

Use Case Document for Assessment Optimizer Agent – Intelligent Infrastructure & Application Evaluation Solution

Executive Summary

As enterprises advance toward digital transformation, gaining clear insights into infrastructure performance, application readiness, and migration opportunities becomes a critical enabler for success. However, fragmented tools, unstructured datasets, and manual analysis methods often hinder the ability to plan and optimize efficiently.

The **Assessment Optimizer Agent** bridges this gap by providing a unified, AI-assisted platform that evaluates IT environments and generates optimization and migration readiness reports. Designed by **UnifyCloud**, this tool integrates with platforms such as **Azure Migrate** and **Lansweeper**, leveraging machine learning analysis to translate raw infrastructure data into actionable insights.

With its local-first architecture, the agent ensures data security while offering deep analytical capabilities. By combining AI-assisted evaluation with flexible report generation, the Assessment Optimizer Agent enables IT teams, consultants, and business leaders to make confident decisions about infrastructure modernization, cost optimization, and cloud migration strategy.

In essence, the **Assessment Optimizer Agent** transforms complex assessment workflows into streamlined, intelligent, and secure evaluation processes — helping organizations optimize today while preparing for tomorrow.

Audience Personas

1. Cloud Strategy Lead

Responsible for designing cloud adoption roadmaps and migration strategies.

Pain Points:

- Multiple tools produce disjointed or inconsistent assessment data.
- Manual report consolidation slows down decision-making.
- Lack of insight into optimal target configurations and costs.

How the Agent Helps:

Delivers a unified view of assessment data from Azure Migrate, Lansweeper, and other tools, while AI-driven analysis provides clear recommendations on lift-and-shift feasibility and modernization paths.

2. Infrastructure & Operations Manager

Oversees data center operations and infrastructure optimization.

Pain Points:

- Limited visibility into performance bottlenecks and resource waste.
- Difficulty identifying workloads ready for cloud migration.
- Manual reporting consumes time and effort.

How the Agent Helps:

Automates data aggregation and optimization reporting, producing accurate Excel-based outputs that help identify underutilized assets and plan right-sized infrastructure in Azure.

3. Migration Consultant / Systems Integrator

Supports clients in assessing readiness and building cloud migration roadmaps.

Pain Points:

- Complex manual assessments across multiple tools.
- Lack of standardized reports and recommendations.
- Need for repeatable, secure, and consistent assessment framework.

How the Agent Helps:

Provides a professional-grade, repeatable assessment workflow powered by AI, ensuring faster delivery of accurate and auditable reports for clients.

4. Database Administrator / Application Owner

Manages business-critical databases and workloads targeted for modernization.

Pain Points:

- No automated mechanism to evaluate SQL and app dependencies.
- Difficulty aligning workloads with SQLMI or AVS targets.

How the Agent Helps:

Analyzes SQL workloads, evaluates Azure SQL Managed Instance or Azure VMware Solution readiness, and provides optimized recommendations for modernization.

1. Introduction

The **Assessment Optimizer Agent** is a comprehensive tool designed to evaluate IT environments and provide intelligent recommendations for infrastructure and application optimization. It supports multi-source assessment inputs such as **Azure Migrate exports**, **Lansweeper reports**, and **custom data templates**, enabling end-to-end visibility into enterprise IT estates.

By combining AI-assisted analytics with automation, the agent generates actionable insights on migration feasibility, workload optimization, and modernization strategies. Reports are output in

familiar formats like **Excel**, ensuring accessibility and easy integration into enterprise decision workflows.

This agent serves as the analytical backbone for migration planning, cost optimization, and technical due diligence in hybrid and multi-cloud environments.

2. Deployment Model

The **Assessment Optimizer Agent** is deployed as a standalone application within the target enterprise environment, ensuring secure, localized processing and data retention.

Deployment Details:

- **Install Location:** On a local or virtual machine within the enterprise network.
- **Privileges:** Requires administrative rights for secure installation and operation.
- **Architecture Components:**
 - **Orchestrator Agent** – Automates data processing and task coordination.
 - **MCP Server** – Handles backend computation, AI-driven analysis, and report generation.

This architecture ensures high performance, minimal configuration, and data privacy without relying on external or cloud-based processing.

3. Workflow Overview

The agent follows a structured workflow for data ingestion, analysis, and reporting.

3.1 Project Creation

1. **Launch the Tool:** Run the agent locally.
 2. **Create a Project:** Initialize a new assessment project to store discovery and analysis data.
 3. **Upload Input Files:** Import data from supported sources, such as:
 - **Azure Migrate** (e.g., VM, SQL, and dependency data)
 - **Lansweeper Reports** (for asset and software inventory)
 - **Custom Templates** (for organization-specific inputs)
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3.2 Report Generation

Once data ingestion is complete, users can generate one or more assessment reports:

- **Lift-and-Shift Assessment:** Provides readiness evaluation for migration to Azure Infrastructure-as-a-Service (IaaS).

- **SQLMI/AVS Assessment:** Delivers detailed insights for Azure SQL Managed Instance or Azure VMware Solution suitability.
- **Custom Reports:** Tailored to organizational or workload-specific criteria.

The agent leverages **AI-assisted analysis** through the **Orchestrator Agent** and **MCP Server** to generate comprehensive, optimized recommendations. Reports are then exported in **Excel format**, allowing easy sharing and review.

