FROST & SULLIVAN

CHANGE HEALTHCARE ENTERPRISE IMAGING RECEIVES THE 2023 CUSTOMER VALUE LEADERSHIP AWARD

Identified as best in class in the North American cloud-based enterprise imaging industry

Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Change Healthcare Enterprise Imaging, now part of Optum, excels in many of the criteria in the cloud-based enterprise imaging space.

AWARD CRITERIA

Business Impact	Customer Impact
Financial Performance	Price/Performance Value
Customer Acquisition	Customer Purchase Experience
Operational Efficiency	Customer Ownership Experience
Growth Potential	Customer Service Experience
Human Capital	Brand Equity

Cloud-based Enterprise Imaging Market Snapshot

The rapidly evolving cloud-based enterprise imaging industry faces several challenges, such as cybersecurity concerns, while transitioning to cloud solutions. With a heightened awareness of the persistent cyber threats in the healthcare sector, healthcare providers recognize the importance of entrusting their patient data and medical images to experts with the capital and expertise to ensure complete security.

Consequently, large cloud providers well-equipped to establish and maintain robust security infrastructures are gaining popularity. Moreover, the evolving care delivery model landscape, shifting from hospitals to ambulatory settings and rural areas, drives the adoption of cloud-based solutions to provide cost-effective alternatives that ensure data security and availability even in low-bandwidth or remote locations.

Frost & Sullivan estimates the global cloud-based medical imaging informatics market will reach $4.21 billion in 2026, increasing at a compound annual growth rate of about 23.4% from 2021 to 2026.[1] North America constitutes the largest segment, generating more than $2 billion in revenue in 2026.[2] Healthcare organizations adopting cloud-based enterprise imaging must improve security, operational efficiency, and medical data value to thrive in the industry.

Change Healthcare Enterprise Imaging, now part of Optum, uniquely leverages its expertise, technologies,

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[1] *Growth Opportunities in the Global Cloud-based Medical Imaging Informatics Market, Forecast to 2026,* (Frost & Sullivan, February 2023).
[2] Ibid.

and services to meet market and client needs. It is strategically poised to leverage emerging growth opportunities, solidifying its position in the cloud-based enterprise imaging space.

Dedication to Customer Value: A Strategy for Success

Founded in 2011 and headquartered in Minnesota, the United States (US), Optum, a subsidiary of the UnitedHealth Group, is a healthcare services provider. In October 2022, Optum acquired Change Healthcare, one of the few enterprise imaging providers delivering a genuinely cloud-native architecture at scale. In 2020, Frost & Sullivan recognized Change Healthcare for its cloud-native Enterprise Imaging Network™ (now known as Change Healthcare Stratus Imaging), industry-wide reputation, regulatory adherence, and customer-centric approach, and remains impressed with the industry-leading solution's continuous innovation.

Offerings

Change Healthcare Enterprise Imaging's solutions and software enable healthcare organizations to expedite their digital transformation, ultimately improving patient outcomes. These solutions provide efficient data access and streamline workflows, facilitating improved care coordination across various specialties within the healthcare organization, with a remarkable speed advantage of being up to 14 times faster in accessing the first image from the cloud compared to local archives.[3]

Change Healthcare Stratus Imaging is a cloud-native enterprise imaging platform that makes imaging data accessible, shareable, and secure, revolutionizing patient care. It eliminates on-premises equipment, software licensing, and maintenance costs by gradually migrating medical imaging to the cloud with a fully managed software-as-a-service (SaaS) solution. The cloud-based suite offers secure, at-scale enterprise imaging accessible from anywhere. It includes:

- Change Healthcare Stratus Imaging Archive
- Change Healthcare Stratus Imaging Viewer
- Change Healthcare Stratus Imaging Analytics
- Change Healthcare Stratus Imaging Share
- Change Healthcare Stratus Imaging PACS
- Change Healthcare Stratus Imaging Discover

The Change Healthcare **Radiology Suite** helps radiologists improve clinical care, streamline workflow, and prioritize urgent investigations by leveraging an end-to-end set of integrated on-premises and cloud-native solutions. The artificial intelligence (AI)-enabled solution optimizes workplace productivity and efficiency by giving access to an institution's archival records, real-time consultations, enhanced visualization, and multi-modality breast imaging from a single workstation.[4]

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[3] Change Healthcare, "Enterprise Medical Imaging Solutions," Change Healthcare, 2023, https://www.changehealthcare.com/enterprise-imaging.

