

SAAQ – L2 Timeline Extension GAPS Reconciliation Effort v6.8 01/24/2020

Work in Process

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Overview of Scope / Change Request GAPS

GAP # Subject	\$299M Bridge Items (Alliance Only) Hours	Additional Items (Alliance Only) Hours	\$299M Bridge Items (SAAQ Only) Hours	Additional Items (SAAQ Only) Hours	Gap Type
#1 Data Conversion and Security Offshore Mix		139,103		-	Rate Adj.
#2 SAAQ Positions occupied by Alliance Staff or vice versa	14,549		(14,549)		Scope
#3 Complexity of Business Rules	***		***		Timeline
#4 Realization Complexity	**		**		Timeline
#5 Effect of Scope Increase on the L2 Timeline	159,193	35,984	81,616	17,568	Timeline
#6 Conversion Strategy, Quantity, Quality	34,461		20,753		Timeline/Scope
#7 Accident Reporting Process	34,297		13,966		Timeline/Scope
#8 DEMU	*		*		Scope
#9 Upgrade to SAP [REDACTED]	44,228		10,852		Scope
#10 ACT		35,588		15,121	Scope
#11 Rarity of Resources		729,518		-	Rate Adj.
#12 September 2021 Go-Live Recommendation	76,714		44,624		Timeline
#13 Mini SAP Support	30		30		Scope
#14 Day in a Life	*	*	*	*	Scope
Subtotals	370,186	862,620	370,186	862,620	
Total		1,232,806		1,232,806	

*These items have not yet been estimated

** Realization Complexity covers what is left to the 299

*** Complexity of Business Rules was calculated only on Dollars.

Key Estimation Assumptions

- The following assumption were used to build the ETC model in August and September 2019
 - A Dec 31st 2021 L2 Go-Live
 - 1347 WRICEF Objects at that Go-Live, which represents the whole scope
 - 615 WRICEF fully completed by the end of 2019
- An assessment is underway on WRICEFs completed for 2019
 - Fully completed may be closer to 116
 - If WRICEFs completed as less than 615, a revised PCR may be required

Gap Summary

Work in Process		
GAP # Subject		Gap Type
#1	Data Conversion and Security Offshore Mix	Rate adj
#2	SAAQ Positions occupied by Alliance Staff or vice versa	Scope
#3	Complexity of Business Rules	Timeline
#4	Realization Complexity	Timeline
#5	Effect of Scope Increase on the L2 Timeline	Timeline
#6	Conversion Strategy, Quantity, Quality	Timeline/ Scope
#7	Accident Reporting Process	Timeline/ Scope
#8	DEMU	Scope
#9	Upgrade to SAP [REDACTED]	Scope
#10	ACT	Scope
#11	Rarity of Resources	Rate adj
#12	Dec vs Sep go-live / Extra Testing & Risk Mitigation	Timeline
#13	Mini SAP Support	Scope
#14	Day in a Life	Scope

Gaps with Timeline Effects

GAP #	Description	Timeline Impact (mths)
#5	Effect of WRICEF scope increase on L2 Timeline	10.00
#3	Business Rules	8.50
#6	Conversion Strategy and Active/ Passive Data (45 WRICEFs)	1.10
#7	Accident Report (34 WRICEFs)	0.85
#12	Go-Live Date/ Risk Mitigation	3.00
#4	Realization Complexity	TBD/ 0.55
	Total impact in months	24.00

- Timeline impact on gaps in black is agreed between IBM and SAAQ. Gap's in red is still being discussed and has not yet been agreed.
- The full Gap list with timeline impacts represent the current IBM TT assessment with an understanding, that some adjustments will likely have to happen.

#1: Data Conversion and Security Offshore Mix

- Data Conversion and Security were both primarily offshore teams in the SOW.
- After the beginning of L1, SAAQ decided that, due to changing requirement for Data Privacy, it wanted both teams to be onsite.
- For L1, SAAQ issued a DAP to IBM to cover the difference in costs between offshore and onsite resources.
- The intent of this gap is to address this exact same issue for L2.

#1: Estimation Approach

- Use the current staffing model plus the historical actuals of the Data Conversion and Security teams to calculate the effect of the change in rates.
 - $((\text{Historical Actual}) + (\text{Planned Staffing to Complete})) * \Delta\text{Rate}$.

	Past	Future	Total
Conversion	25,768	52,220	77,988
Security	11,875	46,240	58,115
Total	37,643	98,460	136,103



Rate Comparison of Proposal Staffing

	Hours	Contract		Proposed		Net Effect
		Avg Rate	Cost	Avg Rate	Cost	
Offshore	23,192.00	83.29	1,931,720.00	40.85	947,492.00	(984,228.00)
Onsite	7,425.00	83.49	619,905.00	198.56	1,474,275.00	854,370.00
Team Lead	2,925.72	277.47	811,812.48	277.47	811,812.48	-
Total	33,542.72	100.27	3,363,437.48	96.40	3,233,579.48	(129,858.00)

The above is the comparison of the effect of the contracted rate table and the proposed rate table on the Value of the Data Conversion team. The Cost stays approximately the same in both models. There is further detail in the attached file.



#2. SAAQ Positions occupied by Alliance Staff or vice versa

- Currently nine (9) Alliance employees hold SAAQ positions
- An additional employee left the project in early Feb 2019
- 2 SAAQ employees occupy positions of the Alliance.

#2. Estimation Methodology

- For all SAAQ positions currently being filled by the Alliance, or vice versa, we must consider two things.
 - The cost to the partner filling the role.
 - The cost to the project.
- Estimation Approach:
 - Cost to Partner: $(\text{Partner's Rate/Hour}) * (\text{Hours/Person})$
 - Cost to Project: $(\text{Hours/Person}) * \Delta(\text{Rate/Hour})$.
 - Hours/Person comes from Tiger Team Staffing Model for the Future, and Historical Actuals for the Past.

