



NEW HAVEN PUBLIC SCHOOLS

AGREEMENT COVER SHEET

Please Type

Contractor full name: Convergence Consulting Group, Inc.

Doing Business As, if applicable: Convergence Consulting Group, Inc. Leadership Development System

Business Address: 2502 North Rocky Point Drive, Suite 650, Tampa, Florida 33607

Business Phone: 813-968-3238

Business email: dphelps@ccganalytics.com

SS# OR Tax ID #:

Funding Source & Acct # including location code:

190 454 00 56694 Location 0000

Principal or Supervisor: Dr. Paul Whyte

Agreement Effective Dates: From 7/28/2020. To 1/1/2023.

Hourly rate or per session rate or per day rate.

Combined daily rate for TCG & CCG: \$2,980 (This daily rate does not include Azure costs or post implementation services)

Total amount: \$386,000

Description of Service: Please provide a one or two sentence description of the service. *Please do not write "see attached."*

Our Leadership Development Solution is a data warehouse model accompanied by BI dashboards, customized to fit school needs.

The solution provides a set of analytical capabilities that aid in decision making.

Submitted by:____Lindsey Novilla_____ Phone:____727-510-3998_____



NEW HAVEN PUBLIC SCHOOLS

Memorandum

To: New Haven Board of Education Finance and Operations Committee
From: Dr. Paul Whyte
Date: 07/20/20
Re: Convergence Consulting Group, Inc. Leadership Development System

Executive Summary/ Statement: (Please provide 1-2 sentences describing the Service – do not leave blank):

Leadership Development Solution (LDS) is a leadership pipeline and school analytics platform that helps school district leaders get visibility into their leadership pipeline and analyze leader, school, student, and survey data. LDS consolidates data from HRIS, SIS, ATS, custom surveys, and disparate data sources. It allows visibility into a pool of qualified leadership candidates and allows analytics across all related data from leader, school, student, and survey data. This unified solution empowers school districts to uncover all qualified leadership candidates, see which leaders fit best at which schools, and create visibility into leadership development, development needs, and qualification gaps.

Amount of Agreement and the Daily, Hourly or per Session Cost:

Combined daily rate for TCG & CCG: \$2,980 (This daily rate does not include Azure costs or post implementation services)

Total Amount: \$386,000

Funding Source & Account #: Wallace Foundation Grant

190 454 00 56694 Location 0000

Key Questions: (Please have someone ready to discuss the details of each question during the Finance & Operations meeting or this proposal might not be advanced for consideration by the full Board of Education):

1. Please describe how this service is strategically aligned to the District Continuous Improvement Plan?

At its foundation, a continuous improvement plan is about setting goals, identifying ways to improve, and evaluating change so that we are positioned to deliver a world class education to our students. Our vision for the leadership development system is a tool that brings data from several systems together and organizes and visualizes that data in new and different ways that lets us set smarter goals, make better decisions, and understand the relationship between human resource and professional development actions and their ties to student outcomes.

2. What specific need will this contractor address?

A Rand foundation study on the efficacy of investing in school leader pipelines has identified leadership tracking systems (we are calling ours a leadership development system) as a key infrastructure-related support. The team we have selected will manage the technical implementation and post implementation support of the leadership development system (a data warehouse and business intelligence solution).

3. How was the contractor selected? Quotes? RFP? Sealed Bid or Sole Source? Please describe the selection process including other sources considered and the rationale for selecting this method of selection: RFP
4. If this is a continuation service, when was the last time the alternatives were sought?
5. What specific skill set does this contractor bring to the project?

The Calsoyas Group (TCG) is a specialized consulting firm with extensive experience helping school districts and education leaders to deliver on the commitment made to students across the country—access to an education that prepares them for college and/or a career and to serve as engaged citizens. TCG is driven by a belief in the power and promise of public education to transform individuals and communities. TCG has experience advising districts on human capital strategy, process revamping, and the design of data solutions.

CCG brings data architecture, BI expertise, and experience to customize a build a solution based on the needs of New Haven Public Schools. CCG can integrate data across multiple applications and systems to deliver a centralized analytics platform.

As it relates to the LDS project, TCG will facilitate the vision and design of the LDS. This entails a set of structured engagements designed to build out our vision and working requirements so that the LDS has a foundation built on best practices but is also tailored the specific needs, challenges, and opportunities of NHPS. TCG will then translate that vision into working requirements, thus helping to navigate the gap between NHPS end users and key stakeholders and the more technical aspects of the system.

CCG and TCG have collaborated on several LDS implementations in school districts across the country and will bring familiarity with NHPS having been contracted by UCONN to do a feasibility assessment for this phase of Wallace funded principal pipeline initiatives.

6. How does this contractor fit into the project as a whole? (If the contractor is an individual, please attach a copy of their resume):

A key component of our partnership with the University of Connecticut and the Wallace Foundation is the development of a leadership development system in support of strengthening our overall approach to managing our principal pipeline. LDS is an integrated data management tool that provides comprehensive information on the experience, performance and competencies of school leaders over the course of their career: from job applicants through to the last positions they hold. For example an LDS could include longitudinal data on leaders' preparation and certification history, the positions they held and the schools in which they held them,

their performance in each position, and their participation in professional development and coaching.

Taken together this tool will build on initiatives already in place positioning NHPS to engage in stronger principal pipeline management. This contractor is responsible for the implementation of the LDS.

7. Is this a new or continuation service?

This is a new service.

8. If this is a continuation service has cost increased?

a) If yes, by how much?

b) What would an alternative contractor cost?

c) Is this a service existing staff could provide? Why or why not?

9. Evidence of Effectiveness: How will the contractor's performance be monitored and evaluated?

10. If a continuation service, attach a copy of the previous evaluations or archival data demonstrating effectiveness. (If archival data includes lengthy reports, syllabi, training materials, etc., please have a copy available for review)

11. If the service is a professional development program, can the training be provided internally, by district staff?

a) If not, why not?

b) How will the output of this Agreement contribute to building internal capabilities?

12. Why do you believe this Agreement is fiscally sound?

The design and development, as well as Azure cloud costs, cloud management, and post implementation support for two years, will be included in the cost of the Leadership Development Solution.

Additionally, a well utilized LDS can support our broader principal pipeline initiative, leading to potential long-term savings for the school district through smarter talent management. The Wallace foundation summarized the RAND study findings, which included among other things that, "The pipelines also led to benefits in principal retention, according to the report. After three years, pipeline districts had nearly eight fewer losses for every 100 newly placed

principals than the comparison group. This is significant because principal turnover is disruptive to schools and costly, with districts spending an estimated \$75,000 to replace a principal.)

(<https://www.wallacefoundation.org/knowledge-center/pages/principal-pipelines-a-feasible,-affordable,-and-effective-way-for-districts-to-improve-schools.aspx>)

13. What are the implications of not approving this Agreement? NHPS would be out of compliance with the grant deliverables.



NEW HAVEN PUBLIC SCHOOLS

AGREEMENT
By And Between
The New Haven Board of Education
AND

Convergence Consulting Group, Inc.
FOR DEPARTMENT/PROGRAM:

Central Office

This Agreement entered into on the 13 day of July 2020, effective (start date no sooner than the day after Board of Education Approval), on the 28 day of July, 2020, by and between the New Haven Board of Education (herein referred to as the "Board" and, Convergence Consulting Group, Inc. located at, Tampa, FL (herein referred to as the "Contractor").

Compensation: The Board shall pay the contractor for satisfactory performance of services required the amount of \$ 2,980 per day, hour or session, for a total of 100 days, hours or sessions.

The maximum amount the contractor shall be paid under this agreement: (\$ 386,000). Compensation will be made upon submission of an itemized invoice which includes a detailed description of work performed and date of service.

Fiscal support for this Agreement shall be by **Wallace Foundation Uconn Grant__Program** of the New Haven Board of Education, **Account Number 190 454 00 56694 Location 0000**

This agreement shall remain in effect from July 28, 2020 to June 30, 2021.

SCOPE OF SERVICE: *Please describe service deliverables, including, locations and costs for service, including travel and supplies, if applicable. A detailed Scope of Service with pricing must be attached as Exhibit A).*

SERVICES

CCG is pleased to provide the following Scope of Services in support of the Leadership Development System project.

Table 1: In-Scope Services

Phase	Scope Description	Deliverables
Project Management	<ul style="list-style-type: none"> • Manage project budget, issues and risks • Manage project work item backlog • Manage CCG resources • Facilitate project events and activities 	<ul style="list-style-type: none"> • Planning and review sessions • Daily Project Team meetings • Project status review sessions • Project retrospective meetings • Project status reports
Launch and Vision Design	<ul style="list-style-type: none"> • Establish team working norms and expectations • Define project goals and guiding Principles • Plan stakeholder engagement • Map project and assess risks and opportunities 	<ul style="list-style-type: none"> • Creation of product backlog • Guiding principles • Stakeholder engagement plan
Environment Configuration	<ul style="list-style-type: none"> • Capture security and access requirements • Design data and reporting environment • Allocate hardware to project • Environment installation and configuration • Configure production environment 	<ul style="list-style-type: none"> • Environment Specifications Document • ETL Framework
School Profile Dashboards	<ul style="list-style-type: none"> • Requirements/User Story definition • Data profiling of source system(s) • Data Integration into solution • Dashboard Design • User Acceptance Testing • User Guide Development 	<ul style="list-style-type: none"> • Data Warehouse Data Models • School Profile Dashboard with up to 15 visualization objects • Technical Documentation (Source to Target Mappings, ETL Runbook, Dashboard User Guide) • Process documents for manual and automatic data feeds
Leader Profile Dashboards	<ul style="list-style-type: none"> • Requirements/User Story definition • Data profiling of source system(s) • Data Integration into solution • Dashboard Design • User Acceptance Testing • User Guide Development 	<ul style="list-style-type: none"> • Data Warehouse Data Models • School Profile Dashboard with up to 20 visualization objects • Technical Documentation (Source to Target Mappings, ETL Runbook, Dashboard User Guide) • Process documents for manual and automatic data feeds

Leader Fit Tool	<ul style="list-style-type: none"> • Requirements/User Story definition • Leader Fit model creation • Data profiling of source system(s) • Data Integration into solution • Dashboard Design • User Acceptance Testing • User Guide Development 	<ul style="list-style-type: none"> • Data Warehouse Data Models • School Profile Dashboard with up to 15 visualization objects • Technical Documentation (Source to Target Mappings, ETL Runbook, Dashboard User Guide) • Process documents for manual and automatic data feeds
Decision Support Dashboards	<ul style="list-style-type: none"> • Requirements/User Story definition • Data profiling of source system(s) • Data Integration into solution • Dashboard Design • User Acceptance Testing • User Guide Development 	<ul style="list-style-type: none"> • Data Warehouse Data Models • School Profile Dashboard with up to 20 visualization objects • Technical Documentation (Source to Target Mappings, ETL Runbook, Dashboard User Guide) • Process documents for manual and automatic data feeds
Training and Implementation Support	<ul style="list-style-type: none"> • Design User training • Coaching and support on strategic implementation and planning 	<ul style="list-style-type: none"> • Training and knowledge transfer session • Coaching on implementation

PRICING

Scope	Detail	Investment
LDS Solution	Solution Design, Development, Deployment and Transition	\$298,000
Post Implementation Support (2 years)	<p>Provides up to 120 hours/year of data warehouse and PBI dashboard break/fix support for the Leadership Development System.</p> <p>Diagnose issues and implement the appropriate solution.</p> <p>Use of an internal tracking system for all ticket assignments, tracking, knowledge base and reporting to ensure that Client retains all service history</p>	\$24,000
Cloud Management Services (2 years)	<p>Azure tenant setup</p> <p>Azure data security setup and monitoring</p>	\$24,000

	Azure resource setup and management Environment backup and restore	
Azure Cloud Consumption (2 years)	2 years of Azure cloud consumption (fixed price guarantee)	\$40,000
Total	Total design and development with complete coverage and maintenance, including all cloud costs, for 2 years	\$386,000

There will be no travel costs at this time, all work will be completed remote.

Exhibit A: Scope of Service: Please attach contractor's detailed Scope of Service with all costs for services including travel and supplies, if applicable.

Exhibit B: Student Data and Privacy Agreement: Attached

APPROVAL: This Agreement must be approved by the New Haven Board of Education ***prior to service start date***. Contractors may begin service no sooner than the day after Board of Education approval.

HOLD HARMLESS: The Contractor shall insure and/or indemnify the Board and its members, employees and agents against all claims, suits, and expenses, including reasonable attorney's fees, in connection with loss of life, bodily injury or property damage arising from any neglect act or omission of the Contractor or its employees or agents. Further, the Contractor covenants and agrees that it shall hold the Board and its members, employees and agents harmless against any and all claims, suits judgments of any description whatsoever caused by the Contractor' breach of this agreement or based upon the conduct of the Contractor, or its agents or its employees or arising out of in connection with their activities under this agreement.

TERMINATION: The Board may cancel this agreement for any reason upon thirty (30) days' written notice sent to the Contractor by certified U.S. mail, return receipt requested; provided however, that the Board shall be responsible to the Contractor for all services rendered by the Contractor through the last day of thirty (30) day notice period, as long as the Agreement was approved by the Board prior to the start date of service.

DocuSigned by:
Dan Phelps
DD9C420505B34A0...

Contractor Signature

7/8/2020

Date

Dan Phelps

Contractor Printed Name & Title

President
New Haven Board of Education

Date

Revised: 12/3/19



NEW HAVEN PUBLIC SCHOOLS

EXHIBIT B

STUDENT DATA PRIVACY AGREEMENT SPECIAL TERMS AND CONDITIONS

For the purposes of this Exhibit B "directory information," "de-identified student information," "school purposes," "student information," "student records," "student-generated content," and "targeted advertising" shall be as defined by Conn. Gen. Stat. §10-234aa.

1. All student records, student information, and student-generated content (collectively, "student data") provided or accessed pursuant this Agreement or any other services agreement between the Parties are not the property of, or under the control of, the Contractor.
2. The Board shall have access to and the ability to delete student data in the possession of the Contractor except in instances where such data is (A) otherwise prohibited from deletion or required to be retained under state or federal law, or (B) stored as a copy as part of a disaster recovery storage system and that is (i) inaccessible to the public, and (ii) unable to be used in the normal course of business by the Contractor. The Board may request the deletion of any such student information, student records or student-generated content if such copy has been used by the operator to repopulate accessible data following a disaster recovery. The Board may request the deletion of student data by the contractor within two (2) business days of receiving such a request and provide to the Board confirmation via electronic mail that the student data has been deleted in accordance with the request, the date of its deletion, and the manner in which it has been deleted. The confirmation shall contain a written assurance from the Contractor that proper disposal of the data has occurred in order to prevent the unauthorized access or use of student data and that deletion has occurred in accordance with industry standards/practices/protocols.
3. The Contractor shall not use student data for any purposes other than those authorized pursuant to this Agreement.
4. A student, parent or legal guardian of a student may review personally identifiable information contained in student data and correct any erroneous information, if any, in such student data. If the Contractor receives a request to review student data in the Contractor's possession directly from a student, parent, or guardian, the Contractor agrees to refer that individual to the Board

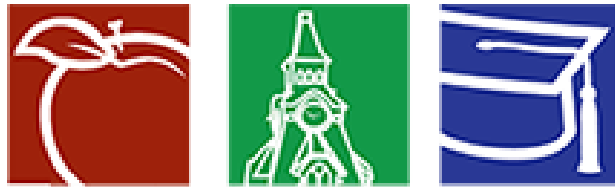
and to notify the Board within two (2) business days of receiving such a request. The Contractor agrees to work cooperatively with the Board to permit a student, parent, or guardian to review personally identifiable information in student data that has been shared with the Contractor, and correct any erroneous information therein.

