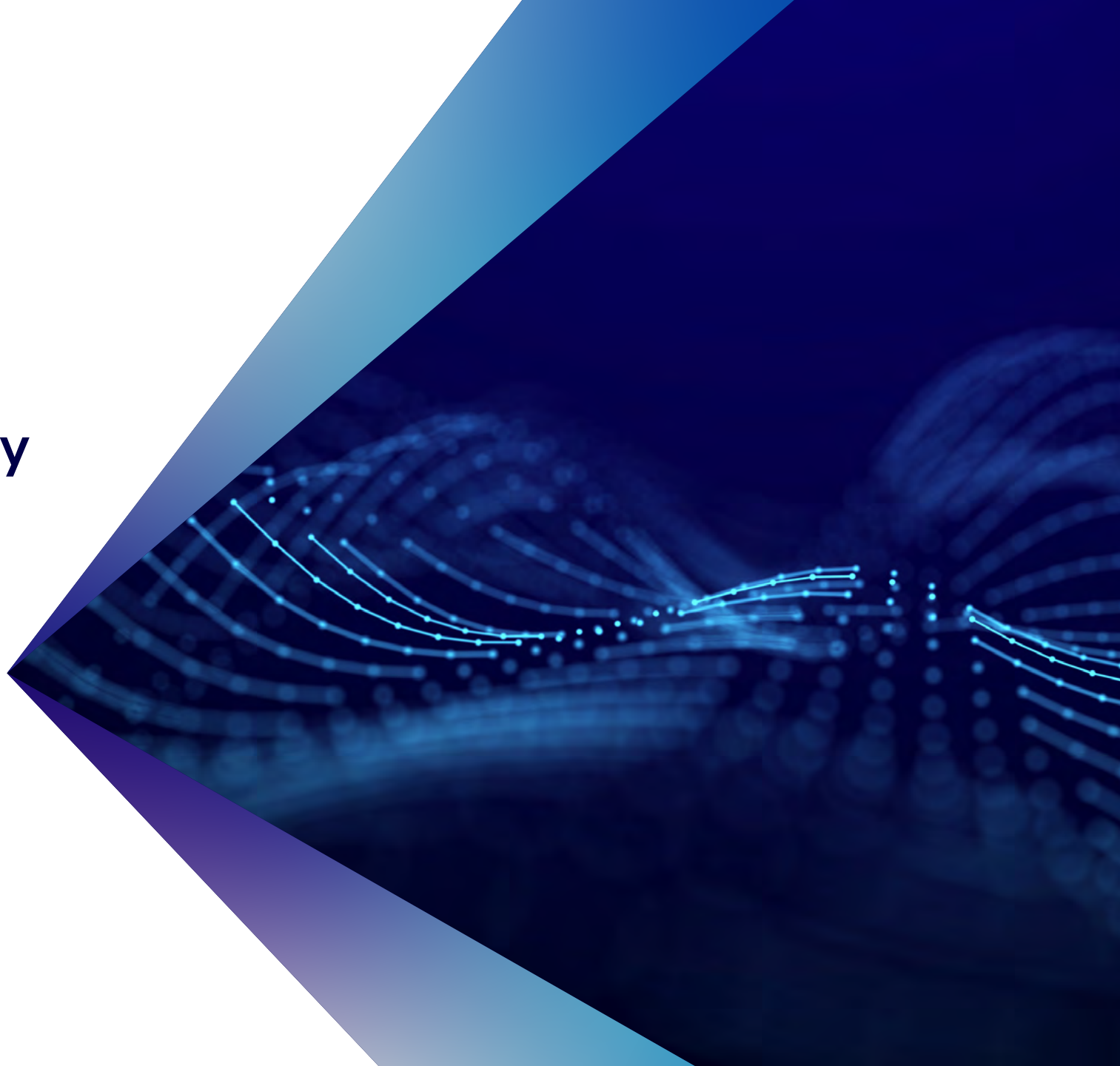




TriZetto® Facets® Core Administration

# Leading the industry with leading technology

Facets is the industry-leading core administrative processing system today. With Facets accurately and efficiently processing hundreds of millions transactions per week for more than 80 health plans representing more than 170 million members, it's easy to think of it as reliable vs. revolutionary. The truth is, Facets is both. We have become the market leader by continually, thoughtfully and strategically evolving our technology to take full advantage of the latest innovations in software design, architecture and deployment.



