Exhibit B: Addendum to Proposal (Scope of Services)

Contents

Overview
The City of Columbus (City) has selected Sogeti USA, a division of Capgemini America, Inc., as the prime contractor to implement a Citywide Data Management Platform (DMP). This document defines the scope of services to be performed by Sogeti and its solution team (Talend and Cloudera) and serves as an addendum to the Sogeti's proposed solution. Terms and conditions included in this document supersede the original proposed solution.

1. Infrastructure Project Assumptions

The city is in the process of planning a re-design of the city's hosting architecture around a hyper-converged infrastructure. The city plans to implement this new hosting architecture in 2019 and needs to understand how the vendor's proposed platform architecture can be implemented on current infrastructure assets and migrated to the hyper-converged infrastructure as the two projects coalesce.

To achieve this, the city needs to work with the Sogeti solution team to understand and plan a platform migration from the existing to a new environment including how the proposed architecture (hardware requirements, software licensing) can be scaled-up or scaled-out as hosting infrastructure transitions from one environment to another and the city's use of the platform expands.

Sogeti Response: *Sogeti understands the City of Columbus (CoC) plans to transition from a minimum "current state" platform to a Hyper-Converged Infrastructure (HCI). While there are implications on our original proposed solution, we are confident we can support this change. In general, we need to consider the potential impact in the context of licensing and professional services as noted below:*

- *Licensing - Talend and Cloudera will provide "transitional" licenses to allow CoC to maintain a functioning "current state" platform while the products are migrated to the HCI platform. There will be no additional license cost for the "transitional" licenses under the condition that the "current state" platform is decommissioned within an agreed upon period of time (typically 30 days), after the products are operational on the HCI platform.*

- *Professional Services – Our proposal includes Professional Services to install and configure Talend and Cloudera on one (1) production and one (1) non-production environment. Installation and configuration of the products on additional environments adds scope to our original proposal and will likely require additional Professional Services. Sogeti will work with CoC during negotiations to understand the timing of the migration from the "current state" environment and the HCI to optimize the proposed Professional Services and minimize additional cost.*

1.1. Hyper-converged Infrastructure

Hyper-converged infrastructure (HCI) has traditionally been based on a scale-out approach to managing computing and storage resources. Since market-launch, customers of hyper-

converged platforms and hyper-converged platform providers have learned from the operation of traditional scale-up workloads (high performance computing, database warehouses, etc.) in a scale-out architecture. As a result, various HCI providers have developed purpose-built or specialized HPC HCI components (aka bricks or nodes). As part of the project plan, the city wants to know whether Sogeti and its solution team can confirm successful implementation of the Talend platform in an HCI environment, and their willingness to work with the city to host Talend in an HCI architecture. Such an approach would need to include the requisite Talend platform infrastructure and application performance requirements of the proposed software solution.

> **Sogeti Response:** Sogeti indicated that Talend and Cloudera can be deployed in an HCI environment. Sogeti agrees to work with the City as part of the negotiations to understand the implications of this change.

1.2. Phased Deployment of Solution

As part of 1.1 above, the city will want to understand infrastructure options for deploying the Talend architecture in multiple phases, and in particular, the ability to scale virtual machines without reconfiguring or reinstalling the platform, or adding additional VMS without reconfiguring or reinstalling the platform as a means to provide more compute to the platform.

> **Sogeti Response:** *Talend and Cloudera "transitional" licensing (as described above in Section 1) can be leveraged to support phased deployment. Additional professional services may be required beyond what was included in our original proposal. Sogeti will work with CoC during negotiations to fully understand the impact of this change.*

1.3. Pre-Production & Production Deployments

As part of the transitional plan from the current to new environment, the city will want to initiate a pre-production environment (Development/Staging) in phase 1 using the city's existing server hosting architecture. After the HCI architecture is available, the pre-production environment will be migrated from the existing hosting architecture to the HCI hosting architecture. Additionally, the production environment will be installed and configured on the HCI architecture once it is available.

> **Sogeti Response:** *Sogeti acknowledges that the City's two environments (non-production, production) will be deployed on different infrastructure and will not be available to install and configure Talend and Cloudera at the same time. The City expects the production environment will not be available until September 2019. Talend and Cloudera will install and configure on the non-production environment at project startup (estimated as May/June 2019) and will return to deploy and configure the production environment at a later date (estimated as September 2019).*

The proposed scope of work only includes installation and configuration support for two environments. The City recognizes that installing or deploying a third-environment will require a modification to the scope of work and additional fees.

2. Hardware Requirements

This section summarizes key assumptions regarding the hardware environment necessary to support the DMP. As described in the Infrastructure Project Assumptions section, the City plans to expand the DMP infrastructure as DMP capabilities are expanded overtime.

2.1. Talend Minimum Hardware Requirements

The city will need to understand the minimum hardware requirements to deploy the proposed solution in the short-term. The City may wish to deploy the solution on minimum hardware with expectations that it will migrate to a new environment during the scope of the project.

The City has compiled the minimum hardware requirements based on information provided during the proof-of-concept and negotiation phase. Please note separate tables are provided in this document which summarize the infrastructure planned for Talend and Cloudera. Detailed hardware requirements are included in **Appendix A**.

Talend DMP Components									
Environment	**Components**	**Servers**	**OS**	**CPU Cores per Server**	**Total Cores**	**RAM per Server (GB)**	**Total Ram (GB)**	**Disk per Server (GB)**	**Total Disk**
Pre-Production	TAC, Data Prep & Data Stewardship	1	WINS 2016	8	8	8	8	100	100
Pre-Production	Job Server	1	WINS 2016	8	8	8	8	100	100
Pre-Production	Database (my SQL)	1	WINS 2016	8	8	8	8	100	100
Pre-Production & Production	Shared Nexus	1	WINS 2016	8	8	8	8	100	100
Pre-Production & Production	CI Server	1	WINS 2016	8	8	8	8	100	100
Production	Database (my SQL)	1	WINS 2016	8	8	8	8	100	100
Production	TAC, Data Prep & Data Stewardship	2	WINS 2016	8	16	8	16	100	200
Production	Job Server	2	WINS 2016	8	16	8	16	100	200
	Totals	10			80		80		1,000

Table 1: Talend DMP Hardware requirements for proposed Talend solution.

Cloudera DMP Components									
Environment	**Components**	**Servers**	**OS**	**CPU Cores per Server**	**Total Cores**	**RAM per Server (GB)**	**Total Ram (GB)**	**Disk per Server (GB)**	**Total Disk**
Pre-Production	Cloudera Hadoop Cluster Nodes (6 Total)	6	RHEL 7X 64	8	48	64	384	333	2,000
Production	Cloudera Hadoop Cluster Nodes (1 - 2)	2	RHEL 7X 64	12	24	64	128	400	800
Production	Cloudera Hadoop Cluster Nodes (3 - 6)	4	RHEL 7X 64	12	48	128	512	800	3,200
	Totals	12			120		1,024		6,000

Table 2: Cloudera DMP hardware requirements for proposed Hadoop cluster.

