snapLogic®

SnapLogic for Amazon HealthLake

Innovation for Healthcare and Pharma

Delivering the Future of Healthcare with Intelligent Integration and Automation

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Automation and Innovation for Healthcare and Life Sciences

Progressive healthcare and pharmaceutical organizations are embracing data, the cloud, and automation to transform the patient experience, drug development process, and more. Powerful new technologies like AI and machine learning, together with seamlessly connected systems and automated processes, are enabling humans to do more than they can do alone, helping to accelerate breakthrough innovation, deliver better patient care, and scale better outcomes across the organization.

Healthcare organizations that tie automation into their processes become bionic, unleashing new capabilities and insights, to make better, more accurate decisions, and take fast, life-saving action. Bionic healthcare and pharma companies harness automation at its full power, not to replace humans, but to equip them with capabilities that drive productivity and lead to better outcomes.

Patient appointments, communication, access to records, billing and insurance claims, drug development processes, and trial analysis are just some of the highly repetitive and recurring processes that can and should be automated to serve today's dynamic healthcare and pharma needs.

Automation

The superpower of modern healthcare and pharmaceutical organizations, automation allows healthcare and pharmaceutical organizations to redefine and transform how they deliver care and accelerate research by embracing a new wave of cloud and intelligent technologies. These technologies - AI, machine learning, RPA, IoT, intelligent integration, and more - lift the burden of effort and provide patients, providers, researchers, and scientists streamlined processes and accurate data for predictive decisions and prescriptive actions. It enables healthcare and pharma organizations to:

- Expand care to more people
- Improve patient loyalty and trust
- Generate new revenue streams
- Bring innovation to market faster
- Improve operational efficiency and lower costs
- Become unparalleled centers of excellence

All the while freeing humans to keep the heart of healthcare alive through caring, intuitive, value-based interactions.

But to enable this superpower, automation requires intelligent integration.

Healthcare Modernization

For healthcare and pharma organizations to modernize legacy systems for better patient care, harness data for better analytics and insights, accelerate innovation, and bring new drugs to market faster, they must first integrate.

Like neurons in the body, connections must exist for data to flow to all systems and applications required, in order to perform critical functions, and achieve a fully connected and intelligent system. SnapLogic enables customers to automate the customer 360 experience, supply chain management, medical records, and clinical data with one single no-code, low-code platform.
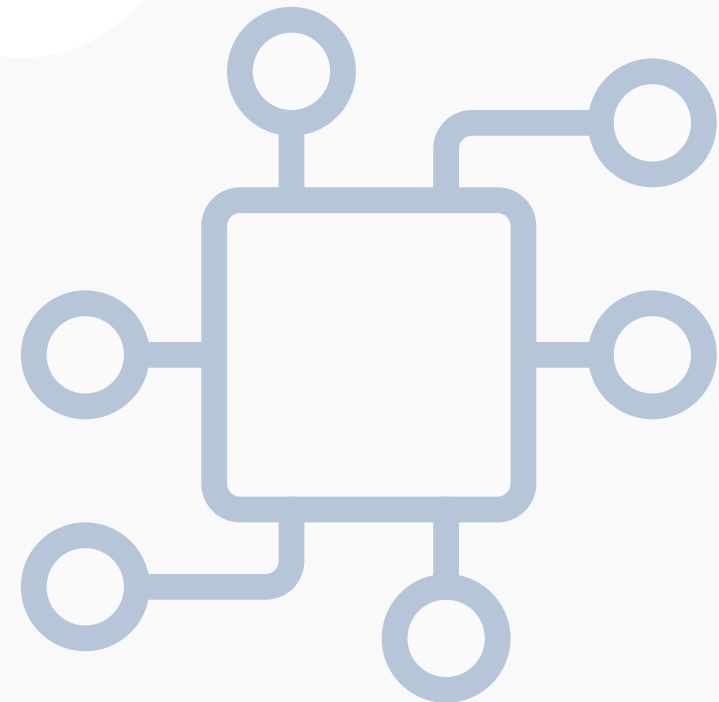
As an example, SnapLogic connects ERP systems, electronic medical records, and specialized apps to enable the patient 360 lifecycle. Everything from appointment scheduling, patient check-in, patient care plans, patient portal, and inter-system sharing – to drug development, patient trial tracking and analysis, and drug marketing and delivery – all need the ability to share data to streamline and automate repetitive tasks.

The typical healthcare or pharma organization can have as many as a hundred applications and systems in use. Breaking down data silos, connecting disparate systems, and ensuring free-flowing data, enterprise-wide, can be a daunting task.

