

BRIDGING THE GAP BETWEEN
BUSINESS & TECHNOLOGY

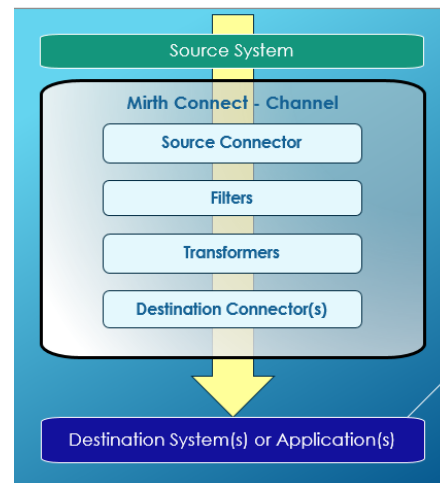
MIRTH CONNECT INTERFACE USE CASES

WHAT'S POSSIBLE?

- Mirth Connect is an open source interface engine (i.e. Software to move and translate data from one computer system to another).
- EMR Agnostic
- Cross platform
- Message & Data Type flexibility
 - Multiple transport protocols supported
 - Multiple message formats supported
- Extensible via Java and JavaScript programming languages
- Allows multiple routes, filters, and transformations
- After deployment, interfaces can be monitored for quick message statistics, as well as the status of active connections
- If there are errors, messages can easily be corrected and reprocessed
- Ability to send email alerts, so you know quickly if there is a problem with your interface
- Scalable - features can be quickly added
- Cost effective
 - A basic interface can be quickly implemented on one of your existing servers
 - No upfront software licensing cost
 - No additional hardware costs
 - Interface development costs will vary based on specific project requirements

HOW DOES MIRTH CONNECT WORK?

1. Download and install MirthConnect software
2. Create a database to store the Mirth configuration and message data
3. Start building the channel
4. Thoroughly test interface using a test environment
5. Migrate to live production environment



USE CASE 1 – TRI-CITY CARDIOLOGY MEDNET BI-DIRECTIONAL INTERFACE

BACKGROUND:

- MedNet is a 3rd-party vendor that processes data from patient worn medical devices – Holter and Cardiac Event monitors.
- MedNet provides a web-based interface for physicians to view and interpret the monitor data.
- Additionally, MedNet provides a completed, signed report.

CLINICAL NEED:

- Extract patient data from NextGen
- Create an enrollment file to send to MedNet
- File the completed reports back into the patient’s chart in NextGen

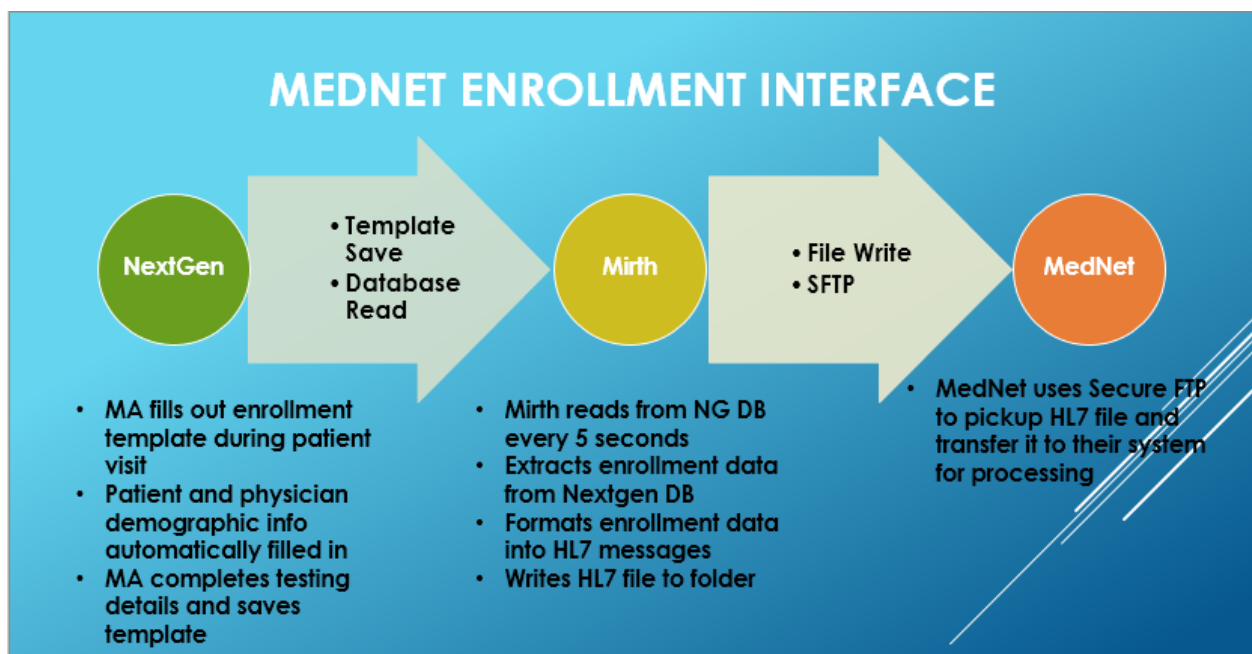
BENEFITS:

