

Celab delivers advanced system for voice communications to ASTAzero test facility.

ASTAzero is the world's only full-scale test environment for active traffic safety, where car manufacturers and subcontractors can assess new technologies under realistic conditions. Since multiple companies test their corporate secrets on the premises simultaneously the demand on data security is extensive.

ASTAzero is a co-operation between the Technical Research Institute of Sweden and Chalmers University and offers unique possibilities to test safety features in all types of traffic conditions, from urban settings to rural roads and multi-lane freeways. The name is an acronym for Active Safety Test Area combined with Zero which refers to Sweden's long standing ambition of zero traffic casualties.

The area is divided in separate sections that simulate different types of driving conditions. This allows multiple corporations to operate within the area simultaneously, unaware of each other.

The communication solution has therefore been designed to eliminate the possibility for unauthorised interception of calls. Before a test the organisation is provided with digital two-way radios that are restricted to their dedicated talk group. The talk group in turn was automatically assigned in the registration system that has been integrated with Celab Four:C Dispatch, the computer aided dispatch console that forms the heart of the system.

From Four:C Dispatch the operators can remotely control communications, see the devices on the map but, not listen to any calls. The operator may however communicate by activating an "announcement mode", where the command centre overrides all other calls to quickly broadcast important information. A user in the field can initiate an emergency call or send a call-back-request to the operator, who can open a specific "channel" for calls with that particular user. Solely to prevent corporate espionage.

The hardware consists of proven and world leading TETRA equipment from Motorola Solutions. With advanced encryption features their Dimetra IP architecture provide secure and reliable communications.