3. Software Licensing & Support Fees

Key assumptions and information related to software licensing and support fees are included in this section.

3.1. Software Acquisition

Sogeti will serve as a third-party reseller for Talend and Cloudera. The City of Columbus will purchase both Talend and Cloudera through Sogeti's existing reseller agreement.

3.2. Subscription Agreements

The Director's office and the City Attorney have reviewed and approved subscription agreements for proposed software solutions.

3.2.1. Talend Subscription Agreement

Talend's software subscription agreement is available in **Exhibit C** of the contract.

3.2.2. Cloudera Subscription Agreement

Cloudera's software subscription agreement is provided in **Exhibit D** of the contract.

3.3. Support Agreements

Software Support begins when the Purchase Order is approved and entered into the Talend and Cloudera systems.

3.3.1. Talend Data Fabric Software Support

The City will receive Platinum Support for Talend Data Fabric. Talend's support services agreement is available in **Exhibit E** of the contract**.**

3.3.2. Cloudera Data Hub Software Support (Bronze Level).

The City will receive Bronze Level support for Cloudera. Cloudera support services agreement is available in **Exhibit F**.

Assumption: With the merger of Hortonworks and Cloudera, the firm is planning to support Cloudera Data Hub (version 6.x) through 2022. The City will be able to upgrade to Cloudera Data Platform (new product) in the future. Cloudera also indicated that the fees negotiated for Cloudera Data Hub will not increase if the City decides to update from Cloudera Data Hub to Cloudera Data Platform.

3.4. Talend Data Fabric License Fees

Talend Data Fabric uses an annual subscription pricing model. During negotiations Talend accommodated "front-loading" of the software price, contingent on a minimum three-year commitment. Additionally, Talend agreed to no price increases in years 4-6.

3.4.1. Talend Five Year Commitment

The City is planning to purchase five years of Talend Data Fabric. The total cost for years one through five is presented in **Table 3:** Talend Annual Pricing (Years 1-5).

Talend Recommended Licenses and Fees (Year 1 Subscription Pricing)				
Product Description	**License Metric**	**Quantity**	**Reseller Unit Cost**	**Total Reseller License Fee**
Talend Data Fabric Platform (Open Studio, TAC, etc.)*	1 Pack of 3 Concurrent Users	1	$190,550	$190,550
Talend Data Catalog Standard Edition	1 Pack of 10 Concurrent Users	1	$77,250	$77,250
Talend Data Prep	1 Pack of 10 Named Users	2	$10,300	$20,600
Talend Data Stewardship	1 Pack of 5 Named Users	2	$15,450	$30,900
Talend Platform – MDM Non-Production Runtime	Per 4 Cores	1	$13,751	$13,751
Talend Platform – MDM Production Runtime	Per 4 Cores	1	$28,325	$28,325
Talend Platform Admin User	Per 1 Named User	1	$0	$0
Year 1 Total License Fees				**$361,376**

** Open Studio, Open Studio for Big Data, TAC, Full version of Data Services Platform (ESB), API Services, and all related components of the Talend Data Fabric*.

Talend Annual License Software & Support	Totals
Year 1	$361,376
Year 2	$199,820
Year 3	$199,820
Year 4	$199,820
Year 5	$199,820
Years 1-5 Total	**$1,160,656**

Table 3: Talend Annual Pricing (Years 1-5).

3.4.2. Talend Out Year Pricing Commitment (Year 6).

Talend has agreed to no future cost increases for the proposed software license fees for the next six years. As such the City will have the option to purchase an additional year of subscription to Talend in year six. Proposed subscription fees for year six are presented in **Table 4:** Talend Annual Pricing (Year 6).

Talend Recommended Licenses and Fees (Year 6 Subscription Pricing)				
Product Description	**License Metric**	**Quantity**	**Reseller Unit Cost**	**Total Reseller License Fee**
Talend Data Fabric Platform (Open Studio, TAC, etc.)*	1 Pack of 3 Concurrent Users	1	$107,120	$107,120
Talend Data Catalog Standard Edition	1 Pack of 10 Concurrent Users	1	$39,140	$39,140
Talend Data Prep	1 Pack of 10 Named Users	2	$5,150	$10,300
Talend Data Stewardship	1 Pack of 5 Named Users	2	$7,725	$15,450
Talend Platform – MDM Non-Production Runtime	Per 4 Cores	1	$10,300	$10,300
Talend Platform – MDM Production Runtime	Per 4 Cores	1	$17,510	$17,510
Talend Platform Admin User	Per 1 Named User	0	$0	$0
Year 6 Annual License Fees				***$199,820***

** Open Studio, Open Studio for Big Data, TAC, full version of Data Services Platform (ESB), API Services, and all related components of the Talend Data Fabric*.

Talend Annual License Software & Support	Totals
Year 6	$199,820
Year 6 Total	$199,820

Table 4: Talend Annual Pricing (Year 6).

3.5. Cloudera Data Hub Pricing (Bronze Support)

Cloudera uses an annual subscription pricing model. During negotiations Sogeti was able to work with Cloudera to guarantee five years of Cloudera pricing.

Also, as described in section 3.3.2; the merger of Hortonworks and Cloudera will adjust Cloudera's software offerings. The firm is planning support Cloudera Data Hub (version 6.x) through 2022. The City will be able to upgrade to Cloudera Data Platform (new product) in the future. Cloudera also indicated that the fees negotiated for Cloudera Data Hub will not increase if the City decides to update from Cloudera Data Hub to Cloudera Data Platform. Cloudera will honor the pricing agreements listed in Table 5.

3.5.1. Cloudera Three Year Commitment

The City plans to purchase 3 years subscription from Cloudera. Table 5 presents total subscription licensing fees for three years of Cloudera.

Cloudera Data Hub (Bronze Support)	Nodes	Reseller Unit Cost	Total Reseller License Fee
Year 1	12	$6,210.00	$74,520
Year 2	12	$6,210.00	$74,520
Year 3	12	$6,210.00	$74,520
Totals Years 1-3			**$223,560**

Table 5: Cloudera Annual Pricing (Years 1 -3)

3.5.3. Cloudera Out Year Pricing Commitment

Cloudera has agreed to no future cost increases for the proposed software license fees for years 4 and 5. Sogeti recommended the City use a 5% annual increase for the 10 Year TCO model years 6-10.

Cloudera Data Hub (Bronze Support)	Nodes	Reseller Unit Cost	Total Reseller License Fee
Year 4	12	$6,210.00	$74,520
Year 5	12	$6,210.00	$74,520
Totals Years 4 and 5			**$149,040**

Table 6: Cloudera Annual Pricing (Years 4 and 5)

4. Professional Services & Fees

4.1. Sogeti / Talend / Cloudera Software Adoption

Sogeti is proposing an agile approach for software adoption that will span 24 weeks (six months). More specifically, Sogeti will help DoT and city departments implement the software and develop data pipelines by splitting the effort into 12, two-week sprints.

