



Comparative Analysis of AFIX-IIS Tools

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CA AFIX Assessment

- Context
- Approach
 - Requirements Compliance
 - Implementation Considerations
 - Other Factors
- Conclusions
- Next Steps

CA IIS Migration (2016-2017)

- Largest IIS data migration ever
 - 7 regional registries consolidated (WIR software)
 - >4,000 DX submitters
 - 25M total patients
 - 225M total vaccine doses
- 3 phases over 9 months (4, 2, 1)
 - Training of >10K clinical users
- Cleanup
 - Bugs
 - Migration errors (duplicates)





CA AFIX Project Context

- California requested Technical Assistance (TA) from CDC during IIS Migration.
- Engaged with the TA Collaborative: CDC, AIRA, PHII and HLN.
- One of several HLN activities was to assess the suitability for CA of the available AFIX products.
- CA would then decide on one of the options and move forward with an implementation plan.



PROJECT APPROACH



Assessment - Conditions

- Assessment conducted to determine ability of available AFIX products to meet:
 - AFIX Phase 1 Requirements
 - AFIX Phase II Recommendations
 - State-defined AFIX needs/requirements



Assessment - CA Conditions

- Define AFIX products *viable* for CA:
 - Ability to use with the CA IIS platform (not tightly coupled to the native IIS)
 - Run large numbers of reports, preferably in background using automated scheduler
 - Readily available within a reasonable timeframe and cost



Assessment Methods

- Market research
- Product demonstrations
- Discussions/clarification sessions with product owners
- Final review by product owners; report revised based on input

Notes: Assessment of the product did not include formal testing of specific functionality or ability to export via CDC's AFIX Online Tool.



REQUIREMENTS COMPLIANCE



CDC and CA Requirements Compliance

- Side-by-side comparisons detailing compliance with:
 - Table 1: AFIX Phase 1 Requirements
 - Table 2: AFIX Phase 2 Recommendations
 - Table 3: CA Requirements (R) and “nice to haves” (NTH)
- Responses recorded as a simple Yes (Y) or No (N) and additional qualifiers as noted



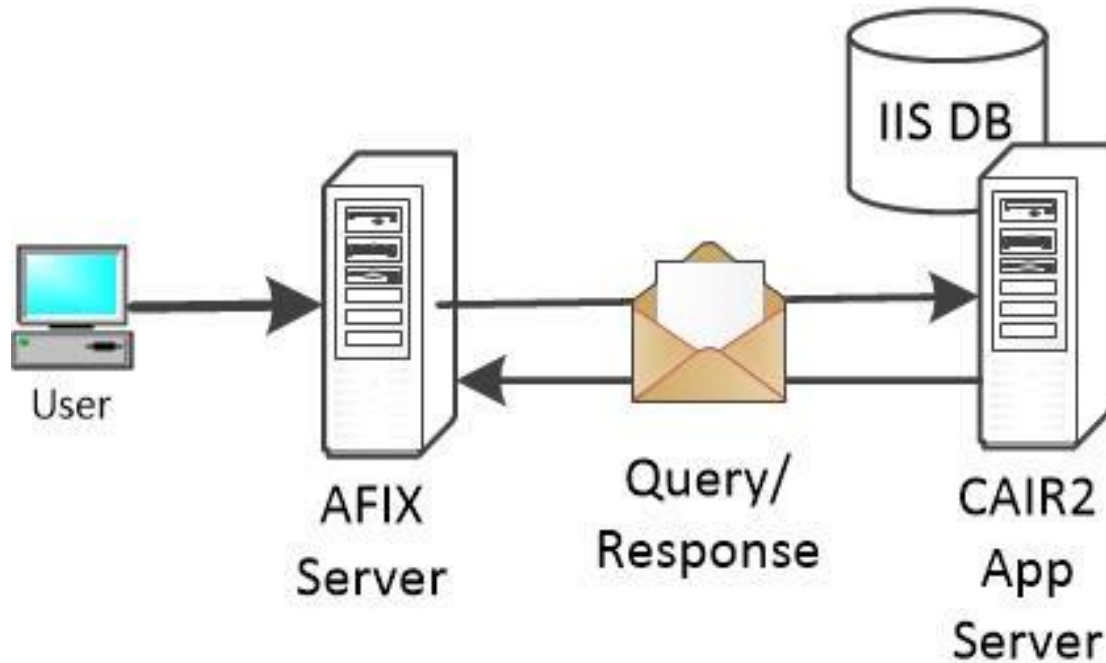
IMPLEMENTATION CONSIDERATIONS



Implementation Considerations

- From a functional perspective, the products were quite similar in meeting AFIX Phase 1 Requirements
- Assessing the architecture of each product highlighted their different characteristics and implementation considerations

