

A wide-angle photograph of the Sydney Coliseum Theatre West HQ interior. The stage is illuminated with blue and red lights, featuring a large red curtain and a Christmas tree on the right. The audience seating is visible in the foreground, and the ceiling is high with various lighting rigs.

SYDNEY COLISEUM

THEATRE · WEST HQ

World Class Technology for a World Class Venue

The Customer

In late 2018 NEC Australia began discussions with West HQ, operators of one of NSW's largest registered clubs with a view to providing the ICT 'backbone' infrastructure for the entire eight hectare entertainment precinct at Rooty Hill in Sydney's Greater West.

West HQ's vision was to provide its members and guests with the best possible, most seamless, customer experience, from the moment they entered the venue through to them heading home. The new centrepiece of West HQ's operation would be the Sydney Coliseum Theatre, a 2000 seat state-of-the-art performance venue. Another goal was to "future proof" the West HQ precinct for years to come.

A feature of NEC's input at West HQ would be the introduction of frictionless entry kiosks to swiftly process members and guests at the venue's main entry points using world-first facial recognition verification technology.

Overview

Industry

- Entertainment and Gaming - Registered Clubs

Challenges

- Develop and implement a frictionless entry solution using NEC facial recognition verification for entry to the venue for up to 2000 patrons all attending the theatre within a very short timeframe.
- Compliance with NSW State Government Liquor and Gaming regulations for Registered Clubs, while doing so within a matter of seconds.
- A hard completion date to align with the opening of Sydney Coliseum Theatre.

Results

- World-first facial recognition of patrons and completion of entry process within 9 seconds.
- Rapid verification and entry of members and guests.
- In compliance with NSW State Government Liquor and Gaming regulations.
- Enables the use of NSW Digital Drivers Licence, Australian Drivers License and Passports
- Enhanced (kerb to seat) customer experience
- Scalability of entry "kiosk" infrastructure e.g. temperature alert and touchless technology.

The Challenges

Our unique challenge was to develop and implement a frictionless facial recognition verification process for entry to the venue, an Australian-first system that complied with State Government Liquor and Gaming regulations on processing patrons, while doing so within a matter of seconds.



The NEC team worked for nearly a year with West HQ, holding brain storming sessions, briefings, workshops and mapping the customer experience journey. The deadline however was set against the definitive opening of the new Sydney Coliseum Theatre with international entertainment acts. This was certainly not an open-ended project, but one with a hard finish date.

Change requests including the inclusion of the new NSW Digital Driver's License in the weeks leading up to the opening date presented added challenges to the design and build team.

Service and Solution Overview

NEC provides a fully managed maintenance and support service to ensure reliability and continuity of technical operations of the NEC hardware and software deployed throughout the venue.

Hardware and Applications

- NEC Welcome Kiosk for entry to the venue (Using the NEC NeoFace FR Algorithm)

- NEC Welcome Kiosk capability includes 13 kiosks at the western entrance, 4 kiosks at the eastern entrance and 3 kiosks at the southern entrance
- Scan ID or West HQ membership card
- Extract and save: Driver's license ID No, name, address, date of birth and picture of ID
- Facial recognition based visitor to ID comparison
- Detects faces in individual camera image frames for ID verification.
- Check that the address is not within 5km of the venue to comply with NSW registered clubs legislation
- Allow members to sign in a guest
- Print personalised membership receipt
- LED Crystal Bridge (More info on page 4)



The Solution

NEC has designed and deployed the network and infrastructure solution that underpins the ongoing business transformation at West HQ, providing value to their business, members and the wider community.

The network consists of Cisco Catalyst core, distribution and access switches deployed in a resilient, highly available and secure topology.

The Cisco Meraki wireless environment is managed from the cloud for faster deployment, simplified administration, and richer visibility. Furthermore, it is complemented by Cisco DNA Spaces cloud based analytics platform to provide actionable insights and drive business outcomes.

The thing I love about NEC was that you could throw them a question and then it is solved - it's all about creating technology or having solutions for customers for tomorrow.