A detailed schedule of all activities and key deliverables for the Software Adoption Plan is included in **Appendix B.**

4.1.1. Key Assumptions & Deliverables

A list of key assumptions and deliverables associated with Sogeti's Software Adoption Plan are provided:

For the execution of the Software Adoption Plan (SAP), Sogeti will:

1. Perform Stakeholder Analysis and establish a Department & Steering/Governance Committee
2. Define the training approach and strategy
3. Recommend Talend Training classes

For the execution of the Sogeti DMP project scope, Sogeti will:

1. Hold kickoff sessions with CoC and Department staff
2. Prepare weekly and monthly status reports
3. If a tool (such as JIRA) is available, provide real-time dashboards of status by department and roll-up status
4. Coordinate the communications to departments, etc.
5. Schedule department level meetings, etc.
6. Provide content for a CoC DMP Newsletter

Documentation & Knowledge Transfer:

1. Sogeti will support the creation of a Knowledge Management Database (e.g. SharePoint)
2. Sogeti will craft a transition plan to transition operations of the system to CoC staff
3. Sogeti will load all work products and deliverables to the Knowledge Management system
4. A formal knowledge transfer session will be schedule in the final week of the project

4.2. Sogeti Governance Framework

During contract negotiation, Sogeti has proposed the development of a governance framework. More specifically, Sogeti will lead a governance effort that will run in parallel with the Software Adoption Plan. This effort will produce a framework for future governance efforts to be led by the City.

A detailed schedule of all activities and key deliverables related to Data Governance Framework is included in **Appendix B.**

4.2.1. Key Assumptions

Key assumptions regarding the Data Governance Framework implementation are provided:

1. Client will provide Sprint Mgmt. Tool such as JIRA (City has access to SmartSheet)
2. Client will provide a central repository for all Program Artifacts Materials (SharePoint)
3. Client will provide email address for Communication Plan delivery and meeting scheduling. City of Columbus will setup a “Data Management Platform Communications” email box to centralize the all communications between the project team.
4. Client will provide Data Clean up and Data Correction. Sogeti has not included data cleansing/data correction in our estimates for the pilot data ingestion into the data lake. We assume any data cleanup/data correction will be the City’s responsibility.
5. Sogeti will perform an assessment of the City’s data maturity as part of the first sprint. The outcome of this assessment will help gauge the velocity of the future sprints and will determine the number of target data sets and pilot data connections that can be expected during the project duration. Sogeti will work with the City to agree upon a reasonable number of pilot connections at the end of the assessment and Sprint 1. If any significant risks or issues are identified the changes will go through the documented Change Request process.

4.2.2. Deliverables

Key deliverables associated with the Data Governance framework are provided:

1. Current Data State Assessment Report
2. GAP Analysis
3. Guidelines for development of KPI
4. Data Responsibility and Accountability Matrix
5. Guidelines on Data Governance Operational Flow
6. Guidelines on Data Governance Framework Definition
7. Guidelines on Data Governance Roadmap

4.3. Cloudera Professional Services

Cloudera Professional Services will perform all Cloudera installation, configuration, secure cluster, and training related to the Data Management Platform.

4.3.1. Key Assumptions

Key activities and assumptions associated with the Sogeti / Cloudera professional services are described in this section.

Cluster Deployment (2 Weeks)

Review Prerequisites and Requirements

Cloudera will review the Cloudera Installation Prerequisites document to confirm that all requirements are met. Cloudera will meet with Customer's operations team to discuss requirements and any existing limitations.

If applicable, Cloudera will review Customer's existing Hadoop cluster and related applications. This review will include an in-depth understanding of hardware, data sources, typical jobs and any SLAs for published results. Cloudera may require access to code or example data and will need to work on the cluster with an operator or developer who has access to the cluster.

Install or Upgrade Software

Cloudera will work with Customer to install or upgrade Cloudera Manager and Cloudera's Distribution including Apache Hadoop ("CDH") software, both provided under separate licenses and not pursuant to this SOW, on Customer infrastructure. New installations require hardware, operating systems, accounts and access to be provisioned according to Cloudera's specifications. Installations are limited to one (1) cluster either in a supported Cloud environment (i.e., Amazon Web Services, Google Cloud Platform or Microsoft Azure) or on-premises.

Perform Hadoop Tests and Benchmarking
Cloudera will run standard performance tests to detect bottlenecks and suggest improvements. Cloudera will look at how data compression and decompression affect execution time and storage requirements and suggest improvements. Cloudera will evaluate the current scheduler configuration and suggest improvements.

Review Hadoop Configuration
Cloudera will review the recommended cluster configuration with Customer. Cloudera will describe the configuration changes required based on specifics of cluster deployment, Customer requirements and benchmarking results. Customer will confirm review of the final cluster configuration.

Documentation
Cloudera will deliver documentation detailing specifics of the Hadoop configuration and applicable best practices compiled by the Cloudera Professional Services team.

Cluster Security (3 Weeks)

Review Security Requirements
Cloudera will review Customer's security infrastructure, data security policies, and auditing requirements and provide information and recommendations on how Hadoop ecosystem components can meet Customer's data security policies. Additionally, Cloudera will identify any known weaknesses or limitations in current implementations, as well as any available mitigation steps.

Cloudera will perform the following activities:

1. Evaluate Customer's data security policies as related to Hadoop
2. Evaluate relevant Hadoop security features that meet Customer's security policies
3. Review with Customer any information about known weaknesses or limitations in current Hadoop components
4. Perform a system audit to confirm all prerequisites for security have been established:
    - Hadoop cluster with Cloudera's Distribution including Apache Hadoop ("CDH") and Cloudera Manager up and running and properly configured from a security perspective (Both CDH and Cloudera Manager are provided under separate license and not pursuant to this SOW.)
    - Active Directory available as the authentication mechanism on all nodes in the cluster
    - LDAP integration for the operating system on all nodes
    - Any SSL certificates required

Review Security Architecture
Cloudera will review Customer's security requirements for Kerberos integration. Cloudera will recommend the necessary cluster changes to enable Kerberos on the Hadoop cluster.

Cloudera will review with Customer the options available for both at-rest data encryption (including key management), as well as over-the-wire encrypted communication for Hadoop services.

Cloudera will review with Customer the requirements for data access authorization. Cloudera will recommend the necessary cluster changes to enable authorization controls on the Hadoop cluster.

Configure Authentication

Cloudera will integrate and configure Hadoop security using Kerberos for user authentication. Cloudera will utilize
Cloudera Manager to set up a standalone Kerberos Key Distribution Center ("KDC") to enable security, or integrate directly to Active Directory. Customer will assist with the Active Directory configuration as required, such as creating users and groups. Cloudera will confirm the following technologies adhere to Kerberos security: HBase, HDFS, Hive, Hue, ZooKeeper, Oozie, Sentry, and YARN/MapReduce.

Cloudera will set up AD/LDAP authentication for Cloudera Manager and Hue.

Configure Authorization

Cloudera will integrate and configure Hadoop security using LDAP for user authorization. Cloudera will set up and configure Sentry for role-based access controls ("RBAC"). Additionally, Cloudera will work with Customer to define and implement Sentry policies. Cloudera will demonstrate authorization capabilities using Sentry in the Hadoop cluster. This may include configuration of demonstration-only temporary user/group-to-role permissions.

