

# ISM

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IT Solutions Management for Human Services

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an affiliate of the American Public Human Services Association

**Commonwealth of Massachusetts**  
Executive Office of Health and Human Services



## **E- Health Initiatives in Massachusetts**

**ISM Conference – Boston  
August 5 – 8, 2007**



# Massachusetts environment for clinical data and health information exchange (CDX and HIE)

- **Massachusetts Health Data Consortium**
  - Founded 1978
  - Membership organization representing all healthcare stakeholder groups, the primary educational and convening organization to address healthcare IT issues in the state ([www.mahealthdata.org](http://www.mahealthdata.org))
  - Commonwealth is a member (EOHHS, MassHealth, and ITD participate)
- **New England Healthcare EDI Network (NEHEN)**
  - Formed 1998
  - Sustainable administrative transaction processing (eligibility, claims and other “HIPAA” transactions)
- **MA-SHARE (Massachusetts Simplifying Healthcare Among Regional Entities)**
  - Formed 2003
  - Nationally recognized leader in furthering the goals of regional and national clinical data exchange ([www.mahealthdata.org/ma-share](http://www.mahealthdata.org/ma-share))
- **Massachusetts eHealth Collaborative**
  - Formed 2004
  - Generously funded by Blue Cross Blue Shield of Massachusetts to study and implement sustainable community-based electronic health records and interconnectivity ([www.maehc.org](http://www.maehc.org))
  - Brockton, Newburyport, and North Adams
- **MassSAFE**
  - Started 2001
  - SharePoint-based, grant-funded working exchange for Worcester
- **Massachusetts Technology Collaborative**
  - Began work on computerized physician order entry (CPOE) for hospitals in 2001
  - State-funded as of 2006
- **US Department of Health and Human Services (DHHS) Office of the National Coordinator for Health IT (ONC) Nationwide Health Information Network (NHIN) Architecture Prototype**
  - Contract awarded November 2005 (through December 2006)
  - MA-SHARE participation



## Massachusetts Health Data Consortium

The Consortium is the primary educational and convening organization to address healthcare IT issues in the Commonwealth of Massachusetts.

Established in 1978 by the state's major public and private health care organizations for the purpose of improving healthcare quality in the Commonwealth by developing, collecting, analyzing and disseminating health care information.

The solid foundation for HIE in Massachusetts has been built on the collaboration and collegial relationships established and nurtured over the 28 year life of the Consortium.

MHDC has facilitated investment capital, diverse and representative leadership, realistic technology design, and a legal infrastructure that governs the terms and conditions of use of shared clinical data.

The Consortium serves 150 member organizations.



## **“The Massachusetts Health Data Consortium – Mission Statement**

“The Massachusetts Health Data Consortium envisions a health information infrastructure, developed through the collaboration of stakeholders and users of health data, to improve administrative, financial, and clinical efficiency and quality. Through commonly defined and nationally accepted standardized electronic formats, the Consortium’s health information projects will enable confidential access to comprehensive and comparable data that enhance the patient/caregiver relationship and improve health and healthcare outcomes.”

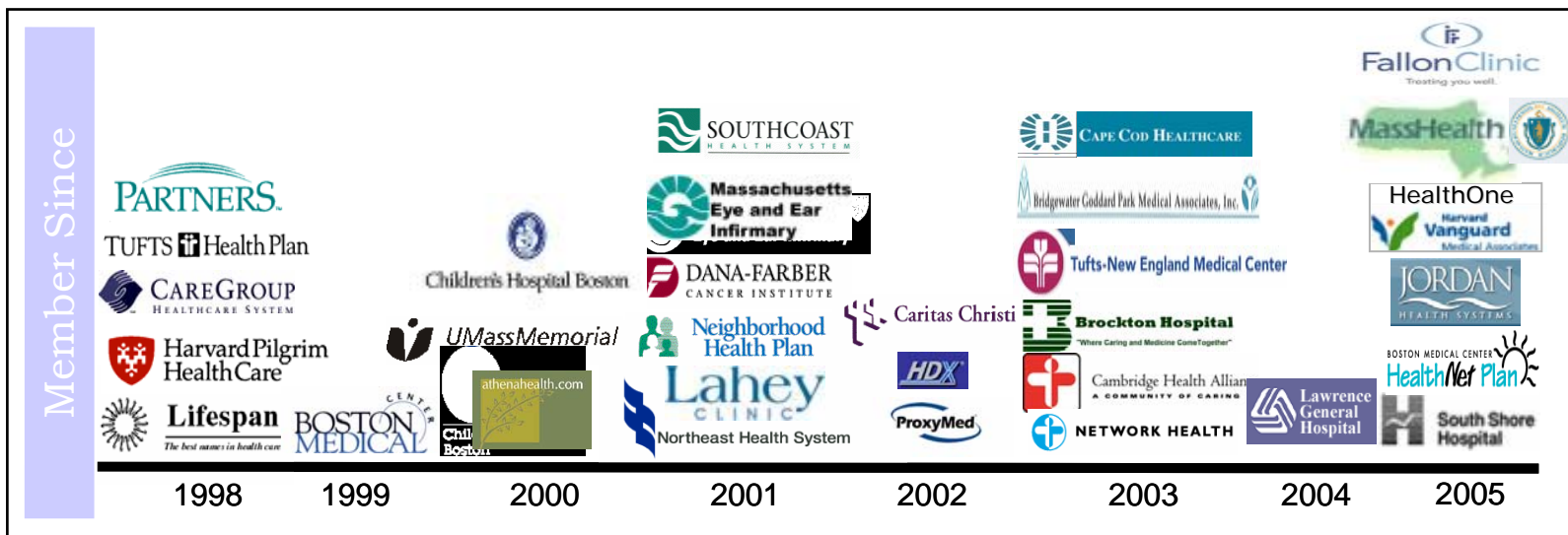


# What and Who is NEHEN

A business solution to a nagging business problem

- 46+ hospitals
- 5,000+ physicians
- 2.5M+ health plan members
- 6 health plan participants, with connectivity to 1 additional local insurer
- Connectivity to 8 national insurers through affiliates
- Over 4 M transactions per month
- Interest from other regions, partners and media

- NEHEN is a collaborative, payer and provider-owned solution for connectivity and administrative simplification that:
  - Delivers a close-to “all-player” solution to connectivity
  - Has a low-cost of ownership, no transaction fees
  - Transports HIPAA-compliant transactions, eliminates the need for clearinghouses
  - Shared development effort & shared best practice
  - Has both Web and legacy-integration implementation options
  - Can be integrated on each organization’s terms into the claims payment and provider service (payer) or patient access and revenue cycle (provider) process and workflow





