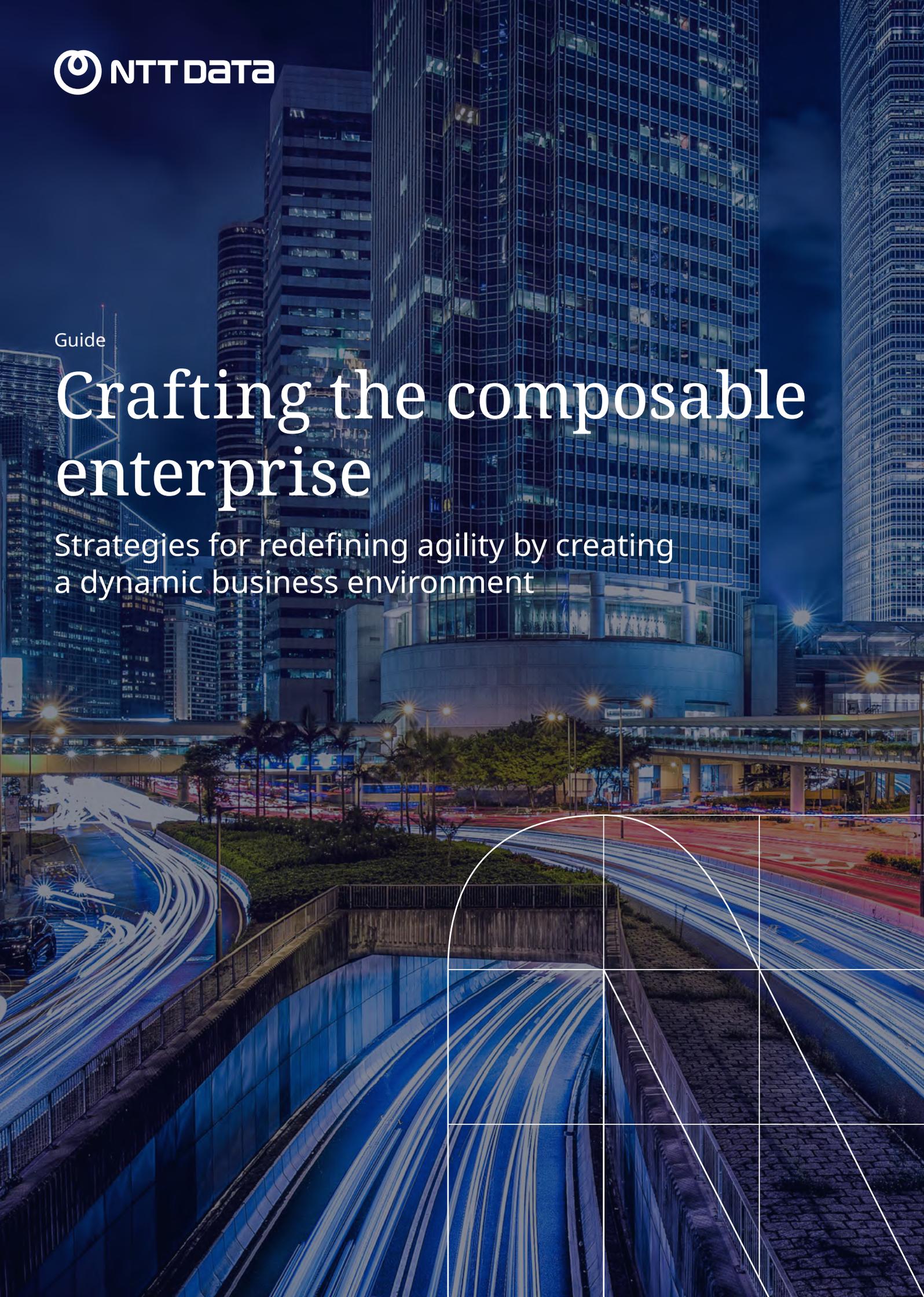# NTT DATA

Guide

Crafting the composable enterprise

Strategies for redefining agility by creating a dynamic business environment

This comprehensive guide on business composability explains how enterprises can transform their operations and become more agile and resilient by adopting modular and flexible structures.

Contents

The growing need for composability

Why is it important to become a composable enterprise?

From modular to composable

The basic concept of modularity is not new. Enterprises in sectors as different as construction, engineering and software have for decades used standard components to accelerate new product and service development, while reducing risks and cutting costs.

It is possible to apply modular concepts to many aspects of your business without necessarily changing the core of your enterprise. For example, you can ring-fence product development and introduce greater speed and flexibility into innovation and development processes only. This should make the business more competitive, but nothing else (organization, other processes, culture) needs to change.

Yet there is a very big difference between this normal, commonsense strategy and the much more challenging concept of composability.

When you seek to become a composable enterprise, the entire organization (plus its partner ecosystem) is fundamentally affected, because it's not just about being able to use standardized components to put together the products and services you sell to customers. Instead, it requires every aspect of business operations (processes, procedures, methodologies, toolsets and structures) to become composable as well.

> **"**
>
> When you seek to become a composable enterprise, the entire organization (plus its partner ecosystem) is fundamentally affected. Everything changes, in fact.