5. The Contractor shall take actions designed to ensure the security and confidentiality of student data.
6. The Contractor will notify the Board, in accordance with Conn. Gen. Stat. § 10-234dd, when there has been an unauthorized release, disclosure or acquisition of student data. Such notification will include the following steps:

Upon discovery by the Contractor of a breach of student data, the Contractor shall conduct an investigation and restore the integrity of its data systems and, without unreasonable delay, but not more than thirty (30) days after such discovery, shall provide the Board with a more detailed notice of the breach, including but not limited to the date and time of the breach; name(s) of the student(s) whose student data was released, disclosed or acquired; nature of and extent of the breach; and measures taken to ensure that such a breach does not occur in the future.

7. Student data shall not be retained or available to the Contractor upon expiration of the contract between the Contractor and Board, except a student, parent or legal guardian of a student may choose independently to establish or maintain an electronic account with the Contractor after the expiration of such contract for the purpose of storing student• generated content.
8. The Contractor and Board shall each ensure their own compliance with the Family Educational Rights and Privacy Act of 1974, 20 U.S.C. § 1232g, as amended from time to time.
9. The Contractor acknowledges and agrees to comply with the above and all other applicable aspects of Connecticut's Student Data Privacy law according to Connecticut General Statutes §§ 10-234aa through 10-234dd.
10. The Parties agree that this Agreement controls over any inconsistent terms or conditions contained within any other agreement entered into by the Parties concerning student data.

Revised: 10/2/18



**NEW HAVEN PUBLIC SCHOOLS
REQUEST FOR PROPOSAL
LEADERSHIP DEVELOPMENT SYSTEM
RFP No. 2020-02-1217**

Company Address:

Convergence Consulting Group, Inc
2502 N Rocky Point Dr. #650
Tampa, FL 33607

Main Point of Contact:

Lindsey Novilla
Email: lnovilla@ccganalytics.com
Phone: 1-727-510-3998

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1. Introduction

In 2019 CCG Analytics and The Calsoyas Group were contracted by the University of Connecticut (UConn) to perform a leadership development system feasibility assessment for its three Wallace Foundation partner districts: Hartford Public Schools, Meriden Public Schools, and New Haven Public Schools.

During the course of this assessment our team worked closely with key stakeholders at each of the school districts to understand both the technical data landscape and the strengths and areas of opportunity related to leader talent management.

As a result we are familiar with New Haven's vision for the Leadership Development System, the underlying data systems, and the potential strengths and challenges that will accompany the implementation of a Leadership Development System.

2. Statement of Scope of Services

2.1 Scope of Services

CCG is a full-service delivery organization with practices and competencies to serve our clients. Our Business Applications practice, focuses on strategy and methodology to add value to our clients in the competencies that support our technology practices. From project management to data governance to specific industry expertise, we provide the right skillsets and knowledge to be a successful partner to our clients and drive successful business outcomes. Our technology practices focus on Analytics and Information Management and cover competencies from reporting, dashboards, data discovery/self-service, predictive analytics on the Analytics side to data integration, data warehousing, and data quality/cleansing on the Information Management side.

Below is a list of our practices and competencies:

<input type="checkbox"/> Business Application	<input type="checkbox"/> Enterprise Analytics (BI)	<input type="checkbox"/> Information Management
<input type="checkbox"/> AVR & Strategy	<input type="checkbox"/> Dashboards & Visualization	<input type="checkbox"/> Life-cycle Management
<input type="checkbox"/> K-12 Education Solutions	<input type="checkbox"/> Reporting	<input type="checkbox"/> Data warehouse architecture
<input type="checkbox"/> Customer Analytics	<input type="checkbox"/> Self-service	<input type="checkbox"/> ETL / ELT
<input type="checkbox"/> Marketing Analytics	<input type="checkbox"/> Exploration	<input type="checkbox"/> Data Enrichment
<input type="checkbox"/> Project Management	<input type="checkbox"/> Location (GIS)	<input type="checkbox"/> Metadata Management
<input type="checkbox"/> Program Management	<input type="checkbox"/> Mobile	<input type="checkbox"/> Big Data Management
<input type="checkbox"/> Data Governance	<input type="checkbox"/> Predictive	<input type="checkbox"/> Modern Data Architecture
	<input type="checkbox"/> Big Data Analytics	

Our K-12 Education Solutions competency has a number of disciplines and a consistent track record of successful project implementations for the past twelve years. These solutions include Merit Award Program, Teacher Incentive Fund, Pay for Performance Work, School FTE Allocation, Budgeting & Planning, Principal and Teacher Dashboards, Early Warning Systems, and Leadership Development Systems. Our Leadership Development System solutions will be described in more detail in later sections of this RFP.

3. Statement of Qualifications, Experience, and Resumes

3.1 Offeror Qualifications and Resumes

3.1.1 CCG Team

Lindsey Novilla, *Education Practice Manager and Senior Data Architect, CCG*

Project Role: Leads technical and functional designs for the talent mapping solution

Lindsey has worked as a Solution Architect on multiple projects for public school districts. She is an Education Practice Manager at CCG and owns the K-12 practice and solution offerings. She has worked in Leadership Development programs across numerous school districts through funding from the Wallace Foundation. She worked with Henrico County Public Schools to design a Leadership Engine system to provide leadership identification, tracking, and matching to school needs. Additionally, she has worked with retail, financial, healthcare, and government agencies on similar analytical projects.

Carmen Boettcher, *Project Manager, CCG*

Project Role: Leads agile project teams and technical design leadership

Carmen's experience includes a position as Project Lead for multiple Leadership Development System implementations, including Hillsborough County School District, Chula Vista Elementary School District, and Hopewell School District. She trained development staff and change control staff on the LDS system as well as served as the technical lead on the project. Carmen holds a degree from St Petersburg College as well as a PSM I certification.

Alex Hock, *Senior Data Integration Consultant, CCG*

Project Role: Develops data automation programs and movement of data from sources to application

Alex has served as a data integration consultant for Henrico County Public Schools to produce a Leadership Engine for successful leadership selection and vacancy planning throughout the district. He implemented an Azure cloud implementation of our Leadership Development System and tailored the data model to serve the specific requirements of the HCPS Leadership Engine vision. Additionally, Alex designed the ETL programs, documented our processes via an ETL runbook, and conducted knowledge transition sessions with the IT and business teams for successful operational support of the solution.

Peter Duong, *Senior Analytics Consultant, CCG*

Project Role: Designs dashboards and self-service reporting solutions

Peter's experience includes serving as Power BI Developer for Chula Vista Elementary School District, Hopewell County Public Schools, and Henrico County Public School as part of the Leadership Development System work. Additionally, he has provided ongoing support of said solutions, including fixes, updating and enhancing the systems. His other experience includes developer positions with retail and financial services. Peter holds a MS degree in Information Systems from the University of Florida.

3.1.2 TCG Team

Aleka Calsoyas, MBA, PhD, Managing Partner, The Calsoyas Group

Project Role: Leads strategic vision creation and data innovations

Aleka began her career as an educator in the public system and has taught a wide variety of subject matters—reading, math, French, humanities—to students from pre-K through graduate level. As an advisor, she has worked with a range of institutions including community-based nonprofits, charters, districts, and state governments. She has collaborated closely with and coached senior executives at education organizations with annual budgets of \$500 thousand to \$25 billion on strategic planning, change management, and sustainable organizational reform. Under her leadership as Partner at TNTP, her team designed the main features of the model educator evaluation system for the State of Indiana (over 60,000 teachers), key elements of which were adopted by Minnesota and New Jersey as best practices. Aleka holds a BA in Math and French from the University of California at Berkeley, a PhD in French and Critical Theory from the University of California at Irvine, and an MBA with an emphasis in nonprofit and public management from the UC Berkeley Haas School of Business.

Don O’Callaghan, Partner, The Calsoyas Group

Project Role: Leads strategic design and requirements articulation

Don has partnered closely with senior district leaders to provide advice on budget and organizational restructuring, process mapping and improvement, and Leadership Development Systems. Prior to joining The Calsoyas Group, Don worked for TNTP as a Project Director, overseeing the design and implementation of human capital solutions related to performance management, school leader pipeline development, and talent acquisition strategy, including teacher and school leader selection model development and implementation, in mid-to-large-sized school districts across the country. Prior to that role, Don worked with TNTP in Chicago and Memphis as a Program and then Site Manager, partnering directly with schools to improve their strategic staffing capacity. Don began his career in education teaching in New York City and holds a BA in Government and Classical Civilizations from Colby College.

Timothy Weekes, MBA, EdD, Associate, The Calsoyas Group

Project Role: Develops best practices research base, supports strategic design and tool creation

Tim has over 30 years' experience as an educator, researcher and finance professional. He has an extensive background researching and writing about the primary educational leadership models with a strong focus on transformational leadership. He holds a BA in Computer Science and Mathematics from Fairleigh Dickson University, an MBA in Marketing and Finance from Pennsylvania State University, an MA in Secondary Education from San Francisco State University, and an EdD in Education Equity and Leadership from San Francisco State University.

3.2 Offeror Experience

CCG has a tailored Leadership Development and Tracking Solution that has helped various schools and districts with their leadership needs. Please see the examples below:

3.2.1 Henrico County Public Schools

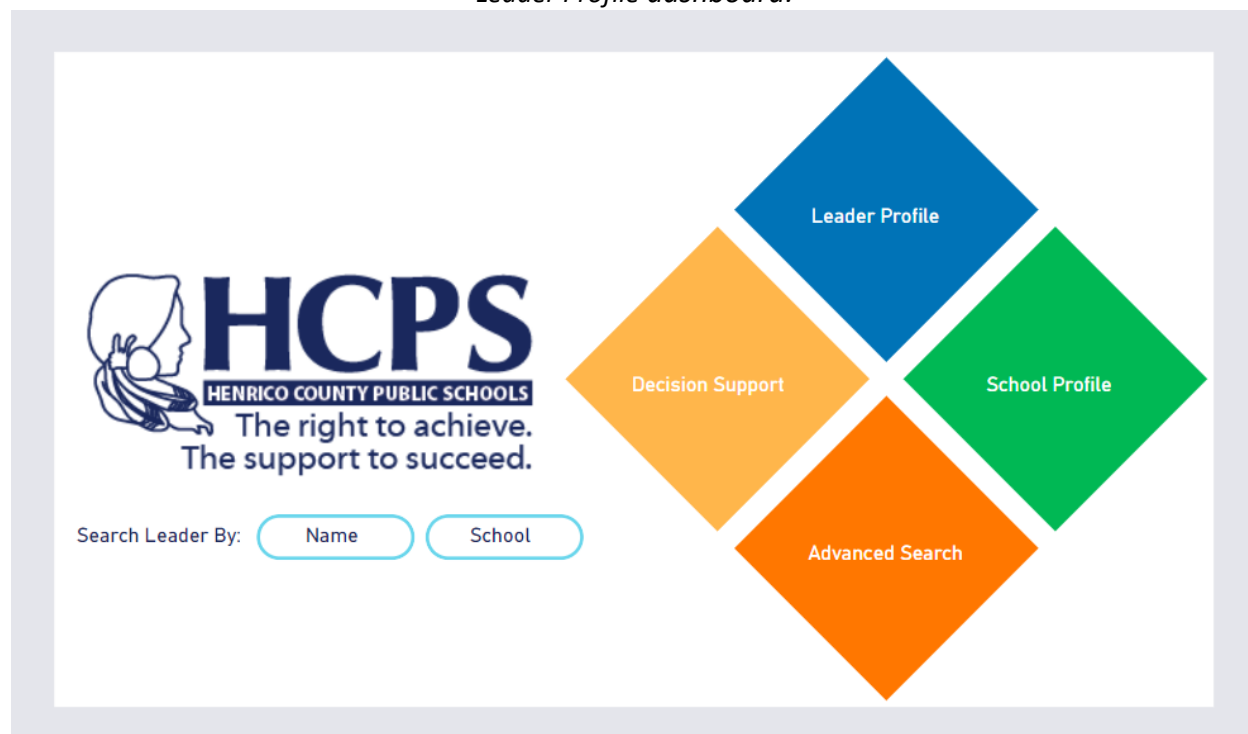
Business Challenge:

Henrico County Public Schools needed a Leadership Development System that is capable of identifying attributes of high performing leaders based on school evaluations as well as map their career journey within the district. HCPS wanted to be able to identify promising potential leaders and be able to guide them on a career track to mimic successful predecessors.

Business Solution:

CCG provided a complete Azure based solution. The database was stored using Azure SQL database, a tabular model built with Azure Analysis Services, and reports built in Power BI. Tightly integrated with Microsoft, we were able to leverage Office 365 single sign on authentication and use the web-based Power BI Service to share reports and dashboards.

