Report to

Washington State Administrative Office of the Courts

AOC JIS Assessment – PSC 09632

Deliverable Four – JIS Assessment Findings

Final Version for ACCEPTANCE

Sierra Systems

Sierra Systems Inc.
111 Market Street NE • Suite 225
Olympia, WA 98501 USA
www.SierraSystems.com

Contact: Shayne Boyd
Phone: 360.570.4557
Fax: 360.754.0480
Email: ShayneBoyd@SierraSystems.com

Date: August 5, 2008

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APPENDIX A. ACCEPTANCE & SIGNOFF

EXECUTIVE OVERVIEW

With regards to the JIS application portfolio and infrastructure we find it to be sound in all critical elements, dependent upon the current stability of the applications and of court operational practices. This stasis reduces the risks and issues that typically lead to an unsound environment. In addition this provides a window in which AOC can establish a new framework for future change and during which the organization can introduce Best Practices in focused arenas within the entity.

Approach

Sierra Systems conducted a series of structured interviews with more than 60 ISD staff over a two week period. This interview and discovery process included:

- Application Software Inventory. A review of JIS application with a focus on stability, the development process, and processes related to satisfaction of business requirements.
- Infrastructure and Support. A review of database, network and physical servers; reviews of help desk (a subset of Customer Services) and project management office (PMO) operations.
- Best Practices. A comparison to industry standards in the areas of requirements, development, release management, support, business continuity as well as guidance and architecture.

Two reports were prepared to document the results of these reviews, this contains the analysis and findings of these assessments. A review of requirements and functionality was not within scope.

Findings Summary

Apart from a limited set of exceptions, we find the JIS application portfolio and infrastructure to be sustainable in the near term. This sustainability is achieved through the professional efforts of AOC staff and the current low rate of change. The low change rate results from the relatively stable nature of court operational practices as well as the suppression of change invoked during recent CMS replacement attempts.

Though court business practices are relatively stable, over time the backlog demand for change builds. Drivers for this change can include, among others, policy directives and legislation; evolving user expectations from technology; and technology obsolescence.

Unmet change requirements reduce the sustainability and maintainability of the JIS applications. Functional change requests left unaddressed cause deterioration in user satisfaction. The gaps between installed and current release of infrastructure can widen until installed releases become unsupported. Significant infrastructure upgrades can then affect application layers.

The current relatively stable state of the JIS portfolio of applications gives the AOC a window of opportunity to address near term risks, reduce barriers to long term sustainability and position the AOC for the future.

Recommendations - Near Term Tactical

The existing ACORDS application has significant near term (18 – 24 months) sustainability risk.

Develop a strategy to address the risks of sustaining ACORDS in the near term.

The JRS application has a negative operational impact on the user community, in addition to sustainability concerns.

Address the adverse impact on users of the current JRS applications. This could include an assessment of potential extension of the JIS functionality. Should this not be possible then other options will need to be considered.

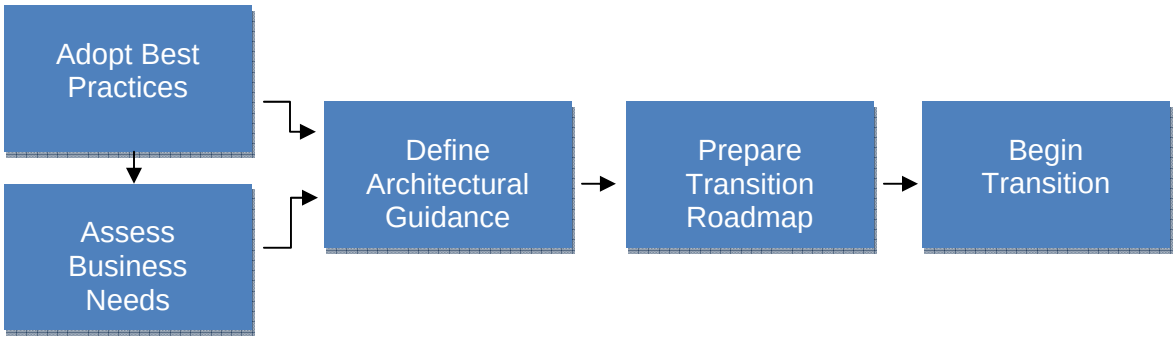
Significant sustainability risk was also found in one of the Data Warehouses, but migration to the new Business Objects platform is already planned.

All remaining JIS applications were not found to have significant near term sustainability risks.

Evaluate releasing the CAPS application functionality to a broader user community.

Recommendations - Strategies for Change

Based on the findings of this JIS Assessment, the following course of action is recommended to prepare the AOC for the future evolution of its JIS application portfolio.