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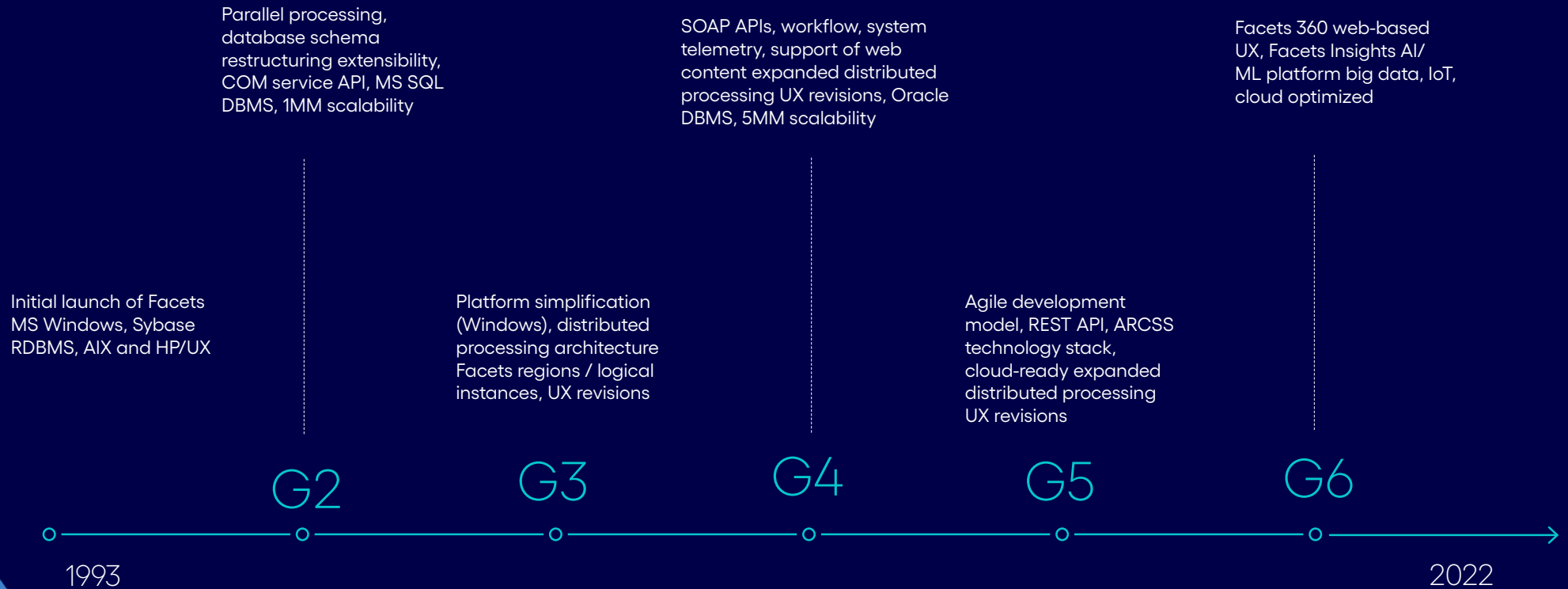
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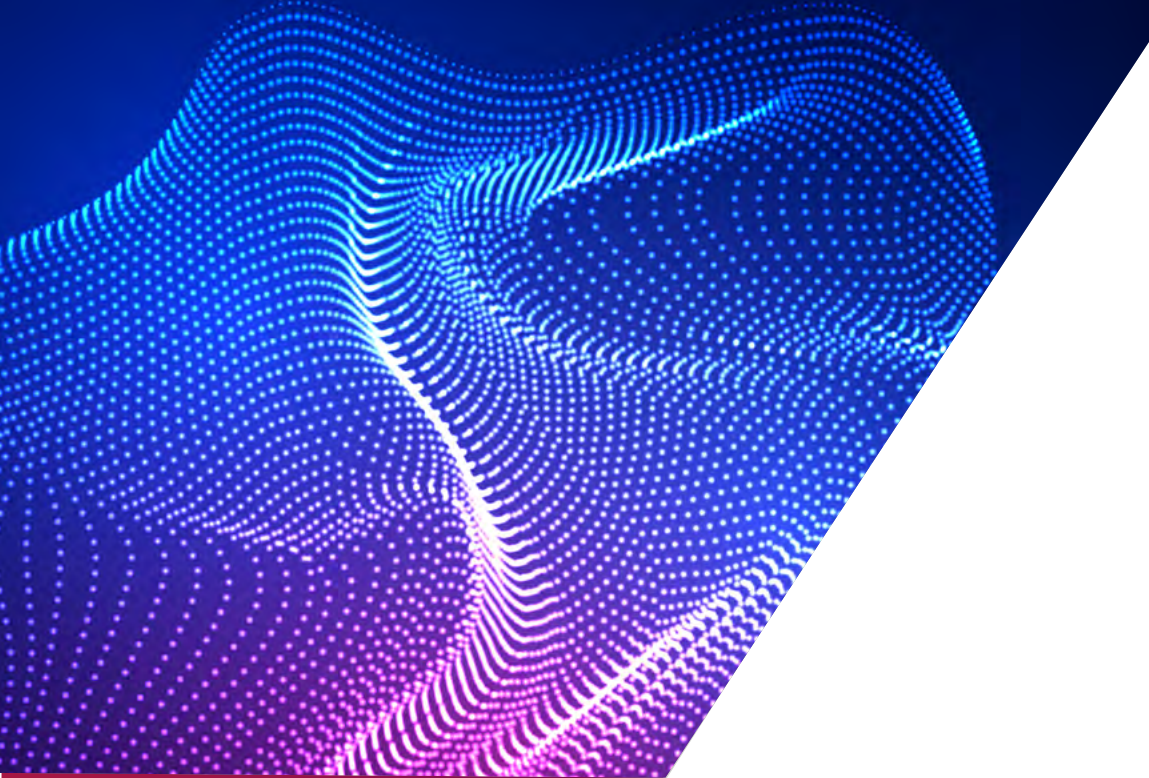
Facets meeting the  
needs of clients from

