

Integrating Excellence at ULTRATECH CEMENTS, Mumbai with EYTE Technologies

How the systems integrator redefined AV design for the company, including reception area, boardroom, meeting room, MD & CXO cabins, cafeteria, and a media room

EYTE Technologies Pvt Ltd is one of the leading AV, IT, IOT, and Acoustic consultants in India. Abdul Waheed, Managing Director, EYTE Technologies rolls up his sleeves once again providing hands-on AV design and solutions for Ultratech Cements Limited, Andheri, Mumbai, along with his team. In this case study, Waheed elaborates on the successful completion of the AV integration for this Indian multinational cement company and a subsidiary of the Aditya Birla Group, from the venue's AV design conception to its completion.



Abdul Waheed, Managing Director, EYTE Technologies

YTE entered a stage where client was poised to finalize the audiovisual design within a tight timeframe. The immediate priority on day one was the submission of raceway conduit drawings, setting the stage for AV infrastructure amidst ongoing construction activities. The project encompassed a diverse range of spaces, including reception areas, general cabins, CXO & MD cabins, boardrooms, meeting rooms, cafeteria, gymnasium, and a media room.



Reception area as integrated by EYTE Technologies at Ultratech Cements speaks a lot about the impressive AV infrastructures

Notably, as the team mentions, the existing AV experience was rudimentary, prompting the client's desire for cutting-edge technology at optimized costs.

Analysing project's requirements

The need analysis stage involved multiple stakeholders, each contributing their insights and suggestions, necessitating swift consolidation to align with the project's objectives. The primary focus areas were to equip mid-sized rooms with all-in-one video conferencing capabilities, facilitate presentations in smaller rooms, and establish comprehensive AV functionality in the boardroom. Additionally, specialized setups such as town hall arrangements in the cafeteria and signage content management at reception posed unique challenges.

With the advantage of an in-house CAD and design team, complemented by Certified Technology Specialists (CTS) holders, EYTE's project team swiftly formulated the preliminary design concept (PDC) and bill of quantities (BOQ). This abstract, as the team claims, encapsulates the project's urgency, complexity, and the collaborative efforts that enabled the timely submission of the first-cut PDC, setting the stage for subsequent phases of procurement, installation, and commissioning. EYTE team led by Waheed was selected to design and overlook the whole project and provide technical expertise at every stage.

Crafting vision: The design journey

Designing a unique solution which would meet the ever-changing demands of a workspace is always a challenge.

Reception Area:

The reception area serves as a pivotal space for businesses, offering a prime opportunity to convey essential information about the company to visiting clients. A significant challenge arose due to the need for optimal viewing angles, particularly for customers seated in the passage area. Leveraging advancements in cutting-edge technology, alongside enhancements in wider viewing angles, EYTE's team successfully engineered a bespoke solution to address this challenge. Through meticulous refinement and minimal adjustments, EYTE introduced an 85" display solution tailored specifically to the designated area. This innovative approach not only meets the functional requirements of the space but also underscores EYTE's commitment to delivering seamless and immersive experiences for both the clients and the visitors now.

Meeting Spaces:

The demand for streamlined meeting spaces has become increasingly pronounced within the manufacturing company, necessitating clutter-free tables and seamless conferencing capabilities. With numerous projects underway and a steady stream of visitors, including guests, vendors, and employees from various departments, efficient room booking across different verticals has become imperative. Face-to-face meetings, as well as virtual conferencing, are integral to the business operations, underscoring the critical need for accessible meeting rooms.

Presently, room bookings are managed through traditional methods such as telephone calls and emails, resulting in the





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potential for double bookings and undue strain on employee schedules. To address these challenges, the team engineered a comprehensive solution cantered around certified MTR (Microsoft Teams Rooms) video bars with One-Touch Join functionality, seamlessly integrated with a bespoke room scheduling system.

The cornerstone of solution lies in the synchronization between MTR touch panels and the custom room scheduling software. By developing a tailored room scheduler solution encompassing both hardware and software components, the team ensured compatibility with MTR systems while delivering a user-friendly design. This holistic approach optimizes the booking process, streamlines communication, and alleviates the burden on employees, thereby enhancing overall efficiency within the meeting spaces.

Boardroom:

The architectural layout presented a unique challenge, with a tightly baffled ceiling above the sitting area and a perimeter of POP ceiling. Additionally, the intricately finished table posed limitations on modifications, necessitating a strategic approach to AV integration.

To optimize audio quality and maintain the aesthetic integrity of the space, pendant microphones were proposed in conjunction with ceiling speakers for seamless audio reinforcement. Given the V-shaped configuration of the table, the implementation of VC (video conferencing) cameras, paired with the expansive 85"

displays, aimed to foster a more immersive meeting experience for board members.

A key consideration in this project was the client's stringent network policies, which restricted AV devices from accessing the IT network, except for essential components such as MTR (Microsoft Teams Rooms) and room scheduling systems. To overcome this challenge while ensuring seamless operation, EYTE's internal IT team in co-ordination with the clients' IT team, came up with a design suggesting separate Operational Technology (OT) network. This dedicated network facilitated wireless connectivity, enabling centralized control via a wireless touch panel. Through a single touch interface, board members could effortlessly manage AV devices, as well as lighting and HVAC systems, enhancing convenience and efficiency during meetings. By meticulously addressing each aspect of the boardroom's requirements and leveraging innovative solutions, the team succeeded in creating a sophisticated and user-friendly environment tailored to the discerning needs of board members.