Why become composable?

The benefits of modularity are easy to define: higher speed, lower cost, faster time to market (and time to profit), greatly reduced risk, far fewer errors. Making the whole enterprise composable, however, can deliver exponentially greater benefits still.

You improve development through the rapid reuse of centrally pooled resources. This enables faster learning, the identification of successful methods and short-circuiting development processes, all leading to high-quality outcomes – faster.

You make the business more agile. That's because the ability to build any structure (from an internal process to an external service) from modules makes every part of the organization more flexible. You can now move in new directions fast, without the need to build new infrastructures and environments to support changes in strategy.

You make the business more resilient when you build from stable, proven components, which remain autonomous. Failure in one area is no longer a problem for the business as a whole, because now you can redeploy and repurpose components quickly, while maintaining the integrity of your enterprise processes.

You improve business leadership because management is now much more about orchestration, so it is never necessary to "reinvent the wheel" or rebuild from the ground up.

How do you become composable?

The key to enterprise composability lies in the use of what are becoming known as packaged business capabilities, or PBCs.

PBCs are software application components that include APIs and event streams to enable standardized but flexible ways to connect and integrate them. Each PBC contains its own **unique operational capability**, packaged with **a standard method for connecting** to every other PBC.

Inside a composable enterprise, therefore, it is possible to build a growing library of packaged capabilities that can be "mixed and matched" to create an almost infinite number of new services, customer-facing products, or internal process stages and methods.

PBCs can be developed internally, within an individual enterprise, or sourced from external specialists and ecosystem partners.

Research carried out to measure performance in early-adopter companies suggests rapid improvements in agility and corresponding financial performance once even a modest number of PBCs are in place.

This major change is happening in the context of a near-universal move to hybrid cloud, which we believe makes the drive for business composability more urgent.

After all, the hybrid (or multi-) cloud is a reality for us all, and there is little advantage to moving from on-premises environments to cloud if this results in a new kind of vendor lock-in, plus the need to negotiate the interfaces between the rules and methods of different providers.

To thrive in multicloud environments, enterprises must embrace modularity and common standards so they can develop, deploy and manage consistent processes and services across hybrid infrastructures.

Using API-driven development, which provides standard connecting points for application building blocks, is a necessity for success in this environment. Being a composable enterprise makes it easier for businesses to benefit and be competitive as "natives" of this different kind of business environment.

How to make
the change

Strategy and deployment

We start with the assumption that most enterprises, even the most capable and innovative, are not and cannot yet be truly composable in their mindset, organization or operations.

Enterprises have become successful because they build great products (and/or services), build lean and efficient organizations, and develop positive cultures to sustain and support long-term success.

> "
>
> It is never easy to make the case for costly and potentially disruptive change inside a business that is already doing well.

Becoming composable has much in common with moving to cloud: it is a necessary investment in the future, recognizing that the factors which have made your business successful today may not be enough to keep you successful in an unpredictable future.

Change on a large scale is necessary, and the best time to start is before circumstances force change upon you.

Change is easier, less risky and more effective when you choose the timing and roadmap. It will not happen overnight and needs to follow a specific development path which begins with the concept and a new way of thinking.

NTT DATA strongly endorses the emerging vision for building a composable enterprise that includes three major components: thinking, architecture and technology.

Let's take a closer look at each of these in turn.

Preparing to become a composable enterprise

The role of composable thinking

Mindset

Every major change always starts with a change in attitude. To become a composable enterprise, therefore, it is necessary to adopt composable thinking.

Why is this so important? In simple terms, the market is driving the need a new kind of agility as a basic requirement for staying competitive. We see the evolution of market-places – in virtually all sectors – that are hyperconnected and focused on flexible development, with the need for greater, and faster, responsiveness than ever before.

Personalization

Customers (both business and consumer) require higher levels of personalization and targeting for value propositions.

From medicines to vehicles to services like insurance and banking, it is necessary to offer variations tuned to customer needs – without compromise. That means, without long wait times or extra costs.

The ability to "compose" a specific offer is now a basic fact of life, and the rise of GenAI will both accelerate and simplify the process of defining and provisioning new services. It also raises expectations in the market, where customers now assume that faster, more agile personalization will be a the norm, precisely because GenAI makes it easier to respond with precision to specific needs.

Business structures

Business leaders must consider, as a priority, how best to structure and manage their businesses so that these new levels of agility and responsiveness can be achieved in ways that add value to the business and do not lead to excessive costs or disruption.

Composable thinking is based on a willingness to consider highly ambitious new strategies for the enterprise and the strategic vision to drive change through, despite the likely obstacles along the way.

This kind of change must be broadly based, supported by deep experience and clear methodologies. It is based on a real understanding and belief that our first goal must be to simplify and transform existing processes through digitization.

Practical support

So how can we help? NTT DATA is a leading global IT innovator of business and technology services . We base our strategic advice on a deep understanding of underlying market movements and technology-driven changes.

We have developed a toolset that is specifically focused on helping business leaders imagine alternative futures, understand emerging (including as yet distant) trends, be clear about the technology levers required to make positive change happen and deliver measurable advantage for the business in the long term.

