



Creating Safe, Efficient and Sustainable Operations
by building a Data Fabric architecture.

Introduction



Unifii is an Australian company specialising in business improvement and operational excellence for large-scale, operationally-focused enterprises.

We deliver:

- A safer, more sustainable and more compliant workplace.
- A platform that enables solutions to difficult operational business process problems.
- Significantly lower operating costs for operations.
- Vastly improved reporting, data analytics and business intelligence.

We do this by combining our specialist digital transformation and Operational Excellence consulting services with our class-leading SaaS platform, Unifii Operations Cloud, using our proprietary methodology which we call The Unifii Way.

Track Record



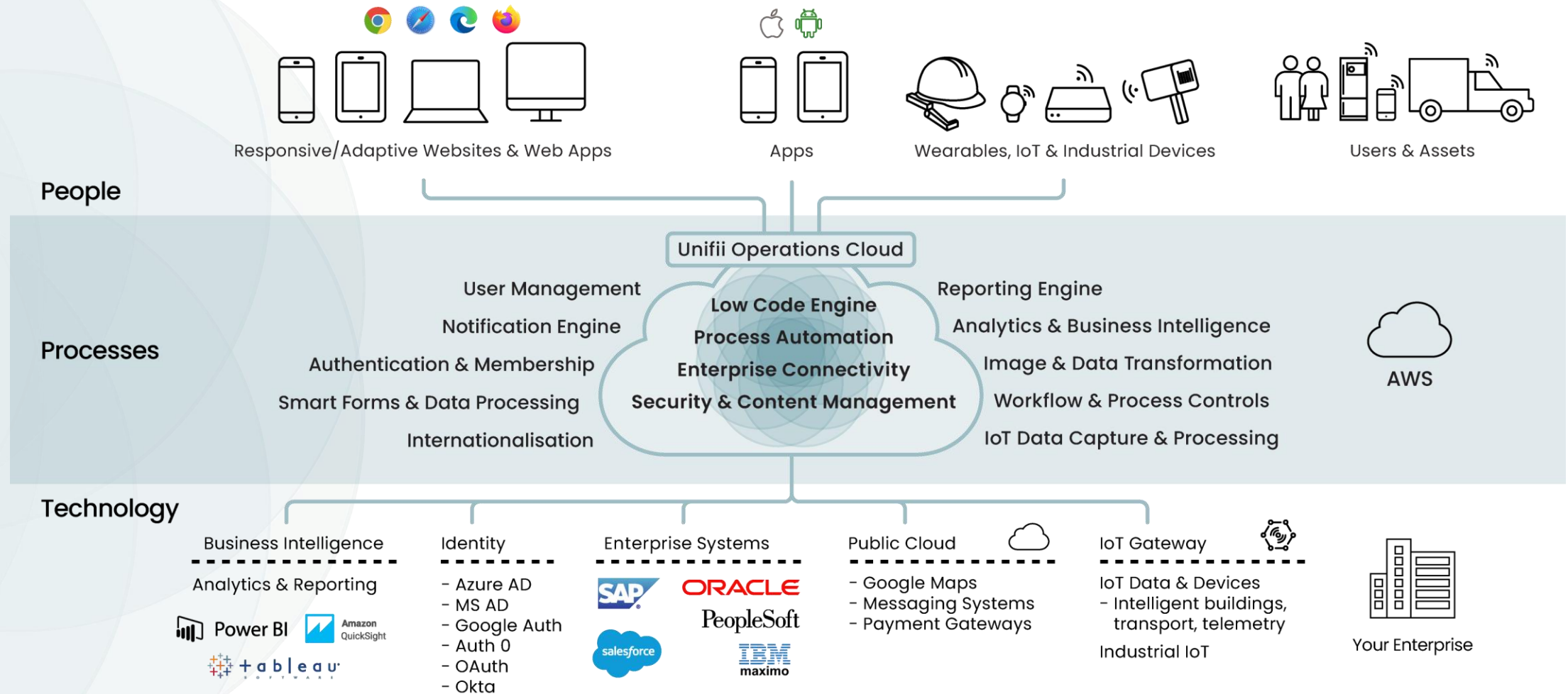
Over 450 projects delivered to Australian and international corporate and government enterprises since 2010.

In the last 10 years, Unifii Operations Cloud has served more than 4 million authenticated users in 20 languages across 40 countries with over 6 billion data points collected, managed and processed.

We have delivered B2C, B2B and B2E applications ranging from less than 20 to more than 800,000 users.

A Selection of Clients





A world of change



- The world is facing enormous change and new challenges are everywhere.
- Geopolitical, political, economic, technological and social forces are being felt by enterprises, which are facing new risks from investors, regulators, legislators, the financial markets and social media.
- Boards are now facing unprecedented challenges including the requirement to meet ESG, GRC, AML, Health & Safety and other regulations.
- Enterprises that do not meet these challenges appropriately will face very significant risks, including right-to-operate risks.