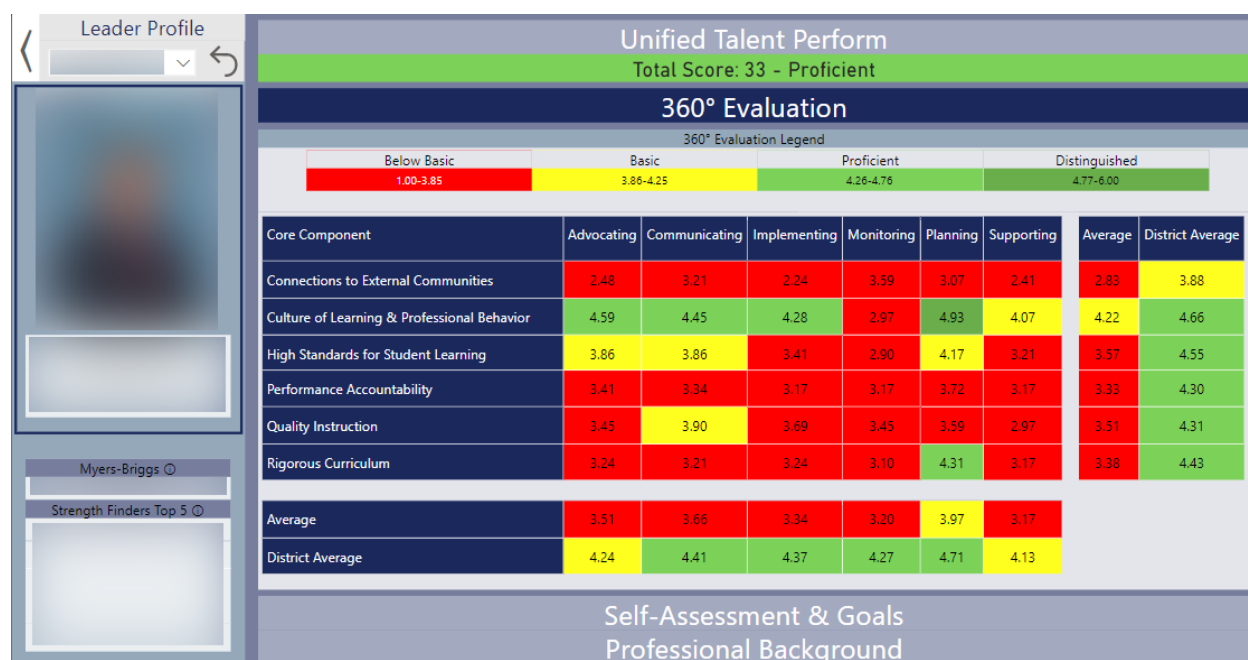
Leader Profile dashboard:



Leader Profile (Unified Talent Perform) dashboard:



Leader Profile (360 Evaluation) dashboard:



Leader Profile (Self-Assessment & Goals) dashboard:

Leader Profile

▼

Myers-Briggs

○

Strength Finders Top 5

○

Unified Talent Perform

360° Evaluation

Self-Assessment & Goals

Assessment Area	Response
Awarding University of Supervision Degree	
Additional Endorsements	
Publications Authored	
Grants Authored/Awarded	
R.E.B Distinguished Leader	
HCPS Instructional Leader of the Year	
Language Fluency	
Self-Reported Strengths	
Researched Problems of Practice	
Professional Growth Focus Topics	

Professional Background

Leader Profile (Professional Background) dashboard:

Leader Profile

▼

↩



Myers-Briggs 

Strength Finders Top 5 

Unified Talent Perform

360° Evaluation

Self-Assessment & Goals

Professional Background

Highest Degree:

Regional Participation:

District Job History

School Name	Job Description	Start Date	End Date

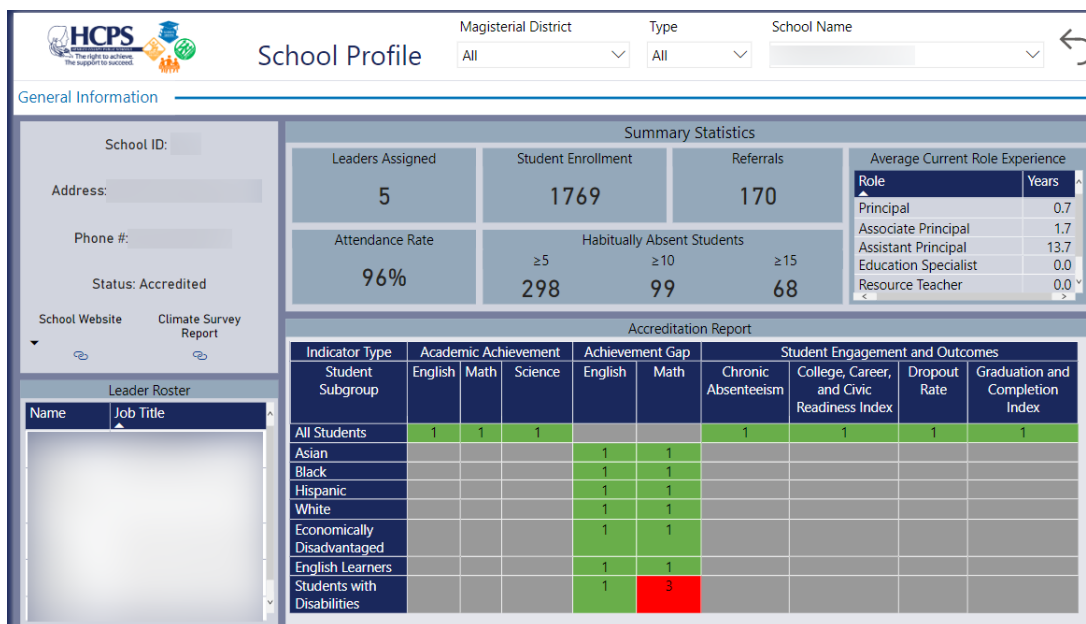
Endorsements

Certification

Educational History

Degree Title	Higher Ed Institution Name	Degree Date
Masters		
Bachelors		

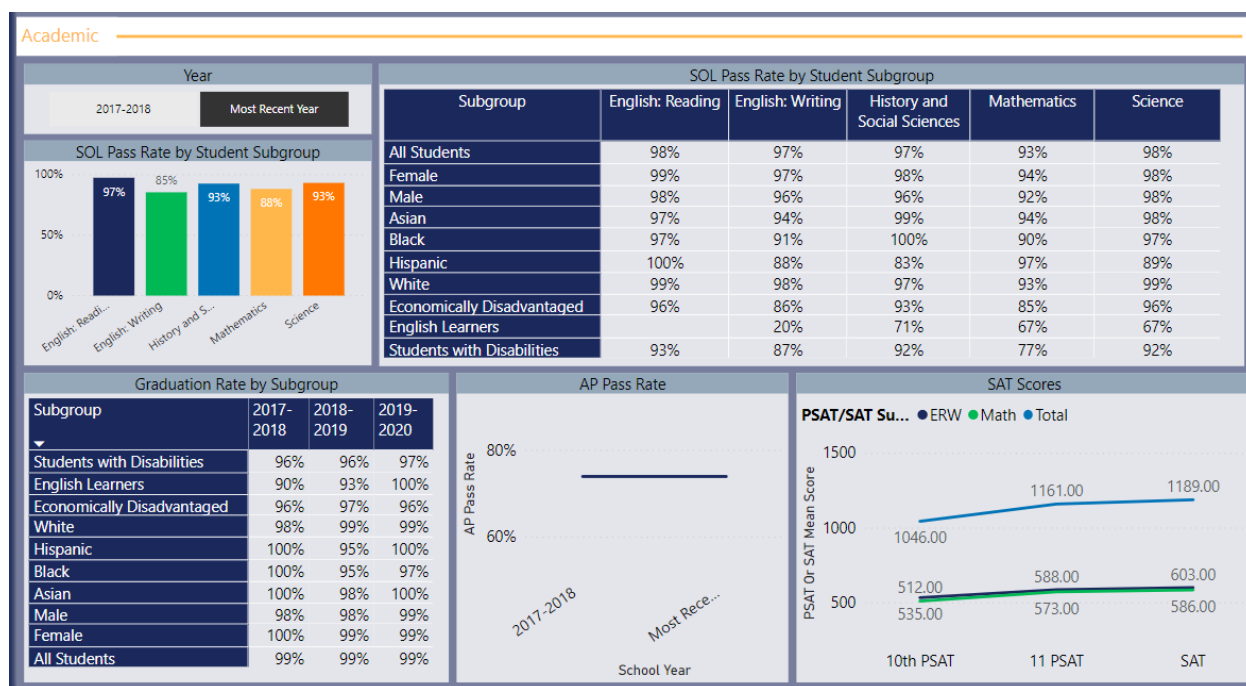
School Profile (General Information) dashboard:



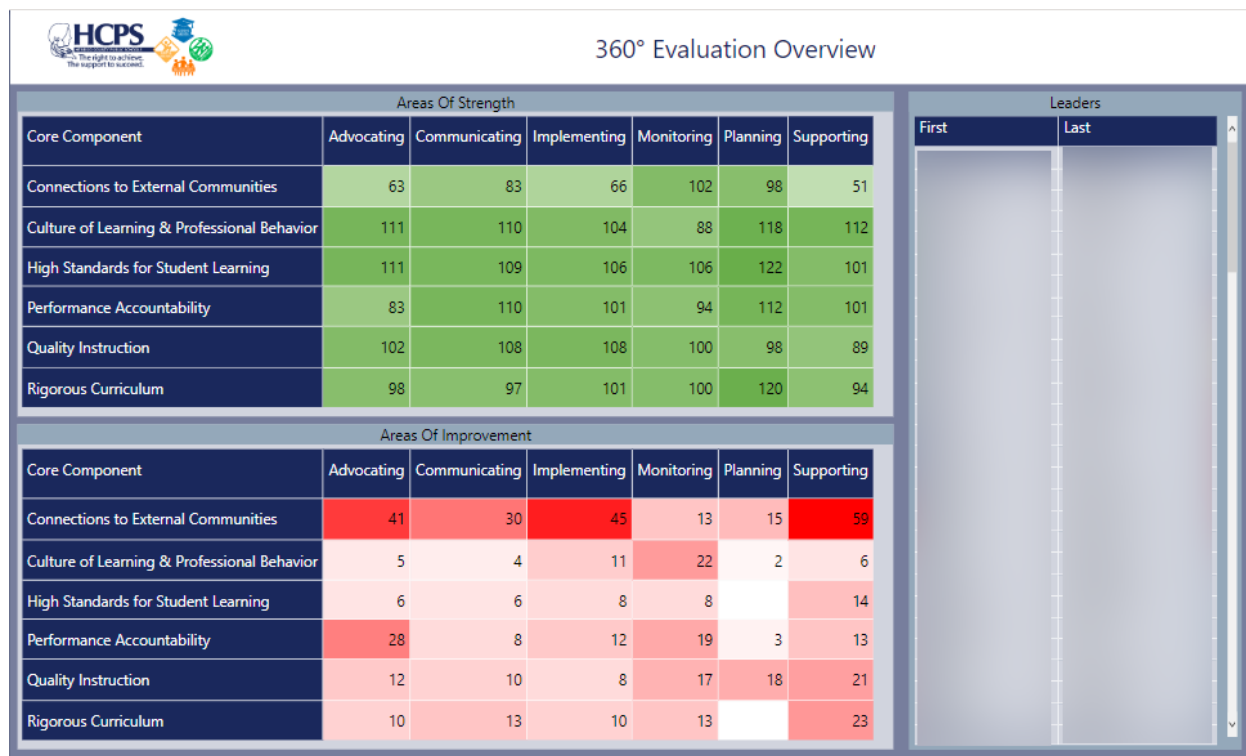
School Profile (Demographics & Behavior) dashboard:




School Profile (Academics) dashboard:



360 Evaluation Aggregate dashboard:



PD Aggregation dashboard:

 PD Aggregation							
Evaluation	Supervisor	Accreditation Status		Magisterial District		School Name	
All	All	All	All	All	All	All	All
PD Type	Measure	Principal	Associate Principal	Assistant Principal	Education Specialist	Resource Teacher	Administrative
<input checked="" type="checkbox"/> Unified Talent Perform	Standard 1 Instructional Leadership	1	5	5	0	2	
	Standard 2 School Climate	1	5	5	0	2	
	Standard 3 Human Resources Management	1	5	5	0	2	
	Standard 4 Organizational Management	1	5	5	0	2	
	Standard 5 Communication and Community Relations	1	5	5	0	2	
	Standard 6 Professionalism	1	5	5	0	2	
	Standard 7 Rubric	1	5	5	0	2	
<input checked="" type="checkbox"/> Key Process	Advocating	43	56	43	5	45	
	Communicating	43	56	43	5	45	
	Implementing	43	56	43	5	45	
	Monitoring	43	56	43	5	45	
	Planning	43	56	43	5	45	
	Supporting	43	56	43	5	45	
<input checked="" type="checkbox"/> Core Component	Connections to External Communities	43	56	43	5	45	
	Culture of Learning & Professional Behavior	43	56	43	5	45	
	High Standards for Student Learning	43	56	43	5	45	
	Performance Accountability	43	56	43	5	45	
	Quality Instruction	43	56	43	5	45	
	Rigorous Curriculum	43	56	43	5	45	
<input checked="" type="checkbox"/> PSEL	Strategies for fostering collaboration on the use of data in the instructional cycle of instruction, assessment and intervention (PSEL 4&10)	0	0	0	0	0	
	Using data to promote continuous improvement (PSEL 10)	0	0	0	0	0	
	Fostering collaborative and healthy staff culture (PSEL 7)	0	0	0	0	0	
	Managing and facilitating change in the organization (PSEL 8)	0	0	0	0	0	
	Fostering positive, safe and welcoming environments (PSEL 3 & 9)	0	0	0	0	0	
	Improving systems, operations and using resources effectively (PSEL 9)	0	0	0	0	0	
	Developing staff and leveraging their strengths through differentiated strategies and actionable feedback (PSEL 6 & 4)	0	0	0	0	0	
	Successfully selecting, placing, and evaluating staff in an effective and caring environment (PSEL 6 & 7)	0	0	0	0	0	
	Addressing equity and cultural responsiveness (PSEL 7)	0	0	0	0	0	
	Creating aligned systems of curriculum, instruction, and assessment (PSEL 4)	0	0	0	0	0	
	Strategies for continuous improvement in your own work and work-life balance (PSEL 1)	0	0	0	0	0	

Leader Trajectory dashboard:



Leader Trajectory

Retirement Projection	Supervisor			Accreditation Status			Magisterial District			School Name					
All	All			All			All			All					
Roles	Principal			Associate Principal			Assistant Principal			Resource Teacher			Administrative Intern		
Next Phase	This Year	Next Year	Unsure	This Year	Next Year	Unsure	This Year	Next Year	Unsure	This Year	Next Year	Unsure	This Year	Next Year	Unsure
Unsure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Not Working	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Leave For New Job	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Promoted	2	0	0	1	1	2	1	3	1	2	0	1	0	2	0
Lateral New Site	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Same Role, More Responsibilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Change	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Group	Principal			Associate Principal			Assistant Principal			Resource Teacher			Administrative Intern		
Data	1			5			3			1					
No Data	71			57			48			31			5		
Total	72			62			51			32			5		
Retirement Projection	Principal			Associate Principal			Assistant Principal			Resource Teacher			Administrative Intern		
Within 1 Year	0			0			0			0			0		
Within 3 Years	0			0			0			0			0		
Within 5 Years	0			0			0			0			0		
Not Projected to retire within 5 years	2			4			5			3			2		

3.2.2 Chula Vista Elementary School District

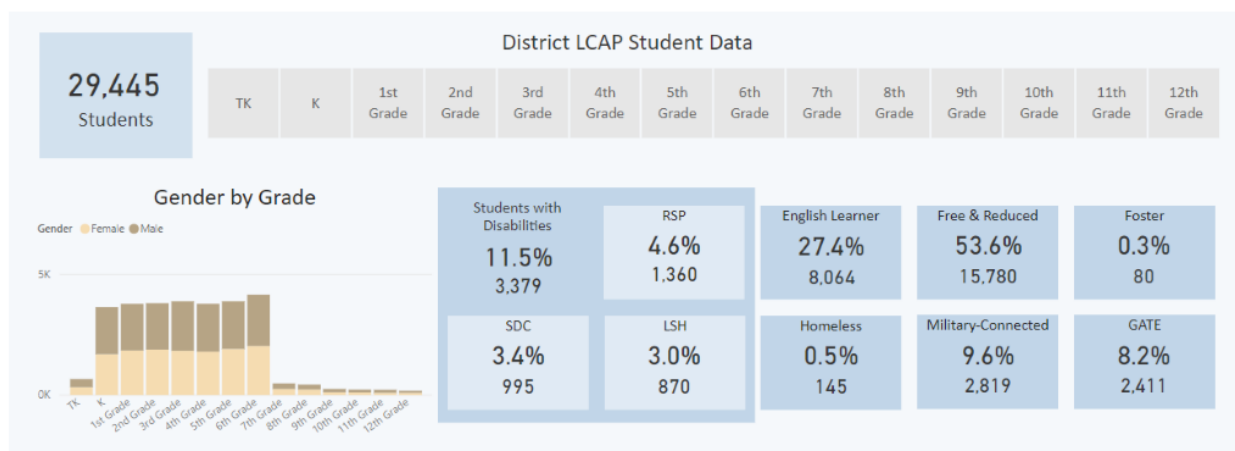
Business Challenge:

To promote employee engagement, strategic talent development and ultimately hire the right leaders for their schools, CVESD wanted to more proactively understand the strength of their talent pipeline relative to the needs of their schools. Given that CVESD was an elementary school district with a limited number of formal assistant principal roles, the district needed a view of their leadership pipeline that tracks current teacher leaders, aspiring leaders, and external applicants, along with their associated measures of strength and performance, allowing the district to make smarter investments in internal leader development programming and external recruitment.