Select and Adopt Best Practices

The adoption of industry best practices will improve the effectiveness of AOC ISD for both current support of the JIS applications and for future system improvements. Industry best practices of particular importance to AOC include:

- Implementation of Governance Structures. An effective governance structure will ensure proper priority setting, effective communication with all stakeholders and clear responsibility assignments.
- User Request and Requirements Management. User requests and new requirements are essential inputs to defining architecture and prioritizing AOC IT activities.
- Project Management Office (PMO). Continuing the AOC's establishment of a project management office will position AOC for future change.
- Common Release Process. Adoption of a common release process will encourage communication and cooperation across the segments of AOC ISD and prepare the AOC for the future introduction of new technology and application components.

Assess Business Needs

In order to select an appropriate architecture and prepare a responsive transition plan, consensus must be achieved as to the business needs being addressed by the JIS portfolio applications. Key considerations of this assessment would include:

- Definition of JIS Boundaries. During the JIS Assessment interviews, the boundary of business functions that need to be supported by the JIS portfolio of applications was not always clear. For example, some functions such as Document Management could be supported by JIS provided applications or by local jurisdictions. Support for certain post disposition functions was another example.
- Change Request Backlog. The JIS Assessment noted that the recent freeze of application changes during CMS replacement efforts probably suppressed user change requests. Lack of consistent management of the change backlog was also noted. The actual change request backlog is a key indicator of the functional gap between current systems and the business needs of the organization.
- Functional Gaps. Understanding the business needs not currently being met by JIS applications is obviously important to planning future system activities. The assessment of functional gaps needs to focus on the business drivers within the courts and avoid becoming a detailed system feature list. Such feature lists can inadvertently lead to skewed system and architectural choices.

Identify Target Technical Architecture Framework

JIS components will be implemented within a target Technical Architecture Framework. Key considerations in selecting the framework include:

- Platform Consolidation. The current portfolio of JIS applications contains a large number of different software platforms. The target framework should reduce inefficiencies and sustainability risks by enabling platform consolidation.
- Partitioning. The Technical Architecture Framework needs to support differences in business needs (e.g., appeals, superior, limited and juvenile; urban and rural). It also should leverage service oriented architecture (SOA) concepts to support services common to most courts (e.g., scheduling, person registry, document management).
- Leverage Existing Applications. A pragmatic framework should enable AOC to continue using existing applications while introducing new functionality and/or replacing applications.

Prepare Transition Roadmap

Once key business needs are identified and an architectural framework is established, the AOC will be ready to develop an approach to close business need gaps, address sustainability risks and leverage the benefits of the framework of a new Technical Architecture. Important considerations for the Transition Roadmap include:

Incremental Change. The transition roadmap needs to support the incremental introduction of improvements to the portfolio of JIS applications.

Evolving Plan**.** The roadmap needs to provide the general approach for the long term transition of the JIS applications, as well as details for specific initial actions. The roadmap also needs to include mechanisms to adjust for changing business drivers and technology alternatives over the long term.

Begin Transition

Once the transition plan is established, business and technical improvements will proceed, with incremental progress towards the Technical Architecture Framework. As part of the normal course of business, the transition plan will require periodic adjustment as budgets, technology and business practices evolve. The recommended governance structure will ensure that the priorities of all stakeholders are reflected in updates to the plan.

APPLICATION SUSTAINABILITY

In this section we summarize the sustainability of each of the JIS application components included in the JIS Application Portfolio.

Moderate Risk

The applications listed in this section warrant further evaluation, as soon as possible and the development of appropriate mitigation strategies for the near term.

Appellate Court Records & Data System (ACORDS)

Near Term Sustainability: Performance issues, code changes considered high risk

Long Term Sustainability: High Risk; difficult to apply major change

Data Warehouse

Near Term Sustainability: BRIO tools no longer supported

Long Term Sustainability: High Risk; difficult to maintain operational state

Judicial Reporting System (JRS)

Near Term Sustainability: Custom application, reliance on vendor, operational issues

Long Term Sustainability: High Risk; difficult to apply major change

Low Risk

The applications listed in this section would only require further analysis and investigation should the current environment change materially or operational concerns are raised.

Court Automated Proceeding System (CAPS)

Near Term Sustainability: Low Risk

Long Term Sustainability: Medium Risk; performance issues have been noted

e-Ticketing

Near Term Sustainability: Low Risk

Long Term Sustainability: Medium Risk; potential significant transaction volume growth

Internet

Near Term Sustainability: Low Risk

Long Term Sustainability: Medium Risk; toolset obsolescence, ability to meet future needs

Juvenile and Corrections System (JCS)

Near Term Sustainability: Low Risk

Long Term Sustainability: Medium Risk; platform support challenges

Judicial Information System (JIS/DISCIS)

Near Term Sustainability: Low Risk

Long Term Sustainability: Medium Risk; difficult to apply major change

Risk Assessment

Near Term Sustainability: Low Risk

Long Term Sustainability: Low Risk

Superior Court Management Information System (SCOMIS)

Near Term Sustainability: Low Risk

Long Term Sustainability: Medium Risk; difficult to apply major change

INFRASTRUCTURE SUSTAINABILITY

In this section we summarize the sustainability of each of the JIS infrastructure components included in the JIS Application Portfolio Inventory. Further details for each can be found in Deliverable 2.

