Proposal Prepared for:
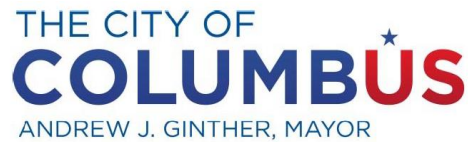
City of Columbus
Department of Technology

Andrew J. Ginther, Mayor
H. Samuel Orth III, Director of Technology

In Response to
Software and Professional Services
For
Citywide Data Management Platform

THE CITY OF
COLUMBUS
ANDREW J. GINTHER, MAYOR

DEPARTMENT OF
TECHNOLOGY

Prepared by:

SOGETI

Submitted July 10, 2018

Contents

1.0 Cover Letter

July 10, 2018

City of Columbus
Department of Technology
77 N. Front St.
Columbus, Ohio 43215

Sogeti USA is pleased to present this proposal in response to the City of Columbus Request for Proposal for the Citywide Data Management Platform. We are confident you will find the information about the Sogeti Team and our capabilities compelling.

Sogeti USA, The Engineering and Technology Services Division of Capgemini America, is a New Jersey corporation and an Ohio-based company with U.S. Headquarters located at 10100 Innovation Drive, Suite 200 Dayton, OH 45342 and the following Ohio locations:

- 579 Executive Campus Drive, Suite 300 Westerville, OH 43082 (principal location for this proposal)
- 4445 Lake Forest Drive, Suite 550 Cincinnati, Ohio, 45242
- 9050 Centre Pointe Drive, Suite 100 West Chester, OH 45069

Sogeti is teaming with Talend – the "Sogeti Team" - to bring the City a unified data management platform that saves time and money while reducing technical debt. Sogeti will bring industry leading program/project management practices and processes to the engagement to ensure a timely implementation of the Talend tool suite while recognizing high-levels of adoption from the various City departments. We are confident that we can achieve the desired levels of adoption across the City's 14 departments in a six (6) month timeline at a price point well below the City's established budget.

The following individuals have contributed to the development of this proposal:

Ross Benton – Sogeti, Sr. Manager
Steven Maser – Talend, Presales Solution Engineer
Michael Reed – Talend, Corporate Sales Representative
Jeff Werner – Sogeti, Director Public Sector
Mark Whittenberg – Talend, Account Executive

Sogeti's federal tax identification number is 22-2575929. Sogeti USA is registered with the City of Columbus Vendor Services under account #026081.

All questions regarding the Sogeti proposal should be directed to:

Jeff Werner
975 Executive Campus Dr., Suite 300
Westerville, OH 43082
614-578-6795
jeff.werner@us.sogeti.com

Mr. Steven Hughes is an Executive Vice-President within Sogeti USA and is authorized to contractually bind Sogeti USA.

Regards,

Steven M Hughes
Executive Vice-President

2.0 Offeror Profile and Demographics

Sogeti USA, the Technology and Engineering Services Division of Capgemini America, operates in over 20 cities across the country. Sogeti's business model is built on providing customers with local accountability and vast, flexible delivery capabilities. Sogeti is a leader in helping clients develop, implement and manage practical IT and engineering solutions to help run their business better. With 50 years of experience, Sogeti offers a comprehensive portfolio of services including Applications & New Technologies, Business Intelligence & Analytics, Cloud, Digital Assurance & Testing, Digital Manufacturing, and Digital Transformation.

To learn more, visit: www.us.sogeti.com

Talend is a next generation leader in big data and cloud integration solutions that helps companies become data driven by making data more accessible, improving its quality and quickly moving data where it's needed for real-time decision making. By simplifying big data through these steps, Talend enables companies to act with insight based on accurate, real-time information about their business, customers, and industry. Talend (Nasdaq: TLND) is headquartered in Redwood City, CA.

To learn more, visit: www.talend.com

Additional information can be found in the Company Questions at the end of the proposal in the Company Information section.

3.0 The Technical Proposal

3.1 General Requirements

Within the proposal, the offeror should describe its ability to address the following:
- *Meet the City's Objectives: Offeror should describe its ability to meet The City's objectives.*
  – The Sogeti Team solution is a mix of the best in class technology solution partnered with the best in class management consulting solution. Within the following sections we will elaborate on how our solution will meet or exceed all of the City's requirements.
- *Meet Requirements of Project Timeline: A requirement for the DMP implementation is that it should be implementable in a matter of weeks to a few months at most. Offeror should describe its ability to meet The City's DMP timelines and milestones.*
  – The Sogeti Team solution is a very quick and repeatable implementation process. We will work together with the City department of Technology and the IT specialists in each adjoining City department to quickly train users, implement a flexible and powerful technology platform and create long term organizational processes. The solution is geared to assist the City in the foundation setup of the technology as well as the PMO and on-going software adoption model that can be handed off to the City users within a few months.
- *Support the Primary Applications of the City: Offeror should describe its ability to support and integrate with the City's primary application infrastructure.*
  – The Sogeti Team technical platform is world class and is a perfect fit for what the City is asking to have implemented. When you review the technical requirements you will see how closely the Talend tools are designed to match and exceed the City's technology requirements. The flexibility and power of the Talend solution will allow the City to grow their data management platform quickly and easily.
- *Integrate with the City's Infrastructure and Standards: Offeror should describe its ability to support and integrate with City's current infrastructure and standards.*
  – The Sogeti Team platform can meet and exceed the infrastructure and standards that the City is requesting. The Talend platform is uniquely designed to apply to many different infrastructure platforms. The proposed solution will integrate with the City's existing platform
- *Deploy and Support Changes to City's Infrastructure: Offeror should describe its ability to deploy and support the new environment.*
  – The Sogeti Team solution offers best in class partnership with the 50 years of experience of Sogeti, the Technology & Engineering Services Division of Capgemini America, Inc. and the 13 years of big data infrastructure experience of Talend. Each organization with thousands of employees globally, continual revenue growth and client growth ensure that the City of Columbus will have the support resources necessary for many years.

3.2 Functional Requirements

The Sogeti Team has completed the Attachment A spreadsheet as part of the proposal. We have attached the entire spreadsheet in the document and we have provided screenshots of the key tabs from the spreadsheet as a high level overview of our answers.

DIRECTIONS:
Please identify the functional areas being directly addressed in your proposal by responding to the following questions with a 1 for Yes or 0 for No in the appropriate column. (for example, if your proposal does not include any specific functionality for data stewardship, put a "0" in the DATA STEWARDSHIP/GOVERNANCE column)

Coverage Questions	MASTER DATA MANAGEMENT	DATA QUALITY MANAGEMENT	METADATA MANAGEMENT	DATA LIFECYCLE MANAGEMENT	DATA ACCESS MANAGEMENT	DATA STEWARDSHIP /GOVERNANCE	DATA CATALOG / MARKETPLACE	DATA INGESTION	DATA TRANSFORMATION	DATA EXPLORATION	DATA PROVISIONING	PLATFORM MANAGEMENT AND INTEGRATION	
Is this capability part of your proposal?	1	1	1	1	1	1	1	1	1	1	1	1	
Is this a built-in capability of the product suite you are proposing?	1	1	1	1	1	1	1	1	1	1	1	1	
Are *all* of the components required for this functionality included in the proposal?	1	1	1	1	1	1	1	1	1	1	1	1	Total for Proposal Coverage
													36

Notes:

Note 1 - For any column marked with anything but "0" you will be expected to fill out the corresponding section on the Desired System Functionality tab.

Note 2 - This section will be scored based on a count of all the "1" boxes to produce the Completeness score. The completeness score evaluates the solutions ability to cover as many of the desired functionalities as possible.

However, while we value the solution's ability to deliver each of the desired functionalities, the completeness score only counts for 1/5 of the "Proposed Solution - Desired Functional Capabilities" category. The rest of the weight will be awarded to the quality score which evaluates the detailed manner in which these functionalities are delivered.

Note 3 - Glancing at the desired functionality tab before filling out this tab may help you decide whether you want to include a functional area in your proposal or not.

Functional Coverage of Proposal

Section	Desired Functions	Weighting	Capability included?	Module/Product Name	In one sentence, please describe how this capability is supported or would be implemented.
1.1	**Master Data Management**	10	Yes		Talend Master Data Management (MDM) tools unify all data—from customers to products to suppliers and beyond—into a single, actionable "version of the truth"
1.2	**Data Quality Management**	15	Yes		Talend's enterprise data quality tool profiles, cleanses, and masks data, while monitoring data quality over time, in any format or size
1.3	**Metadata Management**	10	Yes		Talend Metadata Manager is an Enterprise-grade metadata management platform.
1.4	**Data Lifecycle Management**	10	Yes		Talend Data Stewardship is the process of managing the lifecycle of data from curation to retirement and these capabilities are available where Talend MDM/Platform and/or TMM are managing/storing the data within.
1.5	**Data Access Management**	5	Yes		These capabilities are available where Talend MDM/Platform and/or TMM are managing/storing the data within.
1.6	**Data Stewardship/Governance**	5	Yes		Talend Data stewardship is about defining and maintaining data models, documenting the data, cleansing the data, and defining the rules and policies and distributing the workload to individual departments so that the implementation of well-defined data governance processes covering several activities including monitoring, reconciliation, refining, deduplication, cleansing and aggregation to help deliver quality data to applications and end users.
1.7	Data Catalog / Marketplace	5	Yes		Talend Exchange is a marketplace where data catalog accelerators are stored and available for download.
1.8	Data Ingestion	10	Yes		Talend Data Integration capabilities provide a feature-rich platform for data ingestion frameworks at enterprise-scale.
1.9	Data Transformation	15	Yes		Talend Data Integration capabilities provide over 900 components at no charge so you can transform data from any source to any source making us a a feature-rich platform for data transformation and delivery processes at enterprise-scale.
1.10	Data Exploration	5	Yes		Talend combines intuitive self-service data preparation and data curation tools with data integration to accelerate data usage across the organization.
1.11	Data Provisioning	5	Yes		Making data available in an orderly and secure way to users, application developers, and applications that need it is Talend's specialty.
1.12	Platform Management and Integration	5	Yes		Talend centralizes the users' role management and access rights to projects and the scheduling and monitoring of processes(Jobs) regardless of the capability being used and the ability to connect to other systems gives Talend even more extensibility.

Desired Functional Capabilities

The following is an embedded object of our completed Attachment A spreadsheet.

City of Colunbus
Capabilities matrix.x

3.3 Business Requirements

3.3.1 Program and Project Management (PMO)

Documented Processes

The PMO plan should include defined and documented processes, personnel, policies and approach to risk management;
Sogeti will partner with the City to put in place the essential elements of a PMO:

- Standards and Processes, PMO toolkit, - impacts quality, consistency, portability
- PM/BA specific coaching, learning and Development -- impacts skill level uplift, quality, retention
- Processes, Metrics and Tools -- impact consistency, schedule, quality, progress
- Leadership, Governance & Controls -- impact direction, overall quality, and customer satisfaction
- Established clear channels of decision making authority between the PMO and stakeholders in the Client's organization
- Risk Management - Sogeti will review, analyze, and recommend a comprehensive risk management approach to be implemented by the PMO that covers the risk management framework, environment, and processes. Sogeti will review and recommend how the PMO can be a resource to project managers on risk management.
- The design of the risk management framework will be based on (1) How the PMO becomes the resource to PMs on risk management, (2) Clear objectives and parameters, (3) Robust knowledge and competency of PMO organization (4) Make it easy to apply practical solutions, (5) Build credibility and, (6) Encourage a culture of continuous improvements and reliability
- Define clear objectives, roles and responsibilities, lines of authority, who makes the decisions, conflict resolution protocols. Avoid departmental contradictions while seeking win-win collaboration
- PMO tools for risk identification, Master Schedule Views, Resource Pools, interdependencies, proactive risk management
- Focus on Interdependencies, Strategic aspects, Prioritization of projects
- Analysis of trends, patterns – identify possible project management process changes.
- Identify cultural, systemic issues potential cause of chronic project challenges/risks/failures."
- Sogeti will leverage our best-practices PMO model in comprehensively assessing the PMO services, capabilities and competencies. The assessment, recommendations, implementation, and coaching/mentoring will focus on the critical areas of Delivery Services, PMO Alignment, and PMO Delivery.
- When Sogeti applies its best practices, presented in the graphic below, it is not just to focus on the City of Columbus PMO itself but the knowledge and best practices that underpin the PMOs relationship to the rest of the organization and stakeholders. Sogeti's focus is to establish processes, standard operating procedures, and practices that can adjust and adapt as the business changes and grows over time.

Sogeti PMO Services, Capabilities, & Competencies
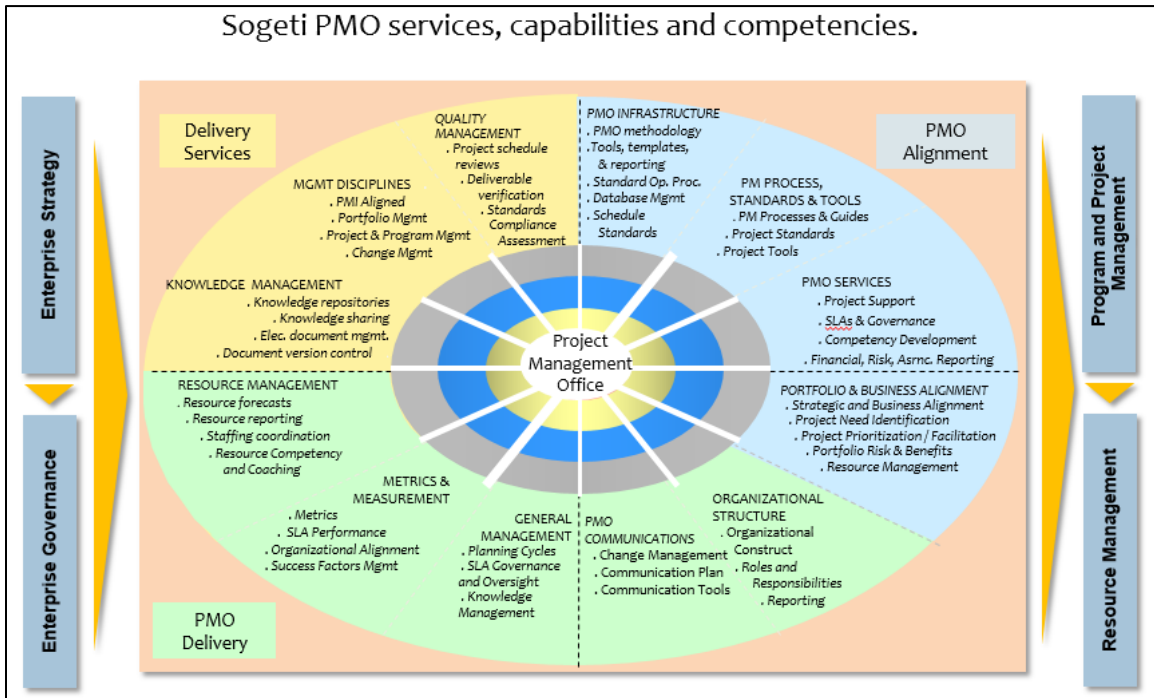
Dashboards and Reporting

PMO dashboards and reporting should be easy to understand and repeatable and include "roll-ups" of individual projects and phases and adhere to PMI-PMBOK guidelines;

