



Company Overview

June 2026



inspiration
partnership
support

Gencom Technology, your partner in media technology

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About Gencom

Gencom Technology is New Zealand's leading provider of integrated technology solutions and professional services for the media industry. Our team are experts across a wide range of media technology disciplines, including production and post production, media management, channel origination, RF transmission, internet delivery and the core IT infrastructure that underlies all of these processes.

Our experience spans half a century of industry and technology change, and the company has continually evolved to remain at the forefront of media technology. Our core DNA has always been the production and delivery of professional video content, and this is reflected in the numerous TV broadcast studio, playout and distribution projects we have completed. However, we also have extensive experience and capabilities in related areas including cine production and post, radio production and delivery, industrial AV and enterprise IT.

Our head office, with integration factory and primary support centre, is located in Auckland, New Zealand, and we have a second support office in Nelson. From here we serve New Zealand, Australia and the Pacific Islands, and have completed projects all over the world including the UK and USA. We also maintain an affiliation with an office in Johannesburg, South Africa, that was once under the same corporate umbrella but now operates as an independent business.



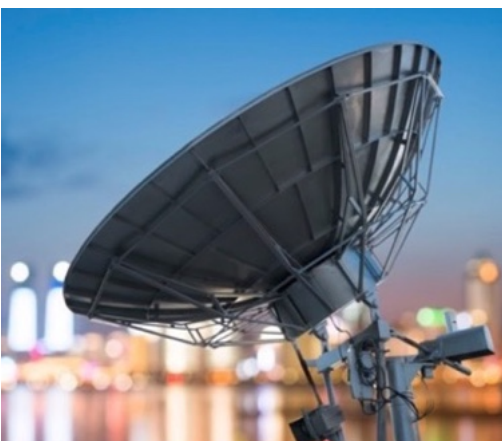
Gencom has partnered with some of the leading media technology vendors in the world and can supply our customers with best-in-breed solutions for virtually any requirement. We pride ourselves on a consultative approach, working closely with our customers at every stage to make sure their needs are met. Our solution architects and technology specialists are available to help customers evaluate options and provide the best solution for their unique requirements. Our project engineers and installers ensure that every project is delivered with careful attention to detail and that the final solution meets the project objectives.

Once a solution is delivered, our support team takes over to ensure that it continues to perform as required and that users are equipped with the training required to use it effectively. Gencom stands behind everything we sell, passing through the benefit of all manufacturer warranties to the end user and providing our own 12 month warranty on our installation work. We offer a range of Service Level Agreement options tailored to each

customer's specific needs, and any question or issue that can be resolved with a 15 minute phone call will always be free, regardless of whether a product is in warranty, actively supported by the manufacturer, or even supplied by a competitor.

Capabilities

Gencom's staff is comprised of technical specialists across a wide range of disciplines. We also have longstanding relationships with a number of business partners and independent contractors in New



Zealand and internationally, whom we can call on as needed to augment our capabilities with specialist expertise or to increase our capacity for a specific project.

Consultancy

Our experts often work with customers from the very early stages of a project to define requirements, evaluate technology options, set budgets and establish reasonable timelines. This can take the form of informal pre-sales advice and proposals, or as a formal paid consultancy with established deliverables and confidentiality commitments. We are proud of the reputation we have established over many years with our customers, who trust us to treat their plans in the strictest of confidence, to work closely with them to understand and help articulate their requirements, and to provide impartial expert advice.

While Gencom often wears two hats as an equipment supplier and consultancy, our business is built on our customer relationships and we will always put the end user first. With some vendors we have established exclusive supply relationships, some of which we've had in place for decades. Where appropriate we will recommend these products first, as we are confident of their quality and suitability and of our ability to support them. However, we also often recommend other products when warranted by the specific requirements of a particular use case. In other areas, we maintain relationships with two or three vendors whose products may overlap but who each have their own particular strengths.

Engineering Design and Resources

Our innovative engineering designs are achieved by pro-actively listening to client needs. Gencom has dedicated experienced engineers covering a wide range of product expertise, who can design system installations that will best fulfil customer requirements.

All technical knowledge for major projects is provided in-house. Project design, drafting, equipment, configuration, installation, testing and commissioning are all completed to a very high professional standard.

Our resources include design, project and system engineers, drafting experts, specialist electrical and electronic installers and technicians. In addition, we have workflow planning specialists who can be deployed in the project's initial stages if required and for large-scale projects we have access to a pool of experienced contract staff. We also design, manufacture and install broadcast and control room furniture and hardware.

Project Management

A flexible but structured approach to project management has been the cornerstone to the success of the large number of projects carried out by Gencom over the years. We strive to maintain a close working relationship between our team and our clients. One technical project manager is assigned overall responsibility for delivery of each functional area, while maintaining open and interactive communication between the engineers, designers, draftsmen and the installation team.