Our development approach

We start with **in-depth research** to map out the business trends in each relevant sector, using input from leading industry analysts and proprietary insights from our own consulting team. Research projects are never generic. We always focus on the specific realities of each individual enterprise and target clear decision-making.

Through **validation workshops**, backed by impact assessments on people, market, society and environment, we enable business leaders to look at the issues from an "outside-in" perspective. We express their options in realistic, market-focused terms.

We then **explore future options** through a range of structured scenarios. In these scenarios, options can be followed through to identify likely outcomes, based on hard data rather than assumptions.

This allows us to **identify the best strategy**.

Tools that support new mindset

We cannot move ahead toward the new status of being a composable enterprise without the right attitudes and mindsets in place.

Thinking comes first, and we need to support this necessary first stage with tools and methodologies that will assist in reviewing options and making rational decisions.

Our development approach is supported globally by our own design and innovation studio, Tangity. We also collaborate with universities, technical institutes and other academic bodies to develop a growing body of high-quality intellectual property. In one project based in Italy, for example, we worked with the Politecnico di Milano, Italy's oldest and most prestigious technical university. We're developing similar collaborations in other countries and with other leading institutes.

Moving along the journey to composability is a major decision. We believe it is for most enterprises the right decision – but it is still not one to take lightly. This initial stage of structured thinking is vital, and we need to invest all the time needed to build consensus and clarity among business leaders.

" When business leaders feel fully informed, prepared and focused on clear business goals, they are willing to take the necessary actions.

Designing the composable enterprise

The role of composable architecture

An evolutionary approach

Composability is built on the core principles of API-driven architecture. It is not a completely new approach, therefore, but one developed from existing structures. We need to understand what composability is not as well as what it is.

Most architectural structures are built from design patterns, such as microservices. These are technical components designed to simplify and accelerate the building of software architectures. Microservices are technical patterns for software architecture. Composable architecture, by contrast, is built around PBCs.

A PBC contains business functionality in standardized form, while microservices are primarily technical concepts.

Microservices can be used to implement PBCs, and PBCs can be implemented as a microservice or group of microservices. The two concepts therefore support each other, but they are not the same.

The entire point about a composable architecture is that business functionality is the driver and is at the heart of each component.

Getting to the benefits

Composability helps enterprises to secure business benefits through greater speed, scalability, responsiveness to unpredictable change, and management of complexity.

How does this work?

The **standardization of PBCs** makes it easier to reuse each component and to assemble or reassemble them in multiple forms. The whole enterprise gains a new form of "elasticity" as a result.

Modularity becomes an integral feature of how the enterprise operates. This leads to new levels of flexibility and makes it far easier (and more productive) to deal with change and profit from new opportunities.

Scalability is also built into development processes, enabling the business to allocate resources more efficiently while managing different workloads effectively.

Speed is perhaps the greatest operational benefit, as becoming composable leads to the faster development of new concepts, accelerated innovation and faster time to market.

> " A composable enterprise will be able to experiment more easily and at lower risk, testing multiple options through rapid reconfiguring of standard components.

This makes scenario-based planning far easier, faster and more cost-effective than is possible by conventional development methods. With growing levels of instability and change in key markets, together with the need for more customized variations in products and services, this benefit will be a key source of competitive advantage for many businesses.

Ambitious corporations will need little help in identifying the business opportunities that composability offers them. Apart from the benefits listed above, we would also focus on:

- **Greater flexibility** in the structure and management of business units. In other words, it now becomes easier to treat business structures, departments and units as components that can be reconfigured dynamically, without major disruption or risk, to deal with market realities more effectively.

- **Better ecosystem collaboration**, with partnering becoming inherently more agile and responsive to changing needs. In a world where boundaries between the core enterprise and the partner ecosystem are becoming more permeable, this is a critical opportunity.

- Lower risk for **new technology adaptation**, with composable enterprises no longer facing the need to make sweeping changes to access technology capabilities as they emerge.

