KloudGin

White Paper

The Multi-Tenant Advantage:

How KloudGin's Community-Driven Innovation Creates Collective Value

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Executive Summary

Utility and public sector executives face a common challenge with enterprise software: choosing between expensive custom development, vendor lock-in, or settling for solutions that don't fully meet operational needs. KloudGin solves this through multi-tenant, cloud-native architecture combined with a community-driven development model, enabling customers to co-create capabilities that immediately benefit the entire user base.

When one utility collaborates with KloudGin to develop a solution, that functionality becomes available to all customers without any disruptive upgrades or redundant development work. This eliminates traditional trade-offs between cost, functionality, and flexibility, while accelerating operational improvements across the industry.

The SAP adapter KloudGin co-developed with Snohomish County PUD is an example of how complex innovations can be built once and deployed seamlessly at scale for all. The shared innovation model reduces technical debt, simplifies upgrades, and ensures continuous delivery of new capabilities. Specialized solutions, such as Gas Leak Survey, Streetlight Management, Connected Customer, and Backflow Management, have been developed through collaboration with leading utilities and made available to the entire KloudGin community as ready-to-use, configurable solutions.

KloudConnect, KloudGin's Customer Advisory and User Group community, helps guide platform development by ensuring it is solving operational challenges that affect the entire industry. The result is software developed by and for utility professionals - purpose-built, field-tested, and delivered without the risks of traditional customization. Each customer's innovation strengthens the platform for all, delivering measurable, lasting value through shared infrastructure and collective insight.

Introduction

Utility and public sector executives face a familiar challenge with enterprise software: choosing between expensive custom development, accepting vendor lock-in, or settling for functionality that doesn't meet operational requirements. Traditional implementations require significant upfront investment, ongoing customization, and disruptive upgrade cycles that drain IT resources and hinder operational focus.

KloudGin's multi-tenant SaaS architecture, combined with a community-driven development model, directly addresses these challenges. When utility customers collaborate to develop operational solutions, those capabilities become immediately available to every utility on the platform. This approach eliminates traditional trade-offs between cost, functionality, and flexibility while accelerating operational improvements across the industry.

The value proposition is clear: Multi-tenant, cloud-native software enables community-driven innovation where each customer's investment creates capabilities that benefit everyone. Once upgrades are released, all KloudGin customers instantly access new features - no disruptive upgrade projects, no costly delays. Just continuous improvement, delivered effortlessly.

How Community-Driven Innovation Works in Multi-Tenant Architecture

Multi-tenant architecture operates on shared infrastructure, where all customers use the same software version with a single codebase. When one utility identifies an operational need and collaborates with KloudGin to define, prioritize, and develop that solution, the capability becomes immediately available to all customers once it is launched.

An example of this value creation in action is the Snohomish County Public Utility District (SnoPUD). Facing the end-of-life of its legacy software, SnoPUD needed to integrate KloudGin with its existing SAP system. They partnered with KloudGin's product team to co-develop a comprehensive SAP adapter—one that met their needs and requirements, while also benefiting the broader SAP user base across the customer community.

This outcome illustrates the power of community-driven innovation. SnoPUD's integration requirement became a standard platform component available to every KloudGin customer, creating a reusable, high-value solution that eliminates SAP integration complexity for all future implementations. In 2025, SnoPUD received a KloudGin Innovation Award for this contribution, recognizing its role in developing capabilities that create lasting value for the entire community.

Another example of innovation delivered at scale is AssetIQ (AIQ), KloudGin's AI-powered field agent built for field service operations. With the launch of AIQ Atlas, every customer instantly gained access to voice-activated assistance, automated work order documentation via Record-Review-Report (R3) mode, and intelligent asset recognition—without any implementation effort, upgrade projects, or additional costs.

When one utility innovates with KloudGin, every customer benefits - because shared architecture means every improvement and enhancement becomes instantly available to all.

Field technicians now save 15-30 minutes per work order by speaking observations instead of manually documenting findings across multiple forms. Voice-activated asset identification eliminates time spent navigating between screens.

These capabilities immediately improved data quality across all customers. R3 mode captures more comprehensive field observations in real time, while AI-powered anomaly detection flags inconsistencies for correction. This reduces incomplete work orders and eliminates delays caused by missing information that previously required return visits.

Field technicians gain instant access to troubleshooting procedures without interrupting workflows to contact supervisors. New team members gain immediate access to institutional knowledge through AIQ Atlas's ability to surface relevant historical work patterns, thereby accelerating their learning curve and reducing their reliance on direct supervision.