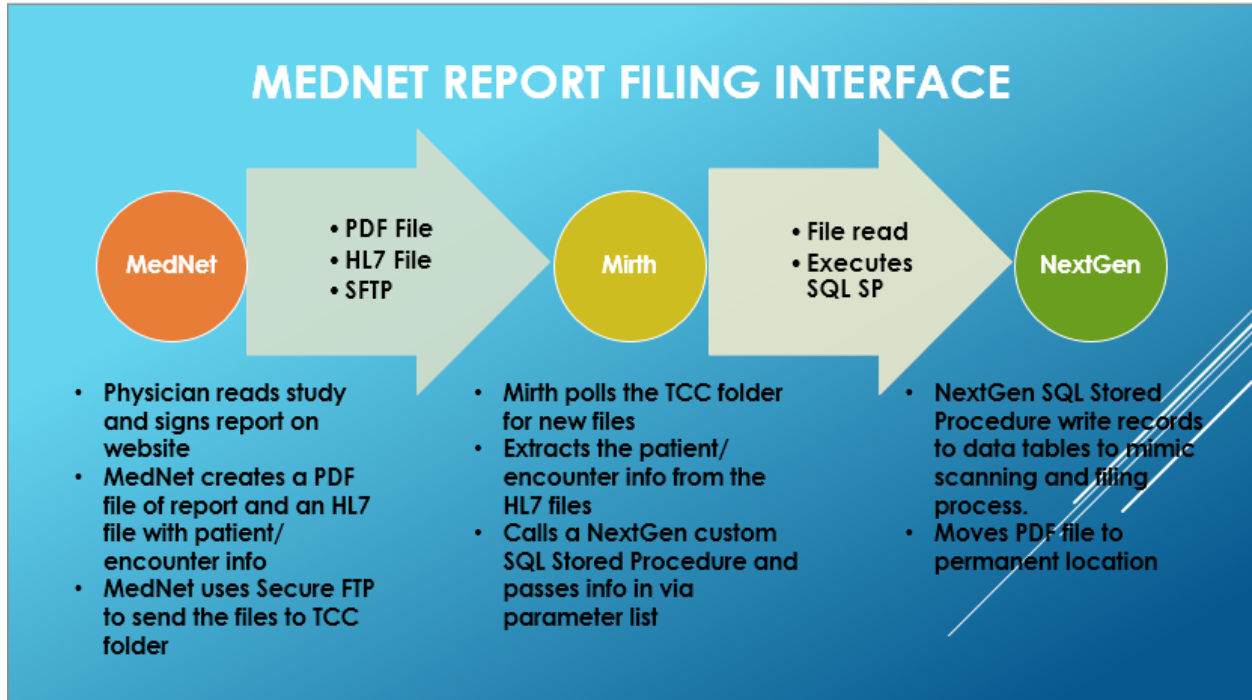
ENROLLMENT INTERFACE

- Time savings of re-keying patient information into MedNet’s web interface (i.e. faster enrollment process)
- Greater accuracy of patient information = more accurate reports

REPORT FILING INTERFACE

- Physicians and staff have access to the reports in NextGen within minutes of physician signing report in MedNet.
- Reduced labor cost for Medical Records department compared to scanning and manually filing the reports.





