

Transforming 811 call center operations with AI-powered communications

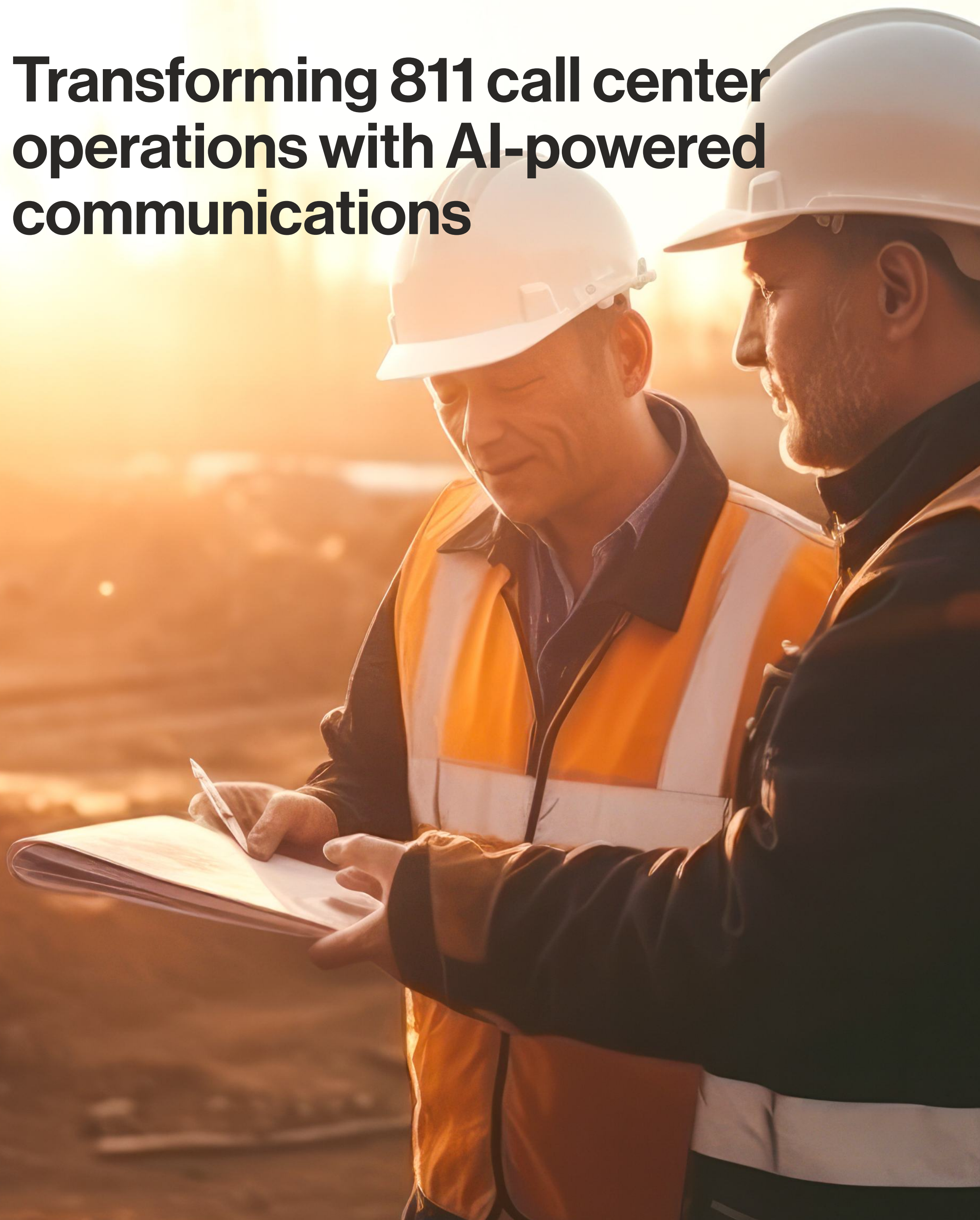


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Introduction

811 call centers play a critical public safety role in preventing damage to underground utilities and ensuring the safety of excavation projects. However, as demand for excavation requests continues to grow, these centers face mounting operational challenges, including workforce shortages, budget constraints, and outdated communication systems. These issues hinder their ability to meet compliance requirements and provide a seamless experience for constituents.

