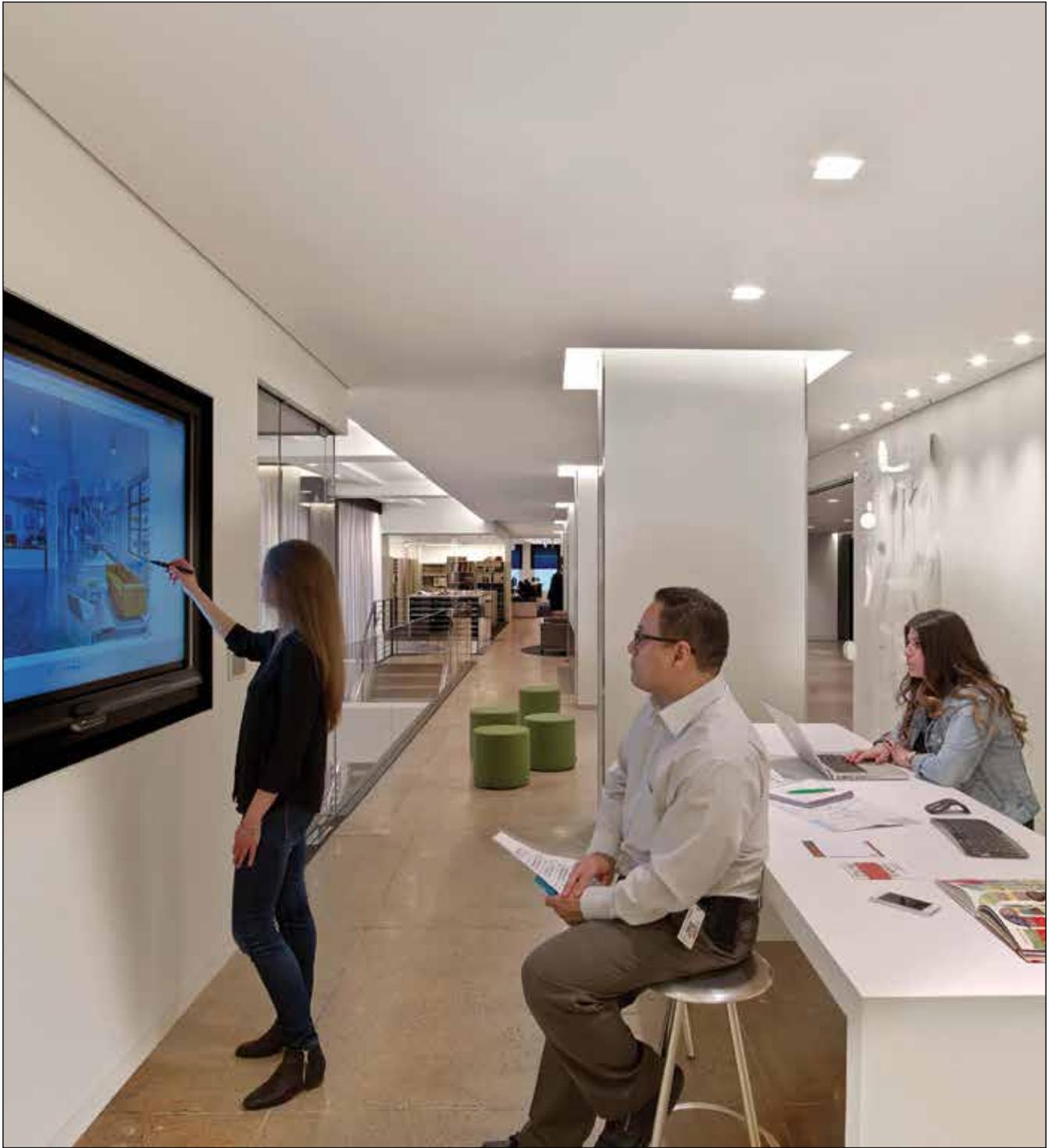# PERSPECTIVE
NEW YORK

The comprehensive view of real estate, design and construction

THECLARIENTGROUP

TECHNOLOGY CONSULTANTS:
ADVANCING YOUR VISION®

COVER STORY

THE CLARIENT GROUP
…Technology Consultants: Enabling Experiences and Advancing Your Vision®
By Carolyn A. Schultz

As a leader in technology, the firm "understands at a granular level the end users' needs and desires," notes Charles Buscarino, President. "As a result, we are able to build a platform which anticipates what end users may want and need. This enables us to create solutions which facilitate the path toward smart facilities."