Cloudera will review, recommend and/or implement HDFS permissions and extended access control lists ("ACLs") where required.

Cloudera will work with Customer to set up Cloudera Manager authorization based on a subset of Customer-defined roles and responsibilities.

Configure Data Protection

Cloudera will install and configure at-rest and wire encryption in the Enterprise Data Hub ("EDH") cluster. This includes enabling TLS/SSL encryption where required, as well as the installation and configuration of Navigator Encrypt and Key Trustee to provide transparent at-rest encryption and key management of sensitive data in Hadoop. Cloudera Navigator is a separately licensed product and is not included in this SOW.
Cloudera will integrate Navigator Key Trustee into existing Hardware Security Module ("HSM") if required by Customer.

The anticipated outcome of the engagement is that Customer is expected to have an encrypted Hadoop cluster with secure key storage, and should be familiar with proper practices for user administration and management of
Cloudera Navigator Encrypt and Key Trustee components.

Configure Data Governance
Cloudera will enable data governance capabilities such as centralized auditing, audit reports, data lineage, and unified technical metadata across the EDH cluster. This may include the installation and configuration of Cloudera Navigator, reviewing individual EDH component audit logs, and providing recommendations and best practices for data governance in an EDH on Hadoop.
At the request of Customer, Cloudera will also demonstrate and scope the effort associated with Custom Business Metadata classification. Integrating with third-party components is outside the scope of this SOW and can be scoped separately as required and if requested by Customer.

Review User Administration Best Practices
Cloudera will review with Customer options for performing user administration and implementing controls on the various facets of the Hadoop ecosystem covering authentication and authorization. This may include user administration in Cloudera Manager, user administration in Hue, YARN/MapReduce job ACLs, YARN/MapReduce job schedulers, HDFS permissions and ACLs, and Hive/Impala authorization using Sentry.

Author Hadoop Security Documentation
Cloudera will deliver documentation detailing specifics of the Hadoop security configuration and applicable best practices compiled by the Cloudera Professional Services team.

Training (1 Week)

Cloudera will provide on-site Cloudera Administrator training tailored to the City of Columbus needs. The foundation of this training will be based on the Cloudera University's administrator course. On site Instructor-led discussion and interactive, hands-on exercises, participants will navigate the Hadoop ecosystem, learning topics such as:

- The internals of YARN, MapReduce, and HDFS
- Determining the correct hardware and infrastructure for your cluster
- Proper cluster configuration and deployment to integrate with the data center
- How to load data into the cluster from dynamically-generated files using Flume and from RDBMS using Sqoop
- Configuring the FairScheduler to provide service-level agreements for multiple users of a cluster
- Best practices for preparing and maintaining Apache Hadoop in production
- Troubleshooting, diagnosing, tuning, and solving Hadoop issues

4.3.2. Deliverables

Key deliverables associated with the Cloudera professional services are provided.

1. Cloudera installation services for two environments (pre-production and production).
2. In person, on-site training for three (3) City of Columbus staff, after students complete OnDemand on-line facilitated training course.

4.4. Sogeti Professional Services Fees

Sogeti is proposing a total fee of **$425,000** to project management, software adoption planning, and data governance framework activities described in sections 4.2 and 4.3 of this document.

4.5. Talend Professional Services Fees

Talend is proposing a fee of **$283,450** to for installation / configuration services in pre-prod and production environments.

4.5.1. Talend Training / Training Costs

Talend will provide 375 training credits for private on-site instructor-led training within 4-6 weeks of project start-up. Upon completion of the formal facilitated training courses, City staff will be available for informal over-the shoulder, hands-on training and knowledge transfer as the Talend and Cloudera architects install and configure the products. A formal knowledge transfer session will be schedule in the final week of the project.

Cost for Private On-Site Instructor-Led Training: 375 training credits for a fee of **$35,250.**

Talend will also provide an additional 150 On-Demand training credits which the City can use at its discretion. Talend and Sogeti have provided a set of recommended courses and identified which key staff members should participate.

List of training courses is included in **Appendix C Recommended Talend Training.**

On-Demand Training Cost: Talend's 150 training credits are provided for a fee of **$17,970.**

4.6. Cloudera Professional Services Fees

As described in section 4.3 (Sogeti / Cloudera Professional Services), Cloudera staff will provide installation support for two environments and on-site Cloudera Administrator training tailored to the City of Columbus needs. Sogeti is proposing a fee of **$115,584** for installation, configuration, and training related to Cloudera.

The foundation of the on-site Cloudera training will be based on the Cloudera University's administrator course. This training will be conducted by the Cloudera System Architect following the student's completion of the OnDemand on-line, facilitated training course within 4-6 weeks of project start-up. A formal knowledge transfer session will be schedule in the final week of the project.

A detailed break-down of the Cloudera Professional Services is provided in **Table 7.**

Role	Rate	Hours	Extended Cost
System Architect	$432	240	$103,680
Engagement Manager	$248	48	$11,904
Total		288	$115,584

Activities	Hours
Installation	144
Secure Cluster	96
Operations & Maintenance (Training)	48
Total Hours	288

Table 7: Sogeti Professional Services for Cloudera Implementation

4.6.1. Cloudera Training Library Costs

Additionally, Cloudera will provide the City with three "User licenses/accounts" for the "Cloudera OnDemand" Training Library for three years. A breakdown of the cost to access the OnDemand training library is provided in Table 8.

Course Description	Unit Cost	Participants	Extended Cost
OnDemand Library – 365 Days	$4,956	3	$14,868

Table 8: Cloudera OnDemand Training Library Access Cost

4.7. Total Cost of Professional Services & Training

A summary table is provided listing the total proposed professional services fees.

Professional Services Summary	**Total Cost**
Sogeti - Project Management, Software Adoption Planning, Data Governance	$425,000
Talend - Installation, Configuration	$283,450
Talend – (Training)	$53,220
Cloudera - Installation, Configuration, Training, OnDemand Library Access	$130,452
Total	$892,122

Table 9: Total cost of professional services.

5. Total Cost of Ownership

Final pricing and total cost of ownership for this initiative is presented below.

Item	Total Cost
Three Years Talend Software Licensing & Support	$761,016
Two Additional Years of Talend Licensing & Support	$399,640
Three Years Cloudera Software Licensing & Support	$223,560
Professional Services & Training	$892,122
Total	$2,276,338

Table 10: Total cost of ownership (professional services, software licensing, and support).

6. Cost of Labor

6.1. Standard Labor Rates

Accepted labor rates for this initiative are provided below.

Role / Position	On-site Hourly Rate	Remote Hourly Rate	On-site Daily Rate	Remote Daily Rate
Project Manager	$145	$145	$1,160	$1,160
Sr. Business Analyst	$125	$125	$1,000	$1,000
Jr. Business Analyst	$95	$95	$760	$760
Database Administrator (DBA)	$125	$125	$1,000	$1,000
Data Architect	$150	$150	$1,200	$1,200
Infrastructure Engineer	$105	$105	$840	$840
Tester	$95	$95	$760	$760
Test Lead	$105	$105	$840	$840
ETL Developer	$125	$125	$1,000	$1,000
Report Developer	$105	$105	$840	$840
Talend Professional Services	$325	$275	$2,600	$2,200
Cloudera Professional Services	$400	$350	$3,200	$2,800

Table 11: Standard labor rates for this contract.

