BIC Regular Meeting of June 15, 2016

Agenda Item 14

City and County of San Francisco

Accela Land Management Project Assessment Final Report

Prepared for



Gartner Consulting

June 8, 2016

GARTNER CONSULTING

Engagement: 330022381

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This document and its contents represent **Gartner's CCSF Accela Project Assessment Report.**



Accela Land Management Project Assessment



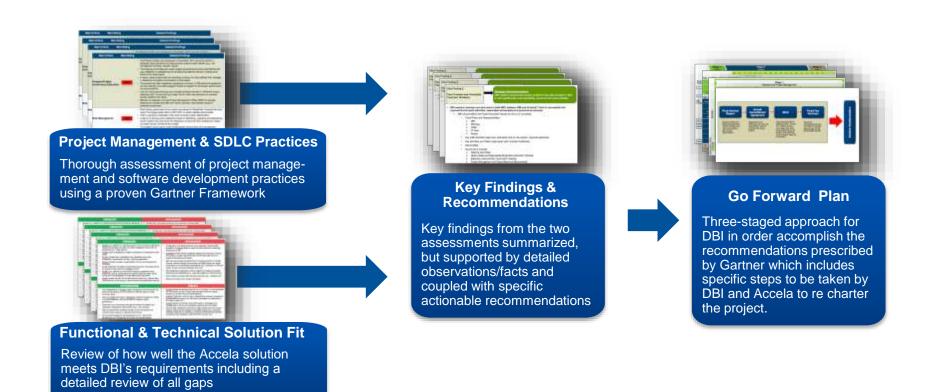
Background and Context

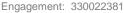
- In August 2011, the City and County of San Francisco (CCSF) entered into an agreement with Accela and 21 Tech to implement Accela's Land Management module. The scope of the project was to replace the core business platforms for both the Department of Building Inspection (DBI) and the San Francisco Planning Department (Planning), including migration of all legacy data.
- Both DBI and Planning experienced challenges that resulted in multiple resets of the project timeline and go-live dates during 2013 and into 2014. Planning achieved go-live readiness criteria in summer 2014, and began production use of Accela on October 22, 2014, however DBI has not achieved go-live.
- In late 2015, DBI issued a project stoppage to evaluate the viability of the project and the Accela solution in order to assess alternatives and determine a go-forward plan.
- To assist with this analysis, the City of San Francisco has engaged Gartner to conduct an assessment of the Department of Building Inspection's (DBI) legacy permitting, inspection, and code enforcement system replacement project with Accela's Land Management Civic Platform solution.
- Gartner applied its proven project and solution assessment methodologies to identify strengths, weaknesses and opportunities in order to develop a series of actionable recommendations and a goforward plan that will best help DBI achieve its strategic objectives for this significant technology investment.



Approach and Methodology Overview

■ The City of San Francisco has engaged Gartner to conduct an assessment of the Department of Building Inspection's (DBI) legacy permitting, inspection, and code enforcement system replacement project with Accela's Land Management Civic Platform solution. The engagement includes an assessment across two work streams to evaluate project objectives and current project progress in order to provide a set of go-forward recommendations:





Approach and Methodology - Work Stream 1: Project Assessment

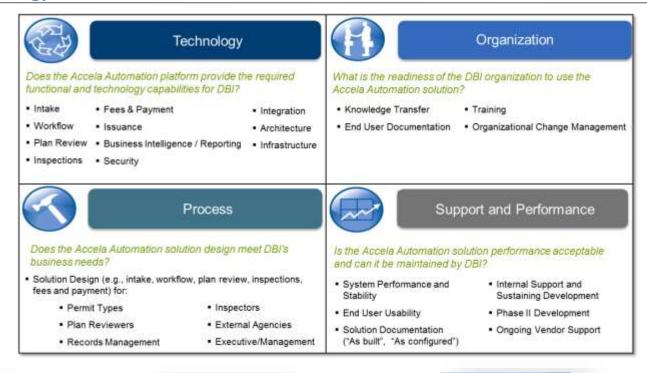
- Gartner's Project Assurance Risk Assessment Framework was used to ensure a comprehensive assessment
 of the project's Execution Stage risks/issues.
- Utilizing a bottoms-up approach, the detailed assessment results served to surface the most pressing issues and opportunities from a project planning and execution perspective.

Strategy	Planning	Execute Downstream Focus	Manage
Initial Focus	Initial Focus		Downstream Focus
 Program/Project Governance Strategy Business Case Risk Mitigation Strategy Executive Support Scope Definition Sourcing Strategy 	Program/Project Governance Plan Risk Management Plan Schedule Planning Budget Planning Scope Refinement Resource Planning Communications Planning Org Change Mgmt Planning Vendor Planning Support Security Planning Development Planning Overall Test Planning Training Strategy & Planning Deployment Planning Deployment Planning Training Strategy & Planning Benefits Realization Planning	Program/Project Governance Execution Risk Management Budget Management Schedule Management Scope Management Communications Mgmt Org Change Mgmt Execution Vendor Implementation Support Requirements Management Security Execution Development Execution Unit Testing Integration Testing Performance Testing Data Conversion Execution Training Development& Delivery Deployment Execution Interface/Integration Execution Benefits Tracking & Delivery Operational Transitional	Governance Transition Operational Budget Transition IT Operations Support Transition Business Operations Support Transition Vendor Maintenance Support Transition Ongoing Business Value Management



Approach & Methodology – Work Stream 2: Solution Assessment

 Complementing the Project Assurance Risk Assessment Framework,
 Gartner applied our TOPS framework to analyze the suitability and configuration of the current solution to assess strengths, weaknesses, opportunities and threats





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Gartner Assessment Conclusions

- Gartner's assessment of DBI's Accela implementation identified critical project management and delivery issues and risks caused by all parties involved in the project (e.g., DBI, Accela, and 21 Tech). Seven (7) primary conclusions have been reached by Gartner that summarize our findings.
- 1 The Accela Civic Platform provides the native functionality and configuration capabilities to support DBI business needs.
- While many of the issues experienced are common across Accela implementations at large, complex jurisdictions, the sheer duration of the project and failure by all parties to effectively rectify them in a more timely manner is not common.
- Significant underestimation of business complexity and implementation effort/costs at the onset of the project, coupled with poorly constructed foundational documents, created and compounded execution issues that led to project stoppage.
- Changes to DBI leadership over the course of the project, coupled with unclear project objectives negatively impacted future state vision and overall project progress.
- Inconsistent project management by all parties, and an ineffective implementation vendor methodology impeded project progress, and contributed to an adversarial relationship between DBI and Accela/21 Tech.
- Failure to provide consistent, dedicated resources from DBI as well as Accela/21 Tech further clouded requirements development and solution design activities, creating a significant gap in perception of project progress and ability of solution to meet DBI business needs.
- Departure of knowledgeable technical DBI resources and insufficient knowledge transfer and organizational change management activities render DBI ill-prepared to support the system after go-live.

Despite these issues, many of which are common for licensing and permitting system implementations, Gartner believes the shared missteps that have plagued the project can be overcome, and that with appropriate re-engagement and careful planning and diligent execution, the project can be successful.



Key Conclusions and Findings Mapping

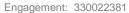
Each of the seven primary conclusions is mapped to a summary of key findings and implications related to that conclusion. Further elaboration and supporting information underpinning the summarized findings is detailed throughout the body of the document.

	Key Conclusions	Key Findings	Implications
1	The Accela Civic Platform provides the native functionality and configuration capabilities to support DBI business needs.	Accela Product capabilities have the potential to meet DBI needs	 The Accela solution is extremely flexible and configurable. As DBI has discovered, this requires either a knowledgeable, skilled internal staff or very active support from an engaged vendor team. Despite areas of concern that need to be re-assessed and potentially architected (e.g., inspection scheduling, central permit bureau intake), the project team can build off what has been configured to date (e.g., the solution design and configuration does not have to 'start from scratch').
2	While many of the issues experienced are common across Accela implementations at large, complex jurisdictions, the sheer duration of the project and failure by all parties to effectively rectify them in a more timely manner is not common.	9. DBI and Accela/21 Tech failed to respond and address multiple early warning signs in a timely manner	 Failure of the previous director to gain the buy-in of key subject matter experts and line staff on design decisions, or subsequently course correct or address the active resistance that this generated from these same individuals (e.g., 5 years is long/atypical). Escalating failures in project management, software development methodology and program execution activities by all parties which were allowed to go unaddressed for long periods of time. Lack of external governance and oversight, allowing critical project issues to go unaddressed or unacknowledged for long periods of time.



Key Conclusions and Findings Mapping (cont.)

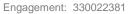
	Key Conclusions	Key Findings	Implications
3	Significant underestimation of business complexity and implementation effort/costs at the onset of the project, coupled with poorly constructed foundational documents, created and compounded execution issues that led to project stoppage.	 Poor contract and unrealistic cost and schedule Poor definition, elaboration and tracking of business requirements Significant unpaid or non invoiced vendor services 	 Contract provisions and an implementation methodology which omits critical activities (requirements traceability, test planning/execution, training) created significant delivery risks at onset. Creative configuration options and an openness to business process adjustments must both be present to address current functional gaps in the configuration. Requirement/scope management and traceability must be rigorous and should directly tie to UAT scripts and overall project success criteria. It's critical that all parties fully vet existing gaps in order to reach agreement on the 'Go Forward Plan'.
4	Changes to DBI leadership over the course of the project , coupled with unclear project objectives negatively impacted future state vision and overall project progress.	 Significant project progress has been made to date Unclear strategic objectives (transform DBI, replace PPTS, etc.) Inadequate DBI governance and accountability Project leadership turnover has negatively impacted the project 	 DBI and City leadership must clearly define strategic project and institute KPIs to measure progress DBI should continue to build on the governance and accountability improvements over the last 12+ months to ensure clear direction and accountability Project successes and progress to date must be championed by DBI leadership and key influencers to overcome project fatigue and fuel organizational change management activities.





Key Conclusions and Findings Mapping (cont.)

Key Conclusions	Key Findings	Implications			
Inconsistent project management by all parties, and an ineffective implementation vendor methodology impeded project progress, and contributed to an adversarial relationship between DBI and Accela/21 Tech.	 8. Ineffective implementation methodology 10. Vendor approach and execution has led to low morale and project fatigue 12. Vendor and DBI project management discipline and processes were lacking 16. No documented or agreed to Project Success Factors 	 Over-reliance on highly detailed, technical, template-driven and Accela-specific configuration documents to define and control scope confuse linkage to business requirements Underestimated understanding of business complexity led to vendor resistance to design changes, and pressure on clients to accept workarounds or defer functionality to an undefined future phase. Adopting a more iterative, collaborative implementing methodology is a leading practice amongst Accela implementations Revitalization of project will require defined organizational change management activities. 			
Failure to provide consistent, dedicated resources from DBI as well as Accela/21 Tech further clouded requirements development and solution design activities, creating a significant gap in perception of project progress and ability of solution to meet DBI business needs.	 Over time, the Accela/21 Tech joint venture became a project challenge Both vendors are local companies yet the project is staffed by remote, implementation resources System performance issues have significantly impacted testing and user adoption Initial lack of full time business and/or technical subject matter experts across DBI and Accela/21 	 DBI: DBI's recently appointed SME leads for all of DBI service areas will contribute to success, but must be managed by a single SME in a supervisory role. Accela/21 Tech: Providing resources with deep Accela product knowledge for Go-Forward planning, and dedicating an onsite project team through go-live/system stabilization will be a key to success. An experienced solution architect for the duration of the project is a must. Initial performance issues mitigated through changes to Planning's SharePoint integration is a positive step, but overall performance should be a critical success factor for the Go-Forward Plan 			
Departure of knowledgeable technical DBI resources and insufficient knowledge transfer and organizational change management activities render DBI ill-prepared to support the system after go-live.	17. DBI unprepared to support the System	 With the help of Accela/21 Tech DBI should immediately plan for and execute a support plan Accela and 21 Tech must invest time for knowledge transfer of product capabilities as well as DBI-specific configuration details. 			





Solution Assessment Summary

Gartner arrived at the following key conclusions regarding ability for the Accela Civic Platform to support DBI requirements:



Platform's native capabilities and functionality can support DBI's services.



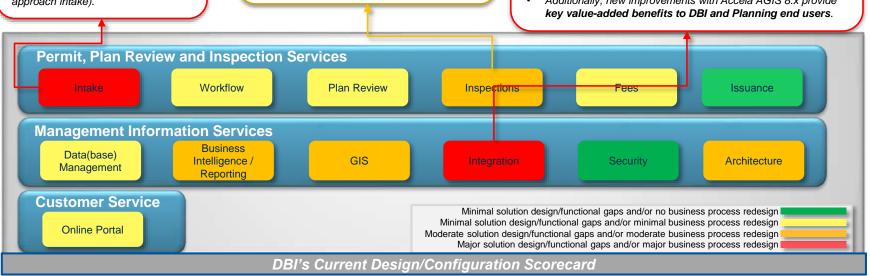
DBI's solution design/existing configuration exhibits challenges/gaps exist that need to be addressed in order to effectively and efficiently meet DBI's business processes.

Specifically, Gartner recommends critical improvements be made to intake and integrations. Likewise, Gartner also recommends focusing solution design and business process improvements to inspections and overall end-user friendliness/usability due to their critical impact on end user acceptance:

The solution design and DBI business processes need to be streamlined to accommodate rapid intake of applications at Central Permit Bureau (e.g., both DBI and Accela/21 Tech need to reconsider how to approach intake).

DBI and Accela/21 Tech need to revisit inspection processes together in order to ensure solution configuration design meets business needs and absolve conflicting findings between DBI and Accela/21 Tech.

- While Gartner is aware that the iPayment interface were not developed by Accela/21 Tech, there will be negative impacts to DBI customers due to its inability to support the volume of payment processing that DBI performs on a daily basis.
- Likewise, Contractor License Validation & Business Tax interfaces do not meet DBI's requirements.
- Additionally, new improvements with Accela AGIS 8.x provide







Project Assessment Summary

Execute Build/Test/Deploy

Program/Project Gov. Execution Risk Management

Schedule Management
Budget Management

Scope Management

Resource Management

Communication Management

Org. Change Mgmt Execution
Vendor Implementation Support
Requirements Management

Security Execution

Development Execution

Overall Test Management

Unit Testing

Functional/Integration Testing

Performance Testing

User Acceptance Testing

Data Conversion Execution

Training Development & Delivery

Deployment Execution

Integration/Interface Execution

Legacy Decommission Execution

Reporting/BI Implementation

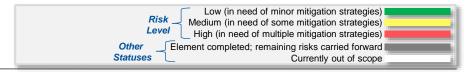
Portal Implementation

Benefits Delivery & Tracking

Operational Transition Planning

The vast majority of project execution risk areas assessed by Gartner were deemed high risk and in need of multiple mitigation strategies. Amongst the most critical that need to be diligently addressed are:

- Program/Project Governance Execution While a number of positive changes have been implemented in 2015/16, impacts from initial changes in DBI leadership, ineffective governance, and decision-making have hampered project effectiveness opportunities for improvement still exist.
- **Risk Management** Early warning signs were not effectively identified and assessed to implement mitigation or avoidance measures, compounding project issues.
- **Resource Management** Insufficient, consistent resource management by DBI, Accela and 21 Tech negatively impacted solution design and downstream implementation activities.
- Vendor Implementation Support Lack of consistent Accela/DBI support, coupled with ineffective methodology, exacerbated common implementation risks and led to strained relationship with DBI.
- Requirements Management Poorly defined initial DBI requirements, lack of appropriate
 elucidation and over-reliance on template-driven Accela-specific configuration documents led to
 disputes on scope and fit to business needs.
- Organizational Change Management (OCM) OCM has not been a focus of the project from the onset.
- Overall Test Management Test planning and execution did not follow SDLC best practices, further compounding the requirements issues noted above.
- Operational Transition Planning Departure of key DBI technical resources and insufficient knowledge transfer leaves DBI ill-equipped to support he system after go-live.





Key Findings and Recommendations Mapping

Gartner has identified specific recommendations to address all of the key findings and implications outlined on the
previous slides. The recommendations below represent a high-level summary of the detailed recommendations
included in the Detailed Recommendations section of this report.

	Key Findings		High Level Recommendations				
S	ignificant progress has been made toward a workable sol	on					
1	Accela Product capabilities have the potential to meet DBI needs	•	Execute a comprehensive Fit/Gap activity to prioritize and mutually agree to specific functional requirements necessary for Go-Live				
2	Significant project progress has been made to date	•	Recognize and communicate the significant work done to-date across DBI and the Vendor				
Ε	arly mistakes left uncorrected, have made if difficult to be	sι	uccessful				
3	Poor contract and unrealistic cost and schedule	•	Amended contracted between DBI and Accela / 21 Tech to add significantly more specificity, structure and accountability				
4	Poor definition, elaboration and tracking of business requirements		Document the functional and technical requirements the system must meeting for UAT as well as for Go Live and include as part of the Go Forward Plan and the new contract				
5	Over time, the Accela/21 Tech joint venture became a project challenge	t ·	Establish a single, integrated team that is accountable to a single project manager or executive				
6	Unclear strategic objectives (transform DBI, replace PPTS, etc.)	•	Executive level definition of what constitutes success for the project that is communicated to the BIC and other City Control Agencies				
V	endor performance requires improvement						
7	Both vendors are local companies yet the project is staffed by remote, implementation resources	•	Staff dedicated key Accela and 21 Tech resources that are collocated at the client site.				
8	Ineffective implementation methodology	•	Employ SDLC best practices and processes in the development and delivery of the system.				
9	DBI, Accela/21 Tech failed to respond and address multiple early warning signs in a timely manner	•	Develop Go Forward Plan with specific phases/gates and detailed entrance and exit criteria				
10	Vendor approach and execution has led to low morale and project fatigue	•	Develop Organizational Change Management Plan; Use the Go Forward Plan development process to rebuild mutual confidence. Require Vendor to provide new project manager and executive sponsor to set a different tone				



Key Findings and Recommendations Mapping (cont.)

	Key Findings		High Level Recommendations				
11	System performance issues have significantly impacted testing and user adoption	•	Optimize configuration on Accela version 8.0 and monitor performance especially in the Dev/Test environment. Consider bringing solution onpremise if performance degrades or business case supports.				
Р	roject governance and project management require improv	en					
12	Vendor and DBI project management discipline and processes were lacking	•	Extend and strengthen Project Management Support from DT in lieu of formal PMO at this stage in the project.				
13	Inadequate DBI governance and accountability	•	Establish a strong executive steering committee (e.g., DBI, Planning and DT executives and Accela) and appoint an accountable Executive Sponsor to provide day to day business leadership to the project				
14	Initial lack of full time business and/or technical subject matter experts across DBI and Accela/21	•	Assign least one half-time to full-time resource DBI resource from each functional area to the project and appropriately backfill for their day job				
15	Project leadership and staff turnover has negatively impacted the project	•	Both DBI and the vendor need to provide a dedicated full time Project Manager to the project. A core team of subject matter experts should also be assigned for the duration of the project				
16	No documented or agreed to Project Success Factors	•	Document key success criteria which must be met in order for the system to Go Live and document them in the the Go Forward Plan				
12	Vendor and DBI project management discipline and processes were lacking	•	Extend and strengthen Project Management Support from DT in lieu of formal PMO at this stage in the project.				
Long term support capabilities require improvement before Go Live							
17	DBI unprepared to support the System	•	Conduct a skill gaps to determine what level of training, knowledge transfer and/or external support is required for DBI IT to support the solution.				
Outstanding invoices need to be settled and inflight system work must be baselined							
18	Significant unpaid or non invoiced vendor services related to unapproved work performed by the Vendor	•	Address unresolved payment and contracting issues in the Go-Forward Planning effort (e.g., related to the work performed by 21Tech prior to Amendment 7 approval)				



Critical Success Factors

- Gartner does not believe that switching from Accela to another permitting/licensing COTS solution (Tyler, Hansen, etc.) or adapting another multi-capability COTS solution (Oracle, SalesForce, etc.) will result in either a superior system or an earlier Go-Live date.
 - We believe that most of the implementation problems have resulted from poor initial scoping and requirements
 definition by the previous director and failure to include the appropriate DBI subject matter experts, coupled with
 faulty planning and execution by both DBI and Accela thereafter.
 - Efforts to complete the solution design are achievable and will pave the path of least resistance to achieving DBI's
 3 to 5 year strategic land management technology objectives.

Minimum DBI Commitment

- Steering Committee: Establish a steering committee which consists of a combination of DBI, Planning and control agency (e.g. DT, Mayor's Office, City Administrator's office. BIC) executives. Conduct steering committee meetings on a bi-weekly basis.
- Executive Sponsor: Appoint a single executive as the executive sponsor that is empowered to make cost and scope decisions as well as commit resources DBI. Ensure that the sponsor actively participates in all critical scope, project status and project decision making meetings.
- External Oversight: Engage an external organization to facilitate the Go Forward Plan development process and to provide monthly or bi-monthly reviews to ensure that all parties are living up to commitments and that measurable progress against the plan is being made.
- Dedicated Team: Assign a full-time or half-time dedicated subject matter expert for each functional area ("floor") for the duration of the project (12-18 months) as well as a single appointed SME manager/supervisor. Backfill for them with temporary resources. Ensure that the assigned resources have the credibility to make decisions and be accountable for communicating these decisions to their coworkers. Following design, these resources will become test analysts, testers, trainers and evangelists for the new system.
- Re-baseline Agreements: Acknowledgement of current state findings and acceptance of recommendations with renewed excitement and motivation to move forward.
- Project Manager: Continue to provide and fund full time DT project managers and fully empower them to manage the project and to escalate issues/roadblocks
- Test Lead: Staff the project with an experienced Test Lead who will be responsible for developing the test approach and test plans as well as for overseeing the development and execution of detailed test scripts by both the Vendor and DBI testers

Minimum Accela/21 Tech Commitment

- Executive Sponsorship: Appoint a single individual as the executive sponsor that is empowered to make cost and scope decisions as well as commit resources for both system integrator organizations (e.g., Accela and 21 Tech). Commit this individual to participating in monthly progress meetings with DBI, the Steering Committee and External Oversight provider.
- Dedicated and Proficient Project Team: Construct a single integrated project team of highly skilled resources that is dedicated to the project. Further, named senor leads across all technical and functional areas must be specifically identified (e.g., senior technical solution architect lead, senior business process lead, senior data conversion lead, senior interface lead, senior report developer lead, senior script developer lead, etc.).
- Onsite Support: Agree to provide onsite an project team support during critical initial planning and analysis and delivery tasks during discovery analysis, deliverable handoffs, training, user acceptance testing, and go-live.
- Re-baseline Agreements: Acknowledgement of current state findings and acceptance of recommendations with renewed excitement and motivation to move forward.
- Hosting: Optimize configuration on Accela version 8.0 and monitor performance especially in the Dev/Test environment. Consider bringing solution on premise if performance degrades or business case supports.



Critical Success Factors (cont.)

- The following critical success factors must be accomplished to achieve success:
 - Mutual willingness to level-set agreements and deliver desired outcomes
 - Dedicated Project Management and Organizational Change Management (OCM, led by DBI)
 - Formalized governance structure that promotes accountability and includes external perspectives
 - Signed Memorandum of Understating (MOU) detailing clear "Go No-Go" criteria and key next steps that have been agreed to by all parties and approved by the Project Steering Committee.
 - Fixed fee arrangement for Go-Live that is mutually agreed upon by all accountable parties
- However, the critical path to success is highly dependent on renewed commitments between Accela and DBI. It will require joint collaboration from both parties and a willingness to level-set agreements and deliver desired outcomes. From Gartner's perspective, it appear that DBI is demonstrating a willingness to step up its commitment; that willingness must be equally and tangibly demonstrated by Accela.
- While exact process, level of effort and cost to get to "Go Live" will be determined by DBI and Accela as part of the development of the Go Forward Plan, Gartner wishes to dispel the notion that all that remains to be done is to address a few "punch list" items. Critical activities that need must occur include:
 - Functional requirements audit and fit/gap analysis
 - Design, development and unit testing of new/changed functionality
 - End-to-end/System testing by Project Team
 - User Acceptance Testing
 - Development of Go-Live Plan
 - User Training
- Gartner estimates that an additional investment in the range of \$2-3M will be required to complete this work, and that it will take 12-18 months from the time this report is finalized and accepted to complete the project.



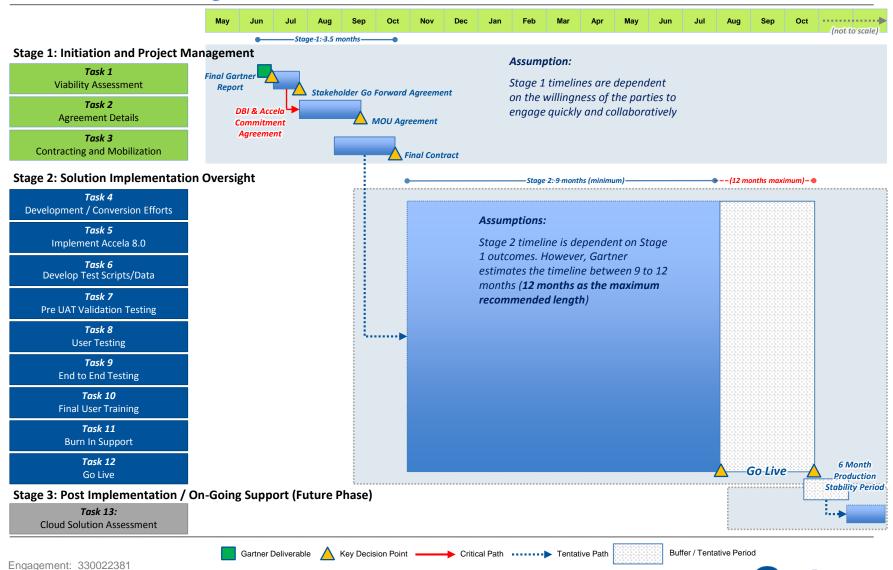
Go Forward Plan - Overview

- To accomplish the recommendations and achieve success, Gartner has outlined a three-stage Go Forward Plan.
 Each stage is comprised of multiple tasks, activities and deliverables that must be agreed upon by all parties.
- A conceptual model of the Go Forward Plan, representative high-level schedule, and detailed activities and deliverables for Phase 1 are included on the slides that follow.
- The objectives of each stage are described below, including critical path items and success factors that must be accomplished before the next stage can begins.