[4] Change Healthcare, "Enterprise Radiology Solutions," Change Healthcare, 2023, https://www.changehealthcare.com/enterprise-imaging/radiology.

Radiology solutions include:

- Change Healthcare Radiology Solutions™

- Change Healthcare Mammography Plus ™

- Change Healthcare Workflow Intelligence ™

- Change Healthcare Study Share™

- Change Healthcare Enterprise Viewer™

- Change Healthcare Stratus Imaging Archive

- Change Healthcare Stratus Imaging Viewer

- Change Healthcare Stratus Imaging Share

- Change Healthcare Stratus Imaging Analytics

- Change Healthcare Imaging Actionable Findings

- Change Healthcare Imaging Fellow™

Change Healthcare **Image Repository™ Change Healthcare Cardiology** effortlessly integrates with electronic medical records (EMRs) and vendor-neutral archive (VNA) systems to provide a complete diagnostic toolset, full cardiovascular records, and cost-effective care coordination. These solutions encompass invasive and non-invasive cardiology, optimize data management, reduce information technology (IT) overhead, and improve operational efficiency with unified, structured reporting while preserving secure multi-facility reporting, registration, inventory, and billing, all in a single database. This architecture enhances healthcare facility care quality, operational intelligence, and cardiovascular data management. Cloud-integrated and cloud-native Cardiovascular solutions include:

- Change Healthcare Cardiology™ PACS

- Change Healthcare Cardiology™ Analytics

- Change Healthcare Cardiology Cath™

- Change Healthcare Cardiology Charge Manager™

- Change Healthcare Cardiology ECG Management™

- Change Healthcare Cardiology Echo™

- Change Healthcare Cardiology EP Solutions™

- Change Healthcare Cardiology Hemo™

- Change Healthcare Cardiology Nuclear Medicine Advanced Visualization™

- Cloud-based Inventory Management

- Change Healthcare Image Repository™

- Change Healthcare Stratus Imaging Archive

- Change Healthcare Stratus Imaging Viewer

- Change Healthcare Stratus Imaging Share

Medical Imaging Consulting Solutions improve imaging data accessibility, utilization, and performance with vendor-agnostic expertise. Imaging experts advise on workflow, scalability, and security in these services. The consulting offerings address clinical, regulatory, and corporate data issues by reducing workflow, boosting care efficiency, and updating IT infrastructure. On-demand imaging informatics and IT staffing solutions can handle resource restrictions and personnel shortfalls to ease radiology practice and hospital imaging department operations. Medical imaging consulting solutions include:

- Business Continuity & Disaster Recovery

- Change Healthcare Imaging Actionable Findings

- Data Management Solutions

- Hosted Storage

- Imaging analytics consulting solutions

- Imaging assessment

- Imaging Data Integration and Migration

- Imaging Governance and Change Adoption

- Imaging Informatics Staffing

- Imaging Optimization

- Information Technology Solutions

- Intelligence Data Moves

- IT Security and Risk Services

- Expert Medical Imaging Consultants

Elevating Customer Ownership Experience through Unique Advantages

Change Healthcare Enterprise Imaging excels in the market by combining strengths that improve the customer ownership experience. Its extensive client base guides product development, allowing it to make large-scale investments. This diverse customer base provides a unique advantage for swiftly advancing solutions.