6.2. Labor Rate Increases

The city will allow for standard yearly increases in hourly labor rates at 3% per year. The city expects to lock-in these rate increases for the next 10 years.

6.3. Assigned Staff

Sogeti is committed to deliver the following staff assuming a project start no later than May 1, 2019. Additional staffing from the Sogeti solution team will be contingent upon award of the project and a confirmed project start date. The Sogeti will ensure we provide the necessary resources to deliver the project within budget, on schedule, and with a high-level of quality as committed to in our proposal.

Role	Title	Staff Member
SAP Project Manager	Senior Manager Consultant	Ross Benton
Governance Project Manager	Practice Manager	Gopal Rathi

Table 12: Key Sogeti resources planned for this project.

6.4. Travel Costs

The City of Columbus will **not** reimburse travel expenses. Any labor rates or training fees should be inclusive of travel expenses.

7. Billing & Contract Renewal

Billing

The city expects payment / billing:

- Software Support/Subscription:
  - Annually
- Professional Services:
  - Monthly based on work delivered

Contract Renewal

Subject to mutual agreement and approval of proper City authorities the contract will be for a one year term with a two one-year renewal options.

Appendix A: DMP Hardware Requirements

Talend DMP Components									
Environment	Components	Servers	OS	CPU Cores per Server	Total Cores	RAM per Server (GB)	Total Ram (GB)	Disk per Server (GB)	Total Disk
Pre Production	TAC, Data Prep & Data Stewardship	1	WINS 2016	8	8	8	8	100	100
Pre Production	Job Server	1	WINS 2016	8	8	8	8	100	100
Pre Production	Database (my SQL)	1	WINS 2016	8	8	8	8	100	100
Pre Production & Production	Shared Nexus	1	WINS 2016	8	8	8	8	100	100
Pre Production & Production	CI Server	1	WINS 2016	8	8	8	8	100	100
Production	Database (my SQL)	1	WINS 2016	8	8	8	8	100	100
Production	TAC, Data Prep & Data Stewardship	2	WINS 2016	8	16	8	16	100	200
Production	Job Server	2	WINS 2016	8	16	8	16	100	200
	Totals	10			80		80		1000

Cloudera DMP Components									
Environment	Components	Servers	OS	CPU Cores per Server	Total Cores	RAM per Server (GB)	Total Ram (GB)	Disk per Server (GB)	Total Disk
Pre Production	Cloudera Hadoop Cluster Nodes (6 Total)	6	RHEL 7X 64	8	48	64	384	333.33	2,000
Production	Cloudera Hadoop Cluster Nodes (1 - 2)	2	RHEL 7X 64	12	24	64	128	400.00	800
Production	Cloudera Hadoop Cluster Nodes (3 - 6)	4	RHEL 7X 64	12	48	128	512	800	3,200
	Totals	12			120		1024		6,000

Hardware Breakdown			
	Talend	Cloudera*	Talend + Cloudera
Servers	10	12	22
Total Cores	80	120	200
Total Ram (GB)	80	1,024	1,104
Total Disk (GB)	1,000	6,000	7,000

VM OS Breakdown		
OS	Talend	Cloudera
RHEL 7X 64	0	12
WINS 2016	10	0
Total	*10*	*12*

Appendix B: Software Adoption Plan Schedule

City of Columbus - Citywide Data Management Platform (Example Sprint Plan)

ID	Task Name	Duration	Start	Finish
1	**Sprint 00 - Prerequisites and Planning**	**10 days**	**Mon 6/3**	**Fri 6/14**
2	**Infrastructure Readiness (Talend & Cloudera)**	**10 days**	**Mon 6/3**	**Fri 6/14**
3	Talend Infrastructure Readiness	10 days	**Mon 6/3**	**Fri 6/14**
4	Cloudera Infrastructure Readiness	10 days	**Mon 6/3**	**Fri 6/14**
5	Logistics & Access Readiness	10 days	**Mon 6/3**	**Fri 6/14**
6	Sponsors , Dept Owners, SME and Data Owners availability	10 days	**Mon 6/3**	**Fri 6/14**
7	Interview List of People from each Dept.	10 days	**Mon 6/3**	**Fri 6/14**
8	Prioritization list of Dept/Sources	10 days	**Mon 6/3**	**Fri 6/14**
9	Complete the Software Adoption plan for the Priority Group/Dept.	10 days	**Mon 6/3**	**Fri 6/14**
10	Common Data Issues and Each Dept. - Data Issues with Scenarios and Data Examp	10 days	**Mon 6/3**	**Fri 6/14**
11	**Sharing the Data related Documents :**	**10 days**	**Mon 6/3**	**Fri 6/14**
12	Current Data Architecture	10 days	**Mon 6/3**	**Fri 6/14**
13	Current/ Existing Data Documents /Artifacts	10 days	**Mon 6/3**	**Fri 6/14**
14	Current/ Existing Data Processes policies	10 days	**Mon 6/3**	**Fri 6/14**
15	Current/ Existing Data standards	10 days	**Mon 6/3**	**Fri 6/14**
16	**Sprint 01**	**10 days**	**Mon 6/17**	**Fri 6/28**
17	Implement PMO / Communication Plan / Risk Management	10 days	**Mon 6/17**	**Fri 6/28**
18	Kick-off Meeting (Sponsors, Dept Mgrs., Data Owners)	10 days	**Mon 6/17**	**Fri 6/28**
19	Deliver Base Training for Data Owners (Talend)	10 days	**Mon 6/17**	**Fri 6/28**
20	Deliver Training for Data Lake Administrators (Cloudera)	10 days	**Mon 6/17**	**Fri 6/28**
21	Finalize Data Survey Template	10 days	**Mon 6/17**	**Fri 6/28**
22	Set-up Survey Collection / Management Process	10 days	**Mon 6/17**	**Fri 6/28**
23	Distribute Data Surveys to 14 departments	10 days	**Mon 6/17**	**Fri 6/28**
24	Support Department Survey Questions	10 days	**Mon 6/17**	**Fri 6/28**
25	Meeting the Sponsors to understand the vision, Objectives, Expectation and Goal	10 days	**Mon 6/17**	**Fri 6/28**
26	Meeting with Dept Heads and Data Owners and SME	10 days	**Mon 6/17**	**Fri 6/28**
27	DQ Planning Workshop	10 days	**Mon 6/17**	**Fri 6/28**
28	Identify the Pilot sources/Dept.	10 days	**Mon 6/17**	**Fri 6/28**
29	Initial Organizational Readiness Assessment - Scope Checkpoint	10 days	**Mon 6/17**	**Fri 6/28**
30	Retrospective / Next Sprint Planning	10 days	**Mon 6/17**	**Fri 6/28**

Task Color: Black = Sogeti / Blue = City / Green = Joint / **Highlighted Tasks for Data Governance Framework** Page 1

