The Fundamental Building Blocks of Interoperability

Mirth®
by NextGen Healthcare

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Introduction

Mirth® Connect by NextGen Healthcare—a world-leading integration engine—provides the technological services, software, and infrastructure health IT developers and organizations need to advance scalable interoperability and effectively manage data.

In this e-book, we'll explore strategies and solutions to centralize health data and provide clear, secure, and open communication across disparate systems and locations.

EFFORTLESSLY EXCHANGE HEALTHCARE DATA ACROSS DIFFERENT SYSTEMS

Many healthcare organizations across the globe rely on **Mirth Connect** to integrate and streamline the sharing of health information cost-effectively and securely.

Mirth Connect offers a significant step toward meeting your data exchange goals, and empowers your organization to become a single point of contact for facilitating data exchange efforts across healthcare facilities in a more flexible, scalable, and cost-effective manner.

Some vital features include:

- Drag-and-drop ETL workflow builder
- Built-in scripting engine for complex logic
- Painless translation between data formats
- Supports all common healthcare standards: HL7v2, FHIR, DICOM, X12, XDS/XCA, & more

Mirth® Connect
by NextGen Healthcare

ABOUT MIRTH CONNECT INTEGRATION ENGINE

Like an interpreter who translates foreign languages into the one you understand, Mirth Connect translates message standards into the one your system understands. Whenever a "foreign" system sends you a message, Mirth Connect's integration capabilities expedite the following:

Filtering: Parse incoming messages and intelligently filter based on simple rules or scripting.

Transformation: Easily convert incoming messages from one format to another using a simple drag-and-drop editor, or JavaScript editor to support complex mapping logic.

Data Ingestion: Receive or poll data directly using built-in HTTPS, TCP, SFTP, HL7, DICOM, Web Service Sender, or File-based connectors. Expand your connector options with extensions.

Routing: Support simple and complex data workflows using a robust set of routing tools to send data to external systems or other channels within Mirth Connect.

Whether you need to connect many internal systems or are building a product of your own, Mirth Connect delivers highly flexible integration tooling for any organization tasked with data integration.

OVERVIEW OF EXTENSIONS

Leverage our comprehensive library of 15+ extensions to integrate even faster with Mirth Connect. View a full list of **extensions and their benefits.**

MIRTH CONNECT E-LEARNING COURSES

Get your team up to speed quickly and use best practices to set your organization up for success with Mirth Connect. Learn more about **Mirth Connect Training and Certification.**

MIRTH CONNECT PROFESSIONAL SERVICES

Not sure where to begin with data integration? Need guidance on how to start? Our professional services team is composed of interoperability experts who are ready to help ensure your success. Learn more about **Mirth Professional Services and Consulting.**

IT'S MORE FLEXIBLE THAN MANY REALIZE

Depending on your IT resources and overall business model, you can leverage your existing infrastructure and deploy Mirth Connect in a virtual appliance or host your connect integration with NextGen Healthcare.

With Mirth Connect there are no hard limits on number of endpoints and no additional charges for transactions or message volumes allowing you to scale your interoperability to meet your business needs.

Manage various structured and unstructured data, data types, industry standards across all verticals, and technology iteration over time. You can integrate Mirth® Appliance, a robust suite of infrastructure tools that support NextGen Healthcare software. These tools make it possible to deploy, manage, and upgrade the solution right out-of-the-box, without the need to install or configure your NextGen Healthcare solutions or develop a custom application in-house. Mirth Connect has the flexibility to handle many different types of data transfers. The solution supports HL7, SFTP, API, ETL, and Web Service Sender, which allows you to design the best solution to meet vendor and regulatory requirements.

If you are in the health IT industry, you can upgrade your infrastructure to provide more support for hospitals and ambulatory facilities in the areas of data transmission and communication with different health sectors. By upgrading via a cluster system, you can achieve better performance in securely transmitting data throughout large healthcare ecosystems.

What's more: Amazon Web Services (AWS) and NextGen Healthcare have partnered to bring several benefits to healthcare organizations, such as scalable infrastructure, enhanced security, advanced analytics, faster innovation, cost optimization, and more.