As one of the few enterprise imaging providers, the company's leading expertise in advising clients on cloud migration distinguishes it from competitors. Change Healthcare Enterprise Imaging tailors its approach to each customer's needs, meeting them where they are and delivering best practices for a progressive and well-informed transition to cloud-based solutions.

The company's cloud-native architecture prioritizes complex features like automatic monitoring, self-

healing, advanced analytics, and self-scaling, guaranteeing high performance and reliability. This proactive strategy swiftly resolves potential issues, often undetectable to customers, ensuring a flawless and uninterrupted experience for healthcare professionals. Change Healthcare Enterprise Imaging's solutions feature robust, third-party validated (HITRUST and SOC 2) cybersecurity, reducing the risk of costly and care-impacting cyber-attacks and ransomware incidents.

Notably, the company's rigorous sales process, agility in responding to proposal requests, and competitive pricing strategies tailored to customer needs set it apart. It is adapting to a more flexible business model, shifting from a capital expenditure-centric to an operational expenditure-centric approach for its cloud-native solutions and embracing the SaaS model.

Furthermore, Change Healthcare Enterprise Imaging's strategic acquisitions in Stratus Imaging and the incorporation of AI solutions improve customer service quality and satisfaction. Its focus on AI in imaging and developing a unified, flexible cloud platform integrated with AI workflows exemplify its forward-thinking approach.

The company's dedication to customer-centricity, interoperability, and continuous improvement in clinical workflows ensures that clients perceive notable value in its offerings, resulting in improved customer experience, with 2023 marking significant progress in this endeavor.

Uncovering Savings in Cloud Transition

Change Healthcare Enterprise Imaging provides exceptional value for the price by addressing the core aspects of cost analysis and optimization. It concentrates on two critical elements when assisting clients in transitioning to the cloud. First, the company helps customers to thoroughly understand their current expenses, a task that many find difficult due to the complexities of on-premises solutions. Second, it advises clients on cost optimization when migrating to new systems.

> *"Frost & Sullivan impressed by Change Healthcare Enterprise Imaging's comprehensive cloud-native solutions for healthcare advancement and strategic approach to cloud migration and cost optimization."*
>
> *– Ojaswi Rana*
> *Best Practices Research Analyst*

In collaboration with experts, Change Healthcare Enterprise Imaging has created a return-on-investment tool that allows customers to gain insights into the total cost of ownership of their existing imaging solution set, uncovering overlooked licenses and services associated with their current imaging infrastructure. The company stands out in the market by educating clients and working closely with them to ensure they recognize the tangible value and potential cost savings of a cloud transition, including the advantages of a phased migration and cloud-native architecture.

Change Healthcare Enterprise Imaging has developed a client success program that extends throughout the client journey, from the early stages of the sales process to client acquisition, implementation, support, and ongoing adoption. This program helps prospective clients understand the value of transitioning to the cloud, addressing various aspects such as clinical, IT, and financial benefits. By ensuring a seamless experience and setting the right expectations, the company creates a unified and positive client journey.

Moreover, updates, patches, and new functionalities are automatically implemented for all customers through cloud-based operations, eliminating concerns regarding downtime. Unlike the lengthy upgrade processes linked to on-premises solutions, cloud-native architecture delivers immediate access to improved functionality. Change Healthcare Enterprise Imaging provides significant value to its clients and enhances operational efficiency for itself and its customers by prioritizing transitioning to cloud solutions.

Frost & Sullivan is impressed by Change Healthcare Enterprise Imaging's comprehensive cloud-native solutions for medical imaging advancement and strategic approach to cloud migration and cost optimization.

Dedication to Customer Value: A Strategy for Success

Change Healthcare Enterprise Imaging's customer engagement strategy's foundation is its unwavering dedication to delivering customer value. The company constantly engages with clients throughout the entire journey. Client value realization is deeply embedded in its corporate culture. The client experience team has built a comprehensive framework around this philosophy and continually optimizes it. Change Healthcare Enterprise Imaging works closely with clients through health checks, online communities, surveys, and third-party assessments.