City of Columbus - Citywide Data Management Platform (Example Sprint Plan)

ID	Task Name	Duration	Start	Finish
31	**Sprint 02**	**10 days**	**Mon 7/1**	**Fri 7/12**
32	Departments to complete assessment / Complete surveys	10 days	**Mon 7/1**	**Fri 7/12**
33	Deliver Advance Training for Data Owners (Talend)	10 days	**Mon 7/1**	**Fri 7/12**
34	Infrastructure Implemented - Non-Production (Talend)	10 days	**Mon 7/1**	**Fri 7/12**
35	Infrastructure Implemented - Non-Production (Cloudera)	10 days	**Mon 7/1**	**Fri 7/12**
36	Analyze Surveys Received from Departments	10 days	**Mon 7/1**	**Fri 7/12**
37	Support Department Survey Questions	10 days	**Mon 7/1**	**Fri 7/12**
38	Kick-off Governance Design (Sponsors, Dept Mgrs., Data Owners)	10 days	**Mon 7/1**	**Fri 7/12**
39	DQ SMEs and seeking input for Data Governance (Talend & Sogeti)	10 days	**Mon 7/1**	**Fri 7/12**
40	Data Assessment Report *	10 days	**Mon 7/1**	**Fri 7/12**
41	Retrospective / Next Sprint Planning	10 days	**Mon 7/1**	**Fri 7/12**
42	**Sprint 03**	**10 days**	**Mon 7/15**	**Fri 7/26**
43	Support Department Survey Questions	10 days	**Mon 7/15**	**Fri 7/26**
44	Analyze Surveys Received from Departments	10 days	**Mon 7/15**	**Fri 7/26**
45	Discovery Workshops	10 days	**Mon 7/15**	**Fri 7/26**
46	Prioritize surveys for Pilot Connections (Track #1)	10 days	**Mon 7/15**	**Fri 7/26**
47	Install / Configure / Test Talend Application - Non-Production (Talend)	10 days	**Mon 7/15**	**Fri 7/26**
48	Install / Configure / Test Cloudera Application - Non-Production (Cloudera)	10 days	**Mon 7/15**	**Fri 7/26**
49	Big Data - Define Requirements (Talend)	10 days	**Mon 7/15**	**Fri 7/26**
50	Collect/Assess Data Governance Framework "As-Is" Roles/Process/Gaps	10 days	**Mon 7/15**	**Fri 7/26**
51	DQ team on DQ Rules and Validation Plan document Track#1 (As an input)	10 days	**Mon 7/15**	**Fri 7/26**
52	Identifying the Data Governance Scenarios *	10 days	**Mon 7/15**	**Fri 7/26**
53	Identify the Pilot sources/Dept. - Track#1	10 days	**Mon 7/15**	**Fri 7/26**
54	Initiating the Data Governance Framework for Track #1 *	10 days	**Mon 7/15**	**Fri 7/26**
55	Defining Data Quality Guidelines for Specific to Track#1 *	10 days	**Mon 7/15**	**Fri 7/26**
56	Retrospective / Next Sprint Planning	10 days	**Mon 7/15**	**Fri 7/26**
57	**Sprint 04**	10 days	Mon 7/29	Fri 8/9
58	Support Department Survey Questions	10 days	Mon 7/29	Fri 8/9
59	Analyze Surveys Received from Departments	10 days	Mon 7/29	Fri 8/9
60	Discovery Workshops	10 days	Mon 7/29	Fri 8/9

Task Color: Black = Sogeti / Blue = City / Green = Joint / **Highlighted Tasks for Data Governance Framework**

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City of Columbus - Citywide Data Management Platform (Example Sprint Plan)

ID	Task Name	Duration	Start	Finish
61	Create Recommendations / Road Map for Dept. (Track #1)	10 days	Mon 7/29	Fri 8/9
62	Prioritize surveys for Pilot Connections (Track #2)	10 days	Mon 7/29	Fri 8/9
63	Big Data - Develop (Talend)	10 days	Mon 7/29	Fri 8/9
64	MDM Accelerator - Training	10 days	Mon 7/29	Fri 8/9
65	Walkthrough of DG Framework and DQ Guidelines for Track#1	10 days	Mon 7/29	Fri 8/9
66	Recommendation and DG Roadmap for Track#1 and Sign-Off *	10 days	Mon 7/29	Fri 8/9
67	Identifying the Data Governance Scenarios * (Continuous Improvement)	10 days	Mon 7/29	Fri 8/9
68	Updating the Data Governance Framework for Track #2	10 days	Mon 7/29	Fri 8/9
69	Updating the Change Model in Data Governance framework	10 days	Mon 7/29	Fri 8/9
70	Updating the Data Quality Guidelines for Specific to Track#2	10 days	Mon 7/29	Fri 8/9
71	Retrospective / Next Sprint Planning	10 days	Mon 7/29	Fri 8/9
72	**Sprint 05**	**10 days**	**Mon 8/12**	**Fri 8/23**
73	Support Department Survey Questions	10 days	**Mon 8/12**	**Fri 8/23**
74	Analyze Surveys Received from Departments	10 days	**Mon 8/12**	**Fri 8/23**
75	Prep Data & Define / Develop Business Rules (Track #1)	10 days	**Mon 8/12**	**Fri 8/23**
76	Create Recommendations / Road Map for Dept (Track #2)	10 days	**Mon 8/12**	**Fri 8/23**
77	Prioritize surveys for Pilot Connections (Track #3)	10 days	**Mon 8/12**	**Fri 8/23**
78	Define Data Governance Framework	10 days	**Mon 8/12**	**Fri 8/23**
79	Big Data - Test / Deploy (Talend)	10 days	**Mon 8/12**	**Fri 8/23**
80	MDM Accelerator - Requirements / Set-up (Talend)	10 days	**Mon 8/12**	**Fri 8/23**
81	Walkthrough of DG Framework and DQ Guidelines for Track#2	10 days	**Mon 8/12**	**Fri 8/23**
82	Recommendation and DG Roadmap for Track#2 and Sign-Off *	10 days	**Mon 8/12**	**Fri 8/23**
83	Identifying the Data Governance Scenarios * (Continuous Improvement)	10 days	**Mon 8/12**	**Fri 8/23**
84	Updating the Data Governance Framework for Track #3	10 days	**Mon 8/12**	**Fri 8/23**
85	Updating the Change Model in Data Governance framework	10 days	**Mon 8/12**	**Fri 8/23**
86	Updating the Data Quality Guidelines for Specific to Track#3	10 days	**Mon 8/12**	**Fri 8/23**
87	Retrospective / Next Sprint Planning	10 days	**Mon 8/12**	**Fri 8/23**
88	**Sprint 06 (Begin transition from Sogeti to CoC)**	**10 days**	**Mon 8/26**	**Fri 9/6**
89	Support Department Survey Questions	10 days	**Mon 8/26**	**Fri 9/6**
90	Analyze Surveys Received from Departments	10 days	**Mon 8/26**	**Fri 9/6**