In order to meet these challenges, information
must flow freely across the enterprise.

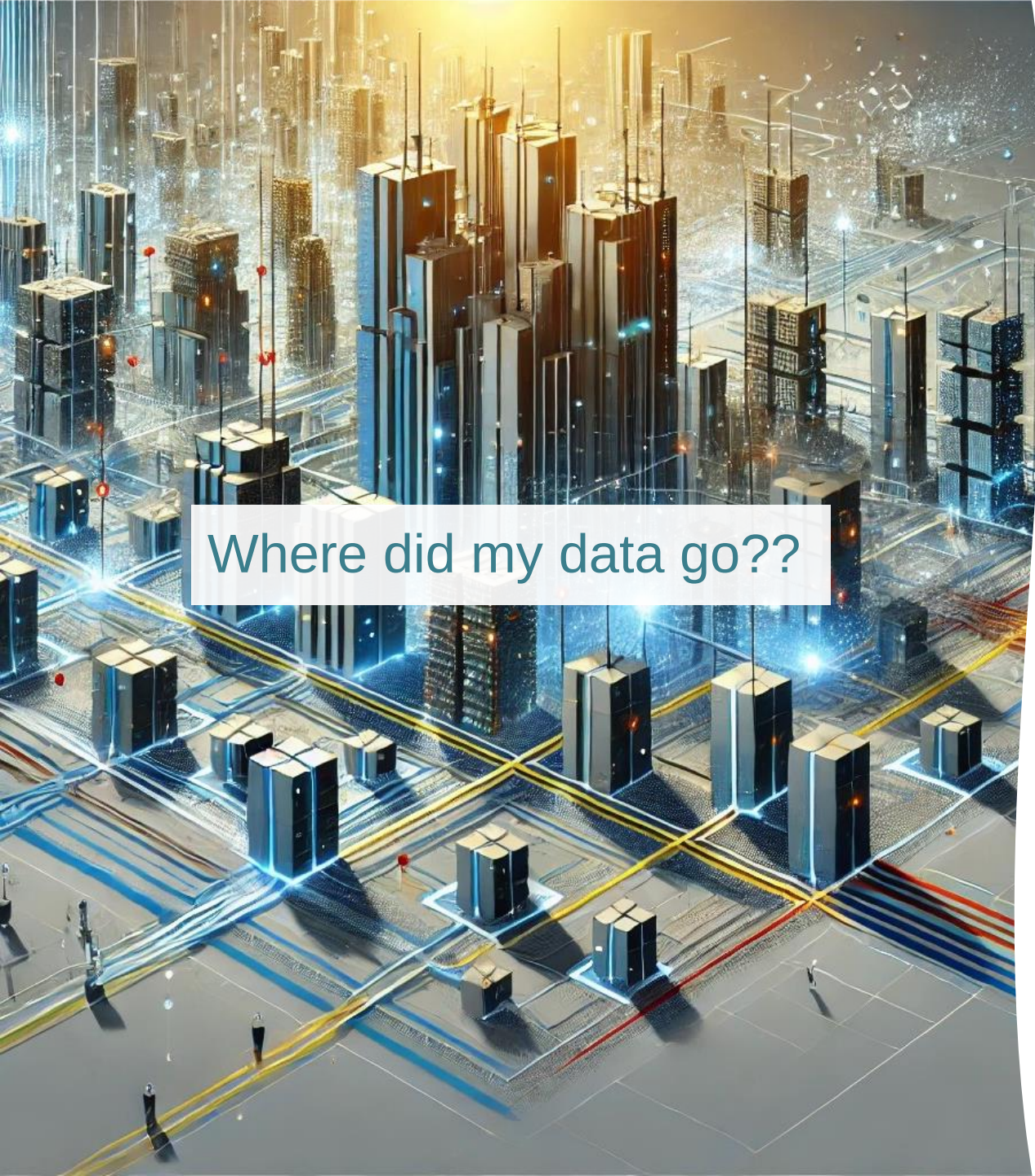
Data is the lifeblood of the enterprise.

However, most enterprises struggle to capture, process, or measure data.



- Many enterprises lack the ability to connect their people, processes and technology together so that information can flow freely around the organisation - **horizontally** (across different departments and operating environment) and **vertically** (between different levels of the organization).
- This is causing an inability to meet the challenge of change.



A futuristic, high-tech cityscape with numerous tall, metallic skyscrapers. The scene is illuminated with blue and yellow light trails that crisscross the city, suggesting data flow or network connections. The overall aesthetic is digital and high-tech.