Richard Errington

CEO of West HQ and Sydney Coliseum Theatre



To secure the network, Cisco ASA next generation firewalls have been deployed to provide enhanced network visibility, superior threat and advanced malware protection.

The Cisco cloud based security platform, Umbrella has been integrated into the network environment providing added security to corporate and guest users of the network to enrich incident response data and easily extend protection to devices and locations anywhere within the West HQ destination.

The NEC network infrastructure solution has provided a foundation for all technology being deployed at West HQ while at the same time increasing security and simplifying network operations.

20 self-service “kiosks” were installed at the three entrances to the venue. The kiosks utilise the NEC ID facial recognition algorithm, detecting faces in individual camera images for ID verification while the internal scanning technology verifies an entrant’s name, address, date of birth and image from their supplied driver’s licence or photo ID.

This truly is world-first technology designed to enhance customer experience and allow further modifications as required in the future, e.g. a contact tracing workflow as part of West HQ’s COVID-19 response plan.

The Results

The results in the early stages of operation have been spectacular. Already, some of the great music and comedy acts from Australia and internationally have performed to packed audiences at Sydney Coliseum Theatre.

This project represents a collaboration between NEC and West HQ developing state-of-the-art technology for one of Australia's leading future performing arts venues, not only for today's needs, but "future proofing" for requirements yet unseen.

The project incorporates a living innovation centre deploying NEC IT infrastructure, CCTV Security throughout the West HQ footprint, both internally and externally and public safety with world leading CX technology.

According to NEC's Business Development Manager for the West HQ collaboration Andrew Thompson:

"The many consultative meetings that we held with West HQ left no doubt as to their requirements and wishes.

"It is and will be ongoing, an exciting partnership between NEC and West HQ.

"It brings together a company with world-leading technology and an organisation in West HQ that wants to be the leader in its field providing world class customer experience.

"That excites and energises us as an organisation," he said.

Richard Errington, CEO of West HQ and Sydney Coliseum Theatre:

"The thing I love about NEC was that you could throw them a question and then it is solved - it's all about creating technology or having solutions for customers for tomorrow.

"We are building a destination for the future, not for yesterday, but for the future.

"You've got to love NEC for their vision.

"NEC have provided a facial recognition platform in the entrance to West HQ, providing a solution that when you think of it, didn't even exist six months ago.

"However we trusted in NEC and we knew they would deliver and deliver they did," Richard Errington said.

LED Crystal Bridge

Purpose-built LED walkway linking West HQ and Sydney Coliseum Theatre, built to withstand 2 tonnes in weight.

Specifications

Pixel pitch
6.25mm

Weight load bearing
2000kg/m², hard proof surface

Brightness
3000nits

Mosaic floor
Integrated into raised platform spanning 10.5m x 4.5m (32.5m²) utilising 130 cabinets 500mm x 500mm.

For more information:

 nec.com.au

 contactus@nec.com.au

 131 632

Corporate Headquarters (Japan)
NEC Corporation
www.nec.com

Australia
NEC Australia Pty Ltd
www.nec.com.au

North America (USA)
NEC Corporation of America
www.necam.com

Asia Pacific (AP)
NEC Asia Pacific
www.sg.nec.com

Europe (EMEA)
NEC Enterprise Solutions
www.nec-enterprise.com

v.21.12.17 | Sydney Coliseum Theatre - West HQ

NEC Australia Pty Ltd reserves the right to change product specifications, functions, or features, at any time, without notice. Please refer to your local NEC representatives for further details. Although all efforts have been made to ensure that the contents are correct, NEC shall not be liable for any direct, indirect, consequential or incidental damages resulting from the use of the equipment, manual or any related materials. The information contained herein is the property of NEC Australia Pty Ltd and shall not be reproduced without prior written approval from NEC Australia Pty Ltd.

©2021 NEC Australia Pty Ltd. All rights reserved. NEC and NEC logo are trademarks or registered trademarks of NEC Corporation that may be registered in Japan and other jurisdictions. All other trademarks are the property of their respective owners. All rights reserved. Printed in Australia. Note: This disclaimer also applies to all related documents previously published.

NEC