CODIFICATION

eBook

Distributed Governance in Highly Regulated Enterprises

June 2021

Why read this eBook?

It covers the topic of ***Distributed Governance*** and explains why you should consider its adoption in your business. You will gain an understanding of what a modern decision framework looks like, and how it can ***significantly improve the rate of transformation*** in a complex and dynamic enterprise.

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Why do traditional enterprises struggle to become modern technology companies?

In a dynamic marketplace, many traditional enterprises are failing to meet customer expectations, such as an omnichannel presence (a consistent user experience on the web, phone, and tablet), and software (such as consumer services) being released and updated every month and every week.

Failure to modernise puts businesses at a high risk of becoming disrupted and ultimately, made irrelevant.

- Around 45% of CIOs operate without clear KPI's. Key stakeholders often struggle to understand where problems originate and subsequently invest in the wrong initiatives.

- Fewer than 12% of 1,140 business executives surveyed by McKinsey believe their current business models will be economically viable through 2023.

- 64% of those executives agree that their companies must build new digital businesses.

Unfortunately, most traditional enterprises tightly couple the planning and ownership responsibilities, as a result of having to manually manage large teams across multiple departments. Most business leaders are not close to the engineering knowledge and the organisation has often gone many years without investing in new expertise.

Do decentralised decisions work better?

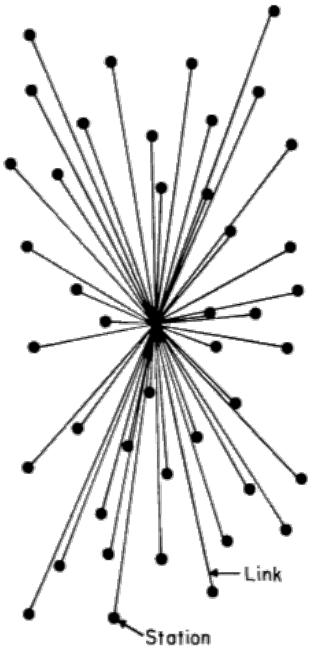
Decentralised organisations consist of a set of humans interacting with each other according to a protocol specified in code, and then a decision is enforced. This is instead of a hierarchical structure, which is managed top-down through layers of management.

When the distance between development and operations becomes large, decentralisation of decisions becomes increasingly necessary for success.

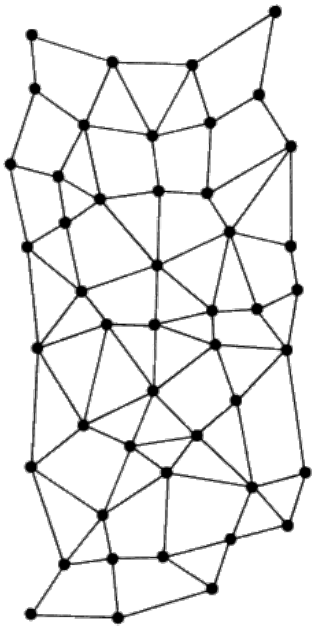
Faster to adapt

In the traditional centralised management model (diagram A), leaders of organisations take ownership of decisions for the whole enterprise. This results in a large gap between the decision-maker and the engineering reality. Moreover, leaders of the organisation become overwhelmed and stop playing a strategic role in the business, but focus on managing the efficiency of the tasks.

Conversely, in a distributed organisational structure (diagram B) the ownership of decision making is on the teams and departments. The decision-maker is closer to the resulting product, which enables faster feedback loops and a more adaptable system.



Centralised (A)



Distributed (B)

More streamlined

Governance helps to eliminate additional management systems that can be expensive to maintain and are in any case ineffective. Apart from financial factors, decision making is frequently lost in translation at scale enterprises, since it has to pass down many levels of hierarchy. Meanwhile, the opportunity window or the cost of a decision has doubled in value due to lack of oversight (2018). Distributed Governance puts decision making in the hands of subject matter experts, leading to being correct more often.