Composability may be a source of unparalleled opportunity, but it does not solve every classic business problem. Normal business issues will remain. These include the need to manage people with care, be sensitive about cultural issues and ensure strong security solutions are in place.
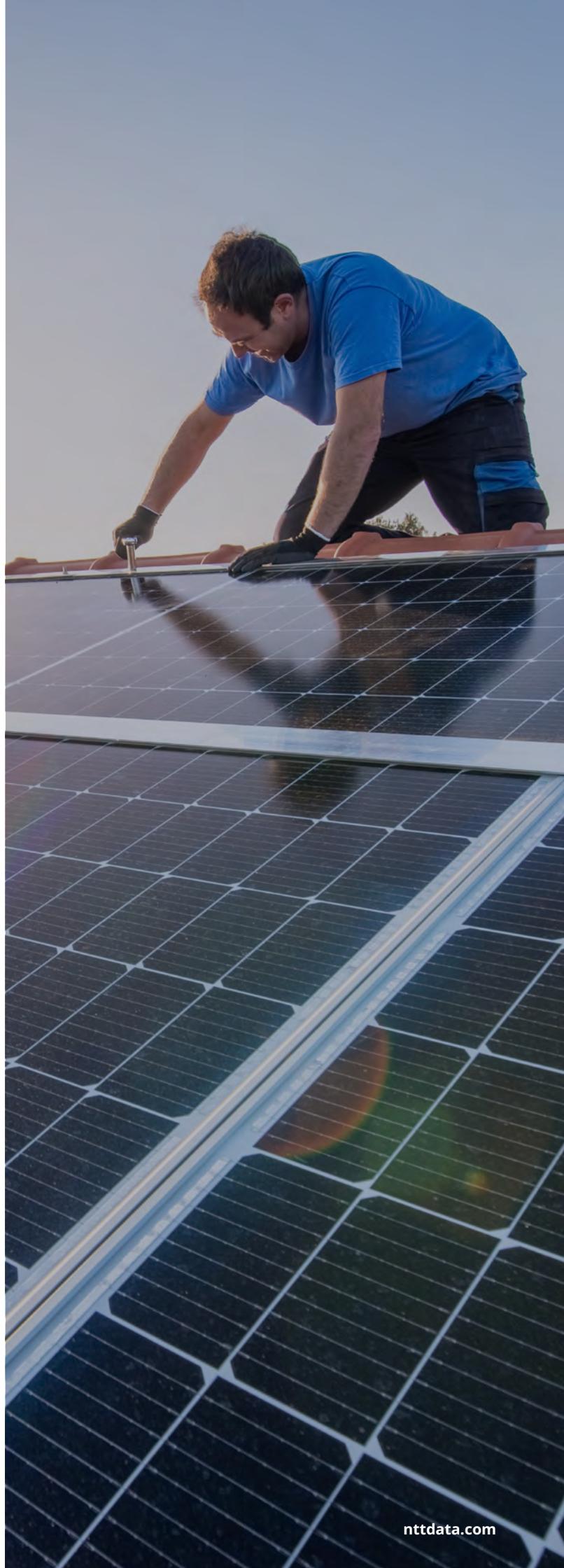
Building a composable architecture framework

NTT DATA recognizes that even considering a move to true business composability is a new concept. Most enterprises are at an early stage of consideration, which means implementation is still some distance into the future. In preparation for what we believe is a necessary evolutionary step, we have developed a blueprint for developing a composable architectural framework. This blueprint that covers principles and guidelines, and methodologies and tools.

Principles and guidelines

The underlying principles of a composable architecture can be defined clearly and simply. The architectural model must be:

Modular
Divided into smaller, independent, interchangeable components
Examples: Loose coupling and high cohesion

Flexible
Adapt to changes in requirements, technologies and business conditions
Examples: API design for extensibility, continuous integration and deployment

Easy to maintain
Architectures that are easy to understand, update and enhance over time
Examples: Version control and automated testing

Interoperable
Enable collaboration, data exchange, and the effective integration
Examples: Open standards and specifications and RESTful design principles

Reusable
Promote reuse of components, modules or services
Examples: Standardized interfaces and parameterization and configuration

Resilient
Rapidly recovers from disruption, faults or failures
Examples: Failover mechanisms and chaos engineering

Based on these core principles, NTT DATA has developed guidelines for implementation, which we cover later.

Scalable
Ensure the system can efficiently handle increased workloads, user loads and growth
Examples: Statelessness and distributed architecture

Methodologies and tools

NTT DATA's approach to composability is designed to be iterative and based on collaboration, with all key decision-makers engaged in the process of evaluation. As is normal when considering a major change program, the first step is to assess the current realities (where do you start from), as a way to judge the "composability score" of the business today.

A key goal is to define what PBCs exist and which business capabilities can be turned into packages suitable for use, reuse and integration with others. From there, we can build a PBC catalog to give all those engaged in the project a clear, accurate and objective understanding of current realities. **Figure 1 gives a high-level view of the process.**

Our goal is to build an architectural framework that simplifies the building, cataloging and reuse of PBCs in a way that minimizes both the time spent on the exercise and any disruption to the business.

Revising our core principles, we expect developers to consider the use of modern indicators as API development paradigms and methods, as well as how modular the components are. All these count toward an accurate assessment of the existing composability score and enable the creation of a first PBC catalog.

Architects and solution designers, together with all the other stakeholders engaged in managing the go-to-market activities of a business, need practical tools to help them build reusable PBCs. This is the ultimate key to making composable architectures become reality.

Assessment
Establish a clear understanding of the organization's current architecture.

Implement
Implement the changes and fill the architectural gaps.

PBC Definition
Identify and catalog PBCs using the baseline architecture.

Enhance
Design the target architecture, by updating PBCs catalog and Composability Score, and plan a roadmap to reach it.