		Initia	Stage 1: ation and Project Management	<u>></u>	Stage 2: Solution Implementation	on	Stage 3: Post Implementation / On-going Support (Future Phase)
Stage Objective	Develop contractual agreements that ensure mutual understanding and acknowledgement of roles / responsibilities, scope and level of work, and success factors to deliver a viable Accela solution design that meets DBI's business needs.		 Deliver a viable Accela solution design that meets DBl's business needs base on the contractual agreements approved by all parties in Phase 1. Build sufficient in house DBI support skills and capabilities that can manage the Accela solution or outsource supponeeds. 			d support an on premise land management solution in the near term, Gartner recommends assessing alternatives after a 6-month production stability period is complete (e.g., to bring the solution on	
Entry Criteria	Accela Commitment Agreement			MOU Agreement & Contract Solution Implementation Go Live			Solution Implementation Go Live
 Renewed commitments between Fritical Joint collaboration from both part 		ties promotes accountability and external perspectives		promotes accountability and includes			
Success Factors		*	A willingness to level-set agreen outcomes	nent	s and deliver desired	*	Clear "Go No-Go" criteria and key next steps
	Dedicated Project Management (Management (OCM, led by DBI)				Organizational Change	*	Fixed fee arrangement for Go-Live



Go Forward Plan - High Level Schedule



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Go Forward Plan - Scope of Work Overview - Stage 1



Stage 1 Initiation and Project Management

Initiation and Project Management							
Task 1 Viability Assessment	Task 2 Agreement Details	Task 3 Contracting and Mobilization					
 Socialize Project Assessment Report Findings and Recommendations with all Key Stakeholders Assess CCSF willingness to move forward with a Accela Solution and identify any "show stoppers" that need to be addressed Assess Accela / 21 Tech willingness to move forward with the project and identify "show stoppers" that need to be addressed 	 Define Project Success Factors / Scope for Go-Live based on functional and technical configuration audits. Identify changes to business processes, support documents, etc. Team Roles and Responsibilities Key staff identified (approval, dedicated time on the project, required expertise) Key activities and Tasks (high-level) with notional timeframes Define Quality Gates and Deliverables Costs and Payment Structure Settlement of outstanding claims Joint Governance Process External oversight provisions, including escalation 	 Contract amendment creation (based on terms from MOU) and execution MOU socialization with key executive stakeholders on both sides MOU socialization with key project staff on both sides Empowered, dedicated, full-time PM's from both sides assigned Detailed project plan and schedule created and approved by joint governance process Key staff on both sides identified, backfilled, transition and oriented to defined project roles Empowered, dedicated, full-time PM's from both sides assigned External oversight body/vendor identified and on-boarded 					
 Level-set meetings/discussions Document mitigation actions 	Level-set meetings/discussionsFully Executed MOU	Fully Executed Contract Project Plan					

Engagement: 330022381



Project Schedule

■ DBI & Accela Commitment Agreement

Stakeholder Go Forward Agreement

Detailed Key Findings and Implications



1: Accela product capabilities have the potential to meet DBI needs

If properly configured, Accela product capabilities can meet DBI's requirements, but an ineffective solution delivery methodology coupled with configuration decisions has resulted in functional and technical gaps that remain to be addressed (e.g. inspection scheduling, fees, special permits).

- Based upon our understanding of DBI's needs/business and our knowledge of what Accela has successfully implemented in other similar jurisdictions, Gartner's professional judgment is that the Accela software can be reasonably configured/customized to support DBI business and functional requirements. It should be noted that this does not mean that it can economically be made to exactly duplicate existing processes or systems, which are based on differing technologies and usage paradigms
- While there are many problems with the Accela implementation at DBI, these problems are not intrinsic to the Accela software itself. Similar requirements have been met by other jurisdictions of similar size and complexity. In our opinion, all other things being equal, other leading solutions would face similar challenges.
- Further, it must be recognized and appreciated that no Commercial-Off-the-Shelf (COTS) system can meet every functional requirement and that that business processes optimization and adjustments are the norm for projects of this nature.
- There are a number of known functional and technical gaps that remain to be addressed. Most of these will need to be addressed prior to "go live." Although it may be possible to defer some of these to a subsequent release, DBI and Accela are struggling to have productive conversations due to other issues (trust, project fatigue, ineffective DBI governance, vendor SME disengagement, etc.) addressed later in this report. The gaps Gartner are aware of include:
 - Scheduling and load balancing for Inspectors
 - Usability of intake screens
 - Missing reports
 - Special Inspections
 - 10 Day Lock requirement vis-à-vis monthly reporting statistics.



2: Significant project progress has been made to date

Despite the issues faced to date, substantial progress has been made towards a configuring a system that has the potential to meet many of DBI's business requirements, however a number of key areas still need to be addressed.

- Although there are many issues, problems and risks that Gartner details in this report, it is important to keep in mind, and acknowledge, that substantial progress has been made by both the Accela and DBI teams that have been working on this project for the past 3-4 years.
- Despite a number of requirements that require further investigation, the existing configuration has been designed around DBI's core business needs.
- Over the last 15 months the project changed in terms of resource dedication, project management, and executive engagement which have provided positive results.
- DBI is in the final phase of completing an inventory of all business and technical requirements and processes that the system needs to address in order for DBI to successfully complete its core business functions. This activity is laying the foundation for what will constitute project success when the project is restarted.
- Planning is live and currently using the Accela system, largely through "hands on" executive oversight, focused / dedicated subject matter expertise and a robust governance process. While did not have these positives in place in the past, these issues are now being actively addressed by DBI are as a result are now positioned for success.



3: Poor contract and unrealistic cost and schedule

The original contract lacked appropriate specificity and project controls, and was based on an unrealistic schedule and cost for an implementation of this size and complexity. This was achieved by shifting the burden of testing almost entirely onto DBI, which collectively had limited understanding and skillsets to successfully execute.

- Based on industry experience, the project's initial scope, schedule and budget were inadequate to effectively deliver a quality solution that would meet DBI's complex business needs. Projects for other comparable jurisdictions of similar size and scope typically include a 2 to 4-year project lifecycle, involve multiple phased releases, and range in cost between \$7-10M USD. Therefore, Accela's Statement of Work which proposed implementing DBI's requirements over a 24-month timeline for \$4.6M was an under estimate. Further, even though DBI estimated the 24-month timeline in the RFP, from Gartner's perspective Accela should have used its experience to identify and address this as an issue up front.
- Gartner believes both sides overestimated the level of fit to DBI business needs, and underestimated the level of complexity and resistance to change. The contract artificially time-limited the implementation period and assigned responsibility for many critical activities, such as testing, data conversion and user training to the City while failing to hold the vendor accountable to meeting a specific set of DBI defined requirements.
- Further, the initial fixed fee contract was weak and DBI's signoff on the configuration documents negated much of the "teeth" that it had. The vendor's primary contractual accountability under the agreement was to execute their standard configuration methodology, which involves having the client signoff on highly detailed and difficult to understand "Configuration Documents" and then build/configure a system based on these documents. Given the insufficient initial requirements in the RFP, this created negative impacts on testing, perception of fit to DBI needs, and the overall relationship between DBI and Accela/21 Tech.
- DBI leadership/middle management signed off on most/all of these documents early in the project. As a result, despite all that has happened, the vendor may be correct in that a literal interpretation of their contract may conclude that they have delivered on their obligations despite the fact that DBI users feel that the system does not "work." These signoffs are also the basis on which the vendor holds that anything that is different from what is in the "signed off" configuration documents is a change order and not a "bug". Lack of traceability from the requirements to the configuration document further clouds this issue.



4: Poor definition, elaboration and tracking of business requirements

Subpar RFP requirements, insufficient business process analysis by the vendor, and a lack of elaborated, clearly documented business/functional requirements tied to design has led to scope and contract disagreements and an adversarial relationship between DBI and the vendors.

- There is no documented set of business and functional requirements which both DBI and the Vendor mutually understand and agree upon.
- The vendor believes that the signed off Configuration Documents coupled with various completed Change Orders, including notes from a period of "staff augmentation" work, together with Change Order #7 (which was in process when the Stop Order was issued) constitute the full set of requirements.
- It is clear now that the Accela Configuration Documents signed off by DBI 2-3 years ago reflect vision and requirements that were not fully representative of DBI business needs and did not include the appropriate DBI SME involvement. It also appears that significant pressure was applied by both the vendor and DBI leadership to obtain signoff. Therefore, they cannot be considered an accurate baseline for the system requirements.
- Regardless, neither Accela nor DBI has maintained a requirements tracking document which would allow users or project managers to trace requirements to configured functionality or vice versa, and serve as the basis for UAT.
- It is unclear whether the current efforts by the CCSF DT project management and DBI stakeholders will solve this problem as it appears that the baseline for some of the gap analysis may be "like for like" replacement of existing system functionality, down to screens and fields, in order to meet same business needs.



5: Over time, the Accela/21 Tech joint venture became a project challenge

Roles and responsibilities between Accela and 21 Tech blurred DBI's understanding of accountablity for project management and delivery success.

- Over the course of the engagement, the role of 21 Tech vs. Accela was blurred and morphed over time. During most
 of the project there were project managers, developers and analysts from both organizations working directly with the
 client.
- Handoffs of knowledge, documentation, project tasks and client relationships/expectations was not always seamless. In many instances this led to client project staff and users being forced to report problems, issues or critical information multiple times. This was both frustrating to the users and ineffective.
- In the end, Accela was able to disengage most of their highly respected and knowledgeable resources from the project and have them replaced by 21 Tech resources who had less Accela experience.
- One of the original justifications for the 21 Tech/Accela joint venture relationship was that 21 Tech was a local company who would provide local, onsite resources to supplement Accela's remote resources. In fact, while both companies are based in the Bay Area, the reality is that 21 Tech's senior project manager spent most of her time remote and was eventually replaced with a less qualified project manager. At the same time, 21 Tech exclusively hired remote Accela resources who struggled to work with users and a client IT team with whom they had very limited interactions.
- It remains unclear today exactly who is the project manager for the joint venture. It appears that this position has been split between a junior 21 Tech resource and the former Accela project manager who appears to be largely disengaged.
- Although it appears that they always tried to act with the City's best interests at heart and in an attempt to make the project successful, because of its relative inexperience and business partnership with Accela, 21 Tech failed to recognize and mitigate many of the common issues associated with Accela implementation (rush to finish configuration documents without understanding requirements, overreliance on client to perform testing, etc.) or to escalate these issues when they did occur or to insist that the project be halted when neither DBI or Accela addressed them. It should be noted that DBI governance weaknesses may have impacted the ability of 21 Tech or Accela to effectively escalate these issues.



6: Unclear strategic objectives

Lack of agreement amongst key DBI stakeholders as to the strategic business objectives to be achieved by the Accela Implementation has morphed the project from a business process improvement effort to more of a legacy system cloning project.

There is a disconnect between the key Stakeholders (Building Commission, DBI Leadership, DBI Middle Management/Line Staff, Planning Department and COIT/City CIO) regarding the overall business objectives to be achieved by the Accela Implementation. We have identified three broad business objectives which need to be reconciled in order for the project to move forward.

1. DBI Business Transformation

The former DBI Director and BIC initially envisioned a new system that will drive changes in the way DBI performs its required functions which will result in an increase in efficiency, customer service/transparency, accountability, accuracy and approval speed. This vision was not communicated widely to all affected stakeholder groups, and the operational requirements to realize the vision were poorly executed.

2. City-wide Platform for "One Stop Other stakeholders (Planning, City CIO's office primarily) see the Accela software as a platform which can be extended to other Land Use, Permitting, Inspection and Licensing functions in furtherance of the Mayor's initiative to make it easier to do business in the City through the "One Stop" vision.

3. Legacy System Replacement

Many stakeholders within DBI (including leadership) believe that the main objective of the Accela project is to replace the existing legacy system with as close to "like for like" functionality as possible. Among this group there appears to a strongly engrained preference to change the software to match the existing business practices. This view was borne through a combination of factors, including dissatisfaction with the vendors' ability to fully understand DBI business requirements, and lack of communication of Accela capabilities to DBI staff. It should be noted that the current PTS system is based on an unsupported version of Oracle Forms.



7: Both vendors are local companies yet the project is staffed by remote, less experienced implementation resources

Accela/21 Tech utilized a significant number of remote resources which impacted team productivity, communications and delivery quality. This was complicated by the failure to co-locate key project management resources and the removal/promotion of some of the most knowledgeable resources.

- Accela/21 Tech utilized a significant number of remote resources which impacted team productivity, communications and delivery quality. This was complicated by the failure to co-locate key project management resources and the removal/promotion of some of the most knowledgeable resources.
- This practice, together with disengaged vendor project managers, weak enterprise level change management/control and multiple DBI governance and staffing deficiencies documented elsewhere in this report, contributed to an environment where miscommunications and poor collaboration led to extra development, an excessive number of changes, many bugs/issues during testing, and ultimately to a level of system complexity/instability which has yet to be addressed.
- It is Gartner's opinion that for a project of this size and complexity, certain key resources should be full-time, onsite for the duration of the project. This includes a Project Manager, Accela Solution Architect and Business Analyst/Test Lead.



8: Ineffective implementation methodology

Accela's implementation methodology involves a high level approach to system design, development and implementation. However, it does not employ many industry best practices for the delivery of the overall solution (e.g., scope management, quality management, requirement validation and traceability, schedule compliance, testing, etc.).

- Accela's software development approach and methodology lacked the rigor and detail expected for a project of this magnitude and complexity:
 - No requirements validation phase was executed to understand, expand and detail the set of RFP requirements to properly guide the solution design
 - No overall ongoing solution architect function was present <u>over the lifecycle of the project</u> to guide and support the solution design, configuration, development and testing activities. Development was done by independent teams that did not appear to have common system configuration and development guidelines, principles or rules for scripting, report development, user interfaces and User Experience (UX) design.
 - Lack of code configuration management and oversight during test mitigation activities, and bug fixes "on the fly" during UAT
 - The use of Configuration Documents vs. typical Functional Specifications Documents impacted DBI's ability to understand the
 details of what they were or were not approving and how the system would be designed
 - No use of common requirements tracking tools e.g. Requirements Tractability Matrix (RTM)
 - No formal documented test strategy or plan for Accela/21 Tech unit, system or integration testing prior to customer-focused UAT activities. No Post Go-Live assessment testing planned
 - No use of common test management and reporting tools i.e. test coverage matrix linked to the RTM, for effective test status reporting and mitigation planning
 - Lack of the use of common SDLC techniques such as establishing code freeze dates
 - No formal change management, release management, testing management or development standards
 - Lack of effective regression testing caused project delays and impacted end user confidence in the system and the vendor's ability to deliver a solution that would meet core DBI / Planning business requirements
 - Lack of effective quality control of the delivered product resulted in inconsistent use of terminology within the system, spelling errors, suboptimal workflow and screen layout, etc.



9: DBI and Accela/21 Tech failed to respond and address multiple early warning signs in a timely manner

Accela/21 Tech project management failed to address the early warning signs of project failure and pressed on with system development and Implementation activities without addressing the systemic issues impacting project success. (Note: DBI was naively complicit much of the time).

- Accela/21 Tech project management failed to address the early warning signs of project failure and pressed on with system development and implementation activities without addressing the systemic issues impacting project success. DBI's trust in the vendors, coupled with unfamiliarity with projects of this complexity contributed to the failure to address the signs.
- Examples of missed warning signs include:
 - Change of Executive leadership on a project where the vision was tightly held by a single executive whose departure should have signaled a "rethink" or at least a pause, but which instead led to single-minded push to obtain signoff on the remaining deliverables.
 - Significant pushback by end users on signed off functionality during walk-throughs. This should have led to a
 "rethink" or to a pause, instead development activities were pushed forward without a course correction and without
 formally acknowledging or addressing user concerns.
 - Multiple failures during User Acceptance Testing (UAT) due to performance issues, data conversion issues, system change issues, misunderstood/missing requirements and other causes. Instead of a "rethink" or a pause the DBI and vendor team's pushed forward only incrementally acknowledging that the configuration documents (as implemented in Accela) did not reflect what the users wanted.
- While some users have eventually almost gotten what they wanted (e.g. Accela configured to look and act like PTS), the painful process to get to this point burned out multiple vendor and DBI resources and reduced confidence that the user staff or management had in the solution.



10: Vendor approach and execution has led to low morale and project fatigue

The vendors' tendency to drive forward (with DBI complicit at times) despite clear warning signs of trouble ahead, made user centric activities such as walkthroughs, training and testing ineffective rather than building staff confidence in the Accela solution. The result has been increased resistance, significant project "fatigue" and very low project morale.

- Users and other Stakeholders have lost confidence in the Vendor/Accela Solution due to a number of factors, including:
 - Unclear DBI and City business objectives
 - Poor customer service interactions with Accela resources who became frustrated with both DBI and their own management team,
 - Multiple resource/leadership changes on both sides without much thought or planning regarding continuity,
 - Poor project governance, contract incentives and project management practices which made it impossible for senior project stakeholders on both sides to honestly acknowledge, analyze problems/issues and execute viable mitigation actions,
 - An ill-conceived, poorly planned and ultimately self-defeating user acceptance testing process and general fatigue
 with the project on all sides,
 - Multiple developers, working independently using poor change management and regression testing practices which
 resulted in one set of problems begetting other problems,
 - Poor performance in the testing environment making an unsuccessful test also extremely frustrating,
 - User training which was either in-effective or ill-timed (too early for people to apply what they had learned),
 - General fatigue with the project on all sides.



11: System performance issues have significantly impacted testing and user adoption

Any performance issues resulting from how the Accela solution was architected, configured and hosted must be addressed in order for the system to be fully validated and usable by DBI.

- DBI identified performance issues when utilizing the Accela solution that naturally created doubt in the system's ability to efficient support day-to-day operations.
- During the time Gartner conducted it's assessment, performance issues noted with the current DBI Accela hosted environment have been evaluated with CCSF Department of Technology and Accela Hosting Center resources. The City network was ruled out as a contributing issue to performance, and the Sharepoint interface developed for Planning was identified as the key reason for performance degradation.
- While this is a positive development, ongoing monitoring of performance with Accela will be a key area of focus going forward.



12: Vendor and DBI Project management discipline and processes were lacking

Beginning with the contract, project management planning and execution (vendors and DBI) was inconsistent with blurred lines of roles and responsibly that hampered project progress. The addition of DT project management resources in late 2015 has significantly helped reverse this trend.

- The project management roles and responsibilities of Accela and 21 Tech were unclear, impacting the ability to hold the vendor accountable and exacerbating effective communications and follow up activities.
- Project Management by Accela/21 Tech was ineffective and impacted project execution. Despite relatively consistent structured (weekly) Project Management meetings, key project management tools and mechanisms were not effectively employed to properly manage the project.
 - Issues and Risks
 - Project Work Plan Milestones and deliverables status review
 - Schedule Compliance (tasks on schedule, late, ahead, recovery planning)
 - 60 day look ahead (longer term planning for key upcoming activities)
 - Address current and upcoming staffing and resource needs (DBI and Accela/21 Tech)
 - Quality Management and deliverables delivery (draft, final, signoffs needed or received)
 - Action Items (track open, in work due and completed actions assigned to resolve issues)
 - Agree on next set of activities
- Project team roles and responsibilities within the DBI project team were not well defined:
 - Overall Project Governance and Oversight
 - Functional and Technical solution leads identified (by discipline) and their roles and responsibilities (signoff of deliverables, coordination of peer review activities, test support, etc.) or documented.
 - No executive level "tie breaker" assigned to address and resolve differences of option before vendor started work.



12: Vendor and DBI Project management discipline and processes were lacking (cont.)

Beginning with the contract, project management planning and execution (vendors and DBI) was inconsistent with blurred lines of roles and responsibly that hampered project progress. The addition of DT project management resources in late 2015 has significantly helped reverse this trend.

- DBI has been actively trying to hire a project manager since the initial project manager resigned. After
 resigning, the IT Owner became the acting project manager until her departure, citing stress from the project
 as a major factor in her decision. Shortly after this, external project management was sourced from CCSF
 DT.
- While the DT project management resources have had a large impact, the project continues to suffer from examples of poor project management discipline such as:
 - No clear, updated project charter outlining business objectives, scope, timeframes/release and constraints
 - No detailed (or high level) project plan outlining the DBI and Accela actions required to go-live and/or meet project objectives
 - Difficult traceability of contracted deliverables, DBI signoffs, and vendor output to measure progress, compounded by combination of fixed-price deliverables and time and materials (T&M) activities
 - Incomplete project issues and risks inventory
 - Missing risk mitigation plan
 - No requirements traceability matrix



13: Inadequate DBI governance and accountability

Although recent changes have already proven beneficial, historically internal DBI project governance and business accountability has been detached, unstructured and ineffective in providing direction and recognizing/mitigating risks.

- DBI failed to put the level of business-led Project Governance (e.g. decision-making) in place that was required to support a project of this importance.
- When the previous Director departed, responsibility for driving the execution of the project shifted from the Director to DBI IT manager.
 - The dedicated DBI project manager was not replaced
 - The project effectively went from an initial vision for business transformation at the Director level which was poorly conceived, executed and communicated - to a tactical IT systems replacement project driven by the IT manager focused on, at a minimum, replicating the functionality provided by the legacy system
- As a result, no effective governance structure (Executive Sponsor, Steering Committee, dedicated/empowered SME team, etc.) for finalizing requirements, making difficult tradeoff decisions (configuration vs. process changes) and assuring broad applicability/acceptance of project decisions around requirements, timing/phasing and scope was put into place. There is evidence that both the former MIS Director and the Vendor raised this issue to DBI leadership.
- Although it is difficult and painful to extract knowledgeable SME's from their day-to-day operations and backfill for them, no amount of interviews, focus groups, IT business analysts, technical people, consultants or vendor experts serve as an effective substitute when it comes to defining requirements, making tough tradeoff/process change/transformation decisions and driving acceptance of the solution among both management and line staff. This is particularly a problem at DBI, where the business environment is highly siloed and current practices are engrained, although staff has exhibited a willingness to change if effectively led by the vendor that offers up solutions to meet DBI business needs.



14: Initial lack of full time business and/or technical subject matter experts across DBI and Accela/21

Gartner experience has shown that for projects of this scope and complexity they require a dedicated and consistent team (vendors and client) of subject matter experts from business and technology for a project to be successful.

- DBI did not dedicate full time business resources (subject matter experts) to the project, provide them with effective guidance and/or empower them to make decisions.
 - Resources have been identified since project stoppage and have been actively participating in Fit/Gap and other activities
- The vendors did not provide dedicated full time key staff members to support the project including a:
 - Project Manager
 - Solution Architect to oversee the entire lifecycle of the project and guide the solution evolution and product delivery
 - Business Analysts
 - Quality Manager / Test Lead
 - Organization Change Management / Training Lead
 - Data Conversion Lead
- In addition, there was a high turnover in system configuration staff from the vendor, resulting in an inconsistent approach to system development, configuration and documentation.



15: Project leadership and staff turnover has negatively impacted project

Lack of resource continuity on the vendor side, coupled with significant DBI staff changes and changes in leadership have negatively affected project expectations and execution.

- DBI did not implement the level of business-led Project Governance (e.g. decision-making) required to support a project of this importance.
 - When the previous Director departed, responsibility for driving the execution of the project was shifted from the Director to the DBI IT manager.
 - The dedicated DBI project manager was not replaced
 - The project effectively went from being a business transformation initiative, driven at the highest level of the organization, to a tactical IT systems replacement project
- As a result there was no effective governance structure (Executive Sponsor, Steering Committee, dedicated/empowered SME team, etc.) for finalizing requirements, making difficult tradeoff decisions (customizations vs. process changes) and assuring broad applicability/acceptance of project decisions around requirements, timing/phasing and scope was put into place. This despite evidence that both the former MIS Director and the vendor raised this issue to DBI leadership.
- Turnover on the vendor side also negatively impacted continuity, communication of business needs into design and configuration decisions and other key project activities.



16: No documented or agreed to Project Success Factors

There is no agreement amongst DBI and 21 Tech/Accela as to what constitutes project success and what functionality is specifically required for "Go-Live."

- For the past 18-24 months, there has been a prevailing sentiment that "we are almost there" and that only a small "punch list" of items needs to be addressed. At the time of the "stop order" the team was working on the 5th or 7th such list. Gartner's initial assessment is that go live is likely at least 9-12 months away and that the following key activities will need to be completed before this can occur, some of which are in process.
 - Creation of an appropriate governance structure and dedication of an appropriate number of DBI subject matter experts to the program
 - Assignment by the vendor of the right skilled resources to the project coupled with a willingness to work collaboratively with DBI toward a solution
 - Mutual agreement regarding functionality required for go live as well as critical functionality to be deferred to a later
 Phase, if possible
 - Development of a mutually agreeable project plan that describes all of the tasks and deliverables required for golive
 - Development of a plan for how the system will be supported post "go live" including identification of current skill/resource gaps within CBI IT and creation of a realistic mutual plan for closing them
 - Negotiation of a binding, fixed fee, deliverables/outcomes based SOW for the remainder of the project, including any required post Go-Live support
 - Identification and resolution of system performance issues and interfacing limitation



16: No documented or agreed to Project Success Factors (cont.)

