

TAYAS

TACTICAL LOCAL AREA
NETWORK SYSTEM





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TAYAS (abbreviation for Tactical Local Area Network System in Turkish) is developed as a solution to local area network communication needs in tactical area. The system consists of software and hardware installed in local area, operates in cabled and wireless mode, and provides a connection for Tactical Command Control and Information Systems to strategic communication systems such as TAFICS (Turkish Armed Forces Integrated Communication System), Tactical Communication Systems such as TASMUS, and satellite systems such as TURKSAT.

TAYAS is a tactical local area network (LAN) system, operating in cabled or wireless mode or in a combined mode where the two are backing up each other. It is used on the battlefield by military units of the size from an army corps down to a brigade. For each military unit, one TAYAS Server Set (TSS) installed to a vehicle mounted server shelter and a number of TAYAS Network Access Sets (TNAS) to be used at commanding positions are provided. TNAS connect (in a wired or wireless fashion) to the TSS to communicate between them and with the outside world. Commanding positions are dedicated vehicles or tents; accordingly TNAS are supplied in portable racks for easy transportation. Number of TNAS in TAYAS depends on the size (number of commanding positions) of the corresponding military unit. Typically 7 TNAS are provided for an army corps and 5 for a brigade. Mobile Users with portable computers can also connect to the system. Secure wireless communication is provided by use of a National Secret encryption algorithm. For this purpose, an Encrypted Wi-Fi Access Device (KKAC), an Encrypted Wi-Fi Terminal Device (TKABC), and a dedicated Wireless Network Management Software are designed and developed by ASELSAN, using in house and indigenous resources. The wireless network devices are certified National Secret by the relevant Turkish Certification Authority.

TAYAS System Components

TAYAS consists of one TAYAS Server Set (TSS), a number of TAYAS Network Access Sets (TNAS), Encrypted Wi-Fi Access Devices (KKACs), Encrypted Wi-Fi Terminal Devices (TKABCs), Cabled / Wireless Network Management Software, Portable Monitor Sets, portable computers for Mobile Users, Antenna Masts and various Connection Cables. Racks, boxes, and various mechanical parts are also supplied with the system for vehicle installation, mounting, and securing of the material.

The vehicle mounted server shelter contains a TSS, a Portable Monitor Set, an Antenna Mast, and Cabled / Wireless Network Management Software. Commanding positions are provided with TNAS and an Antenna Mast. Mobile Users connect TKABCs to the USB Port of their portable computers for mobile access to the network.

TAYAS Server Set (TSS)

TSS is the center of the TAYAS system. Each military unit has a vehicle mounted server shelter containing a TSS. Users in the military unit (users in the LAN), can use the TSS for data communication, file transfer, or access to a wide area network (WAN). A typical TSS consists of Servers, Firewalls/Intrusion Prevention Devices, Routers, ETHERNET Switches, and KKAC.

TAYAS Network Access Set (TNAS)

This component is used to connect the commanding positions with their cabled and wireless users to the TSS hence to TAYAS. Connection to the TSS can be cabled or wireless. TNAS are supplied in portable racks for easy transportation, so they can be moved from one commander's vehicle to another or installed in a tent. A typical TNAS contains an ETHERNET Switch, KKAC, and UPS.

KKAC and TKABC

Encrypted Wi-Fi Access Device (KKAC) and Encrypted Wi-Fi Terminal Device (TKABC), together with a dedicated Wireless Network Management Software, form the wireless network infrastructure of TAYAS.