

Solution Brief

Generative AI
Voice Assistance

WooHoo®



SPARKLEHAZE
Generative AI for Hotels

Transforming the User Experience for Hospitality and Healthcare with WooHoo's X and Y Series Solutions

Supported by SparkleHaze, WooHoo's X and Y Series virtual assistants, powered by 3rd Gen Intel® Xeon® processors, bring the future of on demand assistance and media management by delivering intuitive user experiences and improving customer satisfaction.

accelerated by intel.

About SparkleHaze

SparkleHaze is a Singapore and UAE based data and digital transformation company focusing on hospitality and tourism. It has been honored with the United Nations World Tourism Organization (UNWTO) award for its contributions to innovation in hospitality and green tourism.¹ In partnership with SparkleHaze, WooHoo developed their cutting-edge X and Y Series solutions to push the boundaries of voice interaction with powerful generative AI. WooHoo offers customers a comprehensive Voice-as-a-Service (VaaS) platform which empowers diverse industries and enterprising businesses to unlock the full potential of voice technology.

Harnessing AI to Address the Labor Gap Across Industries

Across the globe, industries are contending with an unprecedented workforce shortage heightened by compounding factors like the pandemic and the phenomenon known as 'the Great Resignation.' According to the U.S. Chamber of Commerce, more than 50 million workers quit their jobs in 2022, following the 47.8 million who did so in 2021.² This trend has left companies of all sizes and industries struggling to find enough workers to fill open positions. Currently, the latest data shows that there are 8.5 million job openings in the U.S., but only 6.5 million unemployed workers.³ From luxury hospitality to healthcare, modern organizations are managing evolving customer expectations and a shrinking pool of qualified workers. The persistent high number of job vacancies in various sectors underscores a deeper transformation in the global labor market since the pandemic. Fundamental shifts in workforce dynamics coupled with the significant impact of demographic transitions continue to threaten the global economy, prompting a demand for innovative solutions to drive meaningful change.

Hospitality

The global hotel industry faced significant disruptions in the wake of the pandemic and its aftermath, with plummeting travel rates during lockdown and lingering ripple effects contributing to today's staffing crisis. Despite travel rates now surpassing pre-pandemic levels, hotels are struggling with a shortage of qualified workers as many talented hospitality professionals transitioned to other industries in the post-pandemic landscape.⁴ The Economist reports that in 2022, the resignation rate for hospitality workers reached an average of 700,000 each month.⁵ Given that labor constitutes a large expense for hotels and hospitality businesses, the skills gap presents a challenge for employers in finding qualified personnel who can contribute effectively to operations and customer satisfaction, and in turn support the company's profitability.

Healthcare

A similar trend is emerging in the healthcare sector: A critical shortage of caregivers. Compounded social and demographic factors have resulted in a caregiver shortage in the U.S., and the biggest driver is a rapidly ageing population.⁶ With the baby boomer generation reaching retirement age, there will be a steep increase in seniors needing personalized care. According to the U.S. Census Bureau, by 2030, all baby boomers—approximately 73 million people and the second-largest generation after their children, the millennials—will be age 65 or older.⁶ The caregiver workforce isn't growing at the same pace and this imbalance has cascading effects. Costs of personalized care rise as demand exceeds supply and families struggle to find qualified caregivers. Existing caregivers also risk burnout as they take on more clients to meet the growing need, potentially compromising the quality of patient care and endangering their health.

Hotels and healthcare institutions alike are turning to technology to close these gaps. WooHoo, a Silicon Valley-based solution provider, in partnership with SparkleHaze, a data and digital transformation company based in the UAE, saw an opportunity to optimize staffing abilities across both hospitality and healthcare with the development of their X and Y Series AI-powered digital voice assistants. These in-room devices leverage cutting-edge technology to handle user requests with quick, accurate, and personalized responses. The WooHoo X-Series bridges the skill gap in luxury hospitality and the WooHoo Y-Series tackles the staffing shortage in healthcare. Regardless of future labor market uncertainties, WooHoo's comprehensive solutions stand ready to assist organizations and individuals through various health and leisure needs.