- Sogeti will partner with the City of Columbus to put in place the essential elements for dashboards and repeatable rollup projects, which will include;
    - Tracking and Reporting – Sogeti will help the client document their current processes from a solution perspective. Sogeti will create reporting methods that are needed to achieve the initiative's goal such as;
        - Institute daily project status sessions for project work that will be repeatable and rollup from concurrent relevant projects
        - Completed tracking, assigning, and reporting on action items
        - Develop tools to track task and project progress
    - Create weekly executive dashboards for each rollup and concurrent project
    - Completed tracking and reporting on: daily resource availability, tasks complete, client tasks complete, number of plans through final check and number of locations/phases cutover

Other Program Services

The PMO plan reporting should include other aspects of the program, including the Software Adoption Plan, Service Operations and Technical Support Model, and Customer Education and Outreach Plans;

- Sogeti PMO Services Catalog

- o Software Adoption Plan – Please see Software Adoption Section for specific details
- o Sogeti has many decades of experience implementing PMOs for our clients. While it is our goal to partner with the City of Columbus to develop a custom PMO solution, at the same time, Sogeti has refined a comprehensive yet detailed tool kit of processes and work products tailored specifically for developing and implementing Program and Project Management Offices.
- o The picture below, Sogeti PMO Service Catalog, depicts a thoroughly integrated, and time-tested inventory of processes, procedures and work products related to PMO evolution. Over the years, we've refined our PMO processes, and we're confident that many of these tools will prove useful in deploying a PMO for the City of Columbus.
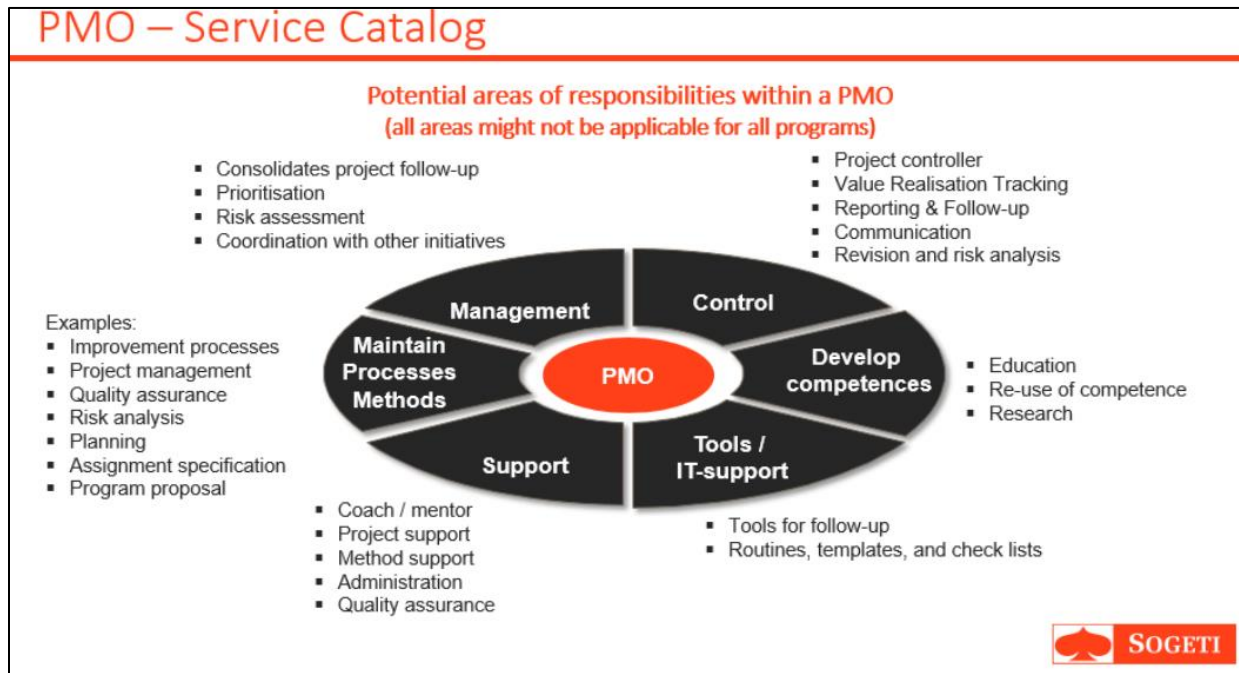
Sogeti PMO Service Catalog

Repeatable Process

The PMO plan should include a standardized and repeatable project management template that is used for individual projects and/or phases;

- • Sogeti will encourage the proactive planning of work. The Sogeti team will help the client to develop tools in Excel that support the planning of repeatable work and resources and continue to work with the client to improve upon those tools and related processes. A few key items that we can develop to assist with planning are:
  - o Checking (quality assurance team) Resource Model – uses duration to help build estimates on how long it takes to complete tasks
  - o Resource Allocation Model – helps client schedule resources
  - o Forecast Planning Tool – forecasting helps easily identify when elements will be completed and helps identify risks to the schedule

Process Review & Improvements

The PMO plan should stipulate that processes should be reviewed, evaluated and improved at the end of project phases and include stakeholder and customer feedback;

- Sogeti will partner with the City to create and implement a business-outcome oriented PMO, whereby the needs must be met to ensure the PMO personnel, processes, and technology are fulfilled to ensure processes are reviewed, evaluated, and improved upon in each project phase. To accomplish this framework Sogeti may recommend;
  - A smart and flexible systems to manage and balance technology, people, and processes.
  - PMO deploys adaptive response to responsibilities and processes.
  - The PMO maintains flexibility in assigning responsibility, assessing the current status of a project's resources, schedule and budget. This helps to create agile processes that can evolve with a project as it is completed.

Communications

The PMO plan should include a process for communicating program and project status to sponsors, stakeholders, and other participants including a defined escalation path for both the vendor and program stakeholders and participants;

- Sogeti will partner with the Client to put in place the essential communications and staff reporting elements of a PMO:
  - Established clear channels of decision making authority between the PMO and stakeholders in the Client's organization
  - Leadership, Governance & Controls -- impact direction, overall quality, and customer satisfaction
  - Sogeti will work with City of Columbus to craft the Communications Plan in sync with the new tools and/or new process that are identified as part of the Implementation Phase. The communications will be created per the information and analysis from the previous phases that is determined to be implemented for the entire project management team.

Staffing

The PMO plan should include a staffing plan including a described process for maintaining continuity of PMO operations when vendor staffing changes occur.

- The staffing matrix details the proposed project team roles and resources with the requisite skill sets and experience to deliver the PMO Setup project for the City of Columbus.

Contractor Name	Project Role	Contractor or Subcontractor?
Sogeti PM	Project Manager	Contractor
Sogeti OCM Specialist	Change Management Business Analyst	Contractor
Sogeti BA	Business Analyst	Contractor

- The proposed Sogeti Team has extensive experience in conducting detailed Project Management Office maturity and effectiveness assessments for multiple Sogeti clients, including defining and implementing recommendations for process and organizational optimizations. The team has coached and mentored Client PMO staff in formal PMO improvement initiatives, PMI PMP certification training, and on-the-job training as members of the client PMO.
- Sogeti will provide specific resumes for the candidates for these roles will be identified and on boarded closer to the actual phase where the resources are required.

3.3.2 Software Adoption Plan (SAP)

SAP Benefits

What benefits the vendor expects the city to realize from standardizing components of the adoption plan for different city departments;

The primary benefit of our proposed SAP is a structured, well defined, concise plan that can be used as a guideline by all parties (vendor and city team members) to follow during the adoption of the Sogeti Team data management solution. While the SAP should be as detailed as possible the Sogeti Team recognizes the need for the plan to be flexible, scalable, and adaptable to the diverse needs of the various City of Columbus departments that are going to leverage the capabilities of the solution.

Documented Processes

The SAP should describe which processes will be standardized (e.g. system integrations, data conversions, software configuration, business-process design, pre-production testing) and which processes will be open to individual city department configuration (e.g. report formats);

Sogeti will utilize its expertise and Business Process Development (BPD) Methodology to help document the "As-Is" state of the client's business processes and data to be shared as well as define the future state data connectivity and requirements for this data share.
- BPD will be leveraged to document the "As-Is" business processes and data to efficiently identify those components impacted within the department and the City of Columbus as a whole. Accurate identification of these areas is critical to the project's success as it will ensure focus on the essential needs of the customer. The main objective here should be to take full advantage of the software's capabilities while providing the best possible user experience and business solution for the client.
- The Business Process Development and requirements gathering portion of the project will be divided into three major phases: "As-Is" Understanding, "To-Be" Design, and Requirements Definition.
  - The first phase, "As-Is Understanding", ensures that a common view of the current process and data is established within the specific city department.
  - Potential future scenarios are developed in the "To-Be" design using different approaches and innovative visioning techniques. The second phase, "To-Be" Design, is put together as a result of several iterations, selecting the best ideas from different scenarios.

- o The third phase, requirements definition, starts with a Gap Analysis to understand what really changes between the "As-Is" and the "To-Be". After that, the documented requirements will be the foundation for the Functional Design Documents.
- Sogeti uses a formal requirements development process to produce high-quality requirements that accurately reflect business and organization needs and can support the future life cycle activities of design, development, testing and implementation. Sogeti's requirements development process consists of four activities, Elicitation, Analysis, Specification and Verification.

Requirements Elicitation

- Elicitation is the process of collecting requirements from people and bringing their knowledge and ideas of the solution out in the open. This provides the opportunity for our project team to interact with the City subject matter experts and information system experts to understand and document the solution's requirements. In addition, the project team includes the end-users and support personnel since they will be interacting with the developed solution on a regular basis. The outputs of these processes can be either on MS Word documents or entered in to a requirements management tool.
- Sogeti uses several techniques for elicitation and data gathering, including Brown Paper modeling and Use Case modeling.

Requirements Analysis

- Requirements Analysis is the process of reviewing the requirements and refining them to ensure that they depict the ideas captured during the Elicitation sessions. This phase provides the opportunity to re-visit the business requirements to analyze, critique, and find flaws. It also provides our project team a chance to clarify contradicting requirements, if any and meet with the subject matter and information system experts to simplify areas of confusion.
- The goal of this phase is to produce documentation with sufficient quality to establish the requirements for the system. Also, critical and risky requirements will be identified and documented so that sample prototypes can be produced to minimize the risk of the project.

Requirements Specification

- Requirements Specification is the process of writing the high level and detailed requirements in a consistent, formal and logical manner. A key objective of this phase will be to label each requirement and group them in sections to make them easily viewable and readable. The success of any project is dependent on ensuring the requirements are met, therefore creating a Traceability Matrix is a critical step in this phase.
- The Traceability Matrix links together all the requirements and is a tool for verifying and managing requirements. Requirements traceability is accomplished in the Verification Phase. The Traceability Matrix is used to validate the requirements and to promote usability and maintainability of the requirement changes in the latter stages of the project.

Requirements Verification

- Requirements Verification is the quality checkpoint for the requirements development process to ensure that the requirements produced meet the expected quality levels. We will also check to ensure the requirements are testable. This is explained in more detail in the next section.
- Verification also provides our project team with another round of analysis to cleanup any errors that may have been generated in the Specification phase. The project stakeholders need to verify the Business Requirement Document to ensure that it reflects their business needs. This is a critical step because it will help to minimize the risk of rework and delays in the project schedule due to un-clear requirements.

Requirements Approval & Sign Off

- The approval and sign off on the Business Requirements deliverables by the Project Stakeholders concludes this phase.

Non Standardized Processes

- There is no magic formula or cookbook that will automatically lead to the most suitable design. Therefore, it is important to explore different approaches and to develop several high-level scenarios before going into the detailed design.
  The scenarios will be based on:
  - Exploiting the improvement opportunities that we found in the "As-Is" analysis.
  - Using best practices.
  - Continually review process improvement models which may be applicable to a particular situation or need.
  - External benchmarking that clarifies what is possible from experience.

Software Adoption Plan – High Level Overview

The SAP should describe the scope, tasks, dependencies, dates, durations, resources, risk management, communication plan, etc. for the first phase of the program in a manner that adheres to globally-accepted project management standards, and actively demonstrate the use of acceptable project management methodologies such as PMBOK[2];

The SAP is the key component to the success of the City's implementation of the Data Management Platform. The Software Adoption Plan will have a reusable model that can be used for each of the 14 City departments. We understand that each department will be added iteratively to the Data Management Platform and that even once a Department has created a connection and begins sharing data, that may only be a small start and the amount of data and types of data that will be shared will grow over time. The goal is to create a cyclical process that can be used to not only initiate each department into the Data Sharing platform, but to monitor and continually grow the use of the environment.

Each department will go through the following stages at a high level:

- Assessment – Each department will need to identify and assess what data they have available for sharing with the City. As the department identifies the core of the data to share it will need to be analyzed to determine if there is any Meta data that can be determined, if the data will need to be cleansed or transformed in any way. For each data connection there may need to be a prioritization and dependencies identified to ensure that the environment grows properly and that we limit the amount of re-work that may happen if new data is added incorrectly or not in the proper order.
- Recommendations – The Sogeti Team will work with each department to create the roadmap of data connections and prioritization of each. It should be noted that not all data will be able to be processed all at the same time and there will most likely be an iterative growth to the data sharing from each of the 14 departments.
- Implementation – The Sogeti Team will work with each of the City departments to identify a Pilot connection, ensure the proper training has been provided and act as a liaison from the City IT department to each of the key experts in each City department. Once a pilot connection has been established and the city department feels comfortable with the initial process the team will work with the Department to schedule their next data share according to the roadmap and dependencies.
- Knowledge Transfer – The Sogeti Team will work with each City department to make sure that they have the comfort level of taking on new data connections and shares over time without hand holding. We understand that this will take time and each department may have to transition at their own pace.

Roles & Responsibility

The SAP should identify the role and responsibility for activities and tasks in the project schedule for the vendor, Department of Technology (data or systems custodian), and city department (business or data owner) resources and should describe how the vendor might leverage the Department of Technology's resources in the proposed approach;

There are many moving parts in relation to the Software Adoption Plan. The following is a breakdown of the roles and responsibilities at a high level for each resource on the project.

Each department will need the same or similar roles and resources at a high level:
- The Sogeti Team will have a Project Manager for oversight and a Business Analyst to lead the project and analysis for each City department.
- The City of Columbus department of Technology will need to assign a key resource that will be the main contact for each other city department to use as the project initiation lead. This person will also be responsible to coordinate meetings and contacts with each of the different city departments on an on-going basis as the initiative grows.
- Each city department will need to designate at least 1, preferably 2 individuals who will be responsible for going through the necessary training and provide the time and effort necessary to create and maintain the connections.

Communication Marketing Plan

The SAP should include a method for communicating project status to the PMO, and include a method for the vendor to identify and resolve any project delays that occur so as not to impact future implementation phases;

A Communications Management Plan (CMP) will be created that will set the communications framework for this project.

- It will serve as a guide for communications throughout the life of the project and will be updated as communication needs change.
- A communications matrix, which maps the communication requirements of this project, is part of the CMP.
- The purpose of the Communications Management Plan is to define the communication requirements for the project and how information will be distributed.
- The Communications Management Plan defines the following:
  - o Communication requirements based on roles
  - o What information will be communicated
  - o How the information will be communicated
  - o When will information be distributed
  - o Who does the communication
  - o Who receives the communication
- The communications plan will include an in-depth guide for conducting meetings details both, communications rules and how the meetings will be conducted, ensuring successful meetings.
- The Project Manager will take a proactive role in ensuring effective communications on this project.
- The communications requirements will be documented in the Communications Matrix as illustrated below.