There is no current agreement amongst DBI and 21 Tech/Accela as to what constitutes project success and what functionality is specifically required for "Go-Live."

- Conversion of the system to Accela 8.0 and EMSE 3.0 releases
- Clean up/consolidation/documentation of the 1100+ custom scripts which currently comprise the DBI environment
- Development and unit/system testing and full end-to-end testing of all functionality, including both newly developed/changed functionality and regression testing of other components, including reports, interfaces to external parties and integration with Planning
- Completion of all requested/required reports
- Completion and verification/validation of data conversion by DBI business subject matter experts
- Development of realistic and detailed test cases and test scripts by DBI subject matter experts (and others) to be used for User Acceptance Testing (UAT)
- Completion of end-to-end User Acceptance Testing and signoff by line management and staff involved in UAT that the system is ready for Go-Live rollout
- Verification that required post Go-Live support resources and skills are in place and that documentation and technical training/knowledge transfer associated with 1100+ custom scripts has been completed
- Formal system training (or retraining) and other system (re) familiarization activities specifically targeted at the end
 users occurs shortly before User Acceptance Testing and/or just prior to Go Live
- Data cleanup and conversion has not been completed and continues to be impacted by the implementation of changes to the system resulting from missed/new requirements discovered after the configuration documents were signed off. Errors and inconsistencies in the data conversion have been a major source of defects/frustration throughout the extended "user acceptance testing" process.



17: DBI Unprepared to Support System

DBI IT Staff are inadequately trained and unprepared to support the system post Go-Live, and DBI knowledge of the configuration and EMSE scripting usage is low.

- Significant staff attrition (some of it attributable to the project), coupled with internal/external hiring challenges and a poor working relationship with Accela staff, have left the DBI IT staff unready to take on full support of the new system without either significant knowledge transfer (particularly around all specific design and configuration decisions, 1100+ scripts, etc.) and training support from Accela prior to Go-Live, or significant support from Accela resources following Go-Live.
- The large amount of EMSE scripting within the configuration may compromise extensibility and supportability. The number of custom scripts developed, coupled with the fact that many appear to have been developed independently without the proper guidance/signoff of a qualified Accela Architect, and the fact that there is no single person or set of documentation that describes how they work, is a significant concern which requires further investigation and assessment.



18: Significant unpaid or non invoiced vendor services

Accela/21 Tech have submitted or are planning to submit invoices for work performed under Amendment 7, the contract/PO process for this work was never completed.

- While Amendment 7 was signed by Accela/21Tech, it was never approved by CCSF due to information provided by Accela/21Tech during the approval process highlighting that the proposed Amendment 7 funding would be insufficient to deliver the project. As a result, DBI paused the project.
- However, Accela/21Tech performed work on the DBI system under Amendment 7 and are seeking payment for some
 of their activities.
- Additionally, it appears that the vendor did not always submit timely invoices and/or provide the required documentation to support their charges. This has been a primary reason for late payments and discourse between the parties.
- Resolving any outstanding claims for payment will need to be part of any final settlement with the Vendor whether or not DBI continues to work toward completion of the Accela solution.
- DBI and DT have been meeting with 21Tech on a weekly basis since January 2016 to review the 20+ invoices delivered in early 2016. The majority have been resolved.
- The vendor has indicated that they may not be willing to continue to support the project absent clear communication from the City that this issue will be addressed and that work delivered under the un-finalized Amendment 7 agreement will be honored to the extent that this work was completed as requested and the value of this work is recognized by DBI.



Detailed Assessment Findings

Project Timeline Assessment
Project Assessment
Solution Assessment
Deliverables Assessment



Detailed Assessment Findings

Overview

- The detailed assessment are divided into four perspectives:
 - Project Timeline Assessment
 - Project Assessment
 - Solution Assessment
 - Deliverables Assessment
- Each assessment perspective was approached from a bottoms-up, detailed view to allow Gartner to reach its final conclusions, findings and recommendations by assessing commonalities and themes across all four perspectives.



Project Timeline

Detailed Assessment Findings



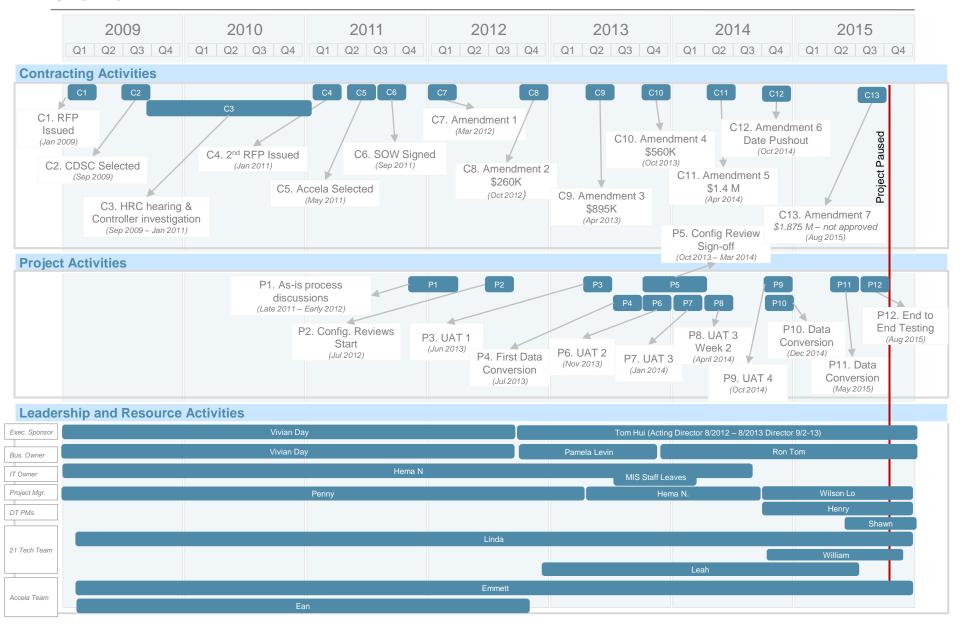
Program Timeline

Approach

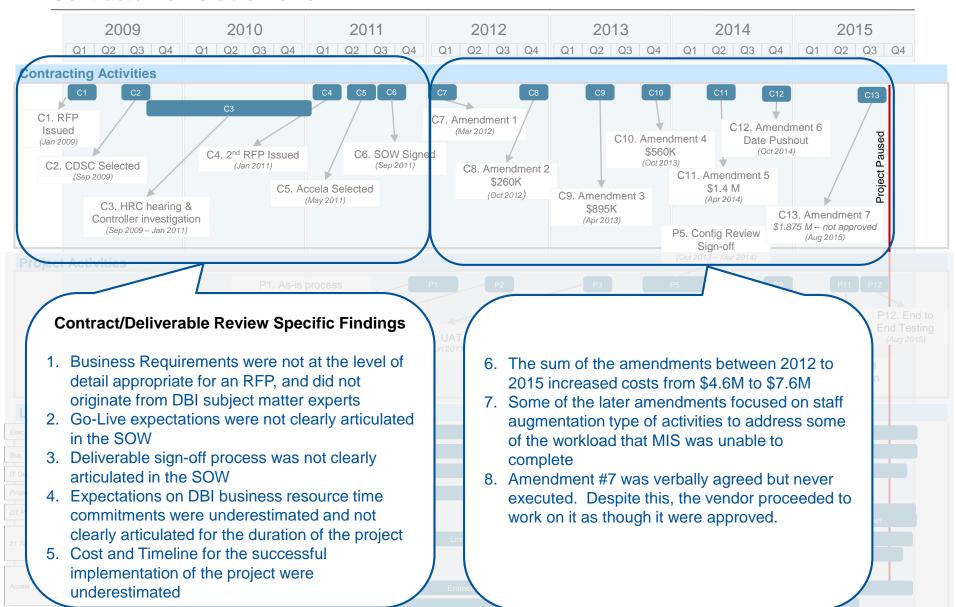
- In order to get a foundational understanding of the project history, Gartner worked with project stakeholders and reviewed documentation to help understand the key milestones, personnel additions and departures, and other events that collectively brought the project to this juncture. After getting a base understanding of the timelines, Gartner reviewed the project from three different perspectives:
 - Contract / Deliverable Review
 - Project Activities
 - Leadership and Resources
- Key observations are illustrated from these three perspectives on the subsequent slides.



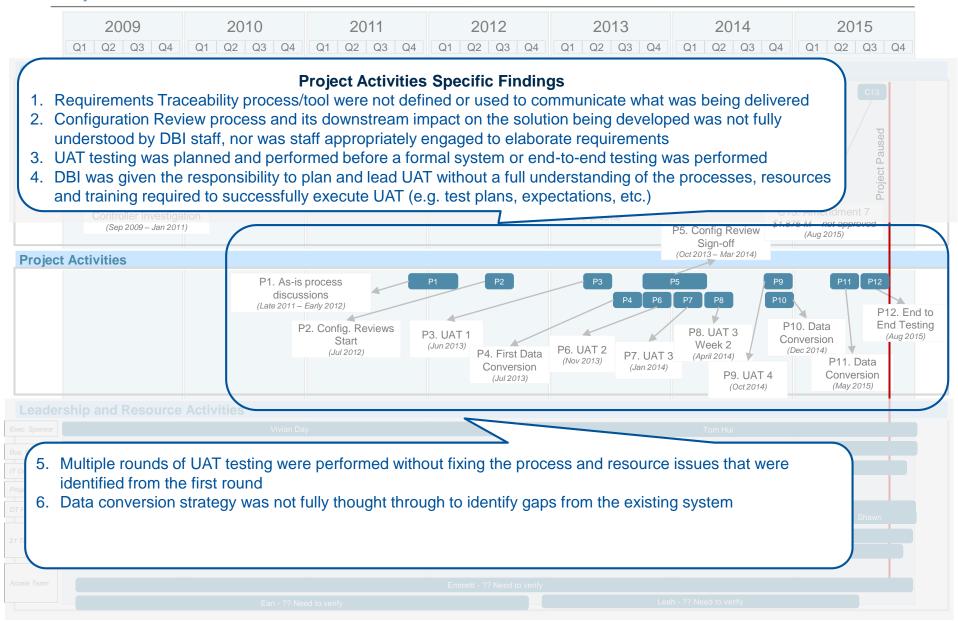
Overview



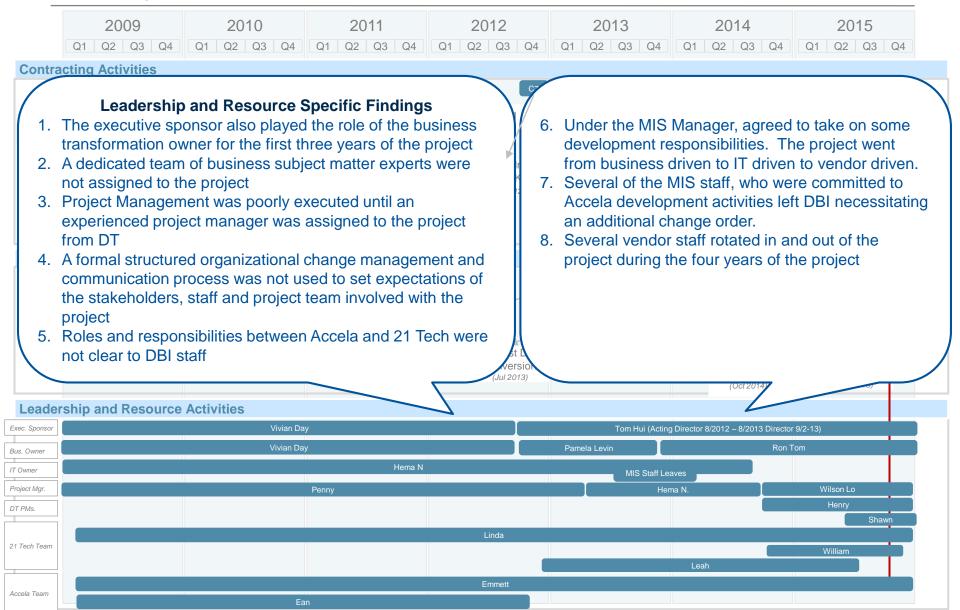
Contract / Deliverable Review



Project Activities



Leadership and Resources



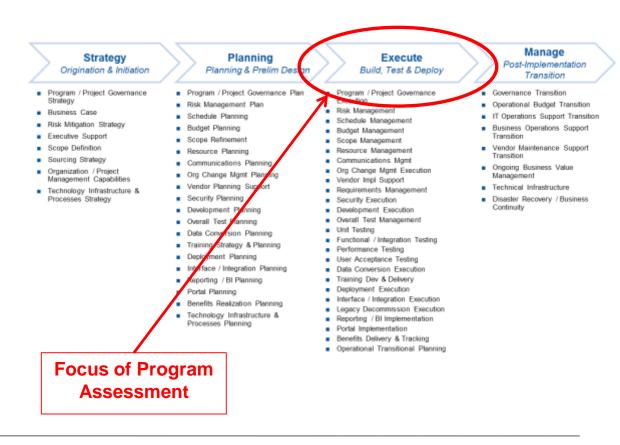
Project Assessment

Detailed Assessment Findings



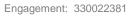
Program Assessment Overview

- Gartner's Program Assessment is an activity used to gain a broad and deep snapshot of existing risks and
 provide actionable recommendations that can be implemented immediately. This methodology has been used
 across hundreds of clients across industries, include building, licensing and permitting industries.
- The inputs into this assessment included stakeholder interviews and document reviews.
- Given the current state of the Accela project, Gartner assessed the individual risk areas within the Execute Phase of our risk assessment framework.
- Where appropriate, Gartner references events and decisions that were made in the Strategy and Planning Phases that impact our assessment findings.
- Similarly, Gartner documented implications and potential impacts to the Manage Phase based on our assessment and analysis activities.





Risk Criteria	Risk Rating	Detailed Findings
Program/Project Governance Execution	High	 The Project Charter was developed in November, 2011 using the vendor's template; Some elements of a best practice project charter absent (e.g., risk management process, decision rights). The steering committee and overall project governance structure was defined but was ineffective in establishing and empowering effective decision making at all levels of the organization. A highly visible project that has remained a priority, but has suffered from changes in leadership throughout the duration of the project. The project has been negatively impacted by turnover in DBI executive leadership and the inability to provide engaged "hands on support" to drive team performance and accountability. Lack of a strong governance and oversight process resulted in ineffective issues resolution with "no one willing to break the tie" when key decisions on process issues needed to be made. DBI did not establish a formal Project Management Office (PMO) to manage, assess and oversee both DBI and vendor activities, deliverables quality or schedule compliance.
Risk Management	High	 Risk tracking performed by the vendor was stored in SharePoint; however the most resent risk logged dates back to 2013 with no recent updates documented. There is general knowledge of key risks amongst project stakeholders. A lack of a rigorous and a defined process for identifying, qualifying and addressing known project risks has led to the realization of risks and their subsequent impact on project scope, schedule and budget. The project's governance model weaknesses compounded risk management problems and timely mitigation/avoidance actions.







Risk Criteria	Risk Rating	Detailed Findings
Schedule Management	High	 The unrealistic 24-month timeframe estimated for implementation placed undo pressure on the team to deliver and impacted delivery quality. As a result the team was pushed to "follow the work plan" no matter what, with no time to assess if expectations for delivery where being met. The project plan lacks work estimation, identification and assignment of resources, and the level of detail required to be utilized as an effective management tool. Estimated timeframes may not have been optimistic, or unrealistic, given the complexities of the project. Ad hoc schedule assessment or change request process that may not accurately account for true impact to project schedule. For a project of this complexity and magnitude, monthly high-level project status meetings were ineffective and needed to be more substantive, bi-weekly at a minimum. Issues that needed to be addressed in detail included: Schedule compliance assessment (tasks, deliverables, staffing, etc.) Upcoming critical events and supporting requirements 60 Day look ahead
Budget Management	High	 The project was based on a fixed-price implementation services contract with 13 fixed-price payment milestones totaling \$3,166,176; with some milestones comprised of multiple deliverables. The initial project budget was low compared to projects of similar size and complexity. There was no Deliverables Expectation Process (DED) in place resulting in excessive rework. A client signoff process for deliverables existed, but was immature for a project of this scope and magnitude and was not consistently executed. A total of 46 change orders for \$3,316,536.25 approved by DBI since the original signing of the contract. A subset of change orders included time and materials activities, as well as reimbursement for out of pocket expenses

Risk Criteria	Risk Rating	Detailed Findings
Scope Management	High	 Scope was not effectively defined or managed. Knowledgeable DBI business area functional subject matter experts (SMEs) were not involved in developing and validating the requirements in the RFP or in assessing and approving the configuration documents. The project suffered from contract issues that impacted the effective oversight and management of the project's scope including: A compressed project timeline for a project of this scope and magnitude. Poorly documented deliverables (activities were defined as deliverables vs. work products and documentation). High-level requirements that did not reflect the specificity needed to inform detailed design activities. No formal deliverables expectation process was documented to establish common expectations on project deliverables/work products (content, depth, quality, format) to drive quality. A lack of focus on the Organizational Change impacts associated with a project of this magnitude and complexity and the required actions and deliverables required by the vendor to address those issues. No formal Quality Gate Process documenting that identified the specific entrance and exit requirements that both DBI/Planning and Accela/21 Tech had to successfully meet to move to the next stage in the project's lifecycle supported by a formal governance review and approval process. Accela methodology utilized a "System Configuration Document" that was oriented toward configuration parameters and lacked traceability to the original requirements. Lack of effective scope/configuration management (e.g., 122 changes to the SR Report) impacted overall productivity resulting in schedule compliance and quality delivery issues.







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Risk Criteria	Risk Rating	Detailed Findings		
Resource Management	High	 Project team roles and responsivities within the DBI project team were not well defined: Overall project governance and oversight Functional and technical solution leads identified (by discipline) and their roles and responsibilities (e.g. Signoff of deliverables, coordination of peer review activities, test support, etc.) documented. No executive level "tie breaker" assigned to address and resolve differences of option before the vendor started work Roles and responsibilities of the project team members (Accela, 21-Tech, DBI and Planning) were unclear which impacted communication, issues resolution and overall project team productivity. DBI was unable to provide dedicated project team (business and IT) members to support project activities, with staff supporting the project "as best they could" based on their availability and the current demands of the project. The majority of UAT testers were not involved in the development and configuration of the system and hence their first access and use of the system was during UAT. This lack of early involvement, coupled with the lack of an overview of the system functionality and workflow, resulted in confusion and negatively impacted system adoption. The involvement of Department of Technology resources has brought a more structured approach to the management and oversight of the project: Understanding of system development and implementation best practices process and deliverables; Staffing and Support; Vendor Management. Understanding of the technical issues impacting the project and the ability to formulate effective go forward planning. 		



Risk Criteria	Risk Rating	Detailed Findings
Communication Management	High	 There was no overall vision, scope or process communicated to project stakeholders as to the overall approach and key tasks that would be undertaken over the lifecycle of the project, and what expectations and support would be needed from the DBI and Planning team members as the project unfolded. The basic communication plan in the Project Charter does not meet the needs of a project of this complexity. There was no evidence of coordinated, ongoing communications management. DBI and Accela/21 Tech's working relationship has been strained: Both parties blame the other for project issues and problems. There is a lack of trust and mutual respect on both sides that will have to be addressed if the project is to move forward successfully. Both parties "talk past each other" making it difficult to focus on, and address, programmatic issues and work collaboratively. Project management by Accela/21 Tech was ineffective and impacted project execution. The Project status report format changed multiple times throughout the project, from several versions of a dashboard, to meeting minutes with action items noted. Until recently there was a lack of structured (weekly) project management meetings to address key project elements. Project status reporting was intermittent throughout the project, with the last report developed in June, 2015. Recently project status has been provided to core team members on a weekly basis by DT's project manager.

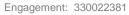




Risk Criteria	Risk Rating	Detailed Findings
Organizational Change Management	High	 The project lacked a focused Organizational Change Management (OCM) effort. A project of this magnitude and complexity requires significant efforts to transition DBI users to a new system with modified business practices and screen navigation. The vendor contract did not include activities for Organizational Change Management (OCM) activities other than training The successful transition to a new system needs to be supported by a focused Organizational Change Management (OCM) initiative to ensure knowledgeable end-user and subject matters experts are actively engaged in system development, configuration and knowledge transfer/training activities. The project status report template did not include Organizational Change Management (OCM) updates and status. DBI did not identify an OCM lead.

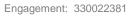


Risk Criteria	Risk Rating	Detailed Findings
Vendor Implementation Support	High	 Roles and responsibilities between 21 Tech and Accela were unclear to the majority of project stakeholders. The project management roles and responsibilities between Accela and 21 Tech were unclear impacting the ability to hold either vendor accountable and exacerbating effective communications and follow up activities. Key members of the DBI and Accela/21 Tech project teams (PMs, solution architect, functional and technical leads from both teams) were not collocated in a common working area to facilate communication, the timely identification and resolution of issues and overall project execution. Staff turnover on both the DBI and Accela/21 Tech teams impacted team productivity, schedule compliance and delivery quality. Lack of a persistent solution architect throughout the duration of the project has impacted requirements definition and the overall perception of the Accela solution.
Requirements Management	High	 Business requirements definition, elaboration and validation was not adequately performed and did not include the appropriate DBI subject matter experts. There is a belief amongst some stakeholders that the initial set of requirement originated from another jurisdictions, and were then modified Several attempts were made by DBI and Accela to establish a final set of system configuration items and functionality that needed to be addressed before go-live. However, each time this process failed to deliver the expected results with DBI and Accela having differing views on what constituted success impacting team trust and confidence that an acceptable solution can be reached that will meet DBI needs. Lack of requirements elaboration by the vendor, coupled with the lack of a requirements traceability matrix (RTM) severely impacted the ability to trace and track requirements, negatively impacting downstream configuration efforts. DBI with the support of DT resources are completing a requirements, process inventory and gap analysis to establish a viable baseline to move forward. Key enduser subject matter experts have been involved in the process.





Risk Criteria	Risk Rating	Detailed Findings
Security Execution	Medium	 Security activities from an infrastructure and access perspective were not included in the vendor's Statement of Work. User group setup was included as part of the configuration and supporting documentation. Accela security and access control protocols will need to be validated to ensure they meet City requirements.
Development Execution	High	 Accela – 21 Tech's software development approach and methodology lacked the rigor and detail expected for a project of this magnitude and complexity: Development was done by independent teams that did not appear to have common system configuration and development guidelines, principles or rules for scripting, report development, user interfaces (UI) and User Experience (UX) design and development. These impacted system performance and added to potential sustaining support complexities due to the unnecessary and ineffective system configuration and script development. The use of Configuration Documents vs. typical Functional Specifications Documents impacted DBI's ability to understand the details of what they were or were not approving and what the system would be designed to do. No use of common requirements tracking tools – i.e. Requirements Traceability Matrix. Lack of the use of common SDLC techniques such as establishing code freeze dates. The contract did not include a defined number of records types (core Accela units of development); 33 were scoped after contract execution, 59 currently developed. The vendor did not use a set of standard design principals, standards or practices. In addition, the lack of effective quality control of the delivered product resulted in
		In addition, the lack of effective quality control of the delivered product resulted in inconsistent use of terminology within the system, spelling errors, examples of suboptimal poor workflow and screen layout, etc.







Risk Criteria	Risk Rating	Detailed Findings
Overall Test Management	High	 No formal documented test strategy or plan for Accela.21 Tech unit, system or integration testing prior to customer focused UAT activities. No Post Go-Live assessment testing planned. Lack of effective regression testing caused project delays and impacted end user confidence in the system and the vendor's ability to deliver a solution that would meet core DBI / Planning business requirements. No use of common test management and reporting tools – i.e. test coverage matrix linked to the RTM, for effective test status reporting and mitigation planning.
Unit Testing	High	 Contract requires Accela/21 Tech to "complete unit-testing on baseline test scripts prior to Agency beginning User Acceptance Testing." No evidence of unit tests that trace back to the original requirements. UAT was started without full and complete unit, system and integration testing being conducted by Accela/21 Tech nor a validation that the code set was fully ready for end-user UAT testing.
Functional / Integration Testing	High	 Neither Integration testing or functional (end to end) testing is addressed in the contract/SOW. The contract/SOW states that Accela/21 Tech is responsible for integration testing to "assist the Agency with testing and debugging of the interface"



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Risk Criteria	Risk Rating	Detailed Findings
Performance Testing	High	 DBI and Planning opted for a hosted application rather than a solution maintained on premises. DBI identified performance issues when utilizing the Accela solution that naturally created doubt in the system's ability to efficient support day-to-day operations. During the time Gartner conducted it's assessment, performance issues noted with the current DBI Accela hosted environment have been evaluated with CCSF Department of Technology and Accela Hosting Center resources. The City network was ruled out as a contributing issue to performance, and the SharePoint interface developed for Planning was identified as the key reason for performance degradation. While this is a positive development, ongoing monitoring of performance with Accela will be a key area of focus going forward. Salesforce support tickets logged by Accela on behalf of DBI over last 1 ½ years show sporadic issues, some related to runaway SQL statements in Crystal Reports. Accela's internal limited service level performance metrics for the Accela hosted environment constrain their ability to troubleshoot DBI-specific issues resulting in their solution design configuration.