Staff Optimization and Streamlined Operations with WooHoo

In response to evolving labor demands and AI advancements, WooHoo developed large language models (LLMs) that interpret spoken user commands, known as 'text-to-intent,' and provide dynamic responses. This voice assistance capability is at the core of WooHoo's X- and Y-Series technology. WooHoo's innovative devices empower both hospitality and healthcare institutions to optimize staff resources and streamline operations by automating routine tasks and enhancing user experience across both sectors.

For the X-Series, WooHoo integrates with hotel point-of-sale tools to assist staff with guest management and elevate guest satisfaction. Separately, the Y-Series incorporates built-in monitoring cameras to provide a comprehensive overview of patient activities and allows one-touch telehealth video calling as well as remote caregiver insights. These tailored features ensure efficient operations and cater to the unique needs of each vertical.



WooHoo X-Series: Transforming Hospitality Experiences

The X-Series voice assistant speaker offers guests a suite of features that transcend the limitations of traditional voice assistants. These include contactless in-room controls such as temperature and lighting adjustments, voice and touch commands, and an all-in-one device that functions as an in-room phone, alarm, audio speaker and tablet. Guests can personalize their experience further by choosing a preferred wake word – a specific word or phrase that activates the device – and interacting with it through voice or touch commands. The X-Series empowers guests with effortless convenience. Ordering room service, requesting fresh towels, and accessing digital menus become seamless tasks, initiating opportunities for increased in-room revenue through targeted upsells and promotions. For example, the X-Series could suggest movies or spa treatments based on a guest's preferences, creating a more curated and enjoyable experience. Additionally, the device seamlessly integrates with over 100+ hospitality and technology third-party applications, including popular apps for room controls and dining options, expanding its capability to enhance guest experiences.

The benefits extend beyond guest satisfaction. With the X-Series, hotels streamline operations by discarding outdated in-room devices like phones and alarm clocks, reducing clutter and enhancing aesthetics. Removing these devices also drives sustainability efforts by cutting down on electronic waste and preserving the energy required to manufacture and operate multiple devices per room. Additionally, replacing physical prints with digital versions reduces paper waste and contributes to environmental conservation. Thanks to a centralized management platform, hotels can manage multiple devices remotely, save on maintenance costs and support their sustainability goals.

WooHoo Y-Series: Improving Healthcare Facilities and Senior Care

Traditional senior care and patient monitoring often requires a significant number of 24/7 on-site staff, contributing to high operational costs. The Y-Series offers a compelling solution by balancing patient safety with a personalized user experience.

For senior care facilities, the Y-Series acts as a lifeline to combat social isolation among seniors by facilitating video conferencing with loved ones. Through configured reminders, seniors are kept in the loop about upcoming social gatherings and events within their facility, which helps create a stronger community. It also streamlines patient monitoring processes, allowing one caregiver to remotely monitor multiple patients. Caregivers benefit from a 330-degree camera rotation feature which provides a complete view of the patient's room. This technology eliminates blind spots and ensures those who might have fallen out of direct sight are readily monitored. By alleviating the need for constant on-site supervision, the Y-Series can contribute to reduced operational costs and help mitigate potential liabilities associated with inadequate monitoring. Regular check-ups become effortless, and timely emergency alerts provide peace of mind for caregivers and families.



In healthcare facility environments, the Y-Series extends its support by integrating with patient records to identify high-risk individuals. Leveraging this integration, staff can prioritize their attention on these individuals, ensuring they receive the extra support and monitoring they need. For less critical patients, the device eliminates the need for around-the-clock, in-person monitoring, allowing staff to remotely track patient status. This approach not only enhances efficiency but also ensures that resources are allocated where they are most needed.

The Y-Series empowers patients and seniors by providing personalized medication reminders with image-based notifications. This can foster better health habits by helping to ensure patients take the right medication at the right time. The Y-Series device can be remotely managed, facilitating large deployments in various healthcare settings including senior care facilities, hospitals, and private nursing homes. Its scalability makes it a one-stop voice destination for multiple healthcare needs.