**50 million lives**  
to those with fewer than  
**100,000.**

# Facets journey



Since its inception, we have taken Facets from “bare metal” to virtual machines to today’s leading-edge containerization technology. We are now beginning to realize the benefits of the 6th generation of Facets through the technology investments we’ve made to date.



# Production at scale with cloud, containers, AI and more

Regardless, of their size, our Facets clients benefit from technologies such as:

## Cloud

We developed our latest Facets generation in and for the cloud. Cloud isn't an add-on for us; it's our native development environment. We've optimized Facets to take full advantage of the scale and flexibility of cloud computing. Yet, we are completely vendor-agnostic, so our clients are free to select any public, private or hybrid cloud environment or on-premise and cloud mix.

## Containers

We keep Facets lightweight and portable using container technologies. Our containerized runtime is ideal for cloud, supports optimal user experiences, speeds development and optimizes costs with efficient use of computing resources.

## Artificial intelligence and machine learning

We built AI and ML capabilities into the fabric of Facets to automatically deliver insights to clients based on their system's vast data stores. Insights range from system health to user performance differences to real-time assistance to service representatives as they interact with members.

We have brought our clients along on this journey, continually equipping them with modern tools and capabilities while always working to minimize their total cost of ownership and accelerate their businesses. Facets meets the needs of all clients—from 50 million lives to those with fewer than 100,000.

# Our production-proven fundamentals

Facets has proven it can deliver results in real-world, high-demand production environments on a multichannel, 24/7 basis. Further, we continually performance test Facets against a configuration consistent with a large client. We achieve the power and reliability to process tens of millions of transactions per day through a technology stack designed for accuracy, scalability and intelligence.

Facets' technology stack incorporates powerful modern technology and best practices. Each Facets module is built on this stack, resulting in highly responsive single-page applications.



## The ARCSS stack: How Facets is built

- A** **Angular** TypeScript-based open-source web application platform, is used as the foundation for single-page applications.
- R** **RESTful** architecture pattern using stateless protocol and standard operations, contributing to the highly responsive single-page applications and runtime engine.
- C** **C++** Complex mission-critical applications require mission-capable technology, so all of Facets' heavy computing is done in a C++ high-performance natively compiled business runtime engine. This is key to how Facets scales.
- S** **SQL-based** RDBMS, such as Microsoft SQL Server, Oracle Exadata or Oracle Enterprise.
- S** **Streaming** is accomplished with a high-performance NoSQL format . This strategy supports Facets' event-driven architecture and ability to subscribe to IoT data streaming patterns. Facets may bring in events through REST APIs to fuel applications within and outside of Facets with data.