Where did my data go??

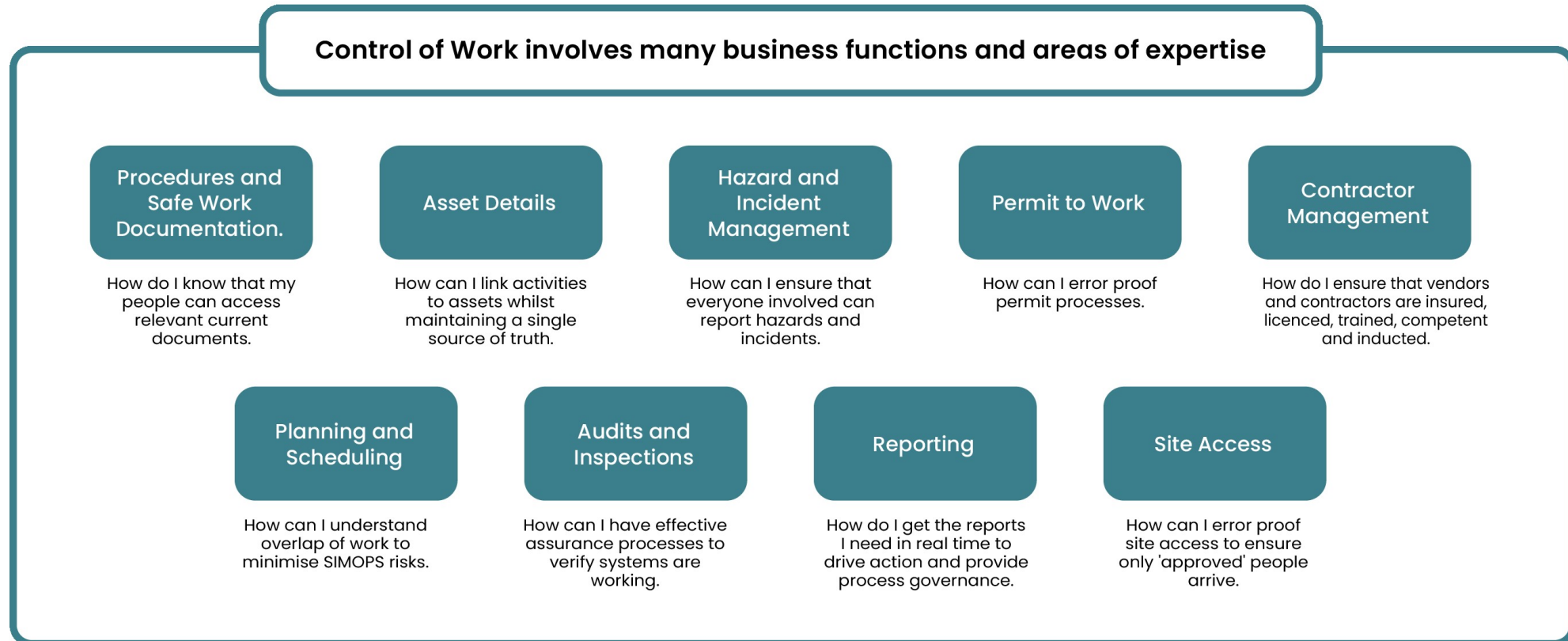
- Operations are organised around functional components and areas of specialisation, which are physically, and organisationally separated from each other (siloes).
- Typically, information systems and enabling technology are orchestrated within these functional areas, creating workflow boundaries, data silos and business systems that don't talk to each other.
- Technology enablement is poor when compared to knowledge work:
 - Functional Boundaries.
 - Scope Boundaries.
 - Budget, time, resources.
 - Misalignment of goals, experience, governance and priorities
- The result is an over-reliance on paper, spreadsheets, email and Sharepoint to solve operational process, workflow and data gaps.
- This leads to a capability and resource gap.

The hidden cost of missing data...



