Panasonic Connect Asia

Case Studies
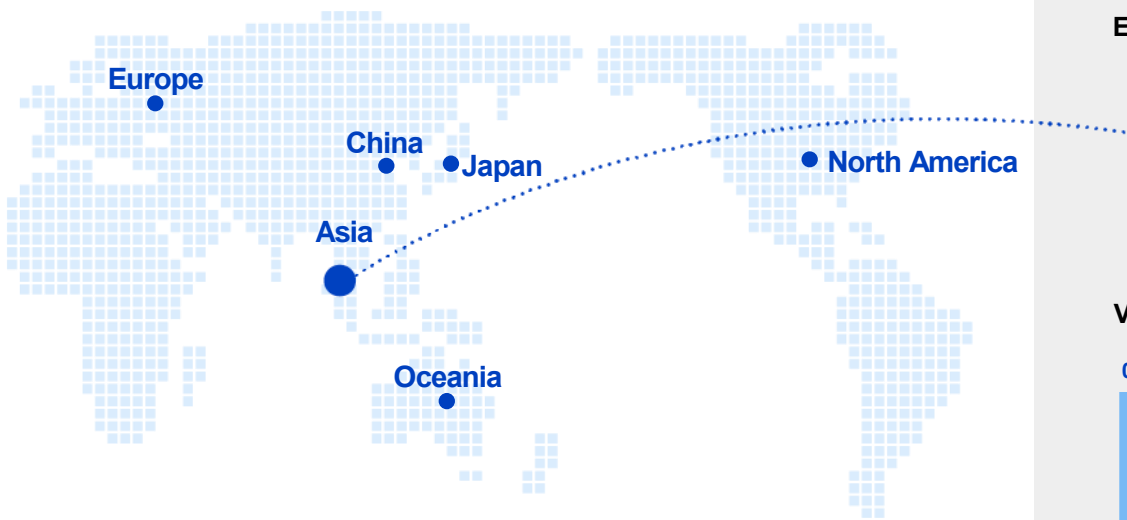
Panasonic
CONNECT

Regional Sales Company

With head offices globally, Panasonic Connect has employees and extensive experience that includes a dedicated team in Asia.
Panasonic Connect Asia, HQ based in Singapore, works closely with our customer network to develop innovative solutions that will address organization and social issues.

Europe

China
Japan

North America

Asia

Oceania

PCOA   (Panasonic Connect Asia)

Singapore   Malaysia   Thailand   Vietnam   Indonesia

Philippines   Cambodia   Myanmar   Israel

Headcount   ***Approx. 200**
*Including Panasonic Connect Asia and RFNet employees

Panasonic Connect Asia
In charge of Southeast Asia, the company supplies an ecosystem of Panasonic products, services, and various solutions.

RFNet Technologies
A subsidiary of Panasonic Connect Asia, RFNet is an industrial wireless equipment provider that designs and develops products and solutions.

RfNet
Wireless • Innovation • Networking

Expertise and Offerings

- System design and development
- Project management
- Relationship building
- Service support

Value Creation Process

01. CONSULTATION

IMMERSION	COLLABORATION
Discover Define	Prioritise Ideate

02. DEVELOPMENT AND INSTALLATION

INNOVATION	DELIVERY
Scope Design & Create	Test Implement

03. SUPPORT

SERVICE
Delivery & Optimisation Value Add & Renewals

Panasonic CONNECT

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Key focus

Government

Providing solutions to help create a safer and more secure society

Highlights: Transport, Civil Defense, Airports, Public Services etc.

Tourism

Delivering an immersive experience with our core audiovisual products and advanced technologies.
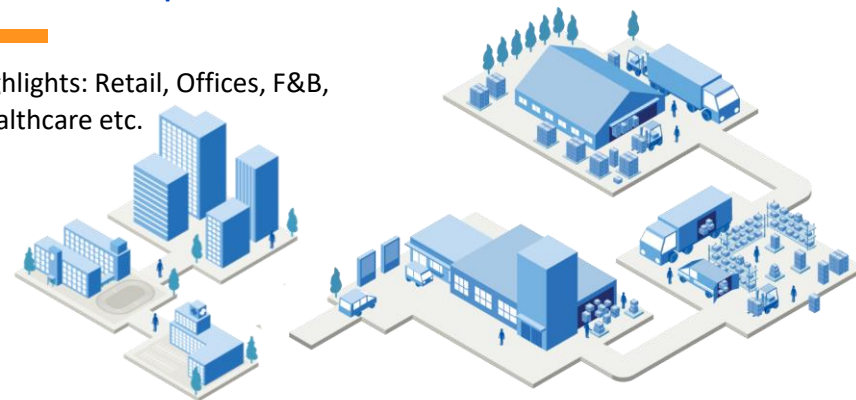
Highlights: Theme parks, Hotels, Museums, Events etc.

And more of our expertise

*Beyond Government and Tourism, we also have expertise and experience in other areas.

Highlights: Retail, Offices, F&B, Healthcare etc.

