Caristix

ABOUT US

We provide device and software integration solutions to the health industry

Our clients includes private and public hospitals, departments of heath (Govt), medical device manufacturers, system integration firms and start ups

We are HL7, FHIR and integration experts, committed to providing best products, solutions and services to optimize time and budgets

Our software solutions and services provide clients a seamless integration of medical devices to Health IT software such as integration engine, EMR, LIS, ADT, Radiology and others
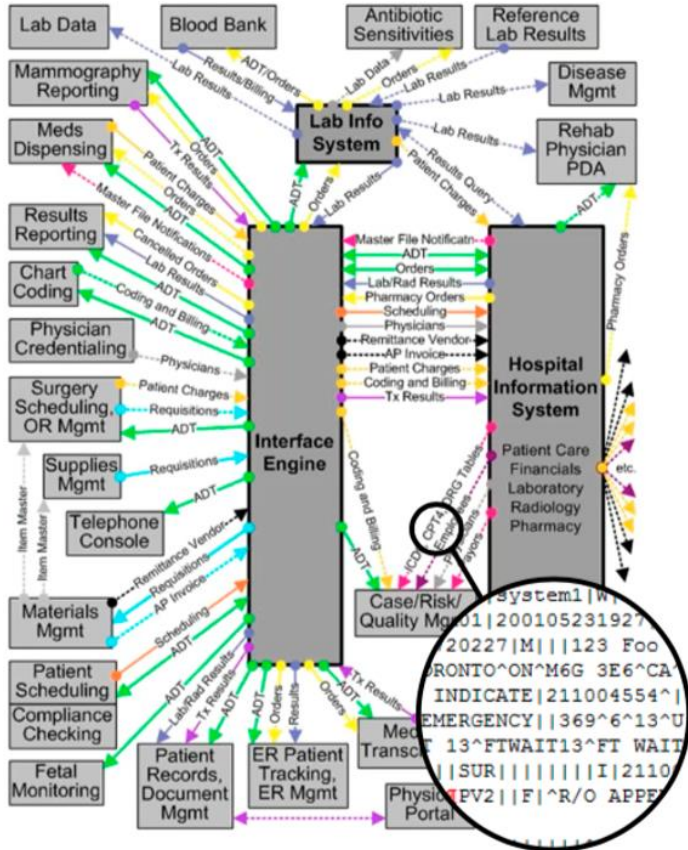
Who uses Caristix?

Integration Team Journey

Integration becomes a requirement

- Health System Data Exchange Where to start?
- HL7 Survival Guide

Scoping the project

- Readiness Assessment
- Project Scoping Services
- Data Architecture Services

Integration & Testing

- Caristix DaaS
- Caristix FHIRify
- Project Implementation Services

Exploration

Planning

Scale-up

- HL7 Training
- HL7 Standard Reference
- FHIR Training
- FHIR Browser

What is HL7 / FHIR?

- Project Implementation Services
- Data Architecture Services

Planning

Caristix Workgroup Live

- Data View & Edit
- Documentation & Reusability
- Test & Validation
- PHI Protection
- Interface Migration
- Team collaboration

Scale-up

Interoperability & Cybersecurity

- Patient data and medical info are stored in silos, distributed and exchanged among hundred of medical devices and dozens of specialized Health IT software including EMR, LIS, ADT, Radiology

" I've heard that some hospitals that have greater than 2000 interfaces, all trying to feed and connect, and interconnect back and forward"

