

Oct 5, 2021

Panasonic Supported the Tokyo 2020 Olympic and Paralympic Games with Advanced AV Technological and Operational Capabilities

Contributing to the safe and secure operation of all 48 venues and helping to deliver the moving scenes of the Games to everyone around the world through the latest AV technology

Osaka, Japan - Panasonic Corporation today announced that as a TOP*1 sponsor of the Olympic Games, the company provided various AV solutions such as operational support, video production, and system operations at all competition and non-competition venue facilities of the Olympic and Paralympic Games Tokyo 2020 (herein the Tokyo 2020 Games). Panasonic not only supplied equipment, but also provided various operational services that supported the competition venues — combining both Panasonic's technological and operational capabilities — through this the company helped support management of the Tokyo 2020 Games.

*1 TOP (The Olympic Partner). Panasonic has contracted this highest level of sponsorship through the Olympic Games Paris 2024.

Starting from March 25, 2021 in Fukushima Prefecture, the Olympic Games Tokyo 2020 torch relay*2 traveled through all 47 prefectures of Japan, while being affected by various changes due to the pandemic. During the stops of the relay, Panasonic's video and audio equipment was employed, and the company responded flexibly to the ever changing circumstances to provide operational support.

*2 Panasonic is a Tokyo 2020 Olympic Torch Relay Supporting Partner.

Security Systems

As opposed to past Olympic Games where sporting venues and facilities were centralized in an Olympic Park, the Tokyo 2020 Games were held at geographically dispersed locations in Japan, so there was a need to construct security systems with a high level of safety within a short period of time to minimize the impact on local residents. Also, there was a need to integrate the surveillance of each facility under one system. The video surveillance system operated by the Tokyo Organising Committee of the Olympic and Paralympic Games, which included existing equipment consisting of a total of 8,000 security cameras*3 linked to roughly 2,500 sets of sensors equipped at venues, allowing each Venue Security Command Centre and the Games Security Coordination Centre to monitor live surveillance feeds quickly and accurately in the event of a security situation.

*3 8,000 cameras total, including the approximately 1,000 existing cameras installed.

In addition, for the first time in the history of the Games, wearable cameras were used by security staff, making it possible to check video feeds from the security guard's perspective at the security headquarters. Furthermore, by sharing images in real time with relevant public safety organizations, the system supported the linking of operational information.

The scale of delivery of AV security equipment was also the largest ever*4 for the number of security cameras that Panasonic delivered to the Olympics and Paralympics. For delivery, the company mobilized roughly 3,000 people to install about 7,000 security cameras at 48 locations nationwide in the short period of just two months, making use of the company's expertise which has been cultivated over many years. Moreover, Panasonic flexibly responded to sudden venue changes

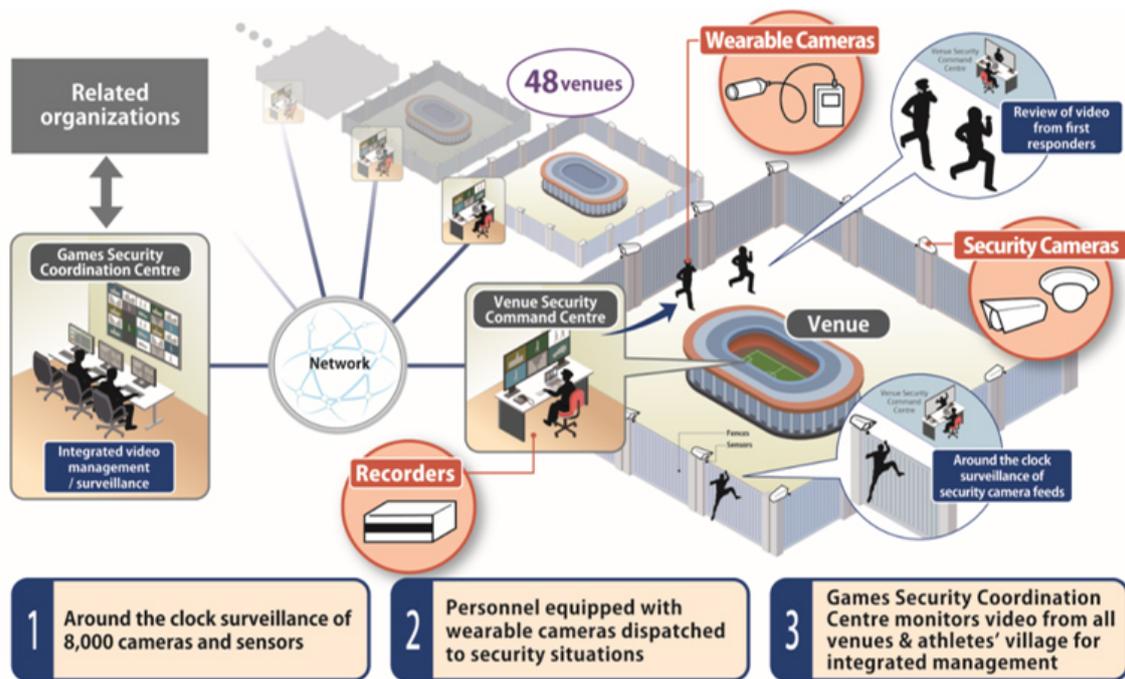
and venue layout changes. Panasonic staff also provided careful instruction to enable smooth operation, and established a maintenance system that enabled rapid response 24 hours a day during the Games, contributing to the safe and secure management of the Games.