Risk Criteria	Risk Rating	Detailed Findings
User Acceptance Testing	High	 The UAT was more of system integration testing vs. a true UAT due to the lack of a fully configured and validated system ready for end to end acceptance testing. DBI was unprepared to configure, manage and execute an effective UAT process resulting in an unstructured and unfocused test planning and execution with no clear goals and objects established for each round of UAT, no specific entrance and exit requirements documented, and ineffective communication to DBI testers in terms of an introduction to the overall system and their specific roles and responsibility during each round of UAT. No formal UAT testing team introduction (system overview, testing objectives, timelines, expectations, required outcomes and reporting, etc.). An unstructured approach to UAT testing – i.e., no building block approach – simple functional area testing then moving to more complex workflow validation and then to final end to end testing and report generation. No dedicated set of UAT testers assigned to UAT (only ah hoc support based on available resources at the time). No consistent UAT management, execution or reporting. DBI had no prior experience related to the development and documentation of UAT scenarios, test cases and test scripts for a project of this scope and magnitude. Lack of system code configuration management and oversight during test mitigation activities "bug fixes" on the fly during UAT. Following the fourth round of UAT, system configuration activities were split between Accela/21 Tech and DBI resulting in a loss of overall configuration control (functional baseline) and impacted the success of follow-on phases of UAT. In addition, the loss of key DBI IT staff resulted in their inability to meet their commitment to address the system configuration activities they had signed up for. The success of UAT was impacted by system instabilities (crashes, system freezes) and performance issues as well as application bugs and conf



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Risk Criteria	Risk Rating	Detailed Findings
Data Conversion Execution	High	 Over ten conversion runs have been executed to date, far more than the five in the original contract, which included conversion runs for Planning Data mapping responsibilities have largely shifted to DBI resources, with some vendor support. Data conversion mapping was significantly impacted by configuration changes, which led to conversion issues and thus will need to be carefully planned and executed to avoid further project delays.
Training Development & Delivery	High	 Per the contract, Accela/21 Tech responsible for Daily User Training, Train the Trainer Administrative and Technical Training. End-users and UAT testers did not stay current in terms of system functionality following their initial training and therefore this area will need to be readdressed as part of project restart activities.



Risk Criteria	Risk Rating	Detailed Findings
Deployment Execution	High	 Despite repeated attempts by the City, Accela/21 Team has been unable to provide a firm go-live date for the application due to the ongoing issues impacting the project including: An agreed to definition as to what constitutes success ✓ Requirements Definition and Freeze ✓ Successful System's Functional and Technical Validation and Acceptance ✓ Completed Data Cleanup and Conversion Activities ✓ Completed and Approved Deliverables An agreement as to the most effective plan to move forward ✓ System functionality and performance gaps that need to be addressed. ✓ Required deliverables and documentation needed for sustaining support. ✓ Restart commitments. ✓ Budget impact. ✓ Contract documentation.
Integration / Interface Implementation	High	 DBI and Planning have both experienced issues of performance and functionality related to system interfaces. DBI in the access to the contractor database used to validate credentials and Planning with system performance issues related to access to their SharePoint site and the uploading/downloading of documents. In addition DBI has experienced performance issues with the interface to their GIS system.



Risk Criteria	Risk Rating	Detailed Findings
Legacy Decommission Execution	High	Gartner did not find evidence of specific plans or procedures for decommissioning PTS.
Reporting & BI Implementation	High	DBI IT staff are spending roughly half of their time supporting the development and configuration of the Accela system primarily focused on report development and data cleanup / conversion support. Issues remain with Inspection data conversion (both old and new data), likewise issues remain with the conversion of old Permitting data.
Portal Implementation	Medium	Electrical and plumbing permit processing are configured in ACA today, however the 8.0 upgrade broke some of the scripting that had previously been working.



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Risk Criteria	Risk Rating	Detailed Findings
Benefits Delivery & Tracking	Medium	 Based on Gartner's review of the configuration documents, it appears the DBI Accela/21 Tech team did not effectively leverage previous Business Process Reengineering (BPR) recommendations included in the RFP to enhance business processes and workflows when the system was being developed. However, many of the recommendations and improvements have been implemented by DBI outside the scope of this project. No evidence of metrics to track progress and realization of system benefits (business and technical). Planning viewed the project more as a business transformation project with IT support resulting in a more focused and consensus driven approach to the project which was instrumental in its success.
Operational Transition Planning	High	 DBI has been focused on configuration and testing activities and therefore have not adequately focused on the required resources in terms of skill sets, staffing levels, processes, tools or training needed to support effective transition planning or execution of Operational Transition activities.





Risk Criteria	Risk Rating	Detailed Findings
Business Operations Support Transition	High	 DBI is not ready to provide sustaining support once in production. Issues include: Lack a comprehensive system's operation, maintenance and administration manual - "run book". Lack of required system support documentation (system overview and configuration, script library, descriptions and documentation, interface design and configuration documentation, database dictionary, etc.). Lack of effective knowledge transfer from Accela/21 Tech to DBI / Planning. No documented processes that defined each organization's roles and responsibilities and integrates their activities to provide an unified approach for joint Planning and DBI sustaining support activities (e.g., unified upgrade plan, unified patch management plan, unified system support plan, unified disaster recovery plan, etc.). Spotty and inconsistent details (sometimes none at all) as to what Accela has patched in the system making it very difficult to identify issues that may cause production problems. Planning has not developed an effective mitigation plan to address the fact that Accela has not met its documented service level agreements (SLAs) for sustaining support of the Planning system that is in production. DBI needs to establish service level agreements (SLA) and integrate those with Planning to manage and assess Accela's/21 Tech's support of the overall production environment.

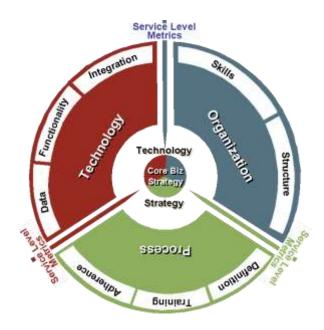


Detailed Assessment Findings



TOPS Methodology Overview





- Gartner employed its proven Technology, Operations, Process and Services (TOPS) approach to provide a broad assessment of the current-state activities and performance of the City.
- The TOPS model ensures a holistic approach is taken when reviewing critical functions and is comprised of a set of assessment activities that focus on the following pillars:
 - Technology Technologies and tools used to deliver mission critical and IT services
 - Organization Structure and skills; collaboration among stakeholders
 - Processes Service delivery and management, operational efficiency
 - Service Performance Extent of service efficiency or inefficiency, and customer satisfaction
- Gartner presents current state findings in a SWOT (Strengths, Weaknesses, Opportunities and Threats) format and validates the content through targeted workshops. This approach emphasizes interaction with key project stakeholders to quickly and collaboratively identify issues, risks and opportunities, while minimizing effort dedicated to documenting the current state in great detail.



TOPS Assessment Approach





Technology

Does the Accela Automation platform provide the required functional and technology capabilities for DBI?

- Intake
- Fees & Payment

Integration

Workflow

Inspections

Issuance

Architecture

- Plan Review Business
 - Business Intelligence / Reporting
 Infrastructure
 - Security



Organization

What is the readiness of the DBI organization to use the Accela Automation solution?

- Knowledge Transfer
- Training
- End User Documentation
- Organizational Change Management



Process

Does the Accela Automation solution design meet DBI's business needs?

- Solution Design (e.g., intake, workflow, plan review, inspections, fees and payment) for:
 - Permit Types

Inspectors

Plan Reviewers

- External Agencies
- Records Management
- Executive/Management



Support and Performance

Is the Accela Automation solution performance acceptable and can it be maintained by DBI?

- System Performance and Stability
- End User Usability
- Solution Documentation ("As built", "As configured")
- Internal Support and Sustaining Development
- Phase II Development
- Ongoing Vendor Support







Minimal solution design/functional gaps & no business process redesign Minimal solution design/functional gaps & minimal business process redesign Moderate solution design/functional gaps & moderate business process redesign Major solution design/functional gaps & major business process redesign





TOPS Solution Assessment Analysis Scorecard



Technology

- Majority of functional needs can be provided by an effectively-configured Accela solution, a leading product in the licensing and permitting market
- Configuration and design decisions have negatively impacted DBI's perception of Accela's ability to support key functional and technology capabilities for DBI
- Accela's hosted environment requires manual intervention during report development to ensure reports only display client-specific data
- Quick-wins could be achieved through the delivery of relatively low-complexity configuration improvements (e.g., user consoles)
- Accela's infrastructure, architecture and capabilities have been successfully implemented with City's Planning department
- Accela's solution provides a single platform for City land development processes
- DBI solution design does not account for globalization/standardization of configuration.



Organization

- DBI stakeholders have already been thinking about their business processes in Accela solution terms, however focus on 'Recreating PTS" in Accela will likely lead to user dissatisfaction given usability and navigation differences
- End-user documentation beyond training materials is not part of the scope of the vendors
- DBI MIS took on portion of configuration activities in July 2013, but loss of key resources since then has left overall gap in Accela knowledge, as well as DBIspecific configuration knowledge
- Opportunity for onsite, face-to-face solution brainstorming for key areas of contention (e.g., inspection scheduling) should ensure full understanding of DBI needs, and Accela configuration options
- Subject matter experts (SMEs) fatigue may be difficult to overcome especially considering the cap between DBI expectations and Accela capabilities



Process

- Existing configuration has been designed around DBI's core business needs, but Accela's solution design is not optimized to meet DBI's business processes
- Configuration has been improved in response to gaps identified by DBI
- Lack of configuration management controls has negatively impacted development, testing, training and overall DBI perception of Accela
- Historical data does not translate to Accela configuration (e.g., examples where permit status are different).
- Opportunity for streamlining key DBI business processes
- Potential future design decisions may require redesigning DBI business processes (e.g., inspection workload balancing and scheduling, payment processing, rapid application intake for permit counter, etc.)
- Employment of a solution architect that can bridge the gap between product capabilities and unmet DBI requirements



Support and Performance

- Concerns regarding Accela's hosted environment system performance have been mitigated at this time, however must be monitored to ensure ongoing success (e.g., system performance issues related to Planning's SharePoint interface)
- Limited service level performance metrics for the Accela hosted environment constrain Accela's ability to troubleshoot DBI-specific issues resulting from solution design configuration
- Accela has an existing model to successfully migrate existing clients from their hosted environment to a on premise environment
- Lack of detailed solution design documentation will create challenges for internal and external support
- Insufficient DBI resource and skillset capacity to effectively support the solution post go-live
- Accela's new user interface in version 8.0 improves the user experience that could increase end-user adoption and create end-user efficiencies
- Opportunity to utilize DBI's Fit/Gap as baseline business (functional) requirements to define future scope of work and level of effort



DBI Solution Concerns

 Gartner assessed key DBI concerns regarding product limitations currently being experienced from either a business and/or technical perspective.

DBI Solution Concerns	Key Findings and Implications
Usability – too many clicks and scrolling	 Multiple opportunities for improved user experience, including: ✓ modifying end user consoles; ✓ streamlining DBI business processes and associated solution design; ✓ leveraging new capabilities/functionality within the Accela Civic Platform 8.0 release (e.g., "3 clicks or less", scalable web browsers, enhanced global searches, etc.)
Interfaces – no solution for hosted customers	 Interfaces are handled independently and may be required to be uniquely architected to meet DBI's business needs Specific challenges with the following interfaces were identified: Potential concerns with the City Business Tax System AGIS – potential opportunities for improvement including XAPO design, Accela Civic Platform 8.0 AGIS enhancements Contractor License Validation – Potential opportunity for improvement iPayment adaptor – interface was developed by CCSF; end user challenges experienced when re-directed outside of Accela Civic Platform
SharePoint interface	 All of Planning's system performance issue tickets have been related to the SharePoint interface Potential remediation is to migrate Planning to the native Accela Document Storage solution using an Accela-provided conversion tool
Inspection scheduling – support for DBI processes unclear	 Inconsistent and unique DBI inspection scheduling processes across each division impacted solution design considerations and available native Accela inspection functionality (e.g., inability to use Inspection Calendar) Visibility into availability is a critical need, especially given the volume of inspections scheduled via telephone Robust scripting controls and reports were implemented to mitigate gaps in available native functionality while mimicking DBI's unique business needs AM/PM scheduling is working as designed; however, workload balancing was not part of design Users need to be re-trained to become familiar with the processes in the Accela environment
Historical fee lookups, pre-2000 dates	 Solution design is working as specified and requires a low level of effort for ongoing configuration management From DBI's perspective, the primary issue is the manual effort required to **re-calculate** a fee due to changes on a long-running project. However, 21 Tech did not recommend implementing this due to the inability to audit and track changes in the system.



DBI Solution Concerns (cont.)

 Gartner assessed key DBI concerns regarding product limitations currently being experienced from either a business and/or technical perspective.

DBI Solution Concerns	Key Findings and Implications
Reporting font changes	Font sizing and characters changes when reports are executed from the Accela Crystal reporting server
UAT #1189 – ACA getmonth() error	 Accela Civic Platform does not provide an Inspection Result Comment when cancelling an inspection Solution design attempted to inform users to insert an inspection comment prior to cancelling
Special inspections – inability to focus on internal vs. external	 Non-typical/common inspections performed by third parties may be necessary before final inspections are approved; Users have requested the ability to hide or sort special inspections so that they are not listed with standard inspections Approximately 300 special inspections have been configured in the solution design to enable DBI to result completed special inspections retroactively upon notice of inspection completion (note, this business need is referenced in Gartner's findings for UAT #1323 below).
UAT #1234 – ACA Multiple Address/Parcel	 Potential opportunities for improvement of the External Address, Parcel and Owner (XAPO) implementation (e.g., evaluate single layer for address, parcel and owner information; explore options to consume custom ESRI GIS web map services such as the Planning Property Information Map)
UAT #1223 – ACA Active/Inactive address	 Opportunities for solution design improvement regarding how the system and users leverage and see address statuses, especially in ACA (e.g., analyze ACA Address Search Result List strings and evaluate other Accela address fields to repurpose other than Neighborhood Prefix.



Technology SWOT Assessment

The following table provides a summary of the Technology SWOT assessment.



STRENGTHS

- Accela's civic platform is a leading product in the licensing and permitting market driving digital innovation for citizen engagement and smart city capabilities (e.g., single sign-on)
- Accela's native capabilities are highly configurable to meet specific client needs
- Accela's infrastructure, architecture and capabilities have been successfully implemented with City's Planning department
- Accela's solution provides a single platform for City land development processes
- Accela integration with DBI's Crystal Reporting system will enable DBI to be develop custom reports for Accela's solution
- Accela's civic platform provides ad hoc reporting capabilities which enable DBI users to create reports for specific business needs without having to be knowledgeable of complicated reporting systems
- Accela's hosted solution has multiple security layers (e.g., physical data center security, server security, network security and application security)

WEAKNESSES

- Configuration and design decisions have negatively impacted DBI's perception of Accela's ability to support key functional and technology capabilities for DBI
- AccelaGIS (AGIS) cannot completely replace the functionality currently provided by a custom web-based GIS tool that DBI users rely on to support their business processes
- DBI users report improved performance of Accela's solution in Google Chrome, however Google Chrome does not support some key Accela functionality due to Silverlight incompatibility (e.g., GIS/Maps in v360 and Citizen Access, some administration tools, etc.)
- Some inability to support DBI naming conventions (e.g., "dwelling unit")
- Mobile functionality has not been fully tested

OPPORTUNITIES

- The implementation of Accela's highly configurable Commercial Off The Shelf (COTS) product can be modified to meet the majority of DBI's functional needs
- Revisit CivicTech API used for Sharepoint interface to determine if there
 is a better integration method that does not degrade system
 performance.
- Quick-wins could be achieved through the delivery of relatively lowcomplexity configuration improvements (e.g., user consoles)
- DBI could benefit from additional Accela solution functionality not currently within scope (e.g., electronic plan review)
- Utilize Event Management Scripting Engine 3.0 to improve the development and management of scripts in the Accela solution

THREATS

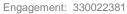
- Accela's hosted environment requires manual intervention during report development to ensure reports only display client-specific data which can create security and access risks for hosted agencies
- Accela/21 Tech has no formal role in organizational change management activities per the contract, and DBI has not dedicated any resources to this need, a major risk
- Accela's hosted environment limits DBI's ability to interrogate and manage data in-house and build/deploy reports within the system
- Some of DBI's expected functionality is highly specific and may require creative Accela solution designs to meet DBI's needs (e.g., inspection workload balancing and scheduling, tracking of historical fees, payment processing, rapid application intake for permit counter, etc.)



Technology SWOT Assessment – Detailed Findings



Technology Subcategory	Risk Rating	Findings
Intake	Major	 Limited ability to customize the layout of ASI fields and tables on the Accela Single Point of Entry And Retrieval (SPEAR) form create challenges for DBI permit clerks to quickly and easily input application data. Further, there were examples of ASI/T data included on the SPEAR form that is not filled out at the point of intake. Record type selection process is difficult for end users (e.g., Record Type Navigation Tree) Ability to customize reference data form portlets creates inconsistencies throughout the solution design (e.g., contacts, addresses)
Workflow / Plan Review	Minimal	 DBI's scope of work does not include electronic plan review DBI IPS building permit workflows typically include 8 parallel review tasks, however the workflow is designed to have over 20 parallel tasks. End users find it difficult to activate/deactivate necessary review tasks due to the small check boxes that are separated from the workflow tasks name. Feeling among some staff that the Accela product is powerful, but the DBI configuration is poor Potential future enhancements to Accela's workflow engine may offer opportunities to improve end user experience
Inspections	Moderate	 A combination of Accela's Civic Platform's native inspection capabilities and custom scripting/reporting were required to support all of DBI's inspection business processes; solution design limited some native functionality for some end users (e.g., inspection calendar cannot be used by inspection divisions requiring AM/PM scheduling however a custom report was developed to display inspector workloads similar to how they run reports today) Access to real-time inspector availability from within Accela is critical to inspection services accepting the AM/PM inspection scheduling solution. Opportunity for standardization across disciplines to conduct inspection scheduling uniformly is recognized by a number of staff Many added-value features are recognized by staff, including data "store and forward" functionality in the field, and the ability to capture signatures and picture in the field Inability to add a comment when cancelling an inspection has created downstream solution design challenges such as scripting in ACA to copy details



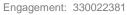


Technology Dise the Access Automation platfore provide the required functional and schoology capabation for DSV? Intake Fees & Payment Integration Workflow Islandoo Access Transfer Accessor Accessor Integration Integration Security

Technology SWOT Assessment – Detailed Findings

Technology Subcategory	Risk Rating	Findings
Fees	Minimal	 The Accela's native product fee configuration have met the needs of many previous customers Accela native fee capabilities were extended via custom scripting to support DBI's unique business needs and are working as expected, e.g.: DBI grandfathered/historical fees are based on time of file, creating the need to record and apply fees that span years and, potentially, fee schedules DBI collects fees on behalf of a number of other departments (Planning, Fire, DPW, Schools, etc.) that change their fees on a fairly regular basis Fee estimator tool does not mimic Accela solution design for business processes
Issuance	Minimal- None	 Accela's issuance capabilities are based on workflow task/status and overall Record Type status Functionality meets DBI's basic needs, however automation through DBI's business processes is creating challenges for end users. Variability amongst disciplines in terms of layout and design of physical permits requires additional configuration of permit, or opportunity for standardization
Business Intelligence / Reporting	Moderate	 Accela Civic Platform successfully integrates with Crystal Reports. Accela's hosted environment require reports be reviewed and deployed by Accela support staff Ad hoc reports do not appear to be used by DBI There are instances noted by DBI SME's where reports do not display the same information when executed in the legacy PTS system and in Accela on the same data Issues with fonts/characters not displaying correctly when reports are executed from the Accela Civic Platform
Security	Minimal- None	 Accela's hosted solution has multiple security layers (e.g., physical data center security, server security, network security and application security No known reports of security breaches for customers using the Accela hosted site Accela offers role-based security configuration features to limit access to only those functions appropriate for the role
		Minimal solution design/functional gaps and/or no business process redesign

Minimal solution design/functional gaps and/or minimal business process redesign
Moderate solution design/functional gaps and/or moderate business process redesign
Major solution design/functional gaps and/or major business process redesign





Tochnology Date the Acoste Automation pullfore provide the required functional and sectionage systetimes for DMP Intake • Fees & Payment • Integration • Architecture • Workflow • Issuence Integrating • Infrastructure • Inspections • Security

Technology SWOT Assessment – Detailed Findings

Technology Subcategory	Risk Rating	Findings
Integration	Major	 Interfaces are handled independently and may be required to be uniquely architected to meet DBI's business needs Specific challenges with the following interfaces were identified: City Business Tax System AGIS – potential opportunities for improvement including XAPO design, Accela Civic Platform 8.0 AGIS enhancements Contractor License Validation – Potential opportunity for improvement iPayment adaptor – interface was developed by CCSF; end user challenges experienced when redirected outside of Accela Civic Platform Accela offers standard APIs that can be utilized for common integrations (payment/financial systems, document management systems, etc.) and has a SDK for integration to third-party systems Contract states that "it is expected" (that) all interfaces will use Accela's GovXML, web services or batch engine. No custom or third party integration tool will be used." The original contract called for the following interfaces, no integration methods documented, which lead to issues with scope, roles/responsibilities, cost and timeline that impacted overall functionality: APO (Address, Parcel, Owner) Selectron IVR Licensed Professional (CA State Contractors, CCSF Business Tax) Timekeeping (Labor distribution and time and attendance) Document Management (SharePoint, PaperVision) Payment Processing (Link2Gov for Online Payment Processing, payment Processing (Back Office Payment Processing)



Technology SWOT Assessment – Detailed Findings



Technology Subcategory	Risk Rating	Findings
Architecture	Moderate	 The high configurability of the Accela Civic Platform can have both positive and negative impacts on the solution capabilities based on how the overall solution was designed/architected, for example: Permit fees can be automatically assessed and invoiced through the Accela Event Management Scripting Engine (EMSE), however the Fee Estimator functionality does not support EMSE-based fees (e.g., it only allows users to manually enter singular fees from a fee schedule) DBI's perception is that Accela's Intake capabilities are insufficient, however appear to be caused (inpart) due to combined business processes on a single record type (e.g., Building New Construction and Building Addition/Alteration on a single Accela Record Type). As a result, it is difficult for end users to process an application upon intake which is time consuming Accela's hosted environment requires manual intervention during report development to ensure reports only display client-specific data which can create security and access risks for hosted agencies

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Organization SWOT Assessment



The following table provides a summary of the Organization SWOT assessment.

STRENGTHS WEAKNESSES

- DBI stakeholders have already been thinking about their business processes in Accela solution terms
- There is a pool of existing internal CCSF resources (e.g., Planning) that DBI can gain Accela solution knowledge from
- Internal City project management changes have yielded positive results
- Accela Community is a single source tool for Accela clients access to knowledge articles, support cases, documentation and collaboration with other Accela users and resources
- Lack of comprehension of the Accela solution/design will require all training methods be re-delivered across DBI's stakeholder landscape
- Technical knowledge transfer from Accela/21 Tech has not been sufficient for ongoing management of the system
- DBI MIS took on portion of configuration activities in July 2013, but loss of key resources since then has left overall gap in Accela knowledge, as well as DBI-specific configuration knowledge
- End-user documentation beyond training materials is not part of the scope of the vendors
- The MIS team noted instances where technical development components were not clearly communicated or were lacking (e.g., approach and methodology) which limits the ability to transfer knowledge from the vendor to DBI.

OPPORTUNITIES

- Formal organizational change management (OCM) workstream to prepare end-users and the general public for migration to new system with adjusted procedures
- Identify an internal DBI "change champion" to revitalize DBI staff
- Business intelligence and decision support for executive management
- Onsite, face-to-face solution brainstorming for key areas of contention (e.g., inspection scheduling) should ensure full understanding of DBI needs, and Accela configuration options

THREATS

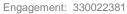
- Subject matter experts (SMEs) fatigue may be difficult to overcome especially considering the gap between DBI expectations and Accela capabilities
- Accela/21 Tech has no formal role in organization change management activities per the contract, and DBI has not dedicated any resources to this need, a major risk
- Risk of focusing on PTS design and screen navigation vs. business requirements can lead to user dissatisfaction given usage paradigm shift in Accela
- Sufficient, accurate and effective end user documentation does not exist which will create critical challenges for training, knowledge transfer and change management



Organization What is the readiness of the DBI organization to use the female Automation solution? • Knewledge Transfer • Training • End User Decumentation • Organizational Change Management

Organization SWOT Assessment – Detailed Findings

Organization Subcategory	Risk Rating	Findings
Knowledge Transfer	Minimal	 The MIS team has a mix of both business and technical skills related to the Accela implementation that can provide value-added internal support for DBI. Strengths are in database and report development, however are less as proficient with Accela's EMSE. Database Management – DBA resource has a technical background in database management and is eager to become proficient with the Accela database architecture. Report Development – Resources feel confident in their ability to develop and deploy custom reports for DBI Script Development – Resources are starting to become familiar with Accela's EMSE v2.0; EMSE 3.0 skillsets would also be required. DBI MIS took on portion of configuration activities in July 2013, but loss of key resources since then has left overall gap in Accela knowledge, as well as DBI-specific configuration knowledge The MIS team noted instances where technical development components were not clearly communicated or were lacking (e.g., approach and methodology) which limits the ability to transfer knowledge from the vendor to DBI. There is a lack of understanding of the capabilities of the Accela Civic Platform. Subject matter experts and the MIS team noted multiple occurrences where the vendor would say a capability is not available but them implement it some time afterwards. For example, custom Accela Record Identification Number.
End User Documentation	Moderate	 Contract lacks appropriate documentation needs for training, testing and ongoing support. Post go-live the only documentation deliverable listed for 21 Tech/Accela to deliver is Finalized Post Production Issues List. Prior to the fifth round of User Acceptance Testing (UAT-5), value-added end user documentation that described the Accela solution design in business terms did not exist. Over the course of three years, documentation was either not updated or created. However during UAT-5, any punch list items with a level of effort greater than one day were treated as a mini project and included the development of documentation to support end users and support teams. (e.g., Historical fee documentation outlines both the business process and Accela solution configuration). There are little to no change reference documents that have been identified during the course of the implementation.