#2. Effort Calculation

Lot 8 - Hours							
SAAQ / Alliance	Nom ressource	Profil	1er avril 2017 au 31 mars 2018	1er avril 2018 au 19 février 2019	20 février au 31 mars 2019	1er avril au 30 novembre 2019	Total théorique
			Heures	Heures	Heures	Heures	Heures
SAAQ	Bourassa, Michel	Conseiller en gestion des risques	33.00	15.50	-	-	48.50
Alliance	Côté, Michel	Spécialiste techno	-	337.00	-	-	337.00
Alliance	Gauthier, Claude	Analyste affaire et TI	120.00	211.25	-	-	331.25
Alliance	Kuziomko, Ann-Marie	Conseillère en communication	51.25	435.00	-	-	486.25
Alliance	Tahhan, Guillaume	Analyste gestion du changement	136.00	625.00	-	-	761.00
Total			340.25	1,623.75	-	-	1,964.00

Lot 10 until Dec 31 2019						
SAAQ / Alliance	Nom ressource	1 Jan - 31 Mar 2019	1 Apr - 15 July 2019	16 July - 23 Nov 2019	24 Nov - 31 Dec 2019	Total
		Hours	Hours	Hours	Hours	Hours
SAAQ	Bourassa, Michel	139.00	104.50	152.50	39.39	435.39
SAAQ Subtotal		139.00	104.50	152.50	39.39	435.39
Alliance	Côté, Michel	197.75	-	-	-	197.75
Alliance	Demers, Laurent	-	487.50	322.50	-	810.00
Alliance	Gauthier, Claude	500.00	513.50	25.00	-	1,038.50
Alliance	Gauthier, Claude	-	-	649.00	200.00	849.00
Alliance	Kuziomko, Ann-Marie	-	498.00	640.00	200.00	1,338.00
Alliance	Ouellet, François	467.50	501.00	586.25	200.00	1,754.75
Alliance Subtotal		1,165.25	2,000.00	2,222.75	600.00	5,988.00
Grand Total		1,304.25	2,104.50	2,375.25		6,423.39

L2 - After Dec 31 2019			
SAAQ / Alliance	Nom ressource	Jan 1 - Mar 31 2020	Apr 1 2020 - EoP
		Hours	Hours
SAAQ	Bourassa, Michel	90.61	
SAAQ Subtotal		90.61	
Alliance	Côté, Michel	-	-
Alliance	Demers, Laurent	-	-
Alliance	Gauthier, Claude	-	-
Alliance	Gauthier, Claude	460.00	
Alliance	Kuziomko, Ann-Marie	460.00	3,200.00
Alliance	Ouellet, François	460.00	2,640.00
Alliance Subtotal		1,380.00	5,840.00
Grand Total			7,310.61

		Net Hours
Lot 8	Alliance	1,867.00
	SAAQ	(1,867.00)
	Project	-
Lot 10 ITD	Alliance	5,552.61
	SAAQ	(5,552.61)
	Project	-
Lot 10 ETC	Alliance	7,129.39
	SAAQ	(7,129.39)
	Project	-
Total	Alliance	14,549.00
	SAAQ	(14,549.00)
	Project	-



Sheets

#3. Complexity of Business Rules

- This topic deals with the delay and complexity in the drafting of business rules and functional specifications
- SAAQ conducted a business rules assessment of their Legacy systems from Feb. 2018 until Nov. 2018.
 - At the time, this assessment provided the best possible understanding of business rules requirements within the Legacy systems. The assessment did not group the related requirements together into coherent and valid packages that could be used to create functional specifications.
 - Even after this assessment, it has been found that many business rules requirements in the Legacy systems were outdated and/or incomplete, which has lead to significant rework in some cases.

#3. Typical method for Requirements/ Business rules

Various Methodologies:

- Waterfall: All detailed requirements must be known prior to starting functional specs. Functional specs must be complete prior to starting Application Development. Not used at SAAQ.
- Pure Agile: Detailed requirements are ideally known prior to WRICEF design and build, but design and build may be done staggered parallel. This methodology can be used when the requirements are not clear.
- Hybrid (SAP [REDACTED]) All detailed requirements are known prior to Functional Spec design. As opposed to pure waterfall methodology introduces sprints and self guided teams. A key assumption here is that requirements are well known prior to functional specification start. A maximum of 2 iterations to complete the Functional Spec is assumed and also a rework factor of maximum 10%.

CASA approach:

- The CASA SOW include the use of the SAP [REDACTED] Hybrid Methodology
- After 8 to 9 months of L2 Explore and Realize Build without producing any WRICEF objects, the CASA team realized, that due to a significant lack of Business Rules requirements and other Realization Complexities, it was NOT possible to produce WRICEF objects at target velocity levels.
- Normally IBM would own the Functional Spec writing with some business input from the client, with the expectation that business requirements are known at time of functional specification. Due to outdated and incomplete business rules the CASA team decided to give Functional Spec responsibility to SAAQ business users. This change of responsibility required additional Functional Specification coaching from IBM to the SAAQ functional spec owners.

#3 - Timeline Effect from Complexity of Business Rules

Project Period Calendar Quarter		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		Q4	Q4	Q1	Q1	Q1	Q2	Q2	Q2	Q3	Q3	Q3	Q4	Q4	Q4	Q1	Q1	Q1	Q2	Q2
RB/ RT		1-Nov-17	1-Dec-17	1-Jan-18	1-Feb-18	1-Mar-18	1-Apr-18	1-May-18	1-Jun-18	1-Jul-18	1-Aug-18	1-Sep-18	1-Oct-18	1-Nov-18	1-Dec-18	1-Jan-19	1-Feb-19	1-Mar-19	1-Apr-19	1-May-19
Project Prep																				
Explore		EX	EX	EX	EX	EX	EX													
Realize and Test							RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RT
Deploy																				
Hypercare/Sustain																				
980			20	40	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	20
Project Prep																				
Explore		EX	EX	EX	EX	EX	EX	EX	EX	EX	EX									
Realize Build											RB	RB	RB	RB	RB	RB	RB	RB	RB	RB
Realize Test																				
Day In A Life (DIAL)																				
Deploy																				
Hypercare/Sustain																				
1344															7	23	34	52	53	53

- ITD Calc for 8.5mths + the % on Teams going forward. Some of this delay is attributed to gap #4
- Because we did not generate any wricef from April 2018 to Dec 2018. We should have generated 720 WRICEF, and only generated 7 WRICEF – we now have to redo these months.
- Going forward, Project continues to fall short of current WRICEF plan due to Complexity of Business Rules

#3. Estimation Approach

- 8.5 months of delay in beginning development + ongoing effect of complexities of gathering and verifying the business rules.
 - The delay is the Past actual expenditure for those 8.5 months, which aligns with the business conducting an outside assessment of their legacy system to extract the rules embedded in it.
 - The ongoing effect is estimated using the difference between the planned (SOW) WRICEF throughput velocity and the current throughput assumptions. The ongoing effect also is assumed to mainly affect the Functional and Application Development Teams.
 - Some of the delay is attributed to the Gap #3 Business Rules and some is related to the Gap #4 Realization Complexities.