Contribution to improvement and well-being of society

01 Efficiency (Increasing productivity and performance through automated processes)

02 Customer Experience (Creating a convenient and engaging experience)

03 Public Safety (Ensuring security and health of the community and individuals)

Case studies

Case study highlights

Face Recognition
01 **Singapore Police Force**

Smart Lockers
02 **Parcel Locker Network**

Projection Mapping
03 **Singapore National Day Parade**

Digital Signage
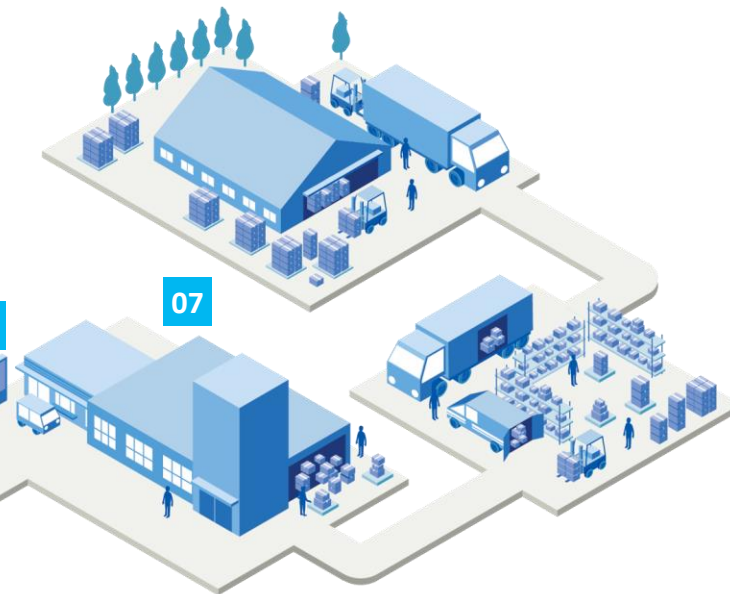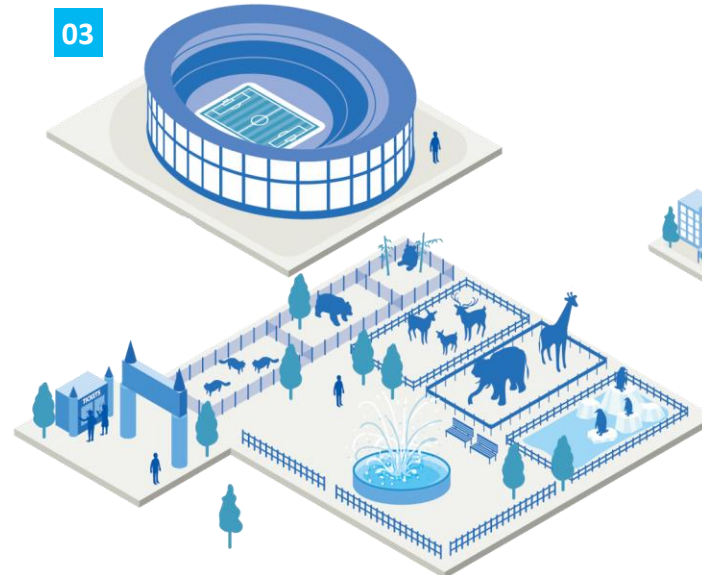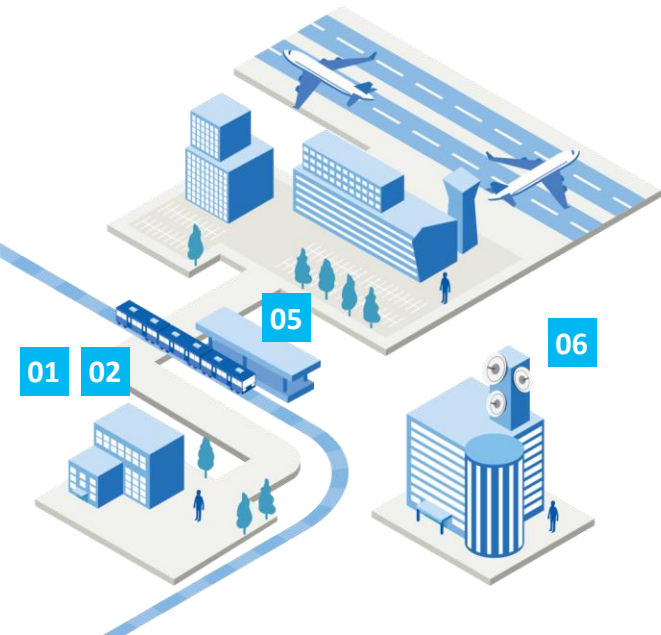**04** **Aeon Mall**

Cloud-Based System
05 **SMRT Bus Depot**

Docking Solution
06 **Singapore Civil Defense Force**

Engineering Services
07 **Hai Di Lao**

Panasonic
CONNECT

Face Recognition

Cloud-based and On-premise based face verification technology

Case studies

Public

Singapore Police Force *Expected to begin from July 2023

Self-Service Armory Kiosk, with key features such as high solidity, durability and security features including two-factor authentication through face recognition and staff card.

This project that the SPF, the Central Narcotics Bureau, and the Home Team Science and Technology Agency (HTX) are developing is a full turn-key solution that includes the design and development of hardware and software, production, installation and maintenance services. It is a smart lockers system complemented by Radio-Frequency Identification (RFID) technology and Two-Factor Authentication (2FA) for officers to perform self-withdrawal and return of their sidearms. With multiple authentication terminals, several officers will be able to withdraw/ return their sidearms and tasers at the same time. There is improved governance of armaments, with the system being capable of detecting and responding to lapses. The automated armory system will be deployed island-wide across Singapore's neighborhood police centers over the next few years.