USE CASE 2 — DESERT WEST OB/GYN REMINDER CALL APPT UPDATE

BACKGROUND

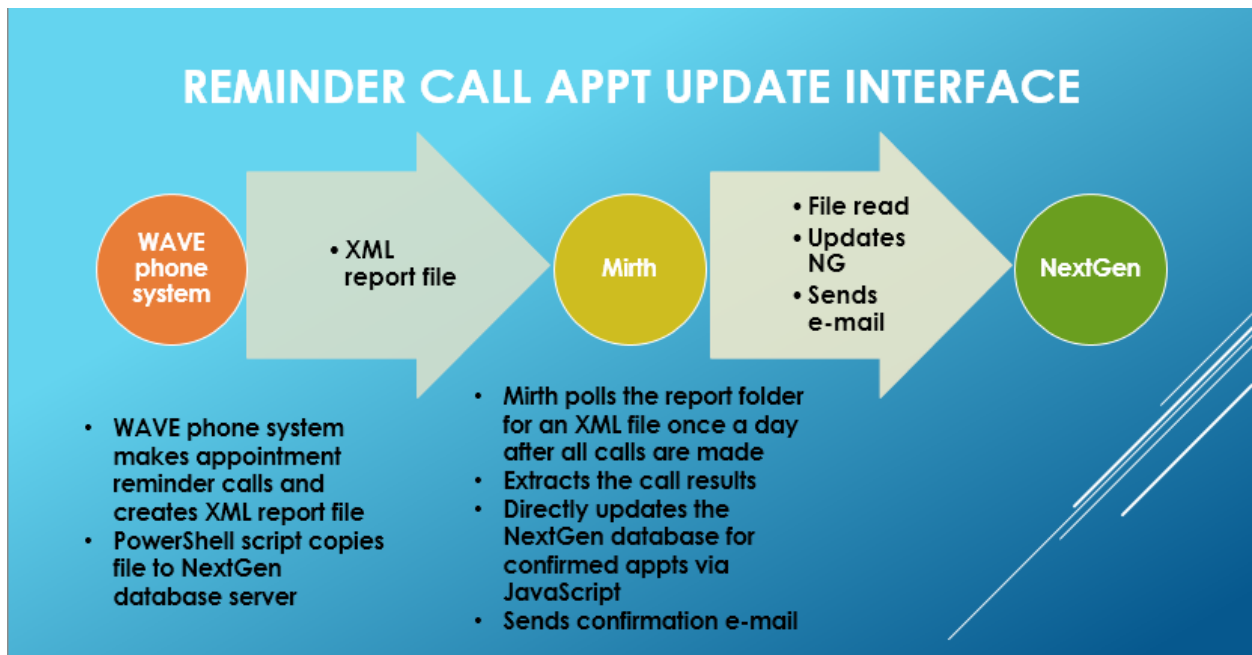
- Patient info is extracted from NextGen database via SQL and exported as a CSV file.
- WAVE phone system uses the CSV file to make appointment reminder calls
- The results of these calls are reported in an XML report file

BUSINESS NEED:

- Update the NextGen appointments with the results of the reminders

BENEFIT:

- No staff time for manually entering appointment confirmations



USE CASE 3 — CCHCI-CMR REFERRALS (BI-DIRECTIONAL)

BACKGROUND:

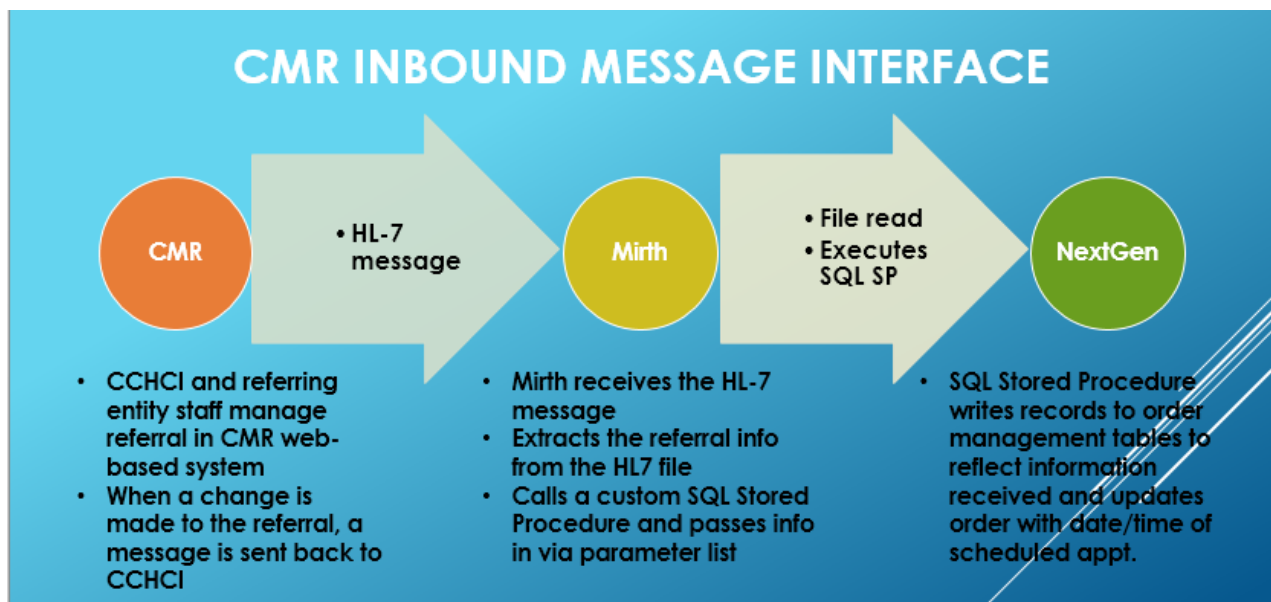
- Chiricahua Community Health Centers, Inc. (CCHCI) staff uses Crimson Medical Referrals (CMR), a 3rd party web-based system for managing referrals.
- Initially staff had to rekey patient demographics and referral orders into CMR website
- This was time-consuming and allowed the potential for errors