## The New England Healthcare EDI Network – Mission Statement

**The New England Healthcare EDI Network (NEHEN) will be the premier innovator in bringing best practices with business and technical solutions to the healthcare industry for payer-provider transaction processing.**

**As a member-owned organization, NEHEN emphasizes collaboration, a federated model, and a standards-based electronic healthcare data exchange.**

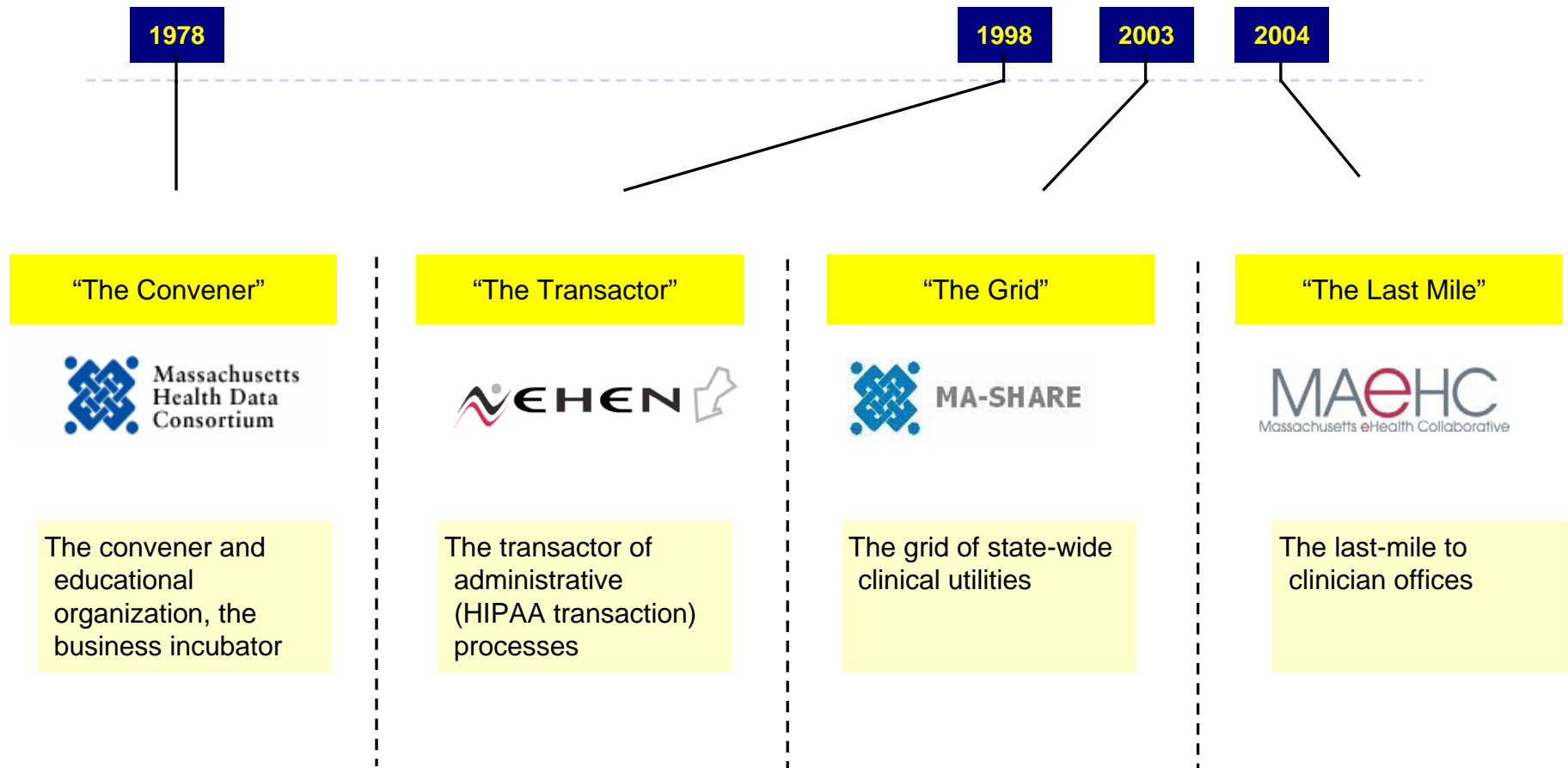
**NEHEN's objectives are to remove barriers to business process automation, improve the member and patient experience, simplify the complexity of healthcare operations, and reduce overall costs for all participants.**



Transactions Supported	Harvard Pilgrim Health Care	Neighborhood Health Plan	Network Health	Tufts Health Plan	BMC Health Net Plan	BCBS - MA	Medicaid - MA	United	BCBS - RI	Medicare - MA	Medicaid - RI	Medicare - RI	Aethna	CIGNA	Other Payers
Eligibility	✓	✓	✓	✓	Coming Soon	✓ <sup>1</sup>	✓	✓ <sup>2</sup>	✓ <sup>3</sup>	✓	✓ <sup>3</sup>	✓ <sup>3</sup>	✓	✓	On Request
Institutional Claim Submission	✓	✓	✓	✓	Coming Soon	✓ <sup>1</sup>	✓	Planned		✓					
Professional Claim Submission	✓	✓	✓	✓	Coming Soon	✓ <sup>1</sup>	✓	Planned		✓					
Claim Status Inquiry	✓	✓	Ready to Pilot	✓	Coming Soon	Planned	✓	Planned		Planned			Planned	Planned	
Electronic Remittance Advice	✓	✓	Ready to Pilot	✓	Coming Soon	✓ <sup>1</sup>	Planned	Planned							
Specialty Care Referral Request	✓	✓		✓		Planned									
Authorization / Pre-Certification	✓	✓		✓		Planned									
Home Health Referral	✓					Planned									
Referral Inquiry	✓														



