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Syapse advances real-world care with Infor Cloverleaf

Using real-world data to support health systems

Oncology is growing more complex with every new biomarker discovered and therapy approved. To deliver the highest quality care, health systems need insights into the prevalence of specific subpopulations, an understanding of how those populations receive care, and a view into their outcomes. Yet the data elements required to generate these insights live in disparate systems and are often available only in unstructured free-text notes or PDFs.

Syapse focuses on where 50% of cancer care is provided in the United States–within large community health systems and major international hospitals. It curates disparate data sources and uses them to tell a comprehensive story for all cancer patients in its network. This knowledge can be used by stakeholders to improve patient outcomes and identify the root causes of gaps in care.

Syapse.™

Workforce
200 employees

Industry
Healthcare, Technology

Infor product
Infor® Cloverleaf
Integration Suite

Website
syapse.com

> " **To deliver value to our customers requires having a scalable, flexible infrastructure that can receive data from our health system partners in their native format and data-sharing preferences. Getting the data foundation right without creating an undue burden on the health system is critical to enabling rapid customer value."**
>
> JENNIFER JURIVICH
> Senior Vice President of Health Systems, Syapse

By partnering with Infor, Syapse turns data into meaningful insights—faster, more precisely, and more reliably than ever before.

Syapse works with Infor Cloverleaf® to provide value to health systems in three key areas:

- **Quality Improvement**: For most health systems, measuring care guidelines relies on data that is not traditionally found in structured feeds within the EMR. Syapse uses real-world data to provide a view of how closely programs adhere to clinical care guidelines, including the rates at which systems, regions, and individual practices are testing for biomarkers within clinically relevant populations. This helps to reveal significant opportunities for improvement and provide a clear picture of care gaps, and their root causes.

- **Clinical Trial Efficiency and Access**: Syapse brings a data-driven approach to both assessing clinical trial feasibility and identifying candidates for enrollment. This enables health systems to make better decisions in managing their research portfolios and to ensure their patients have access to the right clinical trials at the right moment in their care journeys.

- **Observational Research**: Syapse partner health systems collaborate with others across the network to advance the body of knowledge supporting care decisions. The high-quality, in-depth data collected and curated from patients is made available for analysis by any Syapse health system partner. Often, Syapse epidemiologists and analysts collaborate with health system investigators to design and conduct research studies. Health system partners also conduct their own research by accessing data within Syapse's secure, web-based platform.

> **We wanted to rely on a trusted brand. For the past 20 years, Infor has been steadfast in championing the benefits of interoperability and delivering Cloverleaf as a turnkey solution to a marketplace challenged by competing standards and inefficient interoperability. Partnering with them has supported our mission and that of our health system partners by enabling us to ingest data scalably, flexibly, reliably, and with the tools to ensure traceability."**
>
> VINOD SUBRAMANIAN
> Chief Data and Product Development Officer

Business challenges

- Consolidating and processing data from numerous health systems.

- Transforming raw data feeds into relevant research questions and answers.

- Working across geographic boundaries and varying data management regulations.

- Sourcing data in a scalable and maintainable way, especially with multiple security and privacy restrictions.

- Mitigating the heightened risk to corporate and sourced data from an increasing number of virtual threats and malicious actors.

Cloverleaf Integration with Syapse

High-quality data at scale, built on a foundation of scaled data integrations

To build the data foundation required to support its customers, Syapse integrates numerous and varied scaled data feeds from its health system partners, molecular laboratories, and other third-party sources. Syapse further augments this data by extracting critical elements from the unstructured data within its feeds via NLP. In addition, Syapse's team of in-house Certified Tumor Registrars validate and augment this data by performing clinical abstraction. Syapse's scaled data feeds are critical enablers of both other methods for augmenting the data. The application of NLP at scale depends on the ability to ingest high-value unstructured data, including imaging reports, pathology reports, oncologist notes, and free text fields within hospital tumor registries. In addition, scaled data feeds are leveraged to support clinical abstraction, both by prioritizing patients for curation and by pre-populating data elements to speed curation. Together, these three methods—all dependent on a foundation of scaled data feeds—work in harmony to support Syapse's ability to develop the high-quality data it needs to support its partners in a scalable fashion.

