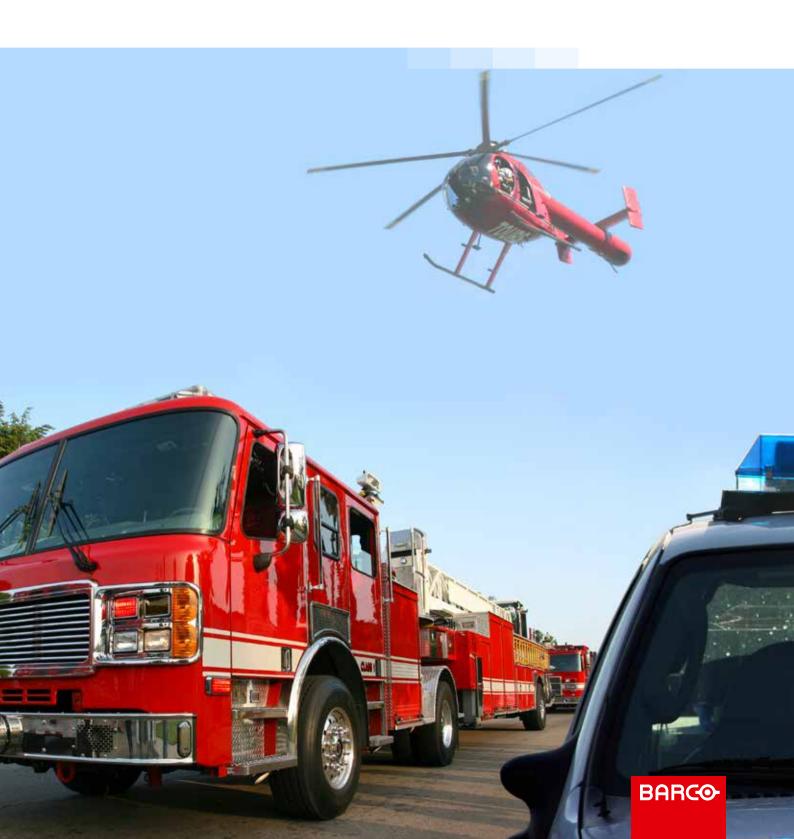
## **Security & Surveillance**

Smart visual decision-making systems for critical infrastructure

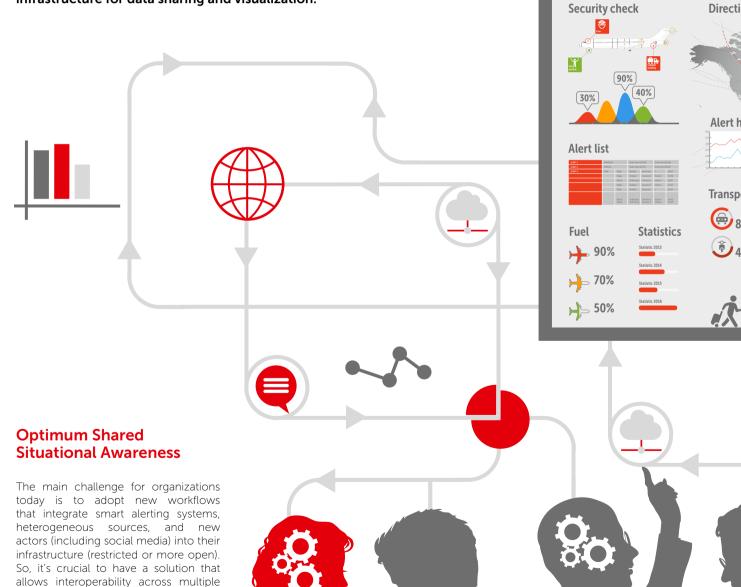


# New challenges for the security & surveillance market

The availability of an abundance of information ('Big Data') brings new opportunities to provide the right insights at the right time, but also the risk of overload and losing valuable information in a truckload of useless stats. Plus, today's 'Always Connected' state offers the possibility to deliver information faster and in new ways. This new information age calls for a powerful and dedicated infrastructure for data sharing and visualization.

secured networks, enabling optimal

situation awareness.