# MASSACHUSETTS COMMUNITY OF E-HEALTH ORGANIZATIONS





## Massachusetts Simplifying Healthcare Among Regional Entities (MA-SHARE)

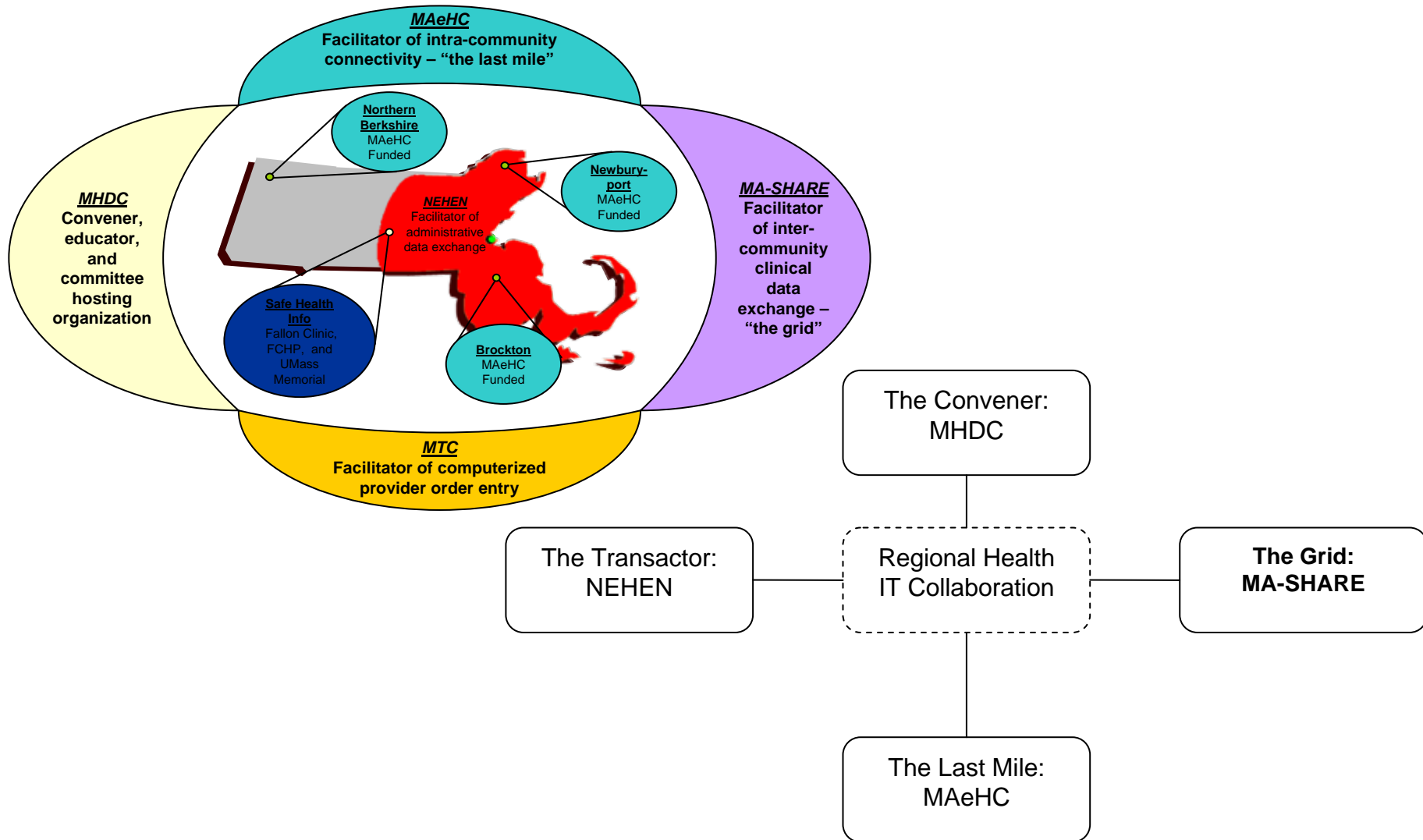
Is a regional cooperative initiative operated by MHDC that seeks to promote the inter-organizational exchange of healthcare data using information technology, standards, and administrative simplification in order to make accurate clinical health information available wherever needed in an efficient, cost effective and safe manner.

### ACTIVITIES

- Markle Record Locator Service project :
- Clinical Data Exchange :
- ePrescribing Pilot:
- Clinical Data Exchange :
- Rx Gateway early releases:
- ONCHIT award to develop National Health Information Network (NHIN) architecture.