In addition to our full-time technical staff. Gencom maintains a stable of contractors and subject matter experts, both in New Zealand and internationally, whom we can draw on to provide additional resources for large projects or provide consultancy when specialised expertise is needed.



The key element is regular meetings between the project team and the client. These meetings are properly chaired and minuted ensuring all aspects of the project run smoothly and to schedule and that all areas of design are being monitored as the project progresses.

System Integration

Every product and service we recommend is carefully selected and integrated to configure a reliable, high-performance facility. In addition to core media technology systems, Gencom can supply and integrate ICT infrastructure including servers, storage, software and cloud services along with purpose-built equipment furniture, equipment racks, local and remote monitoring systems, earthing and cable systems, air-conditioning, AC/DC systems and purpose-built OB vehicles and equipment enclosures.

Installation

Gencom employs and trains its own professional installers for all construction, cabling and integration work. Every installer on our team has undertaken formal training with us. They are very experienced and produce work of an extremely high standard. For larger projects, our senior wiremen can supervise teams of contractors. We have completed projects with installation teams of 25+ installers.

We work to industry accreditation standards. All on-site work is carried out with strict adherence to the Codes of Practice and Health and Safety standards applicable to the site.

Logistics

The logistics team is responsible for the equipment ordering and supply; and for scheduling the delivery process on any given project. All equipment is tracked electronically from procurement to delivery to the client and stored in a project specific secure environment.

Commissioning

Gencom commissions all equipment and systems it installs. Depending on the nature of the project preliminary commissioning will be carried out in our factories before the equipment is moved on-site. If no factory pre-wire is required commissioning is conducted wholly on-site. Gencom will include the client's engineers in the commissioning process so they have first hand knowledge of the equipment. Extensive testing is also carried out to ensure that all signal paths and functions are fully operational. Software is configured to reflect the workflow required of the operations.

Documentation

Gencom's engineers produce detailed system drafts and designs using AutoCAD drawing and Microsoft Visio software. All drawings are catalogued and cabling run lists and cable diagrams are created from the database. Gencom can update the drawings after installation and produce and maintain an asset register for clients using a barcode system.



Training

We can provide equipment and systems training as required. This can include general technical and operational training either by a professional training institute or Gencom staff members. We can also arrange specific equipment training with manufacturers and source specialist broadcast industry trainers for our clients.

Ongoing Support

Gencom is committed to providing support for everything it sells – both on behalf of the manufacturers it represents and for the systems it designs and installs. We offer equipment warranties, support contracts, spare parts, maintenance and software and hardware upgrades.

We only supply high quality equipment that has been extensively tested, proven in the field and is fully supported by the manufacturer. Wherever possible the design solution that we recommend will have been previously installed elsewhere. Should a problem arise we will ensure that it is rectified as quickly as possible.

Key Personnel

David Barnard

Managing Director

David has over 30 years of experience in the film and television industry, including 15 years in the Los Angeles post production industry as a tape operator, assistant editor, and audio engineer. Prior to joining Gencom he spent 4 years in Business Development at Deluxe Entertainment in Los Angeles, where he was deeply involved in bringing to market new services and technologies for digital media asset management, archiving, and scalable internet delivery. David is a Director and major shareholder of Gencom, and oversees all aspects of the company's operations.

David holds a Bachelor's degree in Film & Television Production from the University of Southern California, and an MBA from the University of California at Los Angeles.

Keith Bremner

Director

Keith has had 40+ years' experience in the broadcasting industry in NZ. His training with TVNZ was centred on all aspects of outdoor broadcasting. In 1989 as Senior Studio Engineer Keith was on the team that started up a TV channel for the first private broadcaster in NZ, which included the build, installation and commissioning of TV3. After the launch he spent 13 years as Engineering Manager, responsible for all of Mediaworks' projects and support.

Keith joined Gencom in 2002 as the Project Manager for the America's Cup project, which included the building, commissioning and support of the Base Club Studio and the IBC during the several months of the 2003 Americas Cup. In the years following Keith became an essential part of both the Sales and Engineering teams, securing and delivering many projects for Gencom in NZ and internationally. His



skills include System Design, Engineering and Project Management at a high level. Today Keith is a Director and major shareholder of Gencom, and oversees many of the company's key accounts and projects.

Qualifications: Radio Technicians Certificate, NZCE

Nicola White

Financial Controller

Nicola has had over 25 years of experience in chartered accountancy and finance, spanning several industry sectors including biotechnology, private equity investment funds, software development, and building and construction.

Nicola joined the Gencom team in 2015 to take over the financial systems for the company and is also actively involved in managing the company's operations.

Nicola has a Bachelor of Business degree, Major in Accounting, a Post Graduate Diploma in Accounting and is a member of the New Zealand Institute of Chartered Accountants.