Every management decision taken in this center is underpinned by the information displayed on the Barco video wall – from CCTV images thru' to operational KPIs. It really is the brains of our airport

**Vanessa Requena**, Engineering and Maintenance department Barcelona Airport



## Always on guard - at any location

Offering visualization technologies to the Security & Surveillance market for more than 25 years, Barco's portfolio not only comprises displays and video walls but also hardware and software to share content with all stakeholders, wherever they are located. In this way, we bring together all necessary content from a large number of different sources into one system, while ensuring optimum security standards. Our solutions span the complete security landscape, including blue border, green border, and critical infrastructure protection.



## **Application areas**

#### **Emergency operations**

Aiding emergency services in more than 150 metropolitan areas to enhance communication, information and crisis management in EOCs, 24/7 watch and alert centers, crisis centers and emergency briefing rooms.

#### National security

Supporting national security for more than 100 government agencies worldwide by providing real-time access to mission-critical information in intelligence  $\theta$  cyber security centers, tactical analysis centers, integrated battlespace centers and national command centers.







#### Critical infrastructure protection

Protecting critical assets in more than 250 programs by increasing situation awareness in crisis operations rooms for industrial sites such as refineries, offshore platforms, nuclear plants, key transportation infrastructure (airport & aviation, railway, port authorities), Smart Cities & cyber infrastructure.

#### Traffic management centers & ATM

Helping over 2.5 billion passengers get home safely every day by integrating realtime sensor information and intelligent transportation systems data for control room operators in Traffic Management Centers (road, air, waterways).



# Collaborative and user-centric decision-making

Today, only a small portion of the available information is fully analyzed and monitored. Technology can help us get the most out of data, but the decision-making is still in the hands of humans. That's why Barco's solution offering is tailored to the various modes of operation: the control room and individual operator, the field worker and the crisis room decision-maker. Moreover, Barco's Operational Collaboration Systems integrate enterprise-grade solutions across "the four quadrants".





### **Control rooms**

The control room is an organization's central information hub. Here, all information comes together to be analyzed and interpreted. Barco has been a world-leading provider of video wall solutions and control room visualization software for over 25 years, with reference installations across all security segments.

### **Operator workspace**

Although ICT has undergone rapid, far-reaching changes, the operator workspace has not quite kept pace. The result is a very inefficient way of working, in which operators often have to switch between several computers on their desk – each with its own keyboard/mouse combination – to get the information they need. Barco's OpSpace provides a solution to this problem, offering a highly efficient virtual environment that integrates all needed information in one place.













Networked services



Control room



Crisis or executive room

### The mobile worker or field agent

Stakeholders are not confined to the organization's premises. Barco's system allows operators to push 'perspectives' (bundled information windows) out of the control room to field and mobile users or remote decision-making units. This allows organizations to keep all stakeholders informed efficiently without setting up a heavy command structure.

### Crisis room or executive room

In crisis situations, decisions need to be taken fast. Sometimes this is handled in the control room; alternatively, an outbreak to a separate crisis (or executive) room is needed. Barco's dedicated screen technology and user-intuitive presentation tools ensure that all needed information - whether coming from the control room, the network, or one of the attendees' mobile devices - can be displayed optimally, which leads to better and faster decision-making.





### **Networked services**

Beyond the network-based sharing of perspectives for situational awareness, several networked services are available today: recording and playback, media services and collaboration tools. Furthermore, Barco's strategic alliances program integrates the dedicated application software needed to enhance the end-user's operations.

## Tailored to create optimal situational awareness

Barco has the experience and expertise to create solutions that offer the situational awareness that is needed to protect critical infrastructure. We know that perfectly reliable video walls and displays with impeccable image quality are very important, but not enough to control a situation. That's why we go beyond display, delivering the tools needed for all stakeholders to work together in perfect synchronization.