THE**CLARIENT**GROUP

TECHNOLOGY CONSULTANTS: ENABLING EXPERIENCES & ADVANCING YOUR VISION®

By Carolyn A. Schultz

In today's world, user experience is king. Everyone—from the person on the street to the CEO in the corner office—can retrieve a wealth of information in a split second, purchase products and services with a swipe of a fingertip, and access limitless entertainment options the moment inspiration strikes.

With instant gratification accessible through a $100 smartphone, is it any wonder, then, that owners, tenants, and consumers expect an even greater level of user experience from a multi-million (or even billion) dollar facility?

"Leveraging technology to satisfy and surpass user expectations—and thereby increasing the owner's revenue opportunities from day one—is a complex balancing act," said Charlie Buscarino, President of The Clarient Group (TCG), a technology consulting and design firm he founded in 2002. "By understanding at a granular level the end users' needs and desires; the capabilities, limitations, and cost of current and future technologies; plus the owners' financial, operational, and aesthetic goals, we are able to build a platform which anticipates what end users may want and need. This enables us to build platforms which facilitate the path toward smart facilities."

"Finding that sweet spot is no easy task," Buscarino said. "But over the past 13 years, TCG's unique, integrated approach has helped corporate, residential, hospitality, educational, sports/recreation, cultural, retail, healthcare, transportation and mixed-use projects, ranging from 4 thousand to 4 million SF, achieve their vision."

PHILOSOPHIES AS A "TECHNOLOGY FIRM NOT ABOUT TECHNOLOGY"

TCG constantly drives to be a leader in technology integration and developing smart building solutions. Nonetheless, TCG emphasizes it is "a technology firm not about technology—but about clients' goals," Buscarino said. "Our emphasis is on making clients' lives better with the help of technology, rather than the technology itself."

Planning for tomorrow and beyond often requires reexamining past practices and developing more efficient and cost-effective methods. "We have the expertise to ask questions clients may not have asked themselves," TCG Project Manager and Senior Engineer Larry Werner explained, "and help them find answers based on their goals. We ask 'what does your space look like today, and what do you want it to look like tomorrow? Besides how it will look physically, what are the tools (visible and invisible) you need to accomplish your goals?'"
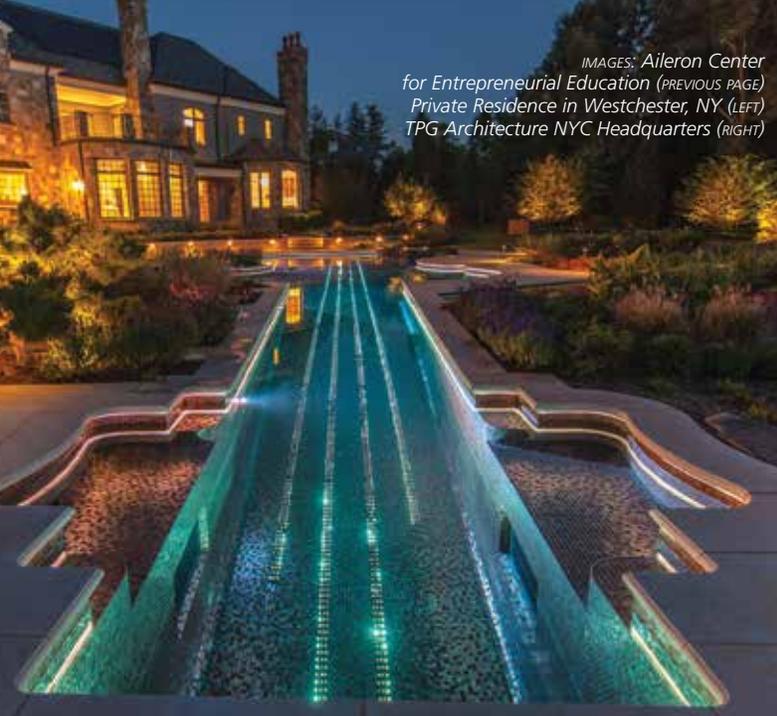
A FORWARD-THINKING DESIGN & PROJECT MANAGEMENT PROCESS