Problem	Effect
Operational Inefficiencies	• Duplicate Efforts: Time and resources are wasted on redundant tasks and projects across departments. • Process Delays: Inefficient processes and workflows slow down operations and reduce overall productivity.
Poor Decision-Making	• Incomplete or Inaccurate Data: Decisions are based on fragmented or outdated information, leading to suboptimal outcomes. • Missed Opportunities: Inability to access comprehensive data can result in missed business opportunities and strategic missteps.
Hindered Innovation	• Limited Collaboration: Lack of data sharing stifles cross-departmental collaboration and innovation. • Slower Response to Market Changes: Inability to quickly access and share data reduces the agility needed to respond to market dynamics and customer needs.
Increased Costs	• Higher Operational Costs: Inefficiencies and redundant efforts drive up operational expenses. • Revenue Loss: Missed opportunities for upselling, cross-selling, and optimizing customer experiences lead to potential revenue loss.
Compliance and Risk Management Issues	• Regulatory Penalties: Inconsistent data governance and compliance practices can result in fines and penalties. • Increased Risk: Greater risk of errors, fraud, and security breaches due to poor data visibility and management.
Employee Dissatisfaction and Turnover	• Low Morale: Frustration over inefficiencies and obstacles in accessing necessary data can lower employee morale. • Higher Turnover Rates: Persistent challenges and a lack of collaboration can lead to higher employee turnover, increasing recruitment and training costs.
Lost Competitive Advantage	• Market Position: Inability to leverage data effectively can erode competitive advantage, making it harder to compete with data-savvy competitors.
Customer Satisfaction	• Poor data sharing can result in subpar customer service and experience, negatively impacting customer satisfaction and loyalty.

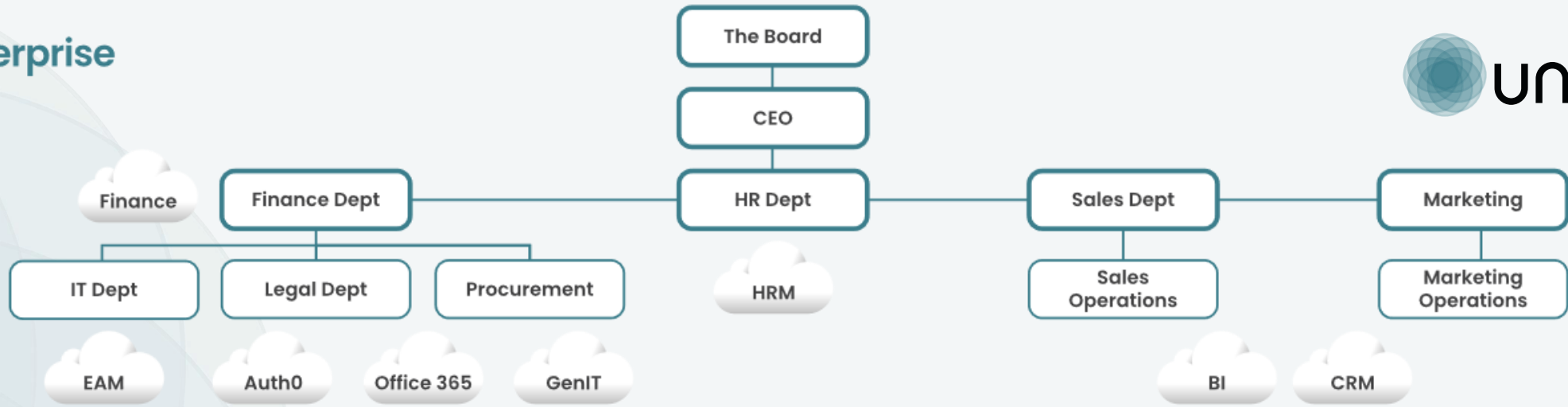
The challenge of managing the Operating Model in Retail



