

Wisconsin Health Information Exchange (WHIE)

Request for Information

Version 3.1

Prepared by
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WHIE Planning and Technology Committee
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Final

SUMMARY:

The Wisconsin Health Information Exchange (WHIE) is one of the nation's leading efforts to improve healthcare through regional electronic information exchange. To find out more about WHIE, see link at <http://www.whie.org>.

The Wisconsin Health Information Exchange (WHIE) Planning and Technology Committee (PTC) is requesting information to understand and analyze possible future long-term solutions for an interoperable Regional Health Information Organization (RHIO) framework throughout the greater Milwaukee metropolitan area in southeastern Wisconsin.

This Request for Information (RFI) addresses the goal of interconnecting clinicians and other data sources by seeking solutions for interoperable technologies and Health Information Exchange (HIE) in hospitals and clinics throughout the greater Milwaukee metropolitan area. Responses to this RFI are expected to be consistent with the State of Wisconsin eHealth initiative, see link at <http://ehealthboard.dhfs.wisconsin.gov/>, which identifies use case and technical requirements.

The purpose of this RFI is to identify possible solutions and provide the WHIE PTC with pricing, system capabilities, considerations and ideas.

Responses to this RFI will be carefully reviewed. Selected respondents will likely be invited to participate in a forum to permit Committee members to gain a better understanding of the proposed product(s). As part of the process, respondents may be asked to provide a demonstration of their proposed solutions based on the criteria listed in this RFI.

DATES:

Responses must be submitted to the WHIE PTC on or before October 29, 2007.

SCHEDULE OF EVENTS:

Respondents are expected to fully participate in the Schedule of Events.

| EVENT | DATE |
|---|------------------|
| WHIE releases RFI | July 27, 2007 |
| Time period to submit questions to WHIE | August 27, 2007 |
| Responses provided to questions | October 1, 2007 |
| RFI responses due | November 2, 2007 |

ADDRESSES:

Electronic responses are required and should be addressed to Elana Rotter at erotter@whie.org.

Include **WHIE RFI Responses** in the subject line. Non-electronic responses will not be accepted.

FOR FURTHER INFORMATION:

Questions from potential responders will be accepted via email only. Please address them to Elana Rotter at erotter@whie.org. All questions and responses will be posted on the WHIE web site, www.whie.org, before September 25, 2007.

For additional information, contact Elana Rotter at erotter@whie.org.

BACKGROUND: See background information for WHIE at www.whie.org. See the State of Wisconsin eHealth Plan at <http://ehealthboard.dhfs.wisconsin.gov/pc-final-report.pdf>.

WHIE's initial active participants represent 10 hospitals and 500+ physicians in the nine county area of southeastern Wisconsin. The approximate population of WHIE's service area is 2 million individuals. WHIE's service area includes all or portions of the following Wisconsin counties; Milwaukee, Ozaukee, Waukesha, Washington, Racine, Kenosha, Walworth, Sheboygan and Fond du Lac.

WHIE is currently receiving funding from a federal Medicaid Transformation Grant to create an Emergency Department Linking System. While a systems platform has already been selected for this initial project, the WHIE PTC wants to perform a rigorous analysis of possible solutions before proceeding with additional projects.

CRITERIA:

Responses will be reviewed and evaluated by members of the WHIE PTC with the eventual goal of further defining and selecting a Health Information Exchange (HIE) system architecture and implementation based on the following criteria:

1. Functionality - See State of Wisconsin eHealth Initiative Patient Care Workgroup Final Report, at <http://ehealthboard.dhfs.wisconsin.gov/pc-final-report.pdf>. Review the Use Cases on pages 21 through 42.
2. Interoperability - See State of Wisconsin eHealth Initiative Information Exchange Workgroup Final Report, at <http://ehealthboard.dhfs.wisconsin.gov/ie-final-report.pdf>.
3. Technical Architecture
4. Ease of Implementation
5. Usability
6. Reliability & Availability
7. Scalability
8. Performance
9. Total Cost of Ownership (Pricing Structure for both Initial and Recurring Costs)
10. Financial Sustainability