Moderate Risk

The AOC hosts a large number of hardware and software platforms. Though operational efficiencies could be realized by reducing the number of platforms, the diversity of platforms itself is not deemed a significant sustainability risk.

Low Risk

The infrastructure components listed in this section would only require further analysis and investigation should the current environment change materially or operational concerns are raised.

Database

Near Term Sustainability: Low Risk

Long Term Sustainability: Medium Risk; management practices in place, potential risks due to partial data integration across CMS applications

Network (AOC network does not include county/local networks)

Near Term Sustainability: Low Risk

Long Term Sustainability: Low Risk

Intel Servers

Near Term Sustainability: Low Risk

Long Term Sustainability: Low Risk; opportunity to further improve operational practices without substantial operational risk

Mainframe

Near Term Sustainability: Low Risk

Long Term Sustainability: Medium Risk; staffing and documentation

BEST PRACTICE COMPLIANCE RECOMMENDATIONS

Deliverable 3 enumerated applicable industry best practices and assessed AOC adoption of each. Listed below is a summary of best practice recommendations.

Requirements

Best Practices were evaluated in the areas of requirements identification, requirements documentation and design standards.

Though best practices are often employed in the design of specific modules and changes, such standards are not consistently applied across the enterprise thereby impeding consistent development and systems integration tasks. Consistent requirements definition and requirements documentation will also improve corresponding design and testing activities.

Recommendation: Adopt practices that assure user needs and priorities are tracked, managed and evaluated consistently.

Development

Best Practices were evaluated in the categories of methodology, modularity, code reviews and system documentation.

While development methodologies are applied at AOC, methodologies are specific to each application. This lack of standardization can limit ISD resourcing flexibility and potentially complicate integration activities.

Modularity was applied in development of most of the JIS application portfolio. Some very large modules were noted in certain applications (e.g., ACORDS), which is a significant barrier to maintenance.

Code reviews are utilized for changes within some of AOC's applications. This level of code review is similar to typical industry practices, particularly for maintenance type activities.

While system documentation exists for some JIS portfolio components, gaps were reported in all system areas. Such gaps are more common at the overall system and integration levels. This level of system documentation, however, is typical for systems at the maturity level of many of those in the JIS portfolio.

Recommendation: Adopt consistent development best practices across system boundaries where practical, leveraging already existing system specific practices wherever possible.

Release Management

Best Practices were evaluated in the areas of change reviews, quality control and release scheduling.

The lack of formal governance structures to establish priorities and provide change reviews was noted. This best practice is essential for ensuring that IT activities are aligned with the business needs of all stakeholders.

Varying approaches and levels of testing are applied to test the quality of application releases. Some automated test tools and formal test plans are used, though AOC standards for testing could be adopted to further enforce consistency.

Release schedules are managed independently for each JIS application and release definition practices vary.

Recommendation: Formalize processes that are scalable and foster teamwork across integrated environments.

Support

Best Practices were evaluated in the area of help desk support. The formal help desk observes best practices for an application support organization. In addition, many informal support structures exist as would be expected from the AOC's large user base.

Recommendation: Monitor existing Best Practices and plan for a scalable structure that supports growth in both help desk and education functions .

Business Continuity

Best Practices were evaluated in the area of disaster recovery (DR) planning. The AOC has detailed DR plans in place, including off-site continuity arrangements. In addition the DR plans have been audited, the team has tested recovery scenarios and continues to improve DR planning.

Recommendation: Sustain current practices.

Guidance and Architecture

Guidance for an organization like AOC has three elements, External Governance, Internal Leadership and Architectural Guidance.

External Governance has become narrowly focused while focused on recent initiatives. To move forward productively and to engage the diverse user community it needs a broader base with delegated responsibility.

Internal Leadership has undergone a complete reorganization in a relatively short period and needs an opportunity to stabilize and to establish a new mandate and communicate a clear and consistent vision that has been lacking within the organization.

The JIS applications use elements of a loose technical architecture in their individual designs. And while some elements of an overall JIS architecture were noted, such as the unified data base, an overall AOC architecture is not in place. The need for sound and stable Architectural Guidance to define an overall technical architecture framework is one of the key recommendations of this assessment.

Recommendation: Establish and staff effective organization model(s) to facilitate external governance. Continue to build on the momentum derived from recent internal leadership appointments. Undertake a process to establish Architectural Guidance based on the business drivers of the court, the existing JIS portfolio and applicable technology alternatives.

Appendix A. Acceptance & Signoff

Deliverable Four – JIS Assessment Findings is herein submitted for approval.

This version has been reviewed by Sierra Systems resources and AOC Project team members and in all material aspects provides the required content and satisfies the intent for same as described in the original RFP 08-10, dated June 23, 2008, Sierra Systems' response, dated July 02, 2008 and the final contract, dated July 20, 2008.

Submitted	Recommended	Accepted
Shayne Boyd Consulting Director, Sierra Systems	Eric Kruger AOC ISD, Enterprise Architect	Gregg Richmond AOC ISD, Chief Information Officer
Date	Date	Date