# Containerized Runtime

## Client Layer

**Thin client:** Zero footprint, single-page applications, rich responsive experience.

**AI/ML:** Infuse probabilistic logic into transaction processing for better member and provider experiences.

Angular  
HTML5  
Google Chrome  
Chromium Embedded Framework  
Chart.js

## Application Layer

**RESTful APIs:** Provide a simple, natural lingua franca that is lightweight, flexible and scalable

**Runtime advances:** Security advances, elasticity; containers and orchestration.

Python  
Kubernetes  
.NET Core  
C++  
Scikit Learn

## Data Layer

**Data streaming:** Facets features a high-performance message store, data publishing and IoT messaging for real-time digital operations.

Windows  
Oracle  
SAP  
Linux  
Kafka

For optimal performance and flexibility, we embrace containers for our runtime services. We have adopted the industry-leading container orchestration system. Our containerized runtime can take advantage of features such as auto-scaling and the use of policy settings to govern resource utilization to manage cost and security.

Containers enable us to offer clients many different deployment options by abstracting the application from the infrastructure on which it runs. That positions us to support a variety of operating systems and optimizes system portability, even among cloud vendors. Containers also make it easy for clients to deploy different instances of Facets for testing, pilot programs or segregating customer data.

# Filling the continuous integration/ continuous delivery pipeline

Our use of containers helps accelerate development of new Facets features and applications that stay ahead of the healthcare industry's always-changing compliance and business requirements.

## Regular release cadence

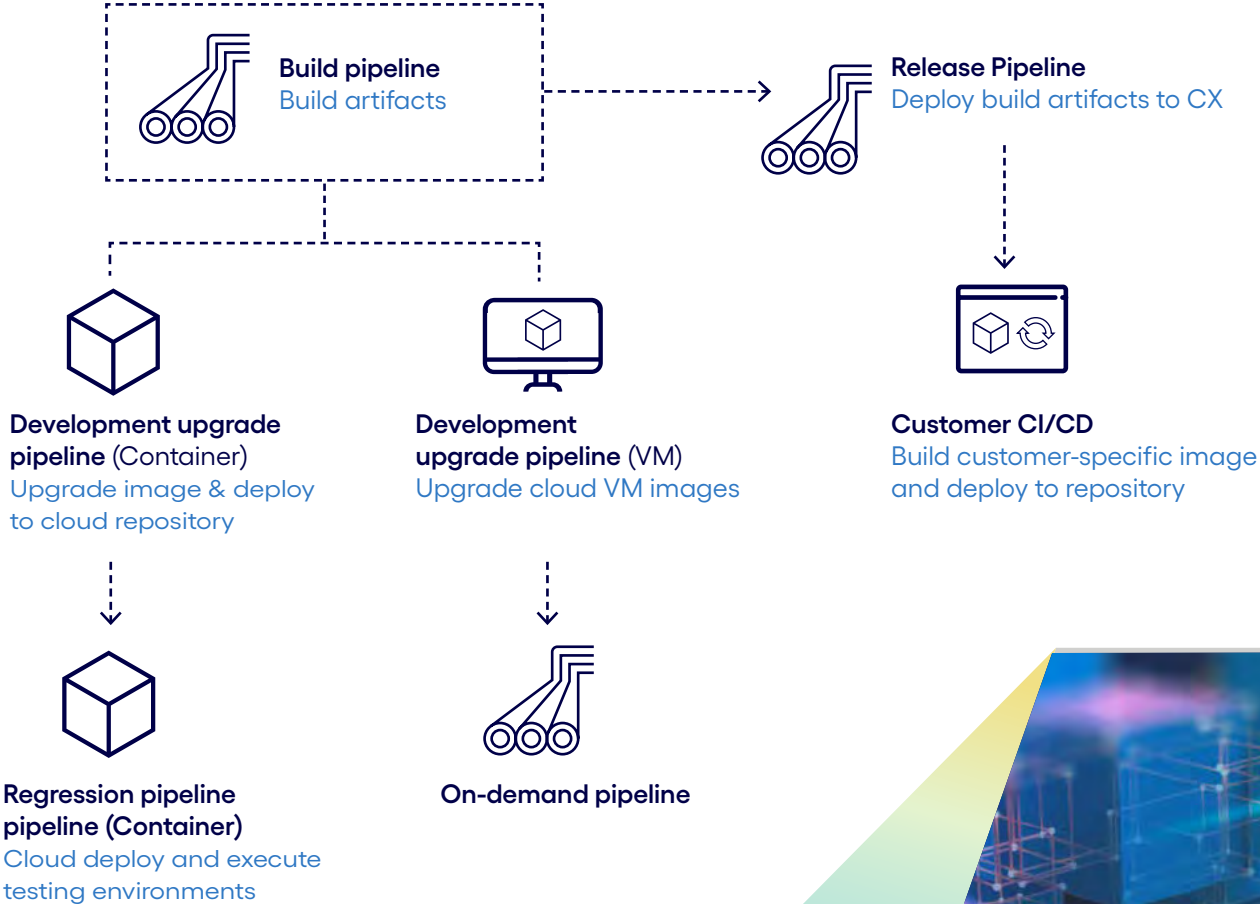
Our quarterly development cadence helps ensure timely delivery of new functionality and compliance-based enhancements. Low friction upgrades in addition to passive adoption strategies ease client adoption of new functionality. Clients define the adoption cadence that best suits their business needs.

