



# Increasing Newborn Screening Health Information Interoperability: A Systems Approach

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# Currently in MN...

- Home-brew Oracle LIMS is 25 years old (current version 11.2.3.0)
- Began as a shared Public Health system with our Infectious Disease and Environmental labs
- Shared tables, tables upon tables
- Specimen-centric
- We have a view with the MDH Vital Records division for matching birth certificates with NBS specimens
- In the process of onboarding all of our hospitals with OZ Systems (aka: MnScreen) for our point-of-care testing (heart and hearing)
- There is not interoperability with OZ Systems & our LIMS





A screenshot of a web browser window. The title bar reads "Public Health Laboratory". The address bar contains a menu of items: nbSpecimens, nbResults, nbMallers, nbView, nbUtilities, nbrePorts, QC/QA, Geneticist, EpiCase, nbRegistry, Applications, Exit, Help, Window. The Oracle logo is visible in the top right corner of the browser. The main content area of the browser is a large, solid gray rectangle, indicating that the page content is either missing or obscured. The browser's address bar also shows "Public Health Laboratory".

Forms Services

# Out with the Old

RIP MN NBS LIMS

July, 1991 – June, 2016



# MN RFP

## (Request for Proposal)

**Mandatory and desired requirements were gathered from the following four units of the MN Newborn Screening Program:**

- **Laboratory**
- **Short-Term Follow-Up**
- **Genetic Counselors (Communication & Education)**
- **Operations**

**The MN.IT and MDH.IT had stringent requirements regarding security and accessibility.**



# Top Requirements for the *New* and *Improved* MN LIMS

- Vendor Hosted
- Software-as-a-Service (SaaS)
- **INTEROPERABILITY**



# Interoperability

- **Definition of *interoperability***
- *noun* in·ter·op·er·a·bil·i·ty
- : ability of a system to work with or use the parts or equipment of another system
- **in·ter·op·er·a·ble**



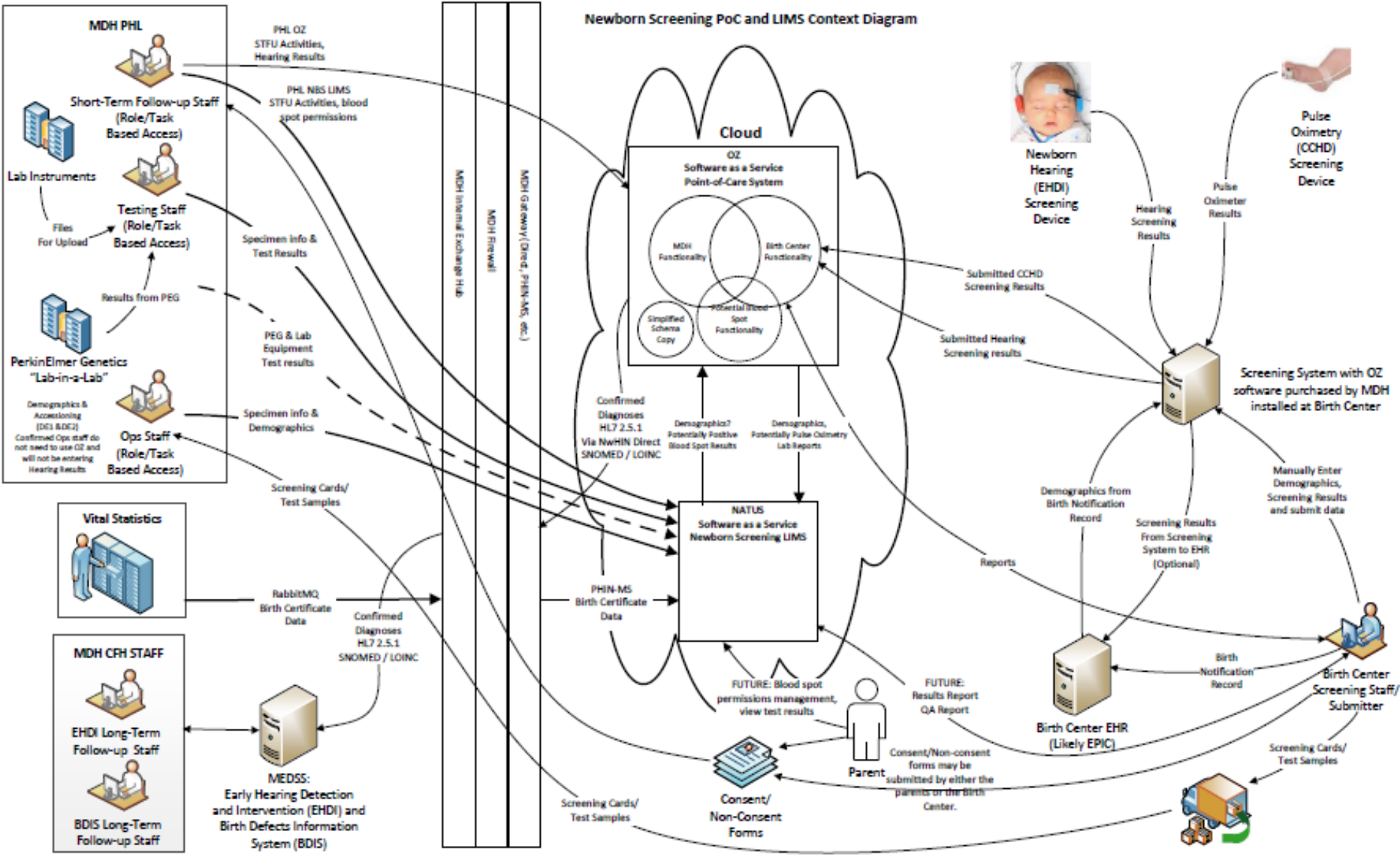
## Minnesota's Definition:

- The ability to securely exchange electronic health information using uniform standards to share and synchronize patient data across systems. Uniform standards may include, but are not necessarily limited to, HL7 exchange standards, LOINC and SNOMED vocabulary standards, and applicable security standards.