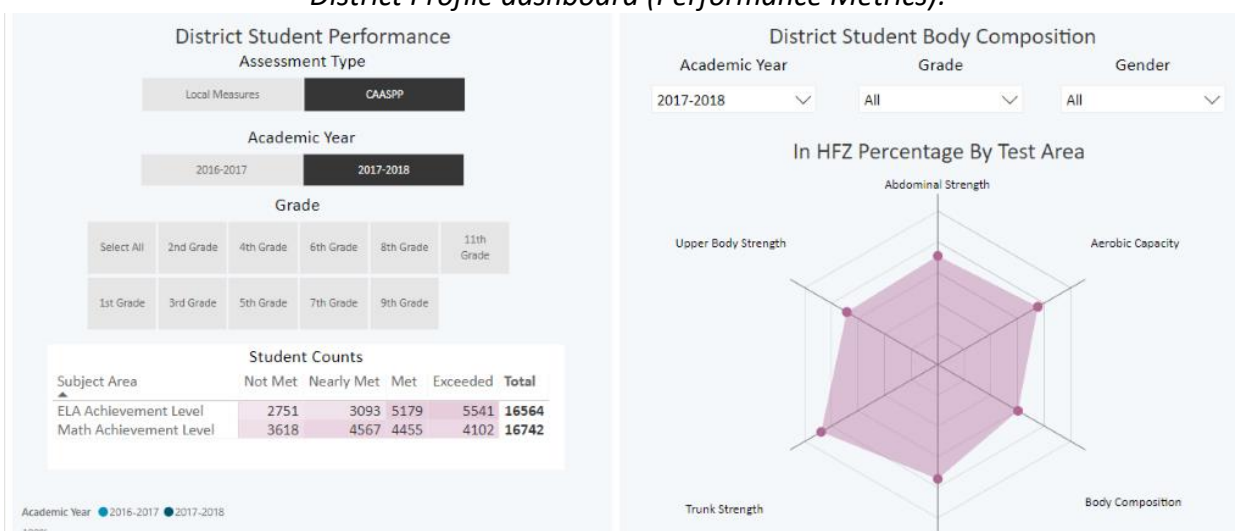
Business Solution:

In collaboration with our strategic partners at The Calsoyas Group (TCG), CCG delivered a cloud-based data warehouse and BI solution using Azure infrastructure, SQL Server 2017, and SSIS as the ETL tool. Power BI was used as the front-end reporting tool, which ran atop a semantic layer built with Azure Analysis Services. The reports were published in a Power BI online workspace, which integrates with Office 365, allowing users to log in and view reports from both desktop and mobile devices using any modern web browser.

District Profile dashboard (Student Demographics):



District Profile dashboard (Performance Metrics):



“Baseball Card” Leader Profile:

Leader Profile

IPPA IN THE FUTURE

↶ ↷ 🏠

School Name

Clear View

Applying For

All

Leader Roster

Display by: [dropdown]

EMPLOYEE ID

SITE

ROLE

ETHNICITY

GENDER

PHONE

EMAIL

SITE

Clear View

PRINCIPAL

White

Female

(904) 888-1744

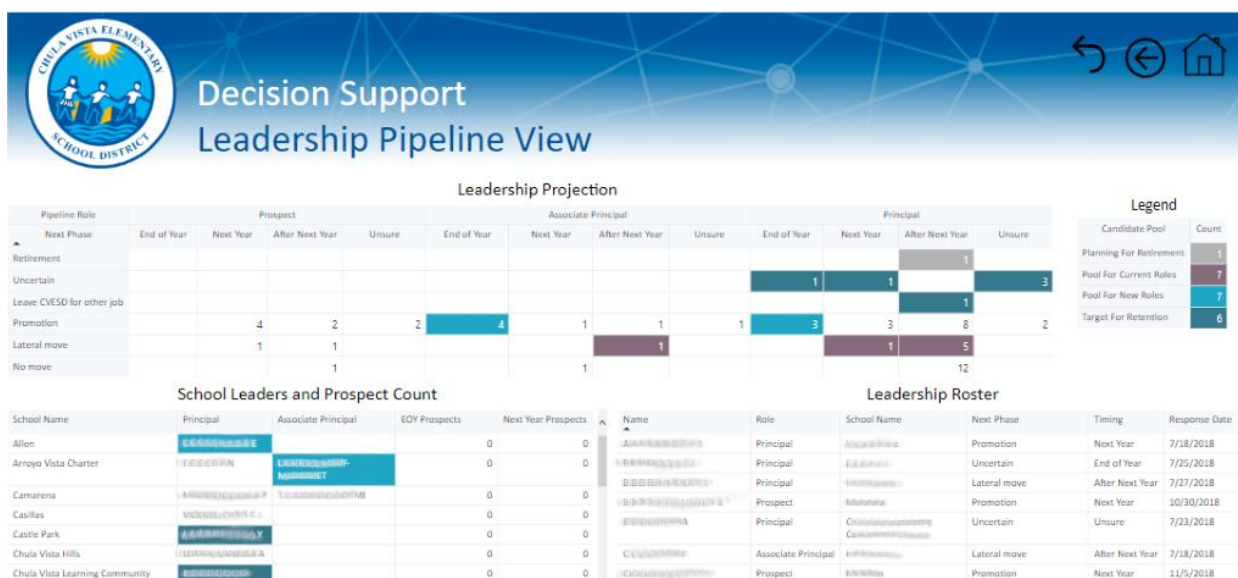
lisa.thompson@cvpsd.org

APPLIED FOR

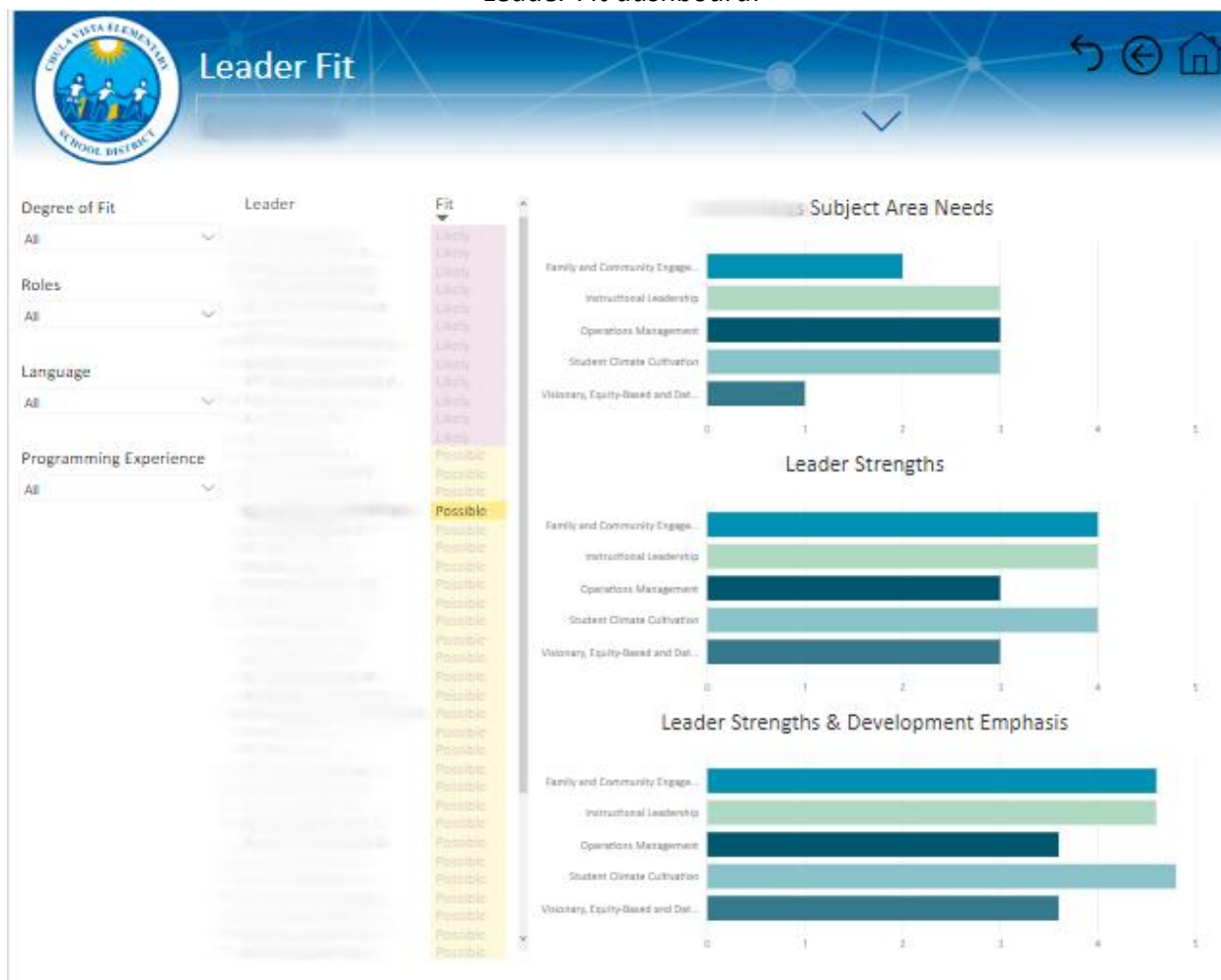
☐ Principal
 ☐ Associate Principal

LinkedIn:

Leadership Pipeline Dashboard (Vacancy Analysis):



Leader Fit dashboard:



3.2.3 Hopewell County Public Schools

Business Challenge:

To understand the strengths of their current leaders and to promote strategic talent development of individuals in their leadership pipelines. Hopewell County was also looking for the ability to predict vacancies based on self-reported surveys and fill positions based on promising internal talent and education objectives.

Business Solution:

Alongside TCG, CCG developed the LDS comprising of a data warehouse and reporting model fully housed in Azure. Reports were created using Power BI and published to an online workspace integrated with Office 365 and leveraged single sign on. Users could access reports using any modern browser from their laptop or personal computers.

Leader Fit Home Page:



District/School dashboard:



Top 5 Causes of Discipline

Classrooms or Campus disruption

312

Other School code of conduct viola.

254

Disruptive Demonstrations

249

Defiance (refused requests)

208

Fighting: Mutual particip

156

Suspensions

599

Out of School Suspensions

2307

Days Lost to Suspensions

YTD Referrals

Referrals

Out of State Referrals

Previous Year To Date Referrals

September 2019

October 2019

November 2019

December 2019

January 2020

Chronic Absenteeism

Decreased 3.35% Now 13.65%

Chronic Absentees

< 1 Year in Division

1-3 Years in Division

> 3 Years in Division

2017-2018

2018-2019

2019-2020

Leader Profile dashboard:

Leader Profile

School Name

Grade

Role

Education

License

Endorsement

Leader Type

Staff Roster

General Information

Site:

Employee Number:

Role:

Email:

Phone:

Myers Briggs:

Education Track		
Institution	Degree	Degree Date

Licenses		
Code	Type Description	Exp Date

Job History			
Role	School Name	Start Date	End Date

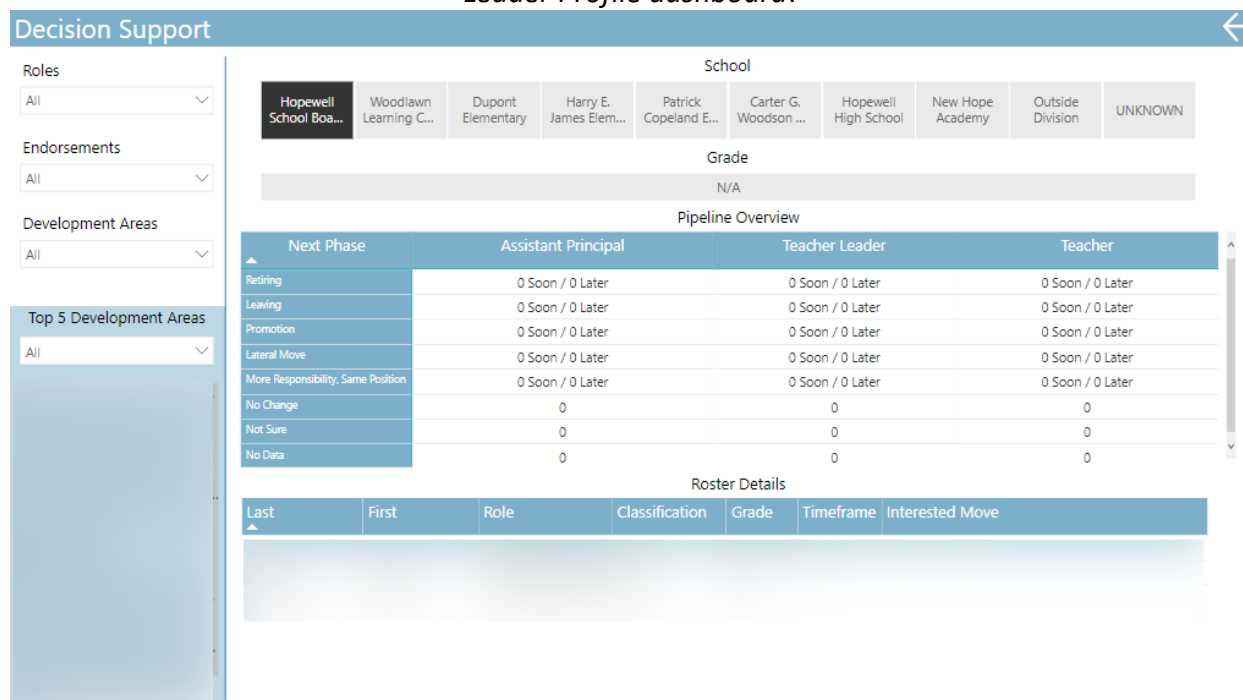
Endorsements
Qualification

Top 5 Leadership Qualities

Interest in Leadership Roles

Developmental Plan

Leader Profile dashboard:



