

EVIDEN

**Elevating Industries through
Tailored Cloud Mastery and
Vertical Solutions**

Executive Summary

The cloud revolution is in full swing, but a one-size-fits-all approach does not suffice for every industry. Industry Vertical Cloud Platforms and Services emerge as the next-generation solution, addressing unique needs and complexities of specific sectors. As a trusted Global Systems Integrator (GSI), we understand your challenges and opportunities. This whitepaper explores the immense potential of industry vertical cloud solutions, empowering you to:

- **Optimize efficiency and agility:** Streamline operations with pre-built industry solutions, integrations, and data models.
- **Enhance security and compliance:** Leverage built-in features tailored to your industry's regulations and standards.
- **Unlock deeper insights:** Gain powerful industry-specific data analytics for informed decision-making.
- **Accelerate innovation:** Rapidly deploy new technologies and adapt to market changes with ease.
- **Reduce costs and complexity:** Eliminate custom development and benefit from pay-as-you-go models.

What Is It?

Industry Vertical cloud refers to cloud computing solutions that are designed to meet the specific needs of a particular industry or vertical market.

Industry Vertical Cloud is all about providing **"tailored," packaged smart solutions** that closely match the target industry customer needs. Key ones are:

- Addressing Industry-specific needs that drive Business Value
- Cost Optimization and ROI
- Security and Compliance
- Improved Customer Experience and Competitive Advantage

Industry Vertical clouds are a collection of cloud services, resources and components that concentrate on the key business applications in each sector. The advantages increase as businesses move further along their cloud-transitioning paths.

Reinventing packaging to meet new expectations, since one solution cannot meet the requirements of all industries. In a vertical cloud, solution packaging is developing to become a clever extension of the product itself, giving firms useful customer insights.

The primary drivers of digital transformation through the industry vertical cloud are the integration or alignment of Operational Technology (OT) with Information Technology (IT), as well as the integration of Engineering Technology (ET) and the Industrial Internet of Things (IIoT).

Introduction: The Rise of Industry-Specific Clouds

The cloud journey has evolved. While generic cloud solutions provided initial benefits, industries crave more. Enter Industry Vertical Cloud Platforms and Services, revolutionizing how businesses operate by addressing specific sector needs and challenges. As your trusted GSI partner, we understand your industry's unique language and pain points. We believe industry vertical cloud solutions are not just a trend, but the future of your digital transformation.

Further in this whitepaper, we delve into the compelling reasons to adopt industry vertical cloud solutions, showcasing the tangible benefits across industries. We explore the various data sources ingested, the types of platforms available, and the critical role GSIs play in guiding your journey. But most importantly, we equip you with the knowledge to make informed decisions and unlock the immense potential of industry vertical cloud solutions for your business.

A comparison between Industry Vertical Clouds and Conventional Cloud Services

Let us know look at some key differences between Industry Vertical Clouds and Conventional Clouds across core features such as audience, security, models, deployment approach, vendor, cost, and innovation.

Feature	Industry Vertical Cloud	Conventional Cloud Services
Target audience	Specific industries with unique needs and regulations	Wide range of organizations across different industries
Focus	Pre-built solutions, features, and integrations tailored to specific industry requirements	Generic services like compute, storage, networking, etc.
Security and compliance	Built-in features and adherence to industry-specific regulations	Basic security services coverage; Requires additional configuration and compliance solutions
Data models and analytics	Pre-defined industry-specific data models and advanced analytics tools	Generic data models and basic analytics tools
Ease of use and deployment	Faster and easier deployment with pre-configured solutions	Requires more customization and integration effort
Flexibility and customization	Limited customization options due to focus on specific industry needs	More flexible and customizable, but requires more expertise
Vendor lock-in	Higher risk due to limited vendor options within the industry vertical	Lower risk with wider range of cloud providers available
Cost	May be initially higher due to specialized services and features; Also, this is still maturing.	Often lower initial cost, but additional customization and integration can increase costs
Innovation and time-to-market	Faster access to industry-specific innovations and solutions	Requires more effort to stay updated with industry trends and implement innovative technologies

Table 1: Comparison between Industry Virtual Cloud and Conventional Cloud Services

In summary, Industry Vertical Cloud offers a more comprehensive and industry-specific solution but with less flexibility and potentially higher costs. While conventional cloud services provide more flexibility and lower upfront costs but require additional customization and effort to meet industry-specific needs. Ultimately, the best choice depends on your specific needs, industry, budget, and technical expertise.