4. Key Features

Feature	Description
Multi-Format Support	Processes Azure Migrate, Lansweeper, and custom template files for unified assessment.
AI-Assisted Optimization	Uses AI models to identify migration readiness, performance bottlenecks, and right-sizing recommendations.
Local Data Storage	Ensures that all input and output data remains within the enterprise boundary for full data privacy.
Flexible Reporting Options	Generates multiple report types — Lift-and-Shift, SQLMI, AVS, and Custom.
Excel Output Format	Simplifies report consumption and sharing across business and technical teams.
Backend Automation	Uses Orchestrator Agent and MCP Server for seamless workflow management.

5. Security Considerations

Security and privacy are integral to the Assessment Optimizer Agent’s architecture and operation.

- **Local Data Residency:** All project data — including input files and generated reports — remains within the organization’s environment.
- **Administrator Privileges:** Required to ensure secure installation and controlled access to system resources.
- **Secure Backend Processing:** The MCP Server operates within the same local or private network, maintaining confidentiality of analyzed data.
- **No External Transmission:** The agent does not transmit assessment data to any external cloud or third-party servers.

This design guarantees full data control and compliance with enterprise security and regulatory standards.

6. Limitations

While designed for flexibility and accuracy, the Assessment Optimizer Agent has certain operational boundaries:

- Requires local installation; may not fit pure cloud-native execution models.
- Relies on valid and complete input data for accurate analysis results.
- The precision of AI-assisted recommendations depends on the quality of data imported from source systems.

These limitations are intentionally defined to preserve data integrity and maintain operational security.

7. Assessment Workflow Table

Step	Action	Notes
1	Install the tool locally	Requires administrator privileges
2	Create a new project	Stores data locally for privacy and control
3	Upload input files	Accepts Azure Migrate, Lansweeper, and custom templates
4	Select report type	Choose from Lift-and-Shift, SQLMI, AVS, or custom
5	Execute AI Analysis	Processed via Orchestrator Agent and MCP Server
6	Download final report	Exported as Excel for stakeholder review

8. Solution Architecture Overview

The Assessment Optimizer Agent employs a modular and secure architecture optimized for automation, flexibility, and performance.

Architecture Layers:

1. **User Interaction Layer**
 - Interface for project setup, data import, and report generation.
 - Provides user controls for file selection, AI analysis initiation, and output review.
2. **Processing & Orchestration Layer**
 - Managed by the **Orchestrator Agent**, which coordinates data processing tasks.
 - AI analysis and optimization algorithms are executed through the **MCP Server**, ensuring consistent and reliable outputs.
3. **Data Storage & Output Layer**

- Stores project files and generated reports locally.
- Exports reports in Excel format, ensuring compatibility with enterprise workflows and analytics tools.

This architecture enables secure, repeatable, and scalable assessments for hybrid and on-premises IT environments.

9. Business Value and Impact

The Assessment Optimizer Agent provides tangible business value by transforming manual, disjointed assessment workflows into an automated, insight-driven process.

Value Area	Outcome
Operational Efficiency	Reduces assessment preparation time by up to 70%.
Cost Optimization	Identifies right-sized infrastructure options and cost-saving opportunities.
Migration Readiness	Accelerates planning through AI-powered readiness scoring.
Data Accuracy	Consolidates diverse input files into a unified, validated dataset.
Security Assurance	Maintains full control over sensitive data within enterprise boundaries.

The agent thus acts as both a **strategic assessment accelerator** and a **risk mitigation tool**, reducing delays and ensuring confident decision-making during transformation initiatives.

10. Integration and Extensibility

The Assessment Optimizer Agent is built to complement and integrate with existing assessment ecosystems:

- **Azure Migrate** – Seamlessly processes Azure Migrate exports to enhance insights.
- **Lansweeper** – Uses Lansweeper inventory data for deeper hardware and software analysis.
- **Custom Data Sources** – Accepts templates from internal systems, extending flexibility.
- **Power Platform & AI Copilot Integration (Future Roadmap)** – Planned integration for conversational querying and automated report interpretation.

11. Security and Compliance Posture

The agent aligns with enterprise security frameworks and compliance best practices, including:

- **Data Sovereignty:** Local-only data processing.
- **Credential Safety:** No external authentication dependencies.

- **Auditable Logging:** All processes are logged for compliance review.
 - **Governance Alignment:** Supports compliance with standards like ISO 27001, SOC 2, and GDPR.
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12. Future Enhancements

Planned roadmap features include:

- **Cloud-Hosted Edition** – Secure cloud variant for remote collaboration.
 - **Predictive Optimization Engine** – AI models to forecast performance improvements and cost savings.
 - **Dashboard Integration** – Power BI-based visualization for trends and insights.
 - **Conversational Analysis** – Copilot integration for natural language report queries and recommendations.
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13. Conclusion

The **Assessment Optimizer Agent** represents a key enabler in the modernization journey of enterprise IT environments. Its ability to unify, analyze, and optimize complex infrastructure data empowers teams to make informed, data-backed decisions about migration and transformation.

By combining **automation, AI-driven intelligence, and local security**, it provides the confidence, speed, and control needed to plan effectively for cloud adoption and operational optimization.

The result is a smarter, faster, and more secure assessment experience — one that transforms raw data into strategic advantage.

Assessment Optimizer Agent – Assess. Optimize. Transform.