recording
The VCS 3020X is prepared for integrated recording of voice and radio channel/telephone subscriber information.

Management system integration
The VCS 3020X central facility management system allows configuration and diagnostics of external systems.

Frequentis systems are frequently used in classified environments and have to comply with stringent security requirements. We have policies and procedures in place to properly handle classified information in accordance with the requirements of several countries. We are familiar with and provide systems compliant to common criteria.

Security domains – handling of classified information
The VCS 3020X is capable to handle different security domains in one system: Secure/Non secure separation is a Frequentis-developed, unique and cost-efficient method of providing the separation of classified and unclassified information within a single physical system hardware.
**CONFERENCE SERVICES**

- Extensive conferencing services provide various types of conferences. Local pre-set and successive conferences with up to 30 participants set standards. Distributed network-wide LOOP-conferences with a virtually unlimited number of participating operators are available.

**INTEGRATED EMERGENCY MENU**

- This feature gives instructions and supports with shortcuts to important numbers and informs on how to react in different emergency settings.

**INTEGRATED SHORT-TERM RECORDING**

- The integrated short-term or position recording has a capacity of 2 x 30 min. If configured, supervisors may retrieve recordings made at any position. Recordings may even be exported as WAV-files.

**INTEGRATION OF FREQUENTIS DIVOS VOICE AND DATA RECORDERS**

- Combining the VCS 3020X with DIVOS recorders entails advantages only one supplier can provide, e.g. central configuration or enhanced data exchange.

**POSITION MONITORING**

- Any authorised operator (e.g. a supervisor) can monitor operator positions. All telephone and radio communications are then transferred to the authorized operator.

**MOVING CALL QUEUE**

- The continuously updated call queue presents all incoming calls on the Touch Panel.

**NETWORKED TMCS**

- For networked environments, dedicated clients may log into any VCS connected within the system. This gives the supervisor control of the entire system to change parameters or to check the system status.

**DIGITAL 2MBIT/S RADIO LINK**

- For digital speech quality from microphone to antenna, the VCS 3020X supports direct 2MBit/s links to most commercial available radios providing a 2MBit/s interface.

**OUTSTANDING RADIO SERVICES**

- The system includes radio remote control for tactical radios such as Have Quick and SATURN. Many different protocols of different radio manufacturers are supported. The network centric radio communication services provide arbitration within the network. Frequency coupling enabling retransmission on several radio channels, coverage with BSS - best signal selection, the radio channel intercom and the radio/telephone coupling feature are supported network wide.

**RELEASE POLICY**

The stringent release policy guarantees that the experience collected from well-proven and tested systems and applications continuously evolves the development of new and future systems.

**REFERENCES**

- The VCS 3020X is the pinnacle of the experience accumulated over the past 60 years. After all Frequentis has installed in excess of 11,000 operator positions in more than 70 countries.
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