Oliver Pitkin

Head of Business Development

Olly brings with him 25 years' experience with media technology and television studio operations. His background includes senior roles with Sky UK, Sky News Arabia, Sky New Zealand, and most recently NEP New Zealand, where he led the Sales, Operations and Technology teams. Throughout his career, he has worked with major broadcasters all around the world and contributed to high-profile events such as the Olympics and World Cups. He has extensive experience leading complex technology projects and implementing and running studio production operations.

Olly's title reflects his role in shaping the company's future business direction; however, he also plays a hands-on role in project delivery, leading major customer projects and ensuring successful outcomes.

Olly has a Bachelor's degree in Music Technology and Audio System Design from the University of Derby and a Post Graduate Certificate in Business and Finance from the London School of Business & Finance.

Joanne Northin

Operations Manager

Jo has been a key part of Gencom for 27 years, bringing extensive experience in administration, operations, purchasing, logistics, inventory management, and bookkeeping. Prior to joining Gencom,



she worked in a variety of administrative and operations roles across Australia and New Zealand, including managing the New Zealand operations for an Australian market research firm.

Jo joined Gencom in 1999 as Purchasing Manager, with responsibility for purchasing, logistics, inventory management, and inwards and outwards goods. She played an instrumental role in implementing the company's computerised stock tracking processes in the early 2000s, building on Gencom's existing systems to improve the accuracy and control of stock movements. In 2016 Jo was promoted to Operations Manager, taking on broader responsibility for bookkeeping, logistics, inventory, and warehouse management. Today she is central to Gencom's day-to-day operations, with deep knowledge of the processes that keep the business running. Her expertise in international logistics, customs, and shipping is particularly valuable, supporting Gencom's work with manufacturers and customers across New Zealand, Australia, the Pacific Islands, and other international markets.

Peter Wallace

Senior Project Manager

Peter has nearly a half century of experience in Broadcasting and Post Production. His initial training took place at TVNZ, and he has worked in NZ, Australia and the UK including 16 years as chief engineer for Digital Post, a premier Post Production facility in New Zealand.

Having joined Gencom in late 2010, his first engagement at the company was the move of the Television and Radio Broadcasting Studios, Post Production and associated infrastructure for Australian Broadcast Corporation, which reached a successful conclusion mid 2012 in Brisbane Australia.

He has since completed numerous projects and consultancy engagements for Gencom, including ongoing work for the ABC, Mediaworks and Whakaata Māori as well as various OB trucks, studio builds, and government projects in New Zealand and overseas.

Qualifications: Radio Electronics Technician (Supplementary RTC Stage IV)

Maldwyn Greenwood

Engineering Manager

Maldwyn is a highly experienced engineering manager with over 20 years of technical and leadership experience across the broadcast, installed AV, and entertainment industries. His background spans audio, video, networking, cyber security, systems design, technical support, and complex project delivery.

Maldwyn joined Gencom in 2025 as Engineering Manager, where he oversees Gencom's technical staff and leads the implementation of systems, processes, and workflows to ensure effective service delivery.



His role bridges management and technical execution, supporting the engineering team in delivering increasingly complex broadcast, media, AV, and IT-based projects.

Qualifications and certifications include a Diploma in Sound Engineering, Dante Certified Master Instructor, Dante Level 3, Dante Domain Manager, Studer, L-Acoustics, and Avid Pro Tools, Biamp Tesira, and Harman Networked AV certifications. Additional proficiencies include AutoCAD & Revit, EASE 5 3D Modelling, PTP, Wireshark, Dante, and AES67.

Syed Kumber Abbas

Solution Architect & IT Manager

Syed is a seasoned IT specialist with 20+ years of experience in information technology and network administration. With a strong educational background in computer science, including a Master's degree, he has excelled in a variety of IT operations and management roles in Pakistan, Dubai, and New Zealand. Syed now serves as a Solutions Architect at Gencom Technology, where he brings a wealth of technical expertise, problem-solving skills, and a proactive approach to IT projects. His impressive track record includes advanced IT solutions, network management, and top-notch customer service. Syed is a dedicated and adaptable team player known for going the extra mile to ensure IT operations' success.

Qualifications: BS and MS Computer Science, Azure Administrator, Cisco Meraki Network Administrator, Fortinet NSE 4, PMP, Microsoft Certified Trainer, Microsoft MCITP – Server Administrator and Virtualization Administrator



Project Portfolio

Live 4K UHD Channel for Sky New Zealand

Sky New Zealand embarked on a project to launch its first live 4K UHD (Ultra High Definition) channel, bringing a new level of picture quality to major sporting broadcasts and establishing a foundation for future UHD services.