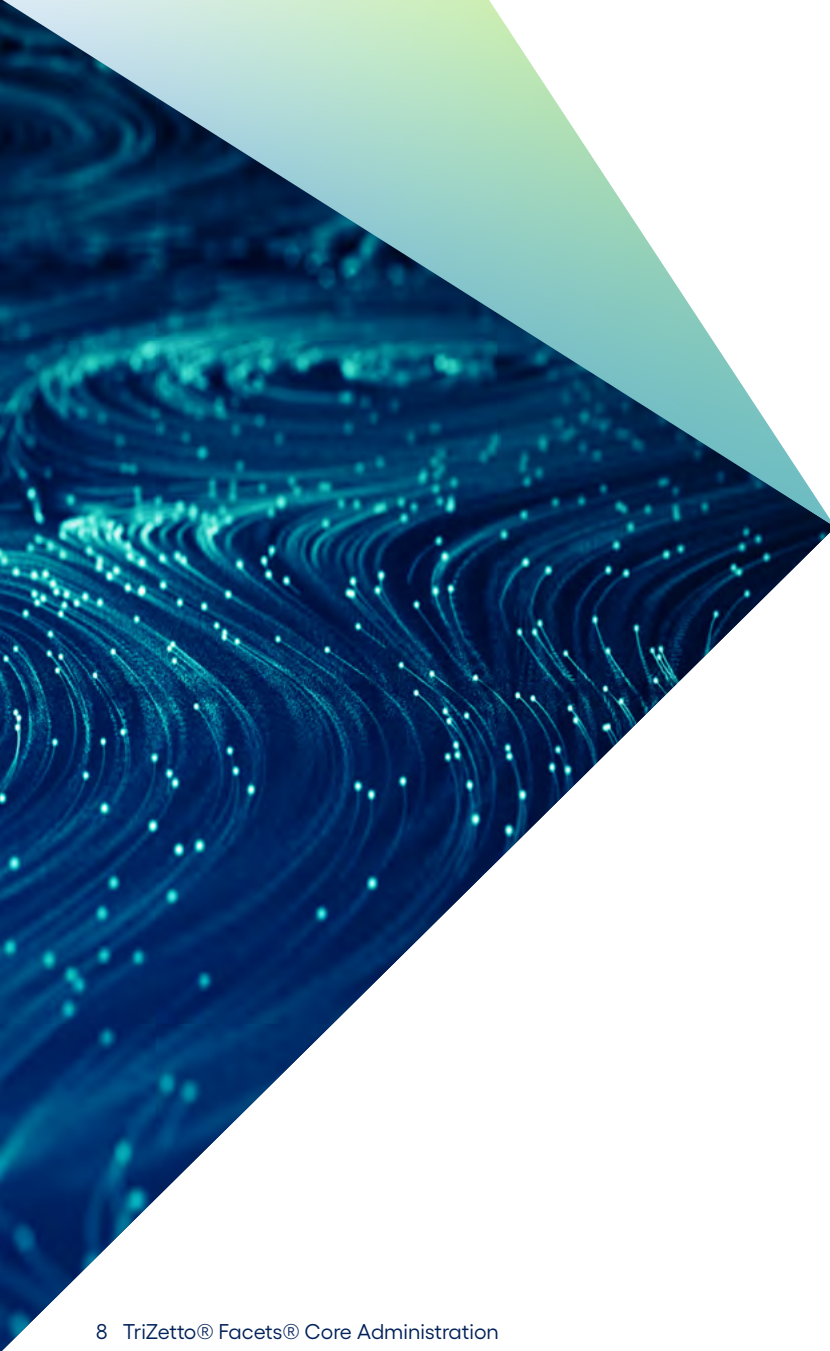
## User-centered design

Our clients and their members and providers guide our software engineering. Our development teams include human design experts with comprehensive product experience. Insights from user testing and field trials help us refine each design before release.

## Low friction delivery models

Clients consume deliverables that flow seamlessly from Facets' release pipeline into their own CI/CD pipelines. This approach enables easy dissemination of new features into their environments.





# Incorporating IoT, AI and ML with Facets Insights

Facets Insights is an intrinsic part of Facets transaction processing, adding probabilistic capabilities to ensure best possible outcomes from transactions. It can compare actions against models and make recommendations or even take rules-based actions on the fly.

## Facets Insights

By leveraging machine learning models, Facets Insights can predict the likelihood of a member leaving the plan and recommend a remedy to the service representative interacting with that member. Facets Insights, again leveraging machine learning, can act on transactions directly. An example would be identifying rejected claims that would ultimately be reconsidered and not rejecting them to save rework and member dissatisfaction.

## Closed-loop feedback

The closed-loop feedback system means Facets is continually learning and improving, leading to:

- Optimization
- Increased accuracy
- Fewer errors
- Increased stability
- Calibrated sensitivity to events
- Increased resilience to disturbances
- Reliable and repeatable performance