Task Color: Black = Sogeti / Blue = City / Green = Joint / **Highlighted Tasks for Data Governance Framework** Page 3

City of Columbus - Citywide Data Management Platform (Example Sprint Plan)

ID	Task Name	Duration	Start	Finish
91	Refine / Approve Data Governance Framework	10 days	**Mon 8/26**	**Fri 9/6**
92	Mock/Test Implement Pilot Connections (Track #1)	10 days	**Mon 8/26**	**Fri 9/6**
93	Prep Data & Define / Develop Business Rules (Track #2)	10 days	**Mon 8/26**	**Fri 9/6**
94	Create Recommendations / Road Map for Dept (Track #3)	10 days	**Mon 8/26**	**Fri 9/6**
95	Prioritize surveys for Pilot Connections (Track #4)	10 days	**Mon 8/26**	**Fri 9/6**
96	MDM Accelerator - Design / Develop (Talend)	10 days	**Mon 8/26**	**Fri 9/6**
97	Develop Data Governance Framework / Quality Road Map	10 days	**Mon 8/26**	**Fri 9/6**
98	Walkthrough of DG Framework and DQ Guidelines for Track#3	10 days	**Mon 8/26**	**Fri 9/6**
99	Recommendation and DG Roadmap for Track#3 and Sign-Off *	10 days	**Mon 8/26**	**Fri 9/6**
100	Identifying the Data Governance Scenarios * (Continuous Improvement)	10 days	**Mon 8/26**	**Fri 9/6**
101	Applying & Updating the Data Governance Framework for Track #4	10 days	**Mon 8/26**	**Fri 9/6**
102	Applying & Updating the Change Model in Data Governance framework	10 days	**Mon 8/26**	**Fri 9/6**
103	Applying & Updating the Data Quality Guidelines for Specific to Track#4	10 days	**Mon 8/26**	**Fri 9/6**
104	Revisiting & Updating Best Practices for Accountability and Monitoring Process. (if Changes in Roles and Responsibilities)	10 days	**Mon 8/26**	**Fri 9/6**
105	Revisiting & Updating the Data standard Processes, Policies and Best Practices for	10 days	**Mon 8/26**	**Fri 9/6**
106	Revisiting & Updating DQ Framework and Guidelines for Track 1, 2 and 3	10 days	**Mon 8/26**	**Fri 9/6**
107	Initiation of Knowledge Transfer and Plan	10 days	**Mon 8/26**	**Fri 9/6**
108	Retrospective / Next Sprint Planning	10 days	**Mon 8/26**	**Fri 9/6**
109	**Sprint 07**	**10 days**	**Mon 9/9**	**Fri 9/20**
110	Support Department Survey Questions	10 days	**Mon 9/9**	**Fri 9/20**
111	Analyze Surveys Received from Departments	10 days	**Mon 9/9**	**Fri 9/20**
112	Implement Pilot Connections (Track #1)	10 days	**Mon 9/9**	**Fri 9/20**
113	Mock/Test Implement Pilot Connections (Track #2)	10 days	**Mon 9/9**	**Fri 9/20**
114	Prep Data & Define / Develop Business Rules (Track #3)	10 days	**Mon 9/9**	**Fri 9/20**
115	Create Recommendations / Road Map for Dept (Track #4)	10 days	**Mon 9/9**	**Fri 9/20**
116	Prioritize surveys for Pilot Connections (Track #5)	10 days	**Mon 9/9**	**Fri 9/20**
117	MDM Accelerator - Develop / Test (Talend)	10 days	**Mon 9/9**	**Fri 9/20**
118	TMM QuickStart (Talend Metadata Manager) - Install (Talend)	10 days	**Mon 9/9**	**Fri 9/20**
119	Review and Refine Data Governance Framework / Road Map (Knowledge transfer	10 days	**Mon 9/9**	**Fri 9/20**

Task Color: Black = Sogeti / Blue = City / Green = Joint / **Highlighted Tasks for Data Governance Framework** Page 4

City of Columbus - Citywide Data Management Platform (Example Sprint Plan)

ID	Task Name	Duration	Start	Finish
120	Walkthrough of DG Framework experience and DQ Guidelines for Track#4	10 days	**Mon 9/9**	**Fri 9/20**
121	Recommendation and DG Roadmap for Track#4 and Sign-Off *	10 days	**Mon 9/9**	**Fri 9/20**
122	Identifying the Data Governance Scenarios * (Continuous Improvement)	10 days	**Mon 9/9**	**Fri 9/20**
123	Applying & Updating the Data Governance Framework for Track #5	10 days	**Mon 9/9**	**Fri 9/20**
124	Applying & Updating the Change Model in Data Governance framework	10 days	**Mon 9/9**	**Fri 9/20**
125	Applying & Updating/Defining the Data Quality Guidelines for Specific to Track#5	10 days	**Mon 9/9**	**Fri 9/20**
126	Best Practices for Accountability and Monitoring Process. (if Changes in Roles and Responsibilities)	10 days	**Mon 9/9**	**Fri 9/20**
127	Revisiting & Updating the Data standard Processes, Policies and Best Practices for Track# 1,2 ,3 and 4	10 days	**Mon 9/9**	**Fri 9/20**
128	Revisiting & Updating DQ Framework and Guidelines for Track# 1,2 ,3 and 4	10 days	**Mon 9/9**	**Fri 9/20**
129	Retrospective / Next Sprint Planning	10 days	**Mon 9/9**	**Fri 9/20**
130	**Sprint 08**	**10 days**	**Mon 9/23**	**Fri 10/4**
131	Mock/Test Implement Pilot Connections (Track #2)	10 days	**Mon 9/23**	Fri 10/4
132	Implement Pilot Connections (Track #3)	10 days	**Mon 9/23**	Fri 10/4
133	Prep Data & Define / Develop Business Rules (Track #4)	10 days	**Mon 9/23**	Fri 10/4
134	Create Recommendations / Road Map for Dept (Track #5)	10 days	**Mon 9/23**	Fri 10/4
135	Prioritize surveys for Pilot Connections (Track #6)	10 days	**Mon 9/23**	Fri 10/4
136	MDM Accelerator - Test / Deploy (Talend)	10 days	**Mon 9/23**	Fri 10/4
137	TMM QuickStart (Talend Metadata Manager) - Design / Develop (Talend)	10 days	**Mon 9/23**	Fri 10/4
138	Install / Configure / Test Talend Application - Production (Talend)	10 days	**Mon 9/23**	Fri 10/4
139	Install / Configure / Test Cloudera Application - Production (Cloudera)	10 days	**Mon 9/23**	Fri 10/4
140	Walkthrough of DG Framework experience and DQ Guidelines for Track#5	10 days	**Mon 9/23**	Fri 10/4
141	Recommendation and DG Roadmap for Track#5 and Sign-Off *	10 days	**Mon 9/23**	Fri 10/4
142	Identifying the Data Governance Scenarios * (Continuous Improvement)	10 days	**Mon 9/23**	Fri 10/4
143	Applying & Updating the Data Governance Framework for Track #6	10 days	**Mon 9/23**	Fri 10/4
144	Applying & Updating the Change Model in Data Governance framework	10 days	**Mon 9/23**	Fri 10/4
145	Applying & Updating/Defining the Data Quality Guidelines for Specific to Track#6	10 days	**Mon 9/23**	Fri 10/4
146	Improve/Revise the Data Governance Framework and per Tracks Experience	10 days	**Mon 9/23**	Fri 10/4
147	Improve/Revise the Data Quality Framework and Guidelines as per Tracks Experie	10 days	**Mon 9/23**	Fri 10/4