Technologies

Facial recognition

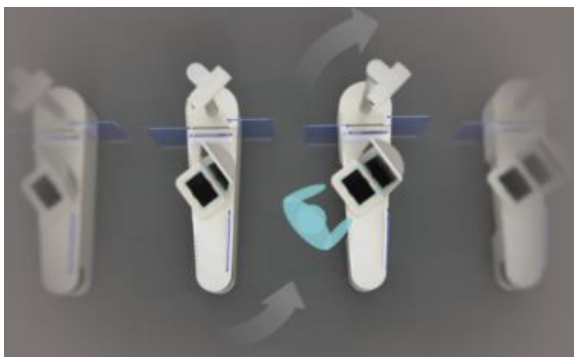Locker Management System

Interactive Touch-Screen

Press Release   Video

Case studies

Immigration Control

Airport in Japan

Facial Recognition Gate, which streamlines departure and return procedures, has been introduced at various airports in Japan.

The ideal immigration entry and exit procedures are those in which inspection is both smooth and rigorous. Panasonic prepared for this project by interviewing not only sales and engineering professionals but designers as well. Panasonic noticed that, despite the wide range of ages of people who would use the gates, previous designs (using fingerprint authentication) had focused primarily on rigor of inspection. Ease of use had taken a back seat. Of course, accuracy of facial recognition would be vital, but for procedures to flow smoothly, the system had to be easy for both inspector and traveler to use. For Japan's Ministry of Justice, Panasonic's customer-centric focus on ease of use was revolutionary. The Ministry and Panasonic worked together to develop this new type of gate.

Technologies

Gate   Camera   Facial recognition   surveillance system

From October 2017

Case Study   Video

Case studies

Airport in Cabo Verde

Public

From December 2020

Facial Recognition Gate, which streamlines departure and return procedures, has been introduced in Cabo Verde. Zetes' border control solution includes an online visa and security airport fee (Electronic Travel System or ETS) issuing solution as well as the deployment of 11 Panasonic e-gates featuring facial recognition and is integrated with national and international watch-lists, Advance Passenger Information (API), etc. Travelers and border control authorities alike now benefit from faster and more secure border crossing.

Case Study

SAP Japan Co., Ltd.

Workplace

From August 2019

Installation of KPAS integrated facial recognition security solution in experience center with high visitor volume.

Benefits of implementation
- User-friendly authentication that is integrated with the system
- Business-friendly operation with less burden on administrators

Case Study

Fuji-Q Highland

Tourism

From August 2018

Identification by facial recognition for enhanced security and "Face Pass" boarding.

Benefits of implementation
- Since entry and exit will be securely controlled, visitors will be able to spend their time in the park with peace of mind.
- Free Pass purchasers will be able to board attractions simply by authenticating their faces.
- Since this system requires only about one second for authentication, entering and exiting the park is straightforward.

Case Study

Case studies

FamilyMart Co., Ltd.

Facial recognition payment / Physical detection(*1)
Delivering a new shopping experience through product image processing and facial recognition, which uses deep learning technology to enable the world's highest level(*2) of facial recognition accuracy that can even recognize faces at an angle, wearing glasses or that have changed with age.
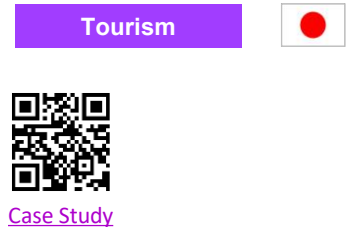(*1) Only available to Panasonic employees at the initial phase.
(*2) Having achieved the world's highest level of facial recognition performance, as certified by the National Institute of Standards and Technology (NIST) of the United States (as of April 2017).

Retail

Case Study   Video

Tokyo Dome

Demonstration experiments on face recognition admission for related parties and face recognition payment for general visitors.

Tourism

Case Study

Web meeting system "NEEDS"

Nihon Enterprise Co., Ltd.

Prevents unauthorized login and impersonation in online meetings with fast and highly accurate facial recognition functionality.

Benefits of implementation
- Face recognition addresses security issues such as unauthorized access and information leakage while ensuring that it is simple and easy to use.

Workplace

Case Study   Video

Case studies

Face Registration Kiosk *Deployed in PCOA showroom, CXC

`Workplace`

Made for visitor registration, this self-service solution has a series of functions such as face detection, face verification etc. from all angles.
Once registered, all face recognition solutions will share the same image database to identify and confirm the individual's identity with their face.

Face Recognition Door Access Control *Deployed in PCOA showroom, CXC

`Workplace`

Designed with the latest face recognition technology from Panasonic, this access control system restricts accessibility to authorized personnels only and provides personalized level of safety and security.
The benefits of this development is i. Convenience, ii. Monitoring of movements, iii. Improved security etc.

Face Recognition Gate *Deployed in PCOA showroom, CXC

`Workplace`

Integrated with Panasonic's latest face recognition technology, this automated gate solution can be deployed across multiple industries including transport, retail etc.
The gate is designed to address high human traffic, improved security and efficiency. At the same time, this solution can be further customized and expanded to include barrier-free gantry, automatic fare collection (AFC) etc.