Action oriented

Clear goals and open participation foster a collaborative and transparent working environment. This will result in collaboratively solving problems and taking accountability for their decisions. This results in improved productivity, as well as motivation for engineers to develop their skills.

Where should you start your journey?

To give your transformation journey a higher chance of success, we advocate three central pillars:

1. Set a direction.
2. Determine a structure.
3. Build momentum.

To operate under this model of governance - we implement a *Technical Design Authority (TDA)*; which allows your business to increase velocity and release software faster without incurring additional costs.

What is a Technical Design Authority?

A *Technical Design Authority (TDA)*, is the key governance forum in any significant change programme, made up of design experts from various units. It refers to a body of people from inside and outside an organisation who have relevant skills and experience in specific technologies. This core team will consider, investigate and advise on best practices and designs of what a well-engineered solution looks like, to address technical challenges.

Throughout the rest of this eBook, we hope to debunk the myths around agile and transparent governance and show you just how effective they are.

- Is a blocker to progress.
- Is just another forum.
- Is an unnecessary expense when the bottom line is under pressure.

Purpose

The *TDA* assures the solution from conception to implementation. As decision-makers of the solution, the *TDA* will be the focal point for potential issues, opportunities, threats and will monitor change. Ensuring that the Target Operating Model is achievable in terms of resources, objectives and benefits in alignment with the overall strategic direction.

The *TDA* reassures that business and technical decisions are guaranteed, and the solution will be fit for the intended purpose. Its mission is to enable the design experts to collaborate on creating high-quality designs, approving or rejecting a particular design (based on proper reasons of course), and guiding the technical team on adopting those designs.

Key duties

1. Solution design – to support the development of the solution and ensure the design aligns with the strategic vision of the stakeholders/clients.

2. Change management – Maintains the integrity of the design and programme as it goes through change. Making informed decisions to accept or reject change with known quantifiable consequences.

3. Governance – Making sure the detailed design, build, test, and implementation aligns with the target operating model to ensure benefit and vision realisation. The target operating model (TOM) is a description of the desired state of the operating model of an organisation.

4. Readiness assurance – Ensures that the solution and business are ready to go live in the expected timeframes.

5. Standards – Provides the framework for developing and delivering the design through a project or programme.

Who should provide representation in your business?

Can just anyone join a Technical Design Authority? Or are there any special requirements like having a high-level position within the organisation?

Here are the six things a person must have to add value to the Technical Design Authority:

Vision: Thorough knowledge of how the solution should be designed.

Authority: Trusted to execute.

Knowledge: Relevant professional and technical skills and experience.

Leadership: Has the tact and motivation to settle disputes and promote a "best idea wins" culture.

Communication: Seeks to provide clarity and precision to reduce confusion and uncertainty among programme stakeholders.

Control: Manages the "content" so that the transformation can deliver the outputs and the programme can deliver its outcomes.

Typical coverage

- Integration architecture.
- Data architecture.
- Reliability engineering.
- Security and platform architecture.
- Solutions design.
- Governance.

We find that a TDA that meets at a regular frequency, twice-weekly tends to deliver the best results. Irregular meets can lead to the TDA becoming a blocker to progress.

So, a clear structure, a chairperson, agreed on terms of reference, and published procedures will help to increase the effectiveness of this important group.

What is the proper scope of a Technical Design Authority?

A *TDA* should sit outside of a project or programme of work and be impartial to its internal politics, however, it will span all phases of a change programme.

The involvement of a *Technical Design Authority* typically looks like this:

1. Engage: Meets weekly or bi-weekly regularly.
2. Measure: Investigates the latest changes/developments to check whether the solution is on track, technical challenges are addressed and best practices are followed.
3. Advice: Advice on how the solution can be improved and provides clarity to eliminate any confusion and uncertainty.
4. Implement: Swiftly implements any actions or suggestions agreed on by the *TDA*.
5. Realise: The *TDA* checks whether its changes brought about a positive change and if so, takes the learnings and sets them as a base for future projects.