Communication Type	Objective of Communication	Medium	Frequency	Audience	Owner	Deliverable
Kickoff Meeting	Introduce the project team and the project. Review project objectives and management approach.	Face to Face Conference Call	Once	Project Sponsor Project Team Stakeholders	Project Manager	Agenda Meeting Minutes
Project Team Meetings	Review status of the project with the team.	Face to Face Conference Call	Weekly	Project Team	Project Manager	Agenda Meeting Minutes
Technical Design Meetings	Discuss and develop technical design solutions for the project.	Face to Face Conference Call	As Needed	Project Technical Staff	Technical Lead	Agenda Meeting Minutes
Monthly Project Status Meetings	Report on the status of the project to management.	Face to Face Conference Call	Monthly	PMO	Project Manager	
Project Status Reports	Report the status of the project including activities, progress, costs and issues.	Email	Monthly	Project Sponsor Project Team Stakeholders PMO	Project Manager	Project Status Report

Progress & Status Reporting

Status reporting standards include the approach for describing accomplishments, risks, issues, milestones and key activities.

- Progress reports and management meetings will provide the formal mechanisms for reporting status, updating the overall project plan, and communicating key issues and risks within the project team.
- Status will be reported through all organizational tiers of the project. During meetings with the respective Team Leaders, each team member will report progress on assigned deliverables.
- These meetings will also provide the opportunity to discuss issues and risks that may threaten the planned completion of specific deliverables.
- This will provide the opportunity to escalate any necessary issues, and to develop mitigation strategies for any risks that may threaten the overall success of the project.

Reporting and Communications will consist of
  - A project status report will be prepared weekly by Sogeti for review and input by the project team.
  - The weekly status report will be provided to the City at least one full business day prior to the weekly status meeting.
  - The weekly project status report will include:
    - Key accomplishments during the reporting period
    - Key accomplishments planned for the upcoming period
    - Key project and program milestones including details from the updated Project Plan (Gantt chart)
    - Status "stoplight" ratings for tasks and deliverables, along with explanations and action items for Red and Yellow statuses o Items requiring escalation to the project leadership
    - Staffing review – work assignment changes, planned absences, etc.,

Monthly Status Reports
The monthly status report will be prepared by the Sogeti and provided to the City by the fifth business day of the month. The monthly report will summarize activities of the project for the month and will be written for an Executive / Project Sponsor audience. The content of the monthly status report will include:
  - A description of the overall completion status of the Project in terms of the approved Project Plan (schedule and cost, if applicable);
  - Updated Project work breakdown structure and Project schedule;
  - The plans for activities scheduled for the next month;
  - The status of all Deliverables, with percentage of completion;
  - Time ahead or behind schedule for applicable tasks;
  - A risk analysis of actual and perceived problems;
  - Testing status and test results; and
  - Strategic changes to the Project Plan, if any.

Risks, Issues, & Assumptions
  - Identify and document Risks, Issues and Assumptions and initiate actions to mitigate them and track over time.
  - Track project progress in terms of schedule, budget, scope, risk and communicate a weekly status.

o   Participate in the change management process.

Roles & Responsibilities Plan

The SAP should include both end-user facing "department" activities and tasks, and systems administration back-end facing "server" activities and tasks for on-premise solution options.

Role	Responsibilities
Senior Executive Sponsor	The Client Executive who will sponsor the work performed under this project and promotes buy-in.
	Participates in monthly planning sessions and approves the project team monthly activity plans
	Reviews and approves the team deliverables
	Primary point of contact for issue and risk escalation
Senior Delivery Executive by City Department	Responsible to the business for the successful project delivery on the City side
Developer	Responsible for developing data integration jobs
Procurement Success Manager	Single point of Contact for the City for all matters before and after a Talend product subscription has been purchased.
Program/Project Manager	City of Columbus primary lead for the implementation of the new infrastructure, PMO and SAP.
	Oversight of daily operations of the project related resources
	Communicates with Senior level City IT and City department key technical staff on the status of the adoption progress
	Works with other City leadership to determine appropriate communication and Data Transfer procedures
Lead Architect	Works with the Sogeti Team to design, document and implement, automated business processes for the Talend Fabric environment specifically in support of the Data Management Platform solutions
	Works with the members of the team to identify optimized and automated opportunities to reduce manual overhead in supporting the infrastructure
Operations Engineer	Support and maintain the Talend environment implementation
	Schedule and coordinate deployments of Talend solutions
	Assists with functional testing to confirm access permissions and data transmission confirmation
Business Analyst – Communications & Scheduling	Manages and schedules data transfers
	Communicates data transfer progress and receives appropriate authorization and confirmation from city department customers

	Maintains an inventory of data connections and related jobs managed by the City IT department
	Coordinates with project team to review any issues related to data transfer transitions
	Generates, maintains, and sends communications to end users informing them of upcoming connectivity schedule
	Works with the City communications departments to conform to City communication standards

Transition Process over to City staff

- Sogeti understands the importance of knowledge transfer and making our clients self-sufficient at the conclusion of an engagement.
- Sogeti recognizes the criticality of this requirement in the context of the Data Management project, where the policies, processes and artifacts will be used not only for the ongoing support of the initial POC, but as the foundation for a city-wide data management strategy.
- Sogeti will utilize an early engagement and "living" documentation approach as the core to our delivery for satisfying this requirement.
- The City of Columbus staff will be included in the development, deployment and execution of our solution throughout the POC.
- City staff will learn "hands-on" throughout the process, rather than participating in a hand-off at the project completion, which serves to minimize the knowledge transfer required at the conclusion of the POC
- The City of Columbus staff will participate in the Lessons Learned process and ensure that the final version of processes and artifacts includes input from their personal experience on the project, not just the perspective of the Sogeti.
- Sogeti will also schedule and conduct formal knowledge transfer and training sessions for mutually agreed city staff, specifically the (network and desktop engineers or whoever) who will have primary support responsibilities for data management going forward.

3.3.3 Solutions Architecture

Vendor Application Architecture

Talend Fabric is the only unified data management platform that generates code, so you don't have to. That means that the City of Columbus saves time, money and quickly reduces tech debt because you're using a drag-n-drop canvas to access the 900+ connectors to assemble your integrations. Regardless of the role you're tasked with the components and user interface are all the same. Several functional blocks are defined:

- The Clients block includes one or more Talend Studio (s) and Web browsers that could be on the same or on different machines.
- From the Studio, you carry out data quality analyses and data integration processes from the Profiling and Integration perspectives respectively.
- From the Web browser, you connect to Talend servers, namely: Talend DQ Portal and Talend Administration Center.

- The Talend Servers block includes a web-based Talend Administration Center (application server) connected to:
- two shared repositories: one based on an SVN or Git server and one based on a Nexus repository,
- databases, one for administration metadata, one for audit information, and one for Activity monitoring,

Talend execution server(s).
- Talend Administration Center enables the management and administration of all projects. Administration metadata (user accounts, access rights and project authorization for example) is stored in the Administration database. Project metadata (Jobs, Business Models, Routines for example) is stored in the SVN or Git server.
- The Talend Servers block also includes a Portal, Talend DQ Portal, which is used to access the data generated by the different data quality reports and stored in the datamart. The Portal provides access to a wide range of analytical tools including Analytical Processing (OLAP) and custom reports (QBE).
- The Repositories block includes the SVN or Git server and the Nexus repository. The SVN or Git server is used to centralize all project metadata like Jobs and Business Models shared between different end-users, and accessible from the Talend Studio (to be developed) and from Talend Administration Center (to be published, deployed and monitored).
- The Talend Execution Servers block includes one or more execution containers deployed inside your information system. Talend Jobs are deployed to the Job servers through the Administration Center's Job Conductor to be executed on scheduled time, date, or event.
- The Databases block includes the Administration, the Audit, the Monitoring and the Datamart. The Datamart stores all data generated by different data quality reports in the studio.
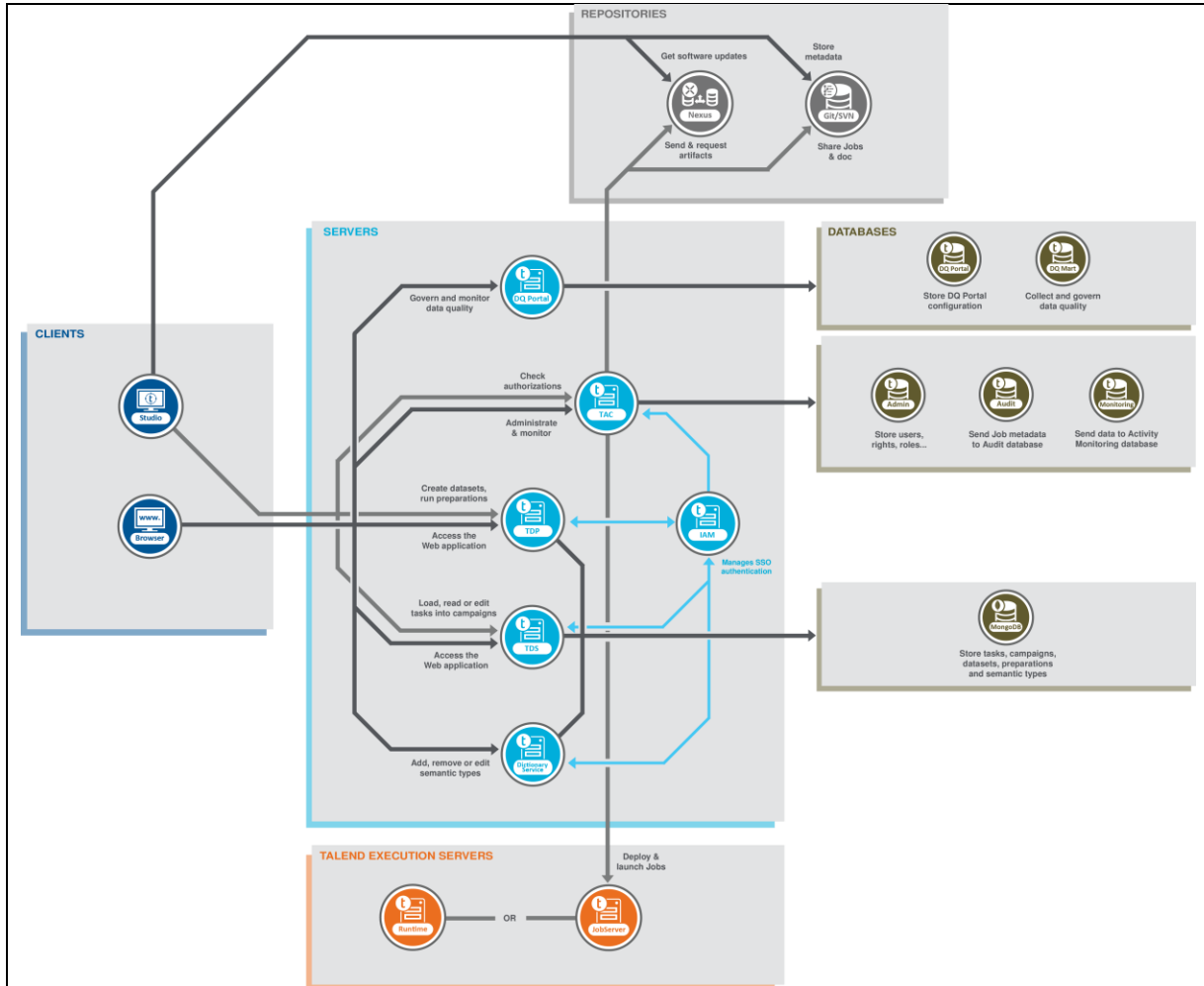
Because Talend hides the complexity of coding there's not a language that a developer uses, they drag and drop their integrations, behind the scenes we create Java. Writing 100,000 lines of code can be done in minutes rather than months. We generate native code, whether that is Spark, SQL or Java. And since it's native code, you aren't locked into Talend. You can keep running the code even after Talend is turned off. We do not rely on third parties for development or middleware.

All code developed by Talend. Source Code
All our source code is hosted in github repositories at Talend.
- Browse the repository: https://github.com/Talend/tcommon-studio-se

Our platform is truly unified platform – We have one design environment and one set of management tools for everything we do. And data quality and data governance are built into everything we do. This means that developers don't have to install or learn new tools when they want address a new

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type of data integration. We allow you to Connect at Any Speed: batch, streaming or real-time. And finally, we allow you to Run Anywhere, whether that is on-premises, in the cloud or the big data platform of your choice.
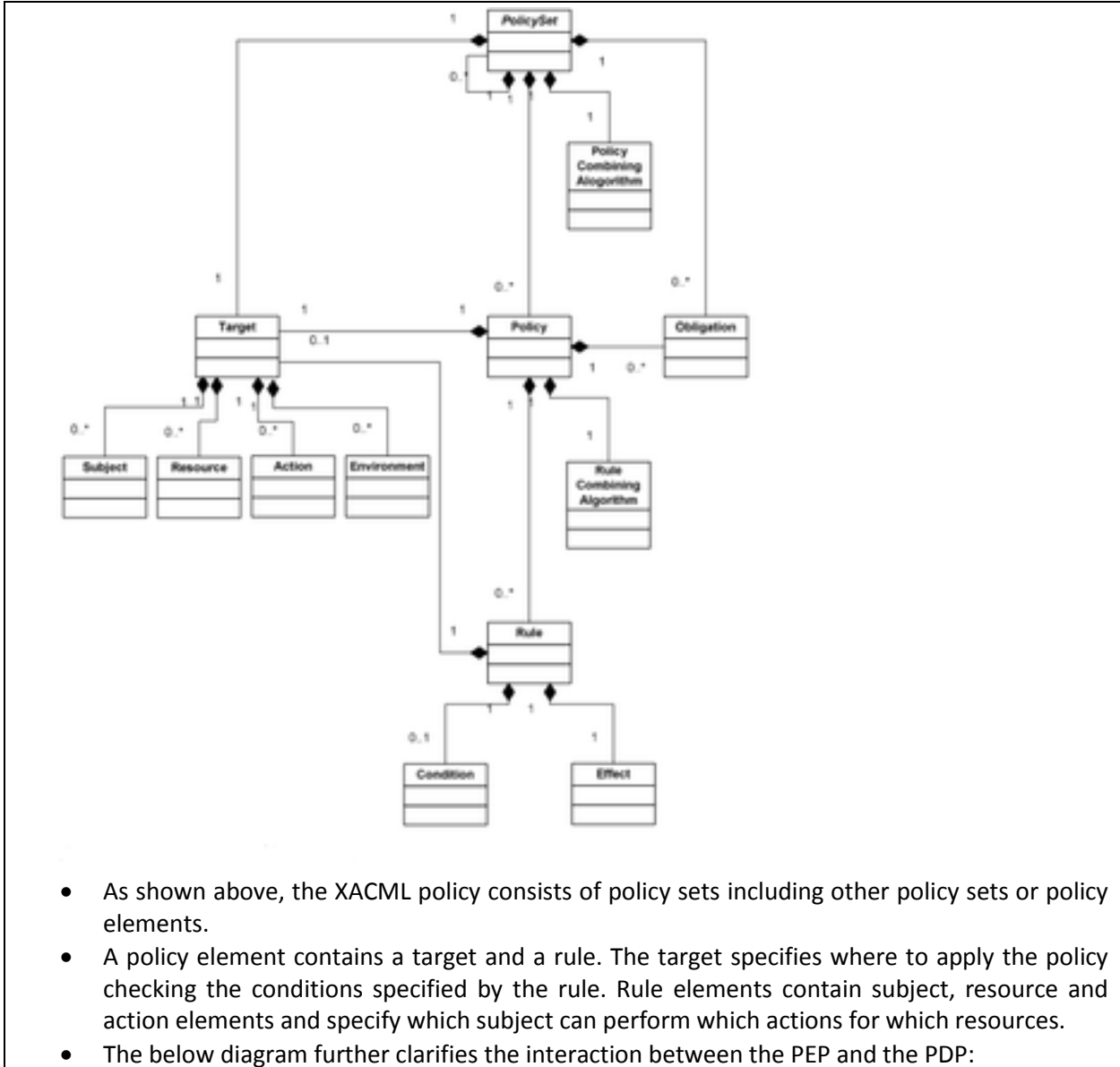
3.3.4 *Vendor Security Architecture*

