

Integrated Operational Leadership Network (IOLN): Embedding Authority into Execution for the AI Age

Laurel Consulting White Paper

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Executive Summary

As organizations accelerate their investments in Artificial Intelligence (AI), many are discovering that technology alone does not guarantee business value. Despite significant spending on data platforms, governance programs, analytics capabilities, and AI initiatives, organizations continue to struggle with slow delivery, fragmented ownership, overloaded technical teams, and disappointing returns on investment.

The root cause is not technological. It is structural.

Most organizations separate business leadership from data and AI leadership. Business leaders own operational outcomes while data and AI capabilities are managed through centralized technical functions. This creates a structural divide between data and AI authority and business execution. Governance may define ownership and accountability, but authority remains disconnected from where business decisions are actually made and executed. As AI becomes increasingly embedded in workflows, automation, and decision-making, this divide becomes a growing obstacle to organizational performance.

This paper introduces the Integrated Operational Leadership Network (IOLN), a leadership structure designed specifically for the AI age. Rather than treating data and AI as separate technical capabilities, the IOLN integrates data and AI leadership directly into the operational leadership system of the organization.

The IOLN consists of three key components:

- A Chief Data and AI Officer (CDAIO) office that provides enterprise-wide leadership and coordination.
- Domain Leadership Groups (DLGs) that own data and AI leadership within specific business domains.
- Data and AI Stewards (DAISs) who embed authority into day-to-day business execution.

Together, these roles form a leadership network that aligns decision-making, accountability, and execution across the enterprise.

The central thesis of this paper is simple: governance defines authority, but leadership structure determines whether authority can function operationally. In the AI age, authority must be embedded into execution. Organizations that evolve their leadership structures accordingly will be better positioned to realize the full data and AI potential.

Section I

The Problem Statement

Current Data/AI leadership Structures Fall Short for the AI Age

As the development of Artificial Intelligence (AI) accelerates, most organizations invest heavily in data and AI governance, tools, platforms, talents, etc. But the Return on Investment is far from satisfactory. Organizations struggle with increasing business demands, while deliveries are slow, technical teams remain overloaded, and scalability is hard to achieve.

There is a growing gap between organizational aspirations and operational reality. On paper, organizations establish governance committees; assign ownerships to AI and data systems; publish policies, standards, and so on. But in reality, both the business user community and technical teams become increasingly burdened by an ever expanding data and AI system inventory, while the business purpose and innovation edge get buried under busy work. At stake is an organization's ability to thrive in an increasingly AI-driven environment.

Organizations may try to address the challenges by investing more money, adding more governance, setting more standards and processes. However, they hit an impasse where more leads to heavier burden and deeper confusion. **The core problem is that today's data and AI leadership structures are not designed for the AI age.**

Section II

The Root Cause

Structural Divide between Business and Data/AI Leadership

Data and AI are not isolated functions. They shape how business decisions are made, how workflows are executed, and how operations evolve. They are deeply embedded in business operations and fundamentally different from traditional technical disciplines, such as servers, network, and database administration, to name a few.

But today most organizations structure leadership along a common boundary: business leaders own operations and outcomes; technology leaders own data and AI system development and delivery. Data and AI leadership is typically positioned within the technical branch of the organization—structurally separated from business operations. Even when a Chief Data Officer exists, the role often sits within—or behaves like—a technical function (see Figure 1 and Figure 2).

Under this kind of structuring, leadership over data and AI is separated from where business execution happens. Ownership may be assigned, but execution remains fragmented. Authority exists on paper, but not in execution.

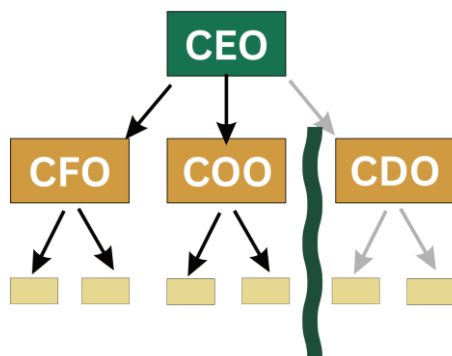


Figure 1 Data/AI leadership sits outside business execution.