To support this initiative, Gencom Technology was engaged to design and deliver a UHD Master Control solution capable of managing the unique requirements of live UHD broadcasting while integrating seamlessly with Sky's existing HD infrastructure. A key objective was ensuring that UHD operations could be introduced without disrupting established workflows while providing flexibility for future expansion.

The new system provides advanced channel presentation capabilities, including live switching, graphics insertion, DVE squeeze backs, and audio processing. Operators can control the channel manually or through automated workflows, allowing the system to support both live events and scheduled programming with the same level of reliability and consistency.

Gencom worked closely with Sky to develop an automation framework that coordinates complex UHD workflows while allowing operators to transition easily between automated and manual control when required. This approach ensures operational flexibility while maintaining broadcast-quality performance across all content types.

The UHD Master Control solution was built using Ross Video technology, including openGear infrastructure, MCI-UHD Master Control Switchers, and Ross Dashboard control software. The completed system provides Sky with a modern, scalable platform for UHD broadcasting and represents an important step in the broadcaster's ongoing evolution towards higher-resolution production and delivery.

World Class Digital Screen Campus- University of Canterbury

The University of Canterbury set out to create a world-class Digital Screen Campus in Ōtautahi Christchurch, providing students with access to commercial-grade film, television, animation, gaming, and post-production facilities. The project formed part of the University's broader vision to develop a complete production environment that would support both teaching and future industry engagement.

To deliver the project, Gencom Technology partnered with Futureworks and Barton Sound to form a consortium capable of providing specialist expertise across broadcast, production, audiovisual, and professional audio disciplines. Working closely with the University, the consortium helped transform a former School of Education campus into a modern screen production precinct.

Gencom played a key role in the design and integration of facilities across the Otākaro, Wairakei, and Jack Mann buildings. The project included picture and audio post-production suites, recording and



mixing facilities, sound stages, and supporting production infrastructure designed to mirror professional industry environments.

During the design phase, Gencom worked with architects, engineers, and University stakeholders to refine the original plans and ensure the facilities met the technical requirements of modern production workflows. The project also required close coordination between multiple contractors and suppliers, while adapting to changing requirements as academic staff and programme needs evolved throughout the development process.

A later phase of the project introduced a Virtual Production Studio featuring a large-format LED wall, real-time rendering technology, and motion tracking systems. The facility enables students to work with the same virtual production techniques increasingly used throughout the global film and television industry.

Today, the University of Canterbury Digital Screen Campus stands as one of New Zealand's most comprehensive screen production training facilities. By combining professional production, post-production, audio, and virtual production environments within a single campus, the facility provides students with practical experience using the tools, technologies, and workflows employed throughout the modern screen industry.

Multilingual, Accessible Parliamentary Broadcasts for Fiji



The Parliament of the Republic of Fiji embarked on a major technology modernisation programme to improve public access to parliamentary proceedings and support the growing demand for live and on-demand content. A key objective was to provide broadcasts and parliamentary records in Fiji's three official languages while improving accessibility and operational efficiency.

Gencom Technology was engaged to design and deliver a new IP-based media infrastructure capable of supporting multilingual broadcasting, real-time captioning, and future digital content delivery requirements. Working closely with Parliament staff and technology partners, Gencom provided system design, integration, commissioning, and operator training across the parliamentary campus.

The new system is built around a Dante AV network that distributes audio and video throughout Parliament's buildings while providing the reliability and redundancy required for critical broadcast and Hansard recording operations. Live proceedings from the chamber and committee rooms are captured, processed, translated, and distributed across internal and public-facing platforms through a unified production environment.

A major focus of the project was improving accessibility. The solution introduced real-time captioning and multilingual translation workflows, enabling parliamentary proceedings to be delivered in English, Fijian Hindi, and Vosa Vakaviti. Automated speech recognition technology, combined with human oversight, significantly improved the speed and accuracy of captioning while streamlining the production of parliamentary transcripts.

To simplify day-to-day operation, Gencom also developed a customised control interface that allows non-technical users to manage signal routing and system functions through a simple, intuitive workflow. This approach reduced operational complexity while improving reliability and user confidence.

The completed system provides Fiji's Parliament with a modern, scalable platform for parliamentary broadcasting and public engagement. The new infrastructure supports multilingual content delivery, real-time accessibility services, and future expansion into video-on-demand services, establishing a foundation for more accessible and transparent government communications.

Modernised Motion Picture Lab for NARA

The United States National Archives and Records Administration (NARA) is responsible for preserving some of the nation's most important historical records, including approximately 550 million reels of motion picture film. As demand for digital preservation continued to grow, NARA embarked on a major modernisation project to expand its film scanning capacity, streamline preservation workflows, and relocate its motion picture laboratory into a newly renovated facility.



Gencom Technology became involved through its partnership with Galileo Digital, which had previously supplied film scanning systems to NARA. Working closely with both organisations, Gencom developed and implemented a comprehensive solution that combined additional scanning capacity, high-performance shared storage, workflow automation, editing systems, and a new HDR-capable colour grading suite.