TCG considers its design process a key differentiator. "We develop beyond performance documents. We develop

"The Clarient Group has an extraordinary ability to think outside the box. They are helping me to realize my vision of integrating and automating a very broad range of systems to create capabilities never before envisioned. I doubt there is another company with their combination of knowledge, experience and can-do attitude."

The Private Residence Client

IMAGES: Aileron Center for Entrepreneurial Education (PREVIOUS PAGE) Private Residence in Westchester, NY (LEFT) TPG Architecture NYC Headquarters (RIGHT)

THE**CLARIENT**GROUP

design documents," Buscarino said. "We know designs work before leaving the office, and we can also provide project management services to ensure successful transition from design through construction and final commissioning. We want to be the people you don't have to worry about, so we advise on potential issues before they become problems."

"Internally, we spend significant resources developing tools for machines to do more of the mundane," Buscarino added, "so our people can spend more time focusing on creative solutions. Each person has specific subject matter expertise combined with a breadth of knowledge and skills extending across multiple technologies and disciplines—a powerful combination resulting in holistic, well-informed projects for which we can help our clients make the most informed decisions after fully evaluating various innovative options."

Because of the number of systems TCG plans and designs, the firm often also assumes the role of "Integrated Technology Project Manager," overseeing integration and implementation from design through construction.

Partner, Managing Director of FXFOWLE, Tim Milam, AIA, LEED, noted: "FXFOWLE is pleased to be working with The Clarient Group. The team, led by Charlie Buscarino, is very knowledgeable and manages to make complex technical issues understandable to a wide audience."

SMART BUILDINGS: A STEP ABOVE INTEGRATED

By envisioning the potential of building integration capabilities and the "Internet of Things," The Clarient Group has emerged as a leader in the "smart building" approach of extensive, efficient communication between various systems. As TCG's Vice President, Integrated Building Technologies Michael Carter said: "The goal is to visualize the building as an extension of the organization and articulate how properly planned and integrated technologies enable an environment that is responsive and adaptive to occupants' needs and comfort."

In smart buildings, different systems and devices actively exchange information in real time, and inform each other in a

> *"When we and our clients use technology systems like what The Clarient Group designs, it's phenomenal how simple it is to use, and how well it works."*
>
> **Geoff Lynch, AIA LEED AP, Partner, H3 Hardy Collaboration Architecture**

symbiotic relationship, enabling a user to personalize an otherwise impersonal space. For example, using an ID card to enter a lobby turnstile can signal the elevator to automatically take you to your floor, and set up your preferred lighting and temperature settings in your office. From an owner's perspective, smart buildings leverage the interconnected nature of these systems to provide streamlined operations and predictive analytics to ensure business operates efficiently. Even more importantly, in an emergency, sensors can detect stranded occupants and help first responders facilitate rapid evacuation.

"Ideally, smart buildings should constantly evolve comparable to an iPad's level of integration," Buscarino explained. "For example, new 'apps' can simply enable new functionality as needs arise or receive updates allowing the existing device to do more with the same hardware. At TCG, that's how we look at a building."

DESTINATIONS WITH UNIQUE EXPERIENCES

The Clarient Group prides itself on helping clients use technology to create exceptional experiences that make unique destinations.

American Dream in East Rutherford, NJ is a prime example: As a one-of-a-kind year-round entertainment, retail and tourism destination designed to attract millions of visitors, American Dream will include a theme park, water park, indoor ski and snowboard park, NHL-sized ice rink, movie theaters, performing arts theater, restaurants, miniature golf, observation wheel (Ferris Wheel) and aquarium.

For the overall location and each individual space, TCG is designing a detailed technology infrastructure system that promises to bolster American Dream's appeal as a must-see destination where visitors from all over the world can experience activities and interactivity they won't find anywhere else.

