Airfield Voice Communication & Control System

CAPABILITY SHEET - POSITIONS, RADIOS, HOTLINES, RECORDING, REDUNDANCY & MIGRATION

THE RULE THAT SHAPES EVERYTHING

THE ONE IDEA	The controller must never lose their voice. No single failure may silence a position, and no migration may leave a tower without a working switch.
ONE PANEL	Every radio, hotline, telephone and the intercom on one touch panel per position. A touch selects, push-to-talk transmits, every word is recorded.
BUILT FOR FAILURE	Two voice networks, paired servers and gateways, two no-break feeds per unit, and backup radio keys that reach the radios without the switch.

THE SWITCH, PART BY PART

POSITIONS	Touch panel, two headset jacks, push-to-talk on the cord, hand microphone and foot switch, loudspeakers, last-call replay, roles that split and merge.
RADIOS AND PHONES	ED-137 radio gateways for VHF and UHF, main and standby, best-signal selection, cross-coupling. ED-137 telephone gateways for hotlines and lines.
RECORDING	Every channel and position recorded, timestamped from one master clock, on doubled storage with search and playback. ED-137 recording interface.

STANDARDS AND SUPERVISION

EUROCAE	ED-136 operational and technical requirements, ED-137 interoperability, ED-138 network requirements - so parts from different makers work as one.
SUPERVISION	State of every unit and link, alarms to the maintainer rather than the controller, logs, and the role and panel configuration of every position.
ACCEPTANCE	Links pulled, servers stopped, feeds cut during acceptance. The test passes only if no call is dropped and the backup radio path still talks.

MIGRATION & ENGAGEMENT

LEGACY TO IP	Survey, build beside the old, shadow the live channels, train every controller, move positions one at a time with the old switch held warm.
SUSTAINMENT	Ageing switches kept serviceable until replacement: processor and interface units, obsolete cards, bench-tested repairs, bridging to the new system.
ENGAGEMENT	Tell us the positions, the channels and the switch you have today, at sales@neometrixgroup.com.

REFERENCE SCOPE

Reference scope. An airfield voice communication and control system puts every ground-to-air radio, hotline, telephone and the intercom on one touch panel at each controller position, and records everything said. It is built so that no single failure can take away the controller's voice: two voice networks on separate routes, paired servers and gateways with tested takeover, two no-break power feeds into every unit, and backup radio keys that reach the radios by a path independent of the switch. IP-based systems follow EUROCAE ED-136, ED-137 and ED-138, so radios, telephones and recorders from different makers interoperate. Most projects are migrations: the new switch goes in beside the old, shadows the live channels without transmitting, every controller trains on the same panel layout, and positions move one at a time while the old switch is held warm, until the new one has carried real traffic through a full cycle of operations. The data network, the tower building and the navigation aids are separate scopes. Work of this class is engineered to order; Neometrix has quoted for voice communication and control system processing hardware and radio-over-IP gateway integration for military users, and no delivered voice communication and control system is claimed.

DEFENCE PROGRAMMES DESK

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