A key requirement of the project was supporting the large data volumes generated by high-resolution film scanning and restoration workflows. Gencom designed a high-performance infrastructure centred around EditShare shared storage and a high-speed network, enabling multiple operators to scan, process, and manage film assets simultaneously while maintaining consistent performance.

The project also involved relocating existing equipment from NARA's legacy facility into a newly renovated space. Careful planning, vendor coordination, and extensive interoperability testing were required to minimise disruption and ensure the new facility was fully operational upon completion. Gencom worked closely with NARA, Galileo Digital, and multiple technology partners throughout the process to manage installation, integration, and commissioning.

The completed facility includes three Lasergraphics film scanners, professional colour grading and editing systems, media management workstations, and an automated workflow environment designed to support large-scale preservation projects. The new infrastructure allows NARA to digitise, process, and manage film collections more efficiently while maintaining the highest standards of archival quality.

Today, the modernised motion picture laboratory provides NARA with a scalable, future-ready platform for film preservation. The facility supports the ongoing digitisation of historically significant collections, ensuring valuable motion picture records remain accessible to researchers and future generations for decades to come.

ABC Sydney Accommodation Project



ABC Sydney undertook a major project to establish a new production facility in Western Sydney, supporting the broadcaster's long-term strategy to expand its presence in one of Australia's fastest-growing regions while modernising its production infrastructure. The project included a new television studio, radio production facilities, and editing suites designed to support current production requirements and future growth.

Gencom Technology was engaged to deliver the television production infrastructure, working closely with ABC Sydney's project and engineering teams throughout the design and implementation process. A key objective was to create a highly flexible production environment capable of adapting to changing technologies and workflows.

The new studio was built around LED display technology and IP-based broadcast infrastructure. Large-format LED walls allow studio environments and graphics to be changed quickly without the need for physical set modifications, while the move to IP-based technology provides a foundation for future workflow expansion and integration.

One of the project's biggest challenges was the building itself. Originally designed as a restaurant, the space presented limitations including low ceiling heights and existing building services that restricted installation options. Gencom worked closely with ABC Sydney and other project stakeholders to develop practical solutions that maximised the available space while meeting the broadcaster's technical requirements. LED walls were also used creatively within the studio design, helping to integrate structural elements into the visual environment.

Close collaboration between Gencom, ABC Sydney, and other technology partners ensured the successful integration of multiple systems and disciplines. The facility entered service in late 2024, providing a seamless transition to the new site.

The completed installation supports ABC Sydney's broader strategy of increasing production capability within Western Sydney while delivering a modern, future-ready facility. The new studio provides the flexibility to support a wide range of productions today while creating a platform for future expansion as production technologies continue to evolve.

SBS IP Router Transformation



Special Broadcasting Service (SBS) is one of Australia's leading national broadcasters, delivering multilingual television, radio, and digital content to diverse audiences across the country. With a strong focus on innovation and accessibility, SBS continues to evolve its technology infrastructure to support modern production and distribution workflows.

Gencom was engaged to support SBS in a major broadcast infrastructure upgrade, transitioning its core routing platform from traditional HD-SDI to a modern SMPTE 2110 IP-based environment. This transformation marked a key step in SBS's move toward a fully IP-enabled broadcast ecosystem, improving flexibility, scalability, and operational efficiency across its network.

Working closely with SBS, Gencom delivered a fully managed, end-to-end integration including system design, installation, configuration, and commissioning of the new routing platform. The solution was aligned with SBS's existing multicast network and timing infrastructure, ensuring seamless integration while enabling the introduction of IP-based workflows.

A central requirement of the project was maintaining uninterrupted broadcast operations throughout the transition. To achieve this, Gencom implemented a staged migration approach, allowing the new IP system to run in parallel with the existing SDI infrastructure. This enabled comprehensive testing and user acceptance prior to final cutover, significantly reducing operational risk.

The project required detailed planning, coordination across multiple stakeholders, and careful management of critical broadcast services. Gencom oversaw all aspects of delivery, from infrastructure deployment through to system configuration, testing, and training, ensuring the solution met the reliability standards required for live broadcast environments.

Delivered ahead of the FIFA 2026 World Cup, the new system positioned SBS with a future-ready broadcast platform capable of supporting high-profile, large-scale events. The project reflected Gencom's experience in delivering complex broadcast transformations with minimal disruption to ongoing operations.

Fiji Broadcasting Corporation OB Upgrade

At the end of 2023, the Fijian Broadcasting Corporation (FBC) faced the challenge of upgrading their broadcasting capabilities to meet international standards for the Fijian Drua Super Rugby Pacific team's home matches. The FBC chose Gencom as their vendor due to their cost-effectiveness, quality of support, and ability to deliver within a short timeframe of less than six months.