Typical Customer Challenges that translate into Industry Vertical Cloud Features

In this section, we shall delve into some of the key challenges faced by enterprise customers who are on cloud based digital transformation journey.



Figure 1: Key Customer Challenges in the Cloud Journey Context

Security and Compliance:

- 66% of customers consider security as a major hurdle in cloud adoption (PwC).
- 49% of organizations struggle with cloud compliance due to evolving regulations (Flexera). This concern is particularly high in regulated industries like healthcare and finance.
- 43% of organizations find security a top benefit of vertical clouds (Forbes) with built-in compliance features that cater to specific industry regulations, reducing risk and fines.

Industry Business Solutions:

- 68% of businesses report that industry-specific cloud solutions meet their unique needs better than generic solutions (Accenture).
- Pre-configured functionalities for industry regulations, compliance, and workflows streamline operations and reduce customization costs.
- Industry-specific integrations and pre-built connectors save time and effort compared to building from scratch. Rapid access to pre-built industry solutions accelerates deployment and adoption of modern technologies.

Resources and Skills:

- 28% of enterprises cite inadequate expertise as a main obstacle (IDG).
- 59% of organizations face a shortage of talent with cloud skills (RightScale).
- Upskilling existing employees or finding qualified personnel poses a significant challenge.
- Resources to deliver personalized and efficient services tailored to industry needs.

Governance and Data Sovereignty:

- 23% of IT leaders struggle to establish clear cloud governance policies (Flexera) while maintaining control and ensuring accountability in a shared responsibility model.
- Data sovereignty regulations create complexities for international businesses (PwC).
- Choosing the right cloud provider and ensuring data portability is crucial.
- 50% of organizations fear vendor lock-in with specific cloud providers (Flexera).

Complexity, Cost and Technology Evolution:

- 61% of organizations struggle with complex migration processes (RightScale).
- 39% of IT leaders including GSIs, find it difficult to accurately predict cloud costs (Flexera).
- Moving legacy systems and managing hybrid cloud environments can be expensive and time-consuming.
- Elimination of custom development and integration efforts leads to reduced IT expenses.

Intelligent Industry Insights:

- 59% of businesses leverage industry clouds for faster innovation and time-to-market (Accenture).
- Industry-specific data models and analytics tools offer deeper insights into business performance and trends.
- Pre-built dashboards and reports provide visibility into key metrics and KPIs.

NB: see detailed references at the end of this document

Features of an Industry Vertical Cloud

Customization and Flexibility:

- Joint Strategy with the customer to understand the unique needs and build upon pre-configured solutions to achieve a tailored fit.
- A modular approach while utilizing pre-built industry-specific modules as a foundation, allowing for efficient customization through configuration and extensions that typically covers workflows, data models, and integrations.

Integration Capabilities:

- Solutions must leverage open APIs and industry-standard protocols for seamless integration with existing on-premises infrastructure and third-party applications.
- Pre-built connectors provided for popular industry tools and platforms, minimizing integration effort, and ensuring smooth data flow.

Data Sovereignty, Privacy, Security and Compliance:

- Multi-cloud and regional deployment options to ensure data residency compliance with local regulations.
- Robust data governance practices and encryption technologies to protect data privacy across borders.
- Incorporates data governance tools and processes to manage data access and usage securely.
- Industry-specific compliance with built-in features and configurations that meet relevant regulations such as PCI-DSS, HIPAA etc.
- Compliance certifications for various industries with robust security measures.
- Addresses complex regulatory landscapes for clients across diverse industries.
- Supports various data privacy regulations like GDPR and CCPA.