Our partnership with AWS enables organizations to efficiently scale and quickly derive value through interoperability.
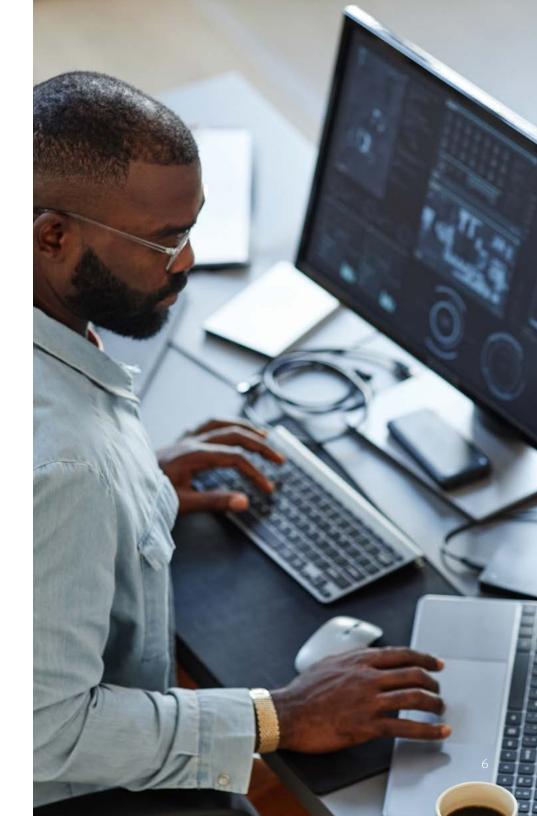
ONC HEALTH IT CURES UPDATE CERTIFICATION

Mirth Connect (version 4.2 and up) is 2015 Edition Cures Update compliant and has been certified by an ONC-Authorized Certification Body in accordance with criteria adopted by the Secretary of Health and Human Services. Mirth Connect met the rigorous standards for the security of healthcare data required to receive certification by SLI Compliance®, an ONC-Authorized Certification Body. This certification signifies that Mirth Connect complies with all applicable certification requirements in support of the 21st Century Cures Act.

With this certification, users have greater assurance of data integrity and optimal security when exchanging patient data.

MIRTH CONNECT OEM PARTNER PROGRAM

The OEM Partner Program can act as an essential guide for your team to achieve optimal results. The program helps you solve your business problems, initiatives, and opportunities. Receive the products, services, and support throughout your unique journey to achieve your interoperability goals.

OEM Program Objectives: We can help you expand your market reach, increase product adoption, and foster collaboration with other organizations.

Partner Selection Criteria: As your partner, we'll consider factors such as your industry expertise, market presence, technical capabilities, geographic reach, and alignment with your organization's values and goals.

Partnership Agreement: Before we launch, we'll develop a comprehensive partnership agreement that outlines the terms, responsibilities, and benefits for both parties. This agreement will cover licensing, intellectual property rights, revenue sharing, support, and marketing collaboration.

Licensing and Distribution: Together, we'll determine the licensing model and terms for you to utilize and distribute Mirth Connect as part of your offerings. We'll agree on licensing fees, volume discounts, or royalty structures if applicable.

Technical Enablement: Access technical resources, documentation, and training materials to enable you to effectively integrate and utilize Mirth Connect within your products or solutions. This can include APIs, SDKs, developer guides, sample code, and access to support channels.

Support and Maintenance: We'll establish support mechanisms and service level agreements (SLAs) to ensure timely and effective support—and help you define the support channels, response times, and escalation processes to address any issues or queries you may encounter.

Marketing and Promotion: Let's collaborate on joint marketing initiatives to promote Mirth Connect and your integrated solutions. This can involve joint campaigns, co-branded collateral, case studies, webinars, and participation in industry events.

Performance Evaluation: We'll partner to implement a process for evaluating and monitoring the performance, establishing key performance indicators (KPIs) to assess your sales performance, customer satisfaction, and adherence to program requirements.

Partner Engagement and Collaboration: Never leaving you in the dark, we'll foster ongoing communication and collaboration, provide regular updates, conduct partner meetings, and create forums for knowledge sharing and feedback.

Program Expansion and Growth: It's important to continuously assess the success of the partnership program and identify opportunities for expansion and improvement. We'll seek your feedback and adapt the program to meet your evolving market needs and business goals.

CLIENTS: DOMESTIC AND INTERNATIONAL

Mirth Connect is versatile and can effectively handle the needs of health IT and healthcare organizations across the globe. We are currently doing business in 30 countries outside of the US. Here are a few examples of our clients—domestic and international—and their outcomes.

LUXITH G.I.E Leverages Mirth Connect to Maintain Seamless Interoperability Across Luxembourg

Luxembourg's healthcare community relies on LUXITH G.I.E. to provide various IT services and software infrastructure to ensure effective health data exchange between hospitals, health centers, labs, the national laboratory, and the nation's Ministry of Health. Hospitals have been using Mirth Connect as far back as 2016 to send documents to the nation's health-shared record, as well as centralize and dispatch data to other applications used by various health agencies.