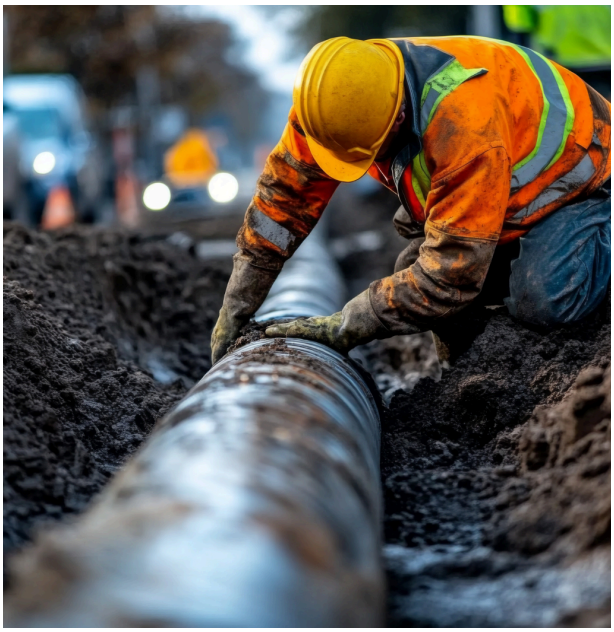
Safety is enhanced with hands-free operation, allowing technicians to maintain situational awareness while accessing critical information, eliminating manual data entry distractions during hazardous tasks such as working with energized equipment or in confined spaces.

The seamless deployment exemplifies how shared architecture transforms major technological upgrades from costly, disruptive implementations into effortless capability enhancements. Complex innovations become usable immediately, without traditional implementation barriers.

Community-Led Innovation Creates Proven Operational Solutions

Collaborative development provides utilities with immediate access to proven solutions developed through collective industry expertise, rather than isolated, one-off efforts. Instead of building capabilities independently, utilities co-create and share best practice workflows that benefit everyone.

The KloudGin platform includes a range of specialized solutions that have emerged from community-driven innovation and are accessible to all customers:



Gas Leak Survey: Developed in partnership with gas utilities, this solution provides standardized survey processes, mobile data collection, and regulatory compliance tools, built to support sophisticated leak detection workflows.

Streetlight Management: Designed for municipal utilities that require efficient lighting operations, this comprehensive solution provides asset tracking, maintenance scheduling, and energy optimization tools to enhance operational efficiency and effectiveness.

Connected Customer: Developed to address customer engagement challenges across multiple utilities, this solution delivers Amazon-like customer experiences via self-service portals, proactive communication tools, and satisfaction tracking, strengthening utility-customer relationships.

Connected Contractor: Created through collaboration on external contractor management needs, this solution offers qualification tracking, work coordination, and performance management tools.

Backflow Management: Developed to address complex compliance requirements, this solution provides automated scheduling, tracking, and regulatory reporting capabilities for both utility-owned and customer-owned assets, as well as the ability to manage processes across both utility teams and third-party contractors.

Each reflects community-driven innovation, where individual organizational expertise is combined with collaborative development to create capabilities that serve the entire industry. These proven workflows are ready to implement and can be easily configured to specific operational requirements, without incurring custom development costs or implementation delays.

Invisible Innovation: How Infrastructure Modernization Evolves Industries

Throughout history, transformative innovations have shared a common characteristic: they become invisible to users while fundamentally changing how work is done. These breakthrough technologies create new operational paradigms through elegant simplicity, hiding the sophisticated engineering beneath.

Take Roman aqueducts - engineering feats that delivered fresh water across hundreds of miles. Citizens simply turned a tap, never seeing the channels or underlying mathematics that made it possible. This invisible infrastructure enabled urban civilization to improve on an unprecedented scale.

The electrical grid, telephone network, and internet have similarly followed the same path, radically reshaping commerce and society by abstracting complex infrastructure into a simple user experience. These innovations succeeded because they made complexity invisible, freeing organizations to focus on outcomes rather than operations.

Cloud-native SaaS continues this tradition of invisible innovation. Utility executives, field crews, and municipal leaders don't have the time to manage servers, coordinate upgrades, or troubleshoot compatibility issues. Like aqueducts or power lines, they expect information, work orders, asset data, and customer updates to flow reliably in real-time.

Behind this ease of use lies sophisticated architecture, comprising microservices, APIs, elastic infrastructure, and self-healing environments. Cloud-native SaaS is the modern aqueduct—engineered to deliver reliability, scalability, and speed without requiring users to understand the complexity underneath.

When software fades into the background, teams can focus on delivering services rather than managing technology. Complexity disappears, allowing utilities to stay focused on what matters most: keeping communities powered, connected, and safe.

Whether restoring power after a storm or maintaining aging infrastructure, utility teams shouldn't have to think about the software. As the Romans knew, the best infrastructure is the kind people don't notice - it simply works, enabling everything else to work better.

> The most effective innovation is often the least visible. KloudGin's shared architecture delivers continuous innovation without disruption, enabling teams to focus on service delivery, not system maintenance.