Figure 2 The structural divide between business and Data/AI Leadership in most modern organizations.

Until this structural divide is addressed, it doesn't help with more governance, tools, or processes being added. The operational friction will continue to grow. This becomes even more difficult with agentic AI, workflow automation, and autonomous decision systems. These technologies make business execution scale fast. When operational leaders lack sufficient understanding of the data and AI systems that shape their business outcome, not only they cannot achieve the expected efficiency and productivity, they may encounter serious risks and failures.

When organizations don't have a data and AI leadership that is effective for the AI age, they will increasingly experience insurmountable obstacles in their business operations.

Section III

The Solution

Integrated Operation Leadership Network (IOLN)

The fundamental challenge is that modern organizations increasingly operate as networks of interconnected business domains, while leadership remains organized as separate branches of authority. This mismatch creates fragmentation, slows decision-making, and prevents data and AI authority from functioning where business execution occurs.

Solving this problem requires a leadership structure that embeds authority directly into execution.

What does this leadership structure look like?

First, it is not about making every operational leader a data and AI expert. This expectation is unrealistic in the business world. Second, it is not about moving all authority into a centralized data and AI office. This model cannot effectively address the diversity of business operations and will create an enormous organizational bottleneck.

Instead, a working structure **integrates data and AI leadership directly into the operational leadership system of the organization**. This leadership structure does not replace the operational leadership hierarchy. Rather, it integrates data and AI leadership into operational leadership across the enterprise's business domains (Figure 3).



Figure 3 Embedding Data and AI leadership into operational leadership across the enterprise's business domains.

In other words, **data and AI leadership cannot sit outside execution. It must become part of the operational leadership structure itself.** This is where many current governance models break down. **Governance defines authority. But leadership structure determines whether that authority can actually function operationally.** As AI becomes embedded into workflows, automation, and decision-making, this shift becomes not optional, but necessary.

In the following, I will lay out the answers to these questions:

1. What is the structure of this leadership system?
2. Who are the key players in this structure?
3. How does authority flow when this structure is established?

3.1 A Network Structure

Traditionally, organizations are structured as hierarchies. Authority is organized into departments, functional units, and reporting lines. This model works well when business activities can be managed largely within those boundaries.

Today, data and AI are changing that assumption: **a modern organization operates as a system with interconnected and interdependent components.**

Consider the following examples:

- A customer journey spans multiple business functions.
- A revenue metric depends on many operational processes.
- An AI-driven workflow crosses departmental boundaries.

The more organizations rely on data and AI, the more prominent these interconnections and interdependencies become.

Therefore, a fundamental structural mismatch persists: The business increasingly operates as a network. But leadership remains organized as separate branches of authority.

As the result, ownership becomes fragmented, decisions become inconsistent, and AI struggles to scale. Organizations lose the agility required to compete in the AI age.

The challenge becomes even greater as organizations move toward workflow automation, agentic AI, and autonomous decision systems. These capabilities rarely fit neatly inside a single department. They require coordinated leadership across connected business domains.

A different leadership model is needed NOW:

The AI age requires leadership to operate as a network where authority and information flow across connected business domains efficiently (Figure 4).

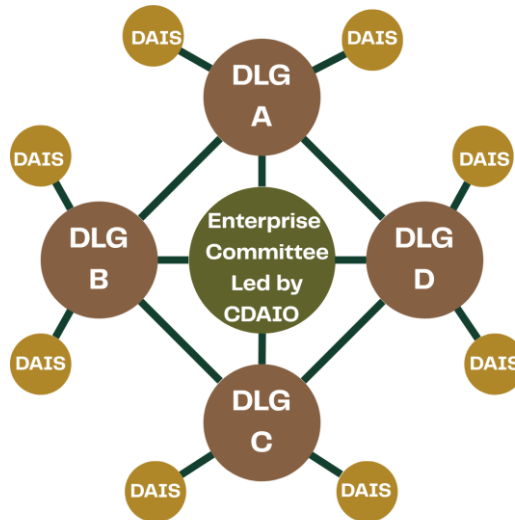


Figure 4 How modern organizations operate: a network of interconnected and interdependent business domains.

