Information & Communication Technology W.L.L

SOLUTION BRIEF

Unified Enterprise Search by ICT

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1. Executive Summary

The ICT Enterprise Unified Search helps organizations unify, govern, discover, and operationalize knowledge across the enterprise. Fragmented data landscapes, inconsistent governance, and lengthy deployment cycles make it difficult for teams to convert data into timely decisions. Even when organizations adopt multiple cloud tools, they often still lack unified visibility, governed AI access, and the cross-functional orchestration required to scale trusted AI.

ICT delivers a production-ready enterprise platform built around federated governance, sovereign AI, and a marketplace model that accelerates time-to-value. The search integrates data from business domains such as Finance, HR, Operations, R&D, and customer-facing functions, then applies cataloguing, lineage, classification, AI model access, data quality monitoring, and analytics to create a governed enterprise knowledge ecosystem.

The platform is designed for organizations that need to deploy trusted AI at scale while maintaining control over access, compliance, cost, and operational quality. By combining Microsoft Azure AI Foundry, Microsoft Purview, pre-built connectors, sovereign model enablement, and ICT managed operations, the Unified Enterprise Search empowers teams to move from scattered data assets to measurable AI outcomes.

2. Business Challenge

Enterprise data is frequently distributed across departments, cloud platforms, legacy systems, spreadsheets, databases, applications, and document repositories. This fragmentation prevents teams from understanding where trusted data exists, who owns it, how it is classified, how it flows between systems, and which downstream processes depend on it. As AI adoption accelerates, these gaps create additional risk because models can only be trusted when the data foundation is governed and observable.

Organizations also face a shortage of AI, data engineering, governance, and operations skills. Teams need to onboard sources quickly, enforce domain ownership, manage data product lifecycles, monitor quality, contain access risk, and evaluate AI models against real business metrics. A modern enterprise AI operating model must combine governance, data mesh principles, secure model access, automation, and cross-domain analytics in one scalable architecture.

3. Solution Overview

The ICT Unified Enterprise Search is a next-generation data and AI platform that integrates data from any source across the organization and converts it into governed, discoverable, reusable data products. The platform combines intelligent cataloguing, federated governance, marketplace-style data product access, AI model enablement, data quality monitoring, and operational analytics into a unified enterprise command layer.

ICT positions the platform as the Enterprise Intelligence Marketplace: a governed hub where business domains can publish, discover, consume, monitor, and improve trusted data and AI assets. It gives data teams, AI teams, governance leaders, and business users a shared operating model for scaling AI without losing control over security, lineage, compliance, quality, or cost.

Capability Area	ICT Unified Enterprise Search Response	Business Outcome
Enterprise visibility	Unifies data assets, ownership, lineage, classification, quality signals, and AI workflows across business domains.	Creates a single operational view of the data and AI estate.
Federated governance	Uses Microsoft Purview, role-based controls, domain ownership, policy enforcement, and data product lifecycle management.	Scales governance without central bottlenecks while preserving compliance and accountability.
AI operationalization	Integrates with Azure AI Foundry, Prompt Flow, model cataloging, evaluation, and deployment workflows.	Accelerates trusted AI adoption from experimentation to production.
Marketplace acceleration	Provides 50+ pre-built connectors, reusable data products, and ready-to-use AI patterns.	Reduces deployment timelines and improves time-to-value.
Risk and quality management	Applies analytics, SmartScore, behavioral monitoring, data quality rules, and remediation workflows.	Detects data issues early and supports rapid containment and improvement.

4. Core Platform Capabilities

4.1 Full Visibility Across the Organization

The Enterprise Unified Command Center brings together data from Finance, HR, Operations, R&D, and other business domains. It maps lineage, ownership, classification, usage, and downstream impact so teams can understand the complete data and AI landscape. Alerts from third-party systems can be integrated into the data

mesh to reveal relationships between operational events, data quality issues, and business impact.

4.2 Analytics and Machine Learning for Knowledge Discovery

The hub continuously profiles enterprise data behavior to detect anomalous activity, quality issues, stale assets, and usage patterns. It provides a 360-degree view of data assets and users, including risk scores for user and entity behavior analytics. This helps governance and AI operations teams prioritize high-impact issues before they affect downstream decisions.

4.3 Federated Global Analytics

The Global Analytics layer identifies patterns across business units and data domains. It reveals hidden relationships, emerging signals, duplication, dependency chains, and cross-domain opportunities that siloed departmental tools often miss. This capability helps organizations move from isolated analytics to enterprise-wide intelligence.

4.4 Rapid Investigation with SmartScore

Each data product and AI workflow includes provenance, lineage artifacts, governance metadata, and impact details. SmartScore uses machine learning to highlight high-priority data quality incidents and governance risks, allowing teams to assess scope, identify root cause, and remediate issues before they spread across reports, models, and business processes.