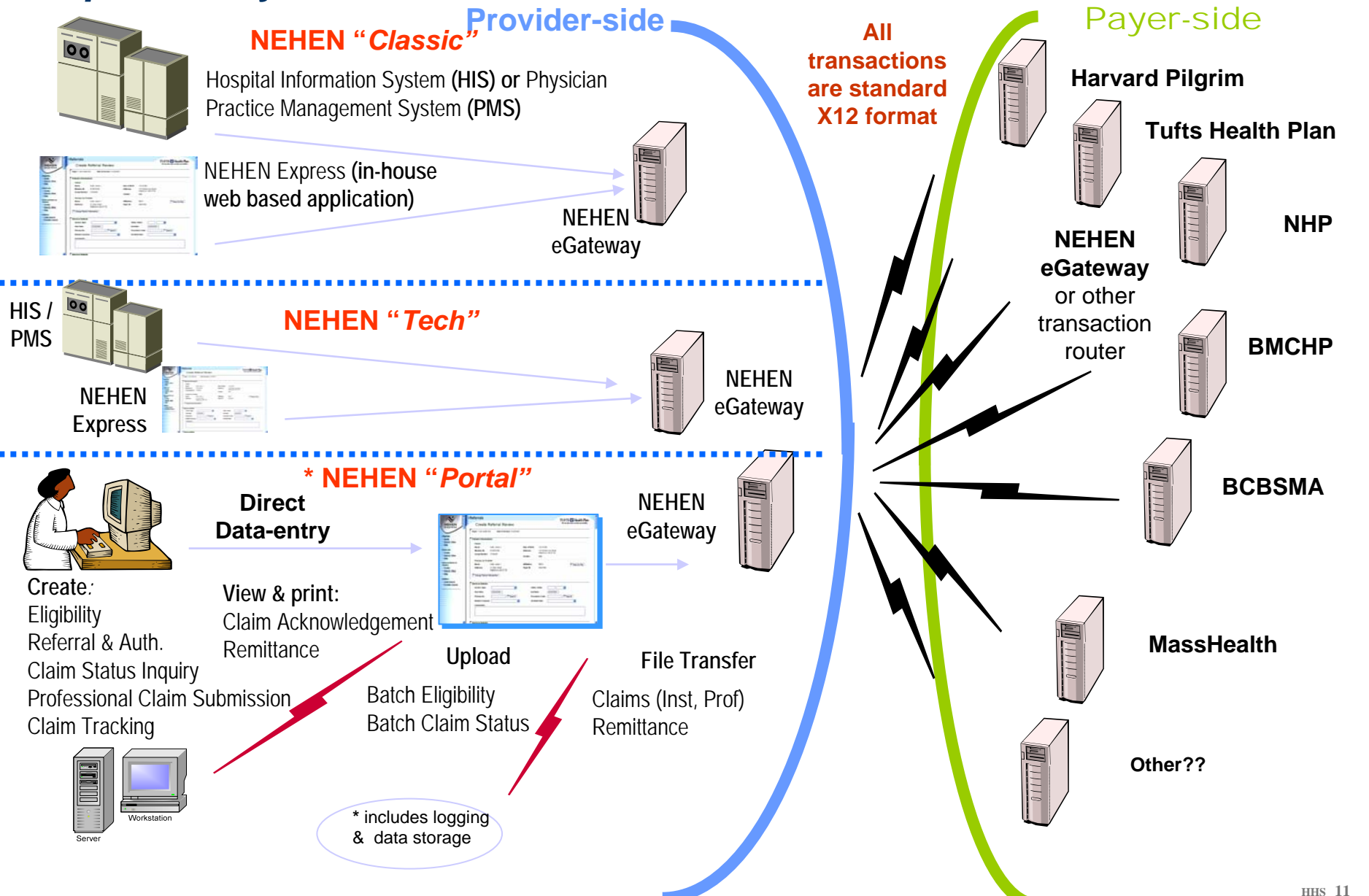


# Massachusetts context for health information exchange





# Proposed Payer/Provider eCommerce Solutions





# MAeHC ROOTS ARE IN MOVEMENT TO IMPROVE QUALITY, SAFETY, EFFICIENCY OF CARE



- Universal adoption of electronic health records
- MA-SAFE



BlueCross  
BlueShield  
of Massachusetts

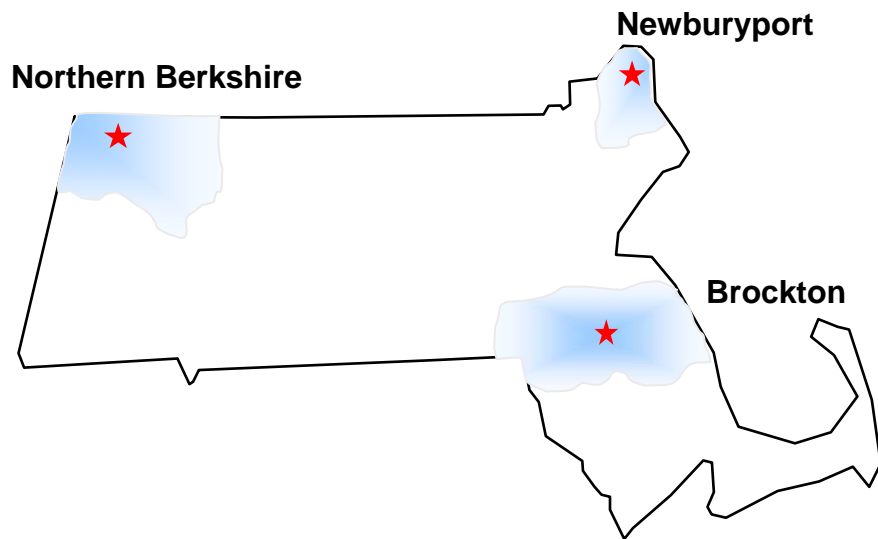
- \$50M commitment to health information infrastructure
- Recognition of “systems” problem



- Company launched September 2004
  - Non-profit registered in the State of Massachusetts
- CEO on board January 2005
- Backed by broad array of 34 MA health care stakeholders



