Initial Opinion and Recommendation for Records Management Project

Prepared for: SAN BERNARDINO COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

Prepared by: Ken Akoundi, Ph.D., and Kartik Uchil, MBA

Cordatius LLC

Date: October 31, 2023

Content

EXECUTIVE SUMMARY

Cordatius LLC performed an independent analysis of SBCERA's investment office people, processes, and technology across its qualitative knowledge domain. The main goal was to evaluate the current state of the office and recommend improvements for modernization, including the necessary tools, systems, and technologies required to fulfill the RFP requirements and targets. The analysis was completed in six weeks.

Cordatius conducted its analysis and identified several issues that were hindering SBCERA's long-term goals, including inefficient knowledge retention and management, duplication, complexity, and a severe burden on team members. Based on the findings, Cordatius offers recommendations to help streamline processes and improve decision-making quality by using technology more efficiently.

Cordatius suggests that SBCERA should select and implement a document/data download provider and a document management system.

PROJECT UPDATE

SBCERA (San Bernardino County Employees' Retirement Association) has appointed Cordatius LLC to address two key concerns of its investment office. Cordatius conducted a complete review and evaluation of SBCERA's investment processes and workflows to determine the current state.

CHALLENGE AND EXPECTED SOLUTION

Cordatius decomposes the functionalities needed in the investment office into: "**Collect**", "**Organize and Search**", "**Extract**", "**Store**", and "**Report**." Furthermore, we classify knowledge into "**Quantitative**" and "**Qualitative**" types. The investment department is currently working on resolving two major issues.

1. Challenge:

The investment department manages the investment program daily and receives notifications of available documents on different investment manager portals. Due to the multi-factor authentication protocols used by the portals, the process of collecting the documents is manual and time-consuming. Note that the challenge is specifically focused on "**Collect**" and "**Organize and Search**" components for the **qualitative knowledge** for SBCERA.

2. Expected Solution:

Collect and house investment information from investment manager presentations and meeting notes into a single location that has extensive search, tag, share features that help the team in translating information into insight.

3. Findings:

Based on our research, we found that the SBCERA investment office shares several similarities with other offices of its size, but also has its unique characteristics. Although the office has addressed most of its technological needs, there are still some issues with the implementation of certain systems (such as the quantitative portfolio tool Nasdaq Solovis), outdated technologies (such as the web application for meeting notes), and a lack of integration between systems (such as TruView and Solovis). As a result, the functional use of the selected systems is suboptimal.

Like many Public Plans, SBCERA's staff spends a large portion of their time performing lower order tasks (e.g., downloading and renaming files, or maintain shared folder structure) that can and should

4

be automated, so they are re-allocated to higher order activities. The promise of technology resides on enabling data-based decision-making. SBCERA's path, based on its current decisions, has created technology inefficiencies that SBCERA has tried to cure by using its staff to patch its process of gathering and storing information.

Based on our analysis, we have identified certain findings and observations:

- StateStreet is responsible for the Accounting Book of Record (ABOR). From a top level the system is operational[1].
- Truview is the risk system of record[1].
- Nasdaq Solovis has been engaged for performance calculation and the Investment Book of Record (IBOR)[1]
- An in-house system (internally called the Web App) is used for storing and retrieving meeting notes.
- All login information for various websites is saved and maintained in an Excel Spreadsheet.
- SBCERA is facing a knowledge retention challenge. SBCERA should thrive for a technology solution that aggregates all its knowledge in a single source of truth repository. The knowledge currently resides across multiple locations (e.g. various group and individual drives; email, Web App, and their custodians website).
- The cumulative incremental changes have created key-person risk.
- Data is received from GPs or manually downloaded from sources.
- The data received within the system is manually renamed and saved on the SBCERA's shared drives.
- Investment teams have built processes that generate substantial reports (i.e., heavy reliance on Excel) but there is no single reliable repository to pull data from, and store derived values in.
- All reports are generated from data collected from internal processes, manual performance updates, and numbers obtained from multiple sources.
- SBCERA team, as much as possible, manually verifies the raw and calculated numbers (i.e., generated by StateStreet).
- Filing documents seems to be done with discipline (i.e., folder structure and file naming conventions) for the past 5 years (minimum).
- The process for selecting managers is well developed. But no dedicated technology is used to formalize and digitize the step-by-step process, thereby creating the lack of a digital audit trail.