Smart Lockers

Business Intelligence Platform to manage IoT devices and analyze data across various verticals

Case studies

Logistics and E-Commerce

Parcel Locker Network System (2022)

In September 2020, Panasonic Connect Asia and its consolidated company, RFNet was awarded a nationwide parcel locker project and completed the installation in 2022.

Panasonic's role includes the development of a largescale logistics infrastructure system, hardware and software design, development, deployment and maintenance support.
Following the project completion, we are currently developing more locker solutions and advanced autonomous solutions to address the rapidly increasing e-commerce supply chain and last mile delivery challenges.

Technologies

Camera	Surveillance system	Locker Management System	Interactive Touch-Screen

Press Release   Movie

Case studies

Retail

Smart Food Locker
*Demonstration experiment for patrons to order and collect food. (2022)

Food lockers ensure food safety and quality.

Patrons who have placed their food order can conveniently collect their food from lockers. The food locker solution also provides flexibility of contactless food delivery, improves customer experience and optimizes staff resources.
(From 2022)

Technologies

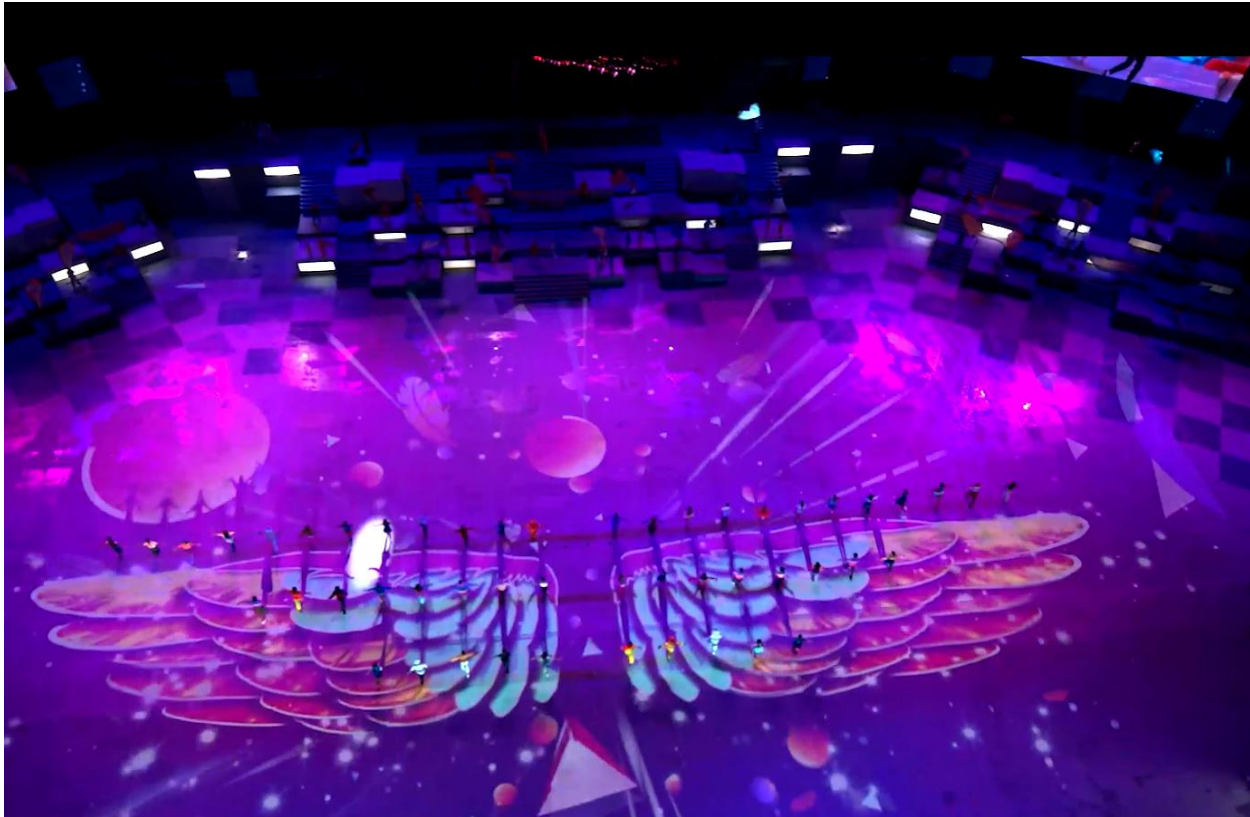
Locker Management System

Interactive Touch-Screen

Projection Mapping

Projection mapping, professional sound equipment and high-speed tracking on moving objects

Case studies

Projection mapping

Singapore National Day Parade, NDP 2021 and 2022

For NDP 2021, a total of 30 Panasonic RQ35K projectors were used. During the event, the projection mapping had to be balanced with the brightness from lightning, LED screens. Therefore, it was important to have very bright and very colourful projections presented on the floor.

Digital floor projection was one of the key elements in the show segment for NDP. It enhanced the show with an additional layer of multimedia effects, filling the entire stage with vibrant colours and accentuating the storytelling of the show segment.

Technologies

Projector | Sound system | Projection mapping

Case Study

Case studies

Grand Hyatt, Singapore

To ensure that Grand Hyatt Singapore continues to offer best-in-industry event support and capabilities, the hotel engaged Panasonic to project a 20m wide and 5.5m high edge-to-edge dynamic digital display on the walls of the Grand Ballroom using its PT-RZ21K laser projectors.