Talend's Identity and Access Management is built into Talend Data Fabric and based on Apache Syncope. This may be more detail than you wanted but here it is.
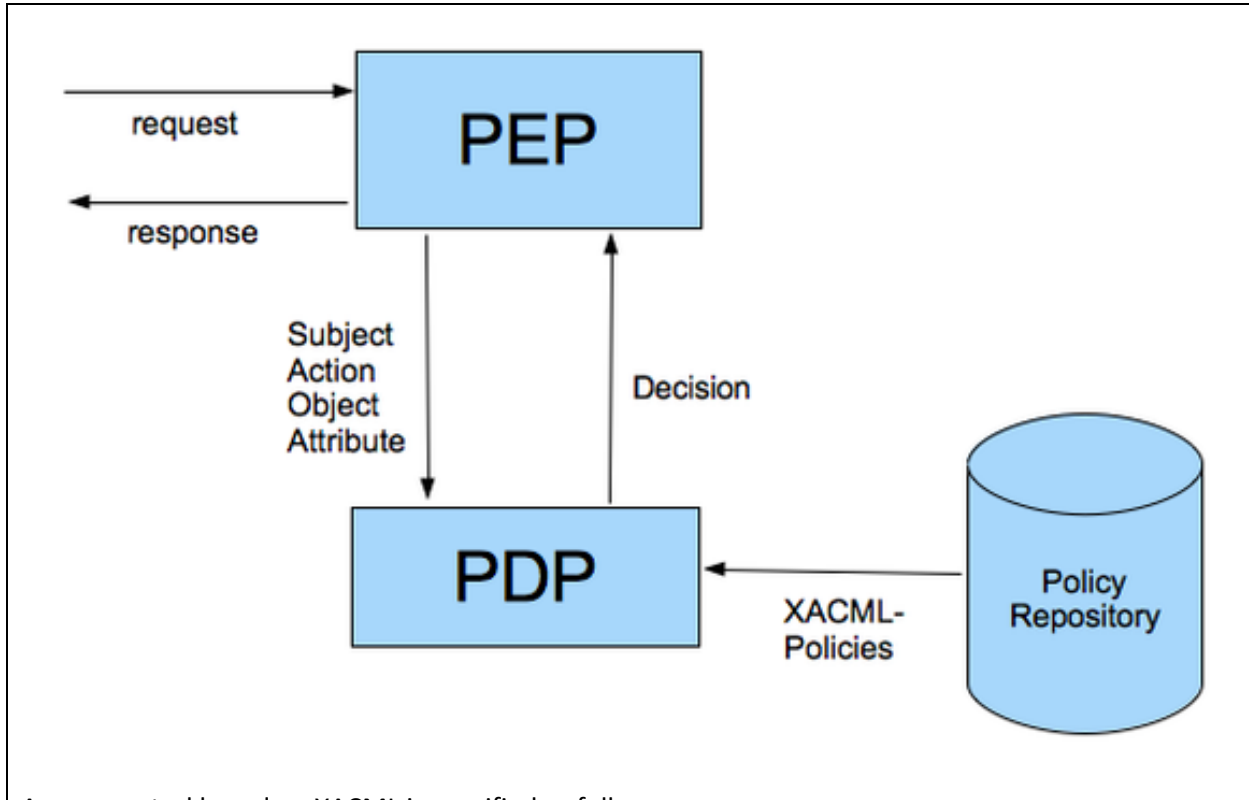
Details of the information below are here:
https://help.talend.com/reader/7S4WqQ_YvObzGJk_vLb73g/UL7DCLWlct~erc4Dh~OsQw

Policy and role-based Identity:
- Authorization is given to a group of users, so to give authorization to a user, you first have to define the group. Talend Identity and Access Management allows to create and manage those groups and assign users to them. XACML Standard
- XACML is a XML based OASIS standard for access control rules called policies. XACML allows a combination of policies and access privileges to be assigned based on attributes assigned to users, roles and other objects. XACML policies are independent from the concrete implementation of the access control. This means, policies can be generated and enforced by different services in a distributed environment. See the below model for a general XACML diagram.

- As shown above, the XACML policy consists of policy sets including other policy sets or policy elements.
- A policy element contains a target and a rule. The target specifies where to apply the policy checking the conditions specified by the rule. Rule elements contain subject, resource and action elements and specify which subject can perform which actions for which resources.
- The below diagram further clarifies the interaction between the PEP and the PDP:

Access control based on XACML is specified as follows:

If access to a resource is required, all related policies are collected and evaluated and based on the result of the evaluation a decision is made whether access is allowed.

The client requesting the resource interacts only with the PEP, the policy enforcement point. The PEP enriches the client request by additional attributes and forwards it then to the PDP, the policy decision point. The PDP requests the needed policies from a policy store, evaluates the request using the policies and tells the PEP whether access is allowed.

Role-Based Access Control

XACML supports RBAC - Role Based Access Control - by mapping users and roles on XACML subjects, objects on resources and actions on XACML actions. User-role relations and access control are expressed using policies. Roles and access rights are specified in different types of policies. We call the policies specifying the roles as role policies referring via policy references to its access rights specified in permission policies.

XACML policies

For its Authorization feature, Talend ESB is using three types of XACML policies: the Role Policies, the Permission Assignment Policies, and the Permission Policies. Their role can be summarized as follows:

A PDP receives a request from a PEP, which contains the resource, action, role, date, and some other optional data.

The PDP first goes through the Role Policies it has to try to match the given role name.

If it finds a match, then it finds the Permission Policies that are referenced via the Permission Assignment Policy associated with the Role Policy.

It matches these policies against the request: the resource and the action name.

If they all match then the authorization decision is "permit".

Otherwise, it is "deny" or "indeterminate".

Permission Policies
The Permission Policy is a <PolicySet> that contains the actual permissions associated with a given role. It contains <Policy> elements and <Rules> that describe the resources and actions that subjects are permitted to access, along with any further conditions on that access, such as time of day.

Segregation of duties:
Admin UI is the web-based console for configuring and administering running deployments, with full support for delegated administration.

End-user UI is the web-based application for self-registration, self-service and password reset

CLI is the command-line application for interacting with Apache Syncope from scripts, particularly useful for system administrators.

Core is the central component, providing all services offered by Apache Syncope. It exposes a fully-compliant JAX-RS 2.0 RESTful interface which enables third-party applications, written in any programming language, to consume IdM services.

Logic implements the overall business logic that can be triggered via REST services, and controls some additional features (notifications, reports and audit over all)

Provisioning is involved with managing the internal (via workflow) and external (via specific connectors) representation of users, groups and any objects. This component often needs to be tailored to meet the requirements of a specific deployment, as it is the crucial decision point for defining and enforcing the consistency and transformations between internal and external data. The default all-Java implementation can be extended for this purpose. In addition, an Apache Camel-based implementation is also available as an extension, which brings all the power of runtime changes and adaptation.

Workflow is one of the pluggable aspects of Apache Syncope: this lets every deployment choose the preferred engine from a provided list - including the one based on Activiti BPM, the reference open source BPMN 2.0 implementation - or define new, custom ones.

Persistence manages all data (users, groups, attributes, resources, …) at a high level using a standard JPA 2.0 approach. The data is persisted to an underlying database, referred to as ***Internal Storage*** . Consistency is ensured via the comprehensive transaction management provided by the Spring Framework.

Globally, this offers the ability to easily scale up to a million entities and at the same time allows great portability with no code changes: MySQL, MariaDB, PostgreSQL, Oracle and MS SQL Server are fully supported deployment options.

Security defines a fine-grained set of entitlements which can be granted to administrators, thus enabling the implementation of delegated administration scenarios

Third-party applications are provided full access to IdM services by leveraging the REST interface, either via the Java *SyncopeClient* library (the basis of Admin UI, End-user UI and CLI) or plain HTTP calls.
Audit Logging:

URL of the information synopsis below:
https://help.talend.com/reader/7S4WqQ_YvObzGJk_vLb73g/NMzxcG7WNK7Ym7Ei6HkVHg

Log Listener
The Log Listener allows the user to get all the log information, which typically will also be available in tesb.log, into the Event Logging. This means that the Log Listener is the primary listener for the Event Logging Agent.

The pax logging, also used by Talend Runtime, is used as the entry point for the Event Logging Log Listener. This way, the user can also use the standard pax logging configuration to configure which logs should be sent to the Log Listener and which logs should not, like for any other log appender.
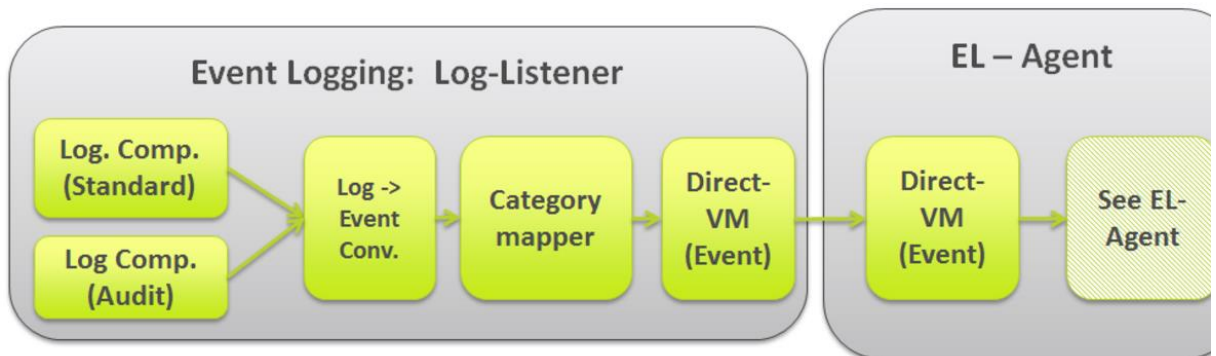
To enable logging via the Log Listener, the following minimal entry is needed in the org.ops4j.pax.logging.cfg configuration file:

log4j2.rootLogger=INFO, out, osgi:VmLogAppender

The Log Listener will expose a second pax logging appender named eventloglisteneraudit where all log events sent through this appender will be set to audit=true and thus, would have the highest priority of all audit configurations. In general, if an Event has the audit flag set to true, no other Talend components or mappings will change it back to false. But if the audit flag is false, it might be set to true later on, by additional mapping options. The eventloglisteneraudit can be used in the pax logging configuration and would automatically make all events, sent via this appender, 'Audit' events.

The Log Listener is implemented using Apache Camel, via the *paxlogging:* component, and provides a configurable Category Mapper processor with a Direct-VM communication to the Talend Event Logging Agent.

The paxlogging: component will have a fixed configuration, to expose eventloglistener as appender name: paxlogging:eventloglistener.

As pax logging is used, all the log messages, which are sent via different logging frameworks supported by Talend ESB, will be captured via this listener:

Log4J-based logging: log4jLogger.info("log4j log message");

SLF4J-based logging: slf4jLogger.info("slf4j log message");

JDK-based logging: jdkLogger.info("JDK log message");

JCL-based logging: jclLogger.info("JCL log message");

Juli-based logging: juliLogger.info("juli log message");

And in case the logging framework supports MDC attributes, the MDC attributes are also taken into the event as additional metadata. This would also allow custom and business code logs to contain a business correlation ID or other important metadata in a structured form, for example, using MDC.put("CorrelationID", "abc").

The "Log to Event" conversion step will transform the log message format into the Event format, where the Event Structure is as completely filled as possible, and the additional metadata (including the MDC attributes) is transformed in the Event Customer Information (Key, Value) list.

The Category Mapper allows the user to define an Event Logging category in a configurable way to the log message by package name from where the message comes from, and if messages from this package should be treated as audit or non-audit messages.

3.3.5 *Vendor Technical Architecture*

An exhaustive list can be found here and there is not a preferred configuration for hardware , software, or browser type https://help.talend.com/reader/be_RWyNm3Za0VoWv3qqqKw/dMbSIOAciiLF~ME5Df~pCQ

Compatible Web browsers

The following table provides information on the recommended and supported Web browsers you should use to take the most of your Talend products.

In the following documentation:

- recommended: designates an environment recommended by Talend based on our experiences and customer usage;
- supported: designates a supported environment for use with the listed component or service;
- supported with limitations: designates an environment that is supported by Talend but with certain conditions explained in notes.

Talend Web Applications	Web browser
Recommended	From Mozilla Firefox 59 to the latest available browser version
Supported	Firefox ESR 52
	Microsoft Internet Explorer 11
	From Microsoft Edge 41 to the latest available browser version
	From Apple Safari 11 to the latest available browser version
	From Google Chrome 65 to the latest available browser version

Talend Server modules

The server modules include:

- Talend Activity Monitoring Console
- Talend Administration Center
- Talend Artifact Repository
- Talend CommandLine
- Talend Data Preparation
- Talend DQ Portal
- Talend ESB Servers
- Talend JobServer
- Talend Log Server
- Talend MDM Server
- Talend Repository Manager
- Talend Runtime

Support type	Operating System		Processor
Recommended	Linux	Red Hat Enterprise Linux Server/CentOS 7.4	64 bits
	Windows	Microsoft Windows Server 2016	64 bits
Supported	Linux	Ubuntu 17.04	64 bits
		Ubuntu 16.04 LTS	64 bits
		Ubuntu 14.04 LTS	64 bits
		Red Hat Enterprise Linux Server/CentOS 7.3	64 bits
		Red Hat Enterprise Linux Server/CentOS 7.2	64 bits
		Red Hat Enterprise Linux Server/CentOS 7.1	64 bits
		Red Hat Enterprise Linux Server/CentOS 6.9	64 bits
		Red Hat Enterprise Linux Server/CentOS 6.8	64 bits
		SUSE SLES 12	64 bits
		SUSE SLES 11	64 bits
	Windows	Microsoft Windows Server 2012 R2	64 bits
		Microsoft Windows Server 2012	64 bits Except for Talend Data Preparation.

