



Navigating the labyrinth:

Reducing the burden of provider operations for health plans by leveraging Cognizant Provider Digital Interaction.

Executive summary

The estimated annual cost to the US healthcare system due to inaccurate provider directories alone is three billion dollars. This staggering figure underscores the crippling inefficiency of current provider operations, a burden that health plans bear disproportionately. Every non-current contract, inaccurate address, outdated specialty or missed recredentialing deadline translates into tangible financial losses and compromised patient access. The escalating costs of provider operations are an administrative hurdle—and a financial drain that necessitates immediate attention.

This whitepaper provides a comprehensive analysis of provider data operation within health plans, addressing the critical challenges and substantial financial burdens associated with current practices. It further explores the transformative potential of generative AI in mitigating these costs, streamlining operational workflows and enhancing data accuracy, ultimately driving improved healthcare experiences for providers and patients.

Objectives of this whitepaper

Let's dive into the existing inefficiencies within provider operations, specifically from the health plan's perspective, focusing on data provider operation and credentialing.

1) Provider data operation inefficiencies

- **Data silos and lack of interoperability:** Health plans often rely on multiple disparate systems (e.g., credentialing software, claims processing systems or provider directories). These systems rarely communicate effectively, leading to data duplication, inconsistencies and the need for manual data entry. This results in fragmented data, hindering the ability to create a single source of truth for provider information. It also leads to errors when data is transferred between systems.
- **Inaccurate and outdated provider directories:** Provider information changes frequently (e.g., address changes, new affiliations or updated contact details). Without robust data management processes, directories quickly become outdated. This leads to member frustration, inaccurate referrals and potential regulatory penalties. It also increases call center volume as members seek clarification, resulting in additional costs.
- **Difficulty in data standardization:** There is a lack of standardization in how provider data is collected and formatted, making it difficult to integrate data from different sources. This results in inconsistencies and errors, hindering the ability to create a comprehensive and accurate provider database.

2) Credentialing and recredentialing inefficiencies

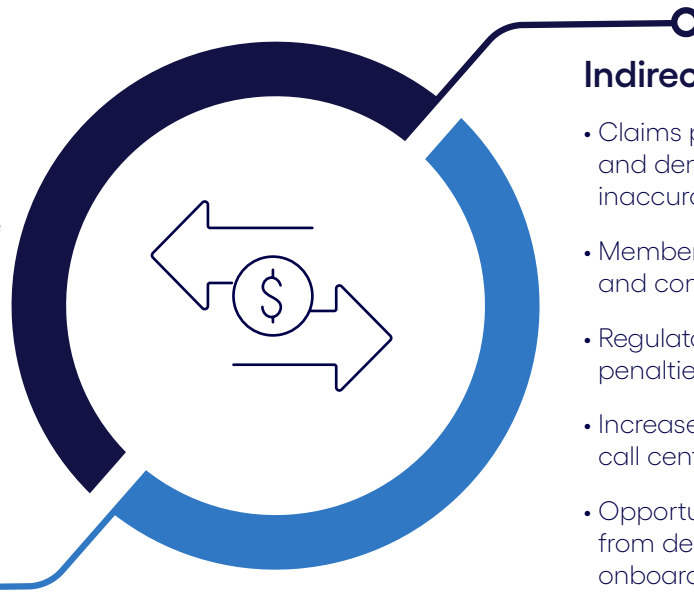
- **Non-uniform credentialing requirements:** Credentialing requirements vary across states and health plans, making it difficult for providers to comply. This increases the administrative burden for both health plans and providers, leading to delays and inefficiencies.
- **Time-consuming verification processes:** Verifying provider credentials (e.g., licensure, board certification or malpractice history) can be a lengthy process, often involving multiple phone calls and faxes. This leads to delays in credentialing and onboarding, potentially impacting patient access.
- **Government requirement on recredentialing:** Providers must undergo recredentialing with multiple health plans at predefined intervals to meet the guidelines set forth in the Health Care Quality Improvement Act of 1986. Significant effort is spent in preparation to meet the guidelines.

- **Lack of integration with provider data operation:** Credentialing systems are often separate from provider data management systems, leading to data duplication and inconsistencies. This hinders the ability to create a comprehensive and accurate provider profile.