4.5 Azure AI Foundry Orchestration

The hub integrates with Azure AI Foundry to support AI flow creation, prompt orchestration, model evaluation, and deployment governance. Foundry playbooks can ingest platform signals, retrieve related data products, update governance fields, and evaluate AI models against real business metrics. This gives teams a controlled path from AI experimentation to production-scale operations.

5. Federated Marketplace Architecture

The Unified Enterprise Search uses a federated marketplace model that allows each business domain to own, publish, and manage data products while the organization maintains centralized policy, security, observability, and governance standards. Onboarding enterprise data sources into the hub broadens knowledge discovery, reduces blind spots, and enables teams to operationalize AI with trusted data assets.

The platform detects data gaps and patterns with AI, analytics, and out-of-the-box governance rules. It simplifies data operations by revealing origin, classification,

ownership, usage, quality, and downstream impact. Related signals are grouped into actionable insights so data teams can reduce noise, prioritize remediation, and improve the health of the enterprise data estate.

Architecture Layer	Primary Components	Purpose
Enterprise connectivity	ERP, CRM, HRIS, R&D systems, custom systems, cloud platforms, batch and real-time sources, 50+ connectors	Onboards structured, unstructured, real-time, and batch data across business domains.
Data product marketplace	Domain-owned data products, catalog, ownership metadata, SLA enforcement, publishing workflows	Enables teams to discover, request, reuse, and govern trusted data products.
Governance and lineage	Microsoft Purview, classification, lineage, sensitivity labels, access policies	Controls data access and provides visibility across data flows and downstream dependencies.
AI enablement	Azure AI Foundry, Azure OpenAI, open-source models, Prompt Flow, evaluation workflows	Supports governed model access, fine-tuning, prompt orchestration, and deployment.
Quality and risk analytics	SmartScore, behavioral analytics, data quality engine, anomaly detection, UEBA	Detects issues, scores risks, and prioritizes remediation across data and AI workflows.
Operations console	Enterprise Command Center, dashboards, public APIs, incident workflows, managed AI operations	Unifies monitoring, reporting, investigation, remediation, and third-party integration.

6. Governance, Security, and Data Protection

6.1 Identity-Based Data Access Governance

The platform protects knowledge assets by monitoring and managing data flows through Microsoft Purview and identity-based access controls. Administrators can restrict access by role, business domain, sensitivity classification, Active Directory group, user, or data product. Granular permissions allow controlled read, write, publish, and governance actions without deploying separate governance tools.

6.2 Classification and Encryption

Automated classification and encryption controls reduce compliance risk across cloud and on-premises environments. The hub labels sensitive data, applies policies, and provides centralized enforcement through the Enterprise Command Center. This supports regulatory requirements and helps prevent unauthorized exposure of sensitive knowledge assets.

6.3 AI and Data Quality Analysis

The AI-driven quality engine examines data assets continuously and learns from new anomaly patterns. Behavioral analytics evaluates user, entity, and system activity to detect insider risks and compromised accounts. Integration with Microsoft Purview's compliance framework improves governance coverage and strengthens confidence in data used for analytics and AI.

6.4 Flexible Remediation Options

Data governance teams can contain quality failures, restrict access to compromised assets, update classification policies, and prevent consumption of flagged data products from one console. The Data Studio capability allows analysts to investigate and remediate issues directly against live data products while minimizing disruption to end users.

7. Unified Enterprise Search Advantage

7.1 eXtended Knowledge Discovery Module

The eXtended Knowledge Discovery Module enhances the Professional tier by onboarding additional event types, data behaviors, usage signals, and analytics sources. It helps domain owners identify knowledge patterns, system behavior, data traffic, and user activity so they can detect and respond to data quality or governance issues quickly.

7.2 Domain Insights

Domain Insights provides a holistic view of data asset visibility and governance exposure. It helps teams identify stale, duplicated, miscategorized, or vulnerable data products by combining asset inventory, vulnerability assessment, and targeted search capabilities. This reduces the likelihood of compliance incidents and improves data product reliability.

7.3 Integrated Hub Forensics

Hub Forensics gives teams a structured investigation capability for lineage review, anomaly hunting, data quality assessment, and compliance event analysis. Deep collection of audit artifacts, governance metadata, and session details helps teams determine the source, scope, and impact of each incident.

7.4 Behavioral Analytics and ITDR

Identity Analytics uses advanced data collection and machine learning to identify abnormal user and entity behavior. Combined with Identity Threat Detection and Response, the hub helps organizations investigate identity-related risks, assess impact through scoring, visualize trends, and reduce the likelihood of data breaches or insider misuse.