Even with this larger-than-usual variety of spaces within one location, TCG's work makes it possible for American Dream to easily operate and maintain the vast number of technology systems centralized via an integrated infrastructure.

"We design around the concept of 'future-enabling,'" Buscarino explained. "Even as specific equipment changes, the overall concepts and designs remain the same because of TCG's planning-oriented and forward-thinking design process. The flexible infrastructure supports change."

In addition to master planning and a future-enabling design, TCG has assisted the American Dream team and its agencies with the technology to support the customer experience, operational development and marketing sponsorship support. Money-saving and simplification have been central goals, along with ensuring that technology enables and enhances enjoyment of the overall experience that American Dream promises.

At **Galerias Valle Oriente (GVO)** in Monterrey, Mexico, one of TCG's many retail projects worldwide, TCG's services supported the technology assessment and planning of a destination mall experience.

American Dream

TECHNOLOGY PROTECTING LIVES—
THE MOST CRITICAL MISSION

The most significant value technology can provide is protecting lives. For this most critical mission, The Clarient Group has been honored to work on First Responders System Design-Build projects at facilities including **One World Trade Center** and **One Bryant Park-The Bank of America Tower**.

At **One World Trade Center (WTC)**, TCG is currently providing project management and design support for the First Responders System Design-Build Team. In addition, TCG is a liaison to construction manager Tishman Construction and the One WTC Project Team. This First Responders System is among many other building components that set new standards for high-rise buildings, and exceed existing codes.

TechMer-NAMS is leading the One WTC First Responders Design-Build Project, and chose TCG because "TCG's level of expertise and detail-oriented design is crucial and invaluable on a project this large and significant," TechMer's CEO Itsick Ben Tolila said.

At **One Bryant Park**, TCG led project management and provided implementation support for the large First Responders System Design-Build Team. The Durst Organization and Bank of America were both clients. The NYC Fire Department approved the installation within seven days—an exceptionally fast turn-around time for a large project.

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Itsick Ben Tolila, CEO, TechMer

TECHNOLOGY SUPPORTING BUSINESS MISSIONS, EXPERIENCES & GROWTH

When corporate clients hire TCG, they also seek to improve their experiences through technology solutions that reduce costs and increase return on investment. "We can be the glue helping businesses unify different departments through more effective technology systems," TCG Senior Engineer Seth Smith said. "We help them coordinate and translate from each perspective."

