

Cenatra Traffic Control Centre Andorra, Spain



The Cenatra traffic control centre in Andorra is located in the eastern Pyrenees and bordered by both Spain and France. The Principality of Andorra is one of Europe's major tourist spots in winter by virtue of its many ski slopes. High traffic volumes of up to 27,000 vehicles daily, combined with the need for special vigilance dictated by the winter conditions, make the centre's main display system and its 60 camera network absolutely vital in safely managing the 100km of main and 150km of secondary roads under its jurisdiction.

Existing technology reaches the end of the road

For many years the centre had relied on a rear-projection video wall based on mercury lamp technology. While the system had been considered state-of-the-art when installed, the advance of technology in subsequent years had gradually eroded its performance edge. In particular, its reliance on incandescent lamps for its light source. Mercury lamps have a lifespan of only around 6000 hours, meaning that in a mission-critical environment such as Cenatra, they needed to be replaced regularly – at least annually. At a cost of around €1000 each time, this represented a considerable running expense – even at a time when mercury lamps were widely available. In more recent times, LED lighting has become the technology of choice for rear projection, and its growing use has meant that replacement lamps were becoming harder and more expensive to source. Scheduled replacement meant additional maintenance costs and downtime, increasing running costs still further and impacting the centre's vital 24/7 operational capability.

PROJECT LOCATION

Andorra

CUSTOMER

Cenatra, Traffic Control Centre

APPLICATIONS

Traffic Management

PRODUCTS USED

8 x VS-50PE78UA

SYSTEM INTEGRATOR

Intecom, Andorra

FURTHER INFORMATION

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Of even greater concern than the cost of replacement lamps, was the availability of spare parts. Mercury lamp-illuminated DLP projectors rely on a rotating colour wheel to create the full-colour image on the screen. As a moving part, colour wheels too need periodic replacement and are product-specific. Once the manufacturer of the screen system had taken the inevitable decision to curtail spares support, it was the end of the road for the existing system. The Andorran authorities therefore began to search for a replacement system.

New technology – new solution

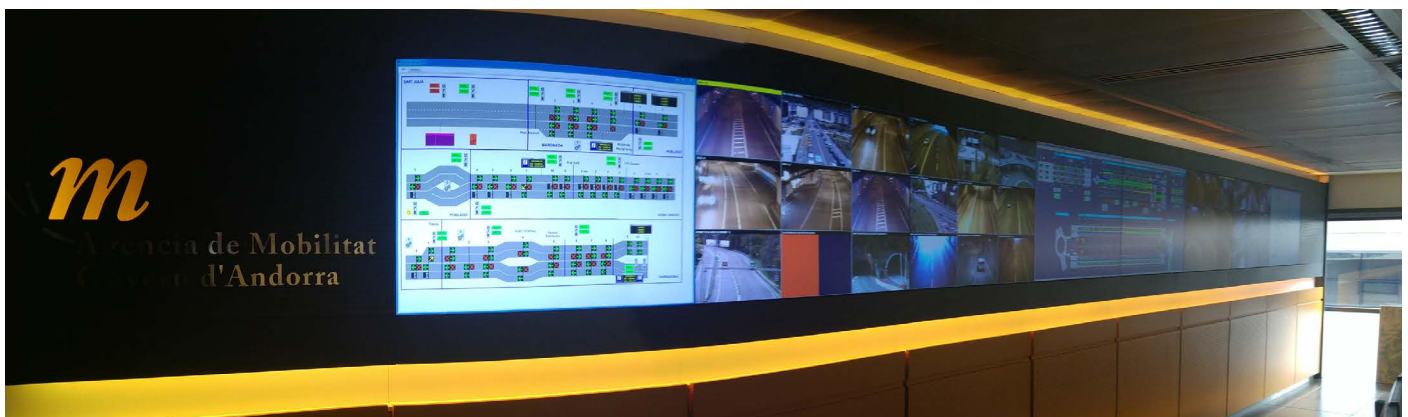
Mitsubishi Electric DLP videowall systems, however, employ LED light sources. The chief benefit of LED lighting is its vastly increased lifespan compared to mercury lamps, meaning they can operate continuously for long periods; in the case of Mitsubishi Electric, up to 100,000 maintenance-free hours, resulting in a dramatic reduction of part requirements and running costs. But along with a long operational lifespan, the need to avoid technology redundancy and retain confidence in the ability of a manufacturer to support its products far into the future played a part in the Andorran authority's decision to replace the outdated Cenatra screen with a system from Mitsubishi Electric.