Evaluation
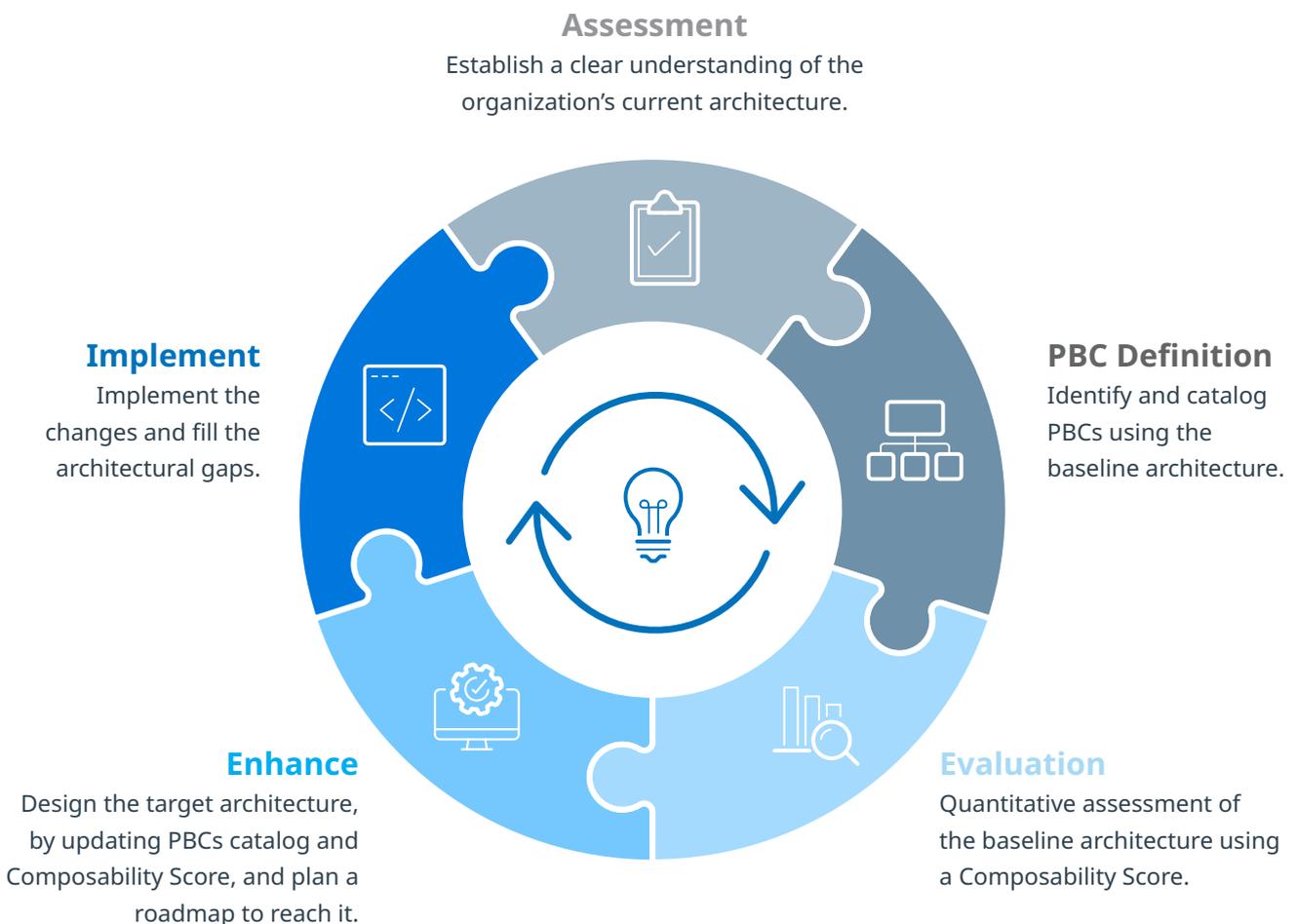Quantitative assessment of the baseline architecture using a Composability Score.