*4 As of October 5, 2021. Based on research by Panasonic.

In addition, for these Games Panasonic has contributed to build an entry/exit access control system exclusively for athletes and tournament officials (approx. 350 lanes) led by Atos, the Worldwide IT Partner of the IOC and IPC, and based on joint development since 2014 of AV & IT solutions.*5

*5 Press Release (Dec. 25, 2014): Atos and Panasonic Agree to Jointly Develop AV and IT Solutions

<https://www.businesswire.com/news/home/20141225005030/en/Atos-and-Panasonic-Agree-to-Jointly-Develop-AV-and-IT-Solutions>



Tokyo 2020 Organising Committee Video Surveillance System



Security cameras



Installation of security cameras



Games Security Coordination Centre (GSCC)



Venue Security Command Centre (VSCC)

Comment from the Tokyo 2020 Executive Director of Security

“The number of events in the Olympic Games in summer is huge, and it is necessary to guard a large number of venues at the same time. In particular, the Tokyo 2020 Games did not have an Olympic Park and each competition venue was spread out geographically, so the challenge was how to efficiently and simultaneously implement high-quality security. As a result, we arrived at the introduction of a video surveillance system by Panasonic. We built a system consisting of sensors that work with about 8,000 cameras to supplement surveillance by manpower, and have made it possible to view and operate all camera images not only at the security headquarters at each venue but also at the Games security headquarters.”

“These videos support decision-making not only in the security department but also in the Organising Committee as a whole. It also became the basis for cooperation with security agencies and related organizations. The Tokyo 2020 Games were able to be held safely and securely even amongst a pandemic. I think this is because there was an unprecedented video surveillance initiative of which was not seen in past Games.”

- Tsuyoshi Iwashita

Tokyo 2020 Executive Director of Security,
Tokyo Organising Committee of the Olympic and Paralympic Games

Audio Visual Support

Panasonic also supplied equipment for the opening and closing ceremonies of each Games held at the Olympic Stadium, including approximately 60 of the world's brightest*6 50,000 lm projectors (PT-RQ50KJ) and approximately 40 RAMSA large line array speakers units (combined with existing RAMSA speakers permanently installed at the venue). Panasonic supported the creation of the thrilling productions with audiovisual equipment, design, and operation compatible with high-resolution 4K broadcasting, including a large LED video display. The PT-RQ50KJ projectors use a two-wavelength blue laser + red laser + phosphor light source system instead of the conventional blue laser + phosphor. The red laser thus expands the red color spectrum, and the blue laser has two wavelengths to increase the clarity of blue, which contributes to an impressive production by expanding the color reproduction range by 114% compared to conventional models.

*6 As of September 6, 2019. For projectors weighing 150kg or less (excluding lenses). Based on research by Panasonic.