#4. Realization Complexity

- Many L2 Program and Project Management Deliverables were not completed and approved as required by both parties. Decisions were also not made according to agreed process.

#4. Estimation Approach

- This will initially include the difference between all other gaps and the total gap of 135m CAD.

#5. Effect of Scope Increase on the L2 Timeline

- The L2 project scope has increased from 980 WRICEF objects to a contracted scope of 1378 WRICEF objects.
- WRICEF development is on the critical path for L2.
- This scope increase impacts the effort and duration in two ways:
 - 1) The direct effort required to build and test the additional identified WRICEF objects was included in three PCRs signed in Sep 2019: Written Communications (246 objects), PES (63 objects), and CST (89 objects). For that reason the direct WRICEF effort increase is NOT estimated and NOT covered here in this GAP.
 - 2) The indirect effects on the L2 Timeline however is estimated and covered here. The scope of the indirect effect includes Fixed and Skilled resources (see next slide), that are required during the L2 Timeline extension, but who are not directly part of the WRICEF development. Examples of these type of resources include PMO, Functional and Technical Leads, and Functional, Technical, and OCM skilled resources with unique skills needed during all phases of the project including the extension. These are roles that the project simply need.
- Both SAAQ and IBM agreed back in September 2019 to defer the estimation and contracting of the Indirect effect of the WRICEF scope increase until the final timeline increase PCR, which is included here as GAP #5.
- In September 2019, IBM and SAAQ also agreed to adjust the CST timeline to match the final agreed to Timeline.

#5. Realization in the Explore Phase

- The 'Shift Left' principle of introducing some realization into the explore phase of the a project is built around different principles than the realization that occurs in the realize phase of the project.
 - The explore phase realization focuses on the team defining the basic objects required in the realize phase including Conversions and Interfaces to external partners (give examples)
 - The Explore Phase realization is not considered in the IBM metrics of 1 month of test for every 2 months of build.
 - This is because these basic objects require less incremental integrated testing if they are tackled before beginning to build on them.
 - When realization integrates these basic objects with other dependent objects, more integrated testing is required.

#5. Estimation Approach

- The team has identified three categories of resources:
 - Fixed – This is the project overhead, like the project managers or team leads. These people cannot be rolled off when the project is extended.
 - Skilled – This is a fundamental of standard IBM SAP delivery models – for each functional area the project needs at least one person who understands that area in order to Go-Live. These people cannot be rolled off when the project is extended, and must be fulltime.
 - Variable – This category includes anyone else on the project. The effort of these resources is stretched as timeline increases.
- The indirect timeline extension impact for:
 - The Realize Build Phase is calculated as $\Delta \text{WRICEF} (\text{Total WRICEF \#} - \text{SOW WRICEF \#}) / \text{Expected Monthly velocity (60)} = (1378 - 980) / 60 = 6.63 \text{ mths}$
 - The Realize Test Phase is calculated as a 50% addition in month of the extension = $6.65 \text{ mths} * 50\% = 3.32 \text{ mths}$
 - Total Timeline effect is thus a $\sim 10 \text{ mths}$ extension

#5 Fixed and Skillset Effort Calculation

	Fixed	Skillset	Total	Additional Hours by Team for Skilled Resource		
	Hours	Hours	Hours	Team	Hours	
Alliance	59,706.67	99,486.36	159,193.02	Alliance	Functional	69,834.88
SAAQ	45,926.30	35,690.03	81,616.32		Technical	26,718.14
					OCM & Training	2,933.33
Total	105,632.96	135,176.38	240,809.35	Alliance Subtotal	99,486.36	
				SAAQ	Functional	19,263.36
					Technical	13,546.67
					PMO & IAQ	2,880.00
				SAAQ Subtotal	35,690.03	
				Grand Total	135,176.38	



Fixed Increase
Model



Skillset Increase
Model

#5. CST – Effort effect on CST Timeline extension

- A CST PCR was signed in Sep 2019.
 - Included in this PCR was an estimated 89 WRICEF objects, and a target go-live date of Dec 31, 2020, which ended up NOT aligning with the later L2 timeline.
 - What is missing from the Sep 2019 PCR, is a 12 month extension of CST from a Dec 31, 2020 to a Dec 31, 2021 go-live in order to align with the current L2 re-plan timeline.
- Both SAAQ and IBM agreed back in Sep 2019 to defer the estimation and contracting of the CST timeline increase effect until the final timeline increase PCR
- This effort and cost estimate is being included as part as GAP #5.

#5. CST - Estimation Approach

- The team has identified three categories of resources:
 - Fixed, skilled and variable. The same definition applies for CST as for the rest of L2 as described in the previous “#5 Estimation Approach” slide.
- The delta effort impact takes the following into account:
 - 12 month extension of Fixed and Skilled resources
 - A stretch of variable resources to cover an additional 12 months with the same amount of hrs
 - Exceptional adjustments of the staffing plan based on input from the team

#5 CST - Fixed and Skillset Effort Calculation

		SAAQ Hours	Fixed Hours	Skillset Hours	Total Hours
Alliance	Functional			13,040.00	13,040.00
	Technology			12,048.00	12,048.00
	PMO		7,056.00	3,840.00	10,896.00
Alliance Total			7,056.00	28,928.00	35,984.00
SAAQ	Functional	12,480.00			12,480.00
	Technology	3,840.00			3,840.00
	PMO	1,248.00			1,248.00
SAAQ Total		17,568.00			17,568.00
Grand Total		17,568.00	7,056.00	28,928.00	53,552.00



CST Staffing



#5. Alliance Totals

	Fixed	Skillset	Total
	Hours	Hours	Hours
Mainline	59,707	99,486	159,193
CST	7,056	28,928	35,984
Total	66,763	128,414	195,177

#5. SAAQ Totals

	Fixed	Skillset	Total
	Hours	Hours	Hours
Mainline	45,926	35,690	81,616
CST			17,568
Total	45,926	35,690	99,184