Scalability and Performance:

- Built on scalable and elastic infrastructure that adapts to fluctuating workloads automatically.
- Has horizontal and vertical scaling options to accommodate growth and changing demands.
- A robust infrastructure that ensures high availability and consistent performance even during peak workloads.
- Comprehensive DR solutions with industry-leading RTO and RPO targets in line with application criticality.
- Leverages geographically distributed data centres, automatic backups, replication, and failover capabilities and disaster recovery workflows to ensure rapid recovery and minimal disruption.

Cost Management and Optimization:

- Transparent pricing models specific to chosen solutions and configurations.
- Next gen FinOps cost optimization tools and services to help track, manage, and optimize cloud spending.
- Eliminates unnecessary costs through rightsizing resources and leveraging pay-as-you-go models.

Innovation and Sustainability:

- Integrated AI, ML, and IoT solutions, offering pre-built capabilities and APIs for further development.
- Modular and open architecture, allowing for easy integration of future advancements.
- Composable architecture enables greater flexibility, agility, and innovation.
- Cloud-native architecture, Open APIs, and standards along with Continuous innovation roadmap.
- Features carbon footprint optimization tools to help track and reduce environmental impact.
- Promotes sustainable cloud practices through energy-efficient data centres that utilize renewable energy sources and green infrastructure.
- Resource optimization through efficient server utilization and consolidation.

The Approach We Recommend

<p>Market research and industry analysis: Identify high-potential industries, understand their challenges, and existing solutions.</p>	<p>Customer-focused: Deeply understand specific industry needs, challenges, and regulations.</p>	<p>Co-create strategies with customers that connect all parts of the business to digital technology drivers.</p>
<p>Partnership-centric: Collaborate with leading CSPs, industry associations to leverage industry cloud base solutions and expand further.</p>	<p>Common Data Model (CDM): Enable portability and interoperability across clouds enabling fluid integration between cloud platforms.</p>	<p>Develop pre-configured solutions with industry-specific functionalities, integrations and out of the box data models.</p>
<p>Layered: Combine traditional cloud services with tailored, industry-specific functionality to address hard-to-tackle vertical challenges. Ex: Hyperscaler Cloud + GSI value add layers + Business Apps.</p>	<p>AI and Automation heavy: Focus on creating and utilizing smaller, smarter models that are industry focused. Bake in elevated levels of AI based intelligent automation across the service lifecycle.</p>	<p>Create value enabling accelerators using integrated data fabric, a marketplace with packaged business capabilities and composability tooling, to provide agility needed.</p>
<p>Prioritize data security and compliance: Ensure solutions meet industry regulations and leverage CSP + Industry best practices.</p>	<p>Regulatory and Policy know how: Get quick access to critical regulations and policy changes to manage risk with respect to tailored cloud solutions.</p>	<p>Intelligent Industry Insights: Emphasize data analytics and insights to offer industry-specific dashboards and reports for data-driven decision-making.</p>

Table 2: Typical Approach to Planning, Designing, Building and Deploying an Industry Vertical Cloud