The project required rapid execution, with only four months for design, procurement, build-out, transport from New Zealand to Fiji, setup, and training, all amidst the Christmas holiday season. This tight timeframe posed an intense challenge in designing and sourcing the necessary equipment.



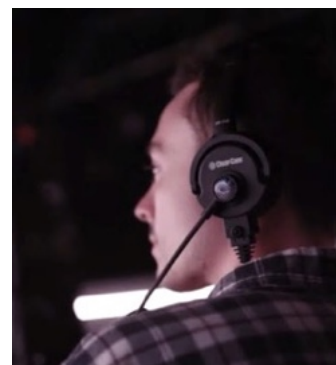
Gencom selected equipment that could be quickly sourced, relying on trusted partners like Ross Video and Clear-Com. Both companies exceeded delivery expectations, with Clear-Com providing more gear than needed to ensure flexibility, and Ross delivering the compact, all-in-one Ultrix system, which was crucial for the project's success.

The FBC initially planned to upgrade their existing OB truck but soon realised the need for a larger setup. The solution involved a 40-foot container with designated rooms for audio, production control, technical operations, and replay, allowing for two simultaneous OB setups. The equipment was assembled and tested in New Zealand, with the FBC technical team receiving training before the final setup in Fiji.

Despite challenges brought about by the tight timeframe and budget, the project was completed successfully – delivering a world-class broadcast appreciated by both Fijian and international viewers. The pay-per-view live-streaming of a three-day athletic competition further supported Fijian secondary schools. The FBC praised Gencom's exceptional service and support, reinforcing their position as FBC's preferred partner for future projects.

NZ Nationwide Production Communications- TVNZ

TVNZ is New Zealand's largest broadcaster and the country's #1 source for news. Their operations are spread throughout the country, and effective communication among production teams is essential to their operation. When the time came in 2020 to refresh their aging production talkback systems, TVNZ knew they wanted a modern solution that would provide opportunities for tighter integration of connected systems, added flexibility and greater certainty of ongoing support.



The initial scope of the project was strictly for supply of equipment, which Gencom tendered for as the New Zealand agent for Clear-com. The brief was for a system that would combine wired physical panels, wireless production systems and virtual (software-based) panels that enable journalists in the field and others working remotely to connect to the system via the Internet. The system also needed to be able to connect different studios and production crews around the country (or even internationally) and provide modern control capabilities so that the solution could be configured with ease to accommodate real-time, planned and unplanned operational requirements.

Clear-com was selected based on the range of products available to suit TVNZ's various operations, the robust support for advanced technologies including AES67/SMPTE 2110 for real-time communication over an IP network, Virtual Panels running on laptop PCs and mobile devices, and Clear-com's established track record in the region.

Following the selection of Clear-com as the technology vendor, TVNZ approached Gencom about providing integration services as a separate scope of work. While TVNZ had originally reserved this work for themselves, operational constraints and a backlog of technology projects brought about by COVID meant that TVNZ's resources were stretched and thanks to Gencom's long track record of delivering integration projects for TVNZ, the broadcaster knew that Gencom could be relied upon to deliver the project without a hitch.

Gencom provided technical project management and the detailed design of the system, working closely with TVNZ's engineering team. Physical installation was a shared responsibility between Gencom and TVNZ. While several integration issues did arise, Gencom worked closely with Clear-com and TVNZ to identify and resolve them quickly. A particular challenge was getting Precision Time Protocol v2 working across TVNZ's Auckland LAN, as the requirements for real-time two way communications are very stringent and not all network equipment vendors implement PTP in exactly the same way. Gencom's expertise with media networks proved invaluable, and TVNZ expanded the scope of

integration to assist with their internal network configuration. The system completed acceptance testing in April 2022, and TVNZ went live with the new system in June.

Media Access Charitable Trust – Freelancer Workflow

Able is New Zealand's leading provider of media access services, including captioning, subtitling and audio description. Gencom has supported Able since they were first spun out from TVNZ in 2014, and today oversees all of Able's IT infrastructure and support requirements including a Wide Area Network and video linking system that connects Able with the key broadcasters they serve. As the organisation has grown, they have seen an increase in the use of freelance Caption Editors and Audio Describers. Their existing workflow involved back and forth phone calls and emails for scheduling and sharing of media files and deliverables via dropbox. Additionally, freelancers are paid by the content minute, and tracking this was very difficult – meaning that Able was often reliant on the freelancers' accuracy in reporting.

When Able approached Gencom to help them improve the efficiency of this workflow, we worked closely with them to document their requirements and assess the available options. We ultimately developed a system architecture centred on Cirkus, a new collaboration toolset from farmerswife that allows Able staffers and freelancers to effectively communicate, share resources and securely share media and deliverable files.