The Enterprise



Lower Risk



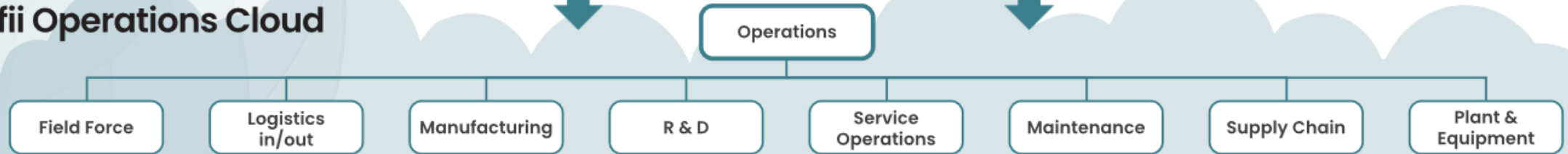
Knowledge Work

Complete IT Domain



Unifii Operations Cloud

Higher Risk



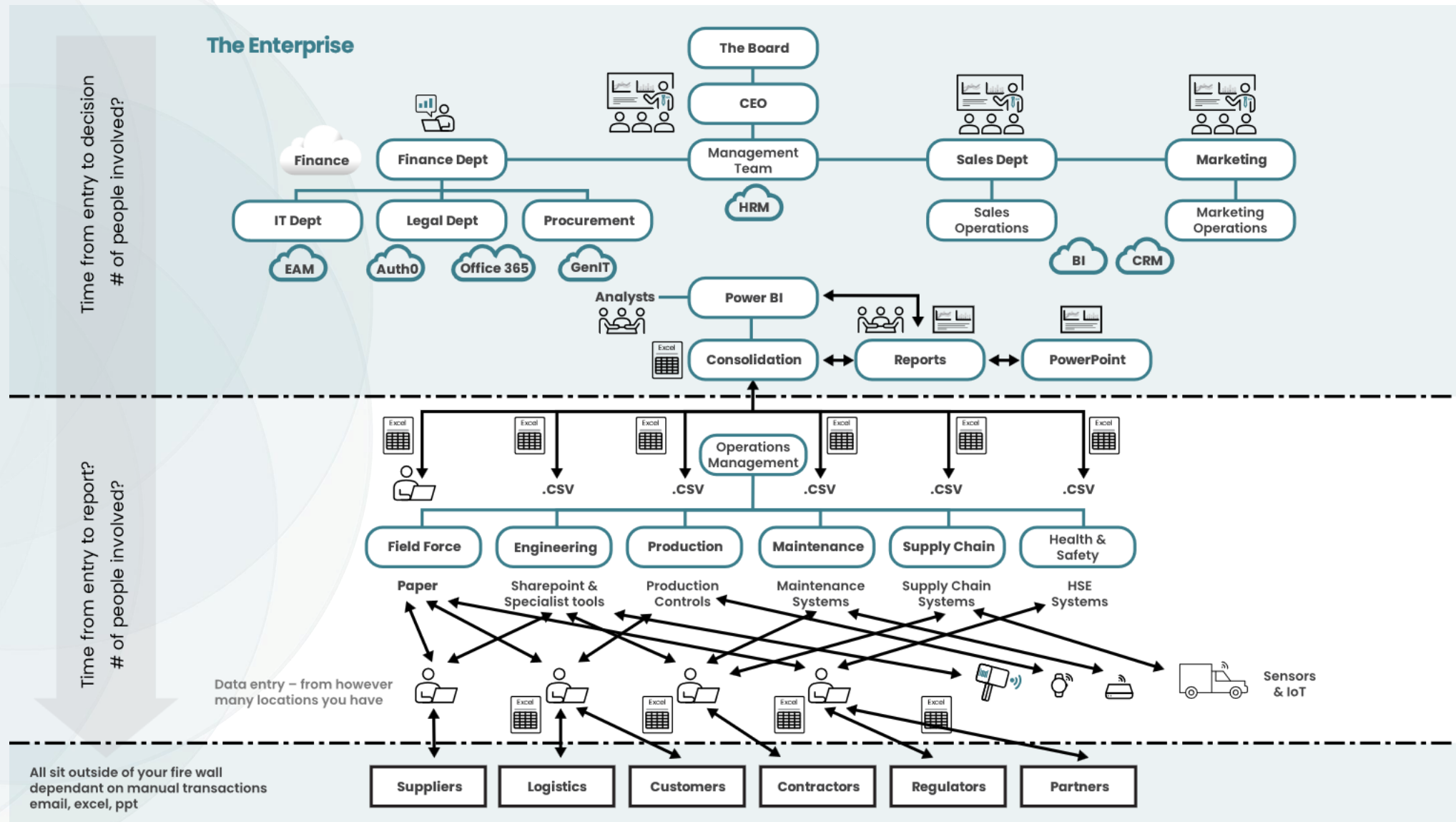
Physical Work

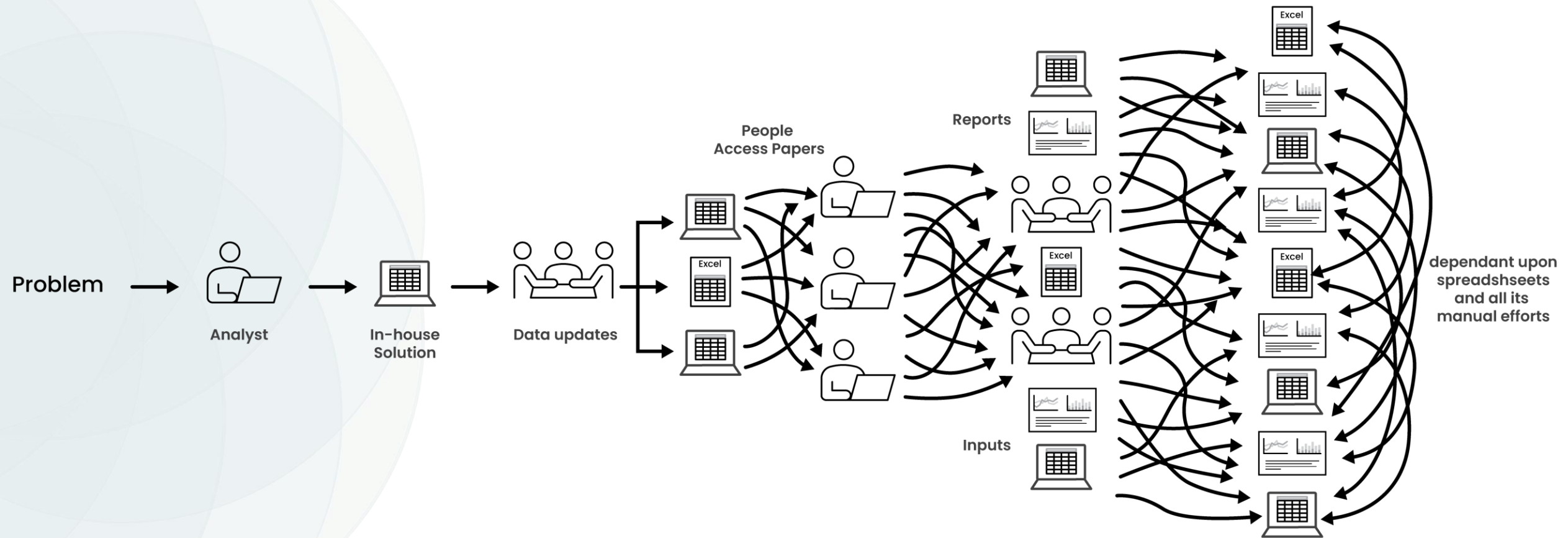
Partial IT Domain Limited / no access to enterprise IT systems – many single-point solutions