Entertainment

Case Study

ISTIQLAL Grand Mosque, Indonesia

ISTIQLAL Grand Mosque has a main floor, where activities are at times not visible to all. With the installation of 2 Panasonic RQ32K 4K laser projector (13 x 8m) on the main floor of ISTIQLAL Grand Mosque, visitors can stay updated with all the activities happening on the main floor.

Entertainment

Case Study

Haidilao at Northshore Plaza, Singapore

A full integrated turnkey projection mapping solution with 8 units of Panasonic Projectors, Panasonic was involved from the designing stage, to propose and deliver a suitable projection mapping solution with content creation, video streaming and installation.

Entertainment

i Light, Singapore

As Asia's only sustainable light art festival, ""i Light Marina Bay" showcases innovative content, the intelligent use of lighting as well as an international line-up of creative talents. With the use of Panasonic PT-DZ21K 3-Chip DLP™ projectors, the facade of the ArtScience Museum has a unique shape fashioned after lotus petals. Marina Bay, which lies directly in front of the facade, somewhat limited the space for projector installation.

Entertainment

Case Study

Case studies

National Museum of Singapore – Story of the forest

Panasonic supplied and installed 59 sets of PT-RZ670BE SOLID SHINE Laser projectors (6,500 lm WUXGA) to National Museum of Singapore. In one of the largest deployments ever for a single museum venue, the projectors mapped images on a dome ceiling and corridor to tell Story of the Forest, an interactive multi-media exhibition commissioned by National Museum of Singapore and created by Japanese artist collective teamLab. The exhibition has since attracted widespread attention and acclaim in the media.

Tourism

Case Study

Art Science Museum – FUTURE WORLD

ArtScience Museum at Marina Bay Sands finally unveiled Singapore's largest interactive digital playground, "FUTURE WORLD: Where Art Meets Science".
To create this stunning virtual environment, twelve PT-EZ580 LCD projectors and four TH-55LFV70 video wall displays were used. Featuring high brightness and superb image quality, the PT-EZ580 units provided dazzling and dreamy images over the walls on four sides and the floor.

Tourism

Case Study

Singapore Science Centre

Projection mapping for the exhibition required a projection system with a combination of twenty-nine PT-RZ670 laser light source 1-Chip DLP™ projectors and ET-DLE085 short-throw zoom lenses.
The installation uses a lot of overlapping in order to achieve a 70 m long projection canvas at a height of 7.5 m. A total of eighteen PT-RZ670 projectors were used for portrait projection to create a digital wall canvas with an optimised vertical resolution of 1,920 pixels; this provided an up-close viewing experience of just 2.5 mm per pixel.
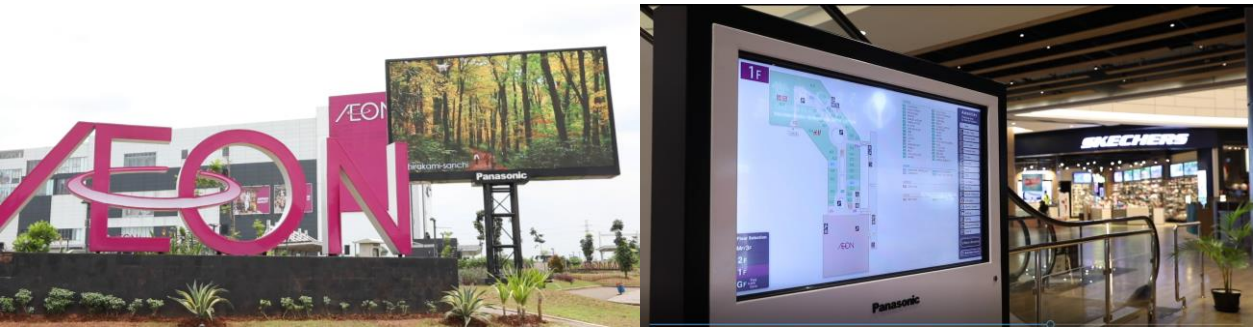
Tourism

Case Study

Professional Displays

Professional grade, high resolution interactive content visual displays

Case studies

Retail

AEON Mall, Vietnam and Indonesia

For the development of Aeon Mall at Vietnam and Indonesia, Panasonic delivered LED and digital signages across the malls to create an immersive experience for visitors.

A "One-stop" solution for the digital signages, the project was directly managed by a group of experienced engineers who provided system design, structural design and construction to complement the hardware, LCD displays, media player etc.

Technologies

| LCD Display | Media Player | Interactive Touch-Screen | Central Controller | Content Management Software, CMS |

Case studies

Professional Displays / LED

Traffic Information Distribution System

To enhance commuters' experience, our system provides accurate data and insights.

Designed for the transport industry, this solution distributes information through digital signages and LED displays. It improves daily commuting by providing various information across various modes of transport such as subway stations/airports, road traffic conditions for cars as per our customer's request.

Technologies

LCD Display   Media Player   Central Controller   Content Management Software, CMS

Cloud-based Systems

Wireless Infrastructure for transport industry

Case studies

Transport hub

SMRT Bus Depot Wireless Infrastructure
*Project completed by Panasonic Connect Asia's subsidiary company, RfNet Technologies

RFNet design and provide high performance wireless infrastructure and security system at depots, achieving 99% high availability.