Early on in a project, the *Technical Design Authority* will be focused on the overall IT architecture of the organisation and how the new solution will fit into it. This is a critical time for the *TDA*, where the entire architecture is considered, and best practice is designed into the total solution.

Design principles and guiding principles that set the guidelines for the rest of the project will be agreed upon. This ensures the overall architecture of the organisation is well-considered, reducing the likelihood of significant challenges later on in the project.

As the project progresses, the designs move to the build phase and the agreed architecture starts to be realised. During this phase, the *Technical Design Authority* meets to discuss items such as project functional gaps, the performance of integrations and security considerations. The *TDA* will also closely monitor environment plans, test plans, data migration plans and reporting architecture.

As the project moves closer to going live, the *Technical Design Authority* will be more interested in overall system testing, integration testing and performance testing to confirm whether the architecture that has been developed is going to perform well in a production environment.

How a *Technical Design Authority* operates

A *Technical Design Authority* typically has a set of principles by which it operates. These principles often vary to reflect a specific organisation but once set, dictate the remit for the duration of the programme. At Codification, we recommend the following principles as a great starting point:

1. Is a periodic governance board for all IT-related changes.
2. Will only consider changes once they have been formally raised.
3. Will consider all changes that are not service requests or live service configuration.
4. Will maintain agreed on *Enterprise Architecture Artefacts*, used as a baseline for decision making.
5. Can commission future impact assessments.
6. Has delegated authority for change approval.
7. Is supported by the *PMO Change Management Team* (Register, agendas, minutes, impact assessments and summaries etc.).

8. Ensures effective communication of actions and decisions (With assistance from the PMO) across the organisation.

9. Will play a part in the operational readiness process (Go-No-Go live decisions).

Authority and timing

Authority and timing are crucial for the success of a *Technical Design Authority*. Common problems associated with "authority" (particularly in larger programmes) relate to making sure its decisions or directions are properly received and understood by everyone, especially at lower levels.

More often than not, *Technical Design Authorities* are set up too late in a programme and are therefore put on the back foot, spending significant time firefighting rather than giving clear direction, leading many to ask the question – what is their purpose?

A *Technical Design Authority's* role should be established early on in a project or programme to get the design "right" and support delivery. They must have the power to insist that methodologies, patterns or principles are being followed. Their decision is final and has the delegated authority to enforce.

Next, we understand how to set up *Multi-Level Technical Design Authorities* for large enterprises with highly complex IT departments.

Multi-Level Technical Design Authority

Complex transformations need to organise their teams like an army to both defend their company's position in the marketplace and become nimble enough to take advantage of opportunities as they arise.

A *Multi-Level TDA* is about harnessing the collective wisdom of the design experts, introducing a channel through which that wisdom can spread throughout the department and establish a foundation for the accelerated delivery of quality products and services.

Reusable components and separation of concerns

Reusable components such as apps, modules, APIs, or snippets of code can be reused to execute new designs. By adding reusable components to the design authority sphere it makes designs more pragmatic, preserving them in a global repository to expand their use across unit boundaries.

The goal here is to achieve superiority by design and deliver a composable enterprise where business functionality is swiftly delivered through the assembly and combination of those reusable components and design patterns, within a highly collaborative working environment.

Future state

In the future state, the transformation will consist of collaborating teams at three distinctive levels. First is the executive level (leaders), second is the expert level (designers), and third is the technical level (technicians). Of course, there would be further levels within each but that's beyond the scope of this eBook.

So let's just focus on the expert level, i.e., the design experts in the transformation including their interaction with the leaders and technicians.

Below are the ideal representatives for each level:

- Executive team: CIO, D/A/directors.
- Design authorities: Architects and senior managers.
- Technical team: Technical leader, technicians.

The executive team provides leadership by setting the mandate for the design authorities to steer the technical team to deliver outcomes that align with the set strategy.