Talend Studio

Support type	Operating System (64-bit)	
Recommended	Linux	Ubuntu 16.04 LTS
	Windows	Microsoft Windows 10
Supported	Linux	Ubuntu 17.04
		Ubuntu 14.04 LTS
		Red Hat Enterprise Linux Server/CentOS 7.4
		Red Hat Enterprise Linux Server/CentOS 7.3
		Red Hat Enterprise Linux Server/CentOS 7.2
		Red Hat Enterprise Linux Server/CentOS 7.1
		Red Hat Enterprise Linux Server/CentOS 6.9
		Red Hat Enterprise Linux Server/CentOS 6.8
	Windows	Microsoft Windows Professional 7
		Microsoft Windows Server 2016 RTM
		Microsoft Windows Server 2012 RTM
	Mac	Apple macOS 10.13/High Sierra
		Apple macOS 10.12/Sierra
		Apple OS X 10.11/El Capitan

Disk space requirements

Product	Client/Server	Required disk space for installation	Required disk space for use
Talend Administration Center with Talend Artifact Repository + Talend Activity Monitoring Console Web application	Server	800MB + more than 50MB for Talend Activity Monitoring Console Web application	800MB minimum + project size = 20GB+ recommended
Talend MDM Web UI	Server	700MB	• (server) 1 GB+ • (MDM database) 2 x # records number in KB. For example: 5 million records = 10 GB. This represents the size that will be needed on the disk. However, we recommend to multiply the size really needed on the disk by 2 in order to avoid problems during high transactions.
Talend CommandLine	Server	3GB	2GB minimum + project size = 20 GB+ recommended
Talend JobServer	Server	20MB	2GB minimum + project size = 20 GB+ recommended
Talend Studio	Client	3GB	3+GB
Talend Runtime	Server	400MB	400+ MB
Talend Data Preparation	Server	300MB	1GB + datasets size These requirements do not take the MongoDB metadata size into account.

Memory usage

Search in publication

Product	Client/Server	Recommended alloc. memory	Note
Talend Administration Center + Talend Activity Monitoring Console Web application	Server	4GB minimum, 8GB recommended	
Talend MDM Web UI	Server	1GB minimum (default configuration), 4 GB recommended	
Talend CommandLine	Server	2GB minimum, 5 GB recommended	
Talend JobServer	Server	1GB minimum, more recommended	Memory requirements depend on the executed processes.
Talend Studio	Client	3GB minimum, 4 GB recommended	
Talend Runtime	Server	2GB minimum, 4 GB recommended	Memory requirements depend on the executed processes.
Talend DQ Portal	Server	1 GB minimum, 1.5 GB recommended	
Talend Data Preparation	Server	2GB minimum, 4GB recommended	
Talend Data Stewardship	Server	1 GB minimum, 2 GB recommended	
Talend Dictionary Service	Server	1 GB minimum, 2 GB recommended	

Password Management

The security relevant properties, like passwords, are stored as configuration files in etc/*.cfg files and are loaded by Karaf using the OSGI ConfigAdmin. To avoid storing them as clear text properties in Talend, but also for CXF key stores and general property files not managed by OSGI, Talend provides encryption capabilities, based on Jasypt, to encrypt and decrypt them on the fly, before being used.

For the sake of security, the passwords are encrypted in the configuration files datasources.xml and mdm.conf under the directory <MDM_ROOT>/conf/, so that the actual password string is not shown in plain text.

Here MDM_ROOT refers to where the MDM HOME file is placed after you install the MDM modules. For more information about how to install MDM modules, see Installing the MDM server manually.

datasources.xml: This file includes the passwords for Talend MDM to access different kinds of databases. For an example about how to use the datasources.xml file, see Managing how MDM Server uses SQL databases.

mdm.conf: This file contains all the configuration information for MDM Server, which includes two passwords: admin.password and technical.password. For more information, see Configuring MDM Server.

If needed, you can use a plain text password to change the encrypted default password.

Alternatively, you can encrypt a password in text mode first and then use it in the configuration files directly. For more information, see Encrypting the passwords in text mode.

The following example shows how to use a plain text password to change the default password of the default administrator user of the MDM server in the file mdm.conf.

Open the file <MDM_ROOT>/conf/mdm.conf.

Locate the encrypted default admin password.

admin.password=aYfBEdcXYP3t9pofaispXA==,Encrypt

Remove the existing password, including, Encrypt, and then enter a new plain text password for the default administrator user.

Save your changes and close the file.

Upon the next startup of the MDM server, the new password will be encrypted and the file will be updated with this encrypted new password.

3.3.6 Technical Support Model

The Technical Support model describes the mutual roles, relationships and processes for hosting, operating, supporting and measuring customer-satisfaction of the use of the vendor's platform by customers participating in the program.

In this approach the vendor combines and integrates its resources with the City's staff to provide on-going support.

Transition Process over to City staff
- The Sogeti Team understands the importance of knowledge transfer and making our clients self-sufficient at the conclusion of an engagement.
- Our team recognizes the criticality of this requirement in the context of the Data Management project, where the policies, processes and artifacts will be used not only for the ongoing support of the initial POC, but as the foundation for a city-wide data management strategy.
- Sogeti Team will utilize an early engagement and "living" documentation approach as the core to our delivery for satisfying this requirement.
- The City of Columbus staff will be included in the development, deployment and execution of our solution throughout the POC, City department Pilot implementations and training.
- City staff will learn "hands-on" throughout the process, rather than participating in a hand-off at the project completion, which serves to minimize the knowledge transfer required at the conclusion of the project.
- The City of Columbus staff will participate in the Lessons Learned process and ensure that the final version of processes and artifacts includes input from their personal experience on the project, not just the perspective of the Sogeti Team.
- The Sogeti Team will also schedule and conduct formal knowledge transfer and training sessions for mutually agreed city staff, specifically the (network and desktop engineers or whoever) who will have primary support responsibilities for data management going forward.

- For Technical Support, Talend offers a global network of support centers to deliver high quality multilingual support online, via email, or by phone based on your level of support.

- For Training, Talend offers On-demand and Instructor-led training courses to speed your ramp-up time and help you utilize the software platform more effectively and efficiently.

Financial Information

The offeror shall provide a complete set of audited financial statements for the past three years. All financial statements should be prepared to generally accepted accounting principles. Each offeror should note that the City reserves the right to purchase credit reports and additional financial information as it deems necessary. The offeror shall also provide a copy of its corporate annual report.

The Capgemini Annual Reports are available online here:

https://investors.capgemini.com/financial-statements

The Talend 2017 Annual Report is available online here:

http://investor.talend.com/phoenix.zhtml?c=254382&p=irol-reportsAnnual

If selected for additional stages in the procurement process, Sogeti and Talend will provide the complete set of financial statements and any other necessary financials documentation as requested by the City.

Cost Proposal Sheet

Table B-1. Vendor Information	
Vendor Name and Contact	Sogeti USA, The Technology & Engineering Services Division of Capgemini America, Inc. Jeff Werner - Account Executive, Ohio Public Sector Mobile 614.578.6795 Jeff.Werner@us.sogeti.com
Product Names and Versions	There are several Talend products listed in the Architecture Overview section that list the details on each piece of the infrastructure. **Talend Server modules** The server modules include: • Talend Activity Monitoring Console • Talend Administration Center • Talend Artifact Repository • Talend CommandLine • Talend Data Preparation • Talend DQ Portal • Talend ESB Servers • Talend JobServer • Talend Log Server • Talend MDM Server • Talend Repository Manager • Talend Runtime
List of any existing negotiated pricing contracts (GSA, Ohio STS, et. al.) that are available to the City of Columbus	Not Applicable

Table B-2. Software Licensing and Pricing Related Information	Vendor Response
Describe the pricing model used to respond to the request for pricing information. List roles, types of role-based license (concurrent or named), and any server licensing requirements.	**One annual fee per user for data and application integration software regardless of the type of user.** At Talend we keep it simple: pay-by-user for data management. Other vendors keep adding to the on-going cost as you connect new data sources and increase data volumes. Because the future is unknown and/or changes your pricing may escalate one connector at a time. User based pricing means you pick and choose the right license for the right role so you're not over buying and ending up with shelf-ware. - Data Management - Big Data - Real-time Big Data - Data Services - Master Data Management - Metadata Management - Data Steward - Data Preparation There is a small fee for Master Data Management run-time.
Will you extend negotiated terms and discounts to future purchases for a defined period of time?	Yes
Explain any special licensing or separate modules required for the role of Citywide Data Management Platform product administrators if different from role-based permissions.	There are none.

Table B-2. Software Licensing and Pricing Related Information	Vendor Response
Describe your software suite bundling options and stand-alone modules.	**User based pricing means you pick and choose the right license for the right role so you're not over buying and ending up with shelf-ware.** You determine how many of each license you need of the following: • Data Management • Big Data, • Real-time Big Data • Data Services • Master Data Management • Metadata Management • Data Steward • Data Preparation Based on the City of Columbus' requirements we are proposing using our Data Fabric license. Talend Data Fabric license which allows a user to take advantage of any data capabilities.
Continue…	**Fabric has a Unified Platform** Design, deploy, manage and collaborate using one environment for any integration. We generate code so you don't have to. **Anywhere Deployment** **Deploy natively on your preferred cloud platform or on-premises with no vendor lock-in and maximum flexibility.** **Design** Design, build, and repurpose data pipelines using a common eclipse-based drag-and-drop studio across all integration types. **Components & Connectors** **Jumpstart your projects with 900+ components and connectors including Spark, Hadoop, NoSQL, cloud platforms.**

Table B-2. Software Licensing and Pricing Related Information	Vendor Response
Continue…	**Integration Styles** Transform and process batch, real-time data for big data integration, application integration, or master data management. **Self-service Apps** **Empower business users to access, cleanse, enrich, and govern data with data preparation and data stewardship apps.** **Data Governance** Govern your data across the enterprise with built-in data quality, data lineage, MDM, self-service apps, and end-to-end metadata management. **Management** **Schedule, monitor and manage your projects through a web-based console with a centralized repository, sharing, and role management.** There is a small fee for Master Data Management run-times. The City of Columbus may add-on to the Data Fabric users in increments of 3 or 5 users and add-on additional Data Steward and Data Preparation license in bundles of 10 and 5 respectively.
Are there any additional costs or licensing required for development, disaster recovery, staging or testing environments?	ONLY Master Data Management has an additional fee for non-production and that is priced at a 50% discount of production runtimes and referred to as Non-Production runtimes.
Describe your basic maintenance package; summarize the services, deliverables and terms included.	Maintenance is included in the user pricing and entitles the customer to all upgrades. Platinum Support is included

	Platinum
Web Availability	
Phone Availability	Business Hours
	(6-18h PST US & 9-19h CET EMEA)
Web Ticket Management	2 hours
Phone Ticket Acknowledgement	2 hours
Update Frequency	
1- Blocker (S1	4 hours
2- Critical (S2)	8 hours
3- Major (S3)	5 days
4- Minor(S4)	monthly

Table B-2. Software Licensing and Pricing Related Information	Vendor Response
Describe any premium maintenance package including deliverables, options and terms that differentiate it from the basic offering.	Diamond support is optional **(see table below)**

Diamond support is optional

	Diamond
Web Availability	
Phone Availability	24x7x365
	Severity 1
Web Ticket Management	2 hours
Phone Ticket Acknowledgement	2 hours
Update Frequency	
1- Blocker (S1)	2 hours
2- Critical (S2)	8 hours
3- Major (S3)	5 days
4- Minor(S4)	monthly

Table B-2. Software Licensing and Pricing Related Information	Vendor Response
Is maintenance priced as a percentage of total discounted license purchases or as a percentage of current list prices? Can caps be negotiated on year-over-year increases in maintenance fees?	There is no maintenance fee as it is included in the purchase. Maintenance caps are negotiable on year-over-year increases in maintenance fees. Talend will keep the maintenance cost flat for the term of the initial agreement and then increase will be capped at 5% per year.
List all third-party software packages that are required for your Citywide Data Management Platform product to function correctly (for example, application servers, web servers, business intelligence, databases, agents or clients for backup, or software distribution and security).	Everything is included in Talend's license.

Deployment of Solution Suite

Specify your Solution Suite product and version, and which modules or capabilities are included in the pricing in Tables B-3.

Product Name and Version: Included Module Name	Included Module Capability
Talend Data Fabric v.7.01	Talend Data Fabric meets all of your integration needs—batch, streaming, real-time, and cloud—in a single platform. Your team can shift easily from one style of integration to another or between cloud platforms without having to install and learn new technologies. Talend goes beyond traditional integration with comprehensive support for self-service, machine learning, and collaborative data governance.
Talend Metadata Manager v.7.01	Talend Metadata Manager is a metadata management tool that connects data from platforms, databases, and analytics tools to

Product Name and Version: Included Module Name	Included Module Capability
	generate a holistic view of the information supply chain in a language that everyone can understand.
Talend Data Preparation v.7.01	When business users work with data on their own, IT loses control and visibility. Talend Data Prep tools are easy for anyone to use and ideal for teams. Governed self-service including role-based access, masking rules, and workflow-based data curation empowers decision makers without putting data at risk or undermining compliance. Transform how IT and users work together to turn data into trusted insight. Talend Data Preparation combines intuitive self-service data preparation and data curation tools with data integration to accelerate data usage across the organization.
Talend Data Stewardship v.7.01	Talend Data Stewardship is empowered by the below key capabilities: **Curate and certify data** Improve productivity and get guidance in your data certification and task curation. Define the data model to comply with. Define data semantics and profile data accordingly. Define and apply rules (survivorship, mass updates). Merge and match data. Resolve data errors. Arbitrate on data (classification and certification). **Collaborate for trusted data** Orchestrate your data stewardship activities in campaigns and delegate tasks to the people that know the data best. Define user roles. Assign and delegate tasks. Define workflows. define priorities. Tag and comment. **Integrate data stewardship** Embed governance and stewardship in your data management efforts. Manage rejects in Data Integration flows. Embed human certification and error resolution into MDM processes. Take matching decisions that cannot be processed automatically. **Audit and track data error resolution actions** Comply with your data governance policies and measures the outcomes of your data stewardship efforts. Monitor progress of campaigns. Track changes. Undo/redo.

Product Name and Version: Included Module Name	Included Module Capability
Talend Master Data Manager v.7.01	Unleash the potential of data, applications, and processes by delivering a single "version of the truth" with Talend Master Data Management Platform. MDM developers, data stewards, and users can turn existing applications and processes into modern data-driven applications using the full functionality of Talend MDM Platform with data integration, real-time application integration, and built-in data quality.

Vendor Pricing

Module Concurrent Licensing	QTY	License Fee	Year 1 Support Fee	Year 2 Support Fee	Year 3 Support Fee
Talend Data Fabric (concurrent user)	3	$386,922	Included	Included	Included
Talend Metadata Manager (concurrent user)	10	$299,850	Included	Included	Included
Talend Data Preparation (named user)	2	Included	Included	Included	Included
Talend Data Stewardship (named user)	2	Included	Included	Included	Included
Talend Data Catalog	1	Included	Included	Included	Included
MDM -Production Server (4-core)	1	$82,500	Included	Included	Included
MDM – Non-production Server (4-core)	2	$41,250	Included	Included	Included
SOFTWARE + MAINTENANCE+ SUPPORT TOTAL		$810,522	Included	Included	Included
Talend Professional Services		$297,550			
Training Credits	150	$35,250			
TOTAL SOFTWARE, SERVICES, TRAINING		**$1,143,322**			

List other modules and pricing not included in the Solution Suite priced above.
Table B-4. Optional Modules Licensing

Module Concurrent Licenses	QTY	License Fee	Year 1 Support Fee	Year 2 Support Fee	Year 3 Support Fee

Additional Module Licenses	QTY	License Fee	Year 1 Support Fee	Year 2 Support Fee	Year 3 Support Fee
Add-on Talend Data Preparation (named user)	10	$30,000	Included	Included	Included
Add-on Talend Data Stewardship (named user)	5	$45,000	Included	Included	Included

List all client software required for your Solution such as OS and **web browser versions**.