The company ingrains the feedback loop at all levels of the organization, ensuring that it addresses areas that need improvement while doubling down on what is working. This strategy has had a significant impact, resulting in an increase of 11 points in Net Promoter Score in 2023 from 2022 and overall improved customer service, reinforcing Change Healthcare Enterprise Imaging's commitment to helping customers fully realize the value of its solutions, particularly as they transition to the cloud-based Change Healthcare Stratus Imaging platform.[5]

The Power of Happy Customers

The power of happy customers as advocates drives Change Healthcare Enterprise Imaging's customer acquisition and branding strategies. The company believes that the most effective brand builders are satisfied customers. For example, a beta partner with a cybersecurity issue turned to it for assistance. Change Healthcare Enterprise Imaging quickly connected them to its cloud system, and the partner's leading radiologist was so impressed that they volunteered to speak about their positive experience at the Radiological Society of North America (RSNA) Conference. Such advocacy, which stems from exceptional customer experiences, is far more persuasive than any marketing effort.

The company also participates in major trade shows, conferences, webinars, and thought leadership programs in which its customers and C-suite representatives share insights and experiences, thereby increasing the credibility and trustworthiness of its brand.

> *"Frost & Sullivan commends Change Healthcare Enterprise Imaging for its robust customer engagement strategy that has enhanced customer service and satisfaction. Its happy customers serve as advocates, with compelling case studies underscoring its commitment to improving healthcare systems and client satisfaction."*
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> *– Ojaswi Rana*
>   *Best Practices Research Analyst*

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[5] Interview with Change Healthcare Enterprise Imaging, 26th October 2023.

Case Studies and Customer Testimonials

Washington Health System in Washington, the US, faced challenges such as inefficient cardiovascular workflows, redundant data entry, and an outdated paper reporting system. By implementing Change Healthcare cardiology solutions, including Cardiology Hemo, Echo, ECG Management, and Analytics, the healthcare system achieved remarkable results.

The company established a unified database for cardiovascular data, reduced the need for dictation, streamlined registry submissions and documentation, and significantly improved equator reporting compliance with the International Classification of Diseases (ICD) guidelines from 65.6% to 100% within six months.[6]

North Mississippi Medical Center in the US faced challenges regarding long report turnaround times, inefficient workflows, data and documentation management, and reimbursement processes in pediatric and fetal echo workflows. It implemented Change Healthcare Enterprise Imaging's Change Healthcare cardiology solutions, including Echo, Cath, EP, Hemo, and ECG, leading to significant improvements.

The North Mississippi Medical Center achieved reduced report turnaround times, decreased pediatric report revisions by 14%, achieved 100% adoption of fetal reports by physicians, and improved solution load and exit metrics.[7]

"I think their top strengths are their interoperability with other vendors. They're very much willing to support vendor utility, so as we're working with third-party vendors, they are actively working with us on integration and support so that we can fit the enterprise solutions together."

-Director Operations and IT & Systems[8]

"Structured reporting improves our report quality and accuracy. Standardizing what we are documenting increases our billing and reimbursement accuracy, and that has been a great benefit to Baystate."

-Corey McKinstry, Manager, Heart and Vascular Division, Cardiac Interventional Services, Baystate Medical Center[9]

Frost & Sullivan commends Change Healthcare Enterprise Imaging for its robust customer engagement strategy that has enhanced customer service and satisfaction. Its happy customers serve as advocates, with compelling case studies underscoring its commitment to improving healthcare systems and client satisfaction.

Embracing the Cloud Revolution Drives Accelerated Growth

Innovative solutions and a client-centric approach that streamlines the process of adopting the cloud enable Change Healthcare Enterprise Imaging to foster substantial, accelerated growth in its cloud services. A primary strategic objective is to facilitate the migration of its current clientele from on-premises solutions to cloud-based solutions, which offers a noteworthy prospect for expansion.