KloudGin's multi-tenant architecture and community-driven innovation demonstrate this principle. When one utility's operational needs drive platform enhancements, that capability is automatically extended to all customers without requiring additional implementation effort or visibility into the underlying complexity.

Eliminating Customization Risk with KloudGin's Shared, Cloud-Native Architecture

Traditional software customization creates significant long-term financial and operational risks. Custom solutions often become stranded assets that require expensive retrofitting with each system update. Each modification introduces multiple potential failure points, requiring constant maintenance resources.

These customizations inevitably conflict with new software versions, triggering costly integration projects, system instability, and performance degradation.

As a result, organizations face a growing burden of technical debt where each customization increases maintenance overhead, delays upgrades, and increases the risk of system failures that can disrupt critical operations. The result is a vicious cycle where IT teams are consumed by legacy maintenance efforts instead of delivering operational improvements, while costs spiral upward with each software update.

Multi-tenant software eliminates these risks. Instead of creating custom code that requires ongoing maintenance, utilities configure standard workflows that have been co-developed across the customer community. These configurations automatically benefit from platform enhancements without requiring redevelopment or creating compatibility issues.

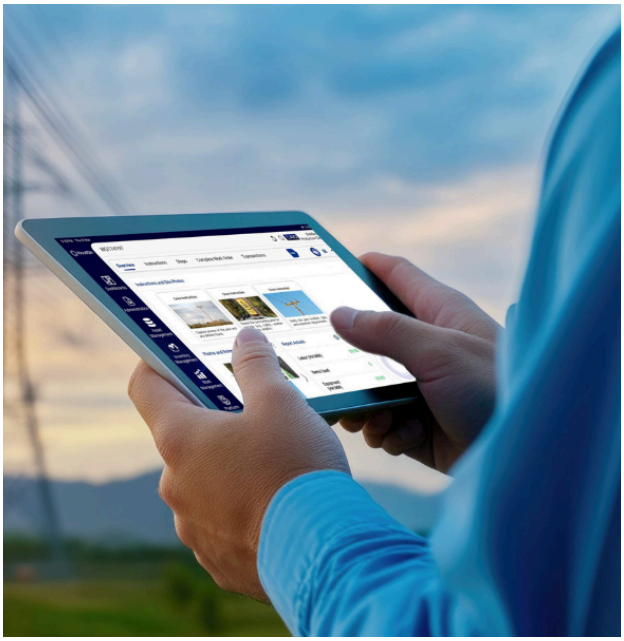
This approach offers predictable cost management, enabling utilities to avoid the open-ended liabilities and expenses associated with traditional software implementations, including customization, maintenance, upgrades, retrofitting, and performance optimization. With community-driven solutions, development investments provide lasting value rather than becoming obsolete with platform updates.

Shared infrastructure also reduces technical risk through collective validation. Every update undergoes extensive testing across diverse real-world environments before deployment, ensuring compatibility, stability, and performance..

When critical events demand an immediate response, such as severe weather events that exponentially increase work orders, this architecture proves its value. While legacy systems collapse under operational pressure, they are often overwhelmed by their technical limitations. In contrast, KloudGin's cloud-native SaaS automatically scales in real-time, maintaining system performance to keep field crews operational and customers informed—no system crashes or operational delays. This flexibility and scalability provide the technological foundation that enables utilities to deliver when their communities need them most.

Built on Amazon Web Service's global infrastructure, KloudGin delivers the enterprise-grade security, reliability, and scalability that utility operations require. This cloud-native foundation also supports advanced capabilities, such as AI-powered work prioritization, that transform operational decision-making from hours to seconds. The result is continuous innovation without the downtime, bottlenecks, or performance compromises that characterize traditional software implementations.

A Unified Cloud-Native Platform Eliminates Upgrade Complexity



Traditional enterprise software requires costly and time-consuming upgrade projects that consume significant IT resources and divert operational focus. With customers operating on different software versions, support becomes complex, and access to new capabilities is uneven and delayed.

A multi-tenant architecture that supports community-driven innovation eliminates this complexity. All customers operate on the same up-to-date software version and receive new features and improvements automatically as the community collaborates to create them.

When SnoPUD's KloudGin SAP adapter was completed, every customer gained access to SAP integration capabilities with no additional implementation effort. When new workflow solutions are developed through community collaboration, all customers can immediately evaluate and adopt those capabilities.

This enables utilities to focus their IT teams on operational priorities rather than maintaining legacy software. Community-led innovation ensures that new capabilities become available for immediate implementation, accelerating the adoption of best practices across the industry.

Integration Through Community Collaboration

Shared architecture enables more efficient and scalable integration capabilities, supported by collaborative development. The KloudGin platform maintains strict API versioning and backward compatibility, ensuring that existing integrations continue to function even as new capabilities are developed.