3.2.4 Sussex County Public Schools

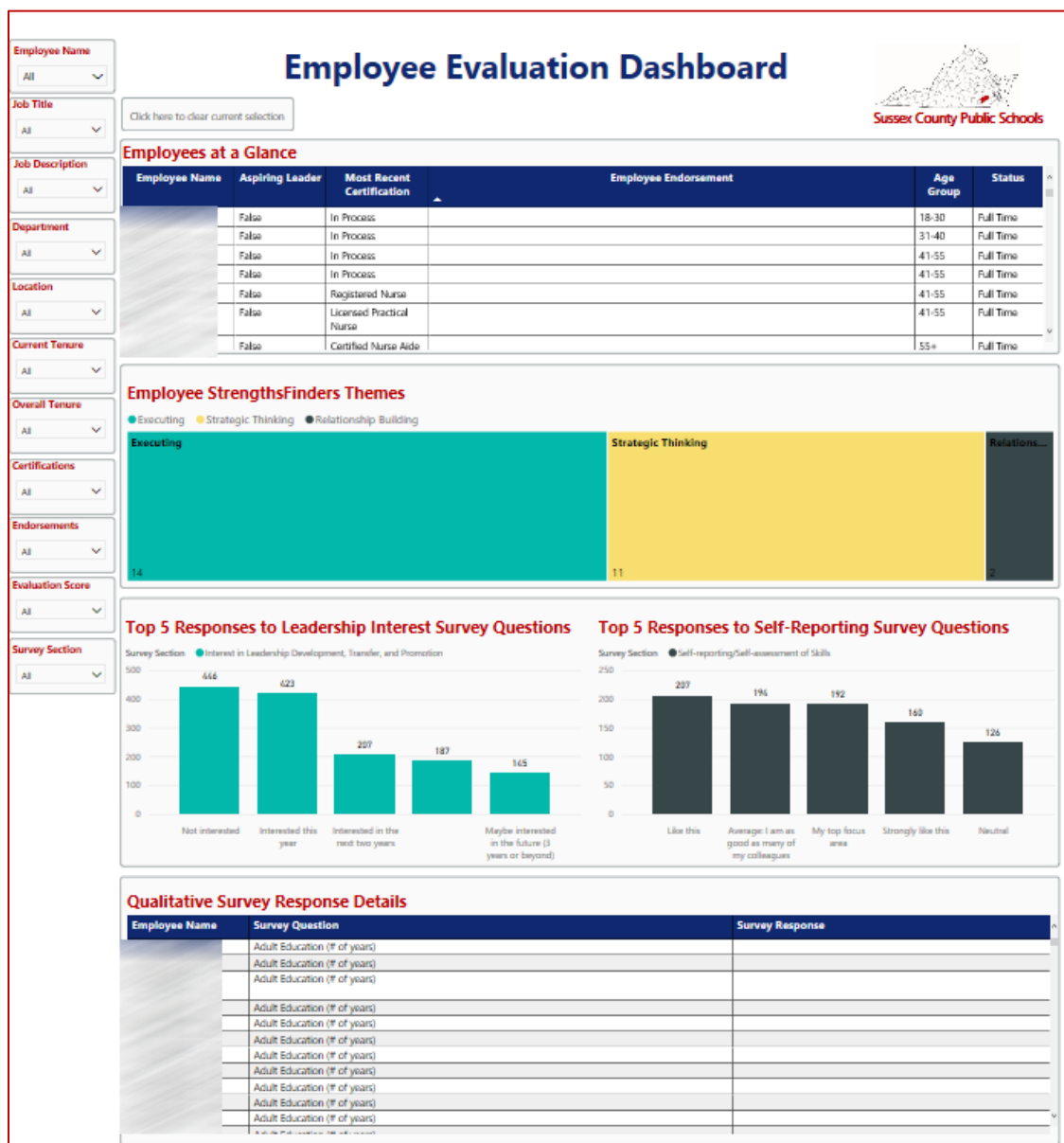
Business Challenge:

Sussex County Public Schools needed insights to identify the best possible candidate within a candidate poll, improve professional development and support, and monitor leadership movements within the district. The district wanted to facilitate strategic placement of leaders and anticipate future leadership needs.

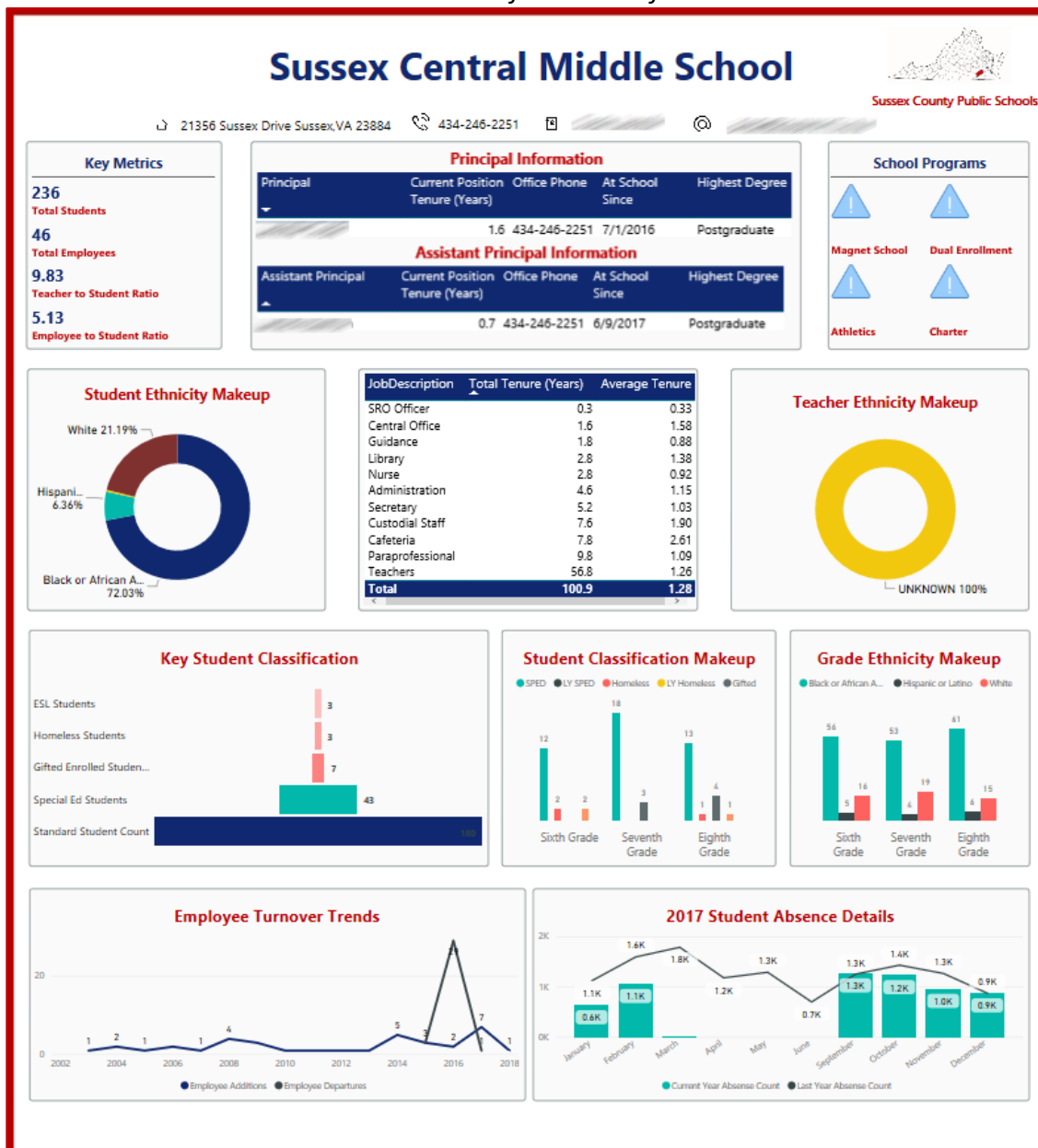
Business Solution:

The CCG data model allows us to adapt and use the best data analytics tools in the industry to deliver dashboards, reporting, and self-service capabilities to our clients. For Sussex County Public Schools, we delivered a cloud-based solution using Microsoft Azure, used Microsoft SSIS (Visual Studio 2017) for ETL processes, and utilized Microsoft SQL Server 2016 for database management. Below are visualizations created for Sussex County Public Schools using Microsoft's business intelligence tool, Power BI. Power BI is a suite of business analytics tools that help deliver insights to users. Users can connect to hundreds of data sources, simplify data prep, and drive ad hoc analysis. Reports can be published for consumption on the web and across mobile devices.

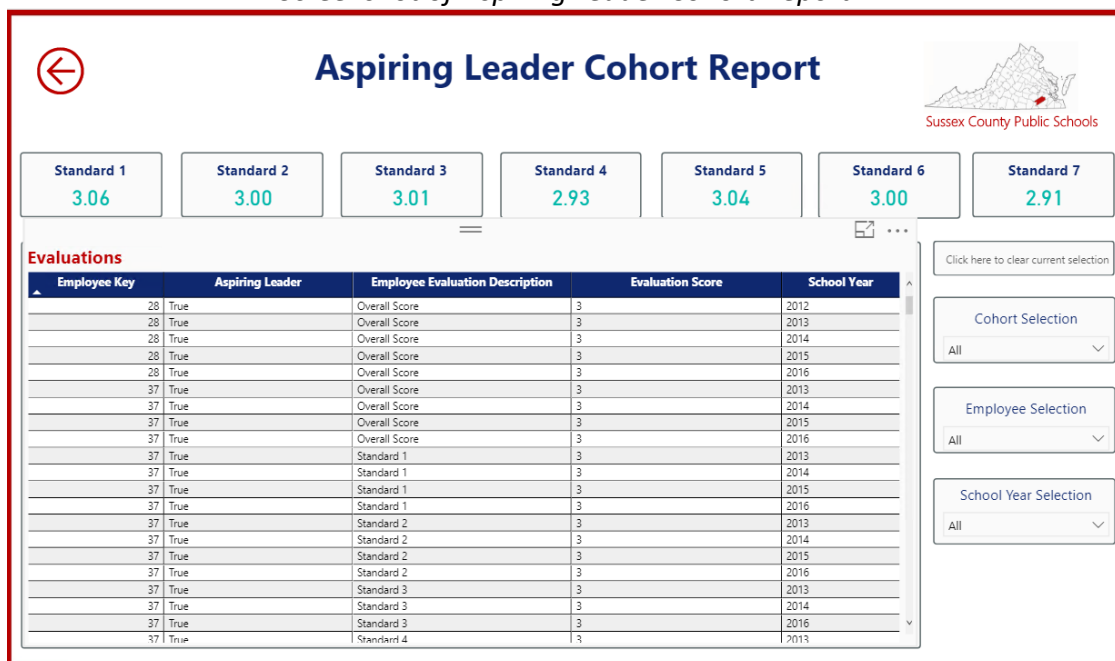
Screenshot of Employee Evaluation Dashboard:



Screenshot of School Profile:



Screenshot of Aspiring Leader Cohort Report:



3.2.5 Large Midwestern School District

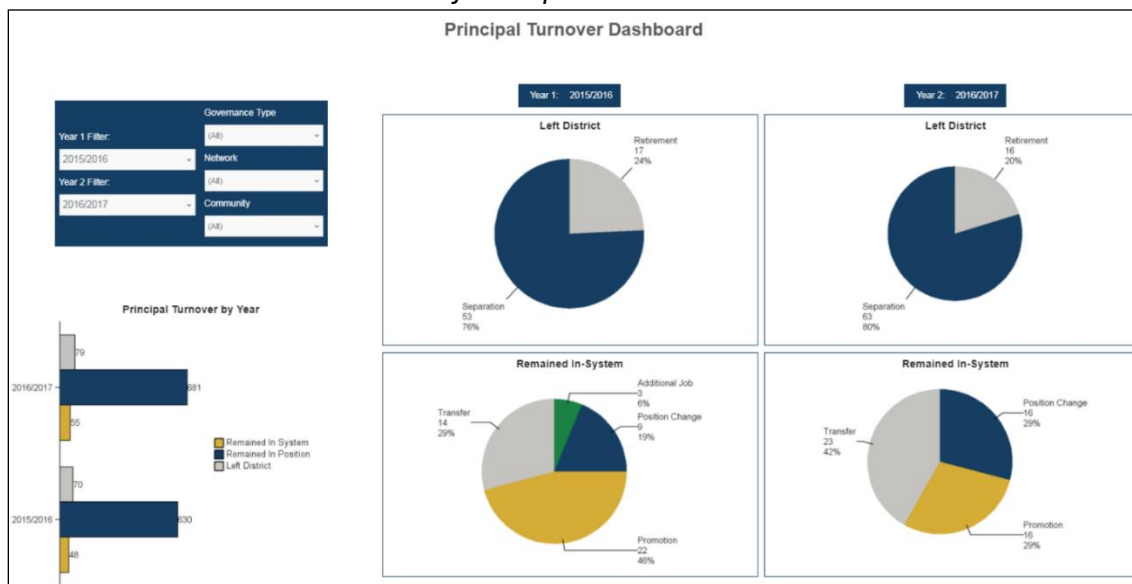
Business Challenge:

This School District needed insights into district movements. The district wanted to facilitate strategic placement of leaders and anticipate future leadership needs.

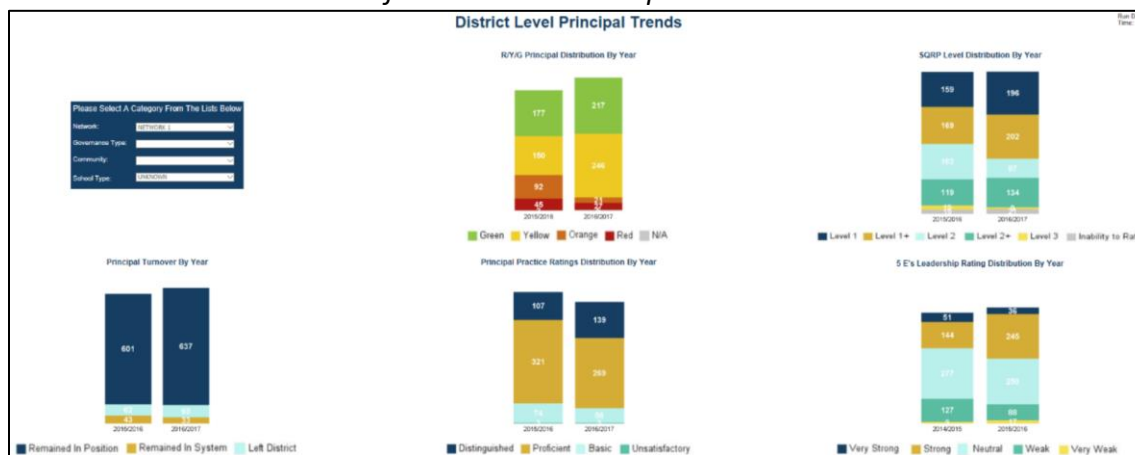
Business Solution:

In collaboration with our strategic partners at TCG, CCG delivered a cloud-based solution using Microsoft Azure, Microsoft SSIS (Visual Studio 2015) for ETL processes, Microsoft SQL Server 2016 for database management, and developed multiple IBM Cognos Analytics dashboards.