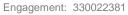




Organization What is the residences of the DEC organization to use the Accella Automation equipment • Knowledge Transfer • Training • Ent User Documentation • Organizational Change Management

Organization SWOT Assessment – Detailed Findings

Organization Subcategory	Risk Rating	Findings
Training	Minimal	 From Gartner's perspective, end users comprehension of the Accela solution (e.g., capabilities, functionality, and DBI solution design) is not sufficient for production-ready use. E.g.: Use of Accela Record Summary Portlet – there are alternate approaches to navigating throughout the system that is more effective than the Summary portlet. Training was performed before the DBI Accela Solution was completed, therefore end users are not fully aware of changes to the design. Train the Trainer: When training was conducted, RMD noted that training guides for their business processes were blank. Five-day session for inspections was cut short to three days do to numerous issues with training environment End-user procedures, designed for each function (CPB, inspections, etc.) are not in scope for the Accela/21 Tech contract, and Gartner has found no evidence that DBI is planning on developing such documentation
Organizational Change Management	Moderate	 Accela/21 Tech has no formal role in organization change management activities per the contract, and DBI has not dedicated any resources to this need, a major risk Inconsistent vendor resource deployment, offsite approach and lack of requirements traceability has impacted confidence in Accela solution to support all functions. Excitement around Accela was initially high but project fatigue and issues with vendor has turned to frustration and doubt. Some DBI staff attending Accela User Conference left with belief that Accela had powerful capabilities but that DBI had a poor configuration Opportunity to promote features that staff has listed as value-add: Mobile inspection data "store and forward" feature Electronic signature support Picture capture and upload in the field





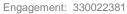


Process SWOT Assessment



■ The following table provides a summary of the Process SWOT assessment.

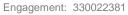
STRENGTHS	WEAKNESSES
 Existing configuration has been designed around DBI's core business needs Configuration has been improved in response to gaps identified by DBI Majority of functional needs can be provided by an effectively-configured Accela solution, a leading product in the licensing and permitting market Land development processes can be managed within a single technology platform (e.g., relationship between DBI and Planning processes) 	 Accela's solution design is not optimized to meet DBI's business processes Immature configuration/change management processes (e.g., Configuration quality issues: spelling mistakes, inconsistent fonts, sizing, etc.) Lack of globalization/standardization of configuration has created solution design inconsistencies that will subsequently cause challenges for DBI business processes reporting Significantly lacking requirements tracking and elaboration Multiple configuration changes due to requirements management issues has resulted in additional conversion runs Historical data does not translate to Accela configuration (e.g., examples where permit status are different). Potential future design decisions may require redesigning DBI business processes (e.g., inspection workload balancing and scheduling, tracking of historical fees, payment processing, rapid application intake for permit counter, etc.)
OPPORTUNITIES	THREATS
 Revisit CivicTech API used for Sharepoint interface to determine if there is a better integration method that does not degrade system performance. Employment of a solution architect that can bridge the gap between product capabilities and unmet DBI requirements Accela's solution can be redesigned to streamline DBI business processes (e.g., reduction of workflow tasks, DBI floor-specific permits, etc.) 	 DBI solution design does not accurately reflect CCSF's unique and complex processes Multiple integrations do not meet DBI's business needs and will negatively impact citizens/companies engaging with DBI (e.g., payment adaptor, GIS, electronic document management, contractor licensing)



Process SWOT Assessment – Detailed Findings



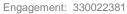
Process Subcategory	Risk Rating	Findings
Solution Design - Intake	Major	 Central Permit Bureau Users report that Accela screen navigation for intake is too complex, very different from PTS Users cite ability to see all information in Accela, but do not need to see all that information, would prefer to just see statuses in order to keep up with volume and enter information rapidly Paradigm shift from function keys to "lots of" typing and mouse usage is perceived as an hindrance to efficiency at front desk Shortcuts in PTS are utilized as well, users do not see complementary Accela functions One power user estimated an average of three minutes to process and application in PTS and up to 20-60 minutes in Accela as currently configured
Solution Design – Workflow / Plan Review	Minimal	 Users expressed dissatisfaction with the number of steps required to support some processes Pressure to go-live led to numerous workarounds and functionality moved to Phase 2 in order to get live as quickly as possible Users reported learning about capabilities late in the design and development process Issues with basic electrical permit: when fee entered, issuance date changed and contractor name and inspection discipline incorrect Code enforcement and records management were underrepresented in terms of requirements and configuration needs Look of permit across three inspection units differs, potential to standardize provided adherence to any applicable regulations EPR not part of the current scope - 100% of plans submitted manually. Therefore Accela's Parallel Workflow Tasks capabilities have been implemented to track DBI plan reviews.



Process SWOT Assessment – Detailed Findings



Process Subcategory	Risk Rating	Findings
Solution Design - Inspections	Moderate	 DBI's inspection processes are unique and constraining requirements, such as (but not limited to): Differing scheduling processes across divisions (e.g., Housing inspections are scheduled for a specific time however other divisions only schedule in either AM or PM blocks) Timeframe for resulting inspections is constrained by DBI reporting requirements (e.g., "10-day lock") Inspections resulting requires inspector information for inspections other than special inspections Issues discovered during UAT, including performance impacts ("hangs up" and "kept kicking us out") hampered ability to determine how configuration met needs and felt "foundation wasn't stable" A special implementation project was created to resolve inspection issues, specifically those related to workload balancing and AM/PM scheduling. Solution design accounted for DBI's inspection scheduling processes are not the same across all divisions but limited available functionality Solution design works as specified, however end users cannot complete business processes Other issues reported by DBI: System integrity and user rights: system allowed inspector to reassign/cancel inspections from other disciplines, allowed user to make an inspection for two years ago The ability to view special inspections separately from standard inspections was moved to Phase 2 however over 300 special inspections have been configured in the current solution design Cannot record details for calls to reschedule inspections (e.g., caller, reason, date/time) Poor or lack of implementation of conditions; can support a block or hold, nothing in between; must determine what other conditions parameters are part of DBI needs Configuration doc

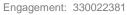




Process SWOT Assessment – Detailed Findings



Process Subcategory	Risk Rating	Findings
Solution Design - Inspections, continued	Moderate	 Users feel that configuration suffers from vendors' inability to conceptualize the volume, speed and complexity of the DBI operation: 80 inspectors across three (3) divisions, use "floaters" to provide inspection flexibility 12-13 districts per discipline (building, electronic, plumbing), not uniform Inspection scheduling channels: 50% calls/50% 50% web/IVR 9000 calls a week 700 new complaints per month 15,000 inspections performed Attempts to communicate issues were met with resistance on two fronts: Requests for change are often met with "Its' not in the contract", and pressure from above to get the project to go-live Calendar functionality has not been demonstrated, a key feature in PTS that is well-liked by users Examples of reports not functioning correctly – incorrect totals that if correct should have put a hold on the process Despite the issues, one staff member felt configuration was "70% there"





Process SWOT Assessment – Detailed Findings



Process Subcategory	Risk Rating	Findings Findings					
Solution Design – Fees	Minimal	 Previous DBI has concerns about ability for fee functionality to meet requirements appear to have been mitigated. Notes from previous concerns are as follows: Accela/21 Tech contend that fees were always known as a fundamental need, and that many requirements surfaced in 2014. DBI contends that these requirements should have been known early in process if appropriate business analysis had been performed 21 Tech created robust solution design documentation and implemented the approved solution for grandfathered/historical fees. However, there are accounts of potential newly scope items from DBI that would impact the solution design; 21 Tech has recommended against these changes due to the negative impact on auditing abilities. 					
Solution Design – Interfaces	Major	 Based on interviews and documentation review, a number if issues identified: DBI cannot run batch jobs because it is hosted instructed by Accela to run a Crystal Report, or use Data manager module to achieve; perception that this is a limitation and that massive data loads slow down system Sharepoint - Civic tech API used for interface may be a major part of performance problems experienced by DBI and Planning; disagreement between 21 Tech and Accela on integration approach; potential remediation identified to convert Planning to the Accela Document Storage system using Accela conversion tools DocIndex - Indexing module was not successful in terms of Accela supporting it. Given the many issues, DBI decided to kept this system stand alone Business Tax Office – Daily feeds from the San Francisco Business Tax Office have not been interfaced with the Accela solution. 					
Solution Design – Portal / Accela Citizen Access	Minimal	 Despite providing key citizen-facing functionality, does not appear to be a major focus of configuration and UAT efforts With current system have electrical, plumbing, complaints currently online, and inspection scheduling functionality, all functions that should be in ACA 					
		Minimal solution design/functional gaps and/or no business process redesign					

Minimal solution design/functional gaps and/or minimal business process redesign Moderate solution design/functional gaps and/or moderate business process redesign Major solution design/functional gaps and/or major business process redesign

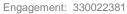


Service Levels SWOT Assessment



■ The following table provides a summary of the Service Levels SWOT assessment.

STRENGTHS	WEAKNESSES
 Land development processes can be managed within a single technology platform (e.g., relationship between DBI and Planning processes) Accela has an existing model to successfully migrate existing clients from Accela's hosted environment to an on-premise environment 	 Limited service level performance metrics for the Accela hosted environment constrain Accela's ability to troubleshoot performance issues resulting from solution design configuration Conflicting Accela 8.0 system requirements result in lack of usable functionality (e.g., Google Chrome does not support AGIS map viewer however is optimal for Accela Automation performance) Ability to toggle between Accela's legacy and new user interface minimizes DBI's competency of the Accela solution/design and end user adoption
OPPORTUNITIES	THREATS
 Accela's new user interface in version 8.0 improves the user experience (e.g., dashboards, dynamic design, etc.) that could increase end-user adoption and create end-user efficiencies Utilize DBI's Fit/Gap as baseline business (functional) requirements to define future scope of work and level of effort (e.g., finalize Phase I and plan for Phase II Development) 	 Performance of integrations with systems on SF/ network could be negatively impacted by hosted site Lack of detailed solution design documentation for DBI's implementation will create challenges for internal and external support, for example: EMSE scripts impact Accela system performance, therefore troubleshooting sources of any issue will be difficult due to the volume of scripts (e.g., approximately 1100 EMSE scripts). Accela Customer Resource Center will not know DBI
 Initiate system support planning to effectively train and assume responsibility for the solution 	configuration details, therefore DBI will be required to explain the solution configuration details



Support SWOT Assessment – Detailed Findings



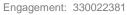
Support Subcategory	Risk Rating	Findings		
System Performance and Stability	Moderate	 Accela offers two options for hosted environments: West Coast (Palo Alto, CA) – DBI utilizes, 53 customers in total. East Coast (Virginia) – Not a viable option for DBI to explore as a potential alternative to resolve performance issues due to geographic latency. Performance issues (e.g. screen rendering, document upload on hosted site) have been pinpointed to Planning SharePoint interface. Salesforce support tickets logged by Accela on behalf of DBI over last 1 ½ years show sporadic issues, some related to runaway SQL statements in Crystal Reports. Planning has also opened a number of tickets related to system performance. Planning experiencing performance issues as well, and have ceased uploading documents into Accela; recent analysis by DBI/Accela points to Sharepoint interface as contributor to performance issues Limited service level performance metrics for the Accela hosted environment constrain Accela's ability to troubleshoot DBI-specific issues resulting from solution design configuration Accela has successfully migrated other clients from their hosted environment to an on premise environment. If DBI is migrated to on premise, the following would be required: load testing due to Planning being in a production environment, validate reporting requirements and volume/complexity of scripting. 		
End User Usability	Moderate	 Users that have utilized Accela version 8.0 have expressed positive views regarding usability regarding screen navigation. However, recently used links hasn't consistently worked, leading users to revert back to older UI. Some user acknowledge the changes in system navigation and enterprise benefits gained through better tracking of key milestones, more data for decision-making and performance management, etc. 		
Solution Documentation	Minimal	 Accela Civic Platform solution documentation is available on the Accela Community. DBI-specific solution design documentation is not complete (e.g., detailed design documents were not started until UAT-5). 		
		Minimal solution design/functional gaps and/or no business process redesign Minimal solution design/functional gaps and/or minimal business process redesign Moderate solution design/functional gaps and/or moderate business process redesign Major solution design/functional gaps and/or major business process redesign		



Support SWOT Assessment – Detailed Findings



Support Subcategory	Risk Rating	Findings Findings
Internal Support and Sustaining Development	Moderate	 MIS internal support team is proficient on Accela Civic Platform configuration and report development, however has novice EMSE skills. Gartner has not observed evidence of a post go-live support structure, or plan to develop such a structure DBI has not trained a business user, or multiple business users, from each unit to serve as a business liaison that has solid configuration skills, a best practice for Accela implementations
Phase II Development	Moderate	 DBI's Fit Gap analysis and requirements documentation identifies a number of business requirements identified for Phase II. Perception by DBI is that Accela/21 Tech is pushing DBI to go live with current configuration and associated "punch list" developed by vendors, but DBI feels there are basic needs that must be addressed and that usability issues in general prevent them from agreeing to push some functionality to Phase 2
Ongoing Vendor Support	Minimal	 Accela's CFC support organization is not designed to understand the specific configuration of clients, leaving DBI in a precarious position to transfer configuration knowledge to City resources prior to go-live System/hosted site performance is only measured in terms of uptime Accela's performance benchmark is end user log ins (log in and authentication) Metrics are captured at the CPU, database, and application level No other processing metrics exist to evaluate performance of client-specific configuration





Detailed Assessment Findings

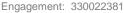


Deliverable Analysis Background

- Gartner was asked to assess the quality of the contractual deliverables on the CCSF Accela project, as well as the Statement of Work.
- There are 38 Contractual Deliverables as outlined in Appendix A: Statement of Work, version 1.14, dated September 12, 2011. The below is a list of those deliverables with their associated deliverable number.

#	Deliverable Name
01.	Project Initiation
02.	Accela Automation Setup - Staging & Support
03.	Configuration Analysis Sessions - DBI
04.	Configuration Analysis Documents - DBI
05.	Configuration Analysis Sessions - Planning
06.	Configuration Analysis Documents - Planning
07.	Configuration Analysis Sessions - Enterprise
08.	Accela Automation Core System Configuration - DBI
09.	Accela Automation Core System Configuration - Planning
10.	Historical Data Conversion Analysis - DBI
11.	Historical Data Conversion Development - DBI
12.	Historical Data Conversion Analysis - Planning
13.	Historical Data Conversion Development - Planning
14.	Specifications Document for APO
15.	Develop APO Interface
16.	Specifications Document for Selectron IVR Interface
17.	Develop Selectron IVR Interface
18.	Specifications Document for Licensed Professional Interface
19.	Develop Licensed Profession Interface

#	Deliverable Name
20.	Develop Timekeeping Interface
21.	Interface - Document Management - PaperVision
22.	Interface - Document Management - Sharepoint
23.	Interface - Link2Gov
24.	Interface - Payment Processor
25.	Event Management Scripting Assistance
26.	Report Specifications
27.	Report Development
28.	Accela GIS Configuration
29.	Accela Citizen Access Configuration
30.	Accela Mobile Office Configuration
31.	V360 User Experience
32.	Accela Automation Setup - Production
33.	Administrative and Technical Training
34.	Train the Trainer
35.	Daily User Training
36.	User Acceptance Testing
37.	Production Support
38.	Post Deployment Support & Transition to CRC



Scope

- Gartner was not able to clearly map documents and deliverables on the project SharePoint site to
 official contractual deliverables and sign-offs a major indication of suboptimal project management.
- As such, Gartner broke up the contractual deliverables into the following categories and reviewed available documentation relating to each category:
 - 1. Statement of Work, includes the Statement of Work dated 9/12/11 and its exhibits
 - 2. **Project Initiation**, includes the project charter dated 11/2/11, kickoff presentation and status report template
 - 3. Configuration, includes configuration specifications and event script tracker
 - 4. Interfaces, includes interface specifications, meeting minutes, testing and validation
 - 5. **Testing**, includes user acceptance testing documents and trackers
 - **6. Reporting,** includes report specifications and tracker
 - 7. Training, includes training agendas, templates and guides
- Gartner's review also included a high level assessment for each category of *Content*, *Depth*, *Format* and *Quality* across the deliverables and documents reviewed as well as comments and findings based on its review.
- Gartner's review primarily focused on documentation from the Accela project SharePoint site.
 - Version control and overall document organization issues were evident during Gartner's review and should be mitigated in order to move forward.



01. Statement of Work

Statement of Work								
Status: Approved	Date: 9/12/11			CSF Approvers: vian Day				
Content:	Depth:	Format:		Quality:				

- SOW assumes that "To Be" processes created in 2007 for DBI and 2010 for Planning were the baseline for the project. With significant time having passed between creation of those processes and the project, *validation activities of requirements and processes or at least a gap analysis* would be done prior during "configuration analysis" and that there would be traceability throughout the project back to them. This is does not appear to be included in analysis or configuration activities.
- Several critical *project management processes are not included as contractual deliverables*. While the Project Charter does address some of these processes, including a communications plan and a risk/issue management, it is at an insufficient level of detail for a project of this size.
- Project or workstream planning deliverables do not exist. On a project of this size, planning documents are typically included. Examples include a Conversion plan, Interface/Integration plan, training plan, support plan, etc. that ensure Agency and vendor are in agreement on approaches.
- There is *no deliverable that presents a complete or holistic design*. Configuration and design documents are piecemeal according to business division or interface. It is not clear which deliverable has the holistic design or view.
- Deliverable acceptance criteria lacks detail. Oftentimes, it is a description of the review or approval process or is at too high a level to be
 effective as acceptance criteria. Best practice would be to jointly align deliverable expectations and acceptance criteria through a Deliverable
 Expectation and Acceptance Documents to ensure deliverable detail is understood, agreed to and expectations are met. This would include
 things like a Table of Contents, deliverable scope, etc.
 - Testing and Post-Production support acceptance criteria should include criteria about number of defects and/or outages, not just timelines.
- There is *general inconsistency across similar deliverable descriptions and outputs*. For example, configuration analysis sessions and documentation were broken out for DBI (#3&4) and Planning (#5&6) but not "Enterprise" (#7). Similar inconsistencies arise in the interface deliverables (particularly see #14-18 vs #20-24).
- Deliverable review periods vary from 10 to 15 days depending on the deliverable without clear explanation.



01. Statement of Work (cont.)

Statement of Work (continued)

- Critical numerical assumptions or estimates do not included clear justification for how they were developed and seem low based on other project experience, including:
 - 5 test runs for data conversion (#11, 13)
 - 120 technical consulting hours (#20)
 - 50 scripts (#25)
 - 75 reports (#26)
 - 25 proximity alerts and 15 dynamic themes (#28)
 - Training sessions (#34, 35)
- Several significant *end user-related activities are not included in contractual deliverables*, including organizational change management, communications, field and help desk support. These are typically included to increase user adoption and ensure a quality implementation for end users.
 - While training deliverables are included, it is only listed as sessions, it does not include clarification on training materials, surveys or interviews included to assess quality of training.
- Testing and validation activities are light or not clear. The only clear test deliverable with scripts is the UAT deliverable (#36), which are the responsibility of CCSF. Testing methodology, execution and responsibilities by Accela/21Tech are not clear or well understood through the SOW.
 - Missing testing activities not only include functional testing (unit, product, etc.) but also non-functional testing (performance, loading, etc.)
- Severity defect definitions and SLA's are not included in SOW. The number of severity defects are often included as acceptance criteria for deliverables as well as included in SLA's, which define support expectations.
- SOW does not clearly specific resource plan for Accela/21Tech. While sample project roles are included in the SOW, project roles and resources for Accela/21Tech are not definitively defined or limited. However, this was a significant cause for change orders.
- The Event Management Scripting Assistance deliverable (#25) is not included in SOW payment schedule in Appendix B.
- 10% of fees upfront is a significant amount for the Initiation/Kickoff Meeting milestone when compared with other milestones and relevance to project.



02. Project Initiation

Project Initiation (#1)								
Status: Approved		ate: 0/25/11		CCSF App Pamela Lev	rovers: /in, Alicia John-Baptiste			
Content:	Depth:		Format:		Quality:			

- Project charter is typically a "living document" that is updated and approved based on significant changes on the project but despite changes, the CCSF Project Charter has not been updated since 2011.
- There is no clear Problem Statement that includes justification for why CCSF is doing this project.
- Project objectives section does not include any *customer-related objectives*.
- There is **no Project Benefits** section that provides an overview of expected benefits. These are different than the Project Objectives that detail scope and problems to be addressed.
- Risk section *format is not consistent* as beginning of section details risks in bullet format with risk probability and risk impact but the rest details risks in paragraph format without probability or impact.
- The risks and issues documented in the Project Charter were not found on the **SharePoint risk and issue logs** even though several of these significantly affected the project, including resource availability, sign off and system end-to-end testing.
- Although the Project Implementation Subcommittee is called out for *change request and deliverable review and approval*, sign-offs show that this was largely done by the Governing Committee.
- SharePoint is listed as the *document repository* to help with version control but has not been properly managed or maintained, creating confusion and challenges when trying to navigate to find important project documents and deliverables.
- List of deliverables in the Deliverables section does not match the deliverables listed in the SOW.
- Communication plan is not sufficient for a project of this size and complexity as it is really just a list of communication tools and methods.
- There are no details on **estimated project effort, duration or cost** which are typically included in a Project charter.
- Project status report has a lot of project information but it is difficult to get a sense of the *overall project health* as there is no high level or summary indicator to help demonstrate summary status.



03. Configuration

Configuratio	Configuration Analysis Sessions (#3, #5, #7), Documents (#4, #6) and Core System Configuration (#8, #9)						
Status: Approved			Date: 11/23/11, 3/30/12, 4/30/	/12, 8/10/12	CCSF Approvers: Pamela Levin, Thomas DiSanto, Vivian Day, Alicia John-Bapiste, Tom Hui		
Content:		Depth:		Format:	•	Quality:	

- There is no **overall process deliverable** that clearly defines or explains the future state or relates configuration documents to each other, which can have an impact on the completeness and quality of the overall solution.
- Although configuration documents have been approved, many still appear to have *open questions, internal instructions, tracked changes or omissions,* indicating that they are not complete.
- Although included as appendices, uses cases and data mapping sections are often blank.
- Configuration documents include sample process, process questions and workflow information but do not have a *clear explanation of the "to be" process* to help guide the documents.
- There's an "attendee" section but not a "reviewer" section to detail CCSF team reviews.
- General format of configuration deliverables is *geared for Accela configuration team*, which is likely to make it difficult for business to follow, review and provide comments from just the documentation.
- Scripts will likely have an impact on configuration and while a recommended script list is included, there is no final decision on these recommended scripts in the configuration deliverables as *script specifications are a separate document*.
- It is unclear as to whether these documents were *updated and maintained* throughout the configuration and testing processes. If not, the information included may not be accurate.
- The SOW called for 50 scripts which has led to **several change orders** as there are now well over 100 scripts in the event script tracker.
- Although configuration has been signed off, many of these scripts are still in development according to the event script tracker.



03. Interfaces

System Interfaces (#14-24): APO, Selectron IVR, Licensed Professional, Timekeeping, PaperVision, SharePoint, Link2Gov, Payment **Processor**

Status:

Approved (with the exception of #17)

Date:

12/28/12, 6/28/13, 9/1/14

CCSF Approvers:

Hemalatha Nekkanti. Thomas DiSanto

Wilson Lo. Planning PM

Content:

Depth:



Format:



Quality:



- The majority of interface specifications were not found on the Accela project SharePoint site even though they have all been approved with the exception of the Selectron IVR specification.
- Of those that were identified, it is not clear if they were the *final or approved versions* due to approval timelines and completeness. For example, APO interface specification was last edited on 4/30/12 and still has some missing information but approval came on 12/28/12.
- In some cases, only *meeting minutes* were identified for interfaces.
- Interface progress appears to have been tracked in status reports but without documentation, it's difficult to validate progress.
- Without clear specifications, it is unclear how interfaces were built, tested and validated by the project team even though all interface development, which includes demonstration and approval of completed interface based on specification documents were all signed off.
- Selectron interface has its own test plan with test cases but results for testing were not found.
- Interfaces appear to have been included in UAT as UAT interface issues are included in UAT issue log.



05. Testing

User Acceptance Testing (#36)								
Status:Date:CCSF Approvers:Partially Approved10/1/11Planning PM (for #1-3 only)								
Content:	Depth:		Format:		Quality:			

- Contract is light on quality assurance / testing deliverables other than the #36 User Acceptance Testing deliverable.
- There is *no overall test plan* deliverable that outlines the phases, responsibilities, timelines, expectations and definitions for testing. This would include detailed entry/exit criteria and agreed upon definitions for severity and priority.
- Gartner was not able to locate any *testing documents or deliverables* related to the majority of test phases, including unit, product, system, regression and performance testing.
- Traceability does not appear to exist from the available UAT test scripts to requirements, a "To Be" process or configuration documents. It is not clear how testing can be comprehensive or the impact of potential bugs or defects can be fully understood without traceability.
- **UAT Test Plan is incomplete** as it still has review comments in it, lacks dates and does not include names for critical CCSF roles in UAT but has been approved.
- **Business scenarios (or processes) workshops** are part of the UAT plan should have been created well in advance of UAT planning as part of analysis and configuration.
- Scope of *UAT training is limited* to only functional testing in Accela Automation but there is testing that would need to be done on Citizen Access, GIS, integrations and other modules.
- The master test cases link provided is not an active folder in SharePoint.
- Expected results in UAT test scripts are often at a high level such as "Information is displayed" which makes it difficult for a tester to determine proper results.
- It is not clear if the UAT test scripts were based on **baseline test scripts or use cases documented** in each configuration document deliverable as the SOW stated would be available.
- The scope, completeness and duration of each UAT test cycle cannot be determined from the UAT plan or the UAT issue tracking list.
- The UAT Issue Tracking on SharePoint and the Accela Project Open Critical and High Defects report show trends that include **open aging defects** that haven't been resolved and an **increase in the number of open defects**.
- User Acceptance Testing is a *project and payment milestone* but milestone acceptance form was not located.
- There are several **UAT** change orders related to additional resources and configuration changes.