Healthcare IT teams are hard at work modernizing legacy systems and hand-coding key integrations between cloud and on-premises applications, and data sources across the organization. But, the average integration project takes six months and must be continually monitored, maintained, and updated. The demands for more connected experiences and data-driven decision-making, coupled with the speed required to remain relevant and competitive, are simply outpacing what IT alone can manage today.

Technology moves faster than humans alone can handle. You need intelligent integration to build a connected organization and lay the groundwork for automation. But your IT team can't do it alone. Bionic organizations are turning to technology to solve this.

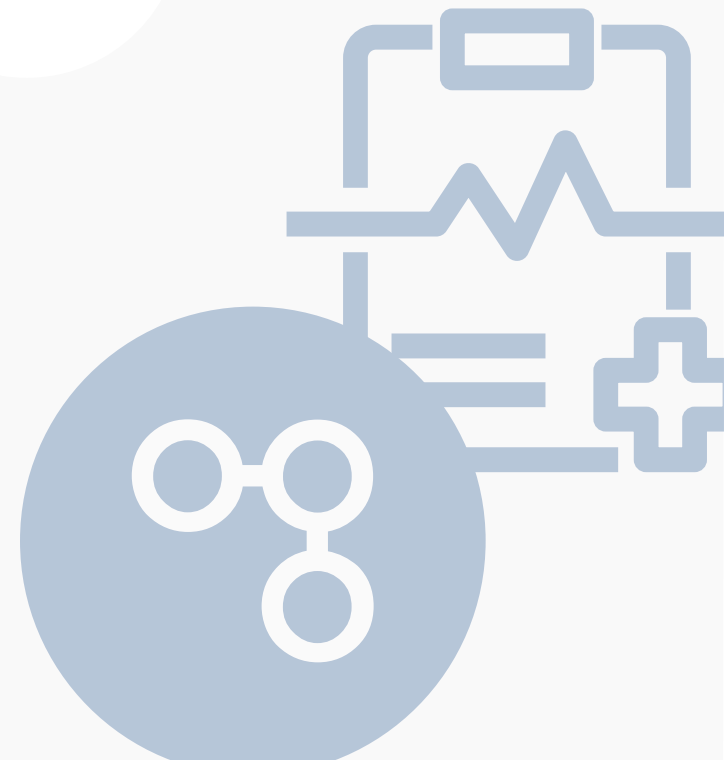The key is to automate integration itself.

Amazon HealthLake Meets SnapLogic's Smart Healthcare Technology

Amazon's HealthLake enables healthcare providers, health insurance companies, and pharmaceutical companies to securely store, transform, query, analyze, and share healthcare data in the cloud at petabyte scale.

SnapLogic's AWS HealthLake Accelerator is the easiest way to connect any system to load or stream data into AWS HealthLake, and then, create APIs to consume the results of the NLP and Ontology mapping that AWS HealthLake provides.
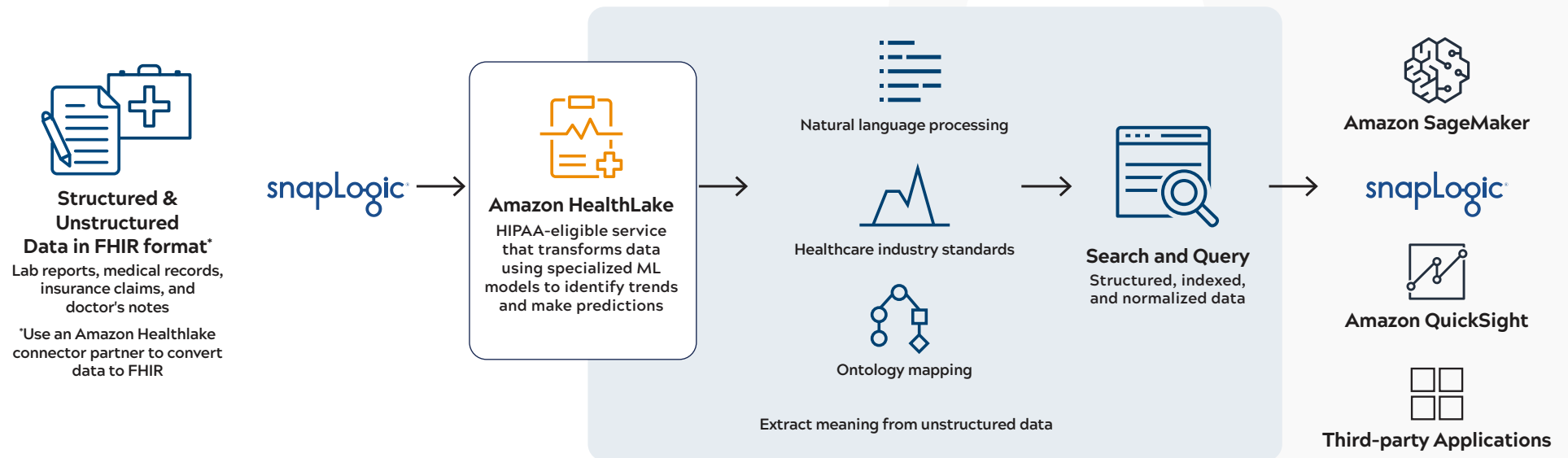
Using SnapLogic, users can ingest a range of raw data from AWS HealthLake and transform it into healthcare-specific, semi-structured data.