Rapid installation and instant performance boost

Local systems integrator Intecom impressed Cenatra with the speed of installation and the performance of the Mitsubishi video wall, which consists of eight VS-PE78UA, 50" diagonal DLP rear projection cubes, in an 8 x 1 configuration some 8m long. Along with the drastic reduction in maintenance costs, the new technology brings with it improved image quality, reduced power consumption and greater energy efficiency – all significant improvements over the old system. But the real benefits of the Mitsubishi solution are less obvious and stem from its massive global corporate presence and design philosophy based on taking a long-term outlook to its systems design.

Specifications	
Model	VS-50PE78UA
Technology	LED video wall cube
Overall Size	6.2 m2
No. of Modules	8
Cooling system	Air cooling system with efficient cooling pipe and aluminum plate (No liquid)
Type	DLP™ technology (0.96" DLP™ 1 chip), DarkChip3™, BrillantColor™
Resolution	SXGA+ 1,400 x 1,050 pixels (per module)
Light Source	Redundant LED (RGB)
Light Source Service Life	≤ 100,000 hrs.
Brightness	1580 cd/m2 bright mode 1110 cd/m2 normal mode 750 cd/m2 eco mode 300 cd/m2 advanced eco mode
Contrast Ratio	1600: 1
Power Consumption	88 W in advanced eco mode, 108 W in eco mode, 147 W in normal mode, 233 W in bright mode.

DLP™ and Digital Light Processing are trademarks of Texas Instruments.



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Mitsubishi provides the long term solution

Mitsubishi Electric's focus on reliability and sustainability, as opposed to rapidly moving, cutting-edge innovation, is perhaps understandable given the context of its hundred-year history. The firm was cautious in adopting LED technology, wishing to understand its stability and performance as a long-term solution before rushing to market. But it was also careful to ensure that LED did not become a technology dead-end in the same way that mercury lamps had for manufacturers with a more short-term view. Along with its new LED-based video walls, Mitsubishi produces LED-based replacement projection engines for many mercury lamp based systems; both for its own products and from other manufacturers. Not only does this allow older systems to be given a dramatic new lease of life, but crucially, it also means that future improvements in display technology and the demands placed upon it, does not automatically spell the end of the road for a video wall installation.

Outcome

The outcome for Cenatra has been positive. The investment in new LED technology will deliver rapid payback in reduced cost of ownership, while it can be sure that its system has the in-built versatility to cope with long-term demands. Whatever the winter weather may throw at Andorra's motorists, for Cenatra at least it will be blue skies and clear roads ahead for many years to come.

Seventy Series from Mitsubishi Electric

The VS-PE78UA models used at Cenatra are part of Mitsubishi Electric's pioneering Seventy Series. The centrepiece of this projection technology is an integrated, ultra-modern DLP® chip. For its latest LED cube generation, Mitsubishi Electric has developed the innovative Smart 7 concept, a pioneering design for LED display wall cubes with a wide, intensive colour spectrum, optimum energy efficiency and an average service life of ten years. As a global market leader in LED cubes, Mitsubishi Electric currently offers the widest selection of models and is able to provide first-rate,

well-engineered technology for customised solutions. The company has over 30 years' experience in LED solution development and large screen project management, and has installed more than 71,000 DLP projector units worldwide.



Request more information