Screenshot of Principal Turnover Dashboard:



Screenshot of District Level Principal Trends Dashboard:



4. References

4.1 Henrico County Public Schools

Tracie A. Weston
 Director of Professional Learning & Leadership
Henrico County Public Schools
 3820 Nine Mile Rd
 Richmond, VA 23223
 Office: (804) 652-3840
 June 2019 – February 2020

4.2 Chula Vista Elementary School District

Toni Faddis
 Principal on Special Assignment
Chula Vista Elementary School District
 84 East 'J' Street
 Chula Vista, Ca 91910
 Office: (619) 425-9600 x 1332
 April 2018 – December 2018

4.3 Hopewell County Public Schools

Jay McClain, Ed.D.
 Assistant Superintendent for Instruction
Hopewell City Public Schools
 103 N. 12th Avenue
 Hopewell, VA 23860
 Office: (804) 541-6400
 October 2018 – May 2019

4.4 Sussex County Public Schools

Julius Hamlin
 Director of Instruction
Sussex County Public Schools
 21302 Sussex Drive
 Stony Creek, VA 23882
 Phone: (434)-246-1050
 August 2017 – March 2018

4.5 The Chicago Public Education Fund

Heather Y. Anichini

Chief Executive Officer

The Chicago Public Education Fund

200 West Adams, Suite 2150

Chicago, IL 60606

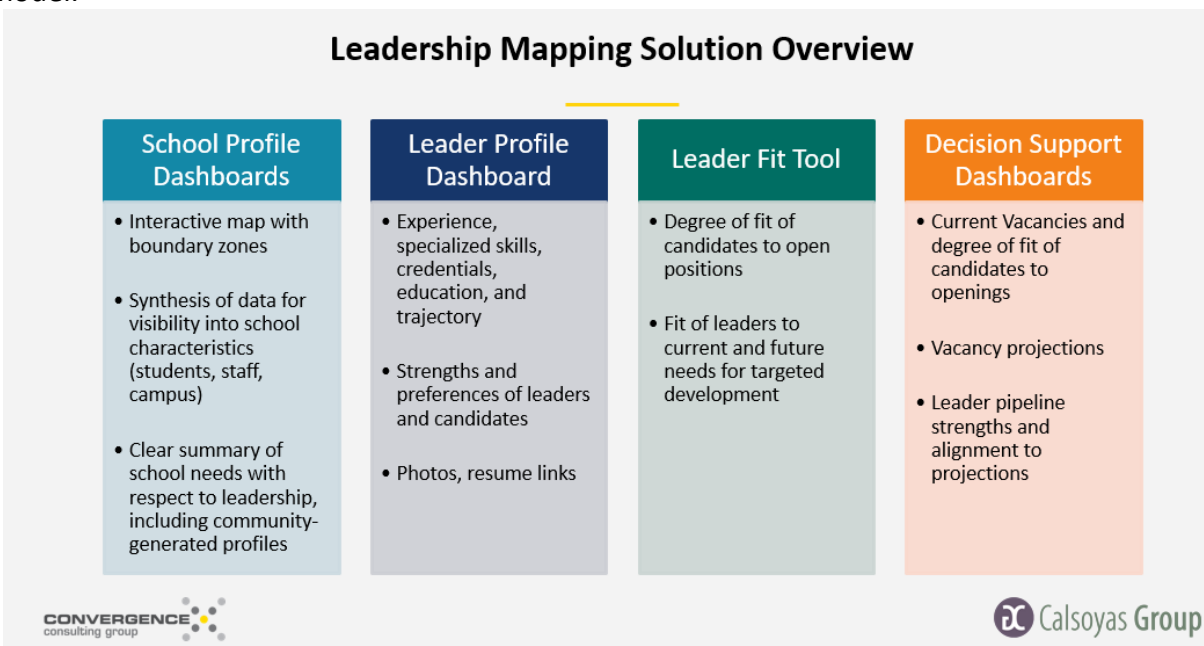
Phone: (312) 558-4500

October 2016 – Present

5. LDS Design and Functional Requirements

5.1 Solution Overview

Our Leadership Development System is a data warehouse model accompanied by BI dashboards, customized to fit school needs. The solution provides a set of analytical capabilities that aid in decision making. While there are some commonalities across all schools and districts, each has unique and customized system and process implementations. CCG tailors the solution, when necessary, to school needs instead of fitting school data into a more expensive, canned data model.



5.2 LDS Infrastructure

5.2.1 Infrastructure Overview

The infrastructure supporting the Leadership Development System includes three Azure SQL Databases (SQL DB) servers. Each SQL DB server will support a separate version of the data warehouse – one for development, one for Quality Assurance (QA) testing, and one for production use. Reports will be hosted on the Power BI Service cloud infrastructure.

Our approach includes a development, QA, and production environment to ensure new enhancements/break-fix remediation can occur in a separate workspace which does not impact QA testing or production use.

We feel this proposed infrastructure suffices current and foreseeable future data storage needs for the solution. Should a need ever arise to scale larger, this can be done quickly and easily within Microsoft Azure.

Azure Analysis Services will also be utilized as a compliment to Power BI, enabling enterprise grade modeling and BI semantic layer capabilities. Azure Analysis Services is a PaaS offering that greatly minimizes the overhead of managing analysis services. It integrates with Azure Active Directory for role-based security, is highly available, easily scalable with little application downtime, and can incorporate and deploy existing and new tabular models.

Azure service offerings additionally include enhanced service delivery from Microsoft to respond to any issues within the cloud environment hardware within 2 hours.

Azure Service Type	Azure Service Product	Description
Platform as a Service	SQL Database (Development Data Warehouse Environment)	2 x 50 DTUs, standard tier 1 x 20 DTUs, standard tier 3 x 250 GB storage
Platform as a Service	SQL Database (QA Data Warehouse Environment)	2 x 50 DTUs, standard tier 1 x 20 DTUs, standard tier 3 x 250 GB storage
Platform as a Service	SQL Database (Production Data Warehouse Environment)	2 x 100 DTUs, standard tier 1 x 20 DTUs, standard tier 3 x 250 GB storage
Platform as a Service	Azure Data Factory	SQL Server Integration Services, 1 D2V3 Virtual Machine
Platform as a Service	Azure Analysis Services	1 Standard instance
Software as a Service	Power BI Environment	1 Pro license per user

5.3 Data Storage Scalability

Our proposal utilizes Microsoft Azure SQL DB and Power BI. This pairing of best in class technologies gives the scalability, features, and functionality to meet the needs of New Haven Public Schools. This solution has flexibility in ownership and can be delivered as part of our managed service offering where CCG supports the environment.

5.4 Performance Monitoring and Application Availability

5.4.1 Infrastructure and Data Warehouse

PaaS performance monitoring capabilities are included with Microsoft Azure and easily accessible via the Azure Portal. Resources can be scaled up or scaled down within seconds in response to workload requirements. Additionally, Microsoft provides automatic performance tuning for all Azure SQL DB instances.

5.4.2 BI Reporting Tool

In the proposed solution, Power BI will utilize Azure Analysis Services as its semantic layer via tabular models. Analysis Services distributes client queries among multiple query replicas in a query pool. Query replicas have synchronized copies of your tabular models. By spreading the

query workload, response times during high query workloads can be reduced. Model processing operations can be separated from the query pool, ensuring client queries are not adversely affected by processing operations.

5.5 Backup and Disaster Recovery

Microsoft provides automatic backups for all SQL DB instances which enables point-in-time recovery in the event of database failure. The backups are stored in a Microsoft paired data center, which provides geo-redundancy in the event of a data center outage. Backups are automatically taken every 12 hours and retained for up to 5 weeks under the standard tier configuration.

In the event the server fails, Azure runs system recovery, so that the content on the server is not lost and can be restored. Leveraging Azure Analysis Services decreases the likelihood of application downtime.

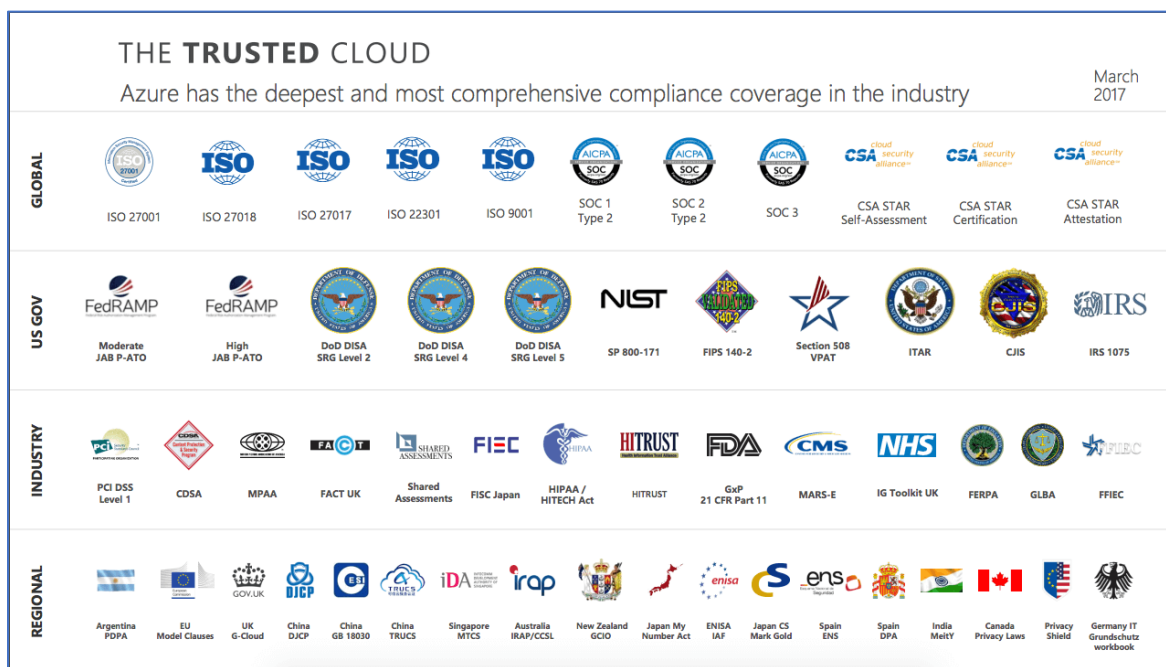
Should the physical location on which the servers are hosted experience failure, Microsoft guarantees disaster recovery for their physical servers within 24 hours. Microsoft stores backups, utilizing geographical redundancy which also provides an additional safeguard against total loss.

Should a server ever be stopped, Microsoft guarantees it will store content for 99 years, ensuring an accidental or intentional stop in service will not cause data loss.

5.6 Security and Compliance

5.6.1 Azure Security and Compliance Overview

Microsoft Azure is regarded as being one of the most secure options for your data. To help organizations comply with national, regional, and industry-specific requirements governing the collection and use of individuals' data, Microsoft provides the most comprehensive set of compliance offerings (including certifications and attestations) of any cloud service provider as evidenced below.



Security and privacy are built right into the Azure platform, beginning with the Security Development Lifecycle (SDL). The SDL addresses security at every development phase and ensures that Azure is continually updated to make it even more secure. Operational Security Assurance (OSA) builds on SDL knowledge and processes to supply a framework that helps provide secure operations throughout the lifecycle of cloud-based services. Azure Security Center makes Azure the only public cloud platform to offer continuous security-health monitoring.

Azure products also use industry-standard secure transport protocols for data as it moves through a network—whether between user devices and Microsoft datacenters or within datacenters themselves. To help protect data at rest, Microsoft offers a range of built-in encryption capabilities.

For more on Azure Security, additional detail is available at <https://docs.microsoft.com/en-us/azure/security/>.

5.6.2 Solution Security

Security is considered at each layer of the solution:

- Firewall rules are implemented within Azures portal management console to ensure data can only be accessed by appropriate IP addresses.
- Access to the database housing the data warehouse is limited to only those users for which direct access is appropriate. Additionally, administrative rights are granted sparingly.
- Database administration is closely monitored, providing credentials only to those users for which direct access is appropriate and only those credentials which are deemed necessary (i.e. read, write, dbowner).

- A service account with limited credentials is created for the reporting tool (Power BI) and connects to the data warehouse.
- For most users, data will be visible via the reporting tool, and security restrictions will be in place at this layer as well:
 - Azure Analysis Services allows row level security to be implemented allowing us to restrict each report screen, visualization, and data point based on a user's predetermined access.
 - Azure Active Directory integrates with Analysis Services, allowing the tool to dynamically and quickly recognize updates to a user's restrictions based on membership to an Active Directory Group.
- Outside of the solution but worth mentioning:
 - At no point in the development process does the development team disseminate sensitive data, such as evaluation or student data, unless explicitly informed by the client that it is acceptable. For example, the development team will not send an email containing a non-obfuscated screenshot of an employee's evaluation history. Instead, this information would be sent in a password protected file, via SFTP, or another authorized form of transmission.

6. Project Approach, Implementation, and Management

6.1 Our Approach

CCG and The Calsoyas Group deeply understand New Haven Public Schools vision and are well positioned to make the envisioned LDS a reality. We understand that that schools have different needs and characteristic and the challenge of school system is developing current and future school leaders that are well matched to meet the needs of those schools. We propose building a leadership development tool that reflects this reality and allows for the capture of the different strengths and preferences of school and school leaders (current and prospective). Our leadership development tool will position New Haven Public Schools to strategically manage leader talent in ways that go beyond traditional talent tools, supporting district staff as they work to develop current leaders and build a strong talent pipeline.