REQUEST FOR INFORMATION:

General

1. Please provide a key point of contact to coordinate any follow-up or questions that the WHIE PTC may have regarding your response.
2. Please provide an executive summary containing an overview of all major points detailed in the RFI and an explanation of how the proposed solution's strategy addresses the key principles described in the use case and requirements documents.
3. Please provide product names included in your proposed solution including version, current release, and a description of how each product or component fits into the overall architecture.
4. Please describe your proposal's approach to intellectual property rights and source code management.
5. Please describe your organization's commitment to and experience with open source solutions and initiatives.
6. Provide 3 current references. For each of the references, please fill out the attached reference form, Attachment A. The organizations may be contacted by the WHIE PTC members without prior notice.
7. Please attach a sample contract.
8. Please provide your company financial statements (balance sheet, income statement, statement of cash flows). If your company is a subsidiary of a larger organization, please provide financial statements for both your company and your parent company.

Functionality

9. Clearly describe how your proposed solution functionally meets the use case for each specified perspective. The use cases are described in the State of Wisconsin eHealth Initiative Patient Care Workgroup Final Report, at <http://ehealthboard.dhfs.wisconsin.gov/pc-final-report.pdf>. Please use the Excel spreadsheet, in Attachment B, for your response.
10. Please describe or storyboard how your proposed solution will meet the various workflows described in the use cases and how each component of your proposed solution is utilized throughout the workflow.

11. Please describe your strategy for making historical data available, including services offered and recommendations.

Interoperability

Please describe how your proposed solution fits with the following specific recommendations by the Wisconsin eHealth Information Exchange Committee recommendations.

12. **Recommendation 1:** Adopt the Markle Foundation’s Common Framework guiding principles:

Technology Principles

- i. It is preferable to implement a “Thin” network, but for flexibility a hybrid or centralized data architecture may be needed to satisfy workflow or implementation requirements (e.g., data retrieval time; data providers’ inability to have 24/7 system access; data searching capability; etc.).
- ii. Avoid “Rip and Replace”
- iii. Separate Applications from the Network
- iv. Decentralization
- v. Federation
- vi. Flexibility
- vii. Privacy and Security
- viii. Accuracy

Policy Principles

- ix. Openness and Transparency
- x. Purpose Specification and Minimization
- xi. Collection Limitation

Individual Participation and Control

- xii. Data Integrity and Quality
- xiii. Security Safeguards and Controls
- xiv. Accountability and Oversight

13. **Recommendation 6:** Adopt a hybrid architectural model in which information may be centralized at the regional level, where the need dictates it, but use a federated model by default.
14. **Recommendation 7:** Determine the preferred method for establishing a master person/patient index to uniquely identify the correct patient with high accuracy, as a key to secure a uniform exchange, at the highest possible level, to ensure that the provider accesses the right information about the right patient, increasing confidence in the exchange and improving patient care.
15. **Recommendation 8:** The state level exchange should provide policies for auditing and security at the local level.

16. **Recommendation 15:** Adopt standards for data collection developed by HITSP to facilitate the exchange of information across systems, and make these a condition for the facilities of entering into the exchange. Where possible, the state should use its ability to leverage who it contracts with for health care technology to promote the use of these standards.
17. **Recommendation 16:** Because health care technology and exchange are new concepts, the infrastructure developed needs to be flexible, accessible, scalable, adaptable, and replicable. As part of this effort, open standards should be employed, so that systems can be designed to be interoperable. These standards could be driven at the national level, but if there is a need, these standards should be addressed at the state level.
18. Please describe how your proposed solution is able to respond to new clinical systems and technologies from an interoperability perspective.
19. Please list and describe data standards that your proposed solution currently supports at each phase of the workflow.

Technical Architecture

20. Please describe the hardware, software, operating systems, and database requirements that your proposed solution requires from data user, data provider, and system administrator (centralized) perspectives. Please be sure to provide all components needed to run the system, even if you don't supply them.
21. Define how your solution interfaces to existing source systems. List which data types your solution can handle and which data standard formats you would support. Include how information can be captured as well as disseminated from your solution.
22. Please provide and describe your technical architecture including major design principles and elements.
23. Please clearly delineate what aspects of the proposed solution are centralized versus those that are distributed locally or regionally. Please describe the roles of entities at those levels.

