



# STATEMENT OF WORK MODERNIZATION PoC WITH AI & AUTOMATION

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## INTRODUCTION

Opticca proposes a Proof of Concept to determine if the Customer's applications are good candidates for a streamlined modernization engagement using Artificial Intelligence and Machine Learning tools that accomplish the following:

1. Reduce analysis, design, and planning time by leveraging AI/ML technologies
2. Mitigate risk by accelerating the service extraction process by 40x
3. Increase the likelihood of success
4. Reduce design costs by leveraging the design studio to:
  - a. Identify and eliminate Technical Debt
  - b. Increase service exclusivity
  - c. Remove service interdependence
5. Demonstrate the AI solution understands the target application
6. Create a suggested service architecture

By leveraging AI and Automation solutions, Opticca can modernize the legacy applications quicker and with a much more likelihood of success.

## SCOPE

The Customer would like Opticca to perform a modernization of their current monolith applications to microservices. The engagement will include the following scope:

For this reason, Opticca shall execute a Proof of Concept to determine the feasibility of success for modernizing the Customer's applications. The Proof of Concept shall include the following:

1. Static Analysis on the byte-code to produce a dashboard that calculates KPIs, such as:
  - a. Technical debt
  - b. Maintainability of the services
  - c. Interdependence
  - d. Exclusivity
2. Dynamic Analysis on a version of the running application that identifies:
  - a. Runtime dependencies
  - b. Sample running threads
  - c. Legacy .Net service design OR EJB and Java Beans identification
  - d. Database tables and Transactions
  - e. Files and synchronization objects

Design Studio Workshops that allow for the Modernization Architect to redesign the application services to reduce technical debt, interdependences, and improve service exclusivity.

3. Service extraction: The number of services to be determined during the redesign phase that can fit into the agreed-upon timelines and budget to determine the feasibility and likelihood of success. (optional paid T&M engagement)

## ENGAGEMENT DELIVERABLES, ACTIVITIES AND ESTIMATED DURATION

The blueprint and roadmap shall contain the following detailed information to give the Customer the knowledge required to fully modernize the monolith applications. Opticca shall also validate the feasibility by executing a pilot that will provide the approach and guidelines for the remaining applications. The scope of the pilot shall be determined during the discovery, analysis, and planning phase.

The deliverables contained in this SOW are as per Opticca's current understanding of the Customer's requirements.

This SOW will focus on the <scope summary>

Milestones	Deliverable	Description	Success Criteria
<b>Milestone 1 - AI solution Deployment</b>			
<b>Workshops</b> <ul style="list-style-type: none"> <li>Deployment/Qualification Questionnaire</li> <li>Pre-Deployment Workshop</li> <li>AI Installation Workshop</li> </ul>	Workshop sessions Questionnaire Review AI solution installed	Workshop sessions to obtain a detailed understanding of current state	Completed and Approved Deployment Questionnaire  Target AI solution deployment architecture identified  Change and Security Approvals  Software and agent installed and running, UI Login
<b>Milestone 2 - Assessment and Analysis Phase</b>			
Static and Dynamic Analysis of a single monolith	Dashboard Reports  Assessment Hub Business Case  Analysis report output for Dynamic and Static Analysis	Reports complete with Risk Complexity and Technical Debt Analysis  List of potential microservices for the selected application	Reports Created and Delivered
<b>Milestone 3 - Education Workshops</b>			
Immersion Workshop	Demonstrate the end-to-end modernization process with AI solution including service extraction on AI solution OMS demo application	AI solution platform overview  Deep dive into AI solution hub functionality  How to decompose a sample application  Demonstrate Service extraction and deployment	Workshop Delivered
Application Overview Workshop	Customer to educate Opticca on the application functionality and architecture	Tech vision and objectives for the application modernization  Functionality key use cases – who uses the system and what are the usage scenarios at high level  High level architecture (key components and their relationships, main classes to look at)	Workshop Delivered