When integration challenges are addressed through community partnerships, the resulting solutions become accessible to everyone. Pre-built adapters developed collaboratively eliminate lengthy integration projects and reduce implementation costs. Because the development investment is distributed across the customer base, advanced integration capabilities become accessible to organizations of all sizes.

KloudConnect: KloudGin's Collaborative Innovation Engine

KloudConnect, KloudGin's Customer Advisory and User Group community, is the foundation of our community-driven platform development. This network brings together utility leaders who guide development priorities and share operational expertise that drives innovation, benefiting the community as a whole.

KloudConnect's Customer Advisory Board comprises leaders from utilities and public sector organizations, many with over a century of operational experience, who face generational infrastructure challenges and make decisions with decades-long impacts. These leaders share the same regulatory pressures, operational demands, and service delivery requirements that define today's utility operations. Their industry expertise drives focused, meaningful collaboration rather than generic cross-industry input from unrelated markets.

The result is a platform shaped by the people who use it every day: professionals who understand the pressures of aging infrastructure, evolving regulatory requirements, and long-term operational planning. The solutions that emerge from this community are built specifically for utility operations, not diluted by requirements from unrelated industries. No bloated implementations designed for the lowest common denominator, or costly customizations required to bridge operational gaps. Just software that utility teams actually use, because it was built by and for their industry peers.

Through KloudConnect, customers directly influence product development decisions, ensuring the platform meets the most pressing operational needs across the utility industry. KloudGin's multi-tenant architecture ensures that collaborative development efforts are delivered once, for everyone, benefiting every customer immediately, rather than requiring individual implementations.

This governance model fosters accountability and alignment between KloudGin and its customers, ensuring development resources are focused on community-driven innovation that delivers the greatest collective value.

The Economic Benefits of Community-Driven Development

Collaborative development in multi-tenant architecture delivers compelling economic advantages. Development costs are distributed across the customer base, making advanced capabilities accessible at a fraction of the cost of individual development. Solutions are tested and validated across diverse environments, ensuring reliability while reducing implementation risk.

The value is clear: rather than multiple utilities independently solving for the same challenges, the community co-develops proven, shared solutions. The SAP adapter developed with SnoPUD is now available to any utility with similar integration requirements, eliminating the high development costs and implementation timelines traditionally associated with complex integrations.

This shared investment model accelerates the delivery of capabilities that would be too costly or complex for individual organizations while ensuring all customers benefit from collective innovation.

Continuous Innovation Through Industry Collaboration

Shared architecture also enables the continuous delivery of new capabilities driven by ongoing customer collaboration, rather than periodic software releases. Performance improvements, security enhancements, new features, and additional integrations are rolled out automatically to all customers as they are developed.

This continuous innovation model eliminates traditional software adoption delays and complexity, allowing for seamless integration. Security updates protect all customers simultaneously. Performance improvements benefit everyone immediately. New capabilities become available for evaluation and use without waiting for upgrade cycles.

Building the Utilities and Public Service Organizations of the Future Through Solution Co-Creation

Every KloudGin customer plays a role in shaping the platform's evolution, providing their operational expertise to help develop industry-wide capabilities. When one utility's operational need informs the

development of a new capability, that enhancement becomes immediately available to every other customer. When real-world insights inform workflow improvements, the entire user community benefits.

This collaborative model ensures that the platform stays aligned with the changing operational needs of utilities. Community-driven innovation creates value that extends beyond individual organizational benefits, ultimately strengthening the broader industry.

The Collective Value of Community Innovation

KloudGin's multi-tenant software architecture delivers measurable value through collective development. One platform serves all customers, with continuous innovation benefiting everyone automatically - no isolated development efforts, no version management complexity, no fragmented upgrades.

By combining shared architecture with community-driven innovation, KloudGin ensures that operational improvements become collective benefits. Individual utility expertise fosters industry-wide capabilities, delivering lasting value for all stakeholders. Utilities gain access to proven solutions, predictable costs, and continuous innovation, enabling them to focus on delivering services rather than managing software. Through shared innovation, the community advances faster than any one organization could alone.

About KloudGin

KloudGin is the leading provider of AI-powered field service, construction work, and asset management solutions that connect customers, crews, and assets within a unified, cloud-based platform. KloudGin helps utilities and public sector organizations transform their operations through the digitalization and optimization of workforces, workflows, and assets, enabling sustainable service excellence that creates measurable value. For more information, visit www.kloudgin.com

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Michael Levi currently serves as Vice President of Marketing at KloudGin, where he oversees product marketing strategy and execution. A transformative leader in energy systems and utility operations, he has pioneered innovative approaches across power generation, renewable energy, and enterprise technology for over 25 years.