Zero IT Domain

How most enterprises operate today:





Pneumoconiosis

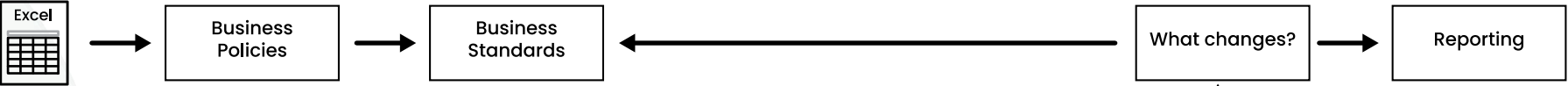
Group Exec
/Board

Group
Risk Register



Business
Exec

Business
Risk Register



Site
Management

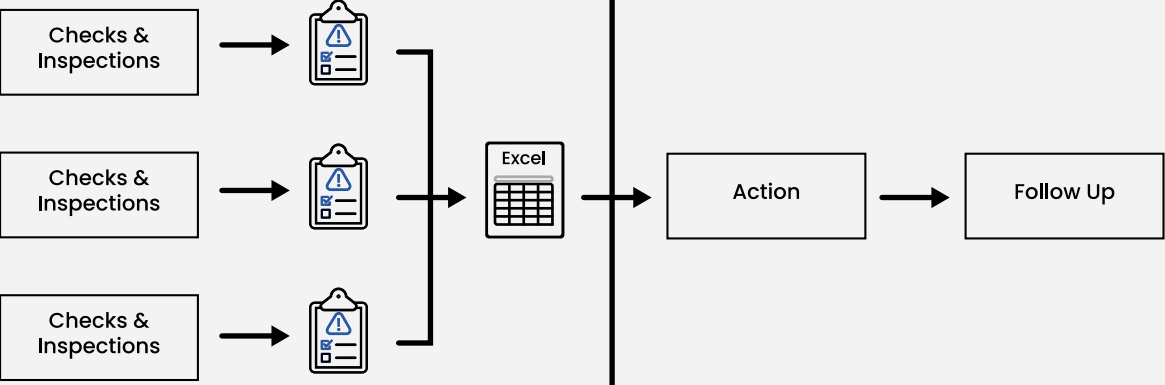
Site 1
Risk Register



Site 2
Risk Register

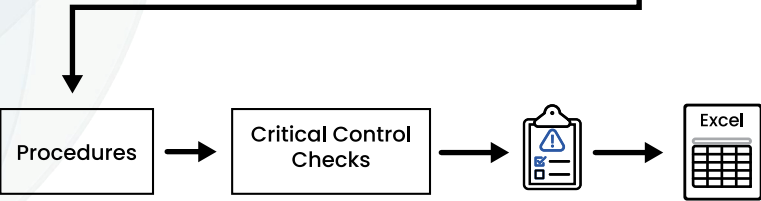


Site 3
Risk Register



Supervision

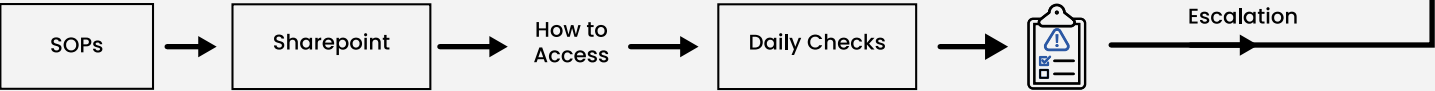
Site 1
Area A
Area B
Area C



Site 2
Area A
Area B
Area C

What to do if breach escalates

Frontline



The 8 Ills of the Modern Enterprise



- Denial
- Confirmation bias
- Organisational bias
- Functional boundaries
- Scope boundaries
- Unconscious incompetence
- Wilful ignorance
- Tribalism and politics