## eHealth Collaborative: THREE PILOT COMMUNITIES STRONG INDIVIDUALLY AND COLLECTIVELY

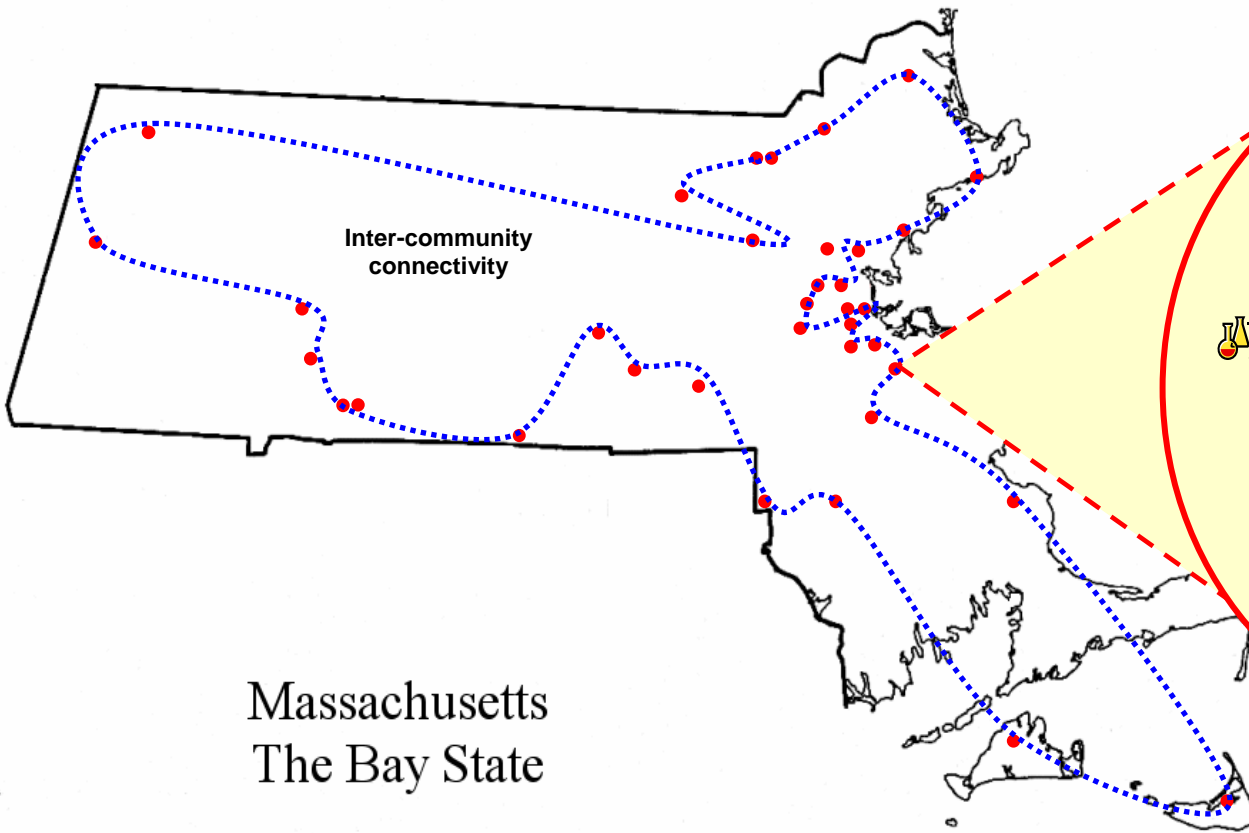


### Pilot Characteristics

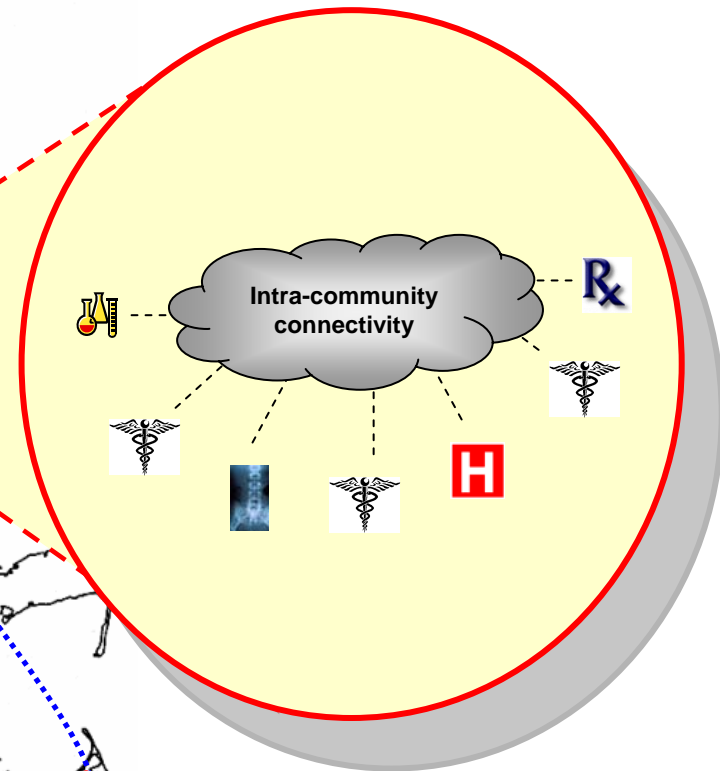
- High capture of medical encounters
- Breadth and depth of community cohesion
  - Wide array of ancillary providers
  - Broad & deep physician commitment
  - Strong, dedicated leadership
- Demonstrated commitment to using IT to transform health care delivery
- Represent a diversity of patients, practices, locations, and size
- Platforms for conducting all dimensions of evaluation
- Models to enable state-wide expansion