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[6] *Single-database Cardiology Platform Drives Efficient Workflow and Improves Data Access,* Case Study, Change Healthcare Enterprise Imaging, 2023).
[7] *New Pediatric and Fetal Echo Workflows Help Improve Patient-care Delivery,* Case Study, (Change Healthcare, 2023).
[8] *Change Healthcare Stratus Imaging (Cloud), Presentation,* (Frost & Sullivan, 2023).
[9] *Structured Cardiovascular Reporting Helps Medical Center Decrease Late Charges by 79%,* Case Study, (Change Healthcare, 2023).

As a result of the anticipated migration of its clientele to the cloud within the next five years, the company foresees significant growth in its cloud division, which the acquisition of new customers will bolster.

Frost & Sullivan believes Change Healthcare Enterprise Imaging is firmly positioned to advance the cloud-based enterprise imaging sector into its forthcoming development phase, securing market share and maintaining its standing in future years.

Conclusion

Customer-centric strategies help companies safeguard their market positions, provided there is an authentic approach and seamless implementation. Change Healthcare Enterprise Imaging incorporates customer-focused strategies and exemplifies best-in-class practices while presenting its robust cloud-based and cloud-integrated enterprise imaging offerings: Change Healthcare Stratus Imaging, Radiology Solutions, Cardiology Suite, and Medical Imaging Consulting Solutions.

The company is committed to customer value and engages with clients throughout the implementation journey. Further, it embeds the philosophy of client value realization into its corporate culture, ensuring all actions and strategies are oriented towards delivering value to clients. More importantly, Change Healthcare Enterprise Imaging assists clients in transitioning to the cloud by providing a stepwise approach and comprehensive support for a seamless shift toward cloud adoption. This holistic focus on customer satisfaction delivers significant benefits to current and prospective clients while strengthening its reputation in the market.

With its strong overall performance, Change Healthcare Enterprise Imaging, now part of Optum, earns Frost & Sullivan's 2023 North American Customer Value Leadership Award in the cloud-based enterprise imaging industry.

What You Need to Know about the Customer Value Leadership Recognition

Frost & Sullivan's Customer Value Leadership Award recognizes the company that offers products or services customers find superior for the overall price, performance, and quality.

Best Practices Award Analysis

For the Customer Value Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Business Impact

Financial Performance: Strong overall financial performance is achieved in terms of revenues, revenue growth, operating margin, and other key financial metrics

Customer Acquisition: Customer-facing processes support efficient and consistent new customer acquisition while enhancing customer retention

Operational Efficiency: Company staff performs assigned tasks productively, quickly, and to a high-quality standard

Growth Potential: Growth is fostered by a strong customer focus that strengthens the brand and reinforces customer loyalty

Human Capital: Commitment to quality and to customers characterize the company culture, which in turn enhances employee morale and retention

Customer Impact

Price/Performance Value: Products or services provide the best value for the price compared to similar market offerings

Customer Purchase Experience: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

Customer Ownership Experience: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

Customer Service Experience: Customer service is accessible, fast, stress-free, and high quality

Brand Equity: Customers perceive the brand positively and exhibit high brand loyalty

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at http://www.frost.com.

The Growth Pipeline Engine™

Frost & Sullivan's proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.

Learn more.

Key Impacts:

- **Growth Pipeline:** *Continuous Flow of Growth Opportunities*
- **Growth Strategies:** *Proven Best Practices*
- **Innovation Culture:** *Optimized Customer Experience*
- **ROI & Margin:** *Implementation Excellence*
- **Transformational Growth:** *Industry Leadership*

The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

- **Mega Trend (MT)**
- **Business Model (BM)**
- **Technology (TE)**
- **Industries (IN)**
- **Customer (CU)**
- **Geographies (GE)**

The Growth Pipeline Company™