The financial impact on health plans could be multifold:

Direct costs

- Administrative staff salaries and benefits
- Technology infrastructure and software licenses
- Credentialing fees and background checks
- Data verification and validation services
- The cost of printing and mailing paperwork



Indirect costs

- Claims processing errors and denials due to inaccurate provider data
- Member dissatisfaction and complaints
- Regulatory fines and penalties
- Increased call center volume
- Opportunity costs from delayed provider onboarding



Cognizant’s solution and strategies are segmented into two categories:

(a) Immediate comprehensive solution to drive efficiency and accuracy

To address the pervasive challenges of provider data inconsistencies and limited data portability within the healthcare ecosystem, we developed Cognizant Provider Digital Interaction. This comprehensive enterprise solution is engineered to orchestrate provider operations, ensuring data accuracy and integrity. By leveraging a robust technological framework encompassing gen AI, API integrations, robotic process automation (RPA), advanced analytics and process mining, Cognizant Provider Digital Interaction facilitates comprehensive optimization across provider functions. The platform delivers actionable insights through integrated reporting and dynamic dashboards, offering end-to-end transaction visibility and granular drill-down capabilities for precise issue diagnosis. Furthermore, Cognizant Provider Digital Interaction mitigates outreach inefficiencies through automated notifications and intelligent robotic call systems, ensuring timely data completion and operational continuity.

Cognizant Provider Digital Interaction offers a flexible deployment model, functioning as a comprehensive end-to-end solution or as modular components tailored to address specific provider function challenges. The platform enforces adherence to regulatory and business policy guardrails through a centralized business rules engine, ensuring consistent compliance.

Leveraging Cognizant’s proprietary generative AI-powered advanced data extraction capabilities, Cognizant Provider Digital Interaction significantly reduces manual data capture efforts and enhances accuracy across all provider operations. By integrating state-of-the-art optical character recognition (OCR) and gen AI technologies, the platform achieves unparalleled precision and speed in extracting data from unstructured emails and attachments.

Cognizant Provider Digital Interaction facilitates seamless interoperability with a diverse range of healthcare platforms, including Facets®, QNXT™ and third-party systems like CAQH—as well as state and license websites, where permitted. This robust connectivity enables automated data extraction and validation from multiple sources, streamlining data management processes.



To ensure industry-leading accuracy, Cognizant Provider Digital Interaction incorporates a human-in-the-loop validation process, verifying the outputs of gen AI and other technologies against stringent quality standards. This approach guarantees data integrity and exceeds industry benchmarks.

Cognizant Provider Digital Interaction consolidates disparate outreach functions into a centralized team, optimizing provider operations by reducing turnaround times and eliminating redundant efforts.

This strategic consolidation enhances efficiency and improves overall operational performance. Furthermore, the platform fosters enhanced stakeholder collaboration, yielding substantial administrative savings, reduced provider service call volumes, improved call handling times and minimized claim rework. Cognizant Provider Digital Interaction's robust workflow capabilities—encompassing intelligent routing, automated notifications and comprehensive audit logs—enables efficient management and meticulous tracking of all data modifications.

(b) Future and sustainable solutions

While Cognizant Provider Digital Interaction offers immediate and significant enhancements to (PDM) and credentialing, the industry must also look toward transformative, long-term solutions that address the inherent complexities of data sharing and trust. Blockchain technology presents a compelling opportunity to establish a decentralized, secure and transparent ecosystem for provider data, ultimately driving substantial cost reductions and eliminating data duplication.

The implementation of blockchain for PDM and credentialing functions envisions a consortium-based model, where multiple national payers, healthcare providers and regulatory bodies participate in a shared, immutable ledger. This approach fosters a collaborative environment, enabling the secure and verifiable exchange of provider information. By establishing a single source of truth, blockchain eliminates the need for redundant data verification and validation processes, significantly reducing administrative overhead and accelerating credentialing timelines.

The inherent characteristics of blockchain—immutability, transparency and consensus-driven validation—address the critical challenges of data

integrity and trust. Once provider data is recorded on the blockchain, it cannot be altered or tampered with, ensuring the accuracy and reliability of information. Smart contracts can automate credentialing workflows, ensuring compliance with predefined regulatory standards and business rules.

This solution reduces manual intervention, minimizes errors and streamlines the overall process.

In addition, blockchain facilitates seamless data portability, empowering providers to control their information and granting authorized parties access as needed. This eliminates the need for providers to repeatedly submit credentials and documentation to multiple payers, reducing administrative burden and enhancing operational efficiency.