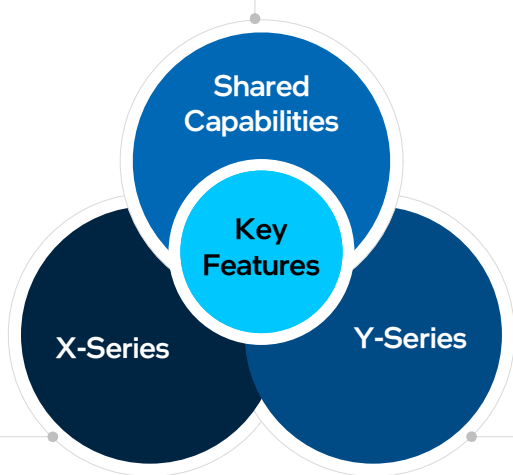
X and Y Series Optimized for Reliability and Security

Unlike other smart assistants that raise privacy concerns by recording all conversations, even when not actively engaged, WooHoo's X and Y Series devices prioritize user privacy by design. These enterprise-grade solutions include a unique on-device chip specifically for wake-word detection. This protects user privacy by ensuring no conversations reach the cloud unless the wake word is activated.

WooHoo's X and Y Series solutions are shaping a more connected and streamlined future in hospitality and healthcare. WooHoo's simplified deployment approach eliminates concerns regarding cables, wiring, and the potential failure of components within large-scale operations, also alleviating the need for extensive restructuring.

Additionally, WooHoo's cloud-based platform empowers customers to manage updates and configurations independently through a user-friendly interface. Automatic synchronization capabilities support seamless updates across devices for menu changes or out-of-stock notifications to deliver reliable convenience. Furthermore, WooHoo's commitment to privacy through on-device processing provides a significant advantage for customers focused on data security.

- **Multilingual Touch Commands:** Users can interact with the devices in multiple languages, enhancing accessibility and user experience across diverse demographics.
- **Customizable Interface:** Tailored interface options allow users to personalize their experience according to their preferences and needs. Additionally, generative AI-based avatars are available to assist with introduction or training videos.
- **Comprehensive Integration:** Seamless integration with existing systems and workflows helps ensure a smooth and efficient operation.
- **Staff Management:** The solutions include features aimed at optimizing staff operations and enhancing efficiency in managing bookings and orders.



- 330-degree Camera Rotation and Remote Monitoring
- Call Nurse Service
- Request Pharmacy
- Calls to Emergency Services



- Contactless Room Controls including light, curtain, and do not disturb
- Digital Amenities Menu Access
- In-Room F&B Dining Menu with integration to Hotel Point-of-Sale systems
- 20+ Multilingual Options
- AI-based Recommendation Engine
- for promotional offers
- High-Quality Audio Experience with JBL speakers
- Enterprise Fleet Management for mass deployment and control
- SIP Client-based PBX System (Session Initiation Protocol client-based Private Branch Exchange) for phone calls to reception and other hotel services



End Customer Benefits

X-Series



Enhanced Guest Experience: Personalize each guest's stay with an in-room tech device to tailor temperature settings, offer customized recommendations, and provide dining and entertainment options.



Increased Room Revenue: Boost in-room sales for dining and spa services by allowing guests to book hotel amenities and activities effortlessly while also promoting direct bookings for future stays without third-party commissions.



Refined Analytics: Gain deep insights into operations and guest preferences to optimize services and improve guest satisfaction.



Promoting Sustainability: Drive sustainability efforts by replacing printed materials with digital hotel catalogues and reduce reliance on outdated room devices.



Improved Staff Efficiency: Expedite operations by enabling guests to make requests and access services directly on the voice or touch assistant device, freeing up staff time for more valuable interactions.

Y-Series



Strengthened Social Connectivity: WooHoo's Y-Series facilitates connection to loved ones through third-party integrations with apps like Zoom, combating social isolation and fostering meaningful relationships.



Assisted Routines: Configurable reminders can be set for medication schedules, doctor appointments, social gatherings, and exercise routines. This gentle prompting helps patients maintain a sense of routine and independence, empowering patients to manage their own care.



On-Demand Virtual Care: WooHoo's Y-Series facilitates video conferencing with medical professionals, providing immediate consultations and faster resolution.



Rapid Response and Safety: With a simple voice command, users can connect with emergency services, ensuring timely assistance in critical situations. This added layer of security provides peace of mind for users and their loved ones.

Driving Exceptional Hospitality Experiences with WooHoo X-Series

Challenge

One of the major hotels in Singapore, like many hotels during the pandemic, sought to improve the guest experience while optimizing staff resources. They encountered difficulties in reducing service calls for routine requests, streamlining in-room dining orders, and minimizing miscommunication and order errors.