#6. Conversion Strategy, Quantity, Quality

- As of October 2019, the new adjusted conversion strategy for delivery 2 meets the revised requirements.
 - Data Strategy - An approach was proposed in the RFP response, from which a initial data migration strategy was developed. Since then, there have been multiple significant changes to this strategy due to:
 - Changes to Data Volumes; from 500m to 1.3b to 350m 'Active' and 950m 'Passive' Data objects.
 - Changing assumptions around Data Quality
 - Increased Risk Aversion leading to a total of 23 data loads, of which 8 are full Data loads
 - Data Quality - Before the start of the project, SAAQ intended to complete data cleansing work to try to reduce the potential risks. This work was presented as a risk mitigation move during the Competitive Dialogue. However, this cleansing work has lead to additional data issues, because it allows some data to be loaded into the system that fails during Functional Tests. Many of these issues have to be resolved on a case by case basis, and the changing Data Models can add significant rework to the Data Conversion Team, and cause further delay to the project.
 - Data Quantity - Several strategies have been introduced to try to contain / reduce the volume of data to be converted. Along the way, the volume of data to be converted to greatly increased from 500 million to 1.3 billion. This negatively impacted the down-time pre-Go-Live and increased the storage required, so the volume was reduced to less than 500 million, and the rest was moved to 'Passive' data. No interfaces with the 'Passive' data were within the original scope. An approach has been put in place to address 'Passive' data but it is proving more difficult than anticipated to implement than assumed when designing the 'Passive' data strategy. 45 passive data transactions have been identified which were not in the initial scope.
- The iterations of the Data Conversion Strategy have had a direct impact on the L2 Global plan, and especially on the Infrastructure and Basis implementation scope.

#6: Data Strategy, Quantity and Quality Estimation Outline

- The team has focused on a narrower scope for this gap. Specifically:
 - Increase in Data Loads, from 7 to 23.
 - Only the direct effort that this entails, no indirect efforts were considered.
 - Passive Data Approach – Increase in WRICEF & Some Indirect Effects (GRU Team)
 - The 45 Databases and their webservices would require individual User Interfaces to access. The project has chosen [REDACTED] as this [REDACTED] as such we are assuming 1 [REDACTED] App for each of the web services.
 - The indirect effect on project timeline of these Tiles is also calculated.
- Due to time limits and lack of historic information, the team has not estimated:
 - Historic rework on the data and other teams due to changing strategies.
 - The Data team estimates this to be above 50%
 - Indirect impacts on changing strategies; for example rework of the Global Plan.
 - Data Quality issues and their impact on estimates
 - Increased Conversion object complexity due to Passive approach and impact on estimates
 - Data Conversion Objects have decreased from 160 to 135 due to not converting the delta objects.
 - etc

#6. Estimation Approach

- The difference between original plan for data loads and the current plan.
 - # of loads originally planned and # now

Dec 2021 Go Live				Initial Plan #	Current Plan #	Diff in # of
Total Delta Effort (Project)	Duration/ Wks	Hrs/ Wk	Data FTE/ Mth	Loads	Loads	Loads
Micro Conversion Cycles	4	40	6.0	0	11	11
Full Volume Mock Cycles	6	40	6.0	4	1	-3
Full Volume Automation Cycles	4	40	6.0	0	4	4
Micro Conv Cycles for Training	4	40	6.0	0	1	1
Final Optimization Mock Cycles	4	40	6.0	0	3	3
Dry Run Cycles (Deployment Simulation)	2	40	6.0	2	2	0
Production Load	1	40	6.0	1	1	0
Total Diff in Hrs				7	23	16

#6. Data Conversion Mock/Full Load Increase

Conv & Mock Execution Roles	Name	Org	Micro Conv Cycles	Full Vol Mock Cycles	Full Vol Aut Cycles	Micro Conv for Training	Final Opt Mock Cycle	Dry Run Cycles	Production Load
Mock cycle manager – detailed plan	Guy Savard	SAAQ	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Technical executioner	Bertrand Simard	SAAQ	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Conversion Automation	Bernard Fleury	SAAQ	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Conversion Performance	Kevin Edisbury	Alliance	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Overall Optimization & Integration	Alexandre Bertrand	SAAQ	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Quality	Alan Christensen	Alliance	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total FTE's			6.0	6.0	6.0	6.0	6.0	6.0	6.0
Total Alliance FTE's			2.0	2.0	2.0	2.0	2.0	2.0	2.0

Dec 2021 Go Live				Initial Plan #	Current Plan #	Diff in # of	
Total Delta Effort (Project)	Duration/ Wks	Hrs/ Wk	Data FTE/ Mth	Loads	Loads	Loads	Diff in Hrs
Micro Conversion Cycles	4	40	6.0	0	11	11	10560
Full Volume Mock Cycles	6	40	6.0	4	1	-3	-4320
Full Volume Automation Cycles	4	40	6.0	0	4	4	3840
Micro Conv Cycles for Training	4	40	6.0	0	1	1	960
Final Optimization Mock Cycles	4	40	6.0	0	3	3	2880
Dry Run Cycles (Deployment Simulation)	2	40	6.0	2	2	0	0
Production Load	1	40	6.0	1	1	0	0
Total Diff in Hrs				7	23	16	13920

Dec 2021 Go Live				Initial Plan #	Current Plan #	Diff in # of	
Total Delta Effort (Alliance)	Duration/ Wks	Hrs/ Wk	Data FTE/ Mth	Loads	Loads	Loads	Diff in Hrs
Micro Conversion Cycles	4	40	2.0	0	11	11	3520
Full Volume Mock Cycles	6	40	2.0	4	1	-3	-1440
Full Volume Automation Cycles	4	40	2.0	0	4	4	1280
Micro Conv Cycles for Training	4	40	2.0	0	1	1	320
Final Optimization Mock Cycles	4	40	2.0	0	3	3	960
Dry Run Cycles (Deployment Simulation)	2	40	2.0	2	2	0	0
Production Load	1	40	2.0	1	1	0	0
Total Diff in Hrs				7	23	16	4640



#6. Estimation Approach - Passive Data additional scope

- To deal with the additional data, the team created the passive approach. This involved the legacy team, outside of CASA, creating databases to hold the additional data, and the CASA development team creating tiles to display this data to the systems users.
- There are 45 tiles (matching the 45 webservices mentioned below) that must be developed. This drives two effects:
 - The timeline effect, which is $45 * 1.5 / 60 = 1.125$ months of extension
 - The direct effort, which is 5235 hours of Development and 1556 hours of Functional Specifications.
- There is also an indirect effect of increasing the complexity of other WRICEF, specifically in the GRU8 team.
 - The legacy team, outside of CASA, has to create 45 web services to gather and deliver the necessary data to external partners.
 - There are 94 WRICEF on this team that will be made more complicated by this changes as well.
 - We have estimated this effect by raising the complexity by half a level.
 - This drives 3876 development hours 1245 functional hours.