06. Reporting

Report Speci	Report Specifications (#26), Report Development (#27)							
Status: Approved			Date: 12/28/12, 10/1/15		CCSF Approvers: Hemalatha Nekkanti, Thomas DiSanto Planning PM (for #1-3 only)			
Content:		Depth:		Format:	1	Quality:		

- Gartner was not able to locate a significant portion of *reporting documents or deliverables* related to the 75 reports required as part of Deliverables #26 & #27 as well as the additional 22 reports required as part of change order #14.
- While a report tracker does exist, there are over **200 report ID's for an approved 97 reports** (from SOW and change orders). Additionally, reporting project metrics on project dashboards indicate about 130 reports.
- Out of all the reports in the report tracker, 13 are in "Approved" status, indicating that report development has not been a priority or report tracker has not been actively used to track and validate progress.
- Reporting specification for many DBI reports exist on the Accela project SharePoint but status is unclear as to whether these have been approved or reviewed.
- Many of the available *report specifications are incomplete* and have outstanding questions or action items that are required in order to develop the report.
- Due to the above, a significant number of *reporting defects and bugs have been identified during UAT* as development may have begun prior to specifications being completed.
- Reporting progress reports reflect that *progress has stalled in reporting* as approved reports has not been increasing while "In Progress" and "Queued" have gone up.
- Including mock ups, *reporting specification format provides sufficient level of detail* for review, approval and development.
- Many of the available *report specifications are incomplete* and have outstanding questions or action items that are required in order to develop the report.



07. Training

Administrative & Technical Training (#34), Train-the-Trainer (#35), Daily User Training (#36)							
Status:Date:CCSF Approvers:Approved10/23/15Planning PM							
Content:	Depth:		Format:		Quality:		

- There is **no overall training plan** deliverable that outlines the methods (instructor-led, computer-based, etc.), responsibilities, timelines, and expectations for training.
- SOW outlines *specific sessions and numbers of sessions* that would likely be premature to determine without having completed some training planning and analysis for the project.
- Training deliverables in the SOW are *largely focused around instructor-led training* and do not include other options such as computer-based training or self-help guides that can be utilized on an ongoing basis.
- **Training material review and approval process** is not documented, increasing the risk that materials may not be tailored to suit CSSF needs. This risk is increased by the lack of organizational change management and communication activities included in the SOW.
- Gartner was only able to locate **2** *deliverables that tie to training*. One was a training agenda and the other was an Accela Automation End User Training manual template that had not been updated for the CCSF project.
- Although training deliverables have been approved, *CCSF* is in the midst of developing its own training plan and materials for its internal staff.



Deliverable Analysis Current State

- Below is the current state of deliverable acceptance based on a review of the Deliverable Acceptance Documents.
- In summary, 35 of 38 contractual deliverables were signed off between 10/25/2011 and 10/23/2015 through 13 Deliverable Acceptance Forms that were signed by both Accela-21 Tech and the City of San Francisco.

#	Name	Status	Date	Approvers
04	Burton Market	A	40/25/2044	Pamela Levin
01.	Project Initiation	Approved	10/25/2011	Alicia John-Baptiste
02.	Accela Automation Setup - Staging & Support	Approved	11/2/2011	Pamela Levin Alicia John-Baptiste
	7 3 3 11	11	, ,	Pamela Levin
03.	Configuration Analysis Sessions - DBI	Approved	3/30/2012	Thomas DiSanto
	·			Vivian Day
04.	Configuration Analysis Documents - DBI	Approved	4/30/2012	, Alicia John-Baptiste
				Pamela Levin
05.	Configuration Analysis Sessions - Planning	Approved	3/30/2012	Thomas DiSanto
				Vivian Day
06.	Configuration Analysis Documents - Planning	Approved	4/30/2012	Alicia John-Baptiste
				Pamela Levin
07.	Configuration Analysis Sessions - Enterprise	Approved	11/23/2011	Alicia John-Baptiste
				Tom Hui (Acting Director)
08.	Accela Automation Core System Configuration - DBI	Approved	8/10/2012	Alicia John-Baptiste
				Tom Hui (Acting Director)
09.	Accela Automation Core System Configuration - Planning	Approved	8/10/2012	Alicia John-Baptiste
				Hemalatha Nekkanti
10.	Historical Data Conversion Analysis - DBI	Approved	12/28/2012	Thomas DiSanto



Deliverable Analysis Current State (cont.)

#	Name	Status	Date	Approvers*
11.	Historical Data Conversion Development - DBI			
12.	Historical Data Conversion Analysis - Planning	Approved	12/28/2012	Hemalatha Nekkanti Thomas DiSanto
13.	Historical Data Conversion Development - Planning	Approved	10/23/2015	Planning PM
14.	Specifications Document for APO	Approved	12/28/2012	Hemalatha Nekkanti Thomas DiSanto
15.	Develop APO Interface	Approved	6/28/2013	Hemalatha Nekkanti Thomas DiSanto Hemalatha Nekkanti
16.	Specifications Document for Selectron IVR Interface	Approved	6/28/2013	Thomas DiSanto
17.	Develop Selectron IVR Interface			
18.	Specifications Document for Licensed Professional Interface	Approved	12/28/2012	Hemalatha Nekkanti Thomas DiSanto
19.	Develop Licensed Profession Interface	Approved	6/28/2013	Hemalatha Nekkanti Thomas DiSanto
20.	Develop Timekeeping Interface	Approved	9/1/2014	Wilson Lo Planning PM
21.	Interface - Document Management - PaperVision	Approved	9/1/2014	Wilson Lo Planning PM
22.	Interface - Document Management - Sharepoint	Approved	6/28/2013	Hemalatha Nekkanti Thomas DiSanto
23.	Interface - Link2Gov	Approved	9/1/2014	Wilson Lo Planning PM

^{*}In several instances, Gartner was not able to identify the approver. In those instances, Gartner lists the role of the approver (i.e., Planning PM).



Deliverable Analysis Current State (cont.)

#	Name	Status	Date	Approvers*
				Wilson Lo
24.	Interface - Payment Processor	Approved	9/1/2014	Planning PM
				Hemalatha Nekkanti
25.	Event Management Scripting Assistance	Approved	6/28/2013	Thomas DiSanto
				Hemalatha Nekkanti
26.	Report Specifications	Approved	12/28/2012	Thomas DiSanto
27.	Report Development	Approved	10/1/2015	Planning PM (for #1-3 only)
				Wilson Lo
28.	Accela GIS Configuration	Approved	9/1/2014	Planning PM
				Wilson Lo
29.	Accela Citizen Access Configuration	Approved	9/1/2014	Planning PM
				Hemalatha Nekkanti
30.	Accela Mobile Office Configuration	Approved	6/28/2013	Thomas DiSanto
				Hemalatha Nekkanti
31.	V360 User Experience	Approved	6/28/2013	Thomas DiSanto
32.	Accela Automation Setup - Production	Approved	10/23/2015	Planning PM
33.	Administrative and Technical Training	Approved	10/23/2015	Planning PM
34.	Train the Trainer	Approved	10/23/2015	Planning PM
35.	Daily User Training	Approved	10/23/2015	Planning PM
36.	User Acceptance Testing	Approved	10/1/2015	Planning PM (for #1-3 only)
37.	Production Support	Approved	10/12/2015	Planning PM
	Post Deployment Support & Transition to CRC			

*In several instances, Gartner was not able to identify the approver. In those instances, Gartner lists the role of the approver (i.e., Planning PM).



Findings

During the course of this analysis, the following issues were detected with the deliverable sign-off process and the overall quality of project deliverables.

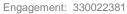
- A formal deliverable acceptance process that included the dedicated project team or subject matter experts to ensure quality did not exist. Sign-offs were submitted and signed by CCSF executives only.
- Use of multiple project document repositories presents many challenges in terms of access and traceability of key deliverables.
- CCSF executives did not consult with subject matter experts on sign-offs, risking comprehensiveness and quality of deliverables.
- There is not one consistent CCSF executive or sponsor that appears to ultimately be responsible for approval throughout the lifecycle of the project.
- There is no evidence of deliverable acceptance criteria that was used to set expectations upfront between CCSF and Accela-21 Tech or to help guide CCSF on sign-offs, other than the initial SOW descriptions.
- The Deliverable Acceptance Form includes little to no traceability between the contractual deliverable and the specific outputs (including written deliverables) and activities listed in the SOW.
- Collectively, the traceability between the deliverables and the original RFP requirements and scope, contract and SOW, and overall ability to support DBI business operations is extremely fragmented.
- Although DBI staff did sign off on many of the deliverables from a contractual perspective, the poor initial requirements and contract make it extremely difficult to understand if DBI business requirements have been met from a traceability perspective, but given the current state of the project it is clear there are functional gaps that need to be addressed, as illustrated throughout this report.



Change Order Overview

- Below is the overview of the change orders based on a review of the available change orders.
- In summary, 46 change orders were approved between 09/14/2012 and 03/19/2015 for a total of \$3,316,536.25.

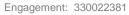
#	CO Type	Date	Requestor	Approver	Amendment	Amount
Con	tract	9/1/2011		Edward Sweeney		\$3,166,176
01. Soft	ware	9/14/12	Planning	Alicia John-Baptiste		\$19,032
02. <i>CO i</i>	not currently available					No Cost
03. Soft	ware: configuration	12/5/12	DBI	Hemalatha Nekkanti		\$14,976
04. <i>CO i</i>	not currently available					No Cost
05. Oth	er: deliverable schedule	12/10/12	Accela-21Tech	Hemalatha Nekkanti		No Cost
06. Soft	ware: reports	4/5/13	CCSF	Thomas DiSanto ??		\$173,160.75
6b. <i>CO r</i>	not currently available					
				Hemalatha Nekkanti		
07. Soft	ware: scripting	2/11/13	CCSF	Thomas DiSanto		\$51,792.50
08. Soft	ware: configuration changes	6/11/13	DBI	Hemalatha Nekkanti		\$120,120
09. Reso	ource: solution manager	7/1/13	Planning	Hemalatha Nekkanti Thomas DiSanto		\$101,400
10. Reso	ource: QA resource	6/11/13	DBI	Hemalatha Nekkanti		\$118,480
11. Reso	ource: SharePoint resource	8/27/13	Planning	Thomas DiSanto		\$99,280
12. Soft	ware: configuration	8/28/13	DBI	Hemalatha Nekkanti		\$31,635
13. Soft	ware: documentation	8/23/13	DBI	Hemalatha Nekkanti		\$111,925
14. Soft	ware: report development	8/23/13	DBI	Hemalatha Nekkanti		\$162,575
15. Soft	ware: scripting	8/23/13	Planning & DBI	Hemalatha Nekkanti		\$68,635
.6b. Oth	er: training activities	3/17/14	Planning & DBI	Hemalatha Nekkanti		Replaced by CO #2
17. Soft	ware: data conversion	8/23/13	DBI	Hemalatha Nekkanti		\$58,645





Change Order Overview (cont.)

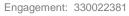
# CO Type	Date	Requestor	Approver	Amendment	Amount
18. Other: TimeControl datak	pase 8/2/13	Planning	Thomas DiSanto		\$1,500
19. Software: configuration	8/27/13	DBI	Thomas DiSanto		\$63,640
			Hemalatha Nekkanti		
20. Resource: solution manag	ger 1/8/14	Planning & DBI	Isabelle Vulis		\$75,675
			Hemalatha Nekkanti		
21. Resource: UAT resource	1/8/14	Planning & DBI	Isabelle Vulis		\$100,500
			Hemalatha Nekkanti		
22. Resource: UAT resource	1/10/14	Planning & DBI	Isabelle Vulis		\$52,800
			Hemalatha Nekkanti		
23. Resource: scripting resou	ırce 1/8/14	Planning & DBI	Isabelle Vulis		\$28,000
			Hemalatha Nekkanti		
24. Resource: PM resource	1/8/14	Planning & DBI	Isabelle Vulis		\$137,250
			Hemalatha Nekkanti		
25. Resource: extension	1/9/14	DBI	Isabelle Vulis		\$56,000
			Hemalatha Nekkanti		
26. Other: training	1/13/14	Planning & DBI	Isabelle Vulis		\$108,060
27. Resource: SharePoint res		Planning	Isabelle Vulis		\$34,650
28. Resource: PM resources	7/1/14	Planning & DBI	Hemalatha Nekkanti		\$340,400
29. Resource: SharePoint res	ource 2/24/14	Planning	Thomas DiSanto		\$73,510
			Hemalatha Nekkanti		
30. Other: UAT fix estimate	6/4/14	DBI	Isabelle Vulis		\$7,000
31. CO number skipped					
32. CO number skipped					
33. Software: data conversion	n 7/1/14	Planning & DBI	Hemalatha Nekkanti		\$30,065
34. CO number skipped					
35. Software: report develop	ment 7/2/14	Planning	Isabelle Vulis		\$28,000





Change Order Overview (cont.)

# CO Type	Date	Requestor	Approver	Amendment	Amount
			Thomas DiSanto		
36. Other: go live tasks	10/20/14	Planning & DBI	Isabelle Vulis		\$47,725
			Thomas DiSanto		
36b. Other: go live tasks	10/20/14	Planning & DBI	Isabelle Vulis		\$57,225
37. CO number skipped					
38. CO number skipped					
39. Resource: solution manager	5/14/14	Planning & DBI	Hemalatha Nekkanti		\$120,460
			Hemalatha Nekkanti		
40. Software: scripting	5/15/14	Planning & DBI	Isabelle Vulis		\$28,000
40. Resource: configuration, etc.	7/22/14	DBI	Hemalatha Nekkanti		\$64,600
40a. Resource: configuration, etc.	8/15/14	DBI	Ed Sweeney		\$36,600
41. Other: go live tasks	9/24/14	Planning & DBI	Thomas DiSanto		\$57,225
42. Other: go live tasks	10/24/14	Planning & DBI	Wilson Lo		\$263,200
42. CO not currently available					
43. Other: migration	10/20/14	Planning & DBI	Wilson Lo		\$127,750
44. Resource: solution manager	10/24/14	DBI	Wilson Lo		\$9,620
45. CO number skipped					
46. Other: data conversion	3/19/15	DBI	Wilson Lo		\$235,375
47. (NOT SIGNED)	-	-			
48. (NOT SIGNED)	-	-			
49. (NOT SIGNED)	-	-			
50. (NOT SIGNED)	-	-			
51. (NOT SIGNED)	-	-			





Deliverables Assessment

Change Order Findings

During the course of this analysis, the following trends were detected:

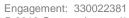
- The \$3,316,536.25 in change orders is more than the \$3,166,176 of the original contract and majority of change orders request additional resources or effort, which are signs that the project was under-scoped and under-resourced during its strategy and planning phases.
- There are several time periods (August, 2013; January, 2014; October, 2015) where several change orders are clustered together. Reason for this cannot be determined through this analysis.
- Early change orders had consistent approvers but later change orders indicate a mix of approvers, possibly indicating a change in leadership.
- There are several change orders that are no cost change orders but have not been able to be tracked down.
- There are existing discrepancies between Gartner's, CCSF's and 21 Tech's change order analyses. Currently, none of them add up to the total amount of the contract plus the 7 amendments.



Deliverables Assessment

Deliverables / Milestones and Invoice Analysis

#	Deliverables	Milestone	Amount	Invoice	Approver
01.	1	Initiation / Kickoff Meeting (10% upfront)	\$316,617.60	10/26/11	Pamela Levin Alicia John-Baptiste
02.	2	Staging & Support Environment Installed	\$141,249.60	10/26/11	Pamela Levin Alicia John-Baptiste
03.	3	First Analysis Session	\$250,000	3/30/12	Pamela Levin Thomas DiSanto
04.	3, 5	DBI and Planning Analysis Sessions Complete	\$350,000	3/30/12	Pamela Levin Thomas DiSanto
05.	4, 6, 7	Enterprise Analysis Sessions & All Analysis Documents Complete	\$300,000	4/30/12	Vivian Day Alicia John-Baptiste
06.	8, 9	Core Configuration Complete	\$300,000	8/10/12	Tom Hui Alicia John-Bapiste
07.	10, 12, 14, 16, 18	Delivery of Conversion & Interface Analysis Documents	\$250,000	12/28/12	Thomas DiSanto Hemalatha Nekkanti
08.	26	Delivery of 40 Report Specifications	\$200,000	12/28/12	Thomas DiSanto Hemalatha Nekkanti
09.	15, 19, 20, 21, 22, 23,	System for User Acceptance Testing	\$250,000	9/1/14 (for \$136,999.36)	Planning PM MIS Manager
05.	24, 28, 29, 30, 31	System for Oser Acceptance resting	7230,000	6/28/13 (for \$159,090.91)	Thomas DiSanto Hemalatha Nekkanti
10.	27, 36	User Acceptance Testing Complete	\$200,000	10/1/15	Planning PM
11. 3	11, 13, 17, 32, 33, 34, 3	5 System ready for production	\$250,000	10/23/15 (for \$75k)	Planning PM
12.	37	System live for 1 month	\$200,000	10/12/15 (for \$60k)	Planning PM
13.	38	Project Completion (5% retention)	\$158,308.80		
Original Approved Contract Total: \$3,166,176.00					





Invoice Deliverables Assessment Analysis

Deliverables / Milestones and Invoice Analysis

#	Deliverables	Milestone	Amount	Invoice	Approver
		Original Approved Contract Total:	\$3,166,176.00		
14.		Amendment #1	\$0		
15.		Amendment #2	\$260,000		
16.		Amendment #3	\$894,970		
17.		Amendment #4	\$560,000		
18.		Amendment #5	\$1,417,304.96		
19.		Amendment #6	\$0		
		Current Approved Contract Total:	\$6,298,444.96		
20		Amendment #7	\$1,875,846.04		(Note, not approved)
		Current Proposed Contract Total:	\$8,174,297.00		





1: Execute a comprehensive Fit/Gap activity to prioritize and mutually agree to specific functional requirements necessary for Go-Live

Key Finding 1:

Accela Product Capabilities have the potential to meet DBI Needs



Strategic Recommendation 1

Execute a comprehensive Fit/Gap activity to prioritize and mutually agree to specific functional requirements necessary for Go-Live

- ✓ Conduct onsite design meetings to vet solutions for critical requirements that have created contention within the project
 - In order for the Accela solution to ever be accepted by DBI users, Accela/21 Tech must actively engage DBI users and provide acceptable solutions for the key requirements that have led to disagreement, including:
 - Inspection scheduling
 - Tracking of historical fees/fee processing for other agencies
 - Special permits
 - Rapid application intake for permit counter
 - AGIS setup
 - Acceptable solutions should focus on meeting the business need, not recreating functionality from PTS or other legacy systems.
 - In the event that a requirement cannot be met, a workaround or operational solution should be pursued, only after all configuration options (even those undesired by the Vendor) have been considered and mutually ruled out.
 - It is critical that users be satisfied with the configured solution in order for to achieve the required level of acceptance necessary to Go-Live.



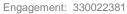
1: Execute a comprehensive Fit/Gap activity to prioritize and mutually agree to specific functional requirements necessary for Go-Live (cont,)

- ✓ Accela must assign a solution architect to develop configuration solutions for problematic and complex requirements
 - The absence of a solution architect for the duration of the project is one of the numerous causes of current project issues.
 - Accela must assign a dedicated solution architect with appropriate experience to assess the current configuration, work with DBI to address contentious requirements, and design an overall solution for the target configuration.
 - Accela/21 Tech staff that is familiar with the DBI configuration and the project must be appropriately retained to help determine potential configuration solutions, and provide the historical background for the previous design considerations made during the project.
 - Configuration decisions must be clearly documented and communicated to DBI resources that will support the system.
- ✓ For configuration areas that could benefit from optimization, vet options with DBI and include redesign efforts in Go-Forward Plan
 - Gartner observed some instances of configuration decisions that could benefit from optimization through the use of parallel tasks, drop-down boxes and other methods.
 - Of highest importance is intake and the design of the SPEAR form utilized by CPB staff. The sheer volume of customers coming to the front counter requires a streamlined intake process in order to keep operations running smoothly.
 - Accela/21 Tech must work with DBI staff and offer up options for improved performance. Further, DBI
 must acknowledge the difference sin screen navigation between Accela and PTS and seek to find
 mutually agreeable solutions.
 - Once appropriate and acceptable solutions are defined, this information can serve as input into the MOU, go-forward plan and other project documentation.



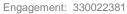
1: Execute a comprehensive Fit/Gap activity to prioritize and mutually agree to specific functional requirements necessary for Go-Live (cont,)

Category	Recommendations
Usability	 Evaluate and implement opportunities for improved user experience, such as: ✓ standardizing end user consoles based on user groups; ✓ streamlining DBI business processes and associated solution design; ✓ leveraging new capabilities/functionality within the Accela Civic Platform 8.0 release (e.g., "3 clicks or less", scalable web browsers, enhanced global searches, etc.) Develop standard operating procedure guides for DBI business processes that can be leveraged for training and ongoing use of the system.
Intake	 Assess Accela Civic Platform capability to customize the SPEAR form and streamline DBI business processes; re-design the solution to accommodate rapid intake of applications. E.g., consider only including the information DBI permit clerks need to fill out with customers at the counter in order to streamline intake process. Evaluate alternatives for record type selection upon creation.
Workflow / Plan Review	 Consider electronic plan review capabilities for the overall Accela Solution Design based on DBI's future state vision (e.g., 3 to 5 year plan). Consider methods to improve the end user experience when workflow processes are lengthy, especially in the case of more than 8 parallel workflow tasks (e.g., use of Task Specific Information (TSI) fields and EMSE, streamlining business processes and standardizing configuration across the Accela Solution Design, etc.). Troubleshoot missing ability to add ad-hoc tasks.
Fees	 Explore the full capabilities of the Fee Estimator Tool with the vendor to understand how the functionality can be maximized or if an alternate solution is required. Evaluate alternatives to inform customers the full fee total prior to payment. Review receipt reports and identify methods to include permit data on the receipts. Train end users on grandfathered fees standard operating procedures.
Issuance	 Resolve business process related issues (e.g., end user usability and EMSE scripts) to ensure end users can issue permits.



1: Execute a comprehensive Fit/Gap activity to prioritize and mutually agree to specific functional requirements necessary for Go-Live (cont,)

Category	Recommendations	
Inspections	 DBI and Accela/21 Tech need to revisit inspection processes together in order to ensure solution configuration design meets business needs. In order to absolve conflicting findings between DBI and Accela/21 Tech, the following steps are recommended: Develop use cases for each inspection process. Review and gain stakeholder approval and signoff. Develop detailed solution design specifications for each use case. Review and gain stakeholder approval and signoff. Evaluate opportunities to standardize configuration across disciplines to conduct inspection scheduling uniformly. Configure the solution design per each solution design specifications. Review and gain stakeholder approval and signoff. Submit a product issue ticket regarding the inability for users to add a comment when cancelling an inspection. Assess added-value features including data "store and forward" functionality in the field and the ability to capture signatures and picture in the field for the solution design. Ensure all EMSE scripts / automation are working correctly. Assess code enforcement and records management configuration to meet business needs. 	
Business Intelligence / Reporting	 Validate necessary reports have been developed and are working correctly. If there are any identified that do not meet DBI's need, determine the level of effort, complexity, and development responsibility for a future implementation plan. Troubleshoot report font changes when reports are deployed from the Accela hosted environment. 	
Integration	 Conduct detailed analysis regarding challenges with the following interfaces that were identified: ✓ AGIS – potential opportunities for improvement including XAPO design, Accela Civic Platform 8.0 AGIS enhancements ✓ Contractor License Validation – Potential opportunity for improvement ✓ iPayment adaptor – interface was developed by CCSF; end user challenges experienced when redirected outside of Accela Civic Platform 	



1: Execute a comprehensive Fit/Gap activity to prioritize and mutually agree to specific functional requirements necessary for Go-Live (cont.)

Category	Recommendations
Portal / Accela Citizen Access	 Evaluate opportunities for solution design improvement regarding how the system and users leverage and see address statuses, especially in ACA (e.g., analyze ACA Address Search Result List strings and evaluate other Accela address fields to repurpose other than Neighborhood Prefix.
Security / Architecture / Infrastructure	 Remain on Accela's hosted environment throughout the completion of the implementation project. After a 6-month production stability period post go-live, assess viable cloud solution alternatives for CCSF while considering cost, supportability, and cost.



2: Recognize and communicate the significant work done to-date across DBI, 21 Tech and Accela

Key Finding 2:

Significant project progress has been made to date



Strategic Recommendation 2

Recognize and communicate the significant work done to-date across DBI, 21 Tech and Accela.