With Cirkus, when new Caption or Audio Description tasks are added, they can either be assigned to a specific freelancer by an Able supervisor, or assigned to a “pool” of available tasks which freelancers can then assign to themselves on a first-come, first served basis. Media files, technical details from the metadata, and notes from Able's staff are all shared via an intuitive web-based UI and also through an easy-to-use iOS app. When captioning work is complete, the freelancer attaches their deliverables and marks the task as completed. Able staff are notified and then with a few clicks, can retrieve those deliverables and insert them into Able's standard workflow. Along the way, any questions or notes can be communicated between freelancers and staff members either individually or in groups.

To support this workflow and address Able's unique requirements, Gencom developed a web-based application that can parse and ingest new tasks from a weekly spreadsheet roster that is an existing part of Able's normal workflows. The list is filtered to include titles available to freelancers and automatically uploaded to Cirkus with all necessary program information. At the end of the month, the web tool generates a set of billing reports that Able staff can provide to freelancers to make invoicing simple and error-free.

The project was completed on time and on budget, and after an initial trial period with a limited number of Freelancers, the Cirkus workflow has now been rolled out to all of Able's freelancers. The result has been a significant time savings, and increased takeup of work by the freelancers themselves.

Mediaworks Radio Hargreaves Project

Gencom Technology was engaged by Mediaworks Radio in August 2018 to provide technical project management and consultancy for the relocation of 8 Auckland-based radio brands from three separate facilities into one new location. The project was timed to coincide with a major refresh of their core studio and master control technology, enabling the new facility to be treated as a



green-field site designed around the new infrastructure, in order to meet the needs of the brands both now and for the foreseeable future.

The build was to consist of 16 studio spaces, 6 producer suites, 10 production suites, and 4 Voice Track suites. Lawo was selected as the core technology platform, and existing Playout server technology was migrated to new hardware at the new site.

Gencom's previous experience with major broadcast facility relocation and technology refresh projects was a key factor in the decision to engage the company in this instance. Drawing on this past experience, Gencom was able to contribute in a significant way to final designs of not only the technology installation, but to the overall design of the technical spaces including power, earthing, and HVAC as well as Line Room physical layouts. Gencom was also responsible for all AutoCAD drawings and documentation of the broadcast technology, which was completed in close collaboration with the Mediaworks System Architect and project engineers.

The Lawo equipment was delivered early in the project and set up at a remote location for initial configuration. In August 2019 the first technical spaces at the Hargreaves St site were handed to Mediaworks and Gencom, allowing installation to commence. The installation was carried out by Gencom installers with Mediaworks staff assigned to the project to assist with the cabling and equipment installation.

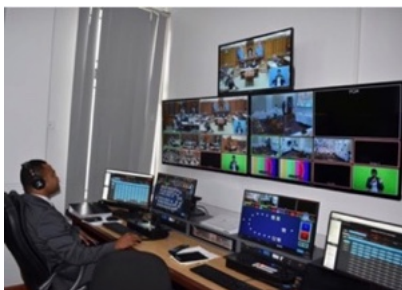
The driving philosophy of the design was distilled to a mantra of "any show, any studio, anywhere." To this end, all studio spaces follow the same architectural and technical designs. Branding is achieved by RGB LED lighting and digital signage systems. All this is under the control of the Lawo platform. Any operator can log in to any system and all studio parameters including branding are preset.

Discrete audio wiring across the facility is mainly for microphones and monitoring, as all inter-studio signal flows are SMPTE 2110-30 IP audio, distributed via the building's structured cabling. MAD1 over fibre provides a backup path to the dual-redundant SMPTE 2110-30 audio networks.

The Hargreaves site also serves as the network centre for all of Mediaworks Radio. For this reason, extensive MCR capability is also installed allowing for routing and signal distribution nationwide. A combination of satellite and fibre networks are used to interconnect all regional stations.

The technical fitout of the new facility was completed in early 2020, just prior to New Zealand entering lockdown due to the COVID-19 pandemic. Mediaworks began migrating their brands once restrictions lifted in June, and the facility is now fully up and running.

Fiji Parliament



As part of an ongoing process of improvement in how it communicates and engages with the public, the Parliament of the Republic of Fiji engaged Gencom to upgrade and greatly expand their broadcasting facilities.

The technical facility is built around Ross Video's LCS meeting control system – the market leader for legislative assembly applications. This system provides an easy-to-use but extremely powerful solution that streamlines and automates parliamentary sessions. The touch screen interface allows an operator to set up camera angles and graphics for any minister, simply by tapping their icon on the map of the debating chamber floor.

For Fiji Parliament, a primary goal was to expand the coverage from the debating chamber to include two committee rooms. To provide maximum flexibility and a degree of redundancy, Gencom built two identical control rooms, either of which can be easily switched to control any of the three spaces.