Read the **LUXITH G.I.E Case Study** to learn how they utlize Mirth Connect to:

- Establish a national contract
- Centralize the nation's health data
- Provide clear and open communication between healthcare organizations
- Encrypt the flow of data across different health sectors

"We leveraged Mirth Connect to centralize the nation's health data and provide clear and open communication between healthcare organizations. We are the single point of contact for facilitating interoperability efforts across our medical facilities."

Géraldine Vidou
Services Manager, Interoperability and Development
LUXITH G.I.E.

St Helens and Knowsley Teaching Hospitals NHS Trust Supercharges Health Data Exchange with Mirth Connect

As a 900-inpatient bed and 4,000-staff hospital system connected to more than 180 healthcare sites, St Helens and Knowsley Teaching Hospitals NHS Trust needed more efficient and cost-effective health data exchange technology—they found that in Mirth Connect. Within three months, the Trust migrated from an inflexible and costly integration engine to Mirth Connect, and the results did not go unnoticed.

Read the **St Helens and Knowsley Teaching Hospitals NHS Trust Case Study** for a detailed account of their data migration process and the positive results they've experienced since transitioning. Learn how they:

- Improved access to clinical information in systems and removed paper transactions
- Supported more projects to improve care quality
- Made patient discharge processes more efficient

"We moved the full production applications to work directly with Mirth Connect itself and decommissioned old web front ends. This led to a massive improvement in dynamically updating applications/systems instead of relying on manual data entry."

Daniel Dryhurst
Senior Digital Solutions Delivery Engineer
St Helens and Knowsley Teaching Hospitals NHS Trust

University of Toledo Leverages Flexible Integration Engine to Meet Interface Demands

The COVID-19 pandemic and implementation of a new EHR system, combined with keeping legacy systems operational, kept the University of Toledo's IT staff on their toes. Like many other hospitals, the IT staff went remote during this time and used Microsoft Teams to organize and share documentation, as well as schedule meetings with third-party vendors.

Read the **University of Toledo Case Study** to learn how they:

- Leveraged flexible integration engine to meet interface needs
- Ensured secure file transfers
- Benefited from resources and professional services of Mirth Connect
- Utilized extensions to maintain seamless health data exchange

"Mirth Connect is beneficial to our IT integration team because it has the flexibility to handle many different types of data transfers. The solution handles HL7, SFTP, API, ETL, and Web Service Sender, which allows us to design the best solution to meet vendor and government requirements."

Robert Werner
(Former) Senior Interface Application Developer
University of Toledo

MIRTH FULLY MANAGED

Mirth® Fully Managed* offers healthcare organizations an efficient, cloud-hosted solution to address complex interoperability and data integration challenges. This cost-effective service replaces traditional DIY solutions with NextGen Healthcare expertise, 24x7x365 support, and resilient infrastructure.

Simplify data exchange, reduce your interoperability burden, and allow your team to prioritize unlocking growth for your business. With Mirth Fully Managed, your organization can achieve enterprise-grade interoperability faster and cheaper without the need for a dedicated in-house team.

On-Demand Integration: Leverage our interoperability experts to plan, build, and manage your integrations from kick-off to go-live.

Real-Time Error Monitoring: Continually monitoring the success of your integrations, both automated alerting and human error review, ensures that your interfaces are running smoothly.

Cloud Scaling: Seamlessly scaling to handle fluctuations in traffic, Mirth Fully Managed automatically scales cloud resources to meet your interface's processing demands.

Analytics & Reporting: Comprehensive analytic and reporting capabilities enable organizations to gain valuable insights into integration performance and workflow outcomes.

Mirth® Fully Managed
by NextGen Healthcare

*Mirth Fully Managed is currently only available in the United States.

MIRTH HEALTH DATA HUB BY NEXTGEN HEALTHCARE

Mirth® Health Data Hub by NextGen Healthcare is an all-in-one data aggregation solution that includes an Enterprise Master Person Index (EMPI) and a clinical repository. The solution provides comprehensive, continuous access to aggregated patient health data to meet the demands of HIEs, hospitals, and large ambulatory practices.

Open API: An API-first approach enables access to data and full system configuration. Take advantage of the robust API to expedite implementation, adoption, and facilitate innovation.

Data Aggregation: An integrated EMPI puts the patient at the center of the platform with a longitudinal record consisting of clinical content (supporting USCDI v1), encounters, and custom data extensions. Natively supports HL7 2.x, CDA, and FHIR data. Easily view aggregated data from the web-based provider portal or access via the open API.

Workflow Engine: Automated workflows for encounter notifications and clinical content can be implemented fully through an API or a portal. Publish using direct secure messaging, worklist, or discrete transactions via Mirth Connect channels (FHIR, HL7, IHE XDS.b/XCA).