A Block Model Reference Architecture

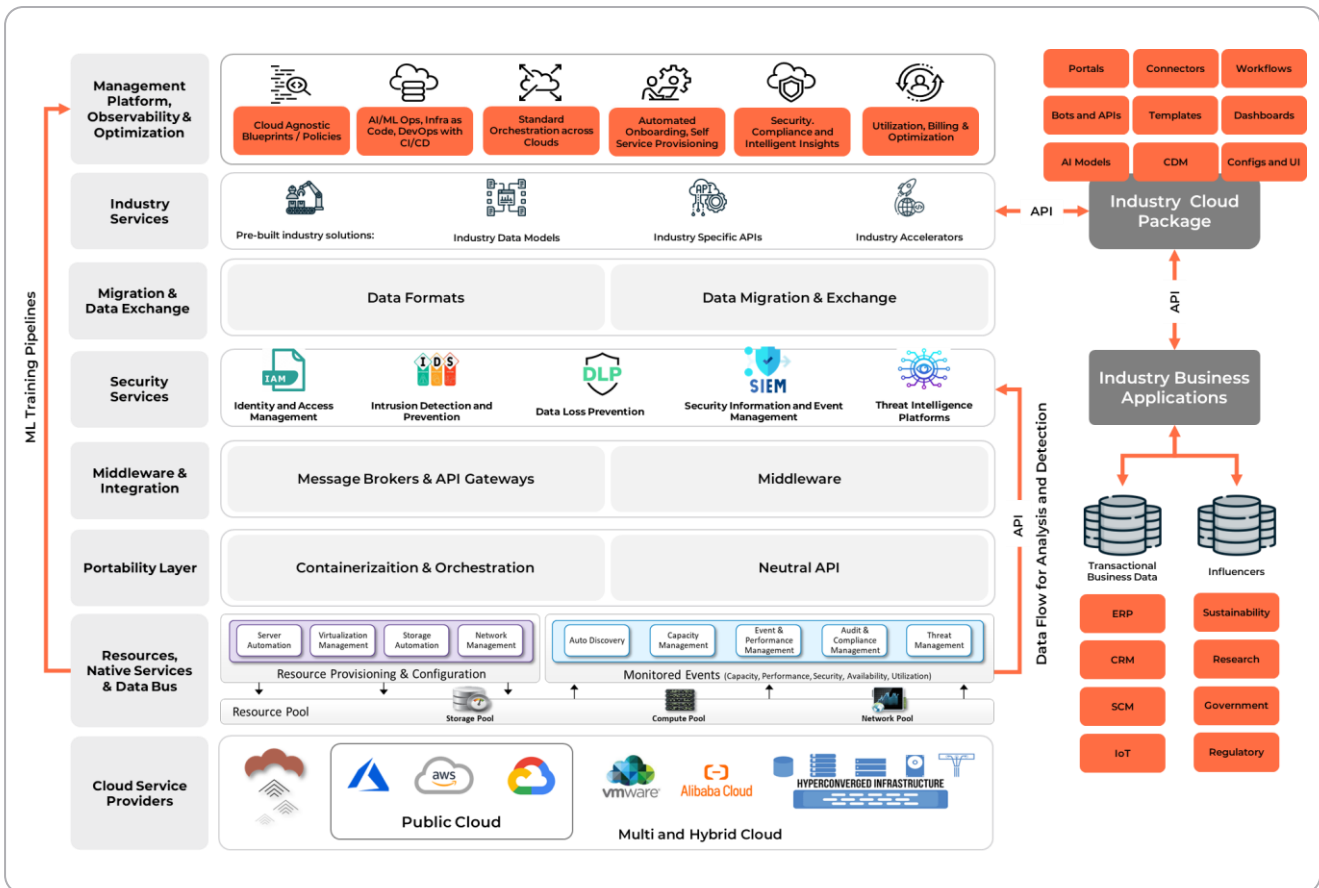


Figure 2: Block Reference Architecture of an Industry Vertical Cloud Platform

Key Factors for Developing, Deploying, and Managing Industry Vertical Cloud

Industry Focus:

- Deep understanding: Possess in-depth knowledge of the specific industry's regulations, compliance requirements, workflows, and pain points.
- Target audience: Clearly define the size and type of enterprises within the industry to cater to their needs effectively.
- Partnerships: Collaborate with industry leaders, associations, and domain experts to ensure accuracy and relevance.

Platform and Services:

- Pre-built solutions and integrations: Offer industry-specific functionalities, tailored workflows, and pre-built connectors to popular industry tools and applications.
- Security and compliance: Ensure adherence to relevant industry regulations and standards, with robust security features built in.
- Scalability and flexibility: Design the platform to scale seamlessly with customer growth and adapt to changing industry needs.
- Openness and interoperability: Allow integration with existing on-premises systems and third-party solutions for flexibility and choice.