Prior to shipping equipment to site, Gencom pre-integrated the solution at its factory in Auckland. Key technical and operational representatives from Parliament were on hand for pre-commissioning and training before the equipment was packed into a container for delivery to site. Once there, a team from Gencom travelled to site for final installation and commissioning, which only took a few weeks.

When COVID struck in 2020, shortly after the new facility went live, Parliament suddenly faced a new challenge – bringing in ministers remotely using videoconferencing software and integrating them with the parliamentary broadcast. Again, Gencom was engaged to provide consultancy services and equipment to enable Parliament to quickly get up and running in this new configuration, and also to provide a lasting remote contribution capability that will enable additional flexibility and efficiency on an ongoing basis.

New Zealand Parliament

Gencom has a longstanding track record with NZ Parliament dating back to the inception of Parliament Television in 2007. Gencom supplied and installed all broadcasting systems including robotic PTZ cameras, vision switcher, playout and archive systems. We also designed and installed a custom user interface that allowed selection of a camera position based on speaker name and/or location. In 2014 we upgraded the graphics system to a Ross XPression system with a customised user interface that allowed selection of graphics templates and automatic text population based on the speaker chosen in the control system.



In 2018, the Office of the Clerk reached an agreement with longstanding operations contractor Kordia to take over ownership of all Presentation, Master Control and Playout functions. The agreement involved replacing all systems and relocating the control room to a remote location roughly 20 km away. Given that there would no longer be a Kordia operator at Parliament House, reliable, efficient remote communication was essential. Gencom worked closely with Kordia and with Parliament from the outset to design and implement a modern studio control system that would meet these requirements. Ross Video's Lightning Control System was selected for its flexibility, ease of use, and tight integration with Ross's Carbonite vision switcher and XPression graphics system. Gencom contracted separately with the Office of the Clerk to install new cameras in the debating chamber (these continue to be owned by Parliament).

Installation occurred over the Christmas 2018 recess and the system was handed over to Kordia in mid-January in preparation for the 2019 Parliamentary Sitting Schedule.

ABC Melbourne Accommodation Project

Gencom has a long track record of delivering system integration services for the ABC, dating back to the relocation of their Brisbane TV and Radio studios to a new greenfield facility in 2010-2012. After completing several smaller projects in the years following, Gencom was engaged in 2016 to oversee the relocation of technical facilities from three separate locations in Melbourne to one newly expanded facility in Southbank.



The project involved a very tight timeframe, with very little time for design review and updates.

Gencom established a team of seven design engineers, most working remotely with one lead designer on site. This lead designer would liaise with the ABC project team to establish design decisions early on, then feed that information to the remote team to generate the detailed design. Once the design was complete, and approved by ABC, the lead designer would work closely with the wiring teams to ensure that questions were addressed and any changes implemented in a timely fashion to keep work proceeding on site and ensure the accuracy of as-builts.



The site presented unique challenges from a Project Management perspective, as the existing facility needed to remain largely On Air while existing equipment and services were relocated to a new Central Equipment Room. Two of the most complicated relocations were the Central TV Routing Switcher for which we were given a two day outage and the Station Talkback System, four days. Large amounts of temporary cabling had to be installed to allow these relocations to take place. Further complicating matters was the News Studio which is responsible for producing the daily Australia wide 3 hour breakfast news package and the local evening news package had to be temporarily relocated to enable refurbishment of the existing building before being relocated back to its permanent location. All of this had to be achieved with minimal disruption to the news operation.

The project originally consisted of 23 separate works packages all of which involved equipment relocations and as the project progressed several additional packages were added to the scope as the ABC's needs evolved over the 18 month duration. At all times extremely detailed planning and careful coordination with the ABC project team, operating units, and the main contractor and other trades was essential. Gencom was able to adapt to several changes to the schedule driven by requirements of the Construction effort, and was able to successfully deliver the project.

TahuFM Radio Technology Upgrades

TahuFM is the largest of New Zealand's 21 iwi radio stations, broadcasting throughout the South Island with a mission to promote Te Reo Māori and serve Māori communities through news, information, and entertainment. After years of incremental technology upgrades, the station recognised the need for a coordinated approach to modernising its infrastructure and planning for future growth.

In 2021, TahuFM engaged Gencom Technology to provide consultancy services, develop a long-term technology roadmap, and oversee the implementation of key upgrades. Working closely with TahuFM's management, suppliers, and contractors, Gencom coordinated the project over a two-year period, much of which was delivered during COVID-19 restrictions.

To date, the project has delivered new on-air broadcast systems, upgraded computing, storage, and networking infrastructure, and modernised software platforms throughout the station. Future stages will focus on expanding TahuFM's multi-platform capabilities through video production, regionalised content delivery, and enhanced advertising workflows.