Newborn Screening PoC and LIMS Context Diagram



# Interoperability

- Why
- Who
- What it means for us, for our customers and partners



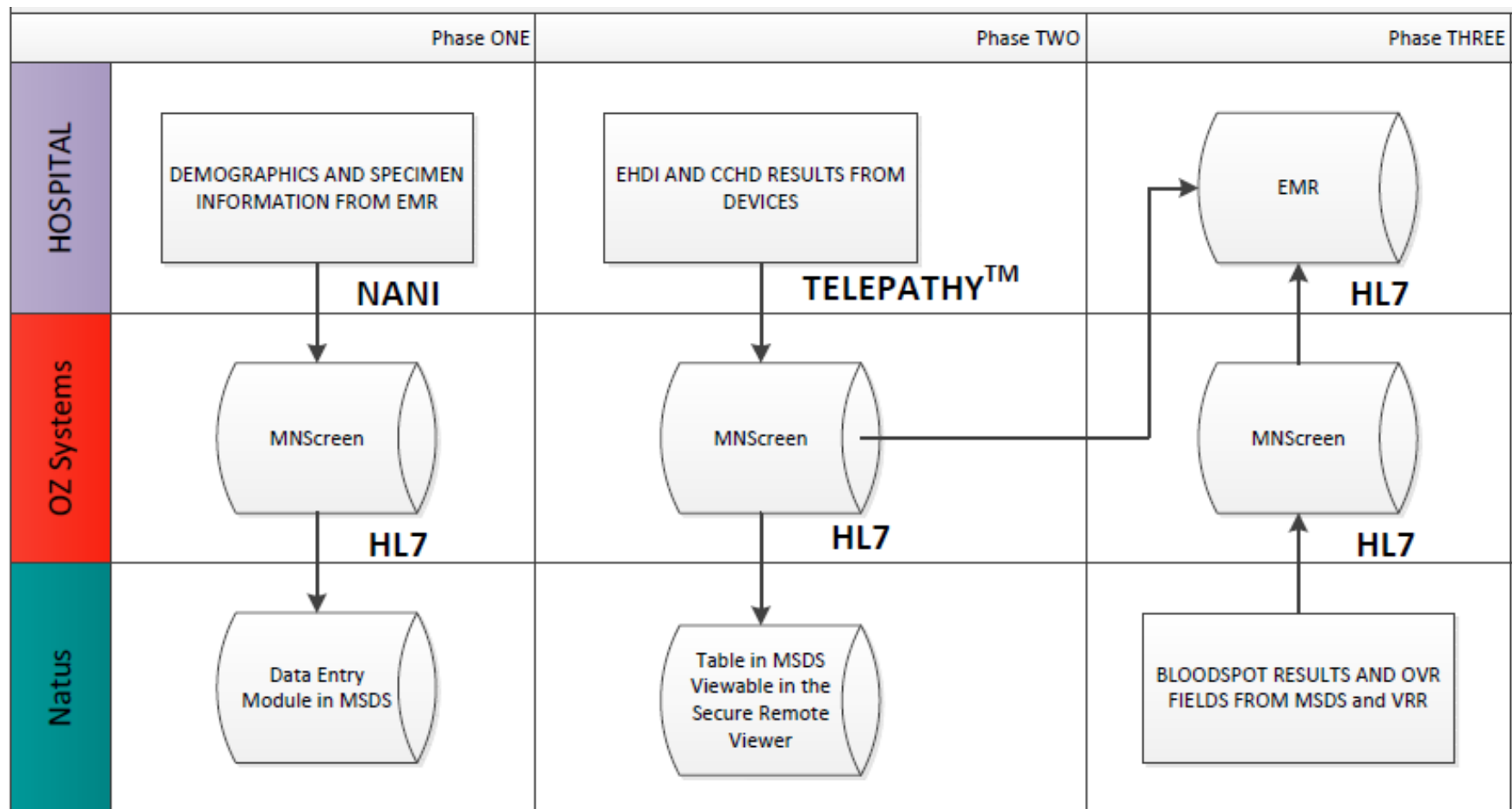
# In with the New

(just months away)

- Natus Medical Incorporated will be our new Vendor Hosted, Software-as-a-Service LIMS
- **Interoperability With: OZ systems, Vital Records**
- Improving of the interface with lab instruments due to interoperability
- **Remote Diagnostic Entry**
- Secure Remote Viewing of results



# Future of MN Interoperability



# This project has been brought to you by:

## MDH NBS Staff

Carrie Wolf- Lab

Jill Simonetti- Ops

Amy Gaviglio- STFU

Mark McCann-Manager

Myra Kunas- Assistant Division Director

## MN.IT

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MDH Vital Records

 natus®

 oz systems