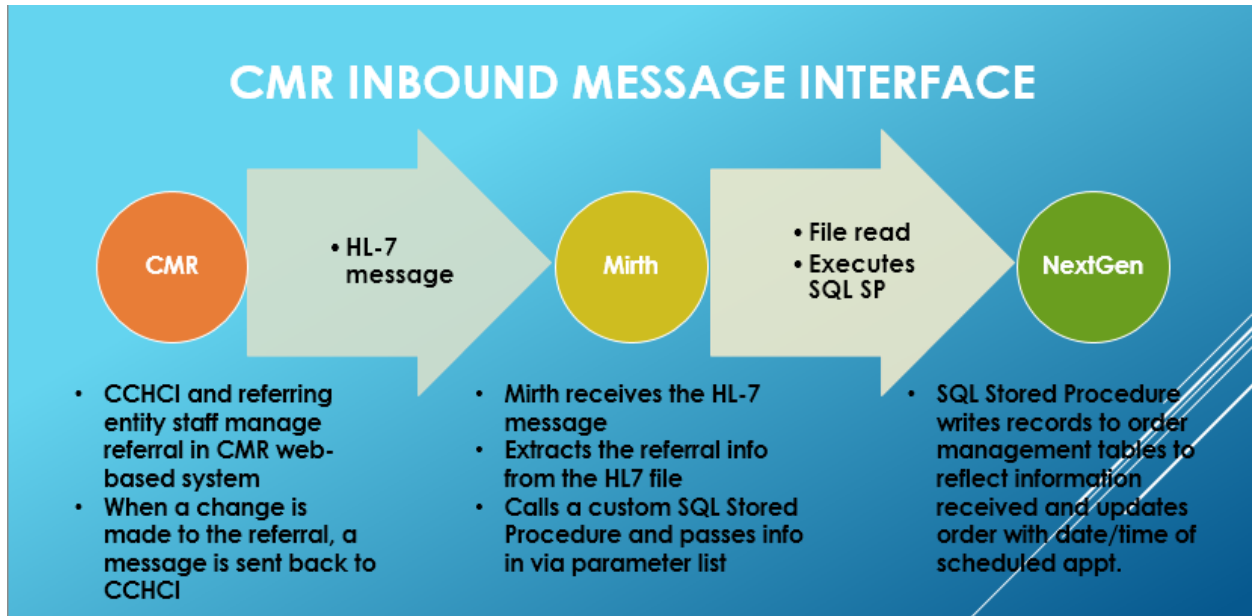
BUSINESS/CLINICAL NEED:

- Extract order data directly from NextGen and send an HL-7 message to CMR
- Additionally, as the referral is managed, CMR sends HL-7 messages back to CCHCI and the interface updates the NextGen order with the scheduled appointment date and time.

BENEFIT:

- Now when the staff accesses the CMR website, all the patient demographics and order information is already entered.
- Faster referral processing
- More accurate referrals





CASE 4: TRI-CITY CARDIOLOGY NCQA HSRP DATA SUBMISSION

BACKGROUND:

- The National Committee for Quality Assurance (NCQA) offers a Heart/Stroke Recognition Program (HSRP) to recognize physicians for their delivery of quality care to people with cardiovascular disease or who have had a stroke
- To apply for recognition, the practice must submit specific clinical data for a group of 35 consecutive patients identified by very specific criteria for each physician.
- Data can be manually entered via the NCQA website or uploaded in XML file format.
- Data must be resubmitted every 3 years

CLINICAL/BUSINESS NEED:

- Extract the required data from NextGen for patients meeting reporting criteria
- Format the data according to NCQA HSRP XML specifications

BENEFIT:

- Tri-City Cardiology has 21 physicians, so this would be extremely labor intensive and potentially error-prone if done manually.
- NCQA Recognition allows higher reimbursement rates with some payers.