The equipment are developed to withstand tough weather conditions, making it suitable for use in indoor and outdoor facilities. As the vehicle moves along the depot, the system can perform firmware upgrade on-the-fly, and daily fare transaction data are automatically uploaded from the vehicle to the backend servers.

This helps in daily data retrieval which is tedious and time consuming, and is made possible via the strategically positioned access points for 100% coverage.

Technologies

Camera

Surveillance system

Wireless Network Infrastructure

Case studies

Transport

SMRT Train To Trackside Wireless Communication

*Project completed by Panasonic Connect Asia's subsidiary company, RfNet Technologies

RFNet's advanced Train to Trackside technology is specially designed to meet the increasing demand for safety, mobility and connectivity in today's transportation needs.

The state-of-art technology establishes a reliable and uninterrupted Gigabit connectivity between the moving train and the trackside. The network can be used for various applications such as Communications-Based Train Control signalling system (CBTC), In-Train WiFi Hotspot, Real-Time CCTV Monitoring, Passenger Information Display System (PIDS), Advertising, and any other value added services.
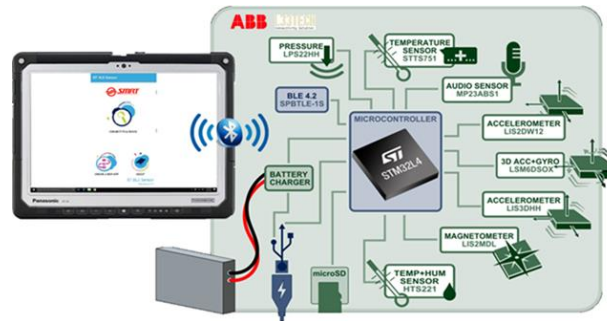
Technologies

Camera

Surveillance system

Wireless Network Infrastructure

Case studies

Transport

SMRT Depot - Smart Sensors in IoT networks

Deployed TOUGHBOOK 33 within SMRT depot. The rugged device was integrated with cloud-based mobile systems to help companies increase efficiencies.

Benefits
- To innovate and integrate cloud-based mobile system designed to help companies increase efficiencies.
- To introduce a system to effectively dispatch on site manpower during emergency.
- To introduce fully rugged PC tablet for end user's harsh environment usage.
- To drive strong channel partner collaboration into key industry.

Technologies

Rugged Device

Cloud-Based Mobile System

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Panasonic
CONNECT

Docking Solution

Docking Solution for Rugged Devices

Case studies

Docking Solution

Singapore Civil Defense Force – Rugged device docking solution

Designed to be compatible with Panasonic's Toughbook rugged devices, computers and laptops, this docking station provides a stable platform and ability to position device in a safely and ergonomically within a vehicle.

This docking station features full port replication including Ethernet, Serial, HDMI, USB-A, USB-C, and USB-C with DisplayPort.

Technologies

Rugged Device

Rugged Technology

*Rugged devices for harsh environments

*Up to IP68 dust and water protection, 210 cm drop resistance, Wide temperature range from -29°C to +63°C, MIL-STD 810G/H, tested by independent 3rd party, MIL-STD 461 optional

Case studies

Rugged Technology

Defense Science and Technology Agency (DSTA)

Fully customizable to meet our customer's requirements, our TOUGHBOOK are engineered to work in some of the harshest environments, with up to IP68 dust and water protection and 210cm drop resistance.
For the deployment at DSTA, a total of 190 TOUGHBOOK CF33 were used for their digital inventory management, AI enabled recognition system and surveillance and risk detection.

Technologies

Rugged
Device

Robotics

Autonomous robots - HOSPI

Case studies

Retail

Auto dish-serving system and projection mapping installation at Hai Di Lao, Northshore Plaza Singapore (2022)

Panasonic Connect Asia completed the installation of Auto dish-serving system supplied by Beijing Ying Hai* to Hai Di Lao Hot Pot in Singapore opened on 4th April 2022, which is the first installation case outside of China.

To deliver a unique customer experience, we supplied a full suite of solution and service which includes project planning to after-sales service support. This comprises of on-site installation and maintenance of the auto dish-serving system and a fully integrated turnkey projection mapping solution.
(From 2022)

* Beijing Ying Hai Smart Automation Science and Technology Ltd.
: A joint venture between Haidilao International Holding Ltd. and Panasonic Holding Corporation

Technologies

Robotics

Press Release

Case studies

Robotics

HOSPI

Experimental use of the Panasonic autonomous delivery robots, HOSPI, began in February 2015 and they are being implemented in phases. CGH is the first hospital outside of Japan to utilise HOSPI. As part of the hospital's porter management system, the four HOSPI are able to deliver fragile and bulky medicine, medical specimens and patients' case notes 24/7, easing manpower constraints.

HOSPI is equipped with security features to prevent tampering, theft and damage during delivery. The robot's contents can only be accessed with ID cards. Automation enables HOSPI to move around using the lifts and between facilities in CGH's Main Building and The Integrated Building on its own, delivering medicine and specimens.

Technologies

Robotics

From October 2017

Case Study   Video

Interactive Kiosks

Self-service stations for food ordering, payment etc.

Case studies

Self-Service Kiosk

Housing Development Board (HDB)

*Project completed by Panasonic Connect Asia's subsidiary company, RfNet Technologies

Kiosk solution has been steadily gaining popularity in the global market as companies seek to expand their business. RFNet offers a convenient and effective 24/7 operating kiosk solution to meet growing business needs.

