

1 Executive Summary and Solution Blueprint

As Frontier continues its modernization and restructuring plan through strategic repositioning and operational excellence, it seeks a strategic partner with competencies focused on QA testing and engineering to help consolidate the QA function and drive a customer-centric transformation. Cigniti's strategic partnership will ensure Frontier meets its goals and proactively manage risk by applying Quality Engineering strategies.

Backed by decades of experience, proven testing methodologies, in-house utilities, and our IP BlueSwan[™], Cigniti has designed a **custom managed services solution** with Quality Governance, Quality Delivery, and Quality Engineering as the key focus areas. This ensures risk-free business processes and quality applications in production. Our solution is flexible to integrate with current waterfall, agile, and DevOps delivery models and accelerates the ongoing releases with **built-in quality**. The below table outlines the solution alignment with Frontier's strategic continuous improvement goals:

Frontier goals and Cigniti's service alignment:

	Frontier Goals	Cigniti's Solution Alignment			
	IT Transformation				
✓	Align with current QA trends and standards	 QA consulting and advisory to integrate best in class test methodologies across SDLC (Ideation and planning through release and post-production operations) Continuous improvement strategies for tools and Frontier's technology enhancements Continuous feasibility for innovative QE techniques including BDD, AI testing and Agile guild models Security assurance program 			
✓	Increase speed and accuracy of testing	 Automated functional and non-functional tests Feasibility of AI testing across STLC for accelerated releases 100% test coverage across all business processes CI/CD pipeline setup and quality gates across the STLC Automated impact analysis for faster regression test cycles – for application enhancements and change requests 			
✓	Automated-first approach	 Shift-left techniques to integrate functional and non-functional tests right from coding phase of SDLC Backlog automation to transform the current manual test suite to automation Unified automation framework for web, mobile and APIs Initiate with (n-1) automation and progress towards in-sprint testing Feasibility of Robotic Process Automation and software testing bots for business critical functions 			
✓	DevOps QA	 DevOps readiness assessment and transformation frameworks Test automation framework with readily available plug-ins for Jenkins pipeline Test tool orchestration across the CI/CD pipelines Continuous testing across SDLC with shift-left and shift-right techniques 			
		Customer Centricity			
✓	Greater customer experience	 Cigniti's IP – CESA (Customer Experience Sentiment Analyzer) for continuous monitoring and analyzing customer feedback and satisfaction levels across Frontier's customer-facing mobile applications *Cigniti has provided detailed customer sentiment reports for MyFrontier and Frontier TV applications as separate attachments in the Zycus portal. 			



	Frontier Goals Cigniti's Solution Alignment				
	Trontier Goals	Setup in-house performance test center of excellence for high-performing systems Real-use monitoring of business processes in production, customer transaction analysis, continuous feedback and learning from production data Customer centric testing approaches to ensure seamless user experience Cigniti's mobile device lab for accelerated test runs across multi device/OS and browser combinations			
Operational Excellence					
✓	Improved visibility across QA progress	 Shift-left testing methodologies for early defect detection BlueSwanTM Verita to provide comprehensive view of cost, quality and speed across Frontier's application portfolio Custom Go/No-go dashboards for monthly releases Al enabled defect predictions and false-positive identification 			
✓	Matured QA (Tools, people and processes)	 Initial QA processes and maturity assessment (tools, people, and processes) Process definition and roadmap for QA transformation Periodic QA consulting and advisory services by Cigniti's ATS team with recommendations and target operating model QA cultural change by adopting Automation-first approach and BDD models upon feasibility 			
✓	Expand QA to support multiple releases & optimum test coverage	 Risk-based testing approach to prioritize and improve test coverage across business functions Automated regression suite for application portfolio, that can be run by non-technical users 			

Solution Blueprint:

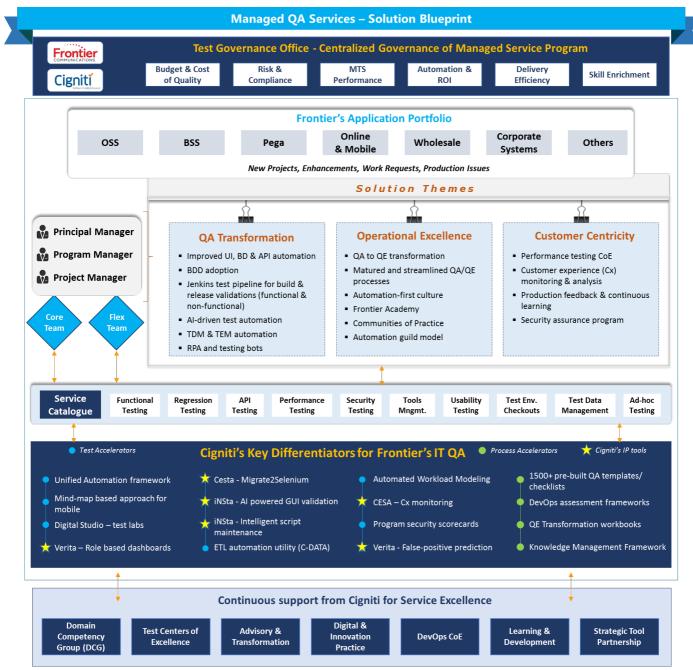
Having decades of experience in establishing and operating managed test services for enterprises, Cigniti proposes a custom solution, powered by our IP platform - BlueSwanTM. This solution is tool and technology agnostic, flexible to integrate with the entire Frontier's application portfolio and will be tailored on an ongoing basis to fit the business needs. All our in-house QA accelerators are rightly embedded in the solution in a way that ensures Frontier meets its strategic goals – QA Transformation, Operational Excellence, and Customer Centricity.

This managed service is powered by an enterprise governance framework operated in collaboration with Frontier leadership. Through our governance framework, Frontier can centrally manage the E2E program efficiency including the quality, cost and speed. Cigniti's principal, program and project managers dedicated for Frontier will drive and monitor end-to-end operations of the managed QA services in collaboration with Frontier leadership. Leveraging this custom solution, Frontier can access our test and process accelerators that act as jump-start kit to establish a Quality Engineering organization for the BAU and technology enhancements and realize benefits in terms of quality transformation, improved automation, cost optimization and greater customer experience.

Our blend of **domain competency** and **test engineering excellence** is a key cornerstone for the solution. This enables us to strategize a quality driven delivery and strengthen the overall value chain (from catalog management and order provisioning through billing and customer experience management). We propose **core-flex** resourcing model to ensure QA meets the strategic business goals of Frontier. Core team is dedicated for Frontier's IT QA (FTEs), whereas flex team will be ramped-up based on the unexpected business demands. Our resources are distributed across US and India with a lean communication model that mandates 3 to 4 hours of overlap between the teams. Cigniti



proposes the below custom managed testing services solution blueprint to own and manage end-toend IT QA requirements of Frontier:





Our managed services model is powered by our in-house **test and process accelerators**. We bring in the quality engineering practices, test assets, automation frameworks, and best practices and customize to suit Frontier's IT QA needs. Additionally, we provide continuous support from Cigniti's thought leadership, in-house test centers of excellence, and domain competency groups to foster the QA efficiency and ensure that Frontier meets its strategic goals and objectives. As part of the continuous improvement plan, project managers will assess the feasibility of next-gen techniques (AI testing, RPA, etc.) and expand to the application portfolio upon approval from Frontier leadership. The below table outline **key differentiators** that augment the overall QA managed services:

Cigniti's Differentiator	Description and Key Benefits				
Unified	Single framework for Frontier's web, mobile and desktop applications				
Automation	» 30% effort reduction in automation framework development				
Framework	» Easy to maintain and ready to integrate with Jenkins pipelines				
	» Flexible to integrate with leading automation tools (including AccelQ and Sauce				
	Labs)				
	» Readily available plug-ins for Spotfire and JIRA				
Impact Analyzer	» Automatically identifies the impacted scenarios for every application				
	enhancement/ change request				
	» Traces back to the test cases for easy script maintenance				
	» Accelerated regression test cycles				
Quality	» Embed quality into each phase of SDLC with quality gates across Frontier's				
Engineering	environments				
Methodologies	Shift-left testing methodologies to embed quality right from the planning				
	phase				
	» In-sprint functional and non-functional tests for build deployments				
	» Continuous monitoring of applications performance in production				
	» Bottleneck analysis, RCA and performance tuning recommendations				
	» Early defect detection, risk-free deployments, lower cost of quality and				
	enhanced user experience				
iNSta™	All enabled test automation across the application test lifecycle				
	>> Test suite optimization - AI model to optimize the test suite to pick the right set				
	of tests				
	» Intelligent script maintenance engine, recommends script changes for application changes/enhancements				
	 Intelligent object locators to identify stable and reliable locators for each 				
	object				
	Al powered visual validator for application GUI				
D	>> 2000+ pre-built process artifacts including standard practices for test				
Process Accelerators	management, scripting guidelines, project governance and QA transformation				
(Praxia [™])	» Ready to use industry standard agile test processes for improved QA maturity				
(Frazia)	» Ready to leverage frameworks to assess the QA maturity and Agile/DevOps				
	readiness				
BlueSwan™	» Custom dashboards for Frontier leadership to provide a comprehensive view				
Verita	of managed services' performance and progress				
	» Unified view of cost, quality, and speed				
	» Pre-built plug-ins for current QA tools stack				
	» Improved decision making for monthly releases and new projects/				
	enhancements				
	» Enterprise security dashboards for risk governance				