SnapLogic's Approach for Amazon HealthLake

SnapLogic can handle digital medical health records easily, and automate business processes for onboarding, order to cash, payroll, supply chain, and interfacing with insurance providers. We provide a simple and easy way to create and maintain integrations and automations within your healthcare environment. We simplify the ability to acquire, transform and deliver data.

Healthcare Payer and Provider Organizations use SnapLogic's HealthLake Accelerator to easily ingest healthcare data and clinical records to Amazon HealthLake from a variety of sources. This enables Amazon HealthLake to analyze unstructured data, texts, and notes, and then deliver results of the analysis to subscribing systems.

Structured & Unstructured Data in FHIR format*
Lab reports, medical records, insurance claims, and doctor's notes
*Use an Amazon Healthlake connector partner to convert data to FHIR

Amazon HealthLake
HIPAA-eligible service that transforms data using specialized ML models to identify trends and make predictions

Natural language processing

Healthcare industry standards

Ontology mapping

Extract meaning from unstructured data

Search and Query
Structured, indexed, and normalized data

Amazon SageMaker

snapLogic

Amazon QuickSight

Third-party Applications

SnapLogic's Unique Benefits for Healthcare Automation

SnapLogic delivers a set of unique benefits for healthcare automation, unlike any other automation technology in the industry.

Data integration at scale: SnapLogic delivers a cloud-native, intelligent, and scalable integration platform as a service that is easy to use for any persona within an organization.

Replace multiple technologies: Customers can create an environment within a single, unified platform, and support a wide range of use cases vs. various disparate tools.

Data automation use cases: SnapLogic supports various use cases for data automation including HR, supply chain, onboarding, customer 360, and more.