Matt Blackmon, Chair, HL7 Education Advisory Concil

Before – The Fortress Approach

A Brand New World

- Growing number of systems
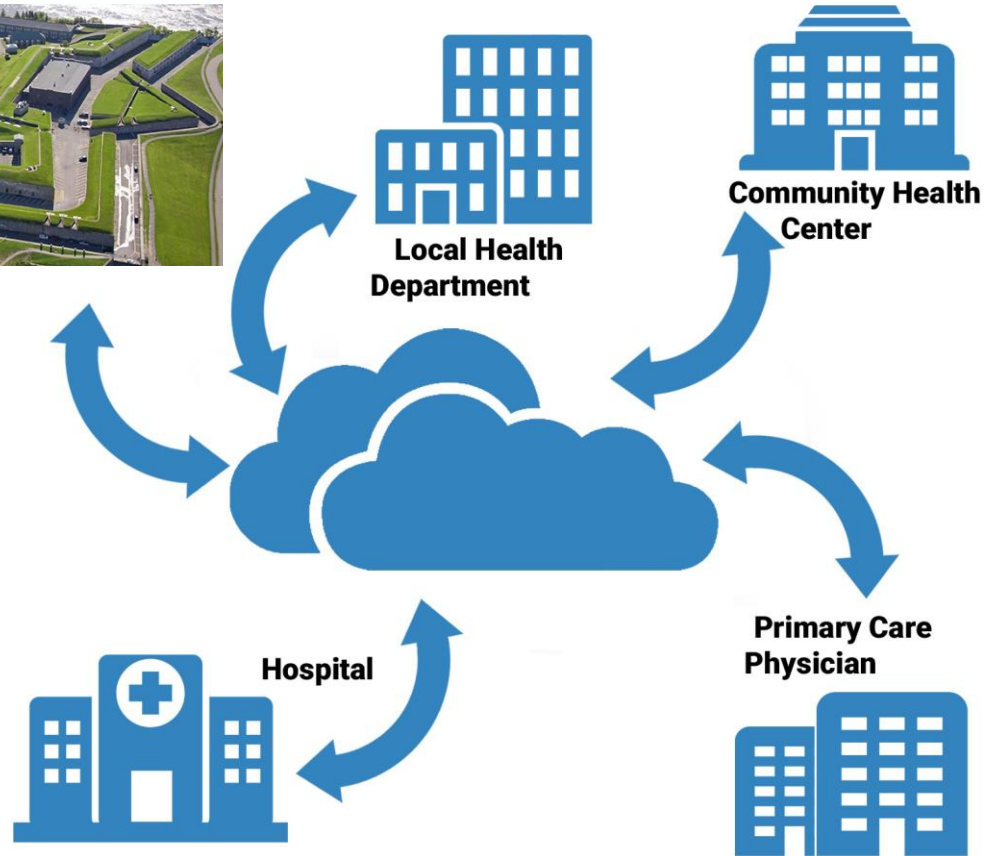- Regional and national systems
- Work from home
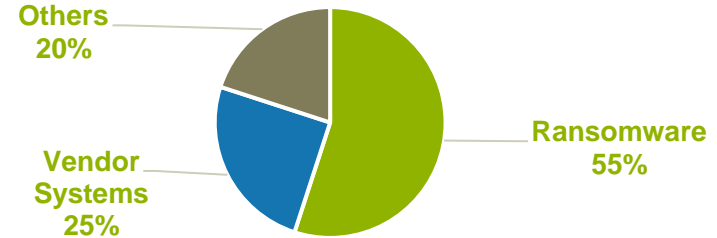- Ransomware groups
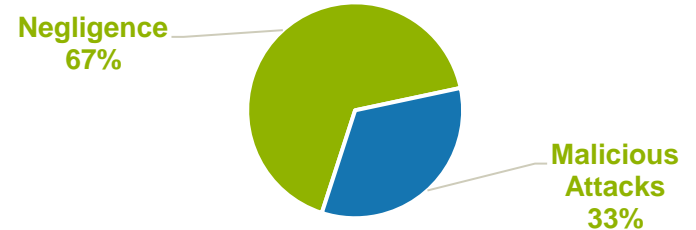
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After – The Community Approach

Data Breaches – A few stats (USA)

- $6000B in cost over 10 years

- 30% are from hospitals

- Only 20-40% of breaches reported

- In 2020 only, health system vendors exposed 12M patient files
  - 1 person out of 10 had its personal data potentially breached
  - Value of $150/patient file

Leak Types

- Others 20%
- Vendor Systems 25%
- Ransomware 55%

Causes

- Negligence 67%
- Malicious Attacks 33%

Sources: PhoenixNAP, PRC, JOCS Vol. 2 Iss.1, HIPAA Journal, CPO Magazine

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Data Breaches – A few stats (France)

- In Nov 2020, 490K clinical staff and patient profiles were revealed exposed from around 30 different laboratories
  - Value of $1,000/physician file

Patient file contains:
- Name
- Phone numbers
- Postal address

Patient file may contain:
- SSN
- Date of birth
- Blood type
- General Practitioner
- Insurer
- Treatments
- HIV status
- Pregnancy test results

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Some Solutions - Technology

- Avoid storing PHI when possible
  - HIPAA defines clearly what is PHI
  - What data do you need?
  - FHIR API could be an option

Some Solutions - Policy

- Document and <u>implement</u> strong operation procedures
  - Password management
  - Network security configuration
  - Access and privileges
  - Data Archiving

- Develop a cyber breach response plan
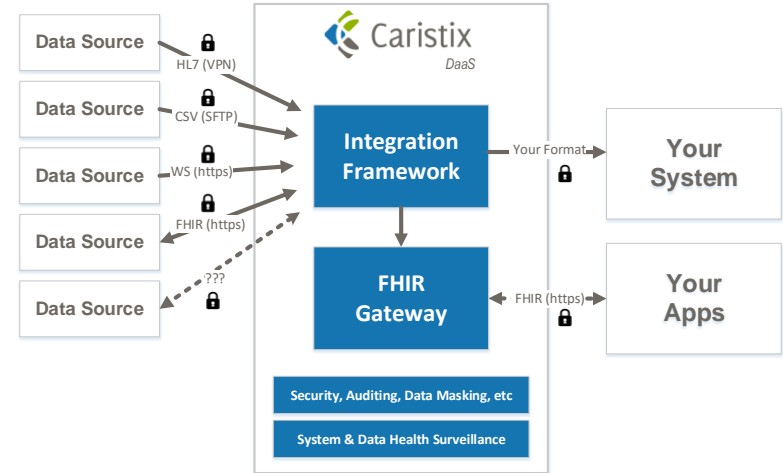
Some Solutions - People

- Everyone should be involved
  - Manage security as a product feature
  - Security and security management should be part of your product roadmap
  - Cloud vs. On-premises

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Is your organization part of the negligent ones?

Asia-Pacific

North America & Europe

Denis Cantin
T: +61418441388
denis.cantin@caristix.com

Jean-Luc Morin
T: 418-872-4000 x151
jeanluc.morin@caristix.com