



## The Italian Unicoop Tirreno Group deploys with success a voice picking solution

Thanks to LXE's Tough Talk Technology and Itworks' vo-CE software powered by Nuance, one of the nine largest consumers' cooperatives of Coop Italia chain optimize accuracy and quality of consignments

*"It took us 45 days to get started"*  
Fabrizio Ferracuti, Unicoop Group IT Manager.

The **voice picking** order preparation project, developed in partnership with the CGS from Vercelli, an Italian leader 3PL company, was initially implemented in the Unicoop Tirreno Logistics Centre of Vignale (Italy, Tuscany). The warehouse in Vignale develops around 9 million crates per year, it covers an area of 13 thousand square metres, it contains 5.800 references and it is a warehouse that has a picking percentage of 90%. Since 2002 this warehouse works together with Cooperative CGS which proposed the use of a voice picking technology.

The voice picking system is made up of an LXE MX7 mobile computer, **vo-CE** voice recognition software by Itworks with Nuance speech engines embedded. It is directly linked to the warehouse management application which runs on a Unix operating system and accesses an Oracle 10 g database. The radiofrequency network used by the voice picking system is based on a Cisco backbone (Aironet AP 1242) which has WiFi 54Mbit/s connections and which is compatible with future 5GHz communications systems.



*"It took us 45 days to get started. We started on February, we went through all the needed tests and finally we trained the operator to work with the voice recognition system."* Explains **Fabrizio Ferracuti, IT Manager**. *"This way of getting started surprised us all, since we were all used of much longer periods for test, around 5-6 months."*



The grocery warehouse (photo courtesy of Unicoop)

**vo-CE**, the innovative product developed by Itworks and equipped with TTS and ASR engines from Nuance is used to communicate with operators using speech. This voice recognition system is installed on **LXE MX7 wireless computers** and enables voices to be accurately recognised without each operator having to undergo training. *"Besides the excellent results we had from a technical point of view, I was very pleased to notice the excellent way the voice system recognize the operator's order."* Says **Daniele Maggi**, Warehouse Manager. *"Here in Tuscany our dialect tends to fade some vowels. But the "OK" given by the operators at every single step of the process did not create problems. But we are of course also very satisfied from the quality point of view."*



The warehouse management application created by Unicoop Tirreno's Information Systems Department uses modern Java programming technology. This innovative approach and the vo-CE philosophy eliminates the need to implement middleware to manage voice terminals and takes advantage of **multimodality**. *"This multimodal approach allows us to develop internally our own software application."* Explains **Massimo Tardani**, Managing Director Tirreno Logistica. *"In this way we can make any changes we need inside the warehouse organization."*

This means that goods can be picked through the use of voice commands, using the MX7 wireless computer's traditional functions at the same time, thus ensuring that communication between host system and voice computer takes place in real time for each individual transaction.

A voice recognition system allows the operator to be totally free in its movement, but above all it keeps him concentrated on the job, because he does not have to constantly look at the computer display. This new technology is a natural and intuitive way to work and at Unicoop Tirreno they saw the advantages right from the start, just as explains **Giampiero Chiacchiera**, President of CGS



The GCS team (photo courtesy of CGS)

*"We move an average of 140 crates and a margin of error of 2.5 x 1000. So we can say that we already performed at high level. Nevertheless we were still looking for a system that allowed us to have a higher improvement both in quality and in productivity.*

*The vo-CE system helped us reach the target we wanted, an improvement of 60/70%."*

Main contractor /System integrator



In partnership with