In turn, the design authorities would escalate any issues that arise regarding funding, direction, priorities, and other matters to the executive team, as well as the availability of any new technical capabilities that the leaders can take advantage of.

The design authorities will review all designs and advise, guide, and consult the technical team to ensure that components are re-used, the right design patterns are followed, and expert knowledge is preserved and shared.

The technical teams will assure the design authorities that their guidelines are being followed and contribute any new reusable components and design patterns to the design authorities to enrich the technical environment and enable other technical teams to reuse their output.

Organisational structure

Design authorities can also be split into three levels to cater to the three dimensions of an organisation, being the whole enterprise, segment, and capability:

1. Enterprise Design Authority that looks after the interest of the enterprise IT landscape.

2. Domain Design Authority that looks after the interest of a segment (line of business) in the organisation.

3. Capability Design Authority that looks after the interest of a capability via projects and programmes.

Below are the ideal representatives for each level:

1. Enterprise Design Authority: Lead architect, senior managers, domain architects.

2. Domain Design Authority: Domain architect, domain IT manager, domain business manager, design experts.

3. Capability Design Authority: Technical leader, solution architect, design experts.
Having three levels of design authorities means separation of concern where each level has its type of experts and focuses on what adds value to both the organisation and other teams.

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The Enterprise Design Authority will focus on the enterprise at rest and what capabilities exist at the disposal of the enterprise to achieve its goals.

The Domain Design Authority will focus on the enterprise in motion by looking after the value streams that the business runs to achieve the goals of that domain.

The Capability Design Authority will focus on adding value and responding to change in the environment to enable the organisation to grow.

Introducing such a Multi-Level Technical Design Authority in the ICT operating model will enable:

1. The leaders effectively provide direction to the experts to execute their strategy.

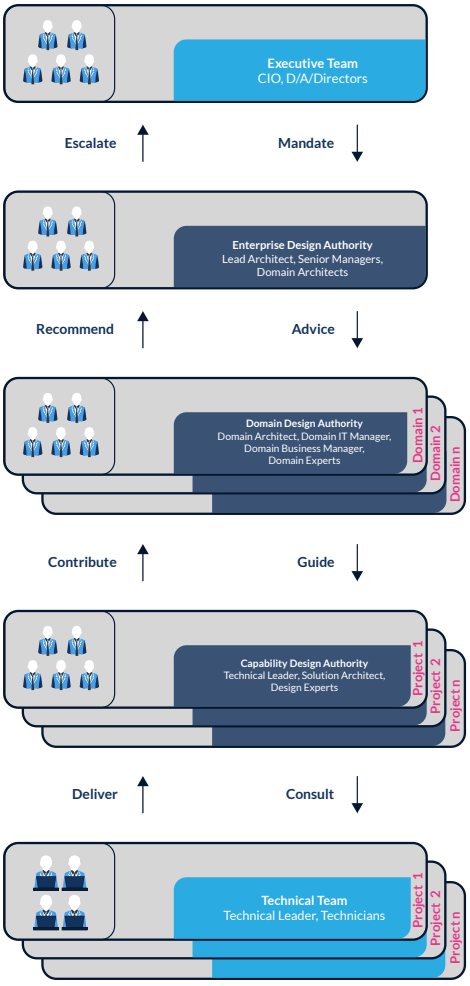
2. The preservation of expert technical knowledge in a repository where it can be reused and shared across the entire organisation.

3. The technical team not only consistently deliver fit-for-purpose solutions, but also contribute reusable components and design patterns.

4. The formation of an entity to look after the enterprise IT landscape and provide guidelines, policies, and procedures for reusing components, applying design patterns, and standardising the way things are done.

Full organisational view

The diagram below shows an expanded view of all the design authorities within the transformation and how they interact with each other.



Top-down interaction

Mandate: The executive team gives a mandate to the enterprise design authority to execute the IT strategy and achieve its goals.