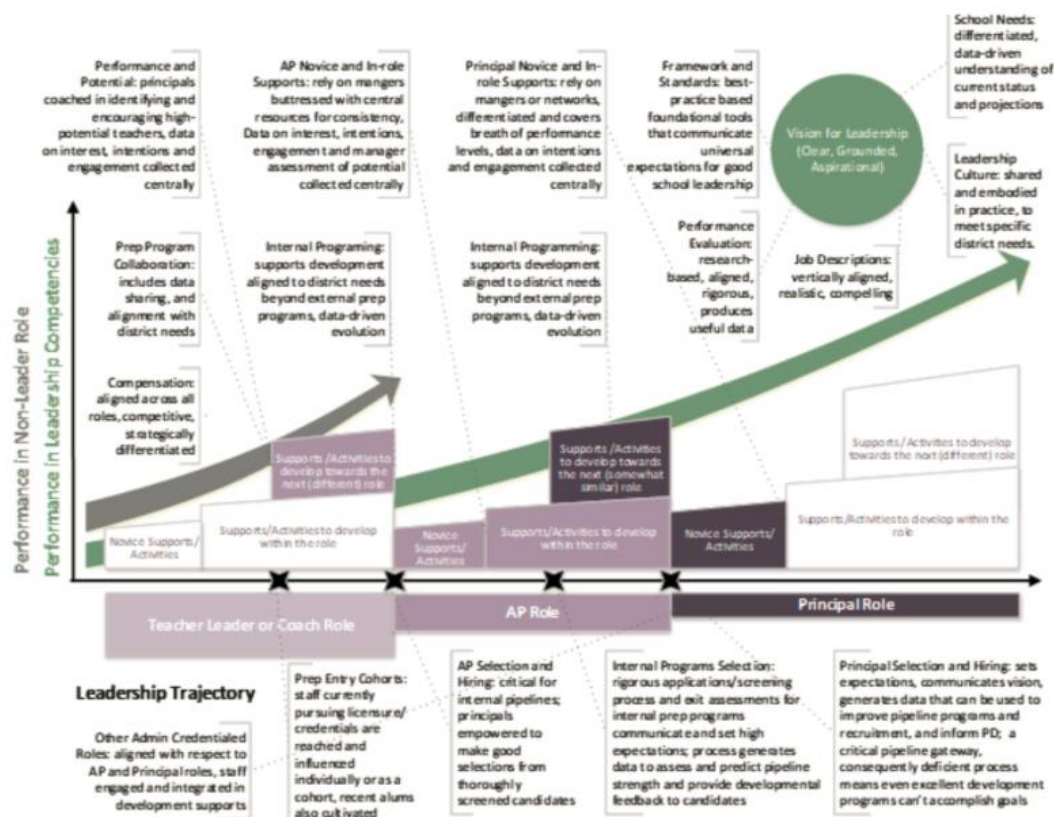
6.2 Launch and Vision Design

To execute the deliverables related to business requirements, we will engage in a unified business intelligence (BI) strategy that aligns business goals with technology initiatives through our AVR methodology.

This process will have two distinct dimensions:

1. A landscape analysis, focused on programs, practices, and process related to the leadership continuum (talent identification, tracking programs, selection, in-role supports etc.) and current project materials.
2. Technical discovery related specifically to current system configurations.

The chart below outlines the areas that are included in our landscape analysis:



Upon completion of information collection and analysis, we provide an analysis highlighting points of misalignment or disconnect amongst the current state, previously developed requirements, and the desired vision/future state. The document details how requirements should be altered to meet project objectives and highlights non-technical priorities that are essential to meet objectives.

6.3 System Design

We know how important it is for our school district clients to make the most of their investment in their leadership development system. To that end, we want to make sure that the development resources are used efficiently and that the tool is optimized to meet your needs. Our technical system design ensures the correct system workflows are created, the right data points are included in the right tables, and the system is configured to meet the desired requirements.

Our approach safeguards the underlying data elements, tracks educator competencies, identifies high potential candidates, improves candidate recruitment and selection, and ensures program evaluations are well aligned to meet project objectives. While all leadership development systems share certain commonalities, the power of our approach is to ensure that the leadership development system for New Haven Public Schools is tailored to the unique needs and requirements of New Haven Public Schools. To accomplish this, during the non-technical design

phase we work with key stakeholders to understand the nuance and complexities of the school system. Our system design focuses on the following approach:

A. Examine the vision and description of the school leader role, particularly vision and role alignment to relevant frameworks and strategic priorities. Also, ensure the vision of the role is clear and appropriately aligned to recruitment approaches, selection processes, and development philosophies, and that this is all reflected in the system requirements.

B. Investigate and assess all available data for inclusion in the leadership development system. We don't just look at "traditional" data; we cast a wide net and look across departments for data that could be useful in the content of the leadership development system. For data that is not configured optimally for inclusion in a data warehouse but that could be useful for a leadership development system, we make recommendations and work closely with the stakeholders that manage that data so that where possible data structure can be modified and included. We know that data can sometimes be messy but we take an expansive and optimistic view, working to ensure that we leave no stone unturned as we work to include data that demonstrates a variety of leader strengths that align with existing frameworks.

C. Engage with stakeholders to understand the scenarios that the tool is designed to support and their relative priorities. In our experience, leadership development systems open up a range of new and exciting possibilities. The act of bringing together data from disparate systems opens up new avenues for analysis – a fuller understanding of the needs of schools and the ways in which the talent pool is well equipped to meet those needs creates opportunities for intervention that simply didn't exist prior to the implementation of the system. Knowing this, we work with stakeholders to map out the full range of possibilities and scenarios, attaching relative importance to each. This allows us to create a set of requirements, and appropriate prioritization, so that the school district gets the most of out of the final product.

D. Translate the design phase into a set of requirements that resonate with both the key stakeholders and the technical team. A successfully executed design phase results in a successful bridging of the gap between the eventual users of the system and the technical team that responsible for executing the technical build of the system.

Our approach is flexible and tailored to NHPS needs.

Our approaches can operate in parallel, providing the right underlying workflows and generation of useful data. We are also pursuing more technical objectives related to the LDS implementation. The CCG-TCG tools have sophisticated recommendation, match, rate, rank, and filter capabilities. Recommender systems are relatively new, but pervasive in daily life. These systems help us make shopping decisions on Amazon, find movies on Netflix, or find a date on OKCupid. Recommender systems have great potential within the education sector. School-level applicant tracking system inputs have not fundamentally changed during the past 30 years. Licensure, GPA, and academic history are necessary, but provide limited insights for choosing the right candidates. Licensure requirements, grade level, or basic programmatic requirements (IB experience, Montessori, etc.) describe only surface-level qualifications for a position and/or school environment. Research has shown that selection processes relying on simple measures such as grade point average, have little-to-no predictive ability on teacher performance. Some

schools have attempted to develop more nuanced selection methods but have struggled to convey information to decision makers in ways that are actionable and fair (Jacob, Rockoff, Taylor, Lindy, & Rosen, 2016).

An example of a recommender system is an individual attempting to create a relationship on OKCupid through profile development, eventually leveraging recommendations based on shared interests. An example of a traditional database is listing searches on Craigslist personals using a few basic filters. It is important to note, our system is not designed to make decisions for people, our recommendations help users view their options from a renewed perspective.

If New Haven Public Schools chooses to incorporate recommendations or limit the talent mapping tool to visualizations and filtering capabilities, the process is guided by the following principles:

- Even schools close in proximity, will have a different set of strengths and needs.
- Good leaders share common traits, but have different backgrounds, experiences, strengths, and preferences.
- Fit matters. For leaders to thrive, improve, and sustain results, leaders and schools must be optimally matched.

Studies have shown, the fit between a leader and their environment matters when it comes to performance and job satisfaction. The Calsoyas Group has integrated improved matching for “fit” within the framework of our talent mapping tools. The tools help manage concerns such as leadership pipelines, the leader selection process, the processes of hiring and movement, development programs for both current and aspiring leaders and succession planning. Our methodology combines new and existing sources of data, transforming the formerly vague idea of “fit”, to be operationalized. “Fit” is simply a shift from looking at “quality” in terms of a level of experience or licensure requirement, to examining how well-matched certain school and leader characteristics are to the conditions that best meet those needs. CCG has created a repeatable solution and utilizes subject matter experts in the industry to meet project completion timelines.

6.4 Project Planning Process: Our Delivery Approach

At CCG, we have successfully used traditional waterfall, iterative waterfall and Agile/SCRUM methodologies. Our project leaders have certification in either SCRUM, PMP, or both, providing the right amount of hands-on experience to drive successful projects. For this engagement we recommend using an iterative model, resembling a hybrid of the aforementioned methodologies, to achieve the best outcomes and optimize a short time to value. Below is a description of our iterative methodology.

6.4.1 Iterative Model

CCG uses a staggered iterative model that has evolved as a result of many LDS implementations. Rather than be bound by the constructs of specific methodology we have adopted key aspects to

maximize value while maintaining the flexibility necessary to allow the solution to adapt and evolve throughout development.

The basis for our framework is

- ✓ Developing a clear roadmap and priority
- ✓ Involving members at time of relevance
- ✓ Releasing meaningful portions of solution sooner in the timeline
- ✓ Implementing check points to inspect and adapt
- ✓ Facilitating hands on feedback
- ✓ Fostering technical innovation

A key advantage of a staggered model is the minimized idling of resources. While the LDS is a concerted effort, we recognize that resources participation varies at different points in the cycle. TCG is introduced to drive the initial vision and design. Based on those conversations we will identify what data points will be collected and begin putting in requests for files. As the files are received, a back-end developer will roll on to begin data warehouse design and load. Once a sufficient quantity of data becomes available in the warehouse, a BI developer will be added to begin creating the reporting layer of the LDS.

The LDS will be released on a regular basis that coinciding with stakeholder/development team meetups. Usually, on a weekly basis, the meetups are put in place to showcase recent development and garner feedback. Design, while front-loaded in the timeline, continues throughout the entire development in the meetups. This allows for the team to pivot and make adjustments to the solution as understanding of solution needs grow.

Communication and focus are our keys to a successful project. CCG utilizes Azure DevOps to organize our goals and priorities into actionable tasks. We leverage the meetups to align progress and direction with stakeholders to get in front of any obstacles as soon as possible.

6.5.1 Work Stream Overview

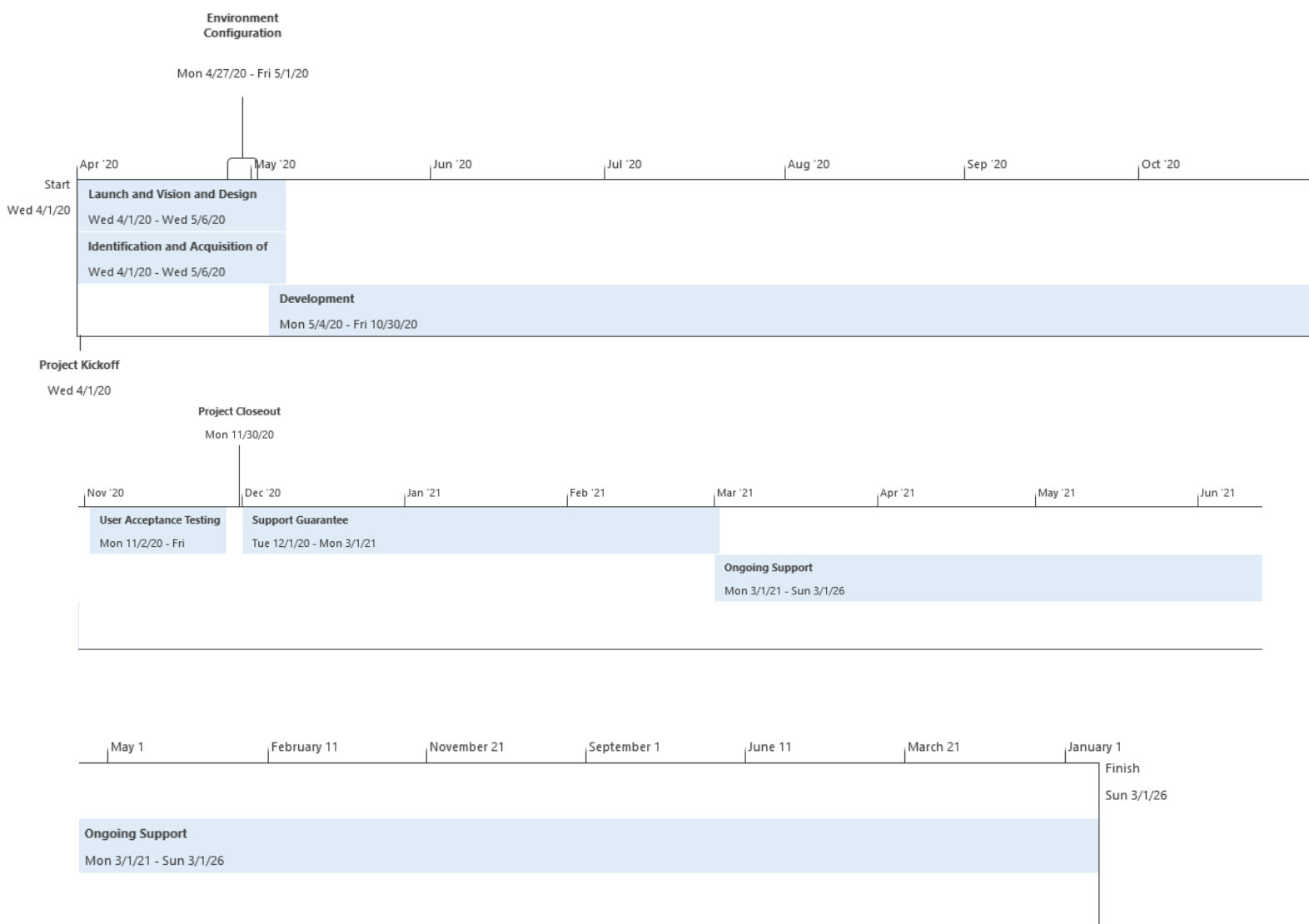
Work Stream	Primary Activities	Deliverables
SCRUM and Project Administration	<ul style="list-style-type: none"> Manage project budget, issues and risks Manage project backlog Administer Jira Manage CCG resources Facilitate Scrum events and activities 	<ul style="list-style-type: none"> Scrum training Sprint planning and review sessions Daily Scrum meetings Sprint Reviews Sprint Retrospective meetings
Launch and Vision Design	<ul style="list-style-type: none"> Establish team working norms and expectations Define project goals and guiding Principles Plan stakeholder engagement Map project and assess risks and opportunities 	<ul style="list-style-type: none"> Creation of product backlog Guiding Principals Stakeholder engagement plan
Environment Configuration	<ul style="list-style-type: none"> Capture security and access requirements Design data and reporting environment Allocate hardware to project Environment installation and configuration Configure production environment 	<ul style="list-style-type: none"> Environment Specifications Document ETL Framework
School Profile Dashboards	<ul style="list-style-type: none"> Requirements/User Story definition Data profiling of source system(s) Data Integration into solution Dashboard Design User Acceptance Testing User Guide Development 	<ul style="list-style-type: none"> Data Warehouse Data Models School Profile Dashboard with up to 10 visualization objects Technical Documentation (Source to Target Mappings, ETL Runbook, Dashboard User Guide) Process documents for manual and automatic data feeds
Leader Profile Dashboards	<ul style="list-style-type: none"> Requirements/User Story definition Data profiling of source system(s) Data Integration into solution Dashboard Design User Acceptance Testing User Guide Development 	<ul style="list-style-type: none"> Data Warehouse Data Models School Profile Dashboard with up to 15 visualization objects Technical Documentation (Source to Target Mappings, ETL Runbook, Dashboard User Guide) Process documents for manual and automatic data feeds
Leader Fit Tool	<ul style="list-style-type: none"> Requirements/User Story definition Leader Fit model creation Data profiling of source system(s) Data Integration into solution Dashboard Design User Acceptance Testing User Guide Development 	<ul style="list-style-type: none"> Data Warehouse Data Models School Profile Dashboard with up to 10 visualization objects Technical Documentation (Source to Target Mappings, ETL Runbook, Dashboard User Guide) Process documents for manual and automatic data feeds
Decision Support Dashboards	<ul style="list-style-type: none"> Requirements/User Story definition Data profiling of source system(s) Data Integration into solution Dashboard Design User Acceptance Testing User Guide Development 	<ul style="list-style-type: none"> Data Warehouse Data Models School Profile Dashboard with up to 15 visualization objects Technical Documentation (Source to Target Mappings, ETL Runbook, Dashboard User Guide) Process documents for manual and automatic data feeds
Training and Implementation Support	<ul style="list-style-type: none"> Design User training Coaching and support on strategic implementation and planning 	<ul style="list-style-type: none"> Knowledge transfer session Coaching on implementation