Healthcare use cases: SnapLogic makes it easy to automate process flows for Cerner and EPIC data, the largest healthcare platforms in the industry, into AWS HealthLake.
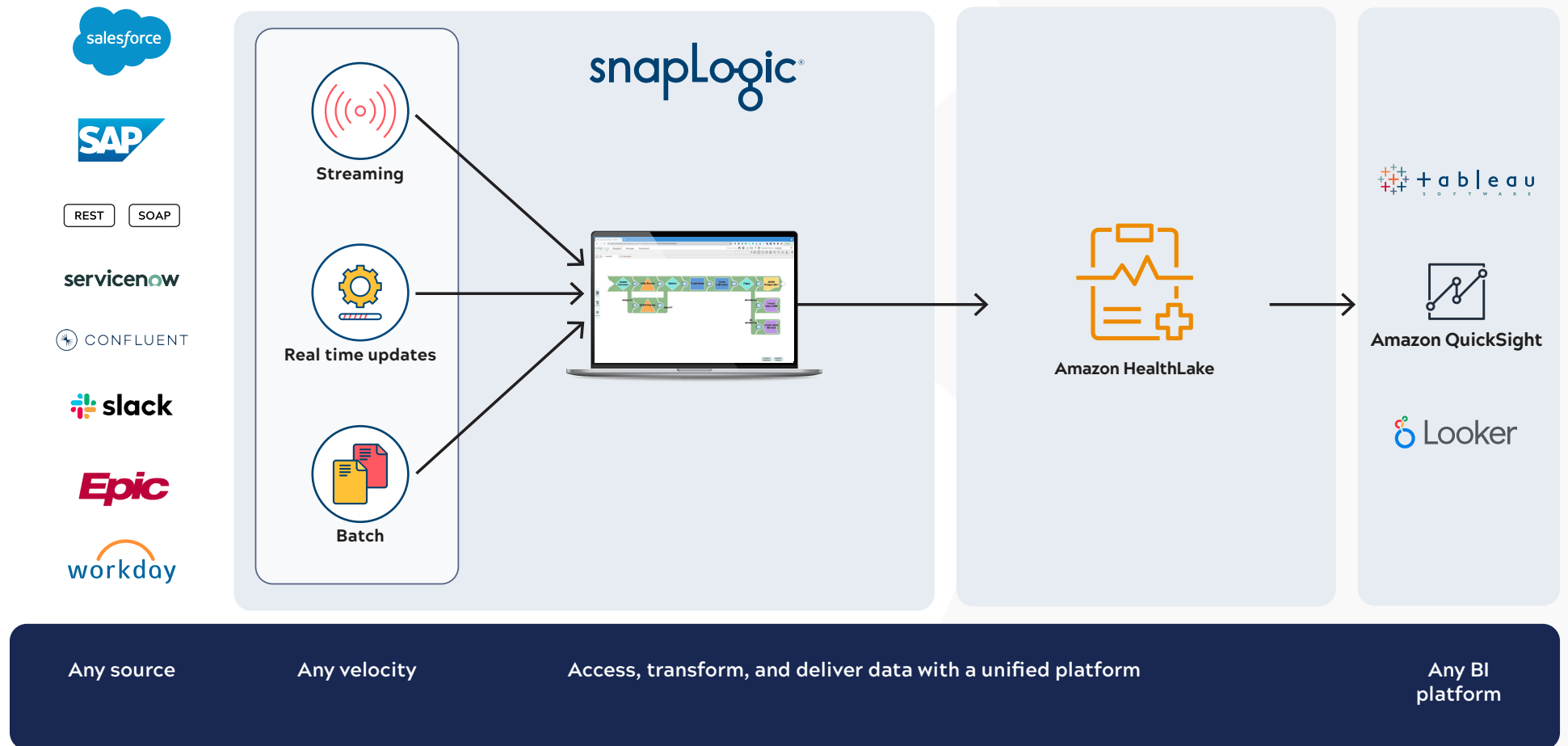
AI: Iris, SnapLogic's Artificial Intelligence engine, supports dynamic discovery of API's and schemas, as well as data preparation and mapping.

Security: Obfuscation and data removal are easily handled through trusted and approved industry standards.

SnapLogic and Amazon HealthLake

One Platform for All Input Requirements

salesforce

SAP

REST SOAP

servicenow

CONFLUENT

slack

Epic

workday

snapLogic

Streaming

Real time updates

Batch

Amazon HealthLake

+ableau SOFTWARE

Amazon QuickSight

Looker

Any source	Any velocity	Access, transform, and deliver data with a unified platform	Any BI platform

Here's How It Works

With SnapLogic's Low-Code/No-Code, self-service platform, our Amazon HealthLake Accelerator expedites the data load, and powers Amazon Healthlake with clean, trusted data, at scale and in real-time.

Our API and API Management capabilities enable users to share the curated and valuable results out of Amazon HealthLake, into the customer's dashboard of choice, in real-time.

And, our accelerator of Snap Pipelines and Patterns abstracts the process of converting machine data into an FHIR compliant JSON format, seamlessly.

The Accelerator unlocks data from common, on-premise legacy systems including EPIC or Cerner, and expedites the data movement to Amazon HealthLake, ready for consumption in the specific format desired by healthcare providers.

What goes into Amazon HealthLake is data. What comes out is curated and validated information that can be used for both therapies and statistical models.

With SnapLogic, healthcare and pharma organizations can connect all of their systems quickly and easily to automate processes, accelerate analytics, and drive secure, modern experiences.

Integration creates the intact nervous system of the organization, tying data together and communicating with every application and system that is part of the complex ecosystem.

By automating the integration process, you can significantly speed up app and data connectivity across your organization, enabling your teams to be more productive and remain focused on strategic pursuits that will drive the organization forward.