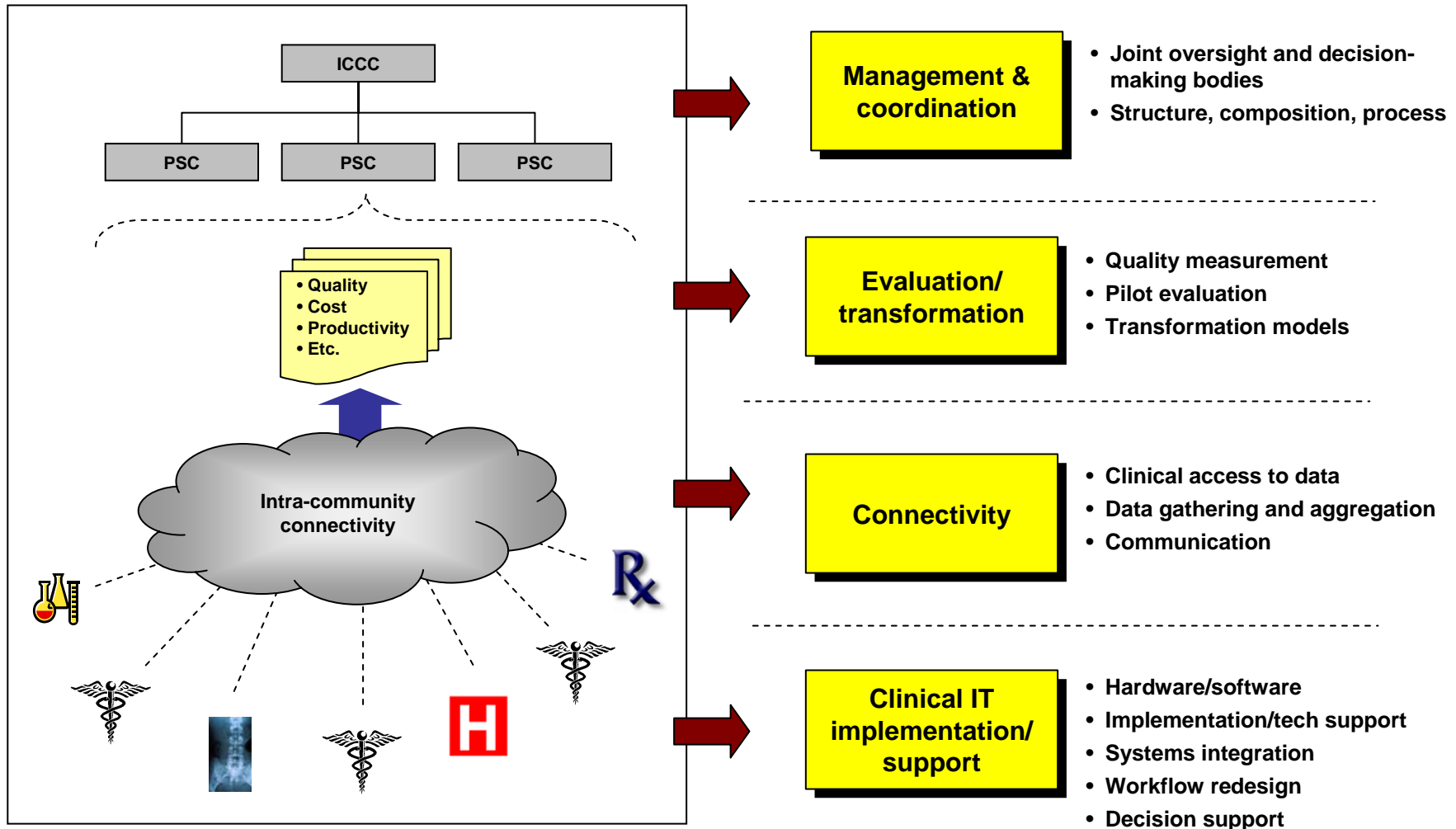
# THE GRID AND THE LAST MILE



Massachusetts  
The Bay State

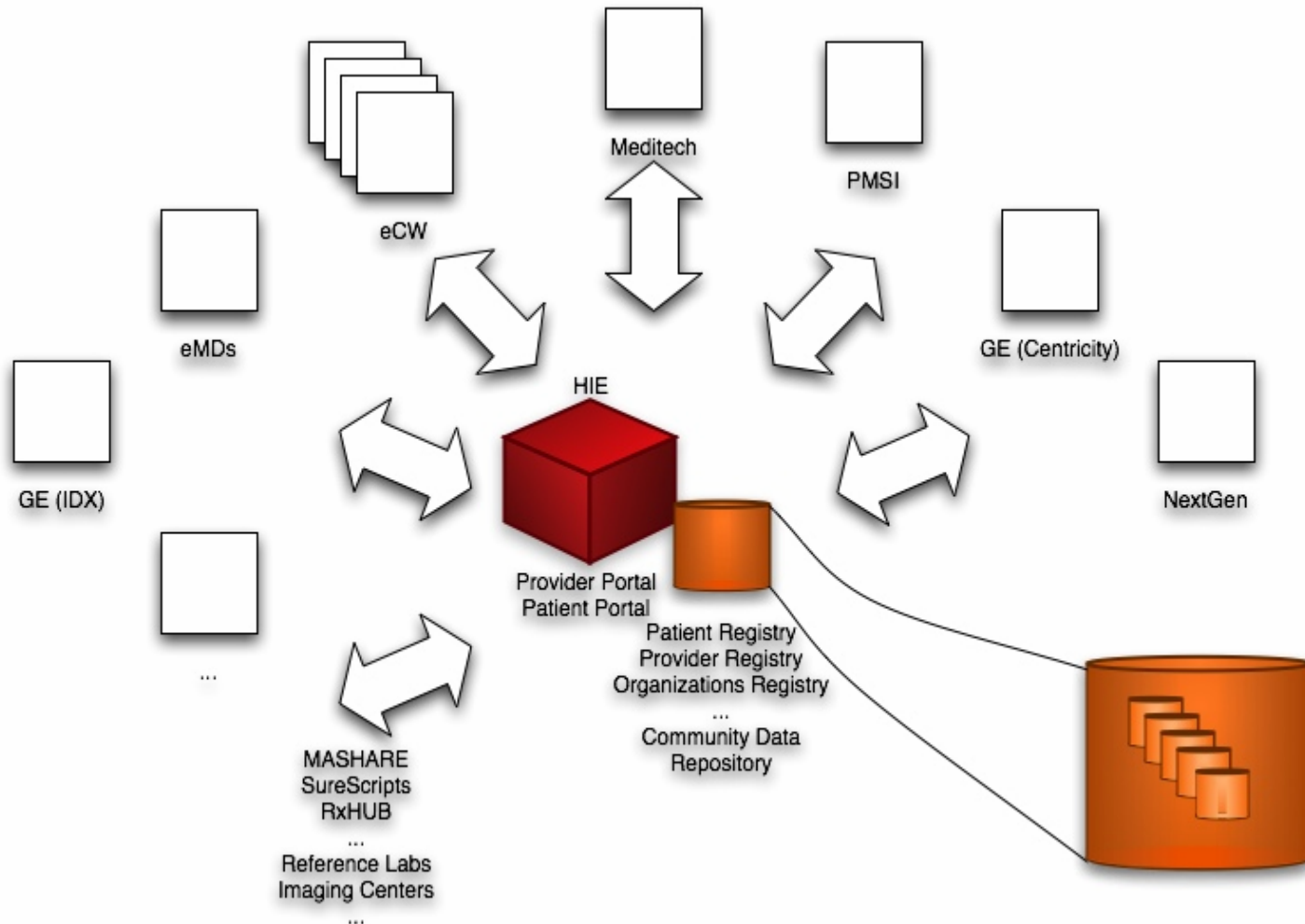


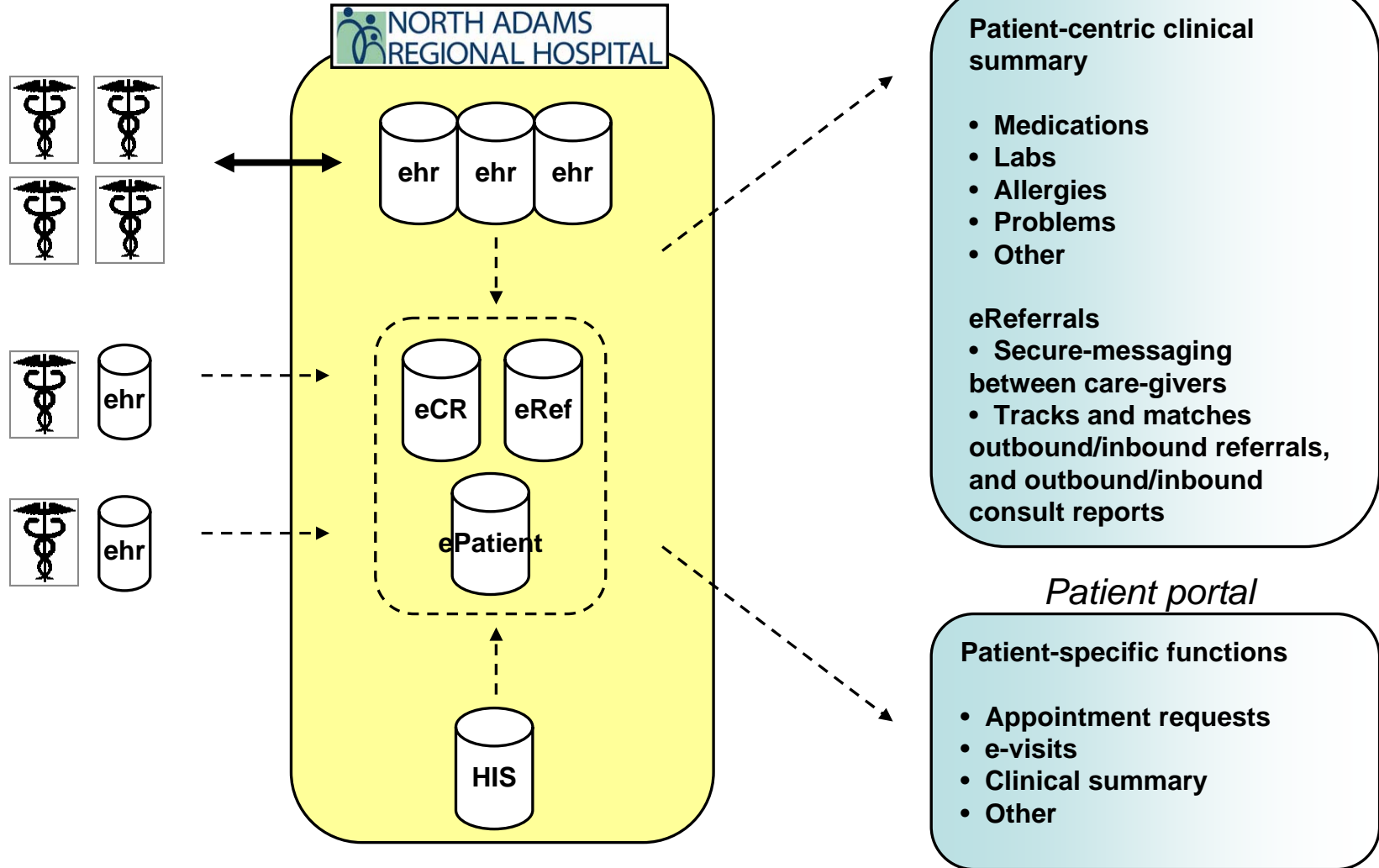
# FOUR MAIN AREAS OF ACTIVITY IN PILOT PROJECTS