Ease of Implementation

24. Describe your ability and timeline to demonstrate your proposed solution to the project team.
25. Describe your ability and timeline to implement your proposed solution.

26. Please attach a sample project plan that includes typical project tasks, milestones, estimated timelines, and required resources (indicate if task is typically staffed with respondent-supplied implementation team, client team, or third party resources). Please reference management procedures and tools used to track implementation timelines, manage and resolve issues, and maintain project documentation. Please indicate implementation services that are typically included and those that can be purchased on a fee basis.
27. Please describe the recommended technical and end user training / education including documentation, approaches, modules offered, and services that would be offered.
28. Please indicate the amount of recommended involvement from any third-party to implement your proposed solution.

Usability

29. Please provide training materials for your proposed solution.
30. Please illustrate the general data flow, using data flow diagrams, for your proposed solution.
31. Please illustrate the suggested work flow for your proposed solution at the health care entity. For example, describe how your proposed solution works with the existing electronic medical record solutions already in place at hospitals and physician offices. Also describe how your proposed solutions works in a facility with no existing electronic patient information.

Scalability

32. Please describe how the system would be deployable to additional organizations in a scaleable manner and the incremental technical, financial, and operational implications associated with system expansion at both data provider (federated) and administrative (central) levels. Describe the ongoing support and maintenance that will be necessary for your solution at both the statewide and regional level. Include the pricing and costs associated with each component.

Performance

33. Describe the system performance for the proposed solutions. In addition to the items below, list any requirements and other factors that could influence performance of the system.
34. Response time for a transaction (average, maximum)
35. Capacity (for example, the number of customers or transactions the system can accommodate)

- 36. Average system response time after user input
- 37. System safeguards that prevent users from severely degrading system performance or “hanging” the system (e.g., searches that return a large number of records)

Reliability & Availability

- 38. Please indicate the expected availability of your proposed solution along with the time needed for any periodic scheduled maintenance functions.
- 39. Describe your application’s availability in terms of redundancy or fault tolerance.
- 40. What are the implementation requirements for maximum system availability?
- 41. Does the application allow for a limited mode of operation (e.g. continued operation in event of a disaster)?
- 42. Describe aspects of the system that allow continued usability when certain services or entities are not available (offline), or become unavailable during communication.
- 43. Please cite the uptime/downtime statistics, if known, for at least one existing customer using the proposed product(s).

Consumer Interests - Security/Privacy

- 44. Please describe the audit tools and associated reporting/analysis tools required to meet the HIPAA requirements, inherent in the operation of your solution.
- 45. Please describe the “source tracking” functionality of your “central store” in relation to data and source time stamping and “authenticity” of source (e.g. Source IP address validation, VPN, Key structure supported).
- 46. What privacy and security considerations, including compliance with relevant rules of the Health Insurance Portability and Accountability Act of 1996 (HIPAA), are implicated by the proposed solution, and how could they be addressed?
- 47. Please indicate how your proposed solution would assist in creating / obtaining the necessary inter-entity agreements needed to share data of this nature.

Pricing (Please submit your responses using Attachment C)

- 48. Please provide a cost model to purchase/develop, implement, and operate your proposed solution which includes your pricing model. Identify unit costs based on key variables such as data users, source systems, interfaces, and the pricing

scales based on those key variables using the attached pricing schedule. For those items your company does not supply, but are needed to operate or implement the system, please provide the specifications for each component.

49. Describe the anticipated resources (staff and other services) and costs required to support the development, implementation, and operations of your proposed solution to supplement the your proposed solution. Please differentiate between the data provider, data user, vendor, and system administrator components.

Sustainable Financial Model

50. Describe your recommended approach for WHIE to create a sustainable financial model with the use of your product.
51. Identify potential funding sources, including grants of both money and in-kind services, to help WHIE attain a sustainable financial model with the use of your product.