3.2 Key Players

To have an effective leadership structure over the interconnected and interdependent business operation network, the most critical step is to identify the roles accountable for the various authority levels. In every organization, there already exists the traditional hierarchical leadership structure, starting from CEO, to the C-suit leaders, vice presidents, directors, managers, etc. Building the leadership structure for the AI age doesn't mean leaving this whole structure behind. Rather, it is about reorganizing the existing roles in such a way that they function more efficiently with data and AI.

In the following, I'll discuss three key players in the new leadership structure. These roles are not completely new—people or groups in these roles may already exist today. The importance of discussing them here is that they must take on new vision and mission that have been revealed by the new technologies, so as to fulfill their new capabilities in the AI age.

3.2.1 The CDAIO Office

To overcome the split between business and technical authorities, a leader at the level of direct CEO reports is needed to **orchestrate how data and AI operate across the enterprise as an integrated capability**. This role must bridge business and technology while operating across business domains.

The Chief Data Officer (CDO), Chief Data and Analytics Officer (CDAO), or the emerging Chief AI officer (CAIO) role that many organizations already have today can be extended to this capacity. Its most fitting titled should be the **Chief Data and AI Officer (CDAIO)**. Its responsibilities include the following:

- **Bridge** business and technical domains
- **Establish** data and AI best practices
- **Align** business execution across the enterprise
- **Ensure** decisions are made where operational context exists

Specifically, the CDAIO office leads these enterprise wide efforts:

(1) Facilitate the enterprise level data and AI leadership committee.

The enterprise level data and AI committee encompasses all the major business domains in the organization. Its participating members should be able to represent their business domains with sufficient authorities for decision-making, which means either vice presidents in the domains or their delegates. The committee is to carry out the following functions:

- A. Takes the ownership of data and AI systems that no single business domain can or should take the ownership of.
- B. Sets policies, standards and processes for data and AI to ensure consistency and transparency throughout the organization.
- C. Promotes best practices regarding data and AI across the enterprise.

With the CDAIO's leadership and participations of business domains at the highest authority level, the committee is accountable for coherent efforts and the ultimate outcome of utilizing data and AI application in business operations.

(2) Develop and coordinate professionals who bridge business operations and data/AI

As data and AI become increasingly embedded in business workflows, organizations need professionals who can operate effectively across the business and technical boundary. These individuals combine an understanding of operational processes with knowledge of data, analytics, and AI capabilities. They help translate business needs into data and AI solutions, ensure that technologies are applied appropriately within operational contexts, and facilitate collaboration between business and technical teams.

The CDAIO office plays a critical role in developing, coordinating, and supporting these cross-functional professionals across the enterprise. While these individuals are typically embedded within business domains where they contribute directly to operational execution, the CDAIO office helps establish common practices, develop capabilities, facilitate knowledge sharing, and promote consistency in how data and AI are applied throughout the organization.

The development of this workforce capability is an important element of enabling the IOLN and will be explored in greater detail in a future Laurel Consulting white paper.

(3) Own the enterprise wide Metadata System

In modern organizations, metadata provides indispensable information for data and AI system usage. However, the responsibilities of metadata system implementation, maintenance, as well as metadata collection process and standard development and enforcement often fall into the cracks between business and technical teams because they are inherently cross-functional. The CDAIO office is in a unique position to lead the organization level effort for these responsibilities.

3.2.2 Domain Leadership Group (DLG)

Along with the enterprise level data and AI leadership committee, there must be leadership over every business domain to take the ownership of data and AI systems with their specific scope. Otherwise, the authority will still stay at a level that is not truly embedded in execution. The responsibilities of this level of leadership include:

- Prioritize data and AI needs for the domain
- Define business rules for data and AI models utilized in the domain
- Approve appropriate usage
- Set quality criteria
- Determine security rules

- Decide whether changes or final retirement should happen to data/AI products
- Take the accountability to the outcomes of data and AI utilizations

When the scope for these decisions is local to a single business unit, where one individual can take the responsibility comfortably, there is no need to defer to any group or committee. However, when the decision has such an impact that no one individual has the authority to represent all the stakeholders, a leadership group is necessary.