Figure 1: Architecture composability assessment

In Figure 2, we give a high-level view of the structure we would build in collaboration with client stakeholders, enabling them to develop their own composable architecture:
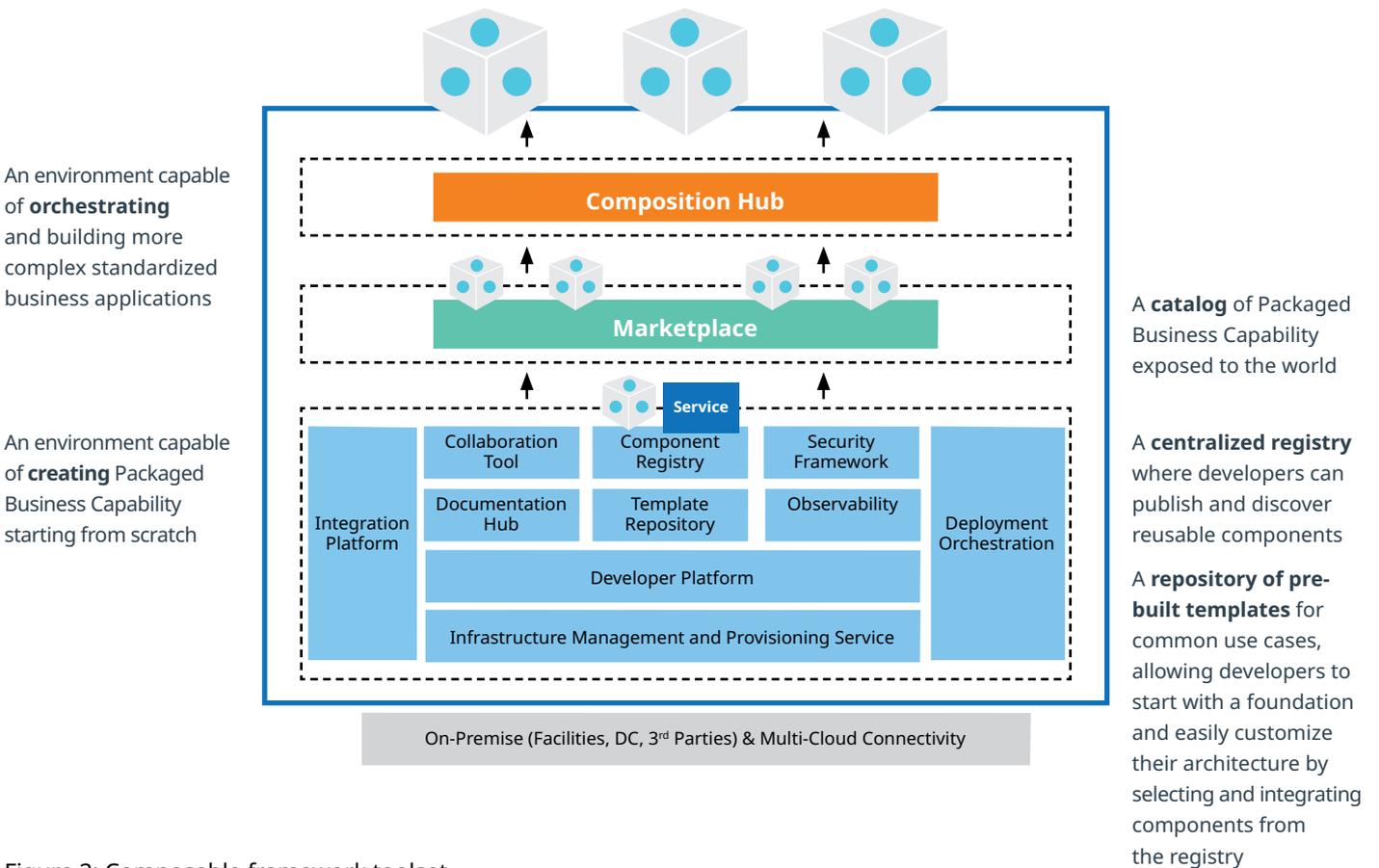
An environment capable of **orchestrating** and building more complex standardized business applications

An environment capable of **creating** Packaged Business Capability starting from scratch

Composition Hub

Marketplace

Service

| Integration Platform | Collaboration Tool | Component Registry | Security Framework | Deployment Orchestration |
| | Documentation Hub | Template Repository | Observability | |

Developer Platform

Infrastructure Management and Provisioning Service

On-Premise (Facilities, DC, 3rd Parties) & Multi-Cloud Connectivity

A **catalog** of Packaged Business Capability exposed to the world

A **centralized registry** where developers can publish and discover reusable components

A **repository of pre-built templates** for common use cases, allowing developers to start with a foundation and easily customize their architecture by selecting and integrating components from the registry

Figure 2: Composable framework toolset

The most important part of this toolset, the "engine room" of the composable enterprise, is shown in the lower half of this diagram. Here, we build a repository of templates for common use cases, together with a registry to enable fast discovery and access. Using these key elements, developers can then build a growing catalog of ready-to-use PBCs that can be exposed to the market in the form of capabilities ready to configure for customer use.

Such elements may be used by the developers in the so-called developer platform (or portal), which allows prototyping applications from software modules already available, using standards when possible. In other words,

an internal developer platform (IDP) consists of a standardized set of self-service tools and technologies that developers need to create and deploy code.

Finally, the toolset includes an environment suited to orchestrating individual PBCs in order to build more complex solutions for use by customers. This structured approach to PBC development and delivery can then be used to move an enterprise from a relatively low starting point to practical composability at some speed. As we stated earlier, even a relatively small number of PBCs can deliver significant market and financial benefits to enterprises, and surprisingly fast.

So how does this development process work in reality? In Figure 3, we show the main roles for use of PBCs inside an enterprise:

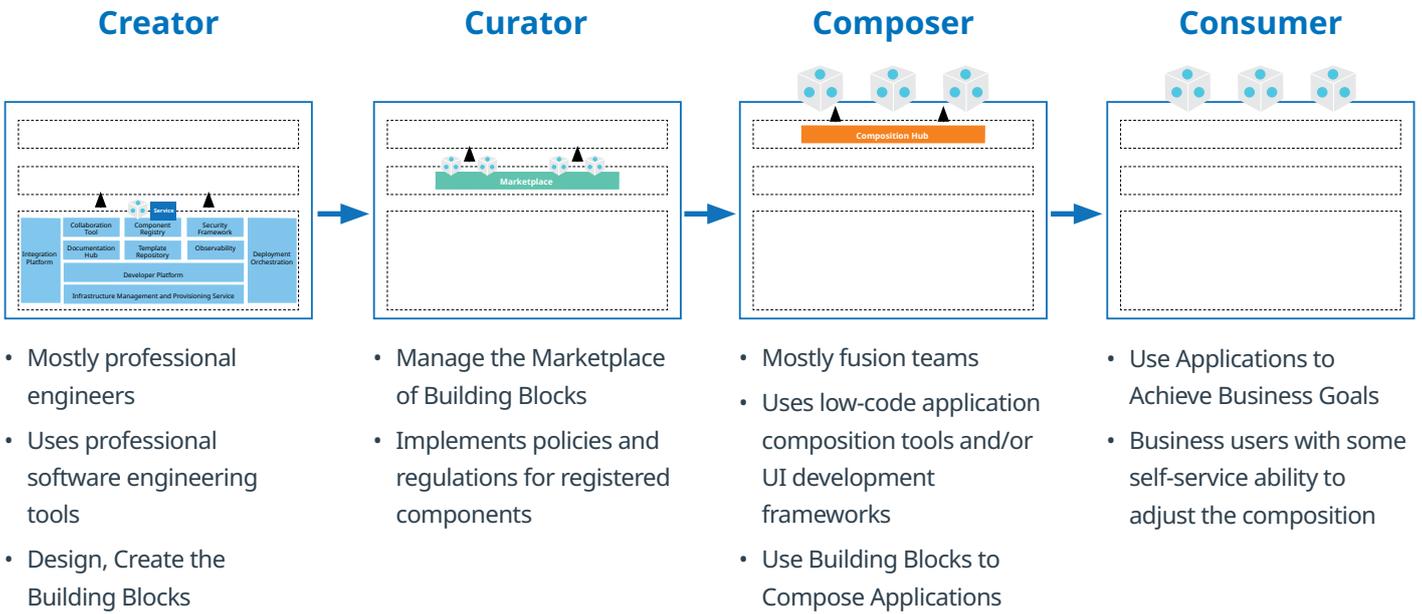| **Creator**	**Curator**	**Composer**	**Consumer**
• Mostly professional engineers	• Manage the Marketplace of Building Blocks	• Mostly fusion teams	• Use Applications to Achieve Business Goals
• Uses professional software engineering tools	• Implements policies and regulations for registered components	• Uses low-code application composition tools and/or UI development frameworks	• Business users with some self-service ability to adjust the composition
• Design, Create the Building Blocks		• Use Building Blocks to Compose Applications	

Figure 3: Development and usage

This is necessarily a simplified view, but it shows how enterprises can use composability to create a business advantage, without disruption to their business as usual.

The who's who of composability

Creators are the engineers who build individual PBCs.

This is a specialized process and requires the ability to use a variety of software engineering tools. Creators will work in close collaboration with go-to-market team members to define the required business characteristics, but will then take full accountability for the finished PBC.

Curators manage the internal marketplace.

They will enforce clear rules to ensure that a very flexible and dynamic market does not become unruly or disruptive.

Composers are the key market-facing roles.

The are responsible for using individual PBCs to build value propositions that are likely to prove successful in the market. Their core tools will include low-code application composition, so they will combine technical skill with market awareness.

Consumers deal directly with external customers.

They include the marketers and sales support personnel who are responsible for turning preconfigured groups of PBCs into products and services that achieve competitive advantage in the market.

We see structure where there's a logical workflow from PBC creation to sales, but with numerous feedback loops and opportunities for scenario testing and applied innovation. The more open and dynamic this structure is, the more successful the enterprise will be.

The final component of this go-to-market activity is shown in Figure 4, the maturity model.