At **Hudson Yards**—New York City's largest current real estate development area—luxury goods manufacturer **Coach, Inc.** has entrusted TCG to design technology systems for its **Global Corporate Headquarters**. This new building will anchor 10 Hudson Yards, one of the development's gateway buildings at the northern end of the High Line. TCG is helping Coach grow in its new space as a major tenant and contributor to the dynamic new Hudson Yards neighborhood in Manhattan.
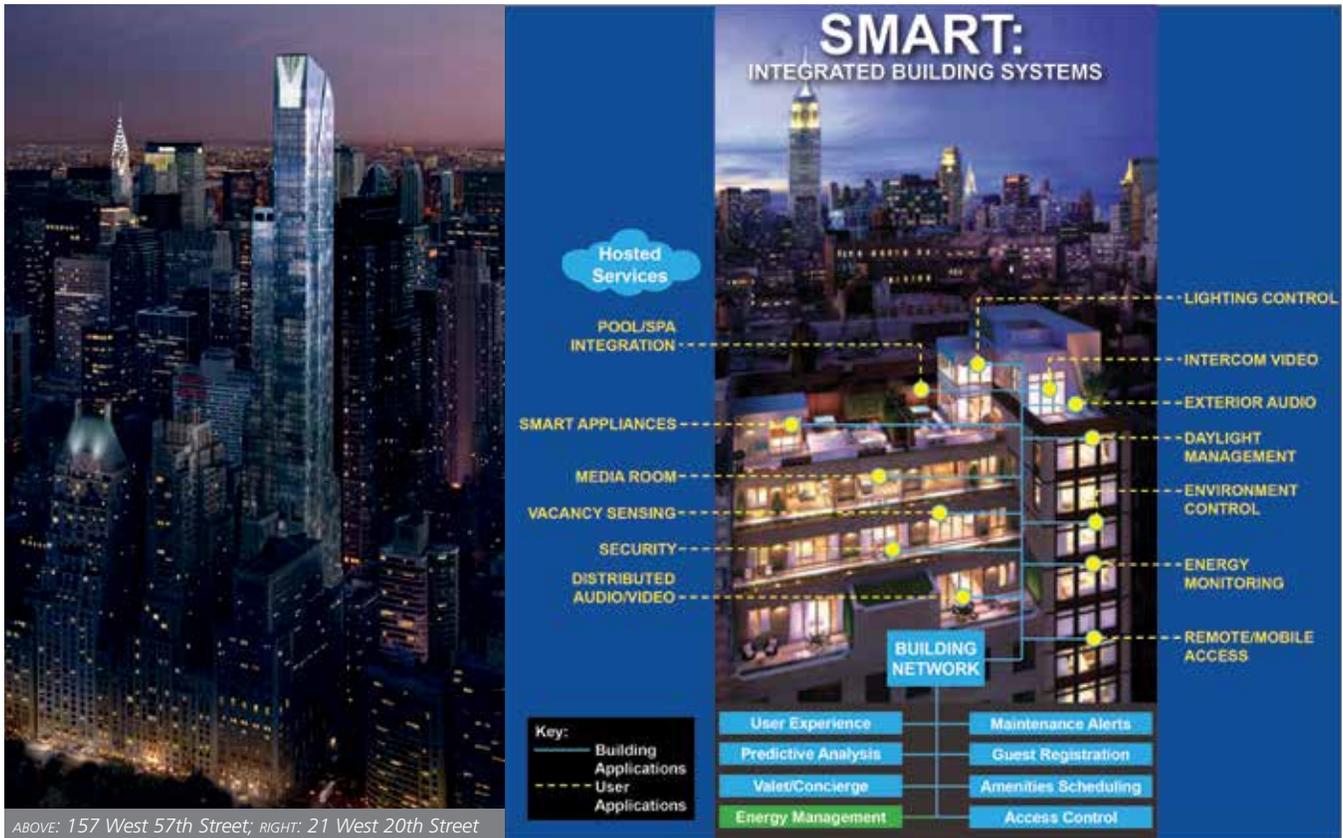
"We're designing not just for construction completion in 2015, but for 2020 and beyond," as TCG's Senior AV Engineer Phil Rovalino said. "Our designs should enable Coach to use all resources for many years, and not have to re-wire."

TCG is responsible for the design, project management and oversight of all AV and IT services within Coach's space. IT systems include structured cabling, network, voice and wireless (WiFi). Also, TCG is the technology liaison between Coach and The Related Companies, Hudson Yards' developer.

One important concept of the Coach Project, Rovalino explained, is that: "We designed connectivity through the network, so every device is an endpoint, whether it's a computer, display screen, phone, tablet, DVD player or another device. Someone can plug in a device and send information to multiple rooms, or out over a network. Centralized, adaptable control rooms and videoconferencing systems help coordinate sharing expensive equipment. In addition to using this Day One, our designs incorporate space for seamless future expansion and flexibility as Coach continues to grow."

Aileron Center for Entrepreneurial Education

SMART:
INTEGRATED BUILDING SYSTEMS

ABOVE: 157 West 57th Street; RIGHT: 21 West 20th Street

Recently, The Clarient Group helped **TPG Architecture** relocate their **New York City Headquarters** with a future-oriented, money-saving approach and vision.

TPG Architecture's new office features a wide variety of collaboration tools and spaces, for which The Clarient Group recommended technology designs that demonstrate TPG Architecture's design, efficiency and technology leadership—all while saving time and money in the short and long term. For example, new tools include video collaboration screens and other connections that enable drawing, editing and production in multiple locations in real time; interactive smartboards; lobby displays; an LED Display Wall for showcasing projects; a design lab/presentation area; and a town hall-style meeting area with podium connection support. Key technology devices include scheduling touch panels for room reservations, videoconferencing technology systems, card readers, CCTV cameras, microphones, speakers and lighting control equipment.