#6. Total Effort

		Alliance Totals	SAAQ Totals
		Hours	Hours
Conversion Load Increase	Performance	2,320	9,280
	QA	2,320	
Fiori Tiles	Development	5,235	
	Functional Spec	1,556	1,273
Timeline Effect	Fixed	6,717	5,167
	Skillset	11,192	4,015
GRU8 Effects	Development	3,876	
	Functional Spec	1,245	1,019
Alliance Total		34,461	20,753



#7. Accident Reporting Process

- The scope around the accident report process was identified as an area to be clarified in August 2017.
- Initially, the approach provided in the RFP response scope included 2 WRICEFs related to the EDA system. An SAP solution was not planned at that time.
- In August 2018, SAAQ decided to reclaim the accident reporting process from their external partner.
- It was therefore decided to change the approach and to include the SAP functionality for the accident reporting process in L2.
- While the work is ongoing, this is an area of scope increase that has not yet had a formal PCR created.

#7. Estimation Approach

- The Tiger Team has been working with the CASA team to collect the information associated with this scope change, and then estimated the cost using two different approaches:
 - Staffing Model estimation approach. All staff in this model are dedicated to the Accident Reporting process with the effort included on the next slide ‘#7. Effort - Staffing Model estimation’ .
 - Driver based estimation approach. Based on a combination of FS Claims scope and approximately 34 WRICEFs. See slide called ‘#7. Effort – Driver based estimation
- The 34 WRICEF objects that must be developed drives two effects:
 - The timeline effect, which is $34 * 1.5 / 60 = 0.85$ months of extension
 - The direct effort consists of the Functional Specs, Development, and Unit Testing

#7. Effort - Staffing Model estimation

Past (ITD) Effort

	<u>ALLIANCE</u>			
MSG	Alexander Milne	100%	71.00	71.00
		100%	900.00	900.00
		100%	844.00	844.00
MSG	Kartika Shendge	100%	816.00	816.00
MSG	Surendra Veeranna	100%	30.00	30.00
		100%	952.00	952.00
MSG	VS Guruprasad	100%	856.00	856.00
MSG	Arun Kumar Varadhan	100%	124.00	124.00
LGS	Serge Leclerc		152.00	-
		100%	932.00	932.00
LGS	Jacques Jean	15%	3,497.00	524.55
Total Past			9,174.00	6,049.55

Future (ETC) Effort

Total Past	6,049.55
Total Future	14,716.00
Total	20,765.55

Name (Delivery Team)	Role	Hours
Jean Jacques (Ext)	Leader adjoint	396.00
Leclerc Serge (VPDGFA-Ext)	Coordonnateur de SQUAD (FSCD trainee)	4,400.00
Milne Alexander (Ext)	Architecte expert FSCD	2,640.00
Guruprasad V S (Ext)	Développeur - SA	1,440.00
Shendge Kartika (Ext)	Développeur - SA	4,480.00
Veeranna Surendra (Ext)	Spécialiste SAP - BOBJ	1,360.00

#7. Effort – Driver based estimation

Count of N4 (Activité)		
N1 (Domaine affaires)	N3 (Processus)	Total
GRU - Gérer la relation avec usager	GRU 2.3.1 Recevoir les données d'accident	11
	GRU2.3.2 Créer les accidents	6
	GRU2.3.3 Traiter les accidents	10
	GRU2.3.4 Diffuser les données d'accident	5
GRU - Gérer la relation avec usagers Total		32
Grand Total		32

Description	Factor I	Hrs	Factor II	Personnel	Alliance Hrs	SAAQ Hrs
Explore Phase effort (Sep 18 to Dec 18) 1 FTE x FullTime x 4 mth	1	160	4	Alexander Milne	640	524
Explore Phase effort (Jan 19 to Nov 19) 1 FTE x 20% x 11 mth	2	32	11	Alexander & Serge	704	576
Business Process L3	4	120		Alexander & Serge	480	393
Business Process L4	32	24		Alexander & Serge	768	628
	32	16	4	Alexander & Serge	2,048	1,676
Functional Spec effort				Alexander & Serge	2,676	2,190
Total WRICEF's per TAC Object	34			Kartika, VS, Surendra, Arun	10,370	
Total effort w/o effort contingency					17,686	5,986
Staffing Model based effort estimation					20,766	7,028
WRICEF and other Driver based effort estimation					17,686	5,986
Effort Contingency					3,079	1,042

- This estimation approach is based on Drivers for business process and WRICEF's.
- Original scope included 2 WRICEFs related to the EDA system.
- After reclaiming the scope in SAP, WRICEFs scope is now 36. Difference is 34.
- The difference between the Staffing Model based estimation and the Driver based model estimation is added contingency.
- The added contingency is required due to some very very complex objects and lessons learned. I.e. the first 2 WRICEF's were estimated to approx. 200 hrs each, and have so far taken more than 500 hrs each. Not yet completed.



#7 – Accident Report Timeline Effect & Total

	Fixed	Skillset	Total
	Hours	Hours	Hours
Alliance	5,075.07	8,456.34	13,531.41
SAAQ	3,903.74	3,033.65	6,937.39
Total	8,978.80	11,489.99	20,468.79

	Alliance Efforts	SAAQ Efforts
	Hours	Hours
Timeline Effect	13,531	6,937
Direct Efforts	20,766	7,028
Total	34,297	13,966

#8. DEMU

- DEMU is essentially user based Development and Data objects that 'complements' development done and managed under SAAQ Central IT.
- These objects are not included in the current WRICEF scope and the supporting Data objects are also not included in the current scope of Data Loads

#8. Estimation Approach

- Key steps:
 - The CASA team need to align on a clear definition of what a DEMU is.
 - Then the business requirements need to be fully understood
 - A GAP document then need to be started including incremental scope from SOW.
 - Once the team provided a detailed scope, then a Project Impact assessment will be completed, and the incremental effort will be estimated for key options included.
 - The concluding GAP analysis and recommendation should be dealt with through a formal CASA team Project Change request process.

#9. – Upgrade to SAP version 1909

- Due to the Timeline extension, an upgrade that was previously planned for after the L2 Go-Live must now be done during the inflight project. Upgrading an inflight project always adds additional effort (planning and execution), risk, and complexity versus a production upgrade.
- The Tiger Team have been working with the team to collect the full effort associated with this scope, and then estimate the cost.
- A bottom up effort has identified 54 separate components that require upgrades.
- Infrastructure/ Basis as well as Functional, Data Conversion, and Security have gone through an initial round of estimation.
- We have been working to understand what is included within the 299 and outside of 299.
- Once the team fully understand the details of this 'Upgrade', then a Project Impact assessment will be completed, and the final incremental effort will be estimated.
- The concluding GAP analysis and recommendation should be dealt with through a formal CASA team Project Change request process.