Data Management and Analytics:

- **Industry-specific data models:** Utilize pre-defined data models tailored to the industry, enabling efficient data collection, storage, and analysis.
- **Advanced analytics tools:** Offer industry-specific dashboards, reports, and AI/ML capabilities for deeper insights and predictive analysis.
- **Data security and privacy:** Implement robust data governance practices and ensure compliance with data privacy regulations.

Deployment and Management:

- **Seamless migration:** Provide tools and expertise to facilitate smooth migration from on-premises systems to the Industry Vertical Cloud environment.
- **Managed services:** Offer ongoing monitoring, management, and optimization services to ensure platform performance and security.
- **Customer support:** Deliver dedicated support tailored to the specific needs of the industry and its technical complexities.

Optimization and Innovation:

- **Cost optimization:** Develop transparent pricing models and offer flexible options to cater to diverse customer budgets.
- **Vendor lock-in:** Choose cloud providers and technologies that promote open standards and avoid vendor lock-in.
- **Continuous innovation:** Actively track industry trends and update the Industry Vertical Cloud platform with new features and functionalities.

Types and Sources of Data

Industry vertical cloud solutions ingest a wide variety of data, with the specific types and sources varying depending on the industry and the solution itself. It is important to note that data security and privacy are critical concerns when ingesting and processing all these diverse data types. Industry vertical cloud solutions typically have robust security measures in place, but organizations should carefully assess their data governance practices and compliance with relevant regulations. The most common data categories include:

Transactional Business Data or Operational Data:

- **Enterprise Resource Planning (ERP) systems:** Data on production, inventory, sales, finance, and human resources.
- **Customer Relationship Management (CRM) systems:** Information about customer interactions, sales opportunities, and support tickets.
- **Supply Chain Management (SCM) systems:** Data on logistics, tracking, and supplier performance.
- **Internet of Things (IoT) sensors:** Real-time data from machines, devices, and infrastructure.
- **Building Management Systems (BMS):** Data on energy consumption, environmental conditions, and occupant behaviour.

Industry-Specific Data:

- **Healthcare:** Electronic health records (EHRs), medical imaging data, clinical trial data, genomic data.
- **Manufacturing:** Machine performance data, quality control data, production line data.
- **Retail:** Point-of-sale transactions, customer purchase history, product inventory data.
- **Financial Services:** Transaction data, customer financial information, market data.

Influencers or External Data:

- **Market research:** Industry trends, competitor analysis, economic indicators.
- **Social media:** Publicly available sentiment analysis, brand mentions, and customer feedback.
- **Environmental:** Environmental conditions relevant to specific industries (e.g., agriculture, transportation).
- **Government:** Publicly available datasets related to regulations, demographics, and economic activity.
- **Open-source datasets:** Industry-specific data repositories for research and analysis.
- **Partner:** Information shared from collaboration platforms or third-party integrations.

By leveraging a wide range of data sources, industry vertical cloud solutions can offer deeper insights, improved efficiency, and enhanced decision-making capabilities for businesses within specific industries.

Industry Use Case for a Cloud Customer - Banking

Journey to the Cloud: How ABC Regional Bank Leveraged Industry Vertical Cloud for Banking

ABC Regional Bank (ARB), a regional bank with a strong community focus, faced several challenges:

- **Legacy infrastructure:** Aging on-premises systems hampered agility and scalability, hindering innovation and responsiveness to customer needs.
- **Compliance burden:** Managing complex financial regulations and data security mandates was increasingly resource intensive.
- **Rising costs:** Maintaining outdated infrastructure and manual processes contributed to high operational expenses.