This is when a Domain Leadership Group (DLG) steps in. A DLG is a leadership body that owns an entire functional area in an organization. It is composed of business leaders from a single or multiple departments determined by logical operational clustering. It is related, but not limited, to the existing hierarchical organization leadership structure.

For example, the finance DLG may include billing, contracting, compensation, compliance, and so on. Data and AI are powerful to bring operational correlations to light. For example, the use of a shared metric among multiple business departments may become the catalyst to the forming of a DLG by the related business leaders. Through this process, organizations obtain a clearer picture of their operations so that business operations are fine-tuned, even transformed.

So when needed, new DLGs are formed like the finance DLG example above. Also, existing leadership groups can take on the data and AI leadership responsibilities naturally because they are already functioning as the oversight bodies for the corresponding business domains - adding data and AI to the groups' purview is an organic extension. This alignment between the data/AI and the operational leadership structures is the key to making data and AI an integral part of the business operation.

3.2.3 Data and AI Steward (DAIS)

As discussed in the above DLG section, an individual can take the data and AI leadership responsibilities with the appropriate scope. These individuals are the data and AI stewards in an organization—this is a business-side role responsible for ensuring that both data and AI assets are governed, trusted, and aligned with business objectives. When needed, the person closest to the related workflow makes the decisions for the data/AI systems under their stewardship.

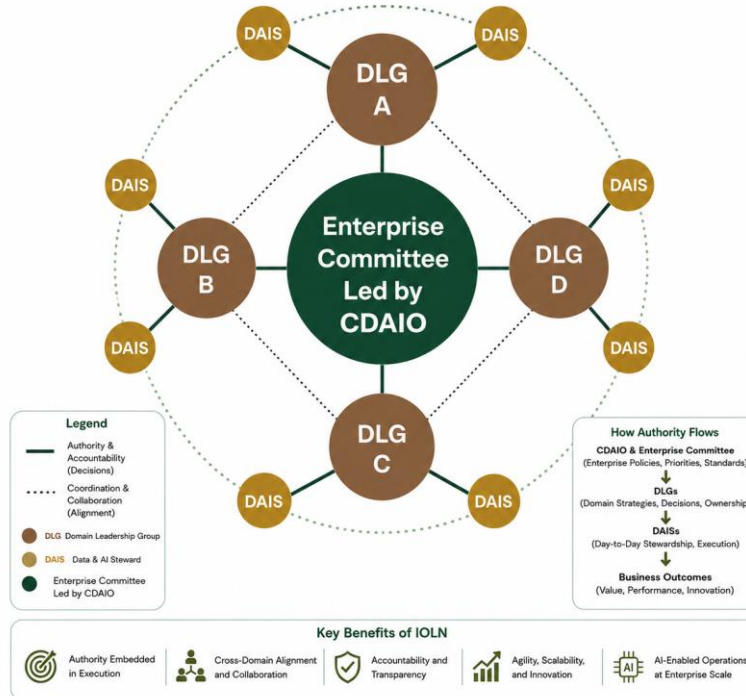
Having the DAIS in the leadership structure is crucial to ensure the embedment of Data and AI authority into execution. Operating on the front lines of business execution, DAISs oversee data quality and usage, validate model outputs, identify business risks, monitor AI performance, and escalate emerging issues. They are the hands and feet to carry out the leadership real time during business execution.

3.3 Execution of Authority

With the network structure and major players clarified, now we can put things together. The Data and AI leadership for the AI age is an Integrated Operational Leadership Network (IOLN) as shown in Figure 5.

Figure 5. Integrated Operational Leadership Network (IOLN) in Action

Authority is integrated. Leadership is networked. Execution is aligned.



The center of this network is the Enterprise Data and AI Committee led by the CDAIO. It holds the highest authority regarding data and AI across all business domains. It functions like the brain that sustains the whole body of the organization. The vision, standards, best practices, and decisions coming out of this committee are shared throughout the network in real time with the help of communication venues created and maintained by the CDAIO office, including the metadata system.