Cigniti's Differentiator	Description and Key Benefits				
Vulnerability prediction	 Vulnerability categorization and prioritization based on CVSS framework Al based models for vulnerability prediction and false-positive elimination Improved test accuracy and application confidentiality 				
CESA™	 Customer experience sentiment analyzer to continuously monitor users' feedback on various online App stores using Al driven algorithms Comparison charts and recommendations against competitors' market Intuitive dashboards to design customer centric test strategies for enhanced customer experience 				
Digital Studio	 Mobile device lab with latest 400+ latest devices for parallel test runs on multi device, OS and browser combinations Performance test lab to simulate real user traffic from various geographies IOT and Robotics lab for Frontier's IOT initiatives 				
Migrate2Selenium	 Cigniti's IP to migrate scripts from commercial testing tools to Selenium Improved use of open source testing tools for Frontier's technology enhancements for cost optimization and quicker ROI 				
	Continuous Support from Cigniti's CoEs				
QA Thought Leadership	 Continuous supervision and guidance to QA teams for improved efficiency Collaborative planning for Frontier's technology enhancements Periodic business review meetings with Frontier leadership 				
Domain Competency Group	 DCG has developed ready to use test repository comprising test scenarios for key standard business flows across order management, billing and invoicing, financial management and IVR Our deep experience in wired, wireless and OTT landscape ensure faster and risk-free transition of current QA 				
Mobile Testing CoE	 Mobile device lab with over 400 latest mobile devices Mobile testing framework with readily available plug-ins for Sauce Labs integration State of the art mind-map approach to test E2E (end-to-end) functional / nonfunctional flows across different mobile device platforms A ready to deploy end-to-end mobile automation framework for Android and iOS applications – reduces the overall automation effort by 30% 				
Advisory and Transformation Group	 Periodic assessments on the QA maturity, gap analysis and recommendations for continuous improvement Comprehensive quality assessment frameworks to analyze the people, processes, tools and technologies Agile/DevOps readiness assessments and transformation frameworks Guidelines/best practices and workbooks for QE transformation 				
Strategic Tool Partners	» Cigniti has forged strategic partnership with the leading testing tools vendors as depicted below. For Frontier's technology enhancements, we conduct tool feasibility with required tools and provide a cost-effective solution.				



Cigniti's Differentiator	Description and Key Benefits						
	Se MARTBEAR TICENTIS headspin						
	© IRI VERACODE CenRocket VERACODE						
	BrowserStack ALTOMATION QuerySurge XebiaLabs transpersa DavOga						
	UiPath ○ ○ ○ UALITIA ■ PARASOFT.						
	dynatrace SAUCELABS ★ kiuwan Sonatype K2∨I≡∨∨						



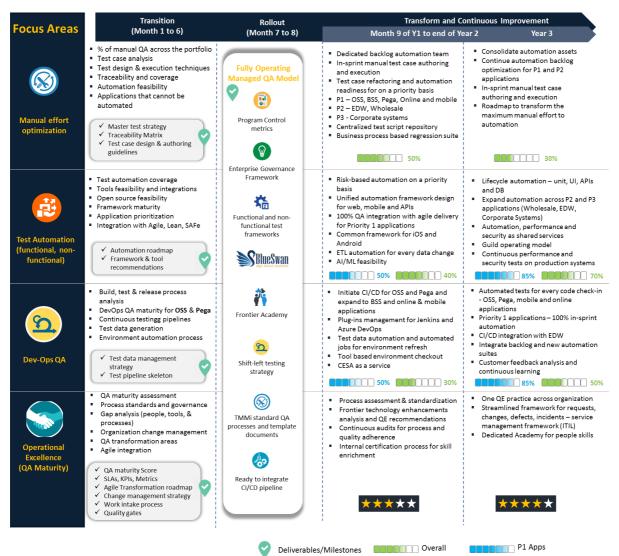
Key Outcomes:

The below table provides an overview of the key values that will be delivered to Frontier through our managed services model.