Seeking a solution, ARB explored Industry Vertical Cloud for Banking. Recognizing the potential benefits, they partnered with a trusted GSI to embark on a cloud transformation journey, comprising of three key phases:

Phase 1: Assessment and Migration

Phase 2: Implementation and Optimization

Phase 3: Continual Service Improvement and Optimization

Assessment and Migration	Implementation & Optimization	CSI and Optimization
<ul style="list-style-type: none"> • The GSI conducted a thorough assessment of ARB's systems, processes, and regulatory requirements. • They selected a secure and compliant Industry Vertical Cloud platform specifically designed for the banking sector. • ARB leveraged pre-built banking modules and integrations, minimizing custom development needs and migration complexity. • Data security and privacy were prioritized, ensuring adherence to industry standards and regulations. 	<ul style="list-style-type: none"> • Core banking functions, loan processing, fraud detection, and customer relationship management systems were migrated seamlessly to the cloud. • Advanced analytics tools provided deeper insights into customer behavior, enabling personalized offerings and improved cross-selling opportunities. • The cloud platform's scalability allowed ARB to handle peak loads efficiently, delivering a consistently high-performing online banking experience. 	<ul style="list-style-type: none"> • The GSI provided ongoing support and optimization services, ensuring smooth operation and security of the cloud environment. • ARB gained access to a vibrant ecosystem of pre-vetted fintech solutions, accelerating innovation and time-to-market for new banking products and services. • Leveraging cloud-based AI and machine learning, ARB enhanced fraud detection capabilities and improved risk management.

Table 3: Three phases of adopting an Industry Vertical Cloud solution for a Banking client

Tangible Benefits:

Cost Savings	Improved Performance	Enhanced Security	Innovation
<p>Migrating to the cloud reduced infrastructure costs by 20% and eliminated software licensing fees.</p> <p>Automation and streamlined processes lowered operational expenses by 15%.</p>	<p>Transaction processing times decreased by 30%.</p> <p>Online banking response times improved by 50% with a proportional improvement in end user satisfaction levels.</p>	<p>The cloud platform's built-in security features and comprehensive compliance framework minimized security risks and reduced regulatory audit burdens.</p>	<p>Time-to-market for new services was halved, allowing ARB to launch a mobile loan application successfully, attracting new customers and increasing market share.</p>

Table 4: Benefits Illustration of an Industry Vertical Cloud Journey

ABC Regional Bank's journey to Industry Vertical Cloud demonstrates the transformative power of this technology for enterprise banking. By addressing specific industry needs, the cloud platform delivered significant cost savings, improved performance, enhanced security, and accelerated innovation, propelling ARB towards a brighter and more competitive future. This scenario highlights the potential benefits that any enterprise banking customer can experience by embracing Industry Vertical Cloud solutions.

Industry Use Case for a Cloud Customer - Manufacturing

Digital Transformation Journey for a Manufacturing Organization with Industry Vertical Cloud

Universal Manufacturing is a global leader in producing industrial machinery, serving various sectors such as automotive, aerospace, and electronics. Facing challenges in optimizing production processes, ensuring product quality, and maintaining competitiveness in the market, Universal Manufacturing decides to embark on a digital transformation journey leveraging industry vertical cloud services for Manufacturing. Recognizing the potential, they partnered with a trusted GSI to embark on a digital transformation journey.

Key challenges faced by the customer were:

- Limited data visibility, production efficiency, and increased maintenance costs.
- Manual processes, workflows, increased error rates, and limited scalability.
- Disconnected data, unpredictable maintenance needs, and limited insights.

Assessment and Selection	Implementation and Integration	CSI and Innovation
<ul style="list-style-type: none"> • The GSI assessed Universal Manufacturing's systems, processes, and production line needs. • They selected a secure and compliant Industry Vertical Cloud platform specifically designed for manufacturing. • Pre-built manufacturing modules and integrations for SCADA systems, PLCs, and ERP minimized custom development and migration complexity. • Robust data security and privacy features ensured industry-specific compliance and protection of sensitive production data. 	<ul style="list-style-type: none"> • Manufacturing execution systems (MES), quality control systems, and asset management platforms were seamlessly migrated to the industry cloud platform. • Advanced analytics tools powered by AI and ML provided real-time insights into production processes, machine performance, and quality control data. • Industry-specific dashboards visualized key metrics like Overall Equipment Effectiveness (OEE), enabling data-driven decision making and proactive maintenance. 	<ul style="list-style-type: none"> • Ongoing support and optimization provided leveraging AI agents, ensuring smooth operation and security. • The Customer gained access to a vibrant ecosystem of pre-vetted manufacturing solutions, accelerating innovation and adoption of new technologies. • Cloud-based AI and ML powered predictive maintenance helped reduce machine downtime by 20% and saving ~\$1 million annually. • Industry-tailored analytics enabled them to optimize production processes, leading to a ~15% reduction in defect rates.