One provider, one record: After blockchain implementation, we can visualize if provider records are updated in any of the systems used in provider operations (credentialing, pricing, claims, etc.). As a result, all instances of preexisting provider records can be viewed easily—and parity can be achieved in all systems. Any new update can percolate to each system, creating one provider, one record.

The potential benefits of a blockchain-enabled PDM and credentialing system are substantial. By reducing duplication of data and effort, streamlining credentialing processes and enhancing data security, the industry can achieve significant cost reductions. Moreover, improved data accuracy and transparency enhance patient safety and improve the overall efficiency of the healthcare ecosystem.

While blockchain holds promise for Provider data operation (PDM) and Credentialing, its widespread adoption by Health Plans faces significant hurdles. Below are two primary limitations:

1. Regulatory mandate for Primary Source Verification (PSV): Current regulations often necessitate direct verification of credentials from original sources, a requirement not fully decentralized by existing blockchain implementations, adding a layer of complexity.
2. Prohibitive implementation costs and scalability for ROI: The substantial investment required for blockchain deployment, including infrastructure and integration, makes cost recovery feasible only through widespread participation among multiple national or regional health plans within a given state.

Given these inherent challenges, **Cognizant's Provider Digital Interaction solution offers an immediate and strategic answer.** It directly streamlines administrative processes for providers, enhances data accuracy for health plans, and delivers immediate efficiencies and cost reductions without the limitations of current blockchain adoption.

Potential benefits – why Cognizant Provider Digital Interaction?

- Load provider data and contracts once and integrate this information across the enterprise.
- Resolve data conflicts between multiple repositories, maintain data accuracy and increase data reusability by up to 95%.
- Achieve administrative savings by reducing provider service calls, improving call handle time and reducing claim rework.
- Automate creating a reliable and portable payer/TPA-specific master record.
- Accelerate provider onboarding, enrollment and seamless contract generation.
- Improve provider satisfaction and CMS star ratings by improving the quality and accuracy of provider data and directory for reduced risk of CMS penalties and member complaints
- Improve the quality and accuracy of provider data and directory for reduced risk of CMS penalties and member complaints. Improve provider satisfaction and CMS star ratings.

Business benefits



Approximately
35% – 40%
efficiency improvement in
end-to-end/modules within
provider data operations



Faster time to market—
turnaround time (TAT)
improvement by
20% – 30%



20% – 30%
late payment interest
reduction due to accurate
claim selection



100%
SLA compliance



Improved accuracy in
provider directory



Provider and member
experience improvement



How will we address Cognizant Provider Digital Interaction implementation challenge

#	Implementation challenges	Solutions
1	Change management: Implementing the workflow across all provider processes/functions will be a difficult and complex task as each process/function has its own unique processing steps and process-specific nuances.	<ul style="list-style-type: none"> • Cognizant Provider Digital Interaction follows modular architecture • Because of modular and microservice-based architecture, Cognizant Provider Digital Interaction can be rolled out to individual functions • Additionally, our agile deployment methodology will help us in handling individual process/function-specific nuances and complexity
2	Integration with client systems: Integrating provider data across various systems and platforms can be complex and time-consuming. Additionally, integrating next-gen technologies with existing systems can be complex.	<ul style="list-style-type: none"> • Modular architecture: Adopting application microservices architecture and modular, configurable application design can facilitate seamless integration with existing systems • Interoperability: Ensure seamless API-based connectivity between different systems and platforms • Foundation of future: Building a next-gen technology stack with cloud-enabled infrastructure and BPM/CRM capabilities can enhance integration and scalability
3	Enhancing existing system's capabilities by leveraging new technology: Integrating automation and gen AI/ML models into existing workflows can be complex and may require significant changes to current systems.	Cognizant Provider Digital Interaction is a comprehensive enterprise solution engineered to orchestrate the end-to-end Provider data operation lifecycle, ensuring data accuracy and integrity. It seamlessly integrates advanced technologies such as gen AI, APIs, RPA, analytics, process mining, etc. to optimize provider operations.
4	New technology adoption: Encouraging stakeholders to adopt new processes and tools.	<ul style="list-style-type: none"> • Customer experience: Establishing a digital front door with digitized intake and outreach can provide an omnichannel experience, making it easier for stakeholders to engage with the new system • Foundation of future: Implementing user-friendly, low-code/no-code platforms can simplify the adoption process for users.
5	Resistance to change: Employees may resist adopting automated processes due to fear of job loss or discomfort with new technology.	<ul style="list-style-type: none"> • Cognizant Provider Digital Interaction comes with built-in automation capabilities. Employees will undergo a comprehensive training program to make it easier for them to engage with the new system. • Various awareness programs will be provided.
6	Data silos and integrated reporting: Breaking down data silos to create a coherent data strategy can be challenging.	<ul style="list-style-type: none"> • Data orchestration: Our solution brings data orchestration across all provider processes • Integrated reporting: Cognizant Provider Digital Interaction can deliver actionable insights through integrated reporting and dynamic dashboards, offering end-to-end transaction visibility and granular drill-down capabilities for precise issue diagnosis
7	Scalability: Managing and scaling data infrastructure to handle increasing volumes of provider data.	<ul style="list-style-type: none"> • Modular architecture: Designing a scalable microservices architecture can allow for easy expansion and management of growing data volumes • Foundation of future: Leveraging a next-gen technology stack with scalable cloud infrastructure can support increasing data demands