Frederic M. Strauss, AIA, Managing Partner at TPG Architecture, said: "TPG's business required 3Cs—greater connectivity, enhanced collaboration and improved communication—between offices and clients in developing the IT design for our new space. The Clarient Group worked closely with us from project inception to understand our requirements fully and suggested different cost levels of solutions in all categories. They collaborated with our internal IT team, our design and project management team and the leadership of our firm to achieve our goals to the fullest, and made it a pleasant business experience as well."

For the law firm **Cleary Gottlieb Steen & Hamilton LLP (Cleary Gottlieb)**, TCG has provided similar forward-thinking, ROI-oriented master planning, consulting and design services for a variety of projects over the past decade, including a recent restack of 500,000 SF of office space; a 23-room conference center with master control room and shared equipment, communications and security systems upgrades; and the firm's entire IT infrastructure redevelopment.

"Our work for Cleary Gottlieb is verification of the value of technology master planning leading to efficient design," Buscarino noted. "TCG's master plan introduced new concepts that would apply in future years, so as technology needs and equipment change, the infrastructure does not become a barrier. We know technology will evolve during and after the course of a project, and we anticipate and enable adaption to these changes way into the future."

In the case of the Cleary Gottlieb Project, the anticipated future technologies were so well embraced that they were implemented during the later phases of the multi-phase Project, with no additional infrastructure cost.

RESIDENTIAL: TECHNOLOGY FOSTERING USER-FRIENDLY HOME ATMOSPHERES

Beyond work, we all seek comfortable places to call home, and TCG's residential designs feature user-friendly technology that easily fosters such desired home atmospheres.

"157 West 57th Street is a showcase building with showcase technology offering an exceptional, unparalleled experience. We hired The Clarient Group because of their unique value proposition to provide intelligent solutions integrating creativity and attention to detail."

Lou Arzano, Senior VP/Director of Mechanical and Electrical Engineering, Extell

Cleary Gottlieb Steen & Hamilton LLP

On 57th Street, Extell Development Company hired TCG to address technology needs for one of their premier projects. This included the **Park Hyatt New York Hotel** topped by the **One57 luxury residences**. The property became known as the "Billionaire Tower" and has attracted buyers from around the world—including one unit reportedly sold for over $100 million—the most expensive single-family home to be sold in NYC history.

Extell Senior Vice President/Director of Mechanical and Electrical Engineering Lou Arzano said: "157 West 57th Street is a showcase building with showcase technology offering an exceptional, unparalleled experience. We hired The Clarient Group because of their unique value proposition to provide intelligent solutions integrating creativity and attention to detail."

TCG's comprehensive role has included designing technology systems for the base building, common areas, private amenity spaces, residential sales office, and individual apartment buyers. This includes solutions for building/room automation, AV, IT, security, distributed antenna system (DAS), lighting controls, shade controls, point of sale, and property management systems.

"The Clarient Group's planning and designs help showcase our buildings' high-end aesthetics and premier quality," Arzano added. "TCG's level of quality and service is top-notch. Their solutions always add high value to our projects, and we look forward to many future collaborations."

At **33 East 74th Street**, also known as the **Whitney Townhouses**, The Clarient Group is designing the building's technology backbone to facilitate each owner's technology customization capabilities without having to modify the architectural details. Each residential condominium unit will have its own technology infrastructure, and unit sizes range from 3,850 to 10,000 GSF each. The building

is a compilation of historic brownstones and townhomes, where the facades have been retained and restored, and a new structural system was built behind and above.

In addition, for a smart building, TCG designed how systems will work together in concert, beyond each individual system. For example, each residence will be "AV ready." TCG designed the infrastructure to support AV control systems capable of controlling lighting, shades, temperature, built-in audio/video components, touch panel or iPad interface devices, and remote access capability. TCG recommended what should be part of each unit's base design, and what can be provided as options to customize specific units for specific potential owners. For the base building common spaces, including lobby and gym/fitness area, TCG is also designing technology features, including AV, IT, security and control systems.