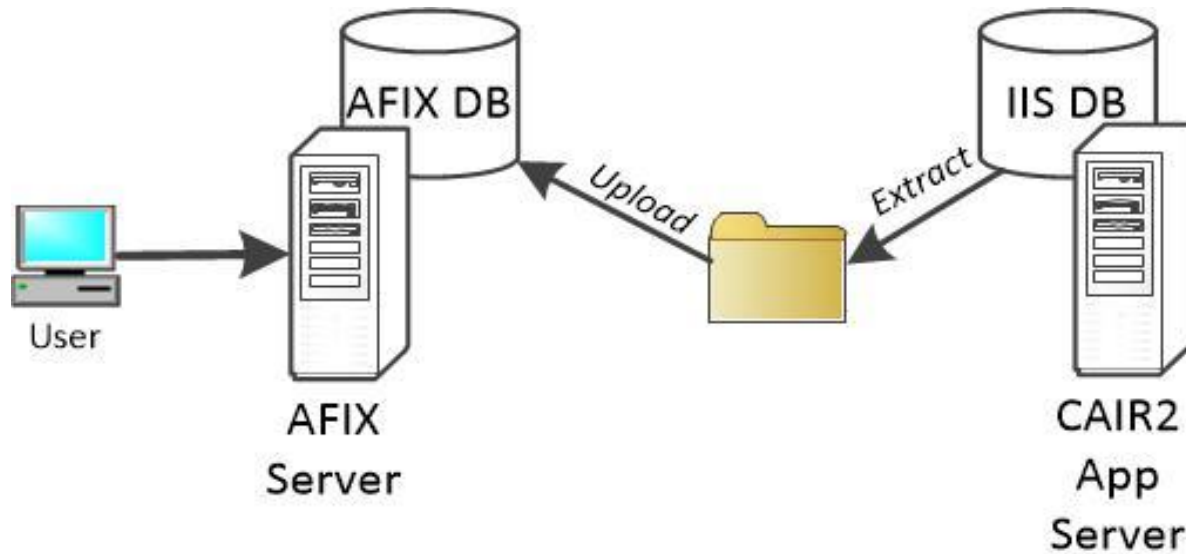
Product 1 Architecture



Characteristics

- External application to base IIS
- Acts on transactional database via query/response
- Data retrieved by the AFIX Tool through scheduled job query
- IIS queries may be delayed based on prioritization and resource availability

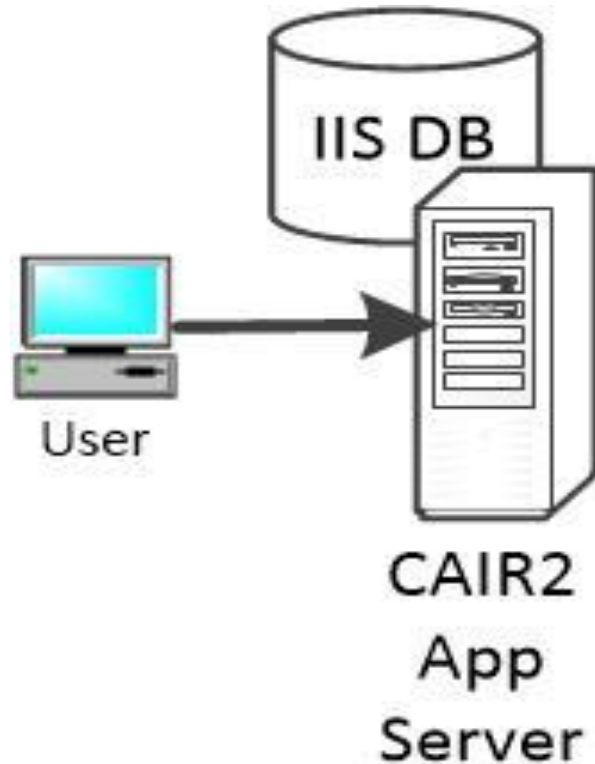
Product 2 Architecture



Characteristics

- Independent application
- Requires transactional database copy to be refreshed on a periodic basis
- No impact on IIS performance
- Export template must be added to IIS to extract the database loads
- Environment required to host the AFIX application server and database

Product 3 Architecture



Characteristics

- In development during assessment - not ready for CA statewide deployment
- WIR product, with significant code and database dependencies
- Job queuing to minimize performance impact on the IIS



OTHER FACTORS



Other Factors Considered

- Ease of use/navigation (UI)
- Report display/presentation of results
- Implementation effort required
- Level of necessary IIS integration, including possible impact on IIS performance



Other Factors Considered (continued)

- Method of access to IIS data
- Process for maintenance and/or enhancements
- Availability of user documentation
- Cost

Other Factors – Data Presentation

Additional factors were presented along a continuum for CA's consideration that included:

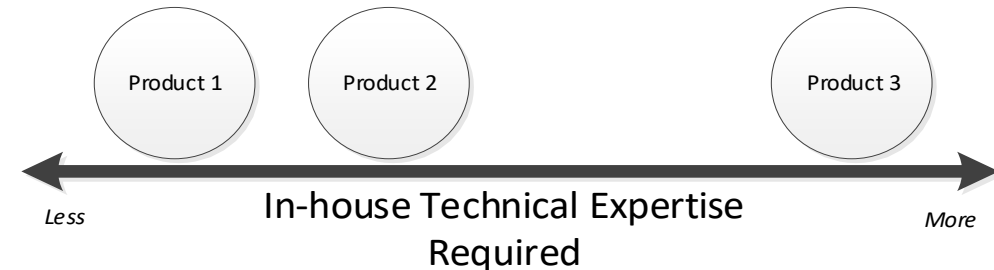
- *Report Timeliness/Data Accessibility*



- *Impact on IIS Performance*



- *Technical Expertise Required*





Conclusions

- Timing of the assessment determined *viable* products for consideration
- Important to assess both product functionality and architecture
- No optimal solution, selection of AFIX product likely based on:
 - Total cost
 - State's inclination
 - Impact to the performance of the base IIS
 - Integrity, accuracy and currency of the report data
 - Political, technical and operational implications and/or constraints



NEXT STEPS



Moving Forward

- CA has decided to implement the DXC solution (#1) and will add the NYSIIS 'Manage patient status' upgrade to allow mass inactivation of patients
- DXC has agreed to add automated report scheduler to allow reports to be run in the background



Contributions

- We would like to thank the following individuals for their support and contribution to this effort:
 - Janet Fath, CDC
 - Beth Cox, CDC
 - Sarah Royce, CA
 - Bill Brand, PHII
 - Noam Arzt, HLN
 - Ruth Gubernick
 - Danielle Reader-Jolley

Note: The California AFIX Assessment Report is available upon request from Janet Fath



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