		<p>Technology stack (frameworks used, protocols, etc.)</p> <p>Tech constraints if applicable – things we must conform to</p> <p>Specific focus areas for modernization (functional – which use cases to focus on first and non-functional – e.g., performance)</p>	
Analysis Discovery Workshop	Review initial analysis and clarification questions	<p>Review initial analysis AI solution to confirm assumptions with the customer</p> <p>Customer to provide inputs for further analysis</p>	Workshop Delivered
Analysis Reading Workshop	Review the application analysis and AI solution deliverables	<p>Technical debt assessment including usage of aging frameworks and top high debt classes</p> <p>Deep dive analysis of the monolith behavior and structure Consolidated call tree and resource usage (DB, network sockets, beans, transactions, files, sync objects)</p> <p>Compile time dependencies across classes</p> <p>Identify classes to be considered for refactoring</p> <p>Baseline Services Architecture including service boundaries, classes in each service and service topology</p> <p>Recommendations for modernization plan</p>	Workshop Delivered
The following milestones are optional and executed as a paid engagement (see appendix 1 for commercial details)			
<b>Milestone 4 (Optional Paid Engagement) - Design Phase</b>			
Workshops	<p>Monolith Analysis</p> <p>Microservice Design using AI solution Studio</p> <p>Data Considerations</p> <p>Service Decomposition</p> <p>API Review</p> <p>Testing Strategy</p>	Working sessions that target 1-3 suggested services to identify as extraction candidate.	Service to be extracted identified
<b>Milestone 5 (Optional Paid Engagement) - Service Extraction and Refactoring Phase</b>			
Service Extraction	Extract a single service	An extracted service identified in the previous phase using the AI solution Studio UI and use code-copy to extract the service code from source code	Service extracts into new project
Service Preparation	Updated POM file Clean Service for compilation	Make the refactoring adjustments to the code to prepare the service for compilation	Service ready for compilation

Service Compilation	Build and compile service	Compile the service and rectify and remaining code changes required	Service runs in isolation via IDE
Unit testing	Unit tested service	Unit test the service via API produced by the AI solution Studio	API calls return expected results
Service Refactoring	Refactored Service	Refactored service that can run within a modernized framework and/or Container. Source code modernized to work within frameworks, such as Spring, etc.	Updated code compatible with a modern framework

The following section describes Opticca’s anticipated project roles or positions and the respective duties and responsibilities for each of these roles or positions. Based on the skills and staffing availability, it is possible that one individual may fulfill multiple roles.

Role	Responsibility
Executive Sponsor	Overall Account Alignment
Account Executive	Main point of contact
Delivery Owner	POC Timelines and Deliverables
Principal Consultant - Modernization Architect	<ul style="list-style-type: none"> <li>• Drive modernization workshops</li> <li>• Solution, Functional, Technical Design</li> <li>• Gather details</li> <li>• Documentation</li> <li>• Main Technical Contact</li> </ul>

The following section provides a description of Customer’s anticipated project roles or positions, and the respective duties and responsibilities for each of these roles or positions.

Role	Responsibility	Name / Email / Phone
Executive Sponsor	<ul style="list-style-type: none"> <li>• Review and provision approval of invoices</li> <li>• Participate in planning meetings and deliverable review meetings</li> <li>• Approve scope of work</li> <li>• Primary escalation point</li> </ul>	
Technology Owner	<ul style="list-style-type: none"> <li>• Participate in planning and deliverable review meetings</li> <li>• Coordinate technical activities on Customer's side and approve solution/directions</li> <li>• Customer's development &amp; testing activities</li> <li>• Reviews final product and deliverables</li> </ul>	
Project Manager (PM)	<ul style="list-style-type: none"> <li>• Participate in planning and deliverable review meetings</li> <li>• Coordinate all deliverables</li> <li>• Performs PM Duties per Customer processes</li> </ul>	
Customer SMEs	<ul style="list-style-type: none"> <li>• Participate in planning and deliverable review meetings</li> <li>• Participate in technical activities on Customer's side and in the review of solution/directions</li> <li>• Participate in knowledge transfer activities</li> </ul>	

## PROJECT SCHEDULE

Opticca anticipates the engagement to begin on a date to be agreed upon by both parties, for an estimated duration of **2-4 weeks**, and executed as needed.