The kiosk is equipped with anti-tampering alarm for added security, and has a simple and user-friendly GUI where users can easily identify and proceed with the cash transactions. At the back-end, the system is able to generate, retrieve and track the daily transaction report. It is thus quick and effective in serving the customers with precise information, which in turn enhances the user experience while also improving operational efficiency.

Technologies

Interactive Touch-Screen   Camera   Security Feature

Case studies

Self-Service Kiosk

Jollibee

Designed for the F&B industry, the self-ordering kiosk deployed at Jollibee across the Philippines includes an interactive touch-screen display and payment features etc. that supports retailers/cashiers with order taking and reallocate resources with food preparation etc. The retailer will also be able to retrieve customer data based on their food selection which helps to analyze and develop better food ideas in the future.

At the same time, customers can enjoy the convenience of selecting, customizing and placing their orders with ease.

Technologies

Interactive
Touch-Screen

Cheerphone

Personalized audio distribution service for entertainment and events

Case studies

Please scan the QR codes below to start the audio distribution

Radio Demo Room

Users:
Please select the channel that you would like to access

Audio Distribution Channel

Admin:
Please select "Join" and "Unmute" to begin the audio communication service

Cloud-based audio solution

Tourism

Cheerphone

A cloud-based service, this audio distribution solution can be easily integrated with existing services. The channel can be easily accessed by scanning a QR code via their smartphone.

This service also allows both speakers and listeners to stream and listen to contents as well as access to data analytics. The app also comes with multiple features such as "Reactions", "Interaction".

Technologies

Audio Broadcasting

Cloud-Based Mobile System

Video

Data analytics System

Business Intelligence Platform to manage IoT devices and analyze data across various verticals

Case studies

Public Services

Development of safety and traffic control for roadworks and constructions

Safety and traffic control
The roadwork monitoring solution provides real-time notifications and surveillance to manage roadworks, safety and traffic flow remotely.

Remote monitoring
Automating inspection, live construction surveillance can be easily deployed to various roadwork sites and conditions. Operators stationed at the control center will be able to remotely assess any emergencies and security risks posed, therefore, alleviating manpower shortages and minimize human error.
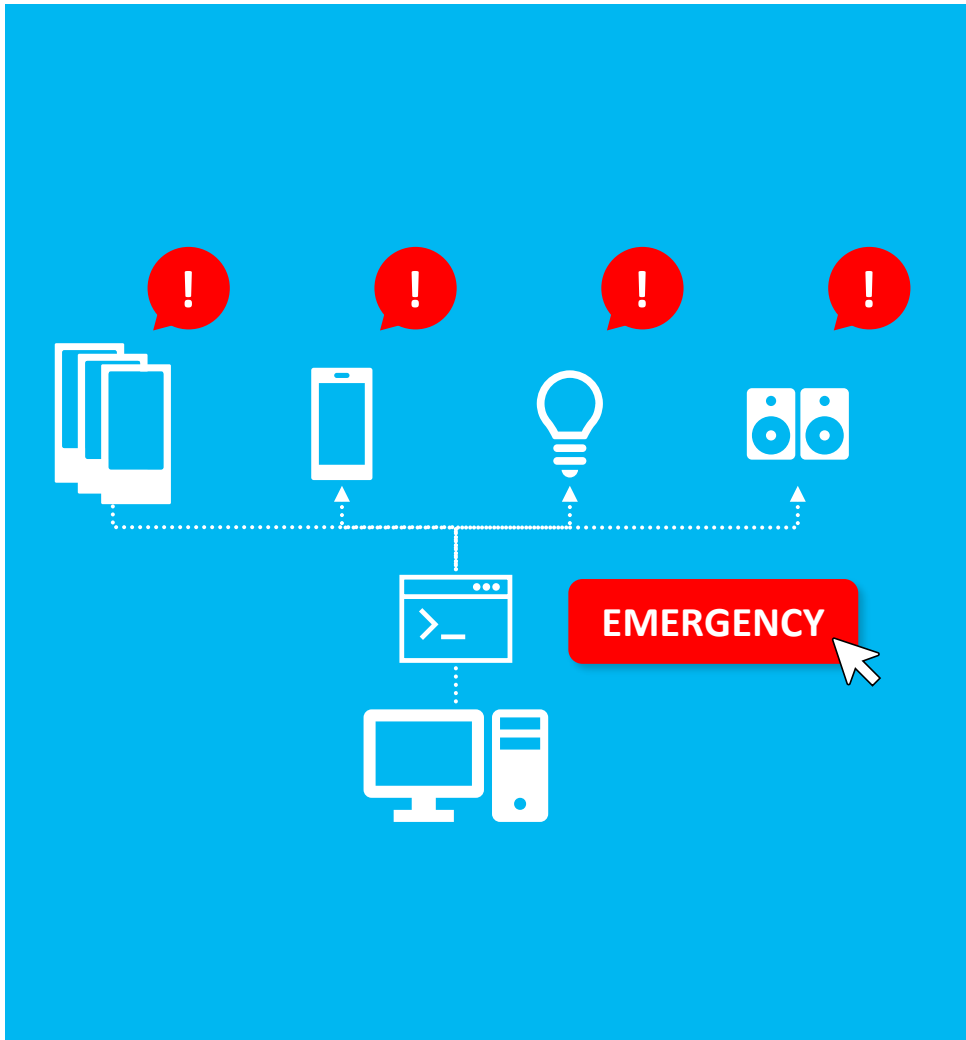
Technologies

Camera   Surveillance system

Case studies

Smart Integrated Solutions Platform
*Proof of concept

Complete platform that connects systems, applications and data

Connecting various systems
Connects diverse systems, applications and data, this platform is designed to meet user's unique requirements and automate processes, events and alerts.