Additionally, the following will also be provided:

Employee 360 Degree Evaluations	<ul style="list-style-type: none"> Requirements/user story definition Tool design User acceptance testing User guide development 	<ul style="list-style-type: none"> Tool user guide
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6.5.2 High-Level Project Timeline

Task	Start	Finish	Duration
Project Kickoff	Wed 4/1/2020	Fri 4/1/2020	1 day
Launch and Vision and Design	Wed 4/1/2020	Wed 5/6/2020	5 weeks
Identification and Acquisition of Source Data	Wed 4/1/2020	Wed 5/6/2020	5 weeks
Environment Configuration	Mon 4/27/2020	Fri 5/1/2020	1 weeks
Development	Mon 5/4/2020	Fri 10/30/2020	26 weeks
User Acceptance Testing and Training	Mon 11/2/2020	Fri 11/27/2020	4 weeks
Project Closeout	Mon 11/30/2020	Mon 11/30/2020	1 day
Support Guarantee	Tues 12/1/2020	Mon 3/1/2021	90 days
Ongoing Support	Mon 3/1/2021	Sun 3/1/2026	5 yrs



7. LDS Training, Support and Maintenance Plan

7.1 Training

7.1.1 Audience

Initially, key project stakeholders and power users will interact with the tool. As the project moves into UAT, the audience will expand to the NHPS users who will be utilizing the tool most. Once UAT is complete and project stakeholders are confident in the content, aesthetic, and functionality of the tool, training will extend to all solution users.

7.1.1.2 Content and Frequency

BI Tool Training

Content during initial training sessions will begin with familiarity and ease of use within the tool. Intermittently, deeper dive sessions will be conducted which should include all power users. During UAT, training sessions will be in-depth in nature. The subject of these deeper dive sessions will be determined in collaboration with NHPS, maximizing value at the time of training. When UAT is complete and the project stakeholders are prepared to move forward with the final phase of training, functional report consumer training will be provided to NHPS's larger solution user audience.

This workstream will provide support for dashboard design guiding principles throughout the sprints. Beyond just understanding how to access and interact with the system, these trainings will be designed to illuminate the ways in which the new capabilities can support strategic decision making.

7.2. Support and Maintenance Plan

7.2.1 Support

Technical support for the solution will be provided and available as needed during the engagement.

After development is concluded and the scope of work is completed, CCG has available for use a standard Production Support contract to assist our clients with maintaining their solutions over time where they have limited staff or want a managed service approach to support the solution delivered.

7.3 Ongoing Support

Service, training, and ongoing support of the solution while CCG is engaged with the client is included in this scope of work.

7.2.2 Production Support

CCG Response and Resolution Time

Response Time	Resolution Time	Status Updates
Within 24 hours from time call received.	72 hours	Every 24 hours

7.2.3 Scheduled Maintenance, High Reliability, and Software Updates

IaaS and PaaS (SQL DB) maintenance and upgrades are handled by Microsoft and occur periodically. A notification is typically provided to all listed administrators of the Azure service offering, and a 99.9% committed monthly uptime is adhered to. Should, for any reason, Azure fall short of the committed monthly uptime a service credit is provided to the client utilizing the below structure:

MONTHLY UPTIME PERCENTAGE	SERVICE CREDIT
< 99.99%	10%
< 99%	25%
< 95%	100%

In the instance of a necessary software upgrade or update not maintained by Azure, CCG will work with the client to determine a method which impacts users the least. Since this solution is hosted in the cloud, no action would need to be taken by the NHPS beyond direction on timing.

8. NHPS Requirements to Complete the Design, Data Collection and Implementation of the LDS

8.1 How We Work: Our Partnership Model

We work with our clients to establish the preferred frequency, type of contacts, and information exchange needed to build a strong working relationship. The precise format of these interactions is based on your preferences and the chosen technical project management methodology. Our typical interactions include the following:

- In-person site visits (usually every three to four weeks), including kickoff meetings, key interim deliverable reviews, stakeholder engagement sessions, collaborative design-focused working days, and working days with the IT and data teams
- Regular conference calls with key client project leads and CCG-TCG team to share updates, discuss key issues, plan, and review interim drafts
- Telephone or video coaching and working sessions

In addition to the structured interactions above, we are also available by email, phone, text, video call, instant message, or other communication media for informal discussions, feedback, and thought partnership.

We believe in a partnership built on communication, a spirit of collaboration, and trust. We will work with New Haven Public Schools to develop roles and understand levels of involvement. The tool will help describe and articulate the preferences of NHPS.

We share our findings and preliminary recommendations with our clients regardless of client involvement, decision making, and data collection. This allows us to leverage our shared expertise and adjust the course of the project if necessary. We remain flexible and provide deliverables in the format and depth of content that is of greatest use to the NHPS throughout the implementation process. We provide our clients with the analytical tools we use to make and support key decisions, making the final implementation plan simple, concise, and action oriented.

9. Price Proposal

9.1 Description of Services and Software

9.1.1 Services

CCG is pleased to provide the following Fixed-Price services in support of the Leadership Development System project.

Table 1: In-Scope Services

Phase	Scope Description	Deliverables
Project Administration	<ul style="list-style-type: none"> Manage project budget, issues and risks Administer DevOps Manage task log Manage CCG resources 	<ul style="list-style-type: none"> Planning and review sessions
Launch and Vision Design	<ul style="list-style-type: none"> Establish team working norms and expectations Define project goals and guiding Principles Plan stakeholder engagement Map project and assess risks and opportunities 	<ul style="list-style-type: none"> Creation of product backlog Guiding Principals Stakeholder engagement plan
Environment Configuration	<ul style="list-style-type: none"> Capture security and access requirements Design data and reporting environment Allocate hardware to project Environment installation and configuration Configure production environment 	<ul style="list-style-type: none"> Environment Specifications Document ETL Framework
School Profile Dashboards	<ul style="list-style-type: none"> Requirements Data profiling of source system(s) Data Integration into solution Dashboard Design User Acceptance Testing User Guide Development 	<ul style="list-style-type: none"> Data Warehouse Data Models School Profile Dashboard Technical Documentation (Source to Target Mappings, ETL Runbook, Dashboard User Guide) Process documents for manual and automatic data feeds
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Decision Support Dashboards	<ul style="list-style-type: none"> Requirements Data profiling of source system(s) Data Integration into solution Dashboard Design User Acceptance Testing User Guide Development 	<ul style="list-style-type: none"> Data Warehouse Data Models Decision Support Dashboard Technical Documentation (Source to Target Mappings, ETL Runbook, Dashboard User Guide) Process documents for manual and automatic data feeds

Training and Implementation Support	<ul style="list-style-type: none"> Design User training Coaching and support on strategic implementation and planning 	<ul style="list-style-type: none"> Knowledge transfer session
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9.1.2 Software

CCG will provision the following cloud-based infrastructure and services on behalf of NHPS which will support the Leadership Development System. Note, NHPS maintains ownership and full control of these services and will receive monthly invoices for their usage from CCG, NHPS' indirect cloud service provider. Services can be stopped at any time at NHPS' discretion although this may affect the availability of the solution.

Azure Service Type	Azure Service Product	Description
Platform as a Service	SQL Database (Development Data Warehouse Environment)	2 x 50 DTUs, standard tier 1 x 20 DTUs, standard tier 3 x 250 GB storage
Platform as a Service	SQL Database (QA Data Warehouse Environment)	2 x 50 DTUs, standard tier 1 x 20 DTUs, standard tier 3 x 250 GB storage
Platform as a Service	SQL Database (Production Data Warehouse Environment)	2 x 100 DTUs, standard tier 1 x 20 DTUs, standard tier 3 x 250 GB storage
Platform as a Service	Azure Data Factory	SQL Server Integration Services, 1 D2V3 Virtual Machine
Platform as a Service	Azure Analysis Services	1 Standard instance
Software as a Service	Power BI Environment	1 Pro license per user

9.2 Pricing and Invoicing

9.2.1 Services

CCG offers these services as a fixed price proposal and pricing is based on the assumption that the CCG methodology will be utilized and a maximum of 5 trips will be incurred to New Haven. Any changes to methodology will be managed via the Change Management process and may require a Change Request.

The total cost of services is \$400,000 not including software and production support. All fees will be invoiced with the following deliverables.

Table 2: Deliverables and Payments

Deliverable	Cost	Date
Completion of Vision Design and Environment Configuration Stakeholder Engagement Document. Configuration of Database and BI tool environment	\$50,000	5/1/2020
Completion of Development: ETL Framework	\$315,000	10/30/2020
Completion of User Acceptance Testing and Training: Technical documentation (Source to Target Mappings, ETL Run Book, BI User Guide), training session), Project closeout events, Project Acceptance Letter, LDS	\$35,000	11/30/2020

**Release will be in a state of minimum viable product. Tool will be should be able to satisfy minimum requirements. Does not fully encompass additional enhancements.*

9.2.2 Software

Estimated software costs are included below. As mentioned in section 9.1.2, NHPS will receive monthly invoices from CCG, NHPS' indirect cloud service provider.

Type	Description of Item	Quantity	Estimated Monthly Cost
Azure PaaS	Single Database - Development	1	\$183.65
Azure PaaS	Single Database - QA	1	\$183.65
Azure PaaS	Single Database - Production	1	\$330.61
Azure PaaS	Azure Analysis Services	1	\$627.80
Azure PaaS	Azure Data Factory	1	\$579.88
Azure SaaS	Power BI Pro License (Faculty)	10	\$30.00
Azure SaaS	Power BI Pro License (Developer)	1	\$10.00
Estimated Monthly total			\$1,945.59
Estimated Annual Total			\$23,347.20

9.2.3 Production Support

CCG offers a few different options for production support for our solutions. Based on this solution we recommend our bronze package and a bucket of hours to support your solution on an ongoing basis*:

Summary of Support Framework Financial Proposal:

Support – up to 120 hours annually	\$19,000
Total	\$19,000

See tables below for definitions of CCG and client responsibilities, response times, and severity level definitions.

*CCG also has a managed service provider offering we are happy to discuss in more detail at NHPS' request.

9.2.3.1 Convergence and Client Responsibilities

CCG will partner with Client to provide support services and as such, there are specific responsibilities for both parties:

Client Responsibilities

Area	Responsibilities
Data Protection	Client is responsible for all physical, administrative, network, and electronic data protection required by applicable law for its facilities, operations, policies, and data, including without limitation, providing appropriate notices and systems of records required under applicable law. Client is responsible for compliance with all legal requirements.
Project Information	Client will ensure that all information supplied to CCG with respect to this effort is complete and accurate, to the best of its knowledge. Incomplete, inaccurate or erroneous information may impact the project scope, budget and/or schedule.
Resource Management	Client will assign a manager to supervise and direct the work and schedule for the assigned CCG consultant(s) for the duration of the service in this SOW. The assigned client manager is responsible for orienting CCG consultants to applicable policies and procedures while working at and with Client and managing issues and risks associated with the assigned activities.
Facilities	Client will provide a work area and the necessary hardware, software, communications, access, and other facilities in accordance with the Agreement for CCG consultants to perform the services defined in this SOW when required to perform services on the client's premises.
Software and Licensing	Client will provide all software licenses for CCG team and users. Client will also provide any support desk reporting as needed by Client. CCG will not use a call center tool for this engagement.
Engagement Information	Client will ensure that all information supplied to CCG with respect to this effort is complete and accurate, to the best of its knowledge.

CCG Responsibilities

Area	Responsibilities
Resource Management	CCG will assign a project manager to supervise and direct the work and schedule for the assigned CCG consultant(s) for the duration of the service in this SOW. The assigned CCG manager is responsible for orienting CCG consultants to applicable policies and procedures while working at and with Client and managing issues and risks associated with the assigned activities.
Facilities	CCG will provide a work area and the necessary hardware, communications, access, and other facilities to perform the services defined in this SOW and will provide the services <u>remotely</u> .

9.2.3.2 Support Hours

Support Hours

Services	Description
Support Business Hours: 9:00 AM to 5:00 PM EST *Except for holidays.	After Hours Support: Emails after regular business hours will be returned the following business day by 9:00 AM.
<ul style="list-style-type: none"> Regularly scheduled maintenance is performed by Client. Overtime, weekend and holiday work schedules, and changes in a consultant's regular work schedule will be mutually agreed to by CCG and Client prior to scheduling. 	

10. Exceptions

Not applicable

11. Assumptions

This proposal is based upon the following assumptions:

- Leader fit components will be determined in vision session and final included scope mutually agreed upon by all parties.
- The data feeds, manual and automated, will be developed into an Azure SQL Server environment. Migration to an on-premise installation is out of scope for this contract.
- Data feeds into the Leadership Development System will not be automated and require manual interventions to maintain environment (i.e. placing excel files on server).
- CCG will attempt to automate data sources where possible and feasible under the duration constraints of the project.
- CCG will create a scalable process for data sets that need manual intervention.
- The project will be managed in Azure DevOps and access will be granted to the Client project team members.
- The development team will consist of the Project Manager, ETL developer(s), BI developer(s) and Business Analyst.
- Delays in data acquisition or issue resolution during sprints will decrease the overall productivity and reduce the expected delivered work product achieved during development.
- Software and hardware costs are in addition to the services costs listed in this contract.
- Client will work to make sure Stakeholder Engagement and visioning sessions are scheduled with external stakeholders and provide reasonable access to such resources.
- Client is responsible for providing CCG resource with all access and technology required to work remotely including, but not limited to, VPN access, access to data environments, and access to necessary project documentation or files.
- Client will provide CCG team internet access when on-site.
- Client will make all existing documentation available including system architecture diagrams, Entity-Relationship Diagrams (ERD), data flow diagrams, development standards, application architecture diagrams and any other documentation as requested.
- Client shall resolve any key process flow or data mapping decisions prior to commencement of application configuration.
- Client is responsible for performing data validation for sample and production data.
- Client is responsible for correction of data errors or inconsistencies.
- CCG is responsible for deployment and system testing to a single Client environment (Development and Production).
- CCG is responsible for unit and end-to-end functional system testing.
- Client is responsible for User Acceptance use cases, testing and sign-off from users.

- Client is responsible for providing hardware allocation plans and all required software license information.

12. Appendices

Not applicable