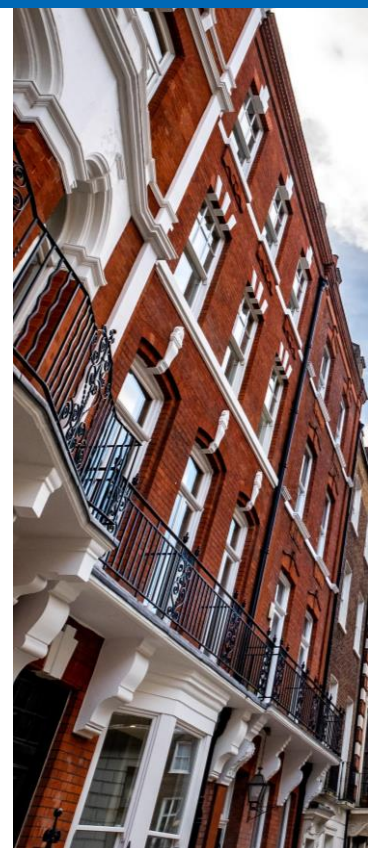
Solution

In response to these challenges, the hotel deployed the WooHoo X-Series voice assistant speaker into their hotel rooms. This innovative solution empowered guests to utilize voice commands for various in-room functionalities, including music, entertainment, amenity requests, in-room dining orders, and room lighting adjustments.

Results

The implementation of the WooHoo X-Series solution yielded significant improvements for hotel management:⁷

- 20% reduction in service calls⁷: Staff freed from routine tasks, allowing them to focus on guest interaction and other value-added services.
- 30% potential increase in in-room dining⁷: ease of ordering via voice commands encouraged guests to dine in more frequently.
- Real-time operational insights: Provided data on guest behavior and preferences.
- Personalized guest experiences: Voice AI facilitated a more tailored guest experience.
- Reduced miscommunication and order errors: Guests could interact directly with the WooHoo X-Series device, eliminating potential misunderstandings.
- Targeted promotion: Enabled push notifications about events and special offers.