Success Factor	Key Value Proposition				
Continued QA Success	 >> 100% functional test coverage across the application portfolio >> ≈ 95% of defect detection prior to production, in test and UAT environments >> Quality gates across STLC, custom metrics and measurement and BlueSwan™ for transparent QA and defects trends >> Periodic process assessments (Cigniti's investment) to improve QA maturity (Ensured TMMi QA maturity level 4 (MEASURED) within 3 years of managed services) 				
	» Early defect detection through shift-left testing» Zero critical vulnerabilities				
Automation	 Now in-sprint automation for business-critical applications (OSS, BSS, Pega, Online and mobile) Now Now Now Now Now Now Now Now Now Now				
Improved QA Efficiency	 SLA based service delivery with risks and rewards model 100% QA integration into agile teams Improved accuracy in tools utilization – test management, functional and non-functional tests, test data, data validation and DevOps Improved utilization of open source tools across SQA Continuous feasibility of technology trends through our IP and strategic tool partners – AI/ML and DevOps QA Improved end-user experience for customer-facing applications through CESATM 				
Minimal Transition Risk	 Flexible QA processes and practices to integrate with current and future service delivery models Knowledge management framework for easy knowledge dissemination across the teams One common QA framework across the enterprise and shared services model for improved reusability 				



The below image provides an overview of Automation, DevOps and QA maturity improvement for the next 3 years. Improvements are proposed based on our understanding of Frontier's IT QA and our previous experience in handling similar managed services projects. Our metrics and measurement framework and custom dashboards provide a comprehensive view on the progress of process, automation and DevOps maturity throughout the managed services.





Cigniti's Investments for Frontier's QA managed services:

As a strategic partner, Cigniti is willing to invest in the relationship and employ various levers towards building a successful and mutually beneficial long-term partnership. The key aspects of partnership model are as follows:

- » Investment in account governance through an onsite dedicated program manager and through leadership
- 30% discount on Cigniti's services rate card for T&M proposal
- » Pre-built test automation accelerators and our IP (BlueSwan[™] Verita) as a value add
- » Investment in Cigniti's pre-built process assets and templates
- » SLA Management framework with financial incentives / penalties

The table below provides a detailed breakup of the overall investment from Cigniti for Frontier's QA managed services:

Investment Type	Year 1	Year 2	Year 3	Benefits
 Program Management Office (PMO) Senior Program Manager (Offshore) Senior Program Manager (Onsite) Program Manager (Offshore) 	\$307,566	\$307,566	\$307,566	 Manage Frontier expectations Provide program level planning and setup reporting team & structure Proactively manage flex demands
 Dedicated Thought Leadership (Onsite) 	\$201,600	\$201,600	\$201,600	 Onsite success partner for Frontier Ensure better communication and improved business relationship with Frontier
 Digital Test Transformation Office Lead Process Specialist (Offshore) Lead Automation Consultant (Offshore) 	\$192,780	\$192,780	\$192,780	 Assess QA Maturity and provide actionable insight for QA process improvement Provide thought leadership and access to Cigniti Test Advisory group Accelerate Digital Test transformation journey Build enterprise wise digital transformation framework
 Principal Architect - Automation Testing (Offshore) 	\$74,970	\$74,970	\$74,970	 Accelerate Test Automation transformation journey Architect robust scalable enterprise automation framework
 Principal Architect - Performance and Security Testing (Offshore) 	\$74,970	\$74,970	\$74,970	 Accelerate non-functional test transformation roadmap Architect robust scalable enterprise non-automation framework
Private Bench for Frontier 10 Resources)	\$642,600	\$642,600	\$642,600	 Accelerated onboarding of resources Mitigate turnover Address Business Continuity Plan



 Travel expense of Frontier Delegates for travelling to Cigniti's offshore location Proof of Concept on Business Process automation with RPA tools 	\$15,000 \$15,000	\$15,000 \$20,000	\$15,000 \$20,000	 Promote deep collaboration between Frontier and Cigniti Create a roadmap strategy for Optimize resource use and Introduce adaptability and flexibility to business processes 	
 DevOps tool & Process feasibility analysis for Continuous Testing enablement (NextGen Testing) 	\$10,000	\$15,000	\$15,000	 Improved operational support and faster fixes. Good processes across IT and teams, including automation. Increased team flexibility and agility. 	
Total Investment Total Investment for 3 years	\$1,610,004 \$1,582,693 \$1,575,865 \$4,768,562				