Incident Management System
Aggregates information and events from sensors, process it, and distribute emergency notifications

Technologies

Camera   Surveillance system   Facial recognition

Case studies

Retail

Analyze data to help understand customer's behavior and optimize operations

Vieureka platform
uses smart cameras equipped with superior image recognition engine that can send data (gender, age, etc.) about customers in the store to the cloud and analyse such data.

3D-LiDAR (ToF) Sensor
can be utilized in multiple scenarios to calculate movement and provide data in real time using infrared beam technology. Data from multiple sensors covering a vast area can be stitched to track traffic path.

*Facial recognition by Panasonic is integrated into the data analytics system for more personalization.

Technologies

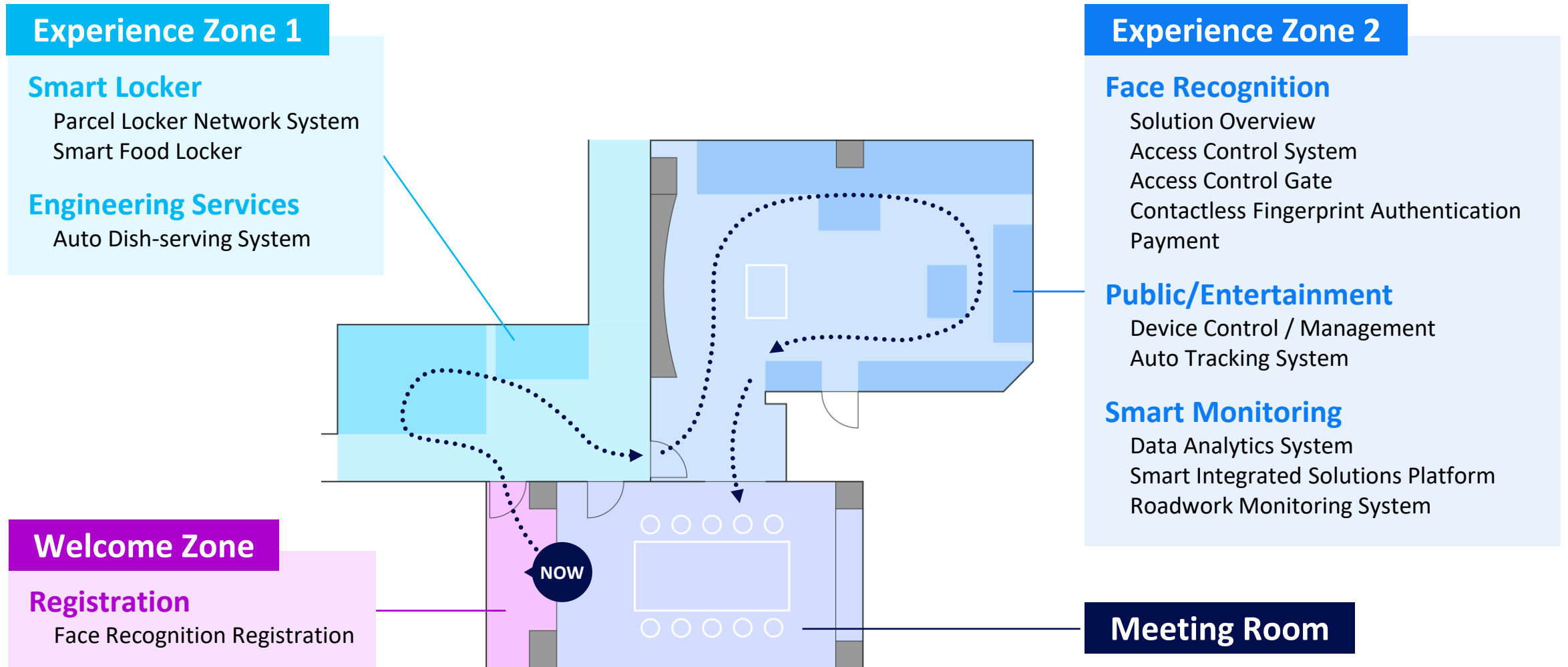Camera   Surveillance system   Facial recognition

Customer Experience Center

Exclusive launch : Discover and experience our latest technology and solutions *Only available in Singapore

Contact us at pssap@sg.panasonic.com to book an appointment

About Customer Experience Center

Experience Zone 1

Smart Locker
- Parcel Locker Network System
- Smart Food Locker

Engineering Services
- Auto Dish-serving System

Experience Zone 2

Face Recognition
- Solution Overview
- Access Control System
- Access Control Gate
- Contactless Fingerprint Authentication
- Payment

Public/Entertainment
- Device Control / Management
- Auto Tracking System

Smart Monitoring
- Data Analytics System
- Smart Integrated Solutions Platform
- Roadwork Monitoring System

Welcome Zone

Registration
- Face Recognition Registration

NOW

Meeting Room

Panasonic CONNECT