#9 – Upgrade to SAP version 1909 – Infrastructure/ Basis Team within 299

Extension		589	234	722	1,038	408	56	427	3,474
Extension CST		0	0	0	0	0	0	0	-
Nouveau		0	0	0	0	0	0	0	-
Retraits		0	0	0	0	0	0	0	-
Extension partenaires		0	0	0	0	0	0	0	-
Extension Rôles sécurité		0	0	0	0	0	0	0	-
MAJ		1,327	1,917	6,488	9,602	1,894	2,216	3,329	26,773
Transit L3		0	680	4,520	0	60	0	736	5,996
Total Additional hrs for Infrastructure/ Basis									36,243
Adjustment									65
Total Additional hrs for Infrastructure/ Basis (w adjustment)									36,308

#9 – Upgrade to SAP version 1909 – Dev, Functional and Security Team outside of 299

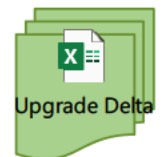
							Days of Effort	Days of Effort	Days of Effort	Total	Hours	
							Total	412	394	184	990	7,920
							Tshirt Size			Tshirt Size - effort in days		
Nom de la tâche	Début	Fin	Nature	Développement	Fonctionnel	Sécurité	Développement	Fonctionnel	Sécurité	Total	Comment	
Sécurité répertoire SLES	9/3/2019	10/7/2019	Technique	Small	Small	Extra Small	4	4	2	10		
Kernel NW - Sept 19	10/1/2019	10/7/2019	Technique	Extra Small	Extra Small	Extra Small	2	2	2	6		
Code vulnerability (Add-on NW) - Sept 19	10/15/2019	10/21/2019	Développemen	Extra Small	N/A	N/A	2	0	0	2		
PO/PI v7.52 SPS04	11/1/2019	2/14/2020	Applicatif	Extra large	Extra large	Small	32	32	4	68		
SLES15	9/3/2019	7/8/2020	Technique	Extra Small	Extra Small	Extra Small	2	2	2	6		
Lab v1909 FPS00/CRM (Core	10/1/2019	12/27/2019	Applicatif	Medium	Medium	Medium	8	8	8	24		
Lab v1902 SPS08	10/1/2019	12/27/2019	Applicatif	Extra large	Extra large	Large	32	32	16	80		
Kernel NW - Mars 20	4/1/2020	4/30/2020	Applicatif	Medium	Medium	N/A	8	8	0	16		
2.0 SPS05	6/1/2020	6/19/2020	Technique	Extra Small	Extra Small	Extra Small	2	2	2	6		
6.0	6/1/2020	10/2/2020	Applicatif	Extra large	Extra large	Extra large	32	32	32	96		
v1909 FPS01/FES/CRM (Core	6/1/2020	10/2/2020	Applicatif	Extra large	Extra large	Extra large	32	32	32	96		
SAP Commerce v2005	6/15/2020	8/4/2020	Applicatif	Extra large	Extra large	N/A	32	32	0	64		
GRC 12.0 SPS08	8/3/2020	9/14/2020	Sécurité	Medium	Medium	Medium	8	8	8	24		
BW/BPC v2.0 SPS04	9/8/2020	10/27/2020	Applicatif	Medium	Medium	Extra Small	8	8	2	18		
Kernel NW - Sept 20	10/1/2020	10/7/2020	Technique	Extra Small	Extra Small	Extra Small	2	2	2	6		
Code vulnerability (NW) - Sept 20	10/8/2020	10/15/2020	Développemen	Extra large	N/A	N/A	32	0	0	32		
PO/PI v7.53 SPSxx	10/1/2020	1/18/2021	Applicatif	Extra large	Extra large	Medium	32	32	8	72		
Kernel NW - Mars 21	4/1/2021	4/7/2021	Technique	Extra Small	Extra Small	Extra Small	2	2	2	6		
2.0 SPS06	6/1/2021	6/21/2021	Technique	Medium	Medium	Extra Small	8	8	2	18		
v16.x (neo version lié à	6/3/2019	2/25/2020	Applicatif	Extra Small	Extra Small	Extra Small	2	2	2	6		
- Doc Presentment			Applicatif	Extra Small	Extra Small	Extra Small	2	2	2	6		
Win 2016	9/3/2019	7/8/2020	Technique	Extra Small	Extra Small	Extra Small	2	2	2	6		
SQL Sereur 20xx	4/1/2020	12/29/2020	Technique	Extra Small	Extra Small	Extra Small	2	2	2	6		
HP Fortify (Microfocus)	5/4/2020	6/1/2020	Développemen	Extra Small	Extra Small	Extra Small	2	2	2	6		
Balanceur de charge	7/2/2020	10/27/2020	Technique	Medium	Medium	N/A	8	8	0	16		
BOBJ v4.3 SP0x	7/2/2020	8/19/2020	Applicatif	Medium	Medium	Extra Small	8	8	2	18		
DS/IS v4.3 SP0x (non conversion)	7/2/2020	8/19/2020	Applicatif	Medium	Medium	Extra Small	8	8	2	18		
v16.x (neo version lié à	10/1/2020	1/15/2021	Applicatif	Extra large	Extra large	Medium	32	32	8	72		
t - Doc Presentment			Applicatif	Extra large	Extra large	Medium	32	32	8	72		
	11/2/2020	12/30/2020	Applicatif	Extra large	Extra large	Small	32	32	4	68		

#9. Upgrade Totals

	Total Alliance Effort	Total SAAQ Effort
Infrastructure Team	50,628	21,698
Dev Team	3,296	
Functional Team	3,152	2,579
Security Team	1,472	
Total Estimated effort for Upgrade during L2 implementation	58,548	
Originally Planned Upgrade effort after L1, L2 and LIR (all teams)	-14,320	-13,425
Total Additional effort	44,228	10,852

- The SOW submission originally included 2 upgrades after L1-L2-LIR deliveries. 14,320 hrs for Alliance and 13,425 hrs for SAAQ. This effort included the all teams. No upgrades were planned during or between deliveries
- Completing an SAP Upgrade across all environments during an actual implementation project adds a lot of complexity and effort to the project. The incremental effort has been estimated as 44,228 hrs over and above of what was originally submitted.