## ASSUMPTIONS

- Opticca and Customer shall comply with any applicable laws or regulations, including laws applicable to personal and private information.
- Confidential information exchanged or disclosed hereunder shall be maintained in confidence by the receiving party in accordance with the terms of the Agreement.
- Customer is responsible for the reasonable and timely provision (which includes third parties and other suppliers engaged by Customer) of personnel, resources, information, data, content, system and IT access.
- In case Opticca proposes and/or are requested by Customer to include or incorporate any software that contains or is derived in any manner (in whole or in part) from any software of third parties and/or that is distributed as free software, open source software or similar publicly available licensing or distribution models, such software could be included and/or used by Opticca only after Customer's written approval or confirmation by email. Opticca and Customer will obtain, maintain and comply with any applicable third-party licenses and terms and conditions which govern the use of such third-party data and technology at Customer's expense. Terms, limitations, exclusions, or restrictions therein may apply to the Services and Deliverables under this SOW and shall be investigated and disclosed in a timely manner or upon discovery.

## DELIVERY CONSTRAINTS

- Access to key stakeholders or their representatives
- Access to Customer's environment
- Systems Administration access
- Dependencies and Assumptions:
  - Customer to grant Opticca access to resources/software needed to complete the mandate
  - Customer to coordinate with the infrastructure team for DevOps and Security discussions.
  - Customer to coordinate with Network, Security Infrastructure and DevOps teams to define and implement a solution.
- Customer's development teams to participate:
  - Customer to provide access to their existing application platform.
  - Weekly progress status
- Other assumptions:
  - Opticca assumes that network connectivity is available

## COMMERCIAL DETAILS

The final section of this statement of work details the terms and conditions of the project, including any applicable fees. It is important to note that no fees are associated with this statement of work. All services outlined in this document will be provided at no cost to the Customer. This statement of work is intended to serve as a mutually agreed-upon plan for the completion of the project, and any deviation from the scope outlined in this document must be approved by both parties in writing.

Please note that any work marked as optional in the statement of work is not included as a delivery for this SOW. Any work that is covered under the optional section will be covered in Appendix 1.

By accepting the terms outlined in this statement of work, the Customer agrees to the above-stated terms and conditions.

### **Term and Termination**

The term of this SOW begins on the Effective Date of this SOW and will continue until the Customer's final acceptance of Services.



**DOCUMENT AUTHORIZATION****Customer Name**

Per:

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Name

Title:

I hereby accept the terms and conditions proposed.

**Opticca Consulting Inc.**

Per:

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Ivan Cardona

President

## APPENDIX 1

### SERVICE EXTRACTION AND REFACTORING

Opticca will provide qualified resources on a time and materials basis to carry out the deliverables outlined in this SOW. The fees will be based on the number of hours spent on the engagement.

The Customer needs to notify Opticca within five (5) business days upon reviewing the work weekly of the reasons should any hours be contested; otherwise, the work performed will be deemed accepted, and the invoice must be paid within the agreed-upon payment terms. The notification must be issued in writing (an email is acceptable). Customer will have the liberty to work with Opticca to rectify the situation or not pay the hours in question until a satisfactory deliverable is provided.

Any out-of-scope changes to the Services will be priced and executed, pursuant to an estimate, based on a time and materials basis, as the Parties may agree in writing.

The following fee structure is based on the current understanding of the scope of the engagement, the resources required, and the anticipated duration.

Activity	Roles	Estimated Costs (CAD)
Service Extraction	Principal Consultant	200/hr
Service Refactoring	Principal Consultant	200/hr
AI solution Technology		\$0
Refactoring Automation Solution		TBD

Opticca shall propose a time and materials model for this mandate, assuming all assumptions and constraints are respected.

- Standard travel expenses to/from Customer are not included in the above rates. Any applicable travel & living expenses will be billed on a separate line item with the appropriate descriptions associated to each item. However, no expenses are anticipated since this is considered a local engagement. Any travel expenses must be approved in writing by Customer prior to such expenses being incurred.
- Invoices are sent in Canadian funds and are subject to applicable taxes

#### Payment Schedule

Opticca shall deliver invoices for the Services rendered during the calendar month at the beginning of the next calendar month together with the timesheets. Undisputed invoices shall be due and payable by the Customer within thirty (30) calendar days. In the case of an invoice dispute, the undisputed part of the invoice shall be due and payable by Customer in accordance with the terms stated above.

#### Term and Termination

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