This paper explores how AI-powered communication solutions enhance 811 call center operations by improving constituent engagement, automating routine inquiries, and generating actionable insights—ultimately optimizing processes to achieve operational efficiency and safety compliance.

The evolving landscape of 811 operations

811 call centers are essential to the national "Call Before You Dig" program, ensuring public safety by coordinating locate requests to prevent damage to underground utilities. Whether it's a homeowner planting a tree or a contractor managing large-scale construction, these centers facilitate communication between constituents and utility providers, safeguarding critical infrastructure like gas lines, water pipes, and fiber optic cables.

However, 811 operations face mounting pressures due to rising locate request volumes, workforce shortages, and outdated communication systems. Staff members are increasingly stretched thin, juggling complex regulatory requirements while striving to meet constituent expectations for fast, reliable, and accessible service. These challenges underscore the need for innovative solutions that streamline operations, improve efficiency, and enhance safety outcomes.

However, the landscape in which 811 call centers operate is becoming increasingly complex due to several emerging trends and challenges:

Rising demand for services

With the rapid growth of construction, infrastructure development, and utility projects, 811 call centers are experiencing an unprecedented rise in call volumes. Whether it's a homeowner planting a tree in their backyard or a contractor managing a large-scale project, the demand for locate requests has surged in recent years. This growth amplifies the strain on already limited resources, requiring call centers to find innovative ways to handle high volumes efficiently without compromising the accuracy and speed of responses.

Public safety concerns

Public safety remains the primary mission of 811 services. Every missed or delayed response to a locate request increases the risk of excavation disasters, such as utility line ruptures, gas leaks, or electrical hazards. The consequences of such



incidents can be catastrophic, endangering lives, damaging property, and causing service disruptions. As communities become more aware of the need for damage prevention, the expectation for timely and accurate communication from 811 centers grows exponentially.

Regulatory compliance complexity

Compliance with legal and regulatory frameworks is becoming more challenging for 811 operations. Federal, state, and local guidelines mandate strict procedures for handling excavation notifications, call response times, and damage prevention measures. For example, excavators must notify utility companies within specific timeframes before digging. Failing to comply with these regulations can result in fines, lawsuits, or even loss of public trust. Managing compliance amidst increasing service demand and limited staffing resources adds significant operational pressure.

Diverse communication preferences

The modern constituent base of 811 services is highly diverse, spanning homeowners, contractors, utility companies, and government agencies. Each group has different communication preferences and expectations. While some prefer traditional phone calls, others expect digital-first options like online self-service portals, text messaging, or social media interactions. This diversity makes it increasingly difficult for call centers operating on single-channel or outdated systems to meet communication needs effectively.

Workforce shortages and agent burnout

Like many industries, 811 call centers face ongoing workforce challenges. Recruiting and retaining agents who are skilled in managing high-call volumes, providing accurate technical information, and handling complex inquiries is becoming increasingly difficult. Additionally, repetitive workloads of answering basic inquiries contribute to staff burnout, further impacting retention rates. These staffing issues, combined with budget constraints, exacerbate operational inefficiencies, forcing existing teams to do more with less.

Technology gaps in legacy systems

Many 811 operations still rely on traditional, phone-based systems with cumbersome menu trees and inflexible configurations. These systems are often ill-equipped to handle the modern demands of bursty call volumes, real-time multitasking, and dynamic data integration. Infrastructures dependent on voicemail queues or manual call routing fail to address after-hours inquiries or escalations effectively. The lack of an integrated system limits the ability of agents to provide consistent, accurate, and timely responses to constituents.

The impact of communication challenges

Constituent frustration and accessibility barriers

Outdated systems with limited communication options frustrate callers and discourage engagement. Constituents with diverse needs, like those with hearing impairments or limited internet access, often face barriers to accessing vital support.