## Multi-sensor, multi-source solution

Security and surveillance operations are not limited to elements known from traditional scenarios (e.g. camera, radar, sonar images) but they can also include 3D geospatial views. So, Barco's solutions are based on standards and integrate with commercial technology. All it takes is to connect the input device to the corresponding input node of Barco's networked visualization system. Thanks to the flexible open APIs, integration has been established with the leading VMS/PSIM providers simple and fully customizable to fit into the existing workflow perfectly ... and designed with the user in mind.

## Scenario management functions

Typically used to combine all data needed for a particular end, perspectives are user-defined windows that can contain any number of sources. They can be reconfigured on-the-fly, shared and replicated anywhere in the world, on any device. Shared perspectives can be scaled individually so that displays and operating systems with different screen resolutions are still able to make optimal use of the screen estate.

One of the many advantages of the Traffic Operations Center is the integration and live sharing of video, data and intelligence among partner agencies.

**Richard Montanez**, Chief Traffic Engineer City of Philadelphia

Different user-specific perspectives from various operators can be brought together on one video wall or display. In this way, the operator has a dedicated surface at his disposal. User-specific perspectives also facilitate collaboration in complex situations. Furthermore, sharing perspectives between manned and unmanned displays creates a multitude of collaboration possibilities.





operator workstation



crisis room

## Breaking communication silos

Barco provides a variety of interoperable, end-to-end solutions for high and low bandwidth networks to ensure compatibility among distributed locations. The objective is to remove the barriers of time and space and offer the industry's lowest latency collaboration solution to help critical decisionmakers observe and react faster, and enable real-time sharing, solving and creating. Globally distributed users and applications interact as if they are in the same room. This allows all stakeholders to see the accurate reproduction from the original source, with unmatched clarity, sharpness and artifact-free, ensuring the correct decisions are always made.

## End-to-end security

Upholding the security of the content from end to end is absolutely essential in the security and surveillance market. That's why numerous security settings are built into Barco's solutions. For example, audit reports monitor user and device history and status, so that no misuse of the content is possible. Moreover, built-in hardware and network redundancy, fail-safe mechanisms, and hot swappable components make the system even more reliable and robust, ready for any type of sensitive content. Barco is fully committed to deliver solutions up to the highest Information Assurance standards.



# Operational Collaboration Systems designed for critical infrastructure

Barco's product portfolio for the security & surveillance market is optimized for 24/7 use in mission-critical applications. Thanks to our technological leadership and expertise, these products have been successfully deployed in thousands of customers around the world. Network-ready and on demand.







## Laser rear-projection video walls

Barco's RGB laser rear-projection video walls are the most advanced models on the market today. With 2x more brightness than mainstream LED-lit rear-projection video walls, Barco's RGB laser series can operate under all lighting conditions, including daylight. Furthermore, unmatched colors, focus, and contrast levels ensure immaculate image quality. With an incredible lifetime - up to 11.5 years of uninterrupted operation - this video wall series lasts longer and requires less maintenance. And as they provide higher brightness levels while consuming 25% less power than LED-lit models, Barco's RGB laser rear-projection video walls deliver a verv low TCO.

## LCD video walls with LED backlights

Bringing excellent image quality, with high brightness and a wide color gamut, LCD video walls are an excellent alternative to rear-projection video walls when space is an issue, or when the facility is not typically used 24/7 (such as an Emergency Operation Center). Barco's LCD video wall series offers a near-seamless set-up for excellent tiled visual performance. What's more, because our LCD video walls are designed for use in control rooms, they offer a number of special features - including automatic calibration and redundant power supply - to ensure a long lifetime with few interruptions.