MD & CXO Cabins:

In addressing the AV requirements of this space, akin to meeting rooms, EYTE's team recommended a video bar-based MTR solution complemented by a Wireless Touch Panel for streamlined HVAC and lighting control. However, a unique challenge arose due to the sensitivity of the area, with the client expressing a desire for restricted movement within both the designated space and adjoining areas.

To address this requirement, EYTE proposed a tailored IoT-based solution featuring IoT gateways and beacon cards. These components work in tandem to detect movement within the specified area, triggering real-time notifications to the security team and relevant personnel if any unauthorized entry occurs. This proactive approach not only enhances security measures but also provides peace of mind to occupants, ensuring the integrity of the space is always maintained.

Furthermore, to fortify access control measures, the team suggested the implementation of a facial recognition-based device coupled with a magnetic locking system on the cabin door. This sophisticated solution restricts entry exclusively to authorized individuals and their designated personal assistants, thereby safeguarding confidentiality, and ensuring that only approved personnel gain access to the sensitive areas. Furthermore, the client also approved face recognition-based solution considering multiple factors.

Media Room:

This multifunctional room posed a unique challenge, requiring adaptable setups for boardroom meetings, training sessions, and media events. While the boardroom and training room configurations aligned with established norms, the integration of backend devices for media room functionality presented a distinct challenge.

In close collaboration with the client's dedicated Media Room team, extensive consultations were conducted to ascertain their precise requirements and craft a bespoke solution. The envisioned setup necessitated a stage layout equipped with handheld microphones and strategically positioned cameras to capture speaker interactions effectively.

Given the diverse range of events hosted in the space, including executive addresses, AGM presentations, interviews, and critical communication scenarios, robust streaming capabilities were paramount. To facilitate seamless live streaming of events and ensure reliable communication during emergencies, high-end devices such as video conferencing systems and dedicated 4K broadcast cameras were recommended.

Furthermore, a specialized streaming and recording device was integrated to enable simultaneous broadcasting on platforms like YouTube and Facebook, while archiving recordings locally for future reference. Recognizing the critical role of



Conference room as installed by EYTE Technologies with bespoke AV Systems

internet connectivity, dedicated lease lines were proposed to ensure uninterrupted access.

Central to the operation of the entire setup was an iPad-based automation controller, providing intuitive control over various AV components. Moreover, essentials such as a chroma screen with broadcasting lights were incorporated to enhance visual presentation quality.

The comprehensive solution encompassed a teleprompter, tracking-based cameras, handheld and head-worn microphones, a dedicated 4K PTZ camera on a tripod, an 85" display, and an iPad for automation. By meticulously addressing each aspect of the client's requirements, the team delivered a versatile and technologically advanced media room solution tailored to their precise needs.

Decoding Solutions: Technical Comparison & POCs

Following rigorous evaluation and multiple demonstrations, the client opted for Samsung's interactive and non-interactive display solutions. Addressing security concerns and IT policy compliance, the project team conducted extensive demonstrations, ultimately selecting the Crestron Flex-based system for video conferencing. This choice ensured both functionality and adherence to stringent security protocols. For boardrooms and media rooms requiring advanced video conferencing capabilities, Lumens and Yealink emerged as top contenders for VC tracking cameras. These selections were made based on performance, compatibility, and specific room requirements. To ensure superior audio quality and efficient control functionalities, the project utilized Crestron and QSC for back-end processing. This strategic decision ensured seamless integration and reliable performance across all audio and control processes. Bright Sign was chosen for dynamic signage needs, including food menus, open area messaging, and reception signage. In areas such as the cafeteria and town hall, QSC speakers, Elite Projection screens, and Panasonic projectors were selected to enhance the audiovisual experience. This comprehensive setup

ensured immersive experiences for both audio and visual elements. For IoT implementations, NFS was finalized for room booking solutions, while Bio-star and Veris were chosen for access control, including facial recognition technology. These selections were made to optimize functionality and security across the facility.

Guiding Progress: From Project Monitoring to Handover

Upon the engagement of the Audio-Visual Systems Integrator (AVSI), a proactive approach was adopted to adhere to stringent deadlines. Tri-weekly site visits were meticulously scheduled to address any obstacles, ensuring smooth progress throughout the project lifecycle. Both the AVSI and EYTE's team diligently identified

completion in March 2024.

A Reflective Conclusion

The successful completion of the project stands as a testament to the dedication, expertise, and teamwork demonstrated by all stakeholders involved. Through meticulous evaluation and selection processes, EYTE's project team successfully identified and implemented best-in-class solutions for each aspect of the audiovisual project. By prioritizing performance, reliability, and security, the team was confident about delivering an exceptional user experience that meets and exceeds client's expectations.

Clients also shared their amazing feedback about EYTE's team's dedication and commitment towards successful project



CXO Cabin of Ultratech Cements office with conventional desk and meeting table

and resolved challenges, ensuring seamless execution.

Successful Handover and Space Utilization

By November 2023, the project reached its culmination with a successful handover, enabling the client to fully utilize the space. Regular audits were conducted to identify and rectify any snags with the AVSI playing a pivotal role in optimizing the AV system's functionality. With all snags addressed, the project achieved

completion. One of the clients, as claimed by EYTE, stated, "On behalf of all of us here from UTCL Admin & FM team we express our appreciation to EYTE team for their dedication and support all along over last about a year or so." Another client added, "Mr. Shreyas, Project Manager, EYTE Technologies, has been extremely supportive, articulate, innovative and has helped us in resolving many complicated challenges. It was great pleasure to work with you all and we look forward for next opportunity to work again with EYTE."

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