The escalating costs of inefficiencies

Operational inefficiencies, such as agent time spent answering repetitive questions or manually routing calls, are not only draining staff capacity but also driving up costs. For 811 operations facing budget constraints, these inefficiencies directly impact the ability to allocate resources to critical safety initiatives. Without modern solutions to reduce administrative burdens, 811 centers struggle to maximize their resources and deliver high-quality service.

New opportunities with advanced technologies

While 811 centers contend with numerous hurdles, advanced technology solutions are creating exciting opportunities to address these challenges. AI-powered communication tools, such as omnichannel platforms, AI receptionists, and conversation intelligence analytics, offer the potential to streamline operations, enhance constituent engagement, and improve safety outcomes. These innovations enable 811 centers to operate more efficiently without overburdening staff or jeopardizing compliance. However, successful adoption requires centers to plan carefully and ensure new technologies are scalable, secure, and customized to their unique needs.

Effective communication is essential for 811 call centers to operate efficiently and ensure public safety. However, outdated systems, resource constraints, and accessibility issues create significant challenges that disrupt operations, lower constituent satisfaction, and increase safety risks.

Delays in locate requests

Long wait times or unanswered after-hours calls delay constituents' access to critical information. For contractors on tight schedules, these delays may lead to non-compliance and increase the risk of accidents.

Constituent frustration and accessibility barriers

Outdated systems with limited communication options frustrate callers and discourage engagement. Constituents with diverse needs, like those with hearing impairments or limited internet access, often face barriers to accessing vital support.

Strain on staff resources

Repetitive inquiries about routine topics consume considerable staff time, leaving agents with less capacity to manage complex or priority requests. This strain leads to productivity challenges, burnout, and lower service quality.



Transforming 811 communications with AI-powered solutions

Key features of RingCentral's solutions for 811

Increased risk of errors

Fragmented systems and poor communication workflows increase the chance of miscommunication and missed details. These errors can lead to unsafe excavations or unaddressed locate requests, jeopardizing public safety.

Compliance challenges

Poor communication systems hinder adherence to regulatory frameworks, making it harder to enforce compliance. Gaps in critical information can lead to legal risks, fines, and diminished trust in the 811 system.

Missed opportunities for process improvement

Without integrated analytics, centers lack the ability to identify recurring issues or process inefficiencies. This results in lost opportunities to train staff, improve workflows, or better allocate resources.

Undermined public safety mission

Communication gaps—including delays, errors, and frustrations—undermine the core mission of protecting the public through damage prevention. Unsafe excavation projects can result in service disruptions and safety hazards.

Reduced constituent engagement

Poor communication deters people from fully engaging with the 811 system or following proper procedures. This missed engagement limits opportunities to educate constituents and encourage broader system adoption.

Modern AI-powered tools offer 811 call centers the ability to overcome operational challenges, improve efficiency, and ensure safety compliance. RingCentral's platform combines omnichannel communication, AI-driven automation, and advanced analytics to enhance constituent engagement and streamline operations. These solutions empower 811 centers to better serve their mission of damage prevention and public safety.

Omnichannel engagement

RingCentral enables constituents to communicate through their preferred channels, including voice, text, chat, email, and social media. This flexibility improves engagement, reduces barriers to service, and enhances overall satisfaction.

AI-powered automation

RingCentral's AI Receptionist handles routine inquiries 24/7, such as ticket status or excavation timelines, providing immediate responses without requiring agent intervention. Automation frees up staff to focus on resolving complex issues and high-priority requests.

Real-time transcription and context

AI-powered transcription captures conversations and creates post-call summaries in real time, removing the need for manual notes. Agents can focus entirely on assisting constituents with the context they need readily available.

Advanced analytics and insights

RingCentral's analytics tools provide insights into call trends, recurring issues, and customer sentiment. These data-driven insights support process improvements, better staff training, and resource allocation to address common pain points.

Seamless routing and accessibility

Calls and inquiries are routed automatically based on context, location, or keywords, ensuring constituents connect to the right agent instantly. This feature improves accessibility for diverse communities, including those with hearing impairments or limited internet access.