Advice: The Enterprise Design Authority advises and provides guidelines to the Domain Design Authorities about available resources that can be used to make their domain more resilient and agile.

Guide: The Domain Design Authority will guide the capability design authorities by identifying the solutions that are needed to achieve the future state of the domain, and then ensuring that the projects connected to each Capability Design Authority are reusing components and design patterns that have already been approved and tested for that specific domain.

Consult to: The Capability Design Authority will act as a consultant to the technical team that is responsible for the creation/delivery of the solution. It will focus on approving/disapproving the solution designs and identifying the components and design patterns that can be saved in the repository to be reused.

Bottom-up interaction

Deliver: The technical team assures the Capability Design Authority that the designs are followed, including any design patterns and reusable components that are recommended.

Contribute: The Capability Design Authority approves the components and design patterns that are delivered by the technical team, classifies them into the domains that they belong to and adds them to the repository so others can look them up and use them when and if appropriate.

Recommend: The Domain Design Authority will take note of the contributed components, design patterns, and the solution design itself and recommend changes to its technology or processes to take advantage of the new entities.

Escalate: The Enterprise Design Authority will consider the recommendations from the Domain Design Authorities, If there are any exceptions where a solution design does not align with any of the strategic goals, or if there is a need for funding for a new foundational component, then the Enterprise Design Authority will escalate the issue to the executive team and seek guidance or a mandate to take action in a certain direction.

A Multi-Level Design Authority setup can be a significant capability for a transformation of a large enterprise to organise its personnel as leaders, design experts, and technicians as well as effectively manoeuvre in this rapidly changing environment. The organisation as a whole will be ready to respond to any new challenges swiftly and take advantage of opportunities while using fewer resources and making smart decisions.

The Enterprise Design Authority will manage the repository of solution designs, design patterns, and reusable components, decide on the best tools to preserve and share knowledge, and provide governance such as standards, policy, and guidelines. It will provide visibility and enhancements to the overall IT landscape of the enterprise.

The Domain Design Authority will identify and recommend reusable components and design patterns that enhance and strengthen the systems in its domain. This authority can also identify the right solutions that ICT needs to invest in and consequently assist in developing business cases for procurement or development of new solutions. It will drive towards the platforming of domains and enable the product management approach.

The Capability Design Authority will operate alongside portfolios or projects to both identify reusable components and design patterns to use within the solution and those that are being generated by the project and should be stored in the repository. It will ensure the solution design fits into the IT landscape, uses approved reusable components and design patterns to improve its delivery timeline and reduce cost, and accumulates reusable components and design patterns that can be orchestrated into business functions, thus setting a path towards the composable enterprise in the future.

It is important to remember that those design authorities will need to be loosely coupled with the technical operation from one side and the executive leadership from the other to make the most out of the benefits they provide.

Conclusion

A distributed governance forum can form an essential part of a modern decision framework for enterprises. In our experience, it is a key success factor in any significant transformation.

Ideally, it should consist of experts from inside -and outside- of the organisation, with the relevant skills and experience to guide and lead decisions.

Implemented correctly, a Technical Design Authority (TDA), can significantly improve the rate of transformation in a complex enterprise.

But, authority and timing are crucial for success. If the TDA is initiated late in a transformation, it can slow progress, rather than provide the intended benefit. Its role should be established early, and it must have the power to ensure that methodologies, patterns and principles are followed.

For Codification's customers, the introduction of decentralised decision making dramatically reduced human errors and enhanced production quality.

About Us

“Inspiring Realities, Transforming Futures”

Our engineers specialise in the Codification of compliance; which is the inspiration for our name. Since our inception in 2017, we’ve rapidly grown to become a world-leading technology transformation consultancy - with over 50 expert engineers, distributed globally.

Our team has helped some of the world’s leading enterprises to successfully adopt cloud-native technologies and mature their DevOps practices.
With decades of industry experience, along with our global team of experts, we enable organisations to transform into modern technology companies.

Who We Serve

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