Symptoms of a struggling enterprise



- Can't meet their governance, sustainability or compliance obligations.
- Struggle to implement and maintain processes to sufficiently manage their operational risk.
- Efficiency and cost reduction goals in their operations are not met.
- Operational Excellence goals are not met.
- Can't adequately meet their reporting or business intelligence requirements.
- Have IT systems that struggle to collect, route, analyse and report the required data.
- Don't have a single source of truth for critical operational data.
- Rely on spreadsheets, email and manual paper-based processes to complete workflows and this is causing delays, mishandling or omission of critical data, large workforce overhead and costs, and diversion of people from more important, higher value tasks.
- Can't bring all their contractors and third parties into the same technical and operational framework, which prevents these people from taking part in critical processes.

Solving the Data Crisis

WHAT IS DATA?

DATA

DATA

DATA

DOTA

DOTA

DOTA

WHAT IS DATA?

DATA POINTS

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DATA

DOTA

DOTA

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What is data?



- Quantitative Data:
 - Numerical data that represents quantities or measurements. For example, a person's age, height, or income.
- Qualitative Data:
 - Descriptive data that represents characteristics or qualities. For example, a person's eye colour, job title, or feedback in a survey.
- Structured Data:
 - Data that is organised in a fixed format, often stored in databases or spreadsheets (e.g., tables of numbers, dates, names).
- Unstructured Data:
 - Data that doesn't have a predefined structure, such as text documents, emails, videos, or social media posts.
 - Also the new frontier for business intelligence
- Metadata:
 - Metadata is "data about data." It provides information about other data, helping to organise, find, and understand the data itself. Metadata describes the characteristics or attributes of the main data, making it easier to manage, locate, and use effectively.

Metadata: a story within a story



- Descriptive Metadata:
 - Information that describes the content of the data. For example, the title, author, and creation date of a document or the keywords that describe an image. This type of metadata helps users find and identify data.
- Structural Metadata:
 - Information about how data is organised. For example, the format of a file, the structure of a database, or the relationships between data items (e.g., chapters in a book or tables in a database).
- Administrative Metadata:
 - Information about the management of the data, such as when and how it was created, who can access it, and how it should be preserved. This includes technical information (e.g., file type, size) and access rights (e.g., who is allowed to view or edit the data).
- Provenance Metadata:
 - Information about the history or origin of the data, including where it came from and how it has been modified over time. This is important for ensuring data integrity and traceability.

The background is a complex, abstract digital illustration. It features a dense network of glowing blue and white lines that resemble circuit traces or data paths. These lines are interspersed with numerous small, glowing spheres and larger, more complex geometric shapes that look like microchips or data nodes. The overall color palette is dominated by deep blues, greens, and whites, creating a high-tech, futuristic atmosphere. The composition is layered, with some elements appearing to float above others, giving it a three-dimensional feel.

A data fabric architecture is a unified data management architecture that enables seamless data integration, access, and management across diverse environments.

What is Data Fabric?



- A data fabric is an architectural approach that provides a unified layer to manage and access data across different environments, formats, and platforms.
- Key Elements:
 - Unified data access layer
 - Metadata management and automation
 - Real-time data integration and processing
 - Security and governance framework

Solving the Data Crisis with a Data Fabric Approach



- Collect, manage and report operational risk data, all the way from the front-line workers to the Board.
- Distribute digital workflows that match how you work to operational areas of the business.
- Bring all front-line workers, including employees, contractors and 3rd parties, into a single technology ecosystem.
- Facilitate advanced data visualisation and business intelligence for every part of the business.
- Enable rapid design, deployment and implementation of new business applications and processes.
- Connect existing systems and data siloes together, unlocking and creating new value for the enterprise.

Logical Components of a Data Fabric Architecture



- Engagement Layer
 - Focus on UX/UI, devices, machine data, IoT
- Integration Layer
 - Connect with everything in an agnostic way
- Middleware Layer
 - Workflow engine, user management and authentication, content management
- Data Management Layer
 - Data lake, unstructured data, connectivity and interoperability.
- Reporting, Data Analytics and BI tools
 - Native capability and integration with mainstream tools.