3: Amended contracted between DBI and Accela / 21 Tech to add significantly more specificity, structure and accountability

Key Finding 3:

Poor Contract and Unrealistic Cost and Schedule



Strategic Recommendation 3

Amended contracted between DBI and Accela / 21 Tech to add significantly more specificity, structure and accountability

- ✓ DBI needs to develop and document a draft MOU between DBI and Accela/21 Tech to accomplish the required Go-Forward activities, associated deliverables and governance process
 - DBI should define the Project Success Factors for Go-Live, including:
 - Team Roles and Responsibilities
 - > DBI
 - Planning
 - CCSF
 - 21 Tech
 - Accela
 - Key staff identified (approval, dedicated time on the project, required expertise)
 - Key activities and Tasks (high-level) with notional timeframes
 - Deliverables
 - Governance process
 - Steering Committee
 - Quality Gates and Deliverables Expectation Document Process
 - Executive Level monthly "touch point" meeting
 - Project Management and Status Reporting Requirements



3: Amended contracted between DBI and Accela / 21 Tech to add significantly more specificity, structure and accountability (cont,)

- Conduct an onsite meeting to jointly review, update and finalize the Go-Forward MOU that will be used to develop the formal contract amendment. This is a Go – No Go Gate in the Go-Forward Process.
- Steering Committee approval required.
- ✓ DBI needs to amend the current contract it has with Accela/21 Tech to add more structure and accountability based on the agreed to completed MOU. Recommended items to be addressed include:
 - Deliverables Based Contract
 - Collaborative Development Approach (e.g., use of Sprints / Rapid Prototyping, etc.)
 - Quality Gate Process and Governance (see previous pages)
 - Requirement for Dedicated Onsite Key Personnel (see Staffing recommendations)
 - DBI Approval of Key Personnel
 - Deliverables Expectation Document Process
 - Issue Escalation and Mitigation Process
 - Organizational Management / Training
 - Sustaining Support SLAs Accountability and Reporting Process / Enforcement
 - Executive Oversight including Monthly DBI, Accela, 21 Tech Executive Conference Calls
 - Third Party Oversight and Support
 - Additional Sustaining Support Deliverables (see Sustaining Support) recommendation)
 - Fixed Go-Live Date with Penalties if not met
 - Steering Committee approval



4: Document the functional and technical requirements the system must meeting for UAT as well as for Go Live and include as part of the Go Forward Plan and the new contract

Key Finding 4:

Poor definition, elaboration and tracking of business requirements



Strategic Recommendation 4

Document the functional and technical requirements the system must meeting for UAT as well as for Go Live and include as part of the Go Forward Plan and the new contract

- ✓ Inventory and document core business functional and technical requirements and processes
 - Finalize the current DBI effort around the documentation of core business and technical requirements and process inventory activities and get formal business and technical signoff.
 - Perform a formal Functional and Technical Configuration Audit of the system to identify shortfalls in required:
 - Functionally
 - User Experience (navigation and user interfaces)
 - Reports
 - Interfaces
 - Performance
- Execute rigorous requirements tracking from system configuration through testing and User Acceptance validation
 - Based on the activities completed on the previous page, develop and document the full set of system requirements in a formal Requirements Tractability Matrix (RTM):
 - Functional Requirements
 - Technical Requirements



4: Document the functional and technical requirements the system must meeting for UAT as well as for Go Live and include as part of the Go Forward Plan and the new contract (cont.)

- Interface Requirements
- User Experience and Navigation Requirements
- Report Requirements (format, content, detail)
- Workflow Requirements (core business end to end processes that have to be supported)
- Required project deliverables
- Required additional sustaining support documentation
- End User Training Materials
- Required UAT support requirements
- Required go-live support requirements
- ✓ Assign leads from each DBI unit and pair with Accela/21 Tech resources to drive requirements to completion, with clear ownership and accountability
 - As requirements are updated and finalized and the configuration plan is complete, ensure that agreed to requirements are properly tracked.
 - Accela/21 Tech should provide clear points of contact for each DBI unit that will own that component of the configuration, under the management of the solution architect.
 - Collaboratively, requirements elaboration and configuration progress should be monitored and reported on a regular basis.
 - All leads will utilize the RTM as the basis for all design, configuration and testing activities.



5: Establish a single, integrated team that is accountable to a single project manager or executive

Key Finding 5:

Over time, the Accela/21 Tech joint venture became a project challenge



Strategic Recommendation 5

Establish a single, integrated team that is accountable to a single project manager or executive

- ✓ Assign an experienced project manager and dedicated key subject matter experts that can drive project delivery quality and schedule compliance
 - Roles, responsibilities/deliverables, level of commitment and on-site time for all members of the Accela and 21 Tech team need to be clearly defined and agreed.
 - Accela/21 Tech needs to assign a dedicated project manager to the project that has the depth and breath of experience to manage a project of this scope and magnitude. Key attributes include:
 - Strong project management skills
 - In-depth knowledge of software development methodologies, tools and best practices
 - Effective soliton management expertise
 - Ability to bring a team together and effectively focus them on a common goal
 - Team builder with excellent communication skills
 - Interface well with executive level (city) management
 - Ability to work effectively with DBI and Planning business and technical staff



6: Executive level definition of what constitutes success for the project that is communicated to the BIC and other City Control Agencies

Key Finding 6:

Unclear strategic objectives (transform DBI, replace PPTS, etc.)



Strategic Recommendation 6

Executive level definition of what constitutes success for the project that is communicated to the BIC and other City Control Agencies

- ✓ Determine what the overall objective of the project is.
 - As the project evolved and leadership changed, the project has taken on more of a technology focus, i.e., replacement of current legacy system functionality. Although there is some value in terms of long term system support considerations for that approach, it does not take full advantage of the capabilities present in the Accela solution and opportunities to adjust business processes for improved operational results. The Building Commission and DBI Executive Management need to determine what the overall objective of the project is, for the approach pursued must align closely with the overall goals and desired end state.



6: Executive level definition of what constitutes success for the project that is communicated to the BIC and other City Control Agencies

- ✓ Define what constitutes project success and how it will be assessed and measured.
 - The DBI project team needs to define what constitutes success for the project in terms of:
 - Requirements and Processes to be Delivered:
 - > Core business requirements that have to be met by the new system
 - Data clean up and conversion that has to be completed and validated before UAT can be scheduled
 - > Core end to end business processes that have to be successfully validated before UAT can be scheduled
 - Functionality, workflow, navigation and user interface that have to be successfully validated before UAT can be scheduled
 - Core Business and Systems Administration Reports and Interfaces that have to be validated before UAT can be scheduled
 - Technical requirements that have to be met by the new system including all interfaces, performance and security requirements
 - Level of process / system workarounds acceptable for Go-Live
 - UAT Acceptance Criteria and approval (signoff) process
 - Go-Live Criteria / Turnover to Production Criteria
- ✓ Document a framework outlining the key activities, actions and tasks that all parties agree will be the foundation for success.
 - Collaborative approach to facilitate buy in and the adoption of a common set of goals and objectives and agreement on what constitutes project success
 - Contract framework (amended statement of work with Vendor, internal resource/staffing assumptions).
 - Quality management framework (quality gates, entry/exit criteria and deliverables expectations).
 - Work breakdown structure (tasks, dates, responsible party).



6: Executive level definition of what constitutes success for the project that is communicated to the BIC and other City Control Agencies

- Clearly documented and agreed to requirements and deliverables:
 - Functional and technical system requirements
 - Deliverables depth, detail, content and format
- A process that builds trust and mutual respect between all parties.
- Clearly documented roles and responsibilities between the parties.
- A team structure organized for success:
 - Dedicated staff supporting key project roles (PM's, Architects, DBI/Accela SME's, Developers)
 - Consolidated, clear and unambiguous lines of authority for decision making (DBI, vendor)
 - Co-located team working onsite at DBI more often that not
 - Team staffed by consistent set of experienced and seasoned subject matter experts (DBI, Vendor)
- Strong effective governance and oversight to ensure all parties are meeting their obligations.
- A process that fosters open (ongoing) communication:
 - Project status and report
 - Oversight by multiple external parties
- ✓ Develop key metrics to set baseline for ongoing performance management.
 - In order to measure and promote the benefits of the new solution, DBI should develop a small set of key performance metrics.
 - Processing times for key activities should be developed in order to measure improvements borne through new solution.
 - Aim for metrics that align with what is most important to industry and total customer experience from the beginning of a project.



6: Executive level definition of what constitutes success for the project that is communicated to the BIC and other City Control Agencies

- Other jurisdictions have used a number of metrics for this purpose:
 - Overall lifecycle time (i.e., application to Certificate of Occupancy)
 - Key customer facing activities (i.e., CPB intake processing time)
- In addition to qualitative metrics, DBI can also identify and promote qualitative improvements achieved via the new solution, including:
 - Customer Satisfaction
 - Predictability of process
 - Accuracy
 - Accountability
 - Overall business intelligence



7: Staff dedicated key Accela and 21 Tech resources that are collocated at the client site

Key Finding 7: Both vendors are local companies yet the project is staffed by remote, less experienced implementation resources



<u>Strategic Recommendation 7</u>
Staff dedicated key Accela and 21 Tech resources that are collocated at the client site

- ✓ Accela/21 Tech need to provide key project resources that are collocated onsite at DBI for the duration of the project
 - Accela/21 Tech need to ensure their project team includes the following key resources are collocated at DBI for the duration of the project to enhance communication, issues resolution and improve team productivity.
 - Project Manager (Collocated onsite at DBI)
 - Solutions Architect (Collocated onsite at DBI)
 - Data Conversion Lead (Collocated onsite at DBI)
 - Organizational Change Management and Training Lead (Collocated onsite at DBI)
 - At a minimum the project manager and at least one top notch Accela technical person should be onsite
 most of the time. For consistency this should be the same set of resources, not a rotating set of
 resources



8: Vendor and DBI must employ SDLC best practices and processes in the development and delivery of the system.

Key Finding 8:

Inadequate implementation methodology



Strategic Recommendation 8

Vendor and DBI must employ SDLC best practices and processes in the development and delivery of the system.

- ✓ Adopt an iterative application development based on the Department of Technology's Rapid Prototyping Group that fosters end-user involvement
 - This includes establishing clear "gates" between requirement definition, requirements validation, development and testing (including unit, user acceptance and regression). DBI IT must establish release and change control over source code/configuration management in both development, test and production environments
 - The project should consider the use of rapid prototyping to engage users and address key project functionality areas one at a time. Once an area has been configured, tested and validated that it meets the documented requirements for that area then perform User Acceptance Testing and move to the next functionality area to be addressed. This approach will demonstrate to concerned end users that progress is being made and issues are being addressed.
 - DBI should leverage both the processes and resources of the Department of Technology's "Skunk Works" to perform the above activities.
 - A number of recent Accela implementations have benefitted from a more adaptive approach
- ✓ Ensure unit, integration and system (end-to-end) testing is completed prior to an UAT activity.
 - The project needs to employ a rigors system validation process one that includes:
 - The use of the system Requirements Tractability Matrix to ensure all requirements have been validated.



8: Vendor and DBI must employ SDLC best practices and processes in the development and delivery of the system.

- Use a Test Converge Matrix to ensure test cases and test scripts address all critical business and technical requirements are addressed
- DBI needs to assign a testing lead to oversee and manage vendor and DBI testing activities including the development and validation of test data, configuration and support of the UAT test environment and test remediation and reporting activities
- Enforce strict configuration control and management of the code base during testing.
 - No bug fixes on the fly without appropriate vetting and documentation
 - Track and report system testing activities and (detailed) results on a weekly basis as part of ongoing project management and status meetings
- Enforce rigorous regression testing following updates to the code set to ensure no other issues arise
- Complete performance and security testing prior and correct defects found prior to scheduling of UAT



9: Develop <u>Go Forward Plan</u> that identifies specific phases/gates and defined detailed entrance and exit criteria for each gate.

Key Finding 9:

DBI, Accela/21 Tech failed to respond and address multiple early warning signs in a timely manner



Strategic Recommendation 9

Develop <u>Go Forward Plan</u> that identifies specific phases/gates and defined detailed entrance and exit criteria for each gate.

✓ Implement a Go-Forward Plan to Restart the Project

- Appropriate internal and external oversight must be implement to ensure that phase containment is not breached again
- Develop a Plan that has three primary elements (see subsequent slides):
 - Viability Assessment
 - Agreement Details
 - Contracting and Mobilization



10: Develop Organizational Change Management Plan as Component of Go-Forward Plan

Key Finding 10:

Vendor approach and execution has led to low morale and project fatigue.



<u>Strategic Recommendation 10</u>
Develop Organizational Change Management Plan as Component of Go-Forward Plan

✓ Formalize DBI organizational change management function to achieve high end-user adoption

- A key element of the Go Forward Plan needs to be a well defined process which is specifically designed
 to rebuild the confidence and trust of the end users and DBI managers which was lost. The execution of
 the plan need to be monitored to ensure not only that progress is being made but that it is being made
 in a way in which each success is recognized by the users results in improved confidence
- Given the current issues and project fatigue felt by project participants, it is critical that DBI embrace the need for formal organizational change management activities.
- Many projects focus project execution and project communications often fail to address the human dynamic, such as:
 - How does this change my job?
 - What's in it for me?
 - What degree of control or influence will I have?
 - Will this make my life easier?
 - I'm anxious, frustrated, excited all of the above.
- DBI must immediately implement planned, measured, consistent and effective stakeholder engagement and project communications, for this is the ultimate facilitator and enabler for the adoption of and sustainment of change.



10: Develop Organizational Change Management Plan as Component of Go-Forward Plan

- ✓ Identify champions within DBI units to help orchestrate change internally
 - Identify individuals within each DBI unit to serve as change champions and help change the project negativity into positivity.
 - Champions may also serve as the leads recommended for requirements tracking and elaboration to have one point of contact that can represent each unit.
 - Ensure high overlap with training activities so that champions are as educated as possible on how business functions will be supported in the new solution.



11: Optimize configuration on Accela version 8.0 and monitor performance especially in the Dev/Test environment. Consider bringing solution on premise if performance degrades or business case supports.

Key Finding 11:

System performance issues have significantly impacted testing and user adoption.



Strategic Recommendation 11:

Optimize configuration on Accela version 8.0 and monitor performance especially in the Dev/Test environment. Consider bringing solution on premise if performance degrades or business case supports.

- ✓ Fully upgrade to Accela Version 8.0 and EMSE 3.0 prior to Go-Live
 - In order to meet the rapid intake requirements of the CPB, DBI should upgrade to Accela version 8.0, which will allow for improved screen navigation for intake.
 - While this will not completely solve the issues with intake re-configuration is needed the new UI allow for an easier and more efficient method for intake needs.
 - To help address the system support burden, DBI should also upgrade to take advantage of EMSE 3.0, which allows for easier tracking and maintenance of the 1100+ scripts developed to date.
- ✓ Stand up test and training environments that fully replicate production environment.
 - The current testing environment does not replicate the production environment, making it impossible to assess system performance.
 - Accela must work with DBI to set up a parallel environment in order to effectively test the system, irrespective of the decision as to whether the system remains on the Accela hosted site or is brought on-premise.
- ✓ If performance issues persist, migrate configuration from Accela hosted site to on-premise solution



12: Extend and Strengthen Project Management Support from DT in lieu of formal PMO at this stage in the project

Key Finding 12:

Vendor and DBI project management discipline and processes were lacking



Strategic Recommendation 12

Extend and Strengthen Project Management Support from DT in lieu of formal PMO at this stage in the project

- ✓ DBI and 21 Tech needs to execute a formal set of project management processes and procedures to assess progress and address issues proactively
 - Develop and Document a Formal Project Work Plan / WBS:
 - Schedule of tasks, activities, deliverables and key milestones
 - Fully Resource Loaded (DBI, Planning, DT, Accela, 21 Tech, etc.)
 - Include Management Contingency
 - Define and Document the Quality Management Processes to be used to guide and assess team Go-Forward Activities:
 - Quality Gate Process and Governance Framework
 - Deliverables Expectation Document Process and Governance Framework
 - DBI and 21 Tech need to hold joint weekly project management meetings to assess progress and address issues:
 - Schedule compliance and status (actions completed, in work, ahead/behind plan, recovery planning, etc.)
 - Resource status and planning (staff, facilities, equipment)
 - Quality Management (assessment of deliverables quality and mitigation planning)
 - 60 Day Look Ahead (advanced planning for key up coming events and activities)
 - Quality Gate Status / Readiness
 - Schedule monthly executive-level conference calls (CCSF, DBI, Planning, Accela and 21 Tech) to address issues impacting team activities.



13: A strong executive steering committee which includes DBI, Planning and DT executives and Accela need to be established

Key Finding 13:

Inadequate DBI governance and accountability



Strategic Recommendation 13

Establish a strong executive steering committee (e.g., DBI, Planning and DT executives and Accela) and appoint an accountable Executive Sponsor to provide day to day business leadership to the project

√ Implement a formal senior level project Steering Committee

- The project needs to put in place a strong and effective governance structure that provides timely resolution of issues and can "break the tie" when impacted parties are at an impasse. Key members need to include:
 - DBI Director
 - DBI Exec Sponsor
 - No more than 3 DBI Deputy Directors
 - Planning Director
 - City CIO
 - Mayor's Office Representative and/or City Administrator
- The work of this body should be supplemented by external, independent monthly or bi-monthly oversight reviews.
- Issues need to be quickly escalated to this body for timely resolution, especially when impacted parties (vendor, DBI) are at an impasse.



13: A strong executive steering committee which includes DBI, Planning and DT executives and Accela need to be established (cont.)

✓ Establish a Quality Gate Process to drive delivery quality and schedule compliance

- The project needs to establish, document and enforce (through a strong governance process) specific entrance and exit criteria all parties (CCSF, Accela, 21 Tech) have to meet in order to move to the next phase of the project and demonstrate that all required deliverables have met the required quality and detail expected, and that each team is ready to move to the next phase of the project in terms having the required staffing and support assigned. Recommended Quality Gates include:
 - System Requirements (Functional and Technical) Validation and Approval
 - System Configuration Validation and Approval
 - Systems Interfaces Validation and Approval
 - System Reports Validation and Approval
 - System End-User Training Validation and Approval
 - System Readiness for UAT Validation and Approval
 - UAT Completion Validation and Approval
 - System Readiness for Go-Live Validation and Approval
 - System Post Implementation Assessment Complete Validation and Approval
- ✓ DBI and 21 Tech need to establish formal project reviews meeting to be held on a weekly basis to assess progress and address issues
 - DBI and 21 Tech need establish formal project reviews meeting to be held on a weekly basis to assess progress and address issues:
 - Schedule compliance and status (actions completed, in work, ahead/behind plan, recovery planning, etc.)
 - Resource status and planning (staff, facilities, equipment)



13: A strong executive steering committee which includes DBI, Planning and DT executives and Accela need to be established (cont,)

- Quality Management (assessment of deliverables quality and mitigation planning)
- Risk and Issues (actions in work, points of contact, items closed, new items)
- 60 Day Look Ahead (advanced planning for key up coming events and activities)
- Quality Gate Status / Readiness
- ✓ Retain the services of a independent third party reporting to the Steering Committee to assess all team member activities (CCSF, DBI, Planning, 21 Tech and Accela) on an on going basis
 - Retain the services of a independent third party reporting to the Steering Committee to assess all team member activities (CCSF, DBI, Planning, 21 Tech and Accela) on an on-going basis:
 - Support MOU and contract development activities
 - Perform project readiness assessment
 - Perform quarterly oversight assessments
 - Review and assess key project deliverables and work products
 - Provide key subject matter expertise (process and technology)



14: Assign least one half-time to full-time resource DBI resource from each functional area to the project and appropriately backfill for their day job

Key Finding 14:

Initial lack of full time business and/or technical subject matter experts across DBI and Accela/21



Strategic Recommendation 14

Assign least one half-time to full-time resource DBI resource from each functional area to the project and appropriately backfill for their day job

- ✓ DBI needs to provide subject matter experts dedicated to the project for the following areas
 - These individuals must be legitimate SME's with both the knowledge of the business and the ability to speak definitively for the needs of their area – including making decisions when required. DBI IT needs to do the same thing
 - DBI needs to provide subject matter experts dedicated to the project for the following areas:
 - Business area Product Owners with the knowledge of their core business functions, workflows, data and reporting requirements. (70% time commitment)
 - Permit Services Lead with Solution Approval Authority
 - Permit Processing (SME)
 - Plan Review (SME)
 - Permit Submittal and Issuance (SME)
 - Inspection Services Lead with Solution Approval Authority
 - Building Inspection (SME)
 - Electrical Inspection (SME)
 - Plumbing Inspection (SME)
 - Code Compliance (SME)
 - Housing Inspection (SME)

- Records Management Lead with Solution Approval Authority
 - Organizational Change and End-user Training (70% time commitment) Lead with Solution Approval Authority
- MIS area Leads with Solution Approval Authority
 - Data Cleanup and Conversion
 - Reports
 - UAT Planning, Management and Execution
 - Infrastructure (interfaces) and Hosting
 - Sustaining Support



14: Assign least one half-time to full-time resource DBI resource from each functional area to the project and appropriately backfill for their day job (cont,)

- ✓ DBI needs to approve of Key Accela 21 subject matter experts dedicated to the project
 - DBI needs to have review and approval authority for all key Accela/21 Tech Lead staff assigned to the project, including:
 - Project Manager
 - Solutions Architect
 - Data Conversion Lead
 - Organizational Change Management and Training Lead
- ✓ DBI needs to identify and provision an area where the Accela/21 Tech and DBI core teams will be collocated in DBI to enhance communication and overall project management
 - DBI needs to provision a common working area where core team member (Accela, 21 Tech, DBI and Planning will collaborative in order to enhance project communications and overall productivity. The area should include space for the following:
 - Conference / Demonstration Room
 - System Testing and Training Area
 - Workstations for:
 - Accela Project Manager
 - Accela Solutions Architect
 - Accela Data Conversion Lead
 - Accela Organizational Change Management and Training Lead
 - DBI Project Manager
 - DBI Technical Lead
 - DBI Data Conversion Lead
 - DBI Organizational Change Management Lead
 - Working area for SME's (DBI, Planning and Accela/21 Tech)



15: Both DBI and the vendor need to provide a dedicated full time Project Manager to the project

Key Finding 15:

Project leadership and staff turnover has negatively impacted the project



Strategic Recommendation 15

Both DBI and the vendor need to provide a dedicated full time Project Manager to the project

- ✓ The Department of Technology needs to assign a dedicated project manager to the project that has the
 depth and breath of experience to manage a project with the scope and magnitude of the Accela Land
 Management Project
 - The Department of Technology needs to assign a dedicated project manager to the project that has the depth and breath of experience to manage a project with the scope and magnitude of the Accela Land Management Project. Key attributes include:
 - Strong project management skills
 - In-depth knowledge of software development methodologies, tools and best practices
 - Effective vendor management expertise
 - Ability to bring a team together and effectively focus them on a common goal
 - Team builder with excellent communication skills
 - Interface well with executive level (city and vendor) management
 - Ability to work effectively with DBI and Planning business and technical staff
 - In addition both DBI IT and the Vendor need to commit to a core set of consistent resources who will be assigned to the project until it is complete



15: Both DBI and the vendor need to provide a dedicated full time Project Manager to the project

- ✓ DBI needs to have review and approval authority for all key Accela/21 Tech staff assigned to the project
 - DBI needs to have review and approval authority for all key Accela/21 Tech Lead staff assigned to the project:
 - Project Manager (Collocated onsite at DBI)
 - Solutions Architect (Collocated onsite at DBI)
 - Data Conversion Lead (Collocated onsite at DBI)
 - Organizational Change Management and Training Lead (Collocated onsite at DBI)



16: Vendor and DBI need to document the functional and technical requirements the system has to meet for go-live and user acceptance

Key Finding 16:

No documented or agreed to Project Success Factors



Strategic Recommendation 16

Vendor and DBI need to document the functional and technical requirements the system has to meet for go-live and user acceptance

- ✓ DBI needs to develop entrance and exit requirements for key phases of the project to drive deliverable quality and accountability
 - The project needs to establish, document and enforce (through a strong governance process) specific mutually
 agreed go-live criteria (system features, training/documentation, data conversion quality, system stability, support
 readiness, acceptance/performance testing, end-to-end testing, etc.) that must be met for Go Live
 - The project needs to establish, document and enforce (through a strong governance process) specific entrance and exit criteria all parties (CCSF, Accela, 21 Tech) have to meet in order to move to the next phase of the project and demonstrate that all required deliverables have met the required quality and detail expected, and that each team is ready to move to the next phase of the project in terms having the required staffing and support assigned. Recommended Quality Gates include:
 - System Requirements (Functional and Technical) Validation and Approval
 - System Configuration Validation and Approval
 - Systems Interfaces Validation and Approval
 - System Reports Validation and Approval
 - System End-User Training Validation and Approval
 - System Readiness for UAT Validation and Approval
 - UAT Completion Validation and Approval
 - System Readiness for Go-Live Validation and Approval
 - System Post Implementation Assessment Complete Validation and Approval



17: Have Accela and DBI IT assess the skill gaps to determine what level of training or knowledge transfer is required for DBI IT to support the solution

Key Finding 17:

DBI Unprepared to Support System.



Strategic Recommendation 17

Have Accela and DBI IT assess the skill gaps to determine what level of training or knowledge transfer is required for DBI IT to support the solution

- ✓ Develop and document a list of additional project deliverables and training DBI and Planning will need for system sustaining support
 - DBI and Planning need to document the additional required sustaining support deliverables and training they (or a third party) will need to support the system, including:
 - Detailed and comprehensive operations, administration and support manual (i.e., a system "run book")
 - Detailed and comprehensive system script and report configuration library and usage document to support DBI technical staff in the support and maintenance of the new system
 - Detailed system interface documentation
 - Data dictionary
 - System overview and architecture documentation (major modules, interfaces data stores, etc.)
 - DBI and Accela agree to a plan for closing these gaps during the remainder of the project and, if required, an interim contract to provide any required post Go-Live support and knowledge transfer that is required.