Total additional hrs for Infrastructure / Basis (w adjustments)								36,308
Total additional hrs for other teams								7,920
Total additional								44,228



#10. ACT

- The scope of the actuarial process was not very detailed in the RFP.
- The initial goal was not to replace the ACT system but to integrate it according to the proposed CASA implementation strategy (delivery breakdown and decommissioning of legacy systems).
- In starting the project, it was agreed to clarify the scope. Different scenarios have been analyzed (solutions, implementations, etc.) The additional needs identified are:
 - ACT Tariff - additional complexity and scope beyond what was in the RFP and RFP response
 - Core BI Component – Lead by Elizabeth Sanchez
 - Functional Component – Lead by Brigitte Bracken
 - BW 2.0 – System Upgrade

#10. Estimation Approach

- There are two pieces of scope to consider for this Gap:
 - The BI portion
 - For the BI portion, Elizabeth Sanchez has already released a ROM estimate for the Effort.
 - The final effort calculation was 6600h for the Alliance. Please see the attached document for more details.
 - This document is attached.
 - The Other Functional Process Work
 - The TT has completed an assumption based estimate of the functional impacts that includes:
 - BPH L3 and L4 impacted by the change in approach.
 - WRICEF required to allow change in approach to work.
 - Data Model changes and its effect on the project.



ACT - BI

#10. ACT Functional Process Work Estimation (Initial Evaluation)

	Hours
Development	6,329
Functional Spec	1,666
Total	7,995

- Current estimates include 25 net new WRICEF in order to create the Second Layer in [REDACTED]

- Assumptions:

- All WRICEF are enhancements
 - They have medium high complexity on average.
- This drives 4,495 hours
- There is also a Timeline effect of 25 WRICEF = .625 Months

	Fixed Hours	Skillset Hours	Total Hours
Alliance	3,732	6,218	9,950
SAAQ	2,870	2,231	5,101
Total	6,602	8,449	15,051

- BPH Scope: There are about 50 L3 processes that need to reviewed and may be affected by this change.

- Assumptions:

- 6 L4s/L3
 - 25% of processes in scope will be affected by this change.
- This drives 8,100 hours.

	BPH Scope	% Affected	# Drivers	Driver Hrs	Variants	Subtotals	Total Hours
L3	50.00	25%	12.50	120		1,500.00	1,500
Average L4s/L3	6.00						
L4	300.00	25%	75.00	16	4	4,800.00	6,600
				24	1	1,800.00	
Total Hours							8,100

- Data Model – Assumption is no changes needed. Needs to be reassessed after analysis

#10. ACT Estimation – BI Portion

- The BI team has undertaken an estimation of the total effort required to deliver the portion of ACT scope that they own.
- The table below describes the hours and fees for both the Alliance and SAAQ required to finish this piece of work.
- For more details, please see the attached presentation.

Alliance	Hours	Rate	Total
IND SME Architecte/Concepteur	304	\$360	109,440
S4 Embedded Architecte	456	\$154	70,224
BW/BI Developpeur	1,520	\$154	234,080
Data Services/HANA Developpeur	1,520	\$84	127,680
Analyste fonctionnel	1,520	\$154	234,080
BW/BI Developpeur	1,368	\$84	114,912
Total ETC	6,688		890,416
SAAQ	Hours		Total
IND ACT SME	405	\$96	38,896
Analyste technique	405	\$96	38,896
Analyste fonctionnel	506	\$96	48,620
Total ETC	1,316		126,413
			1,016,829



ACT – BI

#10. BW 2.0 Upgrade

- Due to the extension of project the team must also upgrade the BW Database.
- The effort for this upgrade is included to the right



BW 2.0 Upgrade

System	Resources	Hours	Rate	Total
DW1	Basis,BI,BPC,IA	132	84	11,088
	BI, BPC	226	154	34,804
	IAQ	16	118	1,888
F2	Basis	40	84	3,360
MW1	Basis,BI,BPC,IA	123	84	10,332
	BI, BPC	64	154	9,856
	IAQ	12	118	1,416
PW1	Basis,BI,BPC,IA	79	84	6,636
	BI, BPC	48	154	7,392
	IAQ	12	118	1,416
QW1	Basis,BI,BPC,IA	90	84	7,560
	BI, BPC	274	154	42,196
	IAQ	20	118	2,360
QW2	Basis,BI,BPC,IA	93	84	7,812
	BI, BPC	122	154	18,788
	IAQ	12	118	1,416
QW3	Basis	72	84	6,048
QW4	Basis	72	84	6,048
SW1	Basis,BI,BPC,IA	3	84	252
	BI, BPC	80	154	12,320
SW2	Basis,BI,BPC,IA	99	84	8,316
	BI, BPC	259	154	39,886
	IAQ	16	118	1,888
Tous	Basis	0	84	-
	IAQ	90	118	10,620
VW1	Basis,BI,BPC,IA	138	84	11,592
	BI, BPC	176	154	27,104
	IAQ	12	118	1,416
Total		2380		293,810
Contingency 20%		476		58,762
Grand Total		2856		352,572

#10. Alliance Total Effort

		Alliance Totals	SAAQ Totals
		Hours	Hours
Net New WRICEF Development		6,329	
	Functional Spec	1,666	1,363
BPH Work	L3s	1,500	1,227
	L4s	6,600	5,400
Timeline Effect	Fixed	3,732	2,870
	Skillset	6,218	2,231
BI Estimate	ACT	6,688	1,316
	BI 2.0 Upgrade	2,856	714
Alliance Total		35,588	15,121



ACT Other
Functional

#11: Rarity of Resources

- The project assumed a COLA of ~1.5% per year effective April 1 of each year.
- The Quebec SAP Consulting, and wider IT Market has become very hot, leading to an unanticipated spike in subcontractor rates.
- The project has seen an increase of 15% in subcontractor cost rates, which averages x% increase per year.

#11: Estimation Approach

- As the COLA has already been agreed to for 2017-2019, from 2020 onward, the project should assume a COLA of 5%.
- This would drive an average subk rate increases from 129 to 134 to 149. Detail in following table.
- Then multiply the hours in the staffing model for 2020/2021 and 2021/2022 years by the assumed increase in rates to derive the affect to the project.