Scalability and ease of implementation

RingCentral's cloud-based solution is easy to implement and scale, allowing 811 centers to quickly adapt to growing demands or add new capabilities without significant IT support. This ensures long-term operational flexibility for evolving needs.

By leveraging these solutions, 811 centers can streamline communication workflows, improve constituent experiences, and ensure their operations align with their critical mission of facilitating safe and compliant excavations.

Building responsible AI practices

As AI solutions become essential in 811 operations, responsible implementation is critical to ensure transparency, fairness, and compliance. With sensitive data related to excavation sites, maintaining strong security and privacy measures is essential. Adhering to robust governance standards builds public trust and ensures AI serves all constituents equitably and effectively.

Transparency and fairness

Constituents must know when they're interfacing with AI and how their data is used.

Privacy-by-design

AI solutions must align with privacy laws and standards, ensuring constituent information remains protected.

Pilot programs for gradual implementation

Starting with low-risk applications, such as routine inquiries, helps gather feedback and refine deployments.

Measuring the impact of AI in 811 operations



Adopting responsible AI practices ensures 811 call centers can leverage advanced technology while maintaining transparency, fairness, and trust. This approach supports safe, efficient operations and strengthens public confidence in their critical mission.

Successful implementation of AI-powered solutions in 811 call centers results in measurable improvements across critical operational areas. These outcomes showcase how automation, omnichannel engagement, and enhanced analytics drive meaningful change:

Enhanced constituent satisfaction

Constituents experience faster response times, reduced wait times, and greater accessibility to information, resulting in improved satisfaction and trust in the 811 system.

Increased operational efficiency

Routine inquiries are automated, allowing agents to dedicate more time to complex or high-stakes requests, which improves overall productivity and reduces bottlenecks.

Improved compliance rates

Easier access to information streamlines excavation notification processes, reducing non-compliance incidents and improving adherence to safety regulations.

Cost savings

AI implementation significantly reduces call handling times, missed call rates, and administrative overhead, driving a clear return on investment in AI communication systems.

Greater staff engagement

Employees report higher satisfaction due to a decreased workload on repetitive tasks and more opportunities to focus on meaningful, impactful work, boosting morale and retention.

Each of these improvements demonstrates how AI-powered communication tools directly enhance the safety, efficiency, and sustainability of 811 operations.

Conclusion

811 call centers are critical to public safety, preventing excavation damage by coordinating locate requests and ensuring compliance with safety protocols. However, growing call volumes, limited resources, and outdated systems place significant strain on their operations. To meet these challenges, 811 centers need innovative solutions that improve efficiency, enhance constituent satisfaction, and promote compliance with regulatory standards.

RingCentral's AI-powered communication solutions offer the tools necessary to transform 811 operations. By automating routine inquiries, providing seamless omnichannel communication, and delivering actionable insights through advanced analytics, these technologies allow centers to streamline workflows and focus on complex excavation scenarios. The result is faster response times, increased operational efficiency, and a significant reduction in constituent frustrations. At the same time, responsible AI practices ensure data privacy, transparency, and fairness are upheld throughout the process.

For 811 centers navigating the demands of increased workloads and evolving constituent expectations, adopting RingCentral's AI-driven solutions provides a scalable and future-ready approach. By modernizing operations, 811 services can continue protecting communities and ensuring public safety with greater precision and reliability. For more information, contact a RingCentral representative at 855-774-2510 or visit ringcentral.com.

About RingCentral

RingCentral Inc. (NYSE: RNG) is a leading provider of AI-driven cloud business communications, contact center, video and hybrid event solutions. RingCentral empowers businesses with conversation intelligence, and unlocks rich customer and employee interactions to provide insights and improved business outcomes. With decades of expertise in reliable and secure cloud communications, RingCentral has earned the trust of millions of customers and thousands of partners worldwide. RingCentral is headquartered in Belmont, California, and has offices around the world.

For more information, please contact a sales representative. Visit ringcentral.com or call 855-774-2510.