Data Access Controls: A robust role-based framework allows you to control user permissions and access to clinical data. Consent management enables granular control over data sources, data constraints for behavioral health (42 CFR Part 2 Compliant), as well as sensitive and confidential data.

Health Data Hub supports the most common workflows, including automated encounter notifications, document delivery, message routing, and centralized consent management for a network of data sources. Benefit from a robust, reliable, and performant platform that will lower client ownership costs, enable system-wide connectivity, and support long-term growth needs for healthcare data aggregators and similar organizations. Implement all transactions required in the Integrated Healthcare Enterprise (IHE) Technical Framework to support the full range of IHE profiles and actors.

Mirth® Health Data Hub
by NextGen Healthcare

MIRTH HEALTH DATA HUB INSIGHTS BY NEXTGEN HEALTHCARE

Mirth® Health Data Hub Insights is a modern data warehouse that supports evolving care delivery models overwhelmed by increasing volumes of data. Made possible through a partnership with Snowflake and phData, this solution drives operational efficiency, automates repetitive tasks, and unlocks analytic innovations for Health Data Hub clients.

Health information organizations also benefit from a set of tools and services, along with support from a community of insights peers. Direct access to an analytic data set makes it easier to leverage your data in a way that will benefit the healthcare delivery community.

Health Data Hub Insights is easy to use, affordable for emerging data-focused organizations, and supports a wide range of reporting and analytic use cases (operational, clinical, descriptive, predictive) powered by data from Health Data Hub.

Mirth® Health Data Hub Insights
by NextGen Healthcare

Managed Data Pipeline: We activate, maintain, monitor, and configure the data pipeline from Health Data Hub to Health Data Hub Insights on your behalf, so that you can focus on using data to generate value. Configure and fine-tune your pipeline's scope and loading frequency to meet your business needs.
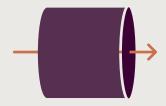
Managed Data Warehouse: Similar to your data pipeline, our team can manage all aspects of your data warehouse infrastructure. Supported by security best practices and business continuity tooling, your data will always be available when you need it.

Flexible Tooling Support: Health Data Hub Insights supports a wide array of analytic tools and programming languages, such as SQL, Python, Power BI, Tableau, QuickSight, and more. This enables you to bring your data to the tools your team is most comfortable with.

Analytics-Ready Data: More than 60 clinical data types supported out-of-the-box and 130+ modeled tables are ready for direct querying and reporting. Enrich your reporting by integrating third-party data sets seamlessly from the Snowflake Data Marketplace.

MIRTH HEALTH DATA HUB INSIGHTS

Data Pipeline

- Managed pipeline service
- Near real-time data flows
- Configurable in scope and frequency

Insights Data Warehouse
Powered by Snowflake

- Managed data cloud
- Customer segmented data
- Role-based access control
- Data catalog

Data Access

- Self-service data analytics
- Create and share curated models
- Pre-built connectors

"A longitudinal view into patients' data provides a holistic view of the patient for physicians to improve their workflows and provide better care."

Nicole Bigelow
Principal Architect
Resili Health

"What stood out was the extensible API and programming interfaces, including the ability to create our own data products on top of the platform. During the installation, NextGen Healthcare kept us well informed, and the integration developers were extremely helpful."

Carmen Hughes, MBA
Executive Director, HIT Division
HI-BRIDGE Solutions and HI-BRIDGE HIE

"We needed a solution that offers meaningful insights to support and sustain our growth. An added benefit of this fluid functionality and connectivity is that it streamlines processes for our staff and provides a better work/life balance for our doctors."

Lois J. Bookhardt-Murray, MD
Chief Medical Officer
Morris Heights Health Center

"Mirth Connect allows us to easily work with the vendor's capabilities. If they can't do TCP/IP interfaces but can do a web service—we can accommodate them."

Robert Werner
(Former) Senior Interface Application Developer
University of Toledo

"Mirth Connect is so user-friendly you could sit with someone for a couple of hours and get them up and running. In the old system, it would take specialist training on the Integrated Development Environment (IDE) and technology. Whereas due to the simplicity of the scripting, it opened up the skillset to web developers, script administrators, and others."

Daniel Dryhurst
Senior Digital Solutions Delivery Engineer
St Helens and Knowsley Teaching
Hospitals NHS Trust

BETTER STARTS HERE.

Contact us at 855-510-6398 or mirthconnectsales@nextgen.com

Implementing and maintaining fast, secure, and meaningful interoperability will have a tangible clinical, operational, and financial impact on your business. With it, you can do more with less, bend the cost curve, improve scalability, and remove risk for your clients and healthcare providers alike.

BELIEVE IN BETTER.®

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