In search of a partner to support data integration

In 2018, Syapse started its search for a partner to support its data integration capabilities. It took four primary considerations into account:

- **Scalability**: Syapse was in the process of bringing on multiple customers with large backloads of data that its existing infrastructure could not support in a timely manner. At the time, one customer's data backload would have taken two years to integrate with their existing capabilities. Thus, finding a partner capable of integrating data feeds at scale was essential.

- **Flexibility**: Syapse realized that many health systems struggled to meet strict data schema requirements. To support them and reduce the burden that integration placed on these customers, Syapse needed a partner that could easily integrate data in any format, providing greater flexibility for customers.

- **Sophistication**: To deliver value to their health system partners using real-world data requires a smart approach to data management with the tools to track data provenance (the origin of the data) and transformation throughout the data platform. Syapse sought an interoperability partner that could support a rigorous approach to data management, ensuring data traceability and transparency.

- **Reliability**: Syapse sought a partner whose infrastructure could be counted on. Security and reliability are of paramount concern for a company entrusted with patient data.

After switching to Cloverleaf, the 20-year data backload that would have taken 2 years to ingest was able to be integrated in only 5 days. And although Syapse has continued to grow its customer base and associated patient volumes, it has not come close to reaching any constraints on scale.

Business results

- Adoption of Infor Cloverleaf helps Syapse to further prioritize the privacy and security of patient health information.

- Data processing capabilities accelerated from 18,000 to 3.2 million records per hour, reducing a 2-year backload to a 5-day backload.

- Syapse relies on a trusted solution that has proven itself for more than 20 years.

- The organization has established an integration platform that hospitals, licensed customers, and industry peers trust.

Building the data foundation with Cloverleaf

Syapse looked to Cloverleaf to address these challenges because it is the market leader in health data interoperability and excels at security, scalability, and reliability. Jennifer Jurivich, Syapse's Senior Vice President of Health Systems, stated, "Security is the cornerstone of everything we do. Every single day, there's more and more focus on data by foreign actors and malicious actors trying to get access to our data, and health care data is more valuable than credit card information because people can do a lot with it."

After evaluating multiple potential solutions, Syapse chose Infor's Cloverleaf Integration Suite to handle its exchange of clinical data. Since then, Cloverleaf has supported Syapse's needs in efficiently managing data feeds in a scalable fashion, while providing the ability to query and select specific elements from available data fields as they are brought into the platform. With Cloverleaf, Syapse has been able to more easily refine and extract essential information and make it available through a secure, user-friendly interface.

Cloverleaf was able to easily handle the increasingly wide variety of data sources Syapse needed to process, starting with EMR databases and expanding to include textual sources, pathology notes, other HL7 feeds, third-party sources, and more. It also enhanced Syapse's ability to offer flexibility to its partners in designing new feeds, as strict format adherence was no longer required.

Partnering with Cloverleaf has dramatically expanded Syapse's data integration capabilities, accelerating performance from 18,000 records per hour to 3.2 million records. That increase in speed had a tremendous real-life impact.

About Syapse

Syapse is dedicated to extinguishing the fear and burden of serious disease by advancing real-world care. By marrying clinical expertise with smart technologies, the company transforms data into evidence—and then into the experience—in collaboration with its network of partners, who are committed to improving patient lives through community health systems. A remote-first company with over 200 employees located in the US and internationally. Syapse was founded in 2008 and has raised over $100M. **www.syapse.com**

" We are excited to extend our partnership with Infor and see how the relationship will evolve as we continue to push towards more seamless integration with our health system partners. We believe our partnership with Cloverleaf will help us continue to offer innovative solutions to our customers both today and in the future."

MARY TRAN
Senior Vice President of Data Insights, Syapse

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