## **OpSpace**

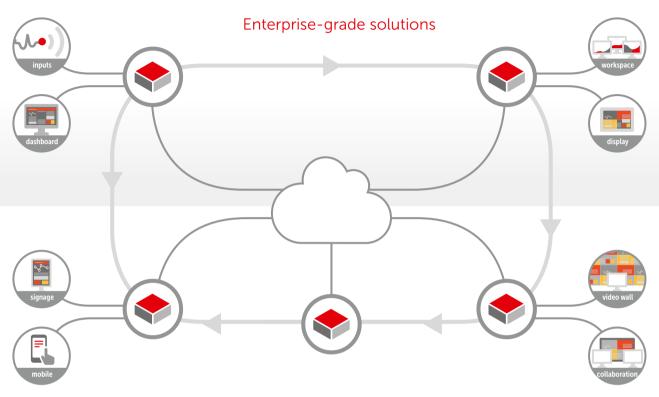
OpSpace is Barco's revolutionary operator solution for integrating all of the 'best of breed' solutions being placed on the operator's desk. OpSpace creates a single workspace out of any number of displays – for viewing, monitoring and interacting with multiple clients that reside on multiple networks with different security clearances or liability concerns. All necessary information can be consulted and manipulated in a single pixel space and with just one mouse and keyboard. In this way, the operator is at the center of the information, with all data within easy reach.

#### Data acquisition & display management

- Encoding/decoding capabilities
- User interfaces & Ops dashboards
- Bandwidth & network management
- Information Assurance

#### Single or multi-operator visualisation

- Collaborative workspaces
- Collaboration & workflow technology



#### Output distribution

- Digital signage & mobile endpoints
- Content distribution

#### Integration & services

- Recording & playback
- Applications hosting (API/SDK)
- Interoperability

#### Group collaborative visualization

- Large-area displays
- Collaboration technology

## Video wall controllers and networked visualization system

Barco's family of video wall controllers perfectly enables display of any type of video and data source on any display configuration in a utilities and process control environment. The dedicated technology is designed to provide ultimate quality and reliability at any location anywhere in the world. Available for stand-alone video walls and networked visualization systems, Barco's video wall controllers work perfectly with the matching software to deliver the best possible image quality.

The modular architecture of Barco's networked visualization solution ensures that each system can grow and integrate new technology when needed. Connecting an unlimited number of sources to an unlimited number of displays, Barco's networked visualization solution ensures easy distribution over the IP network, to any location.

## Control room management software

Barco's control room management software enables easy display wall management, efficient collaboration and fast decision-making – in and beyond any control room. This software suite provides operators and decision-makers with easy access to video, images and data, and allows them to connect to this information, configure how and where it is displayed, and collaborate in the most efficient way. Powerful and feature-rich – yet user-friendly – Barco's control room management software is the right suite for this complex job.

## Skills and expertise, around the world

Deploying a visualization solution is more than just connecting a few cables. That's why a worldwide team of experts from Barco and Barco certified partners is at your service to provide a set of integration and deployment services, guaranteeing the right solution delivery. A single point of contact, planning, reporting, validation and testing are standard services — and these aspects are supervised by a project manager to execute the project on time and in full. Custom solution engineering or deployment services (including customized training, engineering or installation) can be contracted as well, so that you have assistance on projects with elaborate system, solution or approach requirements.





Insuring the maximum operability and performance of your system while saving costs: that's the main objective of Barco's 'Maintain & Operate' services. Our worldwide support network is at your service to maximize the uptime and productivity of your solution. To completely fulfill your needs, we provide the opportunity to define your own service and support levels – on top of the standard warranty services. Our dedicated services, which are available throughout the product life cycle, include repair services, spare part management and preventive maintenance.

The State's C5 facility for Coordination, Command, Control, Communication and Computing, is an example of a cutting-edge system that offers the equipment and technology to enable law enforcement to respond to any crime.

**Miguel Angel Osorio Chong**, Ministry of Interior, Mexico

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The information and data given are typical for the equipment described. However any individual item is subject to change without any notice.

The latest version of this brochure can be found on www.barco.com. All specs mentioned in this brochure are in accordance with ISO 21118 standards.