At **21 West 20th Street's luxury condominiums**, TCG's designs also feature a significant amount of smart building capabilities, including fully integrated AV, lighting controls, temperature and other systems that communicate with each other and with portable devices—for both building applications and user applications.

Gale International's Director of Development Danny Kim said: "Gale International prides itself on the technology packages offered in our residences. For our luxury condo homes at 21W20, TCG has been a great collaborative partner to work with in envisioning, designing, and creating a platform that is sophisticated with a scalable IT infrastructure system that we believe home buyers will truly appreciate."

At an 11,800 SF **Private Residence in Westchester, NY**, The Clarient Group is designing one of the ultimate integrated buildings to become a true "smart residence." A significant number of systems connect, communicate and collaborate, based on rules the Client establishes and customizes. Because of the complex requirements, the Client also utilized TCG's Technology Implementation Services to coordinate contractors' installation of the technology systems.

"It's integration on steroids," TCG President Charlie Buscarino said. "It proves that this level of integration can be done." TCG Project Manager/Integrated Building Technology Consultant Steven Cernik added: "It's a great incubator for new technology, to test concepts and prove they can work."

Like a tree of strongly-solidified roots and branches, the Residence's technology centers around a network as the core root, with large branches for databases, Internet connectivity configurations and devices, security, controls and a building management system—each of which has numerous sub-branches ranging from specific devices/equipment to environmental monitoring (i.e.-temperature and snow melting) to audiovisual, water and lighting controls—some impacting the overall house, and others focusing on specific sections (such as the entertainment/media room; exterior walking paths; and the iconic, much-publicized violin-shaped pool that includes 5,600 lights).

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Danny Kim, Director of Development, Gale International

For example, with environmental control algorithms the Client is developing, simply controlling the temperature in a space requires analyzing the data being collected by several distinct sub-systems in order to maintain a desired comfort level of the individual(s) occupying the space. Each sub-system is providing information such as who the person is and his/her preferred temperature setting—along with contributing heating/cooling sources like an active fireplace, open window or sunlight entering the space. The system then analyzes this information to either control the various heating and cooling systems or notify the occupant of competing scenarios, such as a window being open and the HVAC trying to cool the space. Even when a space is not occupied by a person, the control algorithm is utilizing the various sub-systems to maintain a desired temperature, without the use of traditional heating and cooling systems, reducing the energy footprint of the Residence.

The Private Residence Client said: "The Clarient Group has an extraordinary ability to think outside the box. They are helping me to realize my vision of integrating and automating a very broad range of systems to create capabilities never before envisioned. I doubt there is another company with their combination of knowledge, experience and can-do attitude."

HOSPITALITY: TECHNOLOGY HELPS CREATE "HOMES AWAY FROM HOME"

Beyond residences' familiarity, hospitality projects offer unique challenges as "homes away from home," including high expectations for technology functions. TCG incorporates this ideal into hospitality projects, including the recently completed **Hyatt Times Square Hotel**, which opened in December 2013 at 135 West 45th Street. Developed by Extell, it is now the tallest single-use Hyatt Hotel in the world.

In addition to a wide variety of AV, IT, security and communications solutions, TCG also designed AV for a programmable LED display ceiling in the lobby elevator vestibule able to show images creating a distinctive welcoming experience.

Hyatt Times Square Hotel

EDUCATION PROJECTS: TECHNOLOGY MAKING LEARNING EASIER

Education (both higher education and K-12) is another key market sector for The Clarient Group.

For example, currently at **Columbia University's new Manhattanville Campus**, The Clarient Group is conducting master planning and designs for solutions to support the cellular systems, two-way radio and first responders communications systems throughout the campus.

SPORTS: TECHNOLOGY MORE THAN A SPECTATOR

In addition to academic goals, TCG has also helped schools showcase athletics. For example, at **Columbia University's Campbell Sports Center**, TCG provided integrated AV, IT and security solutions for spaces including auditorium, hospitality areas, conference rooms, study centers and lounges.