Today's AI-powered integration platforms use advanced machine learning algorithms to learn from millions of metadata elements and billions of data flows. These learnings are then applied to business processes and integrations to improve the speed and quality of integrations across data, applications, and processes. With these advancements, integrations that used to take weeks to build can now be done in a fraction of the time.
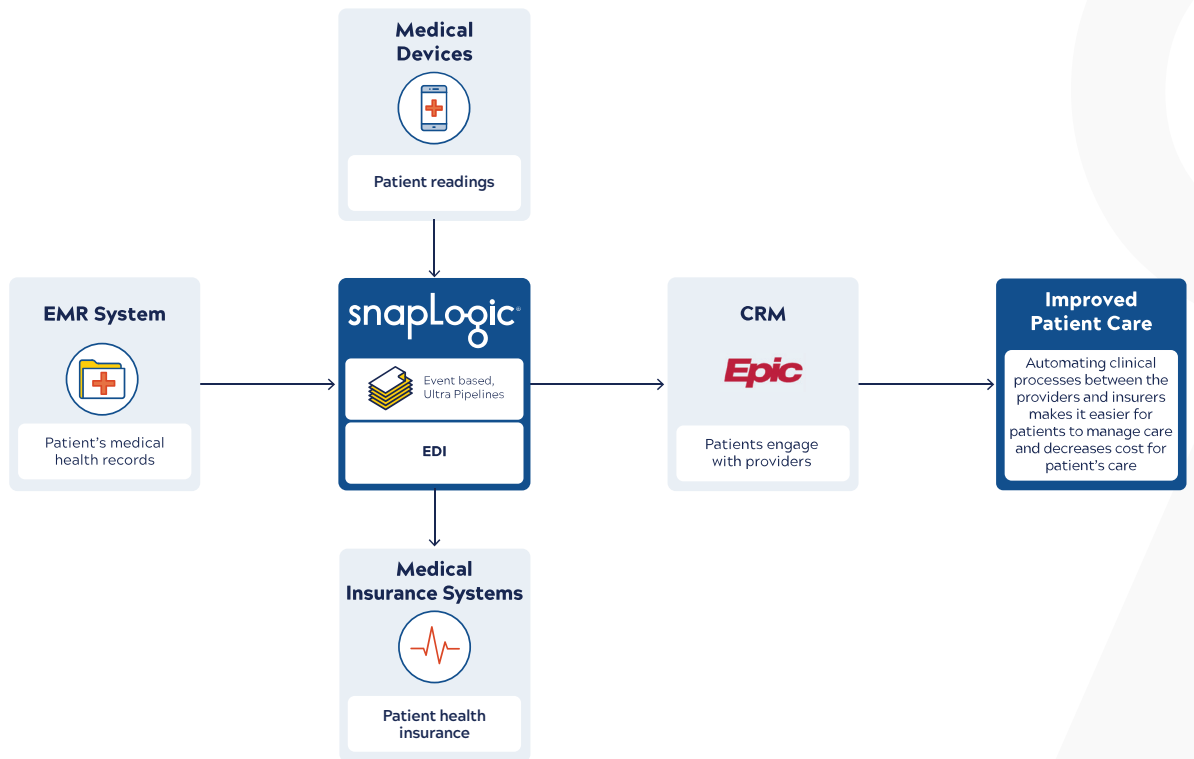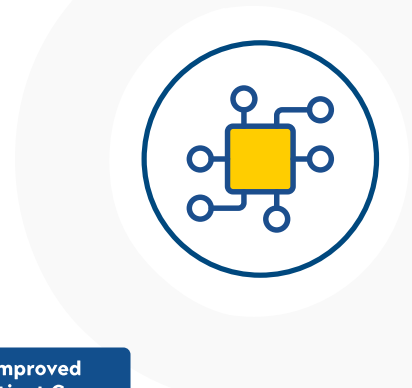
Healthcare Use Cases:

Here are 3 key use cases that our healthcare and pharma customers have implemented on the SnapLogic platform.