Table 5: Phases of adopting an Industry Vertical Cloud Solution for a Manufacturing Customer

Tangible Benefits:

Cost Savings	Improved Performance	Enhanced Security	Innovation
Migrating to the tailored industry cloud reduced IT spend by 30% and helped optimized processes. This lowered operational expenses by 12%.	Production lead times decreased by 25%, and product quality improved by 10%, leading to increased customer satisfaction and reduced warranty claims.	Industry cloud platform coupled with Security AI helped reduce cyberattacks, data breaches and drive improved compliance to regulatory standards.	As early adopters of AI-powered quality control, attracting new partnerships, a connected product initiative was launched, generating \$2 million in new revenue streams.

Table 6: Benefits Illustration of an Industry Vertical Cloud Journey

Universal Manufacturing's journey to Industry Vertical Cloud demonstrates the transformative power of this technology for manufacturers. Through the adoption and implementation of industry vertical cloud services, Universal Manufacturing has successfully undergone a digital transformation journey, realizing tangible benefits in terms of cost savings, improved performance, and enhanced security posture. These collectively help Universal Manufacturing propel towards a future of operational excellence and market leadership.

Key Takeaways for Enterprise Customers

Industry Vertical Cloud offers a customized fit for your industry, addressing specific needs and complexities. Business value comes in the form of increased efficiency, enhanced security, actionable insights, accelerated innovation, and optimized costs. Customers do not have to navigate this journey alone. Partnering with a trusted GSI provides critical expertise, smooth implementation, and ongoing support throughout your journey.

Embrace the industry-specific advantage and unlock the full potential of your business with Industry Vertical Cloud.

Eviden's expertise in this space goes beyond technology. We offer a comprehensive framework to guide your vertical cloud journey, including:

- **Industry-specific consulting:** Deep understanding of your sector's challenges and best practices.
- **Solution architecture and design:** Tailored cloud solutions aligned with your business goals.
- **Implementation and integration:** Seamless migration and integration with existing systems.
- **Managed services and support:** Ongoing optimization and expertise to maximize your cloud investment.

Conclusion

Industry Vertical Cloud is not just a technology shift. It is a **strategic transformation**. By embracing this approach, enterprises can gain access to a platform and services meticulously designed to address the unique challenges and opportunities of their industry. This translates to tangible business value across multiple dimensions:

- **Enhanced Efficiency and Agility:** Pre-built solutions, integrations, and data models streamline operations, accelerate processes, and boost responsiveness to market changes.
- **Unmatched Security and Compliance:** Built-in industry-specific features ensure adherence to regulations, reduce compliance risks, and protect sensitive data.
- **Deeper Insights and Informed Decisions:** Industry-specific analytics power data-driven decision-making, uncovering hidden patterns and optimizing performance.
- **Faster Innovation and Time-to-Market:** Rapid deployment of modern technologies and solutions fuels innovation, giving you a competitive edge in your industry.
- **Reduced Costs and Complexity:** Eliminate custom development, leverage pay-as-you-go models, and optimize resource utilization for cost-effective cloud adoption.

By carefully considering these factors, GSIs can develop, deploy, and manage Industry Vertical Cloud that deliver significant value to enterprise customers within specific industries. This requires a combination of industry expertise, technological know-how, and a commitment to continuous innovation and customer support.

Want to know more?

please visit <https://eviden.com/solutions/cloud>



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