Detailed Recommendations

17: Have Accela and DBI IT assess the skill gaps to determine what level of training or knowledge transfer is required for DBI IT to support the solution (cont,)

- ✓ Implement a system sustain support model for the new system
 - DBI and Planning need to develop a joint systems support structure for the new application:
 - Staffing / Skill Sets and Requirements
 - Business
 - ➤ IT
 - ➤ DT
 - Approach/Plan to implement Master Scripting
 - Oversight and Management of Vendor Sustaining Support
 - Service Level Agreements / Review and Assessment Process
 - Trouble Ticket Resolution
 - Performance
 - Security
 - System Configuration Management
 - System Patch Management / Version Release Review
 - System Testing and Validation Process
 - System Data Management and Support
 - System Update and Enhancement (block release) Process
 - System Disaster Recover and Business Continuity Process Management and Testing



Detailed Recommendations

18: Address unresolved programmatic and contracting issues in the Go-Forward Planning effort. Effort should not go forward until this has been resolved

Key Finding 18:

Significant unpaid or non invoiced vendor services



Strategic Recommendation 18

Address unresolved programmatic and contracting issues in the Go-Forward Planning effort. Effort should not go forward until this has been resolved

- ✓ Define the approach to address and resolve open programmatic and contract issues and include in the Go-Forward Plan as a key requirement
 - Key items that need to be addressed in the Go-Forward planning and development activities include:
 - How CCSF and Accela/21 Tech will address and resolved payment for work performed by Accela/21 Tech under Amendment 7
 - While Amendment 7 was signed by Accela/21Tech, it was never approved by CCSF due to information provided by Accela/21Tech during the approval process highlighting that the proposed Amendment 7 funding would be insufficient to deliver the project. As a result, DBI paused the project.
 - However, Accela/21Tech performed work on the DBI system under Amendment 7 and are seeking payment for some of their activities.
 - What compensation will or will not be provided to Accela/21 Tech in terms of activities they may be required to be performed by them in support of Go-Forward Planning activities:
 - Go-Forward planning support (staffing and resources)
 - Requirements bassline development and validation
 - Quality gate development and definition
 - Co-location of key staff onsite at DBI during the Go-Forward planning and execution process



Draft Framework



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Overview

- Based on our assessment findings, the Project's Go-Forward Framework will need to incorporate a number of key attributes to ensure project success, namely:
 - Defines a collaborative approach that facilitates buy in and the adoption of a common set of project goals and objectives
 - ❖ Agreement on what constitutes project success (Scope for Go-Live, Subsequent Release, etc.)
 - Clearly document agreed to system requirements and deliverables expectations
 - Functional system requirements
 - Technical system requirements
 - Deliverables depth, detail, content and format
 - Is based on processes that build trust and mutual respect between all parties
 - Clearly documents team members roles and responsibilities
 - Requires a team structure organized for success
 - Dedicated staff supporting key project roles
 - Co-located core team members onsite at DBI
 - Staffed by experienced and seasoned subject matter experts
 - Strong effective governance and oversight to ensure all parties are meeting their obligations.
 - ❖ A process that fosters open (ongoing) communication
 - Project Status and Reporting



9 Step Plan

- Gartner has outlined the following 9 steps that compose our suggested Go-Forward framework:
 - Collaborative approach to facilitate buy-in and the adoption of a common set of goals and objectives
 - Step 1 Define what constitutes project success and how it will be assessed and measured
 - Step 2 Document a framework outlining the key activities, actions and tasks that all parties agree will be the foundation for success:
 - Contract framework (amended statement of work, updated deliverables, staffing)
 - Quality management framework (quality gates and deliverables expectation document processes)
 - Strong effective governance and oversight to ensure all parties are meeting their obligations.
 - Step 3 Establish the project steering committee (staff, role and responsivity, process) and engage third party oversight reporting to the steering committee to assess progress and the activities of all parties and receive approval to actions recommended from Step 2
 - · Clearly documented and agreed on requirements and deliverables
 - Step 4 Come to a baseline agreement regarding work that was in-flight at the time the stop work order was issued
 - Step 5 Document all requirements and deliverables that must be competed for Go-Live approval and receive approval to move forward from the Steering Committee
 - A process that builds trust and mutual respect between all parties
 - Step 6 As a team review and agree on the framework for the path forward (signed MOU)
 - Go No-Go Decision Point and required Steering Committee approval
 - Clearly documented roles and responsibilities
 - Step 7 Finalize and approve contract documentation (based on the MOU) and receive approval from the Steering Committee
 - A team structure organized for success
 - Step 8 Assign the required dedicated staff (all parties) and collocate team in a common work area
 - ❖ A process that fosters open (ongoing) communication
 - Step 9 Institutionalize scheduled project status review meetings and establish monthly executive level conference call (CCSF, DBI, Planning, Accela and 21 Tech) to address issues impacting team activities



Step 1 - Define what constitutes project success and how it will be assessed and measured

- To accomplish Step 1 there are a variety of activities that need to be accomplished including:
 - o The application needs to be completed and system availability and performance issues mitigated:
 - ✓ Complete report development, interfaces and data conversion activities
 - ✓ Address and correct system performance and availably (uptime) issues
- Finalize the current DBI effort around the documentation of core business and technical requirements and process inventory activities and get formal business and technical signoff.
- Perform a formal Functional and Technical Configuration Audit of the system to identify shortfalls in required:
 - √ Functionally
 - ✓ User Experience (navigation and user interfaces)
 - ✓ Reports
 - ✓ Interfaces
 - ✓ Performance



Step 2 - Document a framework outlining the key activities, actions and tasks that all parties agree will be the foundation for success

- Based on the completion of Step 1 activities document the system gaps and the required level of effort to address the shortfalls.
 - Required activities
 - Team member roles and responsibilities
 - ✓ Accela
 - ✓ 21 Tech
 - ✓ DBI and Planning
 - Resource requirements
 - ✓ Required subject matter experts from Accela (solution architect, data conversion and technical SMEs)
 - ✓ Required staffing from 21 Tech
 - Budget impacts
 - Target Go-Live Date
- Define and Document the Quality Management Processes to be used to guide and assess team Go-Forward Activities.
 - Quality Gate Process and Governance Framework
 - Deliverables Expectation Document Process and Governance Framework



Step 3 - Establish the project steering committee (staff, role and responsivity, process)

- The Project needs to put in place a strong and effective governance structure that provides timely resolution of issues and can "break the tie" when impacted parties are at an impasse. Key members need to include:
 - DBI Director
 - DBI Executive Sponsor
 - DBI Deputy Directors
 - CCF CIO and Head of the Department of Technology
 - Build Commission Representative
 - City Administrator
 - City Controller
 - Accela/21 Tech Executive Sponsor
- Steering Committee approval of Step 2 outcomes
- Retain the services of a independent third party reporting to the Steering Committee to assess all team member activities (CCSF, DBI, Planning, 21 Tech and Accela) on an on going basis:
 - Support MOU and contract development activities
 - Perform project readiness assessment
 - Perform quarterly oversight assessments
 - Review and assess key project deliverables and work products
 - Provide key subject matter expertise (process and technology)



Step 4 - Document all requirements and deliverables that must be competed for Go-Live approval

- Based on the activities completed in Step 2 the team will document the system:
 - Functional Requirements
 - Technical Requirements
 - Interface Requirements
 - User Experience and Navigation Requirements
 - o Report Requirements (format, content, detail)
 - Workflow Requirements (core business end to end processes that have to be supported)
 - Required project deliverables
 - Required additional sustaining support documentation
 - End User Training Materials
 - Required UAT support requirements
 - Required go-live support requirements
- Steering Committee approval required



Step 5 - As a team review and agree on the framework for the path forward (signed MOU)

- DBI develop and document a draft MOU between DBI and Accela/21 Tech to accomplish the required Go-Forward activities, associated deliverables and governance process.
 - o Project Success Factors for Go-Live
 - Team Roles and Responsibilities
 - ✓ DBI
 - ✓ Planning
 - ✓ CCSF
 - ✓ 21 Tech
 - ✓ Accela
 - Key staff identified (approval, dedicated time on the project, required expertise)
 - Key activities and Tasks (high-level) with notional timeframes
 - Deliverables
 - Governance process
 - ✓ Steering Committee
 - ✓ Quality Gates and Deliverables Expectation Document Process
 - ✓ Executive Level monthly "touch point" meeting
 - ✓ Project Management and Status Reporting Requirements
- Conduct an onsite meeting to jointly review, update and finalize the Go-Forward MOU that will be used to develop the formal contract amendment. This is a Go – No Go Gate in the Go-Forward Process
- Steering Committee approval required



Go Forward Plan

Step 6 - Finalize and approve contract documentation (based on the MOU

- DBI needs to amend the current contract it has with Accela/21 Tech to add more structure and accountablity based on the agreed to MOU completed in Step 4. Recommended items to be addressed include:
 - Deliverables Based Contract
 - Collaborative Development Approach (e.g., use of Sprints / Rapid Prototyping, etc.)
 - Quality Gate Process and Governance (see previous pages)
 - Requirement for Dedicated Onsite Key Personnel (see Staffing recommendations)
 - DBI Approval of Key Personnel
 - Deliverables Expectation Document Process
 - Issue Escalation and Mitigation Process
 - Organizational Management / Training
 - Sustaining Support SLAs Accountablity and Reporting Process / Enforcement
 - Executive Oversight including Monthly DBI, Accela, 21 Tech Executive Conference Calls
 - Third Party Oversight and Support
 - Additional Sustaining Support Deliverables (see Sustaining Support) recommendation)
 - Fixed Go-Live Date with Penalties if not met
- Steering Committee approval required



Go Forward Plan

Step 7 - Assign the required dedicated staff (all parties) and collocate in a common area

- Establish and staff a PMO function with DBI and within 21 Tech
- DBI needs to provide subject matter experts dedicated to the project for the following areas:
 - Business area Product Owners with the knowledge of their core business functions, workflows, data and reporting requirements. (70% time commitment)
 - ✓ Permit Services Lead with Solution Approval Authority
 - Permit Processing (SME)
 - Plan Review (SME)
 - Permit Submittal and Issuance (SME)
 - ✓ Inspection Services Lead with Solution Approval Authority
 - Building Inspection (SME)
 - Electrical Inspection (SME)
 - Plumbing Inspection (SME)
 - Code Compliance (SME)
 - Housing Inspection (SME)
 - ✓ Records Management Lead with Solution Approval Authority
 - ✓ Organizational Change and End-user Training (70% time commitment) Lead with Solution Approval Authority
 - MIS area Leads with Solution Approval Authority
 - ✓ Data Cleanup and Conversion
 - ✓ Reports
 - ✓ UAT Planning, Management and Execution
 - ✓ Infrastructure (interfaces) and Hosting
 - ✓ Sustaining Support
- Accela/21 Tech need to staff a project manager (100%), solution architect (70%), data conversion lead (70%)



Go Forward Plan

Step 8 - Institutionalize scheduled project status review meetings and establish monthly executive level conference call (CCSF, DBI, Planning, Accela and 21 Tech to address issues impacting team activities.)

- DBI and 21 Tech need to establish formal project reviews meeting to be held on a weekly basis to assess progress and address issues:
 - Schedule compliance and status (actions completed, in work, ahead/behind plan, recovery planning, etc.)
 - Resource status and planning (staff, facilities, equipment)
 - Quality Management (assessment of deliverables quality and mitigation planning)
 - Risk and Issues (actions in work, points of contact, items closed, new items)
 - 60 Day Look Ahead (advanced planning for key up coming events and activities)
 - Quality Gate Status / Readiness
- Schedule monthly executive level conference call (CCSF, DBI, Planning, Accela and 21 Tech) to address issues impacting team activities.)



Risk Category Definitions



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Risk Category	Definition
Strategy – Program / Project Governance Strategy	The ability of the organization to place importance through demonstrated leadership commitment and governance accountability for scope, benefits, resource, schedule, communications, and risk/issues management.
Strategy – Business Case	The extent to which costs and benefits have been articulated, linked with the proposed solution and process scope, and vetted with key business and IT stakeholders to ensure input and ownership.
Strategy – Risk Mitigation Strategy	The extent to which experienced personnel and proven methodologies have been applied to identify risks, contingencies, and level of effort required to successfully mitigate the issues that may impede the success of the program.
Strategy – Executive Support	The extent to which business and IT executive leadership is engaged in the program as evidenced by their understanding of the program scope, business case, and challenges. Also examines the perspectives of the project leadership team regarding how well they feel executive management is involved and understands the critical role they should play to ensure program success.
Strategy – Scope Definition	The ability of program leadership to fully define and provide the rationale for business process scope, stakeholder scope, division/operating company scope, application (legacy and new) scope, and deliverable scope along with assumptions. Also includes a clearly defined change request process.
Strategy - Sourcing Strategy	The ability of the organization and program to demonstrate a well-planned sourcing approach with respect to both product/solution procurement as well as implementation and possible post-implementation services procurement. The sourcing strategy should complement the organization's own internal capabilities.
Strategy – Organization / Project Management Capabilities	The project management and oversight capabilities of the organization and the overall approach to using those capabilities to support the implementation of the new solution.
Strategy – Technology Infrastructure & Processes Strategy	The capability of the organization's data center and distributed computing infrastructure to support the new solution, the overall approach the organization is taking to modify the infrastructure, and the processes in place or being implemented to support the new solution.



Risk Category	Definition
Planning – Program / Project Governance Plan	The extent to which program management processes (e.g., schedule mgmt, issues, mgmt, resource mgmt, etc.) are defined and governance mechanisms and structures are documented and in place across the enterprise and project teams. Also assesses the experience of the program leadership personnel.
Planning – Risk Management Planning	The extent to which program leadership has planned for processes and multiple perspectives to address ongoing overall risk as well as domain-specific risks and issues in a timely and effective manner. Contingency planning effectiveness is also examined.
Planning – Schedule Planning	The extent to which program leadership has estimated, scheduled, communicated, and managed the critical path activities, key milestones, and the enablement of high quality deliverables.
Planning – Budget Planning	Examines the level of risk related to the approved budget, it's feasibility, and the planned processes to enable program leadership to track, monitor, and control the budget.
Planning – Scope Refinement	The ability of program leadership to review the rationale for business process scope, stakeholder scope, division/operating company scope, application (legacy and new) scope, and deliverable scope along with assumptions and to determine/address gray areas in which clarity is lacking.
Planning – Resource Planning	The ability of the organization to plan for and create a dedicated internal and external team, of the required size and skills, backfilled appropriately, to enable focused attention to the program effort.
Planning – Communication Planning	The extent to which program leadership has established focused accountability for the communications effort and that the accountable team has established a network of resources and a plan to engage those resources to build and execute an effective communications program.
Planning – Organizational Change Management Planning	The extent to which program leadership has established focused accountability for the change management effort and that the accountable team has established a network of resources and a plan to engage those resources to build and execute an effective change program.



Risk Category	Definition
Planning – Vendor Planning Support	The ability of the organization to establish an effective plan for all program-related third party (i.e., hardware, software, services) relationships to get the optimal input/outputs from each vendor for the organization's investment. The ability to establish a "win-win" relationship is also assessed as well as the key 3 rd parties' effectiveness in assisting with planning activities.
Planning – Security Planning	The extent to which program leadership has established focused accountability for security and compliance controls design, build, and test activities and that the implementation methodologies explicitly support integrated, role-based security design.
Planning – Development Planning	The extent to which program leadership has articulated a development strategy that prioritizes and defines development activities and methodologies/tools from design through deployment. Also assesses the ability to adhere to guiding principles and approaches such a: "minimize customizations"; "iterative build cycles"; "off-shore vs. on-shore development"; etc.
Planning – Overall Test Planning	The extent to which program leadership has developed a test strategy that defines the types of tests, tools/methods to leverage, the accountability for tests, and considers the schedule and participation needed to ensure high quality test results when executed.
Planning – Data Conversion Planning	The extent to which program leadership has developed a data conversion strategy and plan that defines the types of conversions, the conversion options, tools/methods to leverage, the accountability for conversions, the data cleanup approach, and considers the schedule and participation needed to ensure high quality data conversion results when executed. Also examines the explicit communication of legacy systems being retired.
Planning – Training Strategy & Planning	The extent to which program leadership has developed a training strategy that defines the types of training, tools/methods to leverage, the accountability for training, and considers the schedule and participation needed to ensure the end-users are self-sufficient in the operation and the maintenance of the software after go-live.



Risk Category	Definition
Planning – Deployment Planning	The extent to which program leadership has articulated a set of deployment options, an examination of the trade-offs of each option, and a rational recommendation for the desired option along with a risk and contingency plan for the chosen option. This also examines how well the team has articulated what kind of deployment team will be utilized before, during, and immediately after deployment. People, process, and technology deployment activities and risk should be considered.
Planning – Integration/ Interface Planning	The extent to which program leadership has developed an integration/interface plan that will define the schedule and strategy for inter-process communications and subsystem (i.e., 3 rd party or legacy bolt-on, shadow system interaction, etc.). The plan should also consider the participation needed to build/test the interfaces as per proven best practices as well as the ability to create a stable integration environment.
Planning – Reporting / BI Planning	The extent to which program leadership has developed a reporting and business intelligence plan that defines both the specific reporting / BI requirements and the underlying infrastructure and architecture needed to deliver those capabilities. The plan should also consider the participation needed to build / test both the reports and the infrastructure as per proven best practices, consider external data requirements, and address ongoing and evolving reporting / BI requirements.
Planning – Portal Planning	The extent to which program leadership has developed a portal plan that will define and address the needs of all stakeholders. The plan should also consider the participation needed to build / test the portal as per proven best practices and consider the initial requirements, the portal infrastructure and architecture, and the portal's extensibility as it matures.
Planning – Benefit Realization Planning	The extent to which program leadership has developed a benefits realization plan that defines the benefits (e.g., hard or soft), the metrics, the accountability for measuring benefits, and considers the schedule and participation needed to ensure that both hard and soft benefits are realized.
Planning – Technology Infrastructure & Processes Planning	The plans to update the organizations data center and distributed infrastructure to support the new solution.



Risk Category	Definition
Execution – Program / Project Governance Execution	The extent to which program leadership executes key governance processes (e.g., scope, schedule, resource, budget, resource, requirements, etc.). Examines the effectiveness of input rights and decision rights with regards to each of these processes.
Execution – Risk Management	Examines how well risk is being managed on an ongoing basis at the program level and at the individual team level. Looks at processes and multiple perspectives to address ongoing overall risk as well as the ability for domain-specific risk and issues management in a timely and effective manner. Also examines how well internal and external risk management and contingency planning roles are being leveraged.
Execution – Schedule Management	Examines how well individual and team time is being proactively estimated, scheduled, maintained, communicated, and managed to hit critical path milestones with high quality deliverables. Looks at specific cases for how schedule change requests are managed.
Execution – Budget Management	Examines how well the budget is being managed on an ongoing basis at the program level and at the individual team level. Looks at specific cases, if applicable, for how budget change requests or contingency budget usage requests are managed.
Execution – Scope Management	Examines how well the business process scope, stakeholder scope, division/operation scope, application (legacy and new) scope, and deliverable scope is being managed on an ongoing basis at the program level and at the individual team level. Looks at effectiveness of any scope refinement activities from both a functional and a technical perspective to control complexity without sacrificing benefits.
Execution – Resource Management	Assesses program leadership's ability to achieve optimal capacity from constrained internal and external resources through proactive resource loading visibility, effective internal/external team collaboration, resource changes (when required), training, and knowledge transfer.
Execution – Communication Management	The extent to which program leadership and the accountable team is executing an effective communications program. Examines upward, downward, and cross-team communications as well as communications to extended team and other external parties required for success.



Risk Category	Definition
Execution – Organizational Change Management Execution	The extent to which program leadership is working with the focused Change Management team to communicate and prepare the organization for specific change impact items that are crucial to achieving optimal solution usage and business case realization.
Execution – Vendor Implementation Support	The extent to which program leadership has aligned itself with highly capable and knowledgeable vendor support personnel during all implementation phases. This also includes examining the vendor support processes and service level agreements in place.
Execution – Requirements Management	Examines the ability to document and trace requirements through Design, Build/Test, Deploy, and Post-Implementation phases and to link requirements to scope and business case management activities. Also assesses how well shadow system requirements are considered in the overall implementation activities.
Execution – Security Execution	The extent to which program leadership is executing the security and compliance controls design, build, and test activities and ensuring that the implementation methodologies explicitly support integrated, role-based security design.
Execution - Development Execution	Examines the ability to prioritize, assess, justify, approve, and execute customization and development activities from design through deployment. Also examines the effectiveness of managing resources and dates with respect to critical path development activities, such as functional spec development.
Execution - Overall Test Management	Examines the team's ability to manage the overall test process, specifically looking at the movement of modules from development to each successive type of testing, the leveraging of appropriate resources across test activities and the sharing of testing tools and scripts.
Execution – Unit Testing	Examines the team's ability to assign accountability and separation of duty for creating/documenting unit test cases, executing unit tests, providing corrective action, and preparing development objects for the next testing phase.



Risk Category	Definition
Execution – Functional / Integration Testing	Examines the team's ability to assign accountability and clear integration points to fully create/document end-to-end process integration tests, execute integration tests, provide corrective action, and prepare development objects for the next testing phase. The ability to involve subject matter experts, as applicable, is also examined.
Execution – Performance Testing	Examines the project team's ability to assign accountability for creating/documenting performance and volume tests, executing the tests, providing corrective action, and preparing technology action plans to collaborate with vendors to immediately address performance issues.
Execution – User Acceptance Testing	Examines the project team's ability to involve a broader community of users to fully execute end-to- end process integration tests, provide corrective action, and prepare development objects for the final production staging phase. The ability to obtain user signoff and document unresolved issues and post-production support handling is also examined.
Execution – Data Conversion Execution	The extent to which accountable, business-led teams execute the Data Conversion Strategy & Plan. This includes the ability to cleanse the legacy data and successfully test (unit test and full mock migration) and prepare for final data conversion at cutover. Roll-back plans are also assessed. Data archiving execution is also examined. Also examines the ability to fully realize the planned retired legacy systems once conversion is completed.
Execution – Training Development and Delivery	Examines the team's ability to develop and deliver effective training to end-users prior to go-live. Also examines the ability to provide ongoing and stable training environments that allow easy access for refresher and self-service training.
Execution – Deployment Execution	The extent to which program leadership prepares the deployment locations for subsequent rollouts as per the Deployment Plan. Examines how well the program has staffed for an effective deployment team that considers the challenge of multiple (and possibly concurrent) deployments. The ability to obtain location readiness signoff and document unresolved issues and post-production support handling is also examined. This also includes clear definition of and acceptance of business data stewardship and data governance responsibilities.



Risk Category	Definition
Execution – Integration / Interface Implementation	Examines the team's ability to develop and utilize a true end-to-end integration environment that is stable and provides true interoperability to all 3 rd party and legacy systems and data. Also examines the supportability of the developed interfaces with respect to SOA and efficient maintenance capabilities (i.e., avoidance of point-to-point to realize configurable interfaces that can effectively scale and take advantage of external services).
Execution – Legacy Decommission Execution	Examines the team's ability to identify key legacy applications that will be decommissioned as a result of the implementation, while communicating the timing, impact, procedures, and risks associated with the decommission activities. Key considerations include: transition and cutover activities, data retention plans and activities, length of time available after cutover, support required, connectivity required, transitional modifications required, and batch ob/process dependencies.
Execution – Reporting / BI Implementation	Examines the development, testing, and deployment of reports, dashboards and analytic capabilities on an appropriate reporting infrastructure and architecture. Ensures that inherent risks of timeliness, accuracy, ease of use, and integration are being addressed. Also examines the organization's core capabilities to support a stable environment at a reasonable cost with capable people.
Execution – Portal Implementation	Examines the development, testing, and deployment of the portal(s) for each stakeholder group. The initial functionality is considered, along with the portal infrastructure and architecture, and the ability to extend functionality as the portal matures. Ensures that inherent risks of ease of use and integration are being addressed. Also examines the organization's core capabilities to support a stable environment at a reasonable cost with capable people.
Execution – Benefits Delivery and Tracking	Examines the program's ability, throughout the implementation life-cycle, to maintain the business case benefits so that they are still synchronized with scope, schedule, and/or solution changes as well as changes to the timing of expected benefits realization.
Execution – Operational Transition Planning	The extent to which program leadership has developed a transition plan that defines the operational structure, processes, and staffing required to provide operations support as per proposed service levels. As a priority, examines governance planning, IT operations planning, and business support planning



Risk Category	Definition
Manage - Governance Transition	Examines the program's ability to proactively refine, communicate, and establish post-production governance structures and processes for effective and efficient decision input and decision-making across the enterprise.
Manage – Operational Budget Transition	Examines the program's ability to proactively determine the projected budget for the fully operational support organization.
Manage – IT Operations Support Transition	Examines the program's ability to proactively define the specific IT support organization structure, processes, and staffing required to efficiently and effectively provide IT operations support as per proposed service levels.
Manage – Business Operations Support Transition	Examines the program's ability to proactively define the specific business support organization structure, processes, and staffing required to efficiently and effectively provide business operations support as per proposed service levels.
Manage – Vendor Maintenance Support Transition	Examines the program's ability to proactively define the specific vendor (hardware, software, and services) support processes to efficiently and effectively provide required vendor support as per proposed service levels.
Manage – Ongoing Business Value Management	Examines the program's ability to proactively define the specific means and accountability to measure and document benefits and compare them to the business case. The processes defined must also consider creating a continuous improvement action plan to further optimize business value after implementation.