PHOTO BY CHRIS VILLANO

Orchestra of St. Luke's

ARTISTIC TECHNOLOGY: SUPPORTING CULTURAL EXPERIENCES

For cultural projects, including performing arts, TCG has also helped clients use technology to enhance the visitor/audience experience.

TCG was pleased to support H3 Hardy Collaboration Architecture's Design Team at the **Orchestra of St. Luke's and DiMenna Center for Classical Music**—a project that won awards from several organizations. TCG designed IT infrastructure and security systems at this important classical music hub of NYC.

At midtown Manhattan's **Signature Theatre**, TCG also provided IT and security consulting and design services for a Team led by H3.

Geoff Lynch, AIA LEED AP, Partner at H3 Hardy Collaboration Architecture, said: "We really like working with The Clarient Group. They do great work. Whenever we can, we put them on projects."

Lynch added: "More and more of our clients want high levels of technology, and The Clarient Group has helped by making technology designs amazing yet simple to use. Technology can be very complicated and cumbersome, but there are small things that can make a huge difference. Whether they need conference rooms or performance spaces, clients may not have the money for it all, but they're always interested in the infrastructure and what can help beyond the wiring, even at low costs."

"For example," Lynch continued, "in conference rooms and other meeting spaces, technology with simple plug-ins makes it much easier. The Clarient Group's designs help with little things you use every day, like plugging in for conference room displays, as well as big things like videoconferencing connections for large groups. When we and our clients use technology systems like what The Clarient Group designs, it's phenomenal how simple it is to use, and how well it works."

"TPG's business required 3Cs — greater connectivity, enhanced collaboration and improved communication — between offices and clients in developing the IT design for our new space. The Clarient Group worked closely with us from project inception to understand our requirements fully and suggested different cost levels of solutions in all categories. They collaborated with our internal IT team, our design and project management team and the leadership of our firm to achieve our goals to the fullest, and made it a pleasant business experience as well."

Frederic M. Strauss, AIA, Managing Partner, TPG Architecture

THE CLARIENT WAY

Providing integrated technology solutions to advance clients' visions, The Clarient Group evaluates all low voltage systems and provides consulting and design services to enable them to work together efficiently. This includes, but is not limited to:

Consulting Services
- Technology Strategic Planning/Visioning
- Technology Systems Master Planning
- Building Systems Integration
- Technology Implementation Oversight
- Technology Systems Commissioning
- Project Management and Implementation Support
- Marketing/Sponsorship Support
- Other Technology Systems

Systems Design
- Technology Infrastructure
- Structured Cabling
- Audiovisual
- Security
- Network (Wired and Wireless)
- Voice Communications
- Distributed Antenna Systems (DAS)
- First Responders Systems
- Control Systems (AV, Lighting, Shades, Temperature, etc.)

TRANSPORTATION PROJECTS: TECHNOLOGY TAKES US PLACES

In 2013, the **City of Poughkeepsie** opened a new **Transit Hub** to facilitate connections within the City and surrounding region. TCG's security technology designs, including a camera system, provide enhanced safety for both passengers and drivers in their use of services of the Transit Hub.

Senior Project Manager Paul T. Dionisio, P.E., F.ASCE, of Urban Engineers of New York, P.C., said: "The Clarient Group served as very responsive designers of the security systems for the Poughkeepsie Transit Hub, meeting project goals for enhanced security."

The Design of the City of Poughkeepsie Transit Hub won a 2015 ACEC New York Engineering Excellence Silver Award in the category of Transportation.

A FUTURE-ORIENTED COMPANY ALWAYS PREPARING FOR TOMORROW

As technology, organizations, and users' needs continually and rapidly evolve, The Clarient Group's consulting and design professionals constantly look to the future, embrace inevitable change, and position their clients to evolve with their space and prepare for growth.

"We push the envelope—not for the sake of it—but to achieve clients' goals," Buscarino said.

Whether designing a single-family private residence or a billion-dollar mixed-use destination complex, TCG looks forward to continuing helping others leverage technology to enhance their experiences, collaborate effectively, save money and achieve their goals on day one and beyond, well into the future.

After all, as Buscarino said: "When clients move into a facility, it's not the end of the journey—it's just the beginning." ∎

Thank You

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