7.5 Advanced Search and Risk Hunting

Analysts can use Query Builder and XQL-style search to find hidden data gaps, targeted risks, insider threats, and AI model misuse. Searches can be saved, scheduled, and visualized to support continuous monitoring of hard-to-find governance issues across the enterprise data estate.

7.6 Managed AI Operations

ICT Managed AI Operations provides expert-led deployment, monitoring, tuning, and optimization for the enterprise AI estate. ICT data engineers, AI specialists, and governance consultants help customers scale quickly while maintaining operational excellence across Microsoft Azure, Purview, AI Foundry, data pipelines, and model performance.

8. Unified Management and Reporting

The Enterprise Command Center provides end-to-end support for data product lifecycle management, discovery, governance, investigation, remediation, reporting, and AI operations. Custom dashboards show governance status by organization, business domain, data product, AI workflow, and risk category. Reports can be scheduled or generated on demand to support leadership visibility and operational accountability.

Public APIs extend management to third-party tools, enabling integration with ITSM, reporting platforms, data catalogs, AI operations platforms, and governance workflows. This unified management model reduces manual work, improves response consistency, and helps organizations scale data and AI governance across the enterprise.

9. Deployment Model

The Unified Enterprise Search is delivered as a cloud-native platform on Microsoft Azure, with support for private and public cloud environments including AWS, Google Cloud, and Microsoft Azure. Kubernetes integration supports containerized data pipelines, while lightweight hub agents and connector patterns allow organizations to onboard sources without disrupting existing workflows.

The platform can begin delivering value with one source of data and then expand to additional domains, repositories, systems, and AI workflows. This phased delivery model helps organizations validate value early, eliminate blind spots over time, and reduce operating costs compared to siloed departmental tools.

Deployment Step	ICT Activity	Customer Outcome
1. Discovery and strategy	Assess business domains, data sources, AI use cases, governance requirements, security controls, and success metrics.	A clear roadmap for governed enterprise data and AI transformation.
2. Platform foundation	Deploy Azure foundation, governance services, Purview configuration, access controls, monitoring, and connector architecture.	A secure operating foundation for enterprise data products and AI workflows.
3. Source onboarding	Integrate priority systems such as ERP, CRM, HRIS, R&D repositories, custom systems, and cloud platforms.	Initial enterprise visibility across selected data domains.
4. Marketplace enablement	Configure data product cataloging, ownership, SLA policies, publishing workflows, and access request processes.	A governed marketplace where teams can discover and reuse trusted data products.
5. AI operationalization	Enable Azure AI Foundry, model access, Prompt Flow, evaluation, sovereign fine-tuning, and AI workflow governance.	A controlled path from AI experimentation to production deployment.
6. Operations handover	Configure dashboards, incident rules, quality workflows, APIs, FinOps reporting, and managed AI operations.	Production-ready operations with measurable governance, quality, and cost controls.

10. Platform Tiers

ICT offers tiered adoption paths so organizations can start with core AI model access and enterprise connectors, then expand into federated data mesh governance, sovereign AI enablement, Microsoft Purview, FinOps, identity threat detection, custom connectors, and managed AI operations.

Capability	Description	Essentials	Professional	Enterprise
AI Model Access and Catalog	Access to Azure OpenAI and open-source models	Included	Included	Included
Enterprise Data Connectors	50+ pre-built connectors to ERP, CRM, HRIS, and additional systems	Included	Included	Included

Federated Data Mesh	Domain-owned data products with SLA enforcement	Not included	Included	Included
Sovereign AI Enablement	Fine-tune and deploy models on proprietary data	Not included	Included	Included
FinOps Dashboard	Cost tracking and budget alerting per unit and model	Not included	Included	Included
Microsoft Purview Governance	Data lineage, classification, and access control	Not included	Included	Included
Identity Threat Detection	Behavioral analytics to detect insider threats	Not included	Not included	Included
Custom Connector Studio	Low-code interface to build proprietary connectors	Not included	Not included	Included
Managed AI Operations	Expert-led model tuning, monitoring, and optimization	Not included	Not included	Included

11. Recommended Next Steps

ICT recommends a structured discovery workshop to identify priority data domains, confirm AI use cases, assess current governance maturity, validate source systems, define access and classification requirements, and establish measurable success criteria. The workshop should also define the first wave of data products, target dashboards, model governance needs, and managed operations expectations.

Following discovery, ICT will provide the solution design, deployment plan, tier recommendation, implementation roadmap, and operating model. This approach ensures the organization can move from fragmented data assets to governed enterprise intelligence with confidence, speed, and measurable impact. Let’s transform the future together.