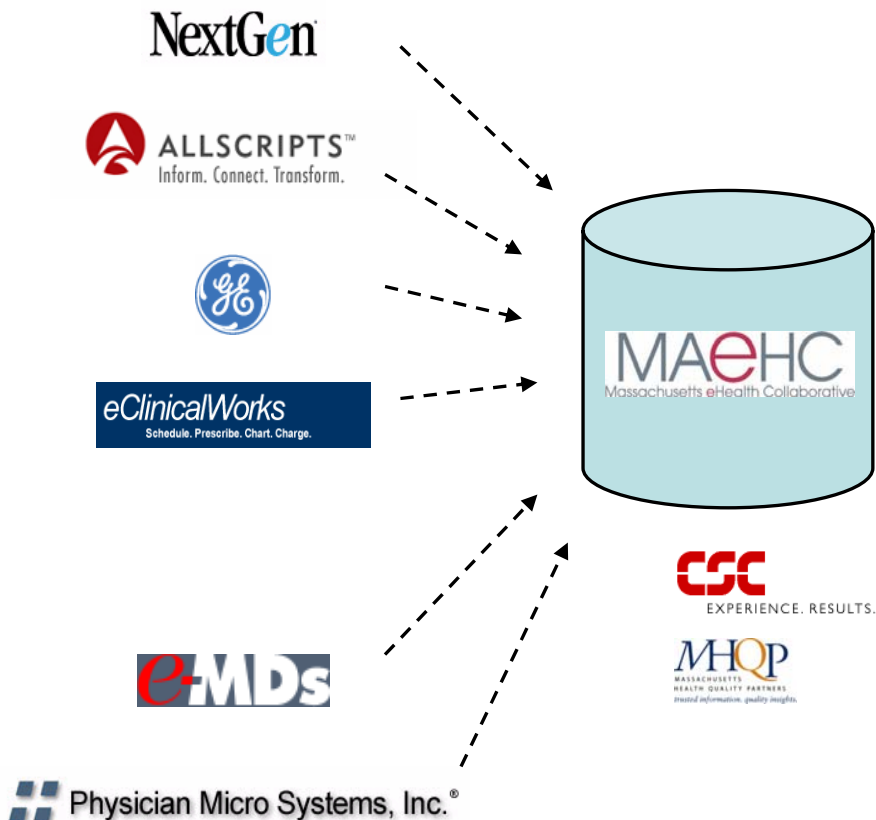
# HIE Exchange Architecture





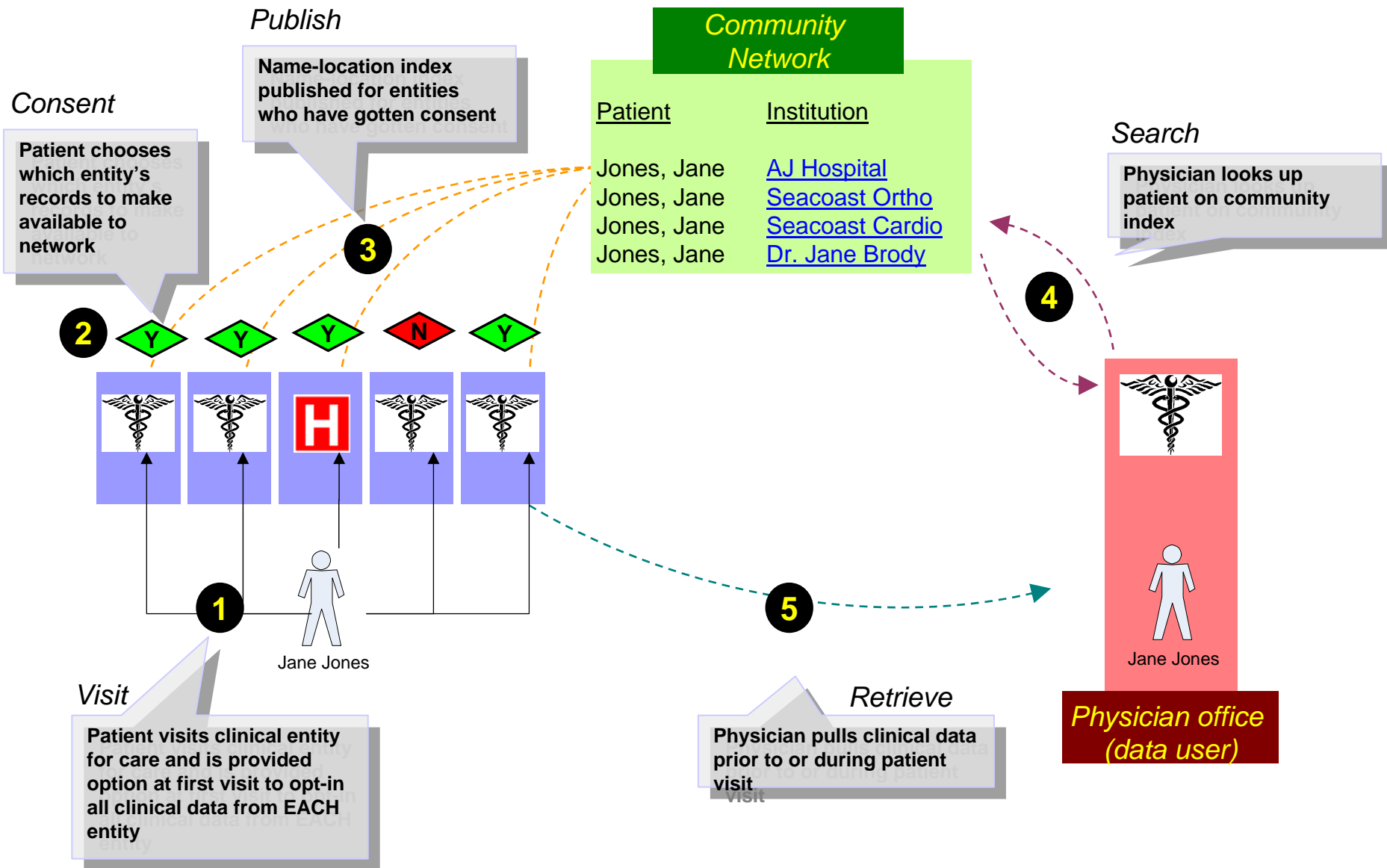


## MAeHC Quality Data Warehouse



## CLINICAL MEASURES FOR PHYSICIAN PERFORMANCE AQA Recommended Starter Set

1. Breast Cancer Screening
2. Colorectal Cancer Screening
3. Cervical Cancer Screening
4. Tobacco Use #
5. Advising Smokers to Quit
6. Influenza Vaccination
7. Pneumonia Vaccination
8. Drug Therapy for Lowering LDL Cholesterol#
9. Beta-Blocker Treatment after Heart Attack
10. Beta-Blocker Therapy – Post MI
11. ACE Inhibitor /ARB Therapy#
12. LVF Assessment#
13. HbA1C Management
14. HbA1C Management Control
15. Blood Pressure Management#
16. Lipid Measurement
17. LDL Cholesterol Level (<130mg/dL)
18. Eye Exam
19. Use of Appropriate Medications for People w/ Asthma
20. Asthma: Pharmacologic Therapy#
21. Antidepressant Medication Management
22. Antidepressant Medication Management
23. Screening for Human Immunodeficiency Virus#
24. Anti-D Immune Globulin#
25. Appropriate Treatment for Children with Upper
26. Appropriate Testing for Children with Pharyngitis