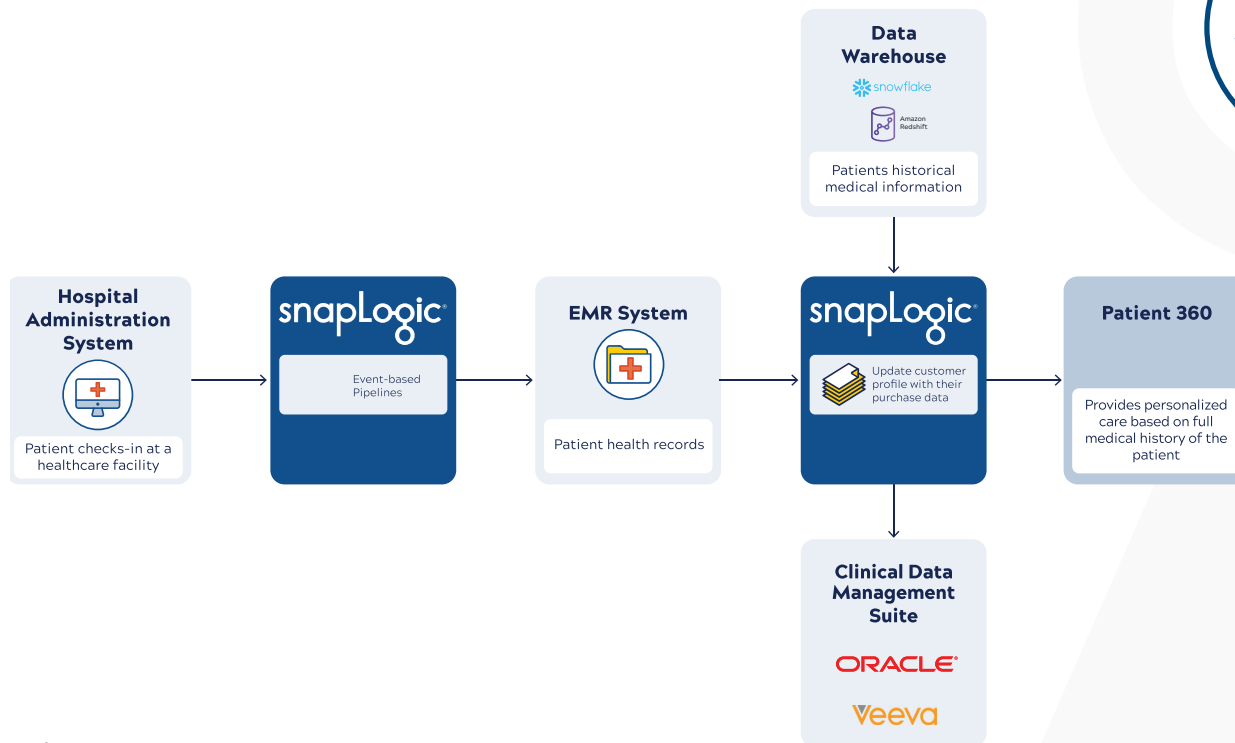## Modernize Legacy Systems for Better Patient Care

Legacy technology systems are complex. You need to simplify data security and complexity across your on-prem, cloud, and hybrid environments. And you need to do it today. By creating a "single source of truth" for patients you can improve patient care, use data to personalize treatment plans, and optimize clinical processes by sharing data among providers to increase cost-effectiveness.

Medical Devices

Patient readings

EMR System

Patient's medical health records

snapLogic
Event based, Ultra Pipelines
EDI

Medical Insurance Systems

Patient health insurance

CRM
Epic

Patients engage with providers

Improved Patient Care

Automating clinical processes between the providers and insurers makes it easier for patients to manage care and decreases cost for patient's care
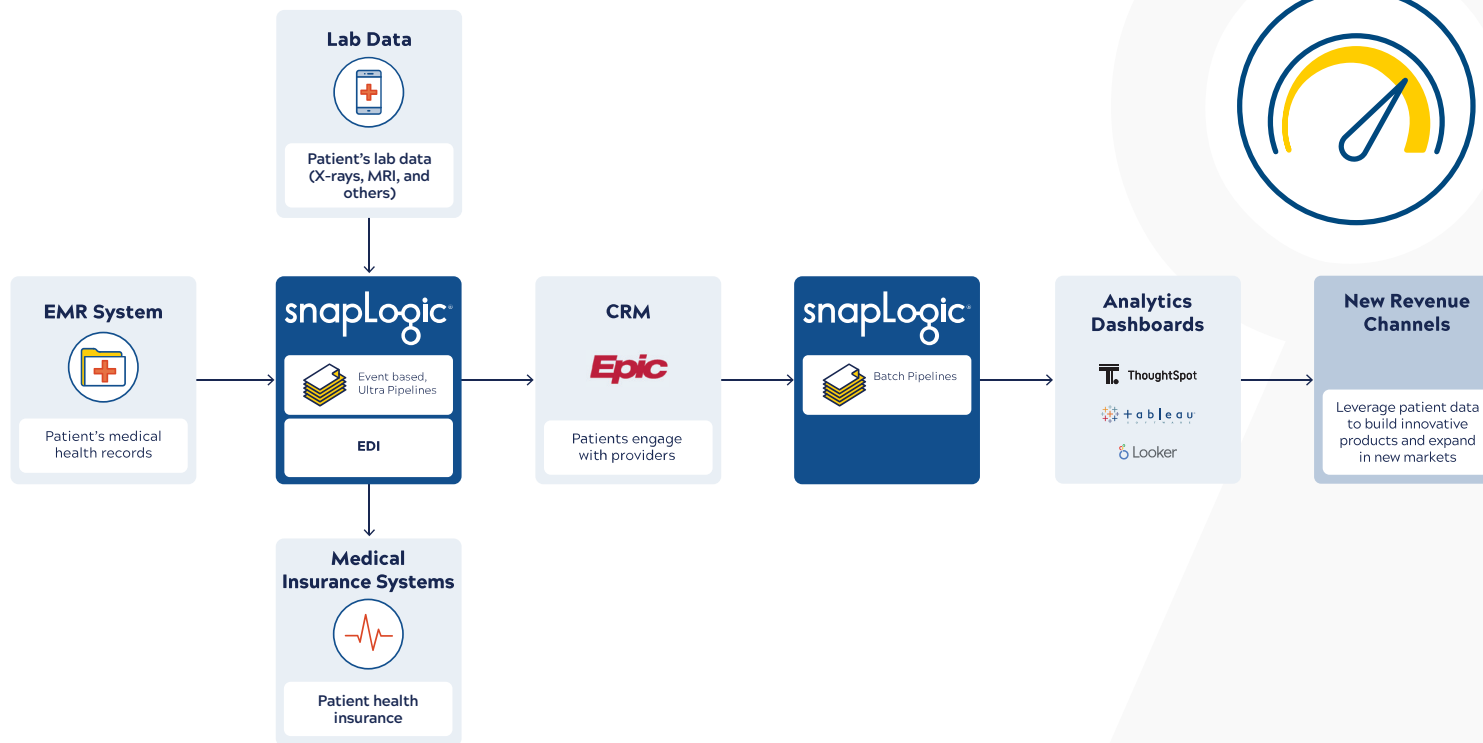
Harness Data for Better Analytics and Insights