DESIGN DETAILS:

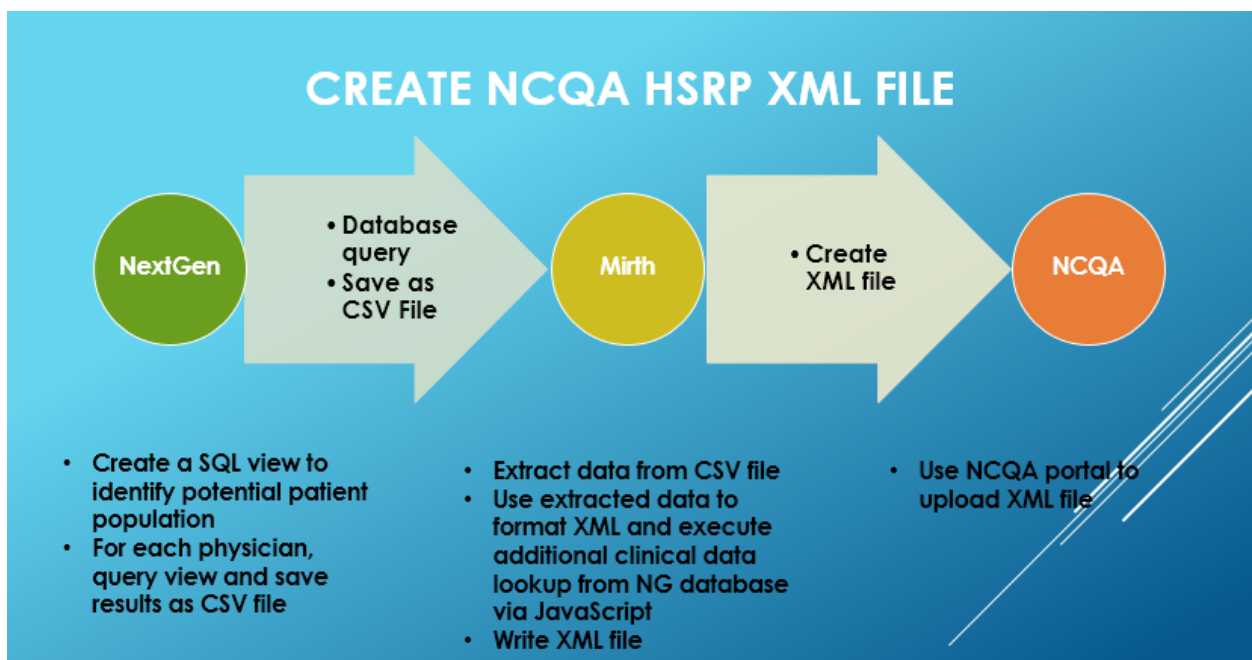
IDENTIFYING ELIGIBLE PATIENTS

- Must be 18-75 years old
- Have been under the physician's care for more than 12 months
- Have had diagnosis of ischemic vascular disease or stroke for more than 12 months (NCQA provides a specific list of several hundred ICD-9 and ICD-10 codes that are included)
- For each applying physician, pick a date and going back in time, identify 35 consecutive patients meeting these criteria and seen at the same office location

CLINICAL DATA TO BE REPORTED

- Blood Pressure Control
 - >75% patients in sample have BP < 140/90
 - Blood pressure values recorded at last visit
 - Query from Nextgen vitals
- Use of Aspirin or another anti-platelet
 - >80% patients have documented use of aspirin or another anti-platelet
 - Yes or no
 - Query from NG medication list and allergy list (for documented contraindication)
 - Smoking and tobacco use cessation assistance
 - >85% documentation of tobacco use status within past 12 months, if tobacco user, documentation of cessation assistance

- Tobacco use status
 - Tobacco use documentation date
 - Cessation assistance documentation date
 - Query from NG Social History data and patient visit Plan
- Body Mass Index Screening
 - BMI recorded at last visit. Query from NG vitals
 - Pregnant females are excluded. Query from NG OBGYN History.
- Statin Therapy for Patients with CV disease
 - Determine intensity of statin therapy based on listed medication groups for Men 21-75 and Women 40-75
 - Exclusions for pregnant or breast-feeding females, women of child-bearing age who are not using birth control, patients with kidney or liver impairment, or documented statin intolerance



QUESTIONS TO THINK ABOUT WHEN CONSIDERING A CUSTOM INTERFACE

- WHO are the other entities you are seeking to share data with?
- WHO are the key players involved in the interface definition and design?
- WHAT data will be imported and/or exported?
- WHAT format is the data in at the source and destination?
- WHAT are the potential savings for time/money?
- WHAT are the patient care advantages?
- WHERE is that data found in your EMR?
- WHEN or how often is the data imported/exported?

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