> **You'll need to choose your supported platforms from the list below:**
> **Operating Systems, Web and Mobile Browsers**
>   - CentOS Linux
>   - OS X
>   - Red Hat Enterprise Linux
>   - Solaris
>   - SUSE Linux
>   - Ubuntu Linux
>   - Microsoft Windows
>   - Integration Cloud: Microsoft Internet Explorer V11; Microsoft Edge 20; Firefox V45+; Chrome V49+; Safari V9; iPad 3 (iOS 7+); Samsung Galaxy Tab 3 10.1 (Android 4.2.x); Samsung Galaxy Note 10.1 (Android 4.4)

Training Pricing

Provide the following pricing for training. The City will evaluate training costs based on multiple classes delivered on-site. Final requirements for training style and quantity will be determined after a Citywide Data Management Platform product is selected. Training must include all courses and preparation required for end-users of the system, individuals configuring the system, system administrators, and maintenance/support personnel for operating the system:

Table B-5 Definitions (see example below):
  a. Course Title: The name of the course
  b. Description: Description of the course's curriculum or learning objectives
  c. Duration: Length of the course in hours
  d. Course Type: Choose one of the following: Instructor-led at the city's location; Instructor Led at Vendor's location outside of city's location; Instructor-led webinar; Online, self-paced.
  e. user Type: Choose Data Stewart, Developer, Administrator, Data Analysts, Super-Users
  f. Recommended Maximum Students: Vendor should recommend their suggested class size maximum
  g. Class Price – Cost for each class
  h. Student Price (Class Price ÷ by f. recommended number of students)
  i. Estimated vendor's travel expenses for courses delivered in Ohio. Note that the city follows federal OMB per diem rules.

Table B-5. Instructor Led Training at the City of Columbus Facilities in Ohio (expand as needed)

Course Title	Description	Duration	Course Type	Student Type	Rec. Max Students	Class Price (each)	Student Price (each)	Estimated Travel Expenses
Data Access and Visualization	Super-Users completing this course will have an understanding of the tasks to access the data sets through wrangling and visualization tools such as Tableau, R, and Python etc.…	240 min.	Instructor-led webinar	Power Users	25	$2,500	$100.00	$0.00
Training Credits	Customers buy a package and use the credits as they see fit for Instructor Led, Online Instructor Led, Online Self Paced. Education credits are good for 12 months from date of invoice. We have included training credits to accomplish the following courses.							
Introduction to Talend Studio	This course helps you use Talend Studio as quickly as possible. It focuses on the basic capabilities of Studio and how you can use it to build Jobs to read and write data from common database and file formats, transform it, and integrate it into targets.	3 hours	Online self-paced	Anyone who wants to learn the basics of Talend Studio	Unlimited	Free	Free	$0
Talend Master Data Management Basics	Talend MDM Platform provides a comprehensive set of functions for enterprise-scale master data management. It delivers end-to-end functionality for integration and data quality, both for managing enterprise data and for working collaboratively on this data. This course covers the basics of data modeling, which is the first stage of	14 hours	Instructor-led at the city's location	Anyone who wants to use Talend Studio for MDM to control data quality through master records	10			$1500

Table B-5. Instructor Led Training at the City of Columbus Facilities in Ohio (expand as needed)

Course Title	Description	Duration	Course Type	Student Type	Rec. Max Students	Class Price (each)	Student Price (each)	Estimated Travel Expenses
	development in an MDM implementation. It includes an overview of the different types of data modeling, and you do exercises to become efficient using Talend MDM data modeling tools. You also learn about data modeling best practices.							
Talend Master Data Management Advanced	This course is based on knowledge of data modeling acquired from the Talend MDM Basics course. It guides you through implementation of other MDM-specific objects, including triggers, processes, and workflows, and goes through the definition of web services that allow integration with MDM. You also learn how to use matching and survivorship rules to automate governance of source records merged in a master ("golden") record.	24 hours	Instructor-led at the city's location	Talend MDM Platform to control enterprise-scale data quality using master records	10			$1700
Talend Data Integration Basics	Talend Studio for Data Integration dramatically improves the efficiency of data integration Job design through an easy-to-use graphical development environment. With integrated connectors to source and target systems, it enables rapid deployment and reduces maintenance costs. It	7 hours	Instructor-led at city's location	Data owners, DI developers, and administrators who want to deliver	10			$1,000

Table B-5. Instructor Led Training at the City of Columbus Facilities in Ohio (expand as needed)

Course Title	Description	Duration	Course Type	Student Type	Rec. Max Students	Class Price (each)	Student Price (each)	Estimated Travel Expenses
	supports all types of data integration, migration, and synchronization. This course helps you use Talend Studio for Data Integration as quickly as possible. It focuses on the basic capabilities of Studio and how you can use it to build reliable, maintainable data integration tasks that solve practical problems, including extracting data from common database and file formats, transforming it, and integrating it into targets. This course serves as a prerequisite for many other Talend courses, and the skills learned apply to most Talend products.			ready-to-use data to business users and administer data integration flows				
Talend Data Integration Advanced	Prerequisites: Completion of Talend Data Integration Basics and knowledge of computing, including familiarity with Java or another programming language, SQL, and general database concepts. Talend Data Integration provides an extensible, highly scalable set of tools to access, transform, and integrate data from any business system. This course enables you to use the more advanced features of Talend Data Integration as quickly as possible.	7 hours	Instructor-led at city's location	Follow-on to Talend DI Basics Anyone who wants to use Talend Data Integration to perform data integration and management tasks:	10			$1,000

Table B-5. Instructor Led Training at the City of Columbus Facilities in Ohio (expand as needed)

Course Title	Description	Duration	Course Type	Student Type	Rec. Max Students	Class Price (each)	Student Price (each)	Estimated Travel Expenses
	Participants can work in teams on projects shared on a remote repository to monitor Jobs and database changes.			software developers and development managers				
Talend Data Stewardship for Developers	This course enables developers to build DI Jobs for Talend Data Stewardship in order to empower business users to quickly access and handle tasks. It covers creation of data models, semantic types, campaigns, and tasks, as well as how to resolve several types of task in Talend Data Stewardship.		Online self-paced		Unlimited			
Talend Data Integration Administration	This course is designed for systems administrators in charge of installing and maintaining Talend solutions. It focuses on features that support enterprise-level integrations in which performance and Job deployment may be more intricate due to complexities associated with multiple users and disparate systems, platforms, and protocols.	3 hours	Online self-paced	Anyone responsible for operation, deployment, or maintenance of Talend Jobs	Unlimited			
Talend Metadata Manager Basics	Accelerate time to compliance and improve data accessibility with detailed information about all of your metadata. Talend Metadata Manager	7 hours	Instructor-led at the city's location	Anyone responsible for the developmen	10			$1,000

Table B-5. Instructor Led Training at the City of Columbus Facilities in Ohio (expand as needed)

Course Title	Description	Duration	Course Type	Student Type	Rec. Max Students	Class Price (each)	Student Price (each)	Estimated Travel Expenses
	is a metadata management tool that connects data from platforms, databases, and analytics tools to generate a holistic view of the information supply chain in a language that everyone can understand			t and management of a metadata repository using Talend Metadata Mgr.				
Talend Data Preparation for Implementers	Talend Data Preparation is a self-service application that enables information workers to prepare data for analysis and other data-driven tasks. This course is designed to help you immediately utilize the Talend Data Preparation web interface. You learn how to create datasets and preparations to deliver cleansed, structured, enriched data to business users. You also learn how to use Talend Studio to execute preparations and create datasets in DI Jobs.	7 hours	Online self-paced	Data owners, DI developers, and administrators who want to deploy, manage, and deliver ready-to-use data to business users	Unlimited			
Online Documentation	Knowledge Base online documentation					FREE		

Implementation Services Pricing

Provide the following pricing for consulting and implementation services including system configuration, software installation, data conversion/migration, and testing functions.

Table B-6. Vendor Led Implementation

Role/Position Description	On-site Hourly Rate	Remote Hourly Rate	On-site Daily Rate	Remote Daily Rate
Project Manager	$145	NA	NA	NA
Sr. Business Analyst	$125	NA	NA	NA
Sr. Business Analyst – Change Management Specialist	$125	NA	NA	NA
Total Implementation Services Fee	**$425,000**			

Table B-7. Vendor Led Implementation For Server Installation

Product Name and Version	Modules Included In Implementation

Implementation Costs	Implementation (Install, Configure, Train on Use)	Implementation Days (Total)	Data Conversion	Forms Conversion

Table B-8. Software Installation: Describe other optional installation services not included in Table B-6.

The Sogeti Team is proposing a fixed-fee of $425,000 for Implementation Services. This includes the resources listed in Table B-6 above for a six (6) month implementation timeline.

Table B-9. Software Customization: Describe software customization options and pricing approach.

Appendix 2 – Company/Product Questions

2.1 General Questions

2.1.1 Company name and address

  Talend Inc.
  800 Bridge Parkway Suite 200.
  Redwood City, California 94065

2.1.2 Total number of years in business

  13 years

2.1.3 Total number of years providing the business/service requested

  12 years

2.1.4 Total number of employees

  913

2.1.5 Total number of employees dedicated to the type of business/services requested

  913

2.1.6 Total number of current clients (all services)

  3,000,000 downloaded users (inclusive of all open source users)

  1894 paying customers

2.1.7 Current number of clients for this type of business/service

  1104

2.1.8 Public Corporation Y/N; if yes what is stock symbol and on what exchange is it traded?

  Yes, TLND on NASDAQ

2.1.9 Is your most recent annual report available online? If so please provide Web address. If not please send three (3) hard copies

http://investor.talend.com/phoenix.zhtml?c=254382&p=irol-irhome

2.1.10 Duns Number (If available)

Not available

2.1.11 Total Revenues

$163,000,000

2.1.12 Please provide 3 current references that we may contact, that have or use the products or services included in this response:

- Salt Lake County
- Air France
- Optum United Health Group

2.1.13 Is your company a "Minority Business Enterprise (MBE)?" If so, please send all appropriate certifications along with your response to this document

No

2.1.14 Please describe any existing or pending business arrangements your firm may have with City or any of its personnel.

None

2.1.15 Do you use sub-contractors and/or 3rd party companies in your implementation or installations? If yes, please list the name(s), address (es) and contact information -

No use of additional sub-contractors as part of this solution.

2.2 Licensing Methods, Pricing and Costs

2.2.1 Please list the different ways that you license your software along with the standard pricing applicable for each type. (i.e. Enterprise, named user, per CPU etc.)

Imagine never having to worry about shelf-ware and deprecating value of the data management platform. Talend is the only vendor to offer per user pricing. Users can be concurrent or named for on-premise and named for cloud. There is a small run-time fee for MDM. Our solution differs in many ways to the competitor's offerings primarily because our solution is completely integrated: data integration, data profiling, data quality, business process management and the MDM HUB are all developed on Eclipse. The other solutions are a mixture of acquired products that are still trying to be phased into a semi-common platform. For that reason, all of those solutions require a high degree of consulting resources to stand up and maintain over the life of the solution. Other issues to highlight are high costs of those solutions (they charge for additional processors, record counts, additional domains, test/development environments, etc.). Talend dramatically simplifies this process by offering an easy to use HUB solution that will master any domain and will not charge any additional license fees for record counts, additional processors needed, or test/development environments needed. The unified platform that is common to all of our data management components dramatically improves IT user productivity and ultimately business productivity. Gartner and Forrester both view us as visionary company that is aggressively attacking the data management space with software solutions that no vendor is offering today.

2.2.2 Is there any 3rd party software required? If so please list the software and applicable pricing.

No

2.2.3 Please give a listing of your standard Professional Service per hour costs. (i.e. Project Manager - $XXX, Programmer - $XXX, etc.)

The prices are listed in the Cost section above.

2.2.4 If there are proprietary hardware costs please list the hardware items and their standard costs

No

2.2.5 We have several environments that may need a separate installation of your products. The environments include at least development, staging, and production. We also may require a multiple data center

User based pricing means you pick and choose the right license for the right role so you're not over buying and ending up with shelf-ware. MDM run-time for production is licensed per 4 cores (you decide the platform) any non-production environments are 50% of the cost of production.

2.2.6 Implementation for availability. How would your pricing structure for your products apply to our environments?

User based pricing means you pick and choose the right license for the right role so you're not over buying and ending up with shelf-ware. MDM run-time for production is licensed per 4 cores (you decide the platform) any non-production environments are 50% of the cost of production.

2.2.7 Provide information on pricing for yearly support and/or maintenance. What services and software does the yearly support and/or maintenance include?

https://www.talend.com/support/support-statements/

We release 3-4 upgrades a year and you're entitled to all of them as part of the purchase. Please see pricing matrix for details.

Talend will provide, at no charge, a Client Success Manager (CSM) is a non-billable resource that assigned to Talend customers to ensure the success of the Talend solutions.

The goal of the CSM program is to help the customer define, measure, and achieve the business results desired with the implementation of the Talend solution. The CSM is empowered to connect customers with the correct resources inside Talend for roadmap information, services scoping and solution strategy. The CSM conducts on-site business review meetings to review results and discuss the overall Talend experience. The CSM is the primary customer contact on a day-to-day basis maximizing the value received from the Talend solution.

The Client Success Manager is assigned to the customer for duration of the relationship with Talend.

In addition to the Customer Success Manager - Standard Support for City of Columbus

	Platinum
Web Availability	
Phone Availability	Business Hours
	(6-18h PST US & 9-19h CET EMEA)
Web Ticket Management	2 hours
Phone Ticket Acknowledgement	2 hours
Update Frequency	
1- Blocker (S1	4 hours
2- Critical (S2)	8 hours
3- Major (S3)	5 days
4- Minor(S4)	monthly

2.2.8 Please provide a soft copy of your standard, Software License Agreement, Maintenance Services Agreement and Service Level Agreements

https://www.talend.com/legal-terms/us-eula/

https://www.talend.com/legal-terms/us-support-policy/

https://www.talend.com/support/support-statements/

2.3 Product Background

2.3.1 Partnerships

A complete list of 34 partnerships can be found here:

https://www.talend.com/partners/technology/

A few highlights: Apache, Snowflake, Hadoop, Hortonworks, Cloudera, Spark, Tableau, Microsoft, Google, Amazon, MAPR

2.3.2 Industry Partners

A list of featured partnerships can be found by clicking here. A few are shown below.

2.3.3 Consulting Partners

A complete list can be found here: https://www.talend.com/partners/find-a-partner/?lang=en&_sft_region=t-us

Sogeti is our chosen partner because of their skill and experience with leading complex MDM projects.