MASSACHUSETTS  
TECHNOLOGY  
COLLABORATIVE



*New England  
Healthcare  
Institute*

Massachusetts  
Hospital CPOE  
Initiative





## Benefits, Performance, Funding, and Payment Model

### GOALS

- Identify the benefits of both quality and cost of hospital –based CPOE
- Establish performance metrics as a basis of determining the effective operation of CPOE Project financial and other benefits on a hospital specific basis
- Allocate the financial benefits to hospitals and payers on a hospital specific basis
- Develop a payment model to encourage hospitals to implement CPOE systems and to operate them effectively



## Compelling Evidence for Quality Improvement and Cost Reduction

### ➤ Opportunity for Financial Improvement

- Drug Costs
- Adverse Drug Events
- Renal Dosing
- Transfusion Guidance
- Intravenous to Oral guidance
- Reduction in redundant testing



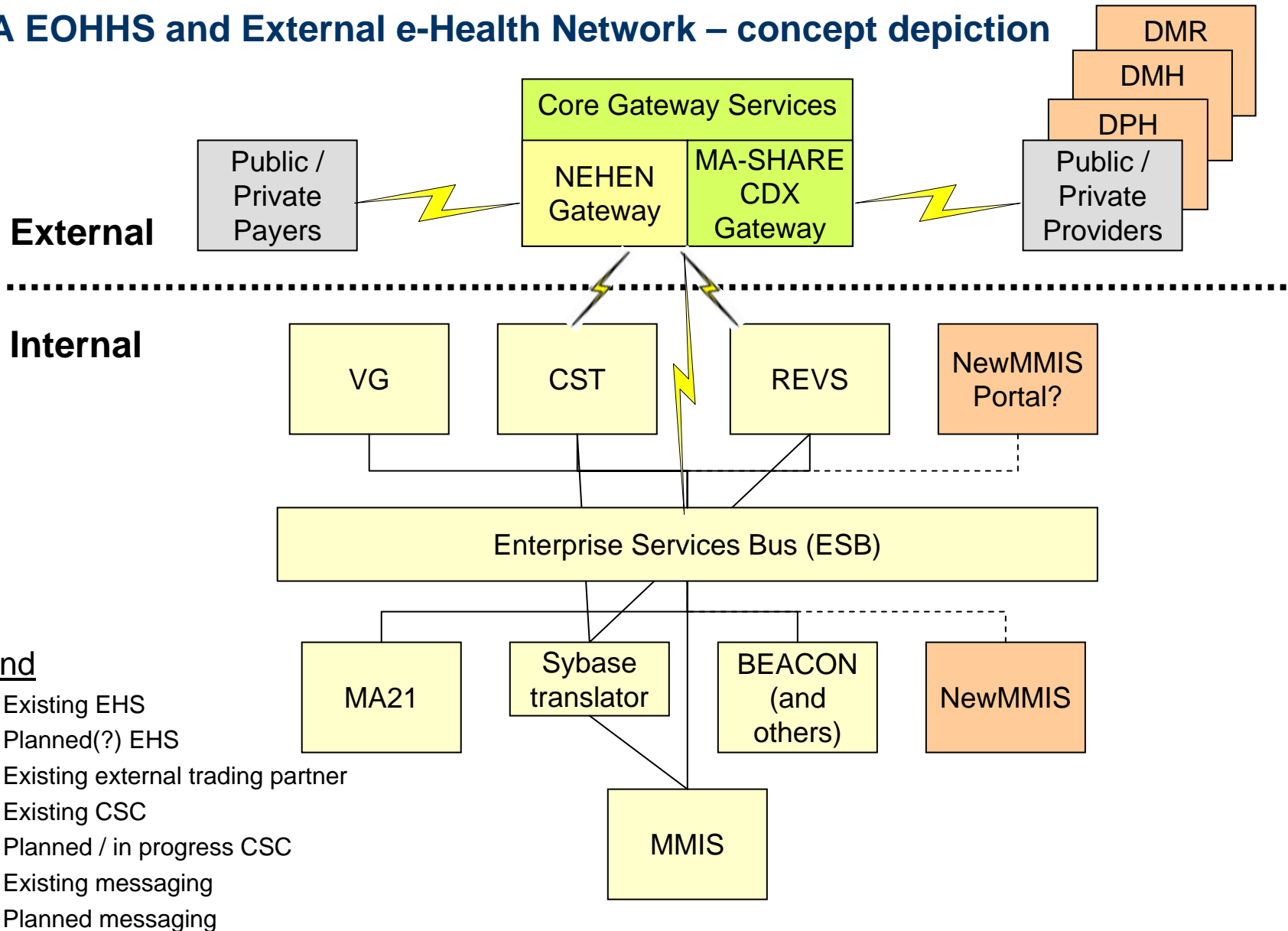


## EOHHS eHealth Activities

- Mass Health Data Consortium
  - Board Seats [incl.DPH Commissioner]
  - CIO Forum
  - Technical Architecture Board [TAB]
  - HISPC Sub-contract
- MA – Share
  - Board of Managers
  - AHRQ ePrescribing Grant
  - NHIN Participation Grant
- NEHEN
  - Board of Managers
- eHealth Collaborative
  - Board of Directors/Executive Comm.
  - Harvard/DPH 'Reportable Conditions' Project
- MTC CPOE Initiative
  - CPOE Working Group
- many other Statewide data activities



# MA EOHHS and External e-Health Network – concept depiction





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## **Massachusetts participates in the Office of the National Coordinator's (ONC's) American Health Information Community (AHIC)**

- Health Information Security and Privacy Collaboration (HISPC)
- Nationwide Health Information Network Architecture Projects (NHIN)
- Health Information Technology Standards Panel (HITSP)
- Certification Commission for Health Information Technology (CCHIT)