Task Color: Black = Sogeti / Blue = City / Green = Joint / **Highlighted Tasks for Data Governance Framework** Page 5

City of Columbus - Citywide Data Management Platform (Example Sprint Plan)

ID	Task Name	Duration	Start	Finish
148	Retrospective / Next Sprint Planning	10 days	**Mon 9/23**	Fri 10/4
149	**Sprint 09**	**10 days**	**Mon 10/7**	**Fri 10/18**
150	Implement Pilot Connections (Track #3)	10 days	**Mon 10/7**	**Fri 10/18**
151	Mock/Test Implement Pilot Connections (Track #4)	10 days	**Mon 10/7**	**Fri 10/18**
152	Prep Data & Define / Develop Business Rules (Track #5)	10 days	**Mon 10/7**	**Fri 10/18**
153	Create Recommendations / Road Map for Dept (Track #6)	10 days	**Mon 10/7**	**Fri 10/18**
154	TMM QuickStart (Talend Metadata Manager) - Test / Deploy (Talend)	10 days	**Mon 10/7**	**Fri 10/18**
155	Install / Configure / Test Talend Application - Production (Talend)	10 days	**Mon 10/7**	**Fri 10/18**
156	Install / Configure / Test Cloudera Application - Production (Cloudera)	10 days	**Mon 10/7**	**Fri 10/18**
157	Walkthrough of DG Framework experience and DQ Guidelines for Track#6	10 days	**Mon 10/7**	**Fri 10/18**
158	Recommendation and DG Roadmap for Track#6 and Sign-Off *	10 days	**Mon 10/7**	**Fri 10/18**
159	Enhancing and Finalizing the Data Governance Framework and per Tracks Experie	10 days	**Mon 10/7**	**Fri 10/18**
160	Sign-Off the enhanced DG framework *	10 days	**Mon 10/7**	**Fri 10/18**
161	Enhancing and Finalizing the Data Quality Framework and Guidelines as per Track	10 days	**Mon 10/7**	**Fri 10/18**
162	Sign-Off the enhanced Data Quality Framework and Guidelines as per Tracks Expe	10 days	**Mon 10/7**	**Fri 10/18**
163	Retrospective / Next Sprint Planning	10 days	**Mon 10/7**	**Fri 10/18**
164	**Sprint 10**	**10 days**	**Mon 10/21**	**Fri 11/1**
165	Implement Pilot Connections (Track #4)	10 days	**Mon 10/21**	**Fri 11/1**
166	Mock/Test Implement Pilot Connections (Track #5)	10 days	**Mon 10/21**	**Fri 11/1**
167	Prep Data & Define / Develop Business Rules (Track #6)	10 days	**Mon 10/21**	**Fri 11/1**
168	Mitigate the Risk and challenges for Data Governance	10 days	**Mon 10/21**	**Fri 11/1**
169	Enhancing the Data Governance Roadmap for upcoming tracks/sources/Dept.	10 days	**Mon 10/21**	**Fri 11/1**
170	Revisiting Data Standards, Policies , Processed, Guidelines, Best Practices and key Learnings from City Perspective	10 days	**Mon 10/21**	**Fri 11/1**
171	Finalizing the Data Quality Framework and Guidelines. * (It has already been Signe	10 days	**Mon 10/21**	**Fri 11/1**
172	Review / Check Point for Knowledge Transfer and Plan	10 days	**Mon 10/21**	**Fri 11/1**
173	Retrospective / Next Sprint Planning	10 days	**Mon 10/21**	**Fri 11/1**
174	**Sprint 11**	**10 days**	**Mon 11/4**	**Fri 11/15**
175	Implement Pilot Connections (Track #5)	10 days	**Mon 11/4**	**Fri 11/15**
176	Mock/Test Implement Pilot Connections (Track #6)	10 days	**Mon 11/4**	**Fri 11/15**

Task Color: Black = Sogeti / Blue = City / Green = Joint / **Highlighted Tasks for Data Governance Framework** Page 6

City of Columbus - Citywide Data Management Platform (Example Sprint Plan)

ID	Task Name	Duration	Start	Finish
177	Walkthrough of all the Artifacts/Documents created or ready so far and Signing-O	10 days	**Mon 11/4**	**Fri 11/15**
178	Data Governance Roadmap sign-off and other Artefacts Standards, Policies, Processes, guidelines, Best Practices*	10 days	**Mon 11/4**	**Fri 11/15**
179	Formal Knowledge Sharing Session with City	10 days	**Mon 11/4**	**Fri 11/15**
180	Retrospective / Next Sprint Planning	10 days	**Mon 11/4**	**Fri 11/15**
181	**Sprint 12**	**10 days**	**Mon 11/18**	**Fri 11/29**
182	Implement Pilot Connections (Track #6)	10 days	**Mon 11/18**	**Fri 11/29**
183	Transition / Close Project	10 days	**Mon 11/18**	**Fri 11/29**
184	Complete Knowledge Sharing Session with City and Sign-Off *	10 days	**Mon 11/18**	**Fri 11/29**
185	Deliver Productivity gain Scorecard	10 days	**Mon 11/18**	**Fri 11/29**
186	Data Governance Scorecard	10 days	**Mon 11/18**	**Fri 11/29**
187	Deliver the As-is to To-be Progress Report.	10 days	**Mon 11/18**	**Fri 11/29**
188	Retrospective / Lessons Learned	10 days	**Mon 11/18**	**Fri 11/29**

Task Color: Black = Sogeti / Blue = City / Green = Joint / **Highlighted Tasks for Data Governance Framework** Page 7

Appendix C: Recommended Talend Training Courses

Course	Duration (day)
Talend Data Integration Basics (4) - 2 days	2
Talend Data Integration Advanced (2) - 1 day	1
Talend Data Integration Administration (2) - half day	0.5
Talend Data Mapper Essentials (4) - 2 days	2
Talend Data Preparation for Implementers (2) - 1 day	1
Talend Data Preparation for Big Data (2) - half day	0.5
Talend Data Quality Essentials (4) - 2 days	2
Talend Data Stewardship for Developers (2) - 1 day	1
Talend Data Stewardship for Data Stewards (2) - half day	0.5
Talend Big Data Basics (4) - 2 days	2
Talend Studio Introductory (0)	
Cloud API Service	
Talend Data Catalog Basic - 1 day	1
Talend Data Catalog Advanced - 1 day	1
Talend ESB Basic - 2 days	2
Talend ESB Admin - half day	0.5
Talend MDM Fundamentals - Part 1 (2 days)	2
Talend MDM Fundamentals - Part 2 (3 days)	3