# Real-time processing

The TriZetto® Facets® Data Publishing Suite is an event-driven architecture that leverages a data streaming platform. The system publishes data about and generated by claims, members and providers in real time. The system is flexible: clients may consume or publish data via batch or real-time processes. In the latter, Facets sends data as it is changed or on demand. Publishing entities include both Facets data and custom data.

# Leading-edge Security

We incorporate security into Facets at each stage of the software development life cycle, identifying and remediating potential security threats, guided by industry best practices and compliance standards. We feature pluggable federated authentication via open standards, including OpenID, OAuth2 and JWT. Facets manages authorization through comprehensive role and application layer controls. Other features include data encryption at rest and in flight, and comprehensive auditing capabilities for all system and user activity and data changes.

## Enrollment

- Real-time group and member enrollments
- ID card requests
- Member self service to update demographic and contact details
- Agents or groups to add/update enrollment data

## Customer Service

- Enables CRM systems to manage customer service operations via real-time integrations with Facets
- Customer service task workflow management

## Billing

- Real-time billing operations
- Comprehensive billing summary
- Future bills
- Payments and invoices
- Billing requests

## Interoperability

- Digital disruption drives new models, players and consumer demands for integrated view and access
- B2B/B2C connectivity
- CMS/ONC pending interoperability regulations

## Claim Processing

- Enables trading partners/providers for real-time claim submission and processing
- Prospective cost estimates
- Improved auto-adjudication and data quality

