

Awards winner:



MTK Trade Fair medal in 2011, 2013



„Napędy i Sterowanie” Journal Product of the Year 2012

PPHU ATUT Sp. z o.o.

Manufacturing plant and offices:  
ul. 1000-lecia Państwa Polskiego 30a  
41-400 Mysłowice

tel. +48 32 317 18 60 / fax +48 32 317 18 89

e-mail: [biuro@atutnet.pl](mailto:biuro@atutnet.pl)  
[www.atutnet.pl](http://www.atutnet.pl)

WIRELESS DATA AND VOICE TRANSMISSION SYSTEM

**ATUT - RADIO**

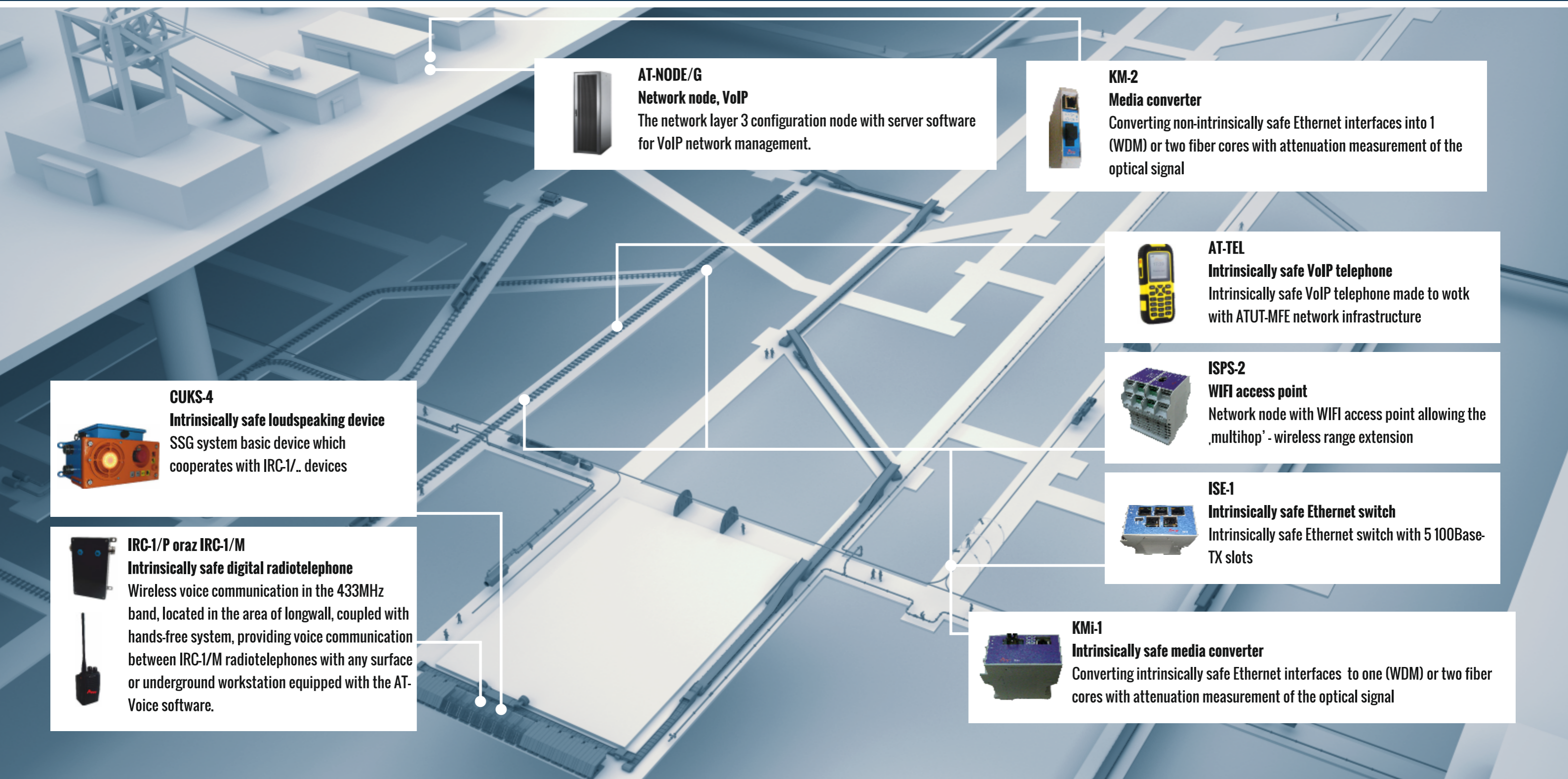
Intrinsically safe fiber-optic backbone network type ATUT-MFE allows to build secure, redundant, reconfigurable network connections between the surface of the mine plant and its various underground levels. ATUT-MFE uses MESH network topology fulfilled with self-diagnosis. Moreover its technologies enables reducement of fibers needed for data transmission.

Redundant backbone network functionality in case of emergency provides it user with:

- dynamic rerouting- ATUT-MFE system automatically changes the direction of the data network interconnection,
- relieving the busiest nodes and rapid response to faults- network reconfiguration
- monitoring of the fiber-optic link by identifying the operating parameters of the transmitters.

The usage of WDM technology allows to reduce by half the number of fibers in a given section of conduit. Due to the fact that the ATUT-MFE network is based on TCP / IP, it is possible to realize the section of a full duplex network using one optical fiber.

The use of diagnosis and parameters monitoring of the transmission cable (cores) allows to quickly and accurately determine the location of the cable failure, as well as damage prediction by analyzing quality and attenuation of individual sections of the conduit.



**AT-NODE/G**  
**Network node, VoIP**  
 The network layer 3 configuration node with server software for VoIP network management.



**KM-2**  
**Media converter**  
 Converting non-intrinsically safe Ethernet interfaces into 1 (WDM) or two fiber cores with attenuation measurement of the optical signal



**AT-TEL**  
**Intrinsically safe VoIP telephone**  
 Intrinsically safe VoIP telephone made to work with ATUT-MFE network infrastructure



**ISPS-2**  
**WiFi access point**  
 Network node with WiFi access point allowing the 'multihop' - wireless range extension



**ISE-1**  
**Intrinsically safe Ethernet switch**  
 Intrinsically safe Ethernet switch with 5 100Base-TX slots



**KMi-1**  
**Intrinsically safe media converter**  
 Converting intrinsically safe Ethernet interfaces to one (WDM) or two fiber cores with attenuation measurement of the optical signal



**CUKS-4**  
**Intrinsically safe loudspeaking device**  
 SSG system basic device which cooperates with IRC-1/.. devices



**IRC-1/P oraz IRC-1/M**  
**Intrinsically safe digital radiotelephone**  
 Wireless voice communication in the 433MHz band, located in the area of longwall, coupled with hands-free system, providing voice communication between IRC-1/M radiotelephones with any surface or underground workstation equipped with the AT-Voice software.