The DLGs take the leadership for their individual domains, while the DAISs ensure the realization of the authority all the way down to every detail of the business workflows. The IOLN grows until it covers the entire organization. This is usually an organic growth process. Sometimes business leaders need a few tries to find the best leadership configuration. For example, when an AI system connects multiple business departments, and no proper business leadership group exists yet for that cluster of operations, a DLG may be formed out of necessity and mutual understanding. As organizations gain experience, DLGs naturally evolve around operational interdependencies revealed by data and AI. New connections form where coordination is needed, creating a leadership network that becomes increasingly agile, resilient, and aligned with how the business actually operates.

When the IOLN is mature, a strong leadership structure is in place to embed authority into business execution for data and AI. Decisions are made at appropriate places in the network, from individuals on the front line, to the highest enterprise level committee. People are empowered to take leadership whenever they can so operations stay nimble. Meanwhile, leadership groups are available to take the responsibilities with corresponding scopes. Under the coordination and facilitation of the CDAIO office, authority is executed throughout the IOLN with agility, consistency, transparency, and efficiency.

Section IV

The Pathway to Developing the IOLN

While the IOLN is an effective leadership structure for the AI age, the present state of many organizations is far from it. As stated in the problem statement and root cause sections, the current leadership model lags behind the technology development despite the serious challenges that data and AI have brought to businesses. Deliberate efforts must be taken to shape an organization's leadership structure fit for the new technology environment.

Before diving into any practical steps, I must clarify one important mindset reframing—in the AI age, data and AI can no longer be regarded as deliverables developed by the technical team and handed over to the business departments for consumption. Instead, they should be strategically designed, developed, and maintained as an integral part of the organization operations. Business leaders must take the center stage in this process.

With this mindset, the goal of embedding authority into business execution can be achieved by following these concrete steps to establish the Integrated Operational Leadership Network (IOLN):

4.1 Evolve the CDAIO role

According to recent survey results, the percentage of organizations having appointed Chief Data Officers (CDO/CDAO) has risen from just 12% in 2012 to 84.3% in 2025, which is a new high. Meanwhile, the new Chief AI Officer role is emerging with 33.1% of organizations reporting having filled this role, while 43.9% believing that a CAIO should be appointed. The survey results also show that there is still no consensus on data and AI leadership reporting structure. While more firms now see data and AI leadership (CDO/CDAO/CAIO) as a business role, 47.2% see it as a technology function. The Chief Data Officer (CDO) role continues to be a work in progress as organizational data and AI needs rapidly evolve. The CDO role is characterized by high turnover, short tenures, and not being well understood [1].

Because data and AI are closely related, and also, the responsibilities of an executive role for both data and AI have a lot in common (section 3.2.1), it is strongly recommended that a single CDAIO role is appointed to lead a central office that facilitates and coordinates the whole IOLN. Organizations may find themselves in different places with respect to the C-suite data and AI leadership role:

- A. If an organization hasn't had an executive role appointed for data and AI yet, it is very important to start now.
- B. If the role CDO/CDAO/CAIO already exists but is treated as a technology function—as the survey results indicate, nearly half of the organizations are still doing so—it is time to realign this role to the business operations.

For those organizations where the CDAIO role is already on the right track, meaning:

- (1) it is a single role in CEO direct report;
- (2) it bridges between business and technology;

it is important for this role to focus on the responsibilities discussed above so that it becomes pivotal in developing the IOLN for the whole organization.

4.2 Grow the DLGs

The Domain Leadership Groups (DLGs) are the backbone of the Integrated Operational Leadership Network. While the CDAIO office provides enterprise-wide coordination and leadership, DLGs ensure that authority is embedded within the operational domains where business execution happens.

Many organizations already have leadership teams that oversee specific operational areas. These groups may be organized around functions such as Finance, Human Resources, Supply Chain, Revenue Cycle, Customer Service, Product Management, or other major business domains. In some cases, these existing leadership groups can naturally evolve into DLGs by formally assuming responsibility for the data and AI assets that support their operations.