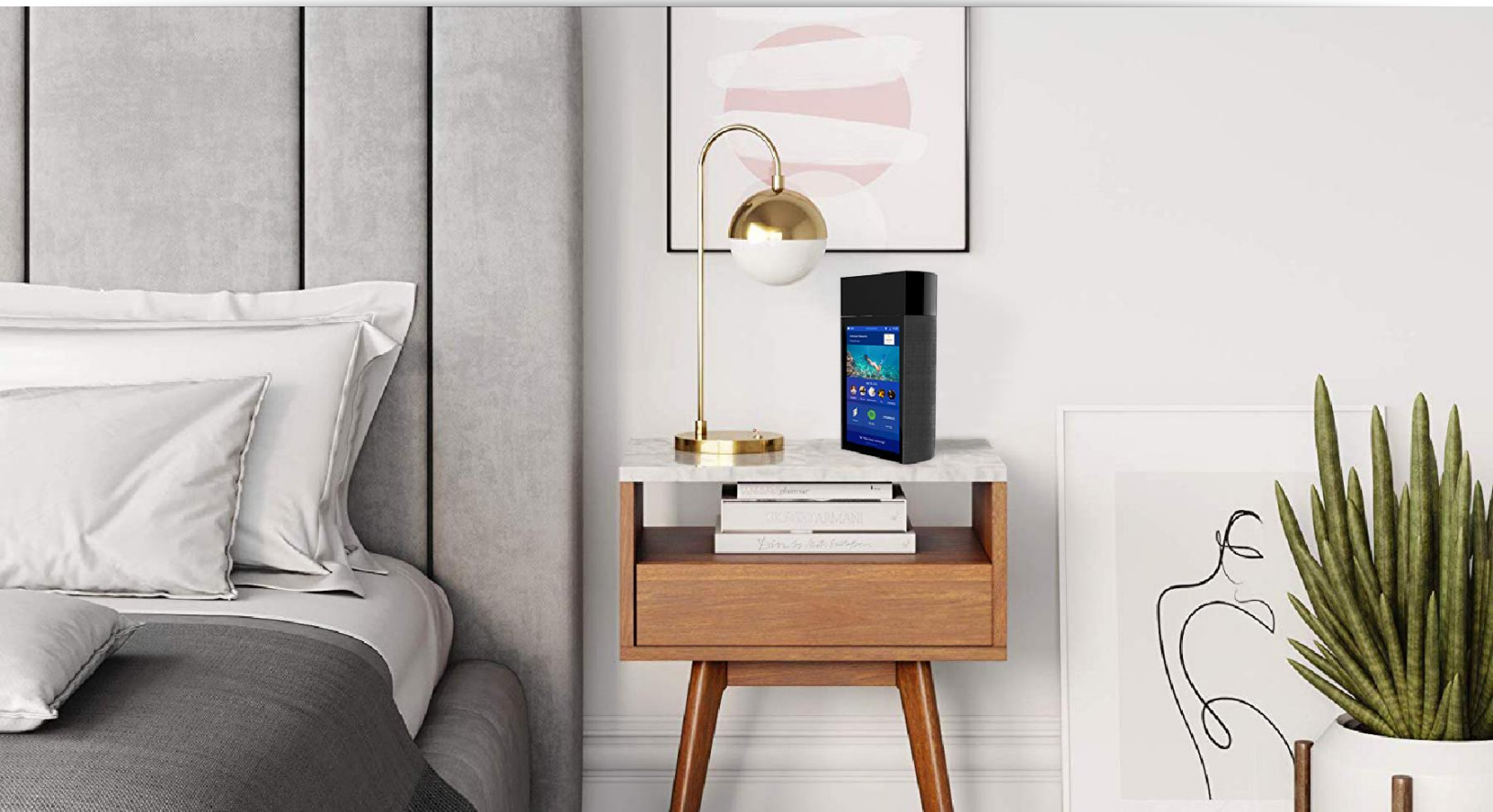


7. City Developments Limited: [Your Voice Is My Command – Voice AI Assistants at Copthorne King's Singapore](#), November 30, 2021. Intel does not control or audit third-party data. You should consult other sources to evaluate accuracy.

Intel® Technology

Intel played a key role in supporting WooHoo's optimization of its text-to-intent classification model, which leverages a suite of powerful Intel® technologies to enhance performance and efficiency. With the support of the Intel® oneAPI Toolkit, WooHoo was able to fine-tune their model on 3rd Gen Intel® Xeon® Scalable processors to help realize the full potential of their AI capabilities. These processors, purpose-built for handling complex AI tasks, enabled the efficient processing of this workload in the cloud, leading to improvements in both model build and inference times. Consequently, customers benefit from faster responses and improved efficiency in tasks like natural language processing and pattern recognition. Intel technologies played a critical role in accelerating AI workloads, ensuring seamless integration with existing hardware and helping to optimize performance.

By harnessing the power of Intel technology, WooHoo not only achieved faster model build and inference times but also unlocked new possibilities for delivering superior user experiences across devices. The collaboration between WooHoo and Intel exemplifies the potential of innovative technology partnerships in driving transformative advancements in AI and enhancing the overall customer experience.



Conclusion

WooHoo's X and Y Series solutions represent a transformative opportunity for businesses in the hospitality and healthcare sector to enhance guest and patient experiences, optimize operational efficiency through user insights, and drive sustainable growth despite burgeoning market challenges. Through the strategic integration of Intel technology, including the Intel oneAPI Toolkit and 3rd Gen Intel® Xeon® Scalable processors, WooHoo has secured faster performance, improved scalability and consequently refined how businesses deliver services. By prioritizing convenience and seamless integration, WooHoo empowers customers to navigate the complexities of their industries with confidence. For more information on how to get started, visit the WooHoo solution page for guidance and updates.

Learn More

To learn more about WooHoo visit:

- [WooHoo Website](#)
- [SparkleHaze Website](#)
- [WooHoo and Intel Collaboration Article](#)

To learn about Intel® technologies visit:

- [Intel® Xeon® Scalable Processors Product Page](#)
- [Intel® oneAPI Toolkit Product Page](#)



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With Intel technologies and capabilities, a vendor's optimized offering can go beyond the traditional compute and extend to accelerated networking, storage, edge, and cloud. It's all part of helping customers build an optimized infrastructure across the company.

Sources

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