SnapLogic is extending its capabilities to support the use of Amazon HealthLake through the FHIR standard. We have Snaps that allow us to read and create FHIR compliant docs which can be sent to, or received from, AWS HealthLake for analytics. We added this feature to SnapLogic by creating the intelligent FHIR Snap connectors. We extended our platform to support this benefit so you can automate your business processes, make your organization more agile, and improve your customers' experience.

Healthcare generates massive amounts of data every moment. SnapLogic can help you harness the power of all your relevant data to gain a 360-degree view of patients, gauge market signals, and optimize operations for improved revenue and community impact. With SnapLogic on AWS HealthLake, you can boost efficiency, strengthen patient engagement, and improve billing and payments reconciliation.

Data Warehouse
snowflake
Amazon Redshift
Patients historical medical information

Hospital Administration System
Patient checks-in at a healthcare facility

snapLogic
Event-based Pipelines

EMR System
Patient health records

snapLogic
Update customer profile with their purchase data

Patient 360
Provides personalized care based on full medical history of the patient

Clinical Data Management Suite
ORACLE
Veeva

Accelerate Innovation and Bring New Drugs to Market Faster

With integrated data, applications, and systems, you'll have the insights needed to become more accurate, agile, and scalable as an organization. Uncover new drug innovations and therapies, build and expand into new markets, such as insurance or medical devices, and transition to value-based care by securely integrating data in a HIPAA-compliant system, and benchmarking patient metrics.

Lab Data

Patient's lab data (X-rays, MRI, and others)

EMR System

Patient's medical health records

snapLogic

Event based, Ultra Pipelines

EDI

Medical Insurance Systems

Patient health insurance

CRM

Epic

Patients engage with providers

snapLogic

Batch Pipelines

Analytics Dashboards

ThoughtSpot

tableau

Looker

New Revenue Channels

Leverage patient data to build innovative products and expand in new markets

The SnapLogic Customer Impact

Magellan Health

The mission at leading healthcare provider Magellan Health was clear: deliver innovative products and services that resulted in business outcomes that were 10x greater than competitors by using breakthrough organizational techniques and modern exponential technologies.

With entrenched competitors 10, 20, even 30 times larger than Magellan, and a diverse and growing customer base that expected exceptional services without cost increases, Magellan's IT team set out to transform the company's IT operations and pave the path to the connected enterprise.

With SnapLogic, Magellan Health put intelligent integration at the center of their transformation and tackled five strategic, ambitious initiatives: Legacy Migration, B2B Integration, SaaS Connectivity, Automation, and Big Data.

