

## Centre de Telecomunicacions i Tecnologies de la Informació (CTTI) DocuRemote on-line counting system installed in the public restaurant in the CTTI corporate building



### Purpose

In order to implement innovative solutions in the different areas and departments managed by the Government of Catalonia, and as part of its policy to constantly improve its processes and adapt to the regulations, the Centre de Telecomunicacions i Tecnologies de la Informació (CTTI) at the Government of Catalonia chose the solution proposed by I&IMS to carry out a test in its own facilities. This test consisted of the real-time verification of the occupancy of a determined location, in order to add that solution to its catalogue of solutions and meet the future needs of the Government of Catalonia and its Departments.

### Solution

The DocuRemote Counter Edition counting system developed by I&IMS is based on intelligent video analysis that picks up the entry and exit of people crossing a virtual line or space. The images are obtained from approved 2D or 3D overhead cameras. On this occasion the camera used was the Samsung SNV-5080R, offering results with a proven reliability of over 95%. This has allowed us to identify the number of people in the CTTI restaurant at any time, reporting this figure in real time through different media and formats.

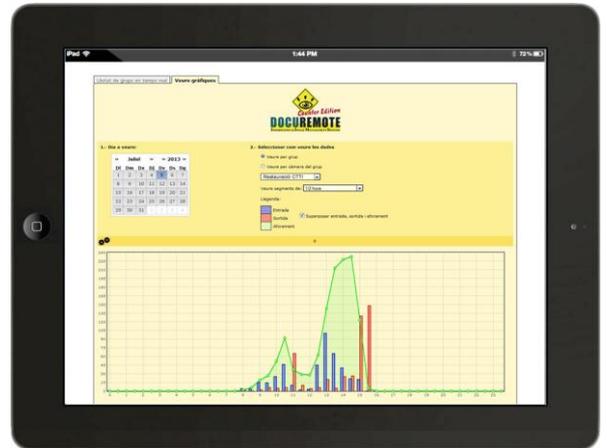


The area chosen for this pilot test was that used for the restaurant (open to the general public), where I&IMS installed its DocuRemote Counter Edition counting system. This makes it possible to identify how many people are present at any time, the peak public occupancy hours and days, how they distribute themselves and how they behave.

The system also allows the data obtained to be exported for their statistical analysis in order to adjust resources, find out more about what is happening and take decisions on the basis of the data obtained. If the number of people present in an area exceeds the limit established, an alarm is automatically generated and sent by SMS or email to the recipients nominated by the customer.



the system. The Samsung SNV-5080R camera is easy to configure, integrate and install. It provides an excellent image quality, it has non-visible and integrated infra-reds, with a constant light intensity and programmable activity, which allows for the accurate counting that the project requires.



The camera is placed just above the entry and exit line for the access door. The software is installed in computers with IP access, meaning that it is possible from any computer or mobile device to check, via TCP/IP (Internet, LAN, WAN, etc.) in web format, the number of people in real time, the occupancy statistics in intervals of ¼ hr, ½ hr or 1 hour, or search the historical data for a selected date.



## The Customer

*"As the people responsible for the technological services and infrastructures at the Government of Catalonia it is our obligation to choose the solutions that provide us with the best results. The DocuRemote Counter Edition software, along with the Samsung overhead camera selected, offer us almost full reliability", says David Puentes Jurado, Business Developing & Institutional Relationship Director at CTTI. "In addition, the system is non-invasive and easy to implement, which guarantees confidentiality so that nobody can be identified".*

The intelligent image analysis required by the people counting service means that the selected camera must have a proven image quality that guarantees the reliability and smooth functioning of