However, organizations should not assume that every DLG must align perfectly with the existing organizational chart. One of the unique insights revealed by data and AI is that business operations often function across traditional departmental boundaries. Shared workflows, common business outcomes, and interconnected metrics frequently expose operational domains that require coordinated leadership but do not currently have an appropriate leadership structure.

Therefore, organizations should deliberately examine their operational landscape and identify where domain-level leadership is needed. Existing leadership groups should be empowered to assume data and AI responsibilities where appropriate. Where leadership gaps exist, new DLGs should be formed to provide coherent oversight across interconnected business activities.

The development of DLGs should follow several principles:

- Align leadership with operational accountability.
- Place decisions as close as possible to business execution.
- Ensure that stakeholders affected by decisions are appropriately represented.
- Maintain clear ownership of data and AI assets throughout their lifecycle.
- Create leadership structures that reflect how the business actually operates rather than how departments happen to be organized.

As DLGs mature, they become the primary mechanism through which data and AI leadership is integrated into business operations. They transform governance from a centralized administrative function into an operational capability embedded throughout the organization.

4.3 Develop the DAISs (FAN approach)

While the CDAIO office provides enterprise leadership and DLGs provide domain-level leadership, authority ultimately becomes effective only when it reaches the front lines of business execution. This is the role of the Data and AI Steward (DAIS).

The DAIS serves as the operational extension of the IOLN. These individuals possess the business knowledge, workflow understanding, and contextual awareness necessary to make informed decisions regarding the data and AI assets under their stewardship. They are closest to the day-to-day activities where data is created, consumed, and transformed into business outcomes.

Developing a strong network of DAISs requires more than assigning responsibilities. It requires a deliberate stewardship strategy. One effective approach is the FAN model:

Formalize

Organizations must clearly define stewardship responsibilities, authority, and expectations. Data and AI stewardship cannot remain an informal activity performed only when time permits. Individuals should understand their decision rights, responsibilities, and accountability regarding the assets under their stewardship.

Align

Stewardship responsibilities must align with the operational leadership structure. Every DAIS should operate within a clearly defined domain and have direct relationships with the corresponding DLG. This alignment ensures that stewardship decisions support business objectives and that authority can flow effectively throughout the IOLN.

Network

Individual stewards should not operate in isolation. The CDAIO office should facilitate a stewardship network that enables communication, collaboration, knowledge sharing, and escalation pathways across the organization. Through this network, best practices can be shared, common challenges can be addressed, and organizational learning can occur continuously.

As AI becomes increasingly embedded in business operations, the role of the DAIS expands beyond traditional data stewardship. In addition to overseeing data quality and usage, DAISs help validate AI outputs, monitor business impacts, identify risks, escalate concerns, and ensure that AI systems remain aligned with business objectives.

Through the FAN approach, organizations can systematically grow a scalable stewardship capability that embeds authority directly into business execution and enables the IOLN to function effectively.

Section V

Conclusion

Artificial Intelligence is not simply another technology wave. It is transforming how organizations operate, make decisions, automate workflows, and create value. As a result, the leadership structures that were sufficient for earlier generations of technology are becoming increasingly inadequate.

The central challenge is not a lack of governance frameworks, policies, standards, or technology investments. The deeper issue is the structural separation between business execution and data and AI leadership. As long as authority remains disconnected from the operational environments where decisions are made and actions are taken, organizations will continue to struggle to achieve the full value of their data and AI investments.

The Integrated Operational Leadership Network (IOLN) provides a practical pathway forward. By integrating data and AI leadership directly into the operational leadership structure, organizations can establish authority where execution occurs while maintaining enterprise-wide coordination and consistency.

The CDAIO office provides enterprise leadership and orchestration. Domain Leadership Groups provide leadership across business domains. Data and AI Stewards extend authority to the front lines of execution. Together, these components form a leadership network capable of supporting the increasingly interconnected and AI-enabled nature of modern organizations.

The AI age requires organizations to rethink not only their technologies, but also their leadership structures. **Data and AI leadership can no longer sit outside execution. Authority must be embedded into execution itself.**

Organizations that successfully make this transition will be positioned to achieve greater agility, scalability, innovation, and business value in the years ahead.

Section VI

Reference

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