

Children's Hospital of Orange County (CHOC Children's)



Industry

Healthcare

Challenges

- Newly constructed patient-care tower
- Multi-facility healthcare network
- Integration with existing buildings
- Critical patient-care setting

Solution

- Communications Platform: NEC UNIVERGE® SV8500
- Connectivity: NEC Common Channel Inter-Office Signaling (CCIS)
- Interactive Voice Response: UCE IVR (QueWorX)
- Call Activity & Agent Performance: NEC Global Navigator
- Centralized Management: NEC UCE Manager (UNIVERGE MA4000)
- NEC Dealer: Digital Telecommunications Corp (Van Nuys, CA)

Results

- Cutting-edge technology
- Enhanced patient care & safety
- Improved communications systems
- Superior customer service
- Earthquake-compliant platform

Named one of the best children's hospitals by U.S. News & World Report (2013-2014), CHOC is exclusively committed to the health and well-being of children through clinical expertise, advocacy, outreach and research that brings advanced treatment to pediatric patients. Affiliated with the University of California, Irvine, CHOC's regional healthcare network includes two state-of-the-art hospitals in Orange and Mission Viejo, several primary and specialty care clinics, a pediatric residency program, and four centers of excellence - The CHOC Children's Heart, Neuroscience, Orthopaedic and Hyundai Cancer Institutes.

CHOC earned the Gold Level CAPE Award from the California Council of Excellence, the only children's hospital in California to ever earn this distinction, and was awarded Magnet designation, the highest honor bestowed to hospitals for nursing excellence. Recognized for extraordinary commitment to high-quality critical care standards, CHOC's Pediatric Intensive Care Unit (PICU) is the first in the United States to earn the Pediatric Beacon Award for Critical Care Excellence.

CHOC deployed the NEC's UNIVERGE® SV8500 communications platform throughout the hospital, including its newly constructed, seven-story patient care tower. The new voice platform aligns with the hospital's commitment to the highest standards of service, care and safety.

Challenges

After more than four decades of sharing medical services with an adult hospital, CHOC constructed The Bill Holmes Tower, which opened in Spring 2013. "The new facility gives CHOC critical control of its core services, making it a truly freestanding children's hospital," says Noreen Mack, telecommunications director, CHOC. "We now have the region's only pediatric-dedicated emergency department, surgical suites, clinical laboratory and imaging services."

The new tower is also designed to be one of the safest, most advanced children's hospitals in the world. "The facility blends cutting-edge technology, safety and science to improve care and outcomes for children," she adds.

CHOC used the UNIVERGE 2400 IPX, a legacy NEC voice communications platform, in its existing buildings on its main campus in Orange. The 2400-IPX platform reached end of life at the time CHOC was building its new tower. The hospital issued an RFQ to solicit new solutions. “The NEC platforms were rock solid, but this was a good time to look at other vendor solutions out there,” explains Noreen. “We just wanted to make sure we were getting the best technology available.”

Noreen wanted a voice platform that complied with California’s Hospital Seismic Safety laws, which require hospitals to remain standing and functional during and after an earthquake for the safety of patients and staff, and to provide medical assistance to earthquake victims. “We knew that we wanted the same solution throughout all of our buildings and reliability was paramount” says Noreen. The hospital also sought to integrate its technologies, staff and processes. “We wanted a solution that would enable us to provide better, faster care to patients,” she adds.

Solution

CHOC chose the UNIVERGE SV8500, one of the latest communications platforms from NEC. The SV8500 supports voice, unified communications and mobility solutions. It delivers advanced failover and redundancy as well as more powerful processing power. The solution also provides greater energy efficiency. “We solicited bids for various solutions, and then narrowed it down to the top three,” says Noreen. “We went with the SV8500 because it provided the most benefits in terms of capabilities and costs.”

The hospital worked with Digital Telecommunications Corp (DTC), a NEC dealer in Van Nuys, to implement its new voice platform. “The SV8500 offers CHOC a seamless migration path from its legacy 2400- IPX system,” says Ed Regan, VP of Operations, Digital Telecommunications Corp. As a result, CHOC is able to re-use some of its existing equipment. “This not only saves the hospital money to deploy their new SV8500 platform, it also allows them to continue extracting value from the hardware and software investments they made with the legacy system.”

The SV8500 was first installed in the existing hospital. “The cable migration made it easy for us to upgrade the legacy system,” she says. “For the most part, we were able to install the SV8500 within our existing configuration, reusing many of the existing cable and power connections.” The new SV8500 was deployed one floor at a time to avoid any power failures and ensure the hospital maintained Earthquake Compliant throughout the project.

The SV8500 was then installed in the Holmes Tower, and the hospital deployed NEC’s IP CCIS to connect all of the switches. “CCIS provides us the flexibility of an IP-based network,” says Noreen. “This enables us to easily connect two of our separate offices and achieve an even higher level of redundancy.”

CHOC is using the NEC Global Navigator and QueWorx to enable ACD throughout the entire network. The hospital is also using NEC’s UCE Interactive Voice Response to improve service to incoming callers. “We’re now able to centralize scheduling for the various departments within the hospital as well as the clinics, so agents look like they are all in a single location, when they really are not,” says Noreen. “We’re also now able to do things like let callers know their positions in the queue and provide them the option for a call back, which reduces their hold times and improves the overall service we provide.”

The hospital is also in the process of upgrading to NEC’s UNIVERGE UM8700 for its clinical staff. “The UM8700 offers unified messaging to combine many voicemail and email features,” adds Noreen. “It integrates with virtually any email application so clinicians can access the information they need no matter where they are on or off site.”

Results

CHOC’s new UNIVERGE SV8500 communications platform solution aligns with the CHOC’s overall strategic goals. “The new tower is a manifestation of our vision to offer the scope, breadth and depth of services required to perform as a premier children’s hospital that fully serves and anticipates the needs of our marketplace” says Noreen. “All aspects of CHOC’s new facility blend cutting-edge technology, safety and science to make us one of the medically safest and healthiest places in the county for children.”

The solution lays the foundation for even more advanced communications in the future. “We are always thinking of ways to improve communications for our clinical and nurse teams,” adds Noreen. “Our new NEC voice platform is capable of supporting new wireless/mobile initiatives we might want to implement down the road.”

Noreen is also very pleased with CHOC’s partnership with DTC. “We’ve worked with DTC on multiple projects and I continue to be pleased with the service they provide,” adds Noreen. “The tower project has been no different. We had weekly conference calls to ensure the project was carefully planned and accomplished within budget.”

The hospital is currently planning the next phase of the deployment.

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