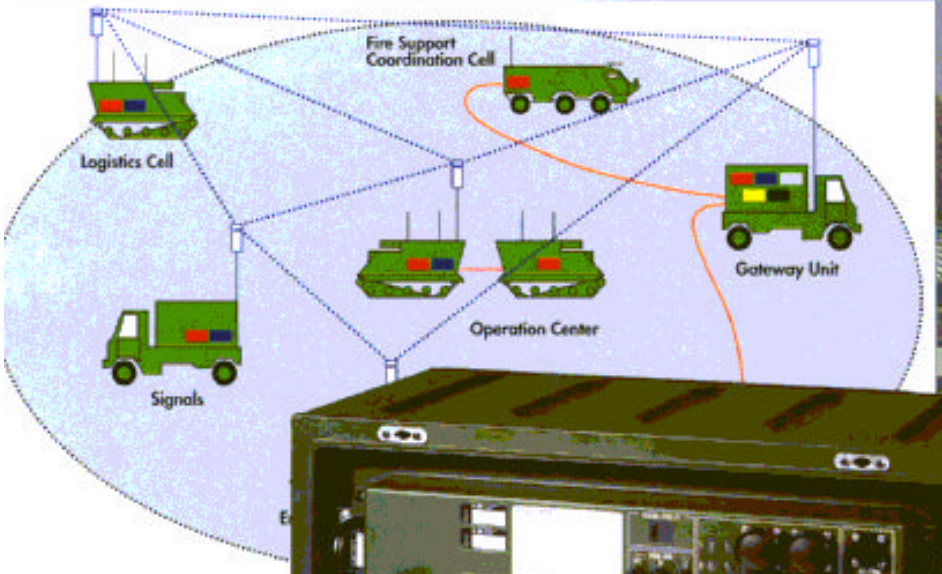
CPnet
Broadband Command Post Communications Network



THALES

Why CPnet?

Your military staff, out there on the battlefield, consists of highly trained and motivated individuals

They will be utterly useless to you

- without communications means to interact flexibly, exchanging all types of data seamless, quickly, effectively
- without communications means to get in all the multimedia data they need to make the right decisions
- without communications means to get the order out quickly, using the right representation to get the point across effectively to subordinate echelons

They will not be able to command

if their regimental, brigade, division or corps command post is detected and destroyed by the enemy, because:

- setup and tear-down time of the command post communication structure is too long to permit quick jumps
- configuration capacity is too rigid to permit flexible architectures, limiting the choice of suitable set-up sites
- the system requires manual configuration set-up, too complex to execute under battlefield conditions
- performance degradation in case of partial destruction is not graceful, but sudden and total because of a centralized, not self-healing architecture

Introducing CPnet, the broadband integrated command post communications network of the German army

The German army has chosen CPnet, called BIGSTAF in the German program, for all its brigade, divisional and corps command posts.
CPnet has a modular and distributed architecture consisting primarily of a number of self-sustained Network Access Units.

Each of these:

- provides access for wire-based voice, data and fax subscribers
- provides access for LAN participants, such as CIS system components
- is interconnected with the other Network Access Units via fiber-optic and/or millimeter-wave radio in any topology

Benefits at a glance

CPnet is self-organizing and self-healing after communication link loss or network topology modification and offers:

- high mobility and dispersion of command posts
- low probability of interception and high resistance against jamming
- high degree of reliability and availability
- redundancy and survivability
- minimization of personnel requirements
- set-up and tear down time of less than 15 minutes

CPnet

The CPnet (Command Post communications network) transmission platform based on the state-of-the-art technology is the ideal basis for a modern Communications and Information System (CIS), fulfilling the operational requirements on the 'digitized battlefield'.

The CPnet is a network conceived to cover a command post area at a certain echelon in the military organization, with the aim to provide voice and data communications, with data capacity similar to that of a Local Area Network (LAN).

The CPnet is composed of the following subsystems:

Network Access

CPnet Command Post Communications Network

Fiber-optic subsystem based on:

- Network Access Unit (NAU)
- Internetworking Unit (IWU)
- Network Control Unit (NCU)

Radio subsystem (in cooperation with DASA Ulm) based on:

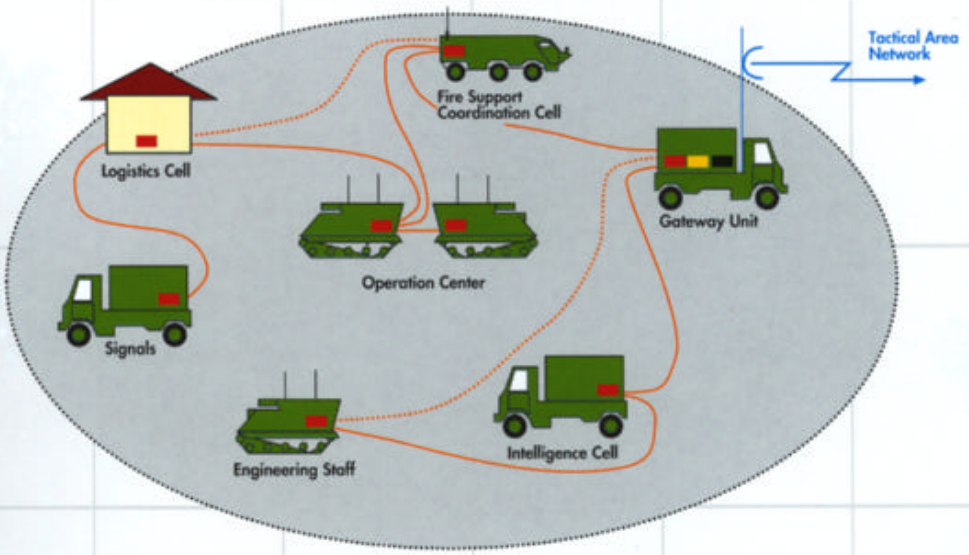
- Radio Control Unit (RCU)
- Radio Frequency Unit 60 GHz (RFU 60); 60 GHz radio net work for communication subcommand posts (reach 500 m)
- Radio Frequency Unit 51 GHz (RFU 51); 51 GHz radio net work for communication between Sub-Command posts (reach 3000 m)

With these systems components, any CPnet can be built up, either connected through fiber-optic cables, wireless, or a mixture of both.

The Network Access Unit is always the fundamental building block. Each NAU provides data and voice connectivity within a vehicle and between vehicles, as well as to the other NAUs.

NAU)

Example A: Brigade Command Post of the German Army



Example B: Division Command Post of the German Army