Results:

- Automated end-to-end HR processes around employee onboarding, triggering up to 20 integrated workflows provisioning everything from user ID and application access, to procurement of laptops and other equipment, and more

- Automated repetitive tasks for its medical pharmacy business that manages prior authorizations of specialty drugs for its members, replacing a resource-, time-, and code-intensive process with a real-time automated pipeline

- Integrated more than 20 SaaS applications including Workday, ServiceNow, Okta, and more. Put more than 100 pipelines into production in record time

- Kept IT resources and budgets flat while the company more than doubled revenues

Magellan HEALTH℠

"With SnapLogic in place, we've automated and put into production more than 100 pipelines in the last few years. We also have about 22 SaaS solutions in our environment. Our job is to make sure the integration happens very seamlessly and SnapLogic allows us to do that better and faster. You can't ask for anything more."

– CIO at Magellan Health

AstraZeneca

As pharmaceutical giant AstraZeneca embarked on new cloud-first initiatives, IT needed to bring numerous apps and data sources together with a globally- available, self-service integration platform that could be used by distributed teams with minimal corporate support or intervention.

The company needed a comprehensive platform to execute over 300 integrations in just one year. To achieve this scale with a lean central IT team, following a "do more with less" principle, AstraZeneca needed a simple but powerful integration solution that could easily be used by hundreds of staff outside IT who were not integration experts.

With SnapLogic, AstraZeneca was able to integrate numerous applications, systems, and technologies across cloud platforms and its own on-premises investments with impressive scale.

Results:

- 100+ integrations completed within six months
- 300+ integrations completed within one year
- 4X faster development and integration of Salesforce
- Self-service integration powers 500+ users across the organization

AstraZeneca

> **"** We're showing teams how to fish, rather than fishing for them. Spend an hour with us, and we'll show you the value of SnapLogic - in moving data quickly, integrating systems quickly."

– Solution Delivery Architect at AstraZeneca

Opya

Opya transforms care for children living with autism, creating next-generation technologies to deliver more personalized and effective treatment plans. A company driven by compassion and innovation, Opya relies on technology to carry out its important work.

The organization needed an intelligent integration platform to enable automation and reliability, allowing Opya's engineers to pour more time, energy, and resources into features that improve client care rather than focusing on manual, repetitive tasks.

Opya's mobile application is used by clinicians and parents to streamline communication and scheduling, among other capabilities, and SnapLogic ensures that its back-end integrations are kept secure and reliable. Opya's data now flows seamlessly and securely between critical back-end systems - namely, a third-party practice management database on Amazon Redshift, Salesforce.com, and a PostgreSQL application database.

Results:

- Saved 1,000+ hours in the first year alone building and maintaining integrations
- Completed integration projects in less than 7 days, versus 3 months, or 17x faster
- Dramatic savings in time, resources, and money
- Engineers can devote energy to projects that improve client care
- Greater reliability and security for client-facing mobile application

66 Our priority is to design and build innovations that benefit the families we serve, not unnecessarily sink time into custom infrastructure. SnapLogic frees developers on my team from having to think about integration. That means they can pursue projects that make a difference in the lives of the families we serve. It's hard to put a price on that."

– VP of Engineering at Opya

Why SnapLogic?

Modern

The SnapLogic Intelligent Integration Platform (IIP) separates the integration control plane from the data execution plane, delivering a low-latency, streaming-based architecture that supports all your modern integration requirements: real-time, event-based, and batch.

Cloud-born

SnapLogic was purpose-built for the cloud before the cloud was cool. SnapLogic promotes elastic operation and enables you to mobilize data when and where it is needed most: publicly or privately, in the cloud or behind a firewall, on-premises or in hybrid data centers and infrastructure anywhere in the world.

Intelligent

SnapLogic Iris, the pioneering technology for AI-powered integration assistance, is now driven by over a decade of data pipeline and data usage analysis and delivers expert guidance to improve the ease-of-use and speed of building both data and application integrations. Our browser-based cloud service is powerful enough for developers, yet easy enough for non-developer citizen integrators.

Scalable

The SnapLogic Intelligent Integration Platform (IIP) is capable of operating at a massive scale to meet your performance demands. From CPU-based, computational scaling that delivers peak performance to user scaling that enables as many individuals, of all personas, across the organization to access the platform, SnapLogic eliminates performance bottlenecks, drives process efficiencies and promotes end-user adoption.

Get your [free trial](#) now and find us on [AWS Marketplace](#).

SnapLogic provides the #1 intelligent integration platform. The company's AI-powered workflows and self-service integration capabilities make it fast and easy for organizations to manage all their application integration, data integration, and data engineering projects on a single, scalable platform. Hundreds of Global 2000 customers – including Adobe, AstraZeneca, Box, Emirates, GameStop, and Wendy's – rely on SnapLogic to automate business processes, accelerate analytics, and drive digital transformation. Learn more at **snaplogic.com**.

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