Conclusion

The labyrinth of provider operations presents a formidable challenge to health plans, with inaccurate data costing the industry billions of dollars and compromising patient care. However, the path to resolution is not shrouded in ambiguity. Our dual-pronged strategy outlined in this whitepaper offers both immediate and long-term solutions to alleviate the burden of Provider data operation.

Cognizant provider digital Interaction leverages the transformative power of gen AI, RPA and advanced analytics to provide an immediate and impactful solution. By streamlining processes, enhancing data accuracy and fostering interoperability, Cognizant Provider Digital Interaction empowers health plans to navigate the complexities of provider operations with unprecedented efficiency. Its ability to consolidate disparate functions, automate data extraction and ensure compliance represents a critical step toward a more streamlined and cost-effective healthcare ecosystem.

Looking beyond the immediate horizon, blockchain technology offers a revolutionary vision for the future of and credentialing. The establishment of a national-level consortium—built on the principles of decentralization, transparency and collaboration—will create a secure and immutable platform for data sharing. While this represents a long-term endeavor, its potential to eliminate data duplication, streamline credentialing and enhance patient safety is undeniable.

The journey toward optimized provider operations demands a commitment to innovation and collaboration. By embracing solutions like Cognizant Provider Digital Interaction and strategically investing in the development of blockchain-enabled platforms, health plans can mitigate the financial burdens of inaccurate data and elevate the quality of care delivered to patients. The convergence of these technologies, coupled with a collaborative industry-wide effort, will pave the way for a more efficient, secure and patient-centric healthcare future. It's time to act now—and transform the labyrinth into a streamlined, transparent and trusted pathway to superior healthcare.

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Debojyoti Hazra is a visionary transformation leader with over two decades of experience spearheading digital roadmaps, AI-driven innovation and enterprise-wide technology strategies. As the Head of Innovation & Transformation for Healthcare IOA at Cognizant, a role he has held since 2014, he has been at the forefront of AI-driven advancements, with a particular emphasis on generative AI within the healthcare sector. He currently drives process excellence, automation and analytics, with a keen focus on generative AI applications across the payer and provider lifecycle. His proven expertise in leveraging AI, analytics and intelligent automation has delivered over \$500 million in savings for global enterprises, including \$150 million through operational efficiency programs that optimized over 7,000 FTEs. Notably, he has engineered AI-powered customer experience enhancements, achieving a 30% increase in member retention. He was the program owner of driving process mining across IOA, leading to significant business insights and identification of large transformation projects. A strategic collaborator, he forges key partnerships with Fortune 100 technology leaders to foster co-innovation. He is also the author of a handbook on bot resumes, facilitating the rapid adoption of robotics.



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Jigar Parikh is a transformation solution leader at Cognizant's Healthcare IOA business unit and is responsible for providing transformation solution and productivity commitment for all new deals. Currently, he leads all generative AI initiatives, solutioning and estimates for our Healthcare IOA business unit. Jigar joined Cognizant in 2021. He has over 20 years of experience in delivering large-scale business transformation programs using cutting-edge technology and proven assessment techniques across IT and business operations. His expertise also encompasses portfolio management, project management, team management, intelligent process automation (IPA), CoE incubation, process assessments, tool selection and rationalization, platform development, solution design, quality engineering and support. Jigar has over five years of expertise in automating healthcare payer processes.



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