#11. Estimation Results

	Original Rate Escalation						
	Grand Total	2018	2019	2020		2021	
	Hours	Rate	Rate	Rate	Hours	Rate	Hours
PMO	61,616.00	116.00	118.00	120.00	38,368.00	122.00	23,248.00
OCM	35,552.00	142.00	144.00	146.00	13,112.00	148.00	22,440.00
Functional	243,292.00	152.00	154.00	156.00	138,876.00	158.00	104,416.00
Team Lead	39,072.00	276.00	280.00	284.00	19,600.00	288.00	19,472.00
Specialist	14,672.00	355.00	360.00	365.00	7,392.00	370.00	7,280.00
Coach	5,280.00	372.00	377.00	382.00	2,640.00	387.00	2,640.00
Technical	330,033.84	83.00	84.00	85.00	197,201.60	86.00	132,832.24
Total	729,517.84			129.96	417,189.60	138.96	312,328.24
	Revised w/ 5% rate escalations						
	Grand Total	2018	2019	2020		2021	
	Hours	Rate	Rate	Rate	Hours	Rate	Hours
PMO	61,616.00	116.00	118.00	123.90	38,368.00	130.10	23,248.00
OCM	35,552.00	142.00	144.00	151.20	13,112.00	158.76	22,440.00
Functional	243,292.00	152.00	154.00	161.70	138,876.00	169.79	104,416.00
Team Lead	39,072.00	276.00	280.00	294.00	19,600.00	308.70	19,472.00
Specialist	14,672.00	355.00	360.00	378.00	7,392.00	396.90	7,280.00
Coach	5,280.00	372.00	377.00	395.85	2,640.00	415.64	2,640.00
Technical	330,033.84	83.00	84.00	88.20	197,201.60	92.61	132,832.24
Total	729,517.84			134.68	417,189.60	149.25	312,328.24



Rarity Rate
Worksheet

#12. December Go-Live Analysis - Extra Testing & Risk Mitigation

- When the 'Day in a Life' Pilot originally was discussed as an inclusion, the team had decided to add in 3 months of time for this purpose. The 3 months were added to the timeline between Realize Test and Deploy essentially extending the project by 3 months for no other purpose than conducting a 'Day in a Life' Pilot.
- With the 'Day in a life' Pilot being replaced with a much smaller 'Day in a life' parallel Test Cycle, the team decided to use the extra time for risk mitigation:
 1. This means there is 3 months of extra full team duration over typical practice.
 - With 21 dedicated months of Realize Build since the first L2 WRICEF objects were delivered, then 50% of Realize Build timeline should be needed for Realize Test which equates to 10.5 months.
 - With the Dec 31, 2021 go-live as per current plan has 21 mths of dedicated Realize Build and 14 mths of Realize Test, which is three and a half months more than standard.
- The above option is considered a GAP, and have thus been estimated.

#12: Estimation Methodology

- The estimate would be the total spend on the three months preceding the last two months of Deploy.

Project Period Calendar Quarter		12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53																		
		Q4	Q4	Q4	Q1	Q1	Q1	Q2	Q2	Q2	Q3	Q3	Q3	Q4	Q4	Q4	Q1	Q1	Q1	Q2	Q2	Q2	Q3	Q3	Q3	Q4	Q4	Q4	Q1	Q1	Q1	Q2	Q2	Q2	Q3	Q3	Q3	Q4	Q4	Q4	Q1	Q1	Q1																		
		1-Oct-18	1-Nov-18	1-Dec-18	1-Jan-19	1-Feb-19	1-Mar-19	1-Apr-19	1-May-19	1-Jun-19	1-Jul-19	1-Aug-19	1-Sep-19	1-Oct-19	1-Nov-19	1-Dec-19	1-Jan-20	1-Feb-20	1-Mar-20	1-Apr-20	1-May-20	1-Jun-20	1-Jul-20	1-Aug-20	1-Sep-20	1-Oct-20	1-Nov-20	1-Dec-20	1-Jan-21	1-Feb-21	1-Mar-21	1-Apr-21	1-May-21	1-Jun-21	1-Jul-21	1-Aug-21	1-Sep-21	1-Oct-21	1-Nov-21	1-Dec-21	1-Jan-22	1-Feb-22	1-Mar-22																		
Dec 2020 Go-Live - Original SOW Plan		Project Prep																																																											
		Explore																																																											
		Realize and Test	RB	RB	RB	RB	RB	RB	RB	RT	RT	RT	RT	RT	RT																																														
		Deploy														DP	DP																																												
		Hypercare/Sustain														SU	SU	SU																																											
980		60	60	60	60	60	60	20																																																					
Dec 2021 Go-live - Current Model		Project Prep																																																											
		Explore																																																											
		Realize Build	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB																																
		Realize Test															RT											RT											RT																						
		Day In A Life (DIAL)																																			DIAL	DIAL	DIAL																						
		Deploy																																			DP	DP	DP																						
Hypercare/Sustain																																														SU	SU	SU													
Total		1347	7	23	34	52	53	53	54	56	56	56	57	57	57	57	57	57	57	57	57	57	56	56	56	56	52																																		
Sept 2021 Go-live		Project Prep																																																											
		Explore																																																											
		Realize Build	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB	RB																																
		Realize Test																		RT											RT											RT																			
		Day In A Life (DIAL)																																						DIAL											DIAL										
		Deploy																																																DP	DP										
Hypercare/Sustain																																																	SU	SU	SU										
Total		1347	7	23	34	52	53	53	54	56	56	56	57	57	57	57	57	57	57	57	57	56	56	56	56	52																																			

#12 Effort associated with the three months of risk mitigation

	Hours
Functional	23,640.00
Technology	36,542.40
OCM	9,092.00
PMO	7,440.00
Grand Total	76,714.40

#13: Mini SAP Support

- Mini-SAP is a legacy environment, which is a billing system that bills municipalities for the management of unpaid fines.
- Support for the environment ended in Nov 2018, and LGS was approached about supporting the environment until L2 Go-Live.
 - No contract was ever signed or solutioned.
- LGS has provided 15hrs of support to the system from Nov 2018 to Oct 2019.
- Too small to address separately (initial estimate of 1000\$).
 - If more work is found, should be addressed under Gap #2: Backfill of Resources.

#13. Estimation Approach

- N/A

#14. Day in a Life

- The new strategy involves customer superusers being trained on the system following integration test cycle 3, and then executing a parallel test of Legacy and the new SAP system with real production data.
- There are currently no details on the scope of the 'Day in a Life' test.

#14. Estimation Approach

- Key steps:
 - To minimize the incremental impact on the L2 Project, the CASA team may dedicate an existing Integration Test Cycle to complete a parallel test also named 'Day in a Life' test. As another option it may also add a new 'Day in a Life' test cycle.
 - Once the team has scoped out the options and the details of this 'Day in a Life' test, then a Project Impact assessment will be completed, and the incremental effort will be estimated for each option.
 - The concluding GAP analysis and recommendation should be dealt with through a formal CASA team Project Change request process.