2.3.4 Market Position

Gartner Magic Quadrant:

While Informatica and IBM remained in leadership positions, each company took a significant step down and back. We believe this is because older technology platforms are having a harder and harder time keeping pace with new customer needs and available technologies including big data, machine learning, real-time and streaming data use cases. Gartner's Magic Quadrant for Data Integration tools highlights cautions around both companies for pricing, complexity and high total cost of ownership. Similarly, Oracle and SAP both dropped down noticeably on the Ability to Execute axis. Gartner said both are overly focused on their stack, with increasingly complex products, and pricing/perceived value issues.   Both were also called out for extensive migration and upgrade issues. For SAP specifically, the report adds that it has limited support, services and trained resources in the market.

Talend was the only leader that substantially improved its position on the ability to execute axis. This noticeable move underscores how changing market dynamics and customer requirements are impacting vendors and causing the bar for data integration solutions to be raised. The historical leaders are losing ground when it comes to new data scenarios, like the cloud, big data and self-service. We believe these new data scenarios are the **future of the data integration market**. This aligns with Talend's "Wayne Gretzky" strategy of skating to where the puck will be by becoming a leader in the areas that are most important to the **future** of the market.

Interestingly, the Gartner Magic Quadrant for Data Integration Tools report did not speak much about the importance of machine learning. In my view, the use of machine learning in data integration is one of the most important drivers of change within the data integration market. At Talend, we see the application of machine learning occurring in two ways. First, some vendors are using machine learning to make their products better. For example, at Talend, we are using machine learning to improve our data quality components, especially running at scale with Spark and Hadoop. Those same models are also continuously improving because they can monitor decisions made by people with our data stewardship application, so our data quality components getter more intelligent over time. The second application is using machine learning to make smart data integration pipelines. A good example of this second scenario is shown in our Talend Big Data Sandbox where we highlight how to make next-best offer recommendations based on web click-stream data. We believe that machine learning is already a critical component of data integration and that it will only become more prominent over the next several years.

Forrester: A snippet of their most recent Wave:
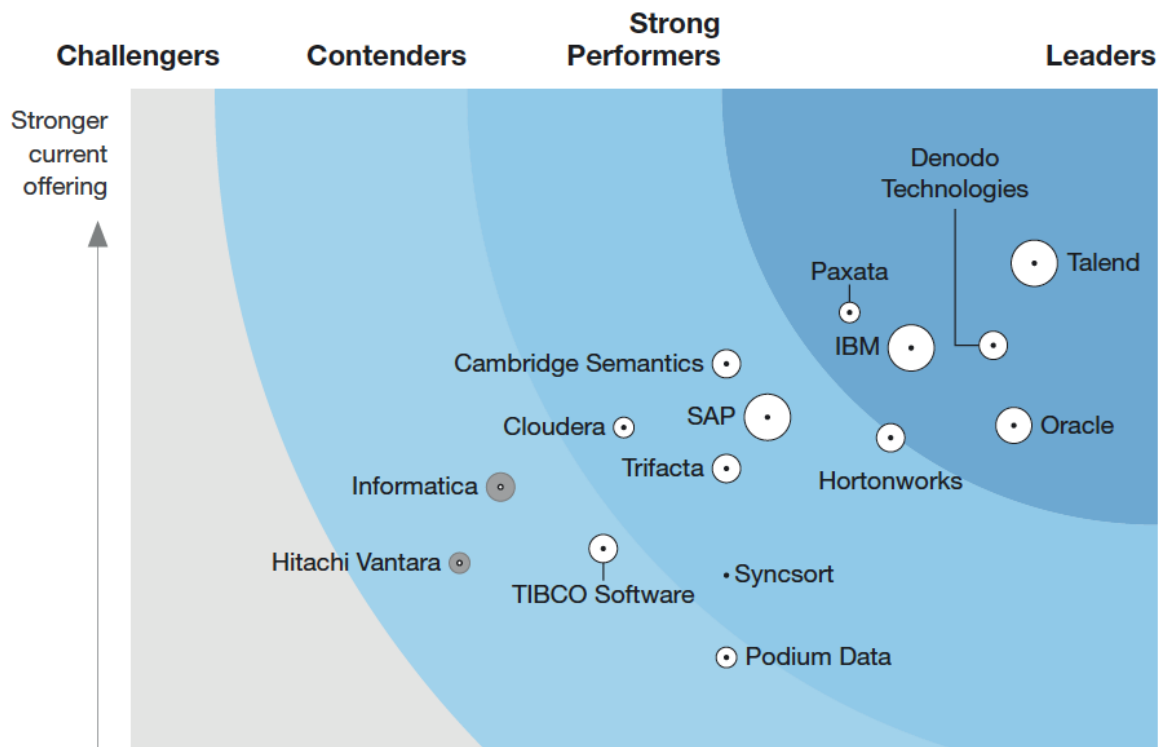
2.3.5 Number of Installations in production by platform (Windows (ver.?) / UNIX / Other)

We install on the user's desktop thus 70% of our users run Windows and the balance run Linux and Apple OSx . MDM runtime is 80% Linux and 10% Windows and 10% Solaris

2.3.6 Average number of seats for each installation

5

2.3.7 Largest number of seats for a single installation

556

2.3.8 Approximate market share

11.43%

2.3.9 Approximate market share last year

9%

2.4 Product Maturity

2.4.1 How long has the product been available?

12 years

2.4.2 Describe the history of the product's code base

We started as an open source product and continue to offer all our products for free as part of the Apache Foundation. It was the first commercial open source software vendor of data integration software. Talend is an Apache Software Foundation sponsor. Many of our engineers are contributors to Apache including Spark, CXF, Camel, Beam, ServiceMix,Syncope, Karaf, Santuario, and ActiveMQ. Talend also helps guide many projects through the Apache Incubator as mentors. Our company is also a member of the Java Community Process, a Solutions Member of the Eclipse Foundation and a Corporate Member of OW2. We publish our code of the core modules under the Apache License. Java is the main development language of Talend's products and services.

Our commitment to open source means that you're never locked-in with Talend. You can uninstall us and still run the integration jobs in your organization. It also means that departments that don't need support can use our free open source products to get work done.

2.4.3 How many outstanding defects exist against the current version?

None

2.4.4 Strategic Direction

We continue to reinforce our open source commitment and our product roadmap includes moving towards a cloud first strategy.

2.4.5 Describe the strategic direction for the product line including any planned major enhancements

We continue to reinforce our open source commitment and our product roadmap includes moving towards a cloud first strategy. Because all RFP responses are publicly available we don't publicly disclose our roadmap until all NDAs are signed and executed by both parties.

2.4.6 Provide the product patch and upgrade frequency

We provide upgrades 3 times a year. Service Packs (x.y.Z) are vehicles for delivering minor improvements to existing features and defect corrections. They incorporate all applicable defect corrections made in previous Service Packs and additional product Patches. While there is no predefined schedule for Service Packs, these are released regularly based on customer feedback and outstanding defects.

2.4.7 Describe the method your company employs to release upgrades.

We send a license email which will include the download links of the binairies and documentation and will be sent within few hours to the main contact registered for your company. The Talend Administration Center automates the application upgrades.

2.4.8 Industry Awards, Articles, Third Party Evaluations

We have consistently won awards and you can find them here: https://www.talend.com/about-us/awards/

2.4.9 Provide information about any industry awards your product has won

We have consistently won awards and you can find them here: https://www.talend.com/about-us/awards/

A few highlights:

- #1 Forrester Wave
- Gartner Leaders Quadrant -#1 Open Source Data Integration
- Developer's Choice Award

2.4.10 Please attach a copy of any articles or third party evaluations of your product line

- https://www.g2crowd.com/products/talend-application-integration/reviews

- https://www.trustradius.com/products/talend-data-integration/reviews#2
- https://info.talend.com/gartnermqdi.html?_ga=2.244254273.510210286.1530807805-587199823.1524007290
- http://www.hostingadvice.com/blog/talends-open-source-approach-to-serving-data-driven-enterprises/
- https://info.talend.com/forresterwavebigdata.html?type=hero&_ga=2.244254273.510210286.1530807805-587199823.1524007290

2.5 Dependencies on other technologies

2.5.1 Identify those products that are not included with your product but are required for normal operation and functionality (e.g. Databases,

Networking Infrastructure, etc.) None

2.5.2 Please indicate any technology that is bundled with your solution but is made by a third party.

Bonitasoft BPM technology which provides workflow capabilities to manage user approvals and other process approvals within Talend MDM.

2.6 Third Party Offerors Integration

2.6.1 Indicate any offerors and their products that integrate or provide add-on functionality to your product

There is an exchange of 900+ accelerators available: https://exchange.talend.com/

2.6.2 OEM Relationships

None

2.6.3 Indicate any offerors and the related product lines that are currently integrating your products into their solution offerings.

We can provide this once the necessary NDA contracts are in place.

2.7 Architecture Overview

2.7.1 What platform(s) will you product run on (Windows, UNIX, Open Language, other)?

Windows, OSx, Unix, Linux, Ubuntu please see Attachment B for a complete list

2.7.2 Provide the minimum recommended hardware and software configuration.

Facet	Requirement
OS	Any Windows, Linux, MAC capable of supporting Sun/Oracle Java JDK1.6
CPU	Server: 4+ Cores, 8 recommended

	Client: 4cores
RAM	Server: 16GB+ for all Talend Processes Client: 4-8GB
Disk	Server: 1GB + 2x #records in KB + 20GB for other Talend Processes

2.7.3 Describe the deployment options available with your product?

On-premise or cloud

2.7.4 Is your product a server-based solution?

Only the Master Data Management piece everything else runs on the end users device via a browser or client

2.7.5 Does your solution require a "Dedicated" server?

Require, no, recommended, yes

2.7.6 Can the server be a virtual server (specifically VMWare)?

Yes

2.7.7 Does your product support a thick client, thin client, or both?

Both

2.7.8 Does your thin client require ActiveX controls or Java Applets?

No

2.7.9 Does your product require access to a directory on the local drive?

We require access to data

2.8 Extensibility and Development Environment

2.8.1 Does your product support customization to match different processes?

Yes. In fact with a blank canvas you can drag-n-drop your integrations and morph the jobs to match different processes without hand coding.

2.8.2 How are customizations made? There is a single Drag-n-drop UI with all available capabilities in the sidebars.
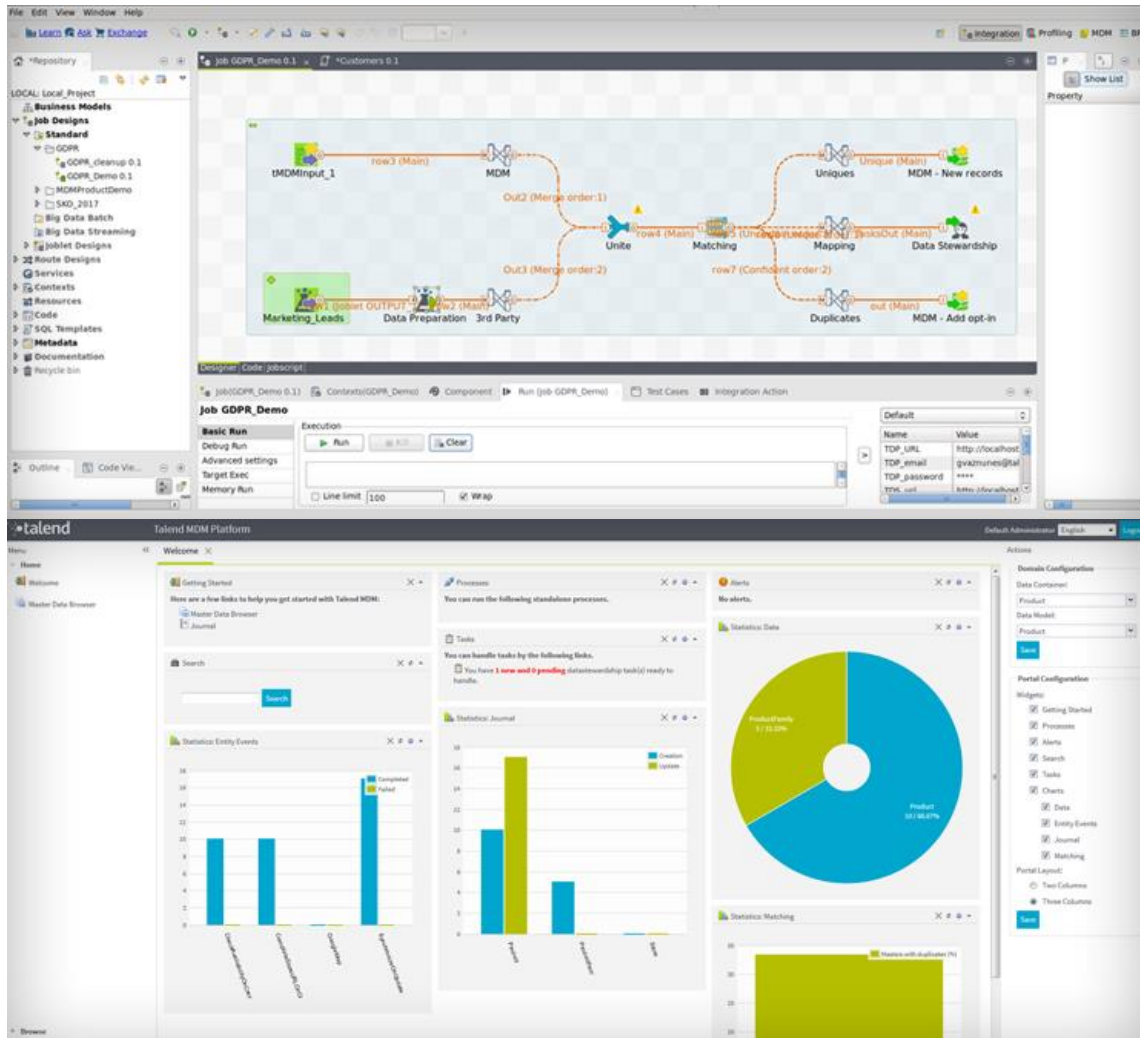
2.8.3 Does your product supply any APIs? What are they?

We can connect to any system(that wants to be connected) and yes and **we have over 900** here is a URL where you can find them: https://www.talendforge.org/components/index.php

2.8.4 Does your product include workflow capabilities? How are the workflows defined?

Yes. From the BPM perspective in Talend Studio, you can design a workflow graphically. This workflow is defined as a sequence of connected steps that will require human or automatic intervention. Each step in the workflow is enabled after the completion of the previous step.

When a given workflow is triggered, all tasks included in it will need to be fulfilled. Any required human intervention will be listed in Talend MDM Web User Interface. A workflow may require a business user or data steward to have constant interaction with master data.

2.9 Reliability

2.9.1 Describe your product's support for clustering to achieve high availability

You can set up a cluster in your *Talend* system to provide high availability and failover features for task execution scheduling in *Talend Administration Center*. You do this by deploying multiple Job Conductors and Job execution servers on different machines.