With the high brightness of 50,000 lm projectors, the efficiency of the cooling mechanism has made it possible to reduce the number of units needed by roughly half by making the main unit compact (approx. 110 units used at the Rio 2016), meaning that the installation and adjustment time was shortened. In addition, these technologies supported the athletes by introducing them and directing them at the time of entry through projection mapping at various competition venues including the 100m track and field final.

With the absence of spectators at these Games, it became even more important to broadcast the athletes' feats via television broadcast to the world. At the International Broadcast Centre (IBC), Panasonic provided system construction and operations from shooting, production, and monitoring for 4K/8K TV broadcasting. Since The Barcelona 1992, Panasonic has supported the broadcasting and video distribution. This time, with video feeds at 33 competitions and 339 events, the highest number to date for any Games. In particular, the Tokyo 2020 Games was the first 4K/HD simulcast*7, which required the largest number of feeds in the history, roughly twice that of the Rio 2016. Panasonic build a support system with a total of 2,250 staff, helping to deliver a realistic and moving experience to the world through TV broadcast.

*7 Broadcasting the same program in 4K / HD at the same time.

In addition, Panasonic supplied the largest number ever of 180 4K-compatible system cameras (including remote cameras), switchers, and about 1,400 display screen monitors for operations so as not to miss the capturing of any decisive moment and to enable new and exciting viewing angles.

In addition, for the first time at these Games, Panasonic's IT/IP platform compatible switcher KAIROS*8 was used as a content switcher for large video display equipment, along with our remote cameras that allowed for remote control video shooting thus decreasing the number of staff required within a venue which helps support Covid-19 countermeasures in the operation of an event.

*8 KAIROS overview: https://pro-av.panasonic.net/en/products/it_ip_platform/

TOKYO 2020
AV equipment Solutions

**Panasonic's AV technology, expertise, and operational support:
Innovation for the Sports Event Business**

Panasonic's AV solutions supported the Tokyo 2020 Games



4K Studio Camera (AJ-UC4000/UC3000)



4K Integrated Cameras (AW-UE150)



4K 50,000 lm projectors used at ceremonies (PT-RQ50KJ)



RAMSA line array speakers used at ceremonies (WS-LA4WP)

Panasonic's Tokyo 2020 Games mission started from thinking how to share the passion and excitement of activity in the world's largest sporting event with people all over the world and support the Olympic Movement.

Panasonic continues to take on the challenge of accurately grasping the ever-changing and complex issues at the operational frontline, organically connecting, visualizing, and optimizing the way operations and processes are performed. Such "Gemba Process Innovation" is the key to fundamentally solving society's challenges. Panasonic has accumulated unique knowledge and technology at a wide range of frontlines, and possesses the power to deliver this innovation. Together with its various partners, the company aims to solve customers' and societal challenges, connecting to a more sustainable future.

Main provision of AV and broadcast equipment

Item	Number	Notes
Large-scale LED displays	80 screens at 31 venues Total: 2,117 m ²	Including those for athletes entry intro
Pro audio systems	42 venues	Including 15 competition venues Approx. 40 RAMSA line array speakers for the opening and closing ceremonies
Projectors for opening and closing ceremonies	Approx. 60	
Other projectors	28	
System cameras	Approx. 180	Includes remote cameras, camcorders and studio cameras
Decks	Approx. 140	Includes recorders and drives
Switchers	Approx. 50	
Monitors	Approx. 1,400	Includes work station displays and broadcast displays
Security cameras	Approx. 7,000	8,000 in operation including existing installations. Highest number to date.
Recorders	Approx. 350	Highest number to date.
Wearable cameras	Approx. 250	First ever at the Games

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About Panasonic

Panasonic Corporation is a global leader developing innovative technologies and solutions for wide-ranging applications in the consumer electronics, housing, automotive, and B2B sectors. The company, which celebrated its 100th anniversary in 2018, operates 522 subsidiaries and 69 associated companies worldwide and reported consolidated net sales of 6,698.8 billion yen for the year ended March 31, 2021. Committed to pursuing new value through collaborative innovation, the company uses its technologies to create a better life and a better world for customers. Learn more about Panasonic: <https://www.panasonic.com/global>.

**The content in the following news releases is accurate at the time of publication but may be subject to change without notice. Please note therefore that these documents may not always contain the most up-to-date information.*