---

[1] Analyzing the quantitative knowledge paths is not part of the current mandate and our observations are only based on a light discussion with the staff. A deep dive is necessary to confirm these observations.

5

- All meeting notes are recorded in multiple formats (e.g., Word, One Note) and manually updated in the Web Application.

SCOPE OF SERVICES

The scope of the current project focuses on "**Collect**" and "**Organize and Search**" components for the **qualitative knowledge** for SBCERA.

Cordatius scope of services include:

1. Evaluation – Completed

Cordatius reviewed the existing programs and processes using its proprietary methodology, including:

- Multiple interviews with investment and operations staff.
- Multiple follow-up communications (electronic).
- Weekly calls with the investment team.
- Reviews of internal documents, including reports, spreadsheets, presentations, and other documents.
- Interaction with potential vendors and review of best practices.
- Public domain research.
- Our findings are listed in the "Findings" section above.

2. Future State Identification – Completed

Cordatius proposes a desired future state for an integrated investment records management program ("desired solution") for qualitative knowledge management.

This exercise led to the following recommendations based on information gathered in Evaluation – Completed.

Recommendation:

- Selection of a document download service/provider for Collect.
  - Benefits:
    - Reduction of work/burden on all team members.
    - Time savings to allocate to higher order tasks.
    - Reduction of key-person risk.
- Selection of a document management and retrieval technology/provider for Organize and Search.

- o Benefits:
  - ▪ Loading all prior/historical documents stored in SBCERA shared drive.
  - ▪ Loading emails and associated attachments automatically.
  - ▪ Ease of finding information quickly and efficiently.
  - ▪ Availability everywhere and all the time.
  - ▪ Ability to share documents.
  - ▪ Ability to audit.
  - ▪ Secure and private.

3. Vendor Selection – **On-going**

Build vs Buy

Cordatius recommends against building an application in-house. SBCERA is not in the technology business, nor does it have the budget or desire to create and manage a development team. It is recommended to identify a suitable vendor and contractually enable them to address their shortcomings.

Vendors

SBCERA's functional needs can be addressed via technology vendors and service providers that specifically cater to our industry. The issue with some vendors is that they attempt to address all the functional needs (e.g., "**Collect**", "**Organize and Search**", "**Extract**", "**Store**", and "**Report**.") instead of focusing on one need, ending up with classes of functionality that is mediocre across the board. Cordatius recommends a best of breed approach. This approach, when managed properly, creates a group of selected vendors and service providers that are seamlessly integrated to provide an optimal solution.

As part of this exercise, Cordatius has identified vendors who can accommodate SBCERA's "**Collect**" and "**Organize and Search**" needs:

- Document download service/provider for **Collect**:

  - o Number of vendors shortlisted: 3-6
  - o Estimated Annual cost of service: $50,000-100,000 per annum.
  - o Estimated Implementation cost by vendor: 10-15% of contract size (One Time-Cost)

- Document management technology/provider for **Organize and Search**:

  - o Number of vendors shortlisted: 1-3
  - o Estimated Annual cost of service: $75,000-90,000 per annum.
  - o Estimated Implementation cost by vendor: 10-15% of contract size (One-Time Cost)

Cordatius will make every attempt to deliver the annual vendor solution cost at the lower end of these cost estimates.

For implementation, the **Collect** component will consist of (top level list):

- Setting the winning vendor with the ability to connect and receive documents from all SBCERA data sources from every GP.
- Tag (automated) and store the downloaded documents.
- Save/share a copy of the downloaded documents to the winning **Organize and Search** vendor.

For implementation, the **Organize and Search** component will consist of (top level list):

- Migrate selected SBCERA's shared drives' folders to its database.
- Automatically identify document types, dates, and funds.
- Perform data integrity checks on the migrated documents.
- Setup dedicated/personalized dashboards for every member on the investment team.
- Provide training on usage of the platform.
- Establish mechanisms with the **Collect** vendor to receive documents they download.

The details of the implementation plan will be provided by each vendor in their respective Statement of Work (SoW).

4. Architecture – Not Started

If appropriate, provide recommendations for technical architecture to support ongoing records capture with relevant considerations for record types/flows.

5. Implementation – Not Started

Recommend approach for data migration of existing investment information in disparate records into the desired solution.

6. Extraction – Not Started

Recommend an approach for future extraction of records into the desired solution.

7. Project Updates – On-going

Cordatius has been providing weekly updates on the project to the SBCERA investment team.