- Two application servers (Tomcat or JBoss) holding the Talend Administration Center Job Conductors and Virtual Servers, as well as two CommandLine applications are installed (on different machines) and point to the same SVN/GIT shared project.
- All instances of the application server are connected to the project administration database. This database may be clustered; refer to your corresponding database vendor documentation for more information.
- (optional) Talend Administration Center users are routed to the same active application instance, for example through an HTTP Proxy (switch). This feature is not provided by Talend and thus needs to be implemented separately.
- The first CommandLine generates the artifacts to be deployed. The second CommandLine is only used when the first one is down.
- When an execution server fails, the other execution servers can recover the interrupted tasks.
- A shared storage is implemented to store and share between active instances all archives and logs generated during each Job execution, for example through a Network-Attached Storage (NAS). This feature is not provided by Talend and thus needs to be implemented separately.
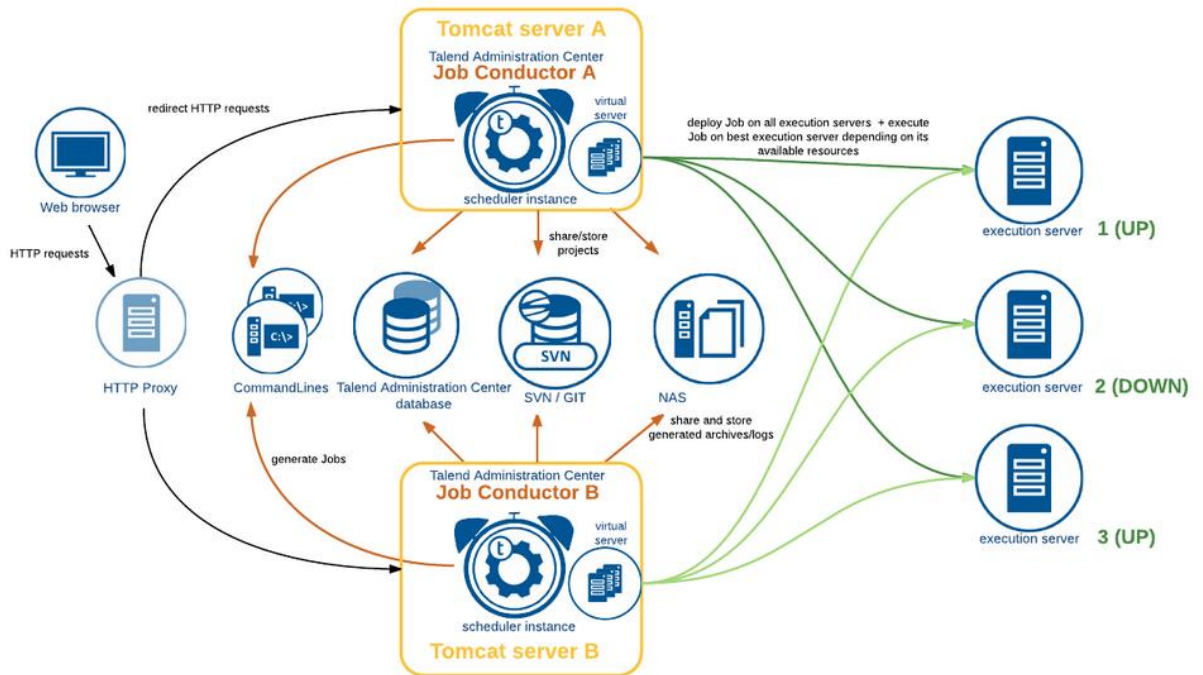
Talend also provides the option of grouping a set of physical servers into a "virtual server". A virtual server is a group of physical servers from which the best-rated server will automatically get preferred at Job execution time. Once you set the execution task onto a virtual server, Talend determines the best physical server to execute the task and sends the request there. This decision on which server to pick is based on a rating system that leverages information on CPU/RAM/disk usage of each of these physical servers.

2.9.2 Can your product be configured to automatically switch to another site or continue operation at another site through a high bandwidth connection in the event of a catastrophic failure?

Yes.

Through the Service Locator, Talend provides automatic and transparent failover and load balancing via dynamic endpoint registration and lookup through Apache Zookeeper. Service Locator maintains the availability of the service to help meet demands and service level agreements (SLAs).

Talend features an Eclipse-based integrated development environment with hundreds of built-in data connectors and logical components that support all dimensions of data extraction, data transformation, and data loading. Support for advanced data controls such as real-time data cleaning and change data capture; **built-in load balancing with automatic failover**; and support for publishing data transformation jobs as an SOA web service.

2.9.3 Does your product need to be brought down periodically for maintenance? If so, how often and for how long?

> When a major update is planned, tiers/components can be upgraded independently and scheduled to minimize business impact.

2.10 Performance and Scalability

2.10.1 Provide any documented benchmarks that are available

> Heavy workloads can be directed to your Big Data compute infrastructure (Cloudera) which would be limited to your cluster's configuration and number of nodes allocated. If your cluster is not available or ready for production workloads, Talend can utilize standalone/local SPARK processing for batch and real-time integration processing.

2.10.2 Please provide benchmarks for the highest volume site currently in production

> Cloudera would be better suited to provide Spark and MapReduce compute benchmarks based on the configuration and size of your current cluster size and what is an appropriate size to process your full-volume workloads, especially if they are greater than 1 Petabyte.

2.10.3 Discuss any known limitations of the product (maximum message size, maximum CPU's supported, etc.)

> Our biggest limitations are the infrastructure/resources available for compute as well as the inherit limits of the native code we generate (java, SPARK-Batch, SPARK-Streaming MapReduce, etc). We are currently working to generate to more technologies to be future-proof and take advantage of emerging technologies such as the Apache BEAM project.

2.10.4 Describe how your products implement load balancing between multiple physical servers

> For large / Big Data workloads, we would rely on your Hadoop cluster's resource Manager (typically YARN in Cluster or Client mode) to allocate and perform load balancing. For non-BigData use cases, Talend provides similar functionality for processes operationalize within Talend-managed runtimes.

2.11.1 Please describe your systems management approach including the console and what can be monitored:

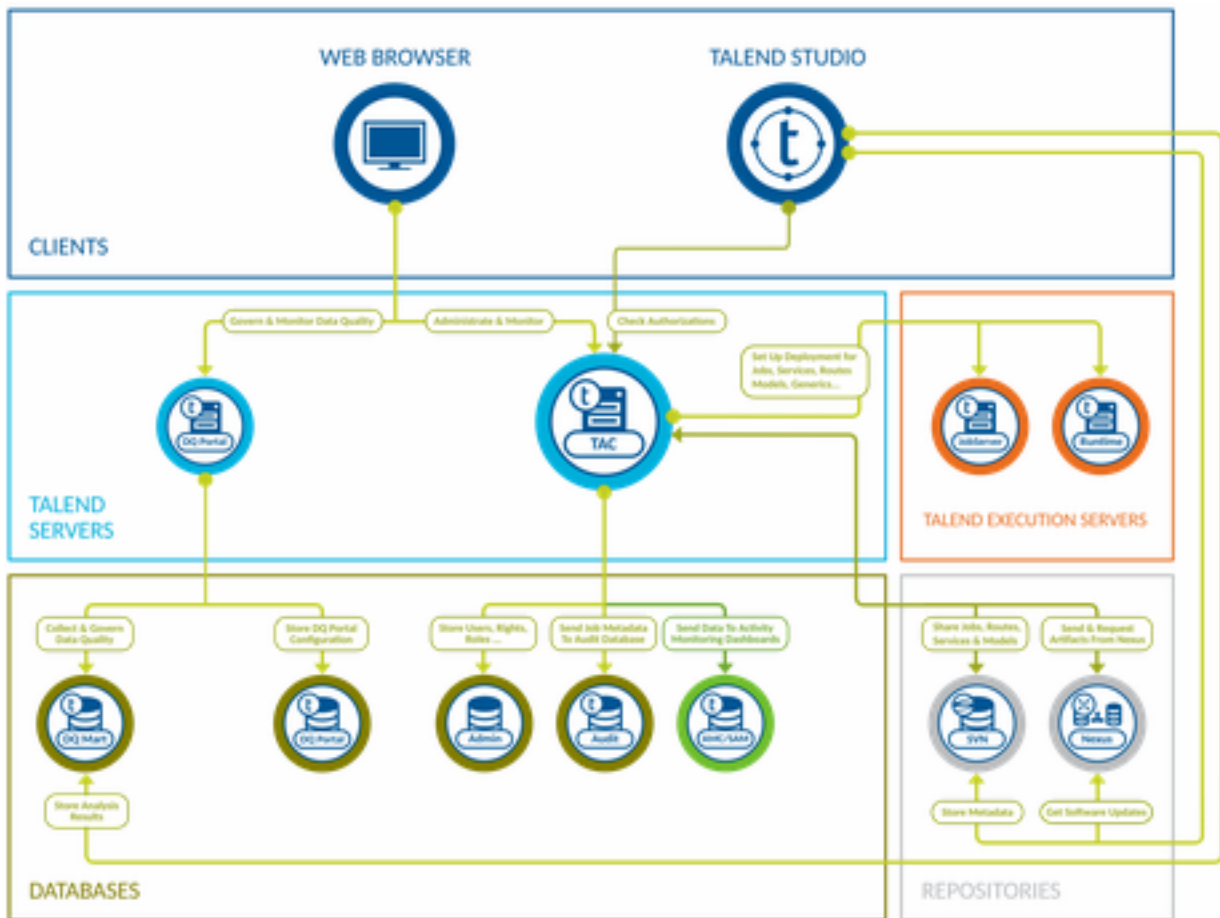> *Talend Administration Center* allows you to:

> - Manage operating and connection information via the **Configuration** page of the application. For more information, see *Configuring Talend Administration Center*.

- Administrate projects, manage users and licenses via the **Projects**, **Users** and **Licenses** pages. For more information, see *Managing projects*, *Managing project references* *Managing project authorizations*, *Managing Users* and *Managing licenses*.
- Schedule deployment and roll-out of processes (Jobs) via the **Conductor** node and monitor them via the **Monitoring** node. For more information, see *Executing Jobs, Routes and Services* and *Monitoring task execution and accessing logs*.

The operating principles could be summarized into the following major topics:

- building technical or business-related processes,
- administrating users, projects, access rights, and processes and their dependencies,
- deploying and executing technical processes,
- monitoring the execution of the technical processes.

Each of the above topics has been graphically described by isolating specific functionalities in different functional blocks.

2.11.2 What enterprise management standards do you support (e.g. SNMP, WBEM)?

We support WBEM and SNMP.

2.11.3 How are errors such as hardware crashes or transaction failures handled by the system?

Talend Administration Center records all failures and sends notifications. The **Notifications** page allows you to configure alerts based on events. An event can be a user creation or deletion, a task failure or a change in the status of one or more job servers (whether the status changes from up to down or down to up).

If one of the SMTP parameters of the **Configuration** page is down, a warning will display at the top of the **Notifications** page to inform you that the notification might not work due to an SMTP server connection error.

Column	Description
Category	The notification category: **Tasks**, **Users**, **JobServers**, **License** and **SoftwareUpdate**.
Event	Type of the event to be notified:

	Tasks	**On task failed**: sends a notification if an error is generated when a task is triggered.
	Users	**On creation mailTo itself**: sends an email to the user in order to notify him that his *Talend Administration Center* account has been created. **On user creation**: sends an email notifying the user who subscribes to the notification service that a new user account has been created. **On user deletion**: sends an email notifying the user who subscribes to this notification service that a user has been deleted.
	Servers	**On change of server status**: sends an email to the user in order to notify them when the status of one or more job servers changes from up to down or back to up.
	License	**On license expiration**: sends an email to the user a few days before his license expires. **On token expiration**: sends an email to the user a few days before his token expires.
	SoftwareUpdate	**On new patch available** : sends an email to the user in order to notify him that a new patch is available. For more information, see *Checking for updates*.
Enabled	Select the check box to activate the notification.

2.11.4 What will the operations staff see and do?

See the Diagram above and check this URL for an extensive knowledge-base

https://help.talend.com/reader/IR9oYmW~QCipanoAxdHocQ/91RU_sh5bt89rc72sSFyrQ

2.12 Consulting Services

2.12.1 Describe the types of consulting services that your company offers

Sogeti offers a comprehensive portfolio of services including Applications & New Technologies, Business Intelligence & Analytics, Cloud, Digital Assurance & Testing, Digital Manufacturing, and Digital Transformation.

2.12.2 Describe the types of consulting services offered by your consulting Partners

Sogeti USA, the Technology and Engineering Services Division of Capgemini America, operates in over 20 cities across the USA. Sogeti's business model is built on providing customers with local accountability and vast, flexible delivery capabilities. Sogeti is a leader in helping clients develop, implement and manage practical IT and engineering solutions to help run their business better. With 50 years of experience, Sogeti offers a comprehensive portfolio of services including Applications & New Technologies, Business Intelligence & Analytics, Cloud, Digital Assurance & Testing, Digital Manufacturing, and Digital Transformation

2.12.3 Please describe your engagement methodology, typical milestones, and standard deliverables

The DELIVER Unified Project Management method (UPM) provides a detailed description of the management activities to be completed to ensure successful delivery of a project. The method is flexible and can be tailored for use on projects of any size. It provides a comprehensive repository of information covering all aspects of managing a project based on actual Sogeti and Capgemini experience from delivering successful projects in a time-critical and cost-sensitive manner.

2.12.4 Provide a definition for a small, medium, and large consulting engagement and indicate the length of each and the number of consultants typically engaged?

> The Sogeti Team provides consulting engagements for many different clients and each engagement is tailored to fit the specific client requirements. The technology is able to fit the needs as well as each firm brings the appropriate number of consultants and trainers to fit the project budget. Each project regardless of the size will go through the same process to ensure a consistent solution. A small to medium project may have as few as one Project manager or business analyst and online training solutions. Medium to large projects may have several technical architects, business analysts, project managers and potentially a program manager to ensure a smooth, complete, high quality project is delivered.

2.13 Support

2.13.1 Describe the technical support options available and the related cost structure

> Talend will provide, at no charge, a Client Success Manager (CSM) is a non-billable resource that assigned to Talend customers to ensure the success of the Talend solutions.
>
> The goal of the CSM program is to help the customer define, measure, and achieve the business results desired with the implementation of the Talend solution. The CSM is empowered to connect customers with the correct resources inside Talend for roadmap information, services scoping and solution strategy. The CSM conducts on-site business review meetings to review results and discuss the overall Talend experience. The CSM is the primary customer contact on a day-to-day basis maximizing the value received from the Talend solution.
>
> The Client Success Manager is assigned to the customer for duration of the relationship with Talend.
>
> In addition to the Customer Success Manager - Standard Support for City of Columbus

	Platinum
Web Availability	
Phone Availability	Business Hours
	(6-18h PST US & 9-19h CET EMEA)
Web Ticket Management	2 hours
Phone Ticket Acknowledgement	2 hours
Update Frequency	
1- Blocker (S1	4 hours
2- Critical (S2)	8 hours
3- Major (S3)	5 days
4- Minor(S4)	monthly

> The pricing of the support is listed in the Cost breakdown model.

2.13.2 Do you have any local technical support resources?

Talend will provide, at no charge, a Client Success Manager (CSM) is a non-billable resource that assigned to Talend customers to ensure the success of the Talend solutions. This resource may be local to the city of Columbus.

2.14 Training

2.14.1 Please describe your training offerings – including course descriptions, locations, and costs.

See Attachment B Table B-5

2.14.2 Is any 3rd party training available?

No

2.14.3 Please describe the training typically required for users, developers, administrators, and technical support personnel.

See Attachment B Table B-5