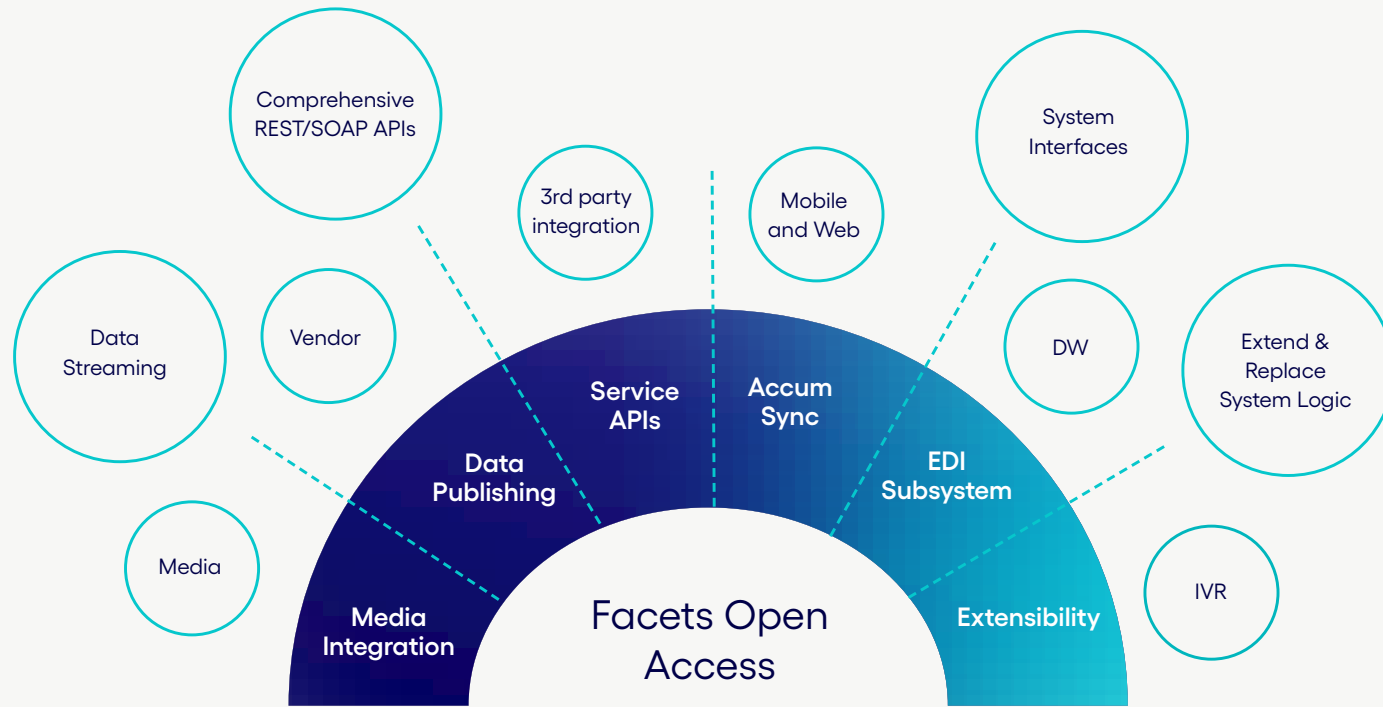
## Customer Transparency

- Suite of APIs expands opportunities to improve auto-adjudication
- Consumer transparency solutions for eligibility, benefits and cost estimates

# Open, modular, extensible

An open, flexible, modular and extensible platform enables business operations automation and digital transformation

Facets easily integrates with other systems in the client landscape through REST-based APIs in order to keep Facets open and extensible to other applications. We expose all data and functionality via RESTful interfaces. The RESTful semantic is the lingua franca of Facets and is easily understood and consumed by other client applications. The RESTful API use ensures predictable API behavior when integrating these systems.



Built on the cloud, with REST APIs and container technology, Facets delivers our clients unmatched flexibility, including:

## Extensibility

Clients can extend or replace Facets logic as they choose.

## Platform flexibility

We support all major cloud vendors.

## Deployment options

Facets has a modular architecture. Clients may choose any components—enrollment, billing, claims, etc.—that meet current business needs. To add modules, clients only need the appropriate license key. Each module is integrated and yet loosely coupled.

# Leading-edge technology for the modern healthcare organization

Facets proves its capabilities in the real world every day. From member enrollment and billing through claims processing and care management, our commitment to incorporating best-in-class cloud, containerization, security, AI and interoperability technologies ensures Facets maintains the flexibility, features and scalability that more than 80 healthcare organizations rely on to serve their members.

For more information about how Facets' technology stack, containerization and cloud-native development will empower your organization to deliver the next generation of healthcare, please visit us [cognizant.com/trizetto/core-administration/facets](https://www.cognizant.com/trizetto/core-administration/facets)



Cognizant (Nasdaq-100: CTSI) engineers modern businesses. We help our clients modernize technology, reimagine processes and transform experiences so they can stay ahead in our fast-changing world. Together, we're improving everyday life. See how at [www.cognizant.com](https://www.cognizant.com) or follow us @Cognizant.

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