Importance of Data Fabric in Enterprises



- Enabling a Data-Driven Culture:
 - Democratising data access across the organisation.
 - Empowering business units with real-time, actionable insights.
- Supporting Digital Transformation:
 - Facilitating seamless integration of legacy systems with modern platforms.
 - Accelerating innovation by improving access to data and reducing complexity.
- Improving Decision-Making:
 - Providing timely and accurate data across the enterprise for more informed decision-making.

Key Advantages of Implementing Data Fabric



- Unified Data Management:
 - A consistent data management layer across all environments (cloud, on-premises, hybrid).
 - Simplified data integration and reduced need for data replication.
- Enhanced Data Governance:
 - Centralised governance and compliance management across distributed data environments.
 - Improved security and control over data access.
- Operational Efficiency:
 - Streamlining operations by reducing data silos and enabling real-time data access and processing.
 - Reducing the complexity of data management and integration efforts.

Enabling Operational Excellence



- Real-Time Data for Operational Insights:
 - Real-time data streaming and analytics for improved operational visibility and decision-making.
 - Proactive issue detection and response through AI and automation.
- Optimising Business Processes:
 - Enhancing process efficiency by leveraging integrated data for end-to-end process optimisation.
 - Driving continuous improvement initiatives with accurate and timely data.
- Improved Customer Experiences:
 - Enabling personalised and responsive customer interactions through unified data insights.

Case Study – Transport Industry



- The customer is Australia's most experienced providers of multi-modal public transport services and tourism experiences. In 2023 they moved more than 332 million customers, had over 12,200 employees and operates approximately 5,500 buses, 115 vessels and 24 light rail vehicles.
- The customer required a centralised Safety Management System that could reach all their operational people, so that a “whole of enterprise” view of risk could be reported in real time, and so that safety and risk management processes could be standardised and regulated across 20 operating entities.
- 9000 personnel onboarded into Operations Cloud.
- For the first 12 months:
 - 4039 incidents were reporting, an uplift of 80%
 - 1808 hazards were reported, with mitigation actions put in place.
- Dramatic increase in visibility of risk, reporting and analysis with elimination of LOB reporting discretion, and consistent reporting to Board and SLT in real time.

Case Study – Asset and Fleet Management



- The customer is a leading provider of integrated mobility solutions, including fleet management, vehicle leasing and salary packaging services. The company employs approximately 1,100 staff and has over 250,000 vehicles under management.
- They needed a Chain of Responsibility platform. Chain of Responsibility (CoR) is the part of the Heavy Vehicle National Law (HVNL) that makes parties other than drivers responsible for the safety of heavy vehicles on the road. The CoR Platform needed to connect drivers, subcontractors, contractors, asset leaseholders, and the customer into a single process, workflow and data management system.
- Unifii created an industry-leading digital platform that connected ALL stakeholders through the entire value chain, with instant data capture, process regulation, data management and real-time reporting and analysis.

Case Study – Retail



- The customer is the owner of four iconic retail brands and is one of Australia and New Zealand's largest retailers. The company has 15,599 staff and operates 736 retail stores and 7 distribution centres across 3 countries.
- The customer employs and contracts a very large workforce, often in high-risk operating environments, and required a new approach to safety management, workforce regulation and operational risk management.
- Unifii created an enterprise-wide Operational Risk management platform using Operations Cloud, starting with Distribution Centres and expanding to all 736 retail stores across all brand. The platform includes workforce risk and regulation and provides advanced real-time reporting and analytics to the SLT and Board.

Steps to Implementing a Data Fabric Architecture



- Assess Current Data Landscape:
 - Identify data silos, integration challenges, and governance gaps.
- Choose the Right Technologies:
 - Evaluate data fabric platforms that meet your specific business needs
- Implement Gradually:
 - Start with a proof of concept and gradually expand across the organisation.
- Focus on Governance and Security:
 - Ensure that data governance and security are central to the implementation process.

Steps to Implementing a Data Fabric Architecture



- It's strategic!
- Requires executive support, alignment with IT priorities and cultural change
- A Data Fabric approach is NOT B.A.U!
- The tools you have now probably won't work.
- Requires technical, operational, and commercial support.
- Most enterprises will not act, and many will fail.

Measuring Success



- Key Performance Indicators (KPIs):
 - Time to access and integrate data
 - Reduction in data management costs
 - Improvement in decision-making speed and accuracy
 - Enhanced operational performance and efficiency metrics
- Continuous Improvement:
 - Regularly evaluate and optimise the data fabric architecture to adapt to evolving business needs.

Conclusion



- Data fabric architecture is essential for modern enterprises looking to improve business performance and operational excellence.
- By unifying data management, enhancing governance, and enabling real-time insights, a data fabric supports digital transformation and continuous improvement.
- A data fabric approach is the only way an enterprise can face the risks and address the challenges of the modern operating environment.