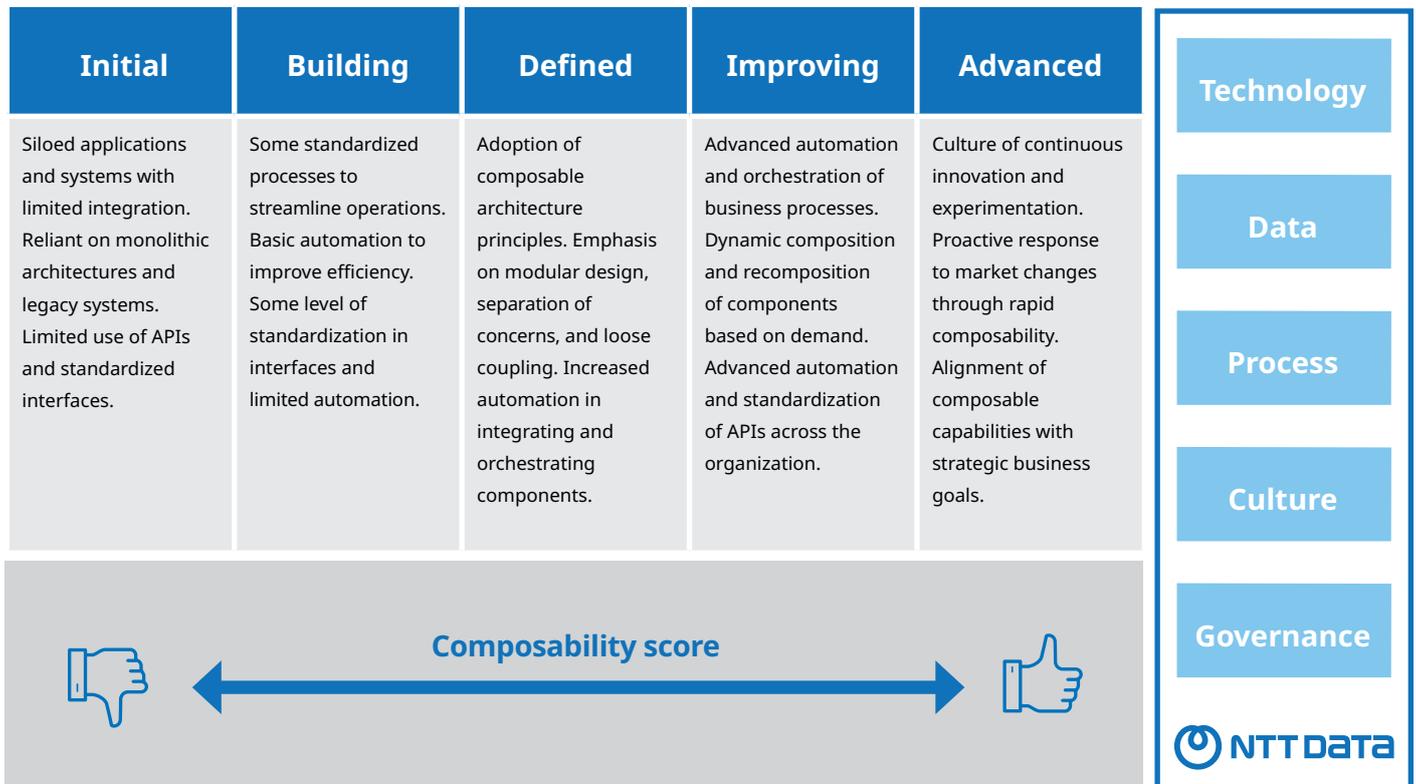| Initial	Building	Defined	Improving	Advanced	
Siloed applications and systems with limited integration. Reliant on monolithic architectures and legacy systems. Limited use of APIs and standardized interfaces.	Some standardized processes to streamline operations. Basic automation to improve efficiency. Some level of standardization in interfaces and limited automation.	Adoption of composable architecture principles. Emphasis on modular design, separation of concerns, and loose coupling. Increased automation in integrating and orchestrating components.	Advanced automation and orchestration of business processes. Dynamic composition and recomposition of components based on demand. Advanced automation and standardization of APIs across the organization.	Culture of continuous innovation and experimentation. Proactive response to market changes through rapid composability. Alignment of composable capabilities with strategic business goals.	**Technology** **Data** **Process** **Culture** **Governance** NTT DaTa

Composability score

Figure 4: Maturity model

In conceptual terms, this is a very simple model. It shows how we translate constantly developing capability and know-how into an objective way to measure true composability on a realistic scale. On the right of the diagram, we see the five measurement factors, from technology to governance, all of which impact on the assessment score.

In the body of the diagram, we see the criteria by which we measure how the enterprise operates at each given stage of development. This shows very clearly how developing a high score in composability is of necessity a step-by-step process.

> " Nothing happens all at once, and the journeys taken by different organizations will be unique.

Building the composable enterprise

The composable technology

Modular cloud platform

To build a composable enterprise, as we have seen, organizations require new attitudes and mindsets (composable thinking), new methods and tools (composable architecture), and new forms of composable technology. This is where we can start to deliver the benefits that composability promises.

A platform of this kind enables consumers (as defined in Figure 3) to build customer-facing solutions fast, using very simple technology tools, and at exceptionally high speed.

Objects that can be used in the form of PBCs cover almost the full scope of business functionality, for example:

- **Encapsulated business objects,** such as purchase order (PO) management. This contains all the context and capability needed to execute PO management according to the organization's business rules, presented as a reusable object.

- **Process management,** such as credit approval or order-to-cash. This specific process, or part of a process (in some cases) can be copied and reused within a wider customer-facing offer.

- **Digital twin,** now widely used in process industries (such as power generation). The digital twin contains an image of how an item (such as a turbine) should normally operate, with tolerances and scope predefined, enabling it to be inserted into a larger offer related to operations under specific technical and commercial conditions.

- **Data reference,** covering such factors as exchange rate, enabling this to be dropped into a broader solution (such as tendering and costing) for objective reference.

- **Analytical insight,** as a factor in (for example) investment decisions, to define sentiment and credit assessment.

This is, of course, simply an indicative list of what may be included in PBCs – it is not exhaustive.

In reality, there are many thousands of such objects that may be included in a PBC catalog and can be managed flexibly on a customized platform. How does this work for enterprises that have moved, or are now moving, to hybrid, multiple cloud platforms?

In the past, this has been a source of added complexity that presents an insuperable barrier to access. Now, NTT DATA has solved this problem, through its multicloud composable platform.

Multicloud composable platform

As all large enterprises quickly discover, moving to hyperscale cloud, despite the obvious benefits in terms of risk, cost and capex avoidance, also brings a great many issues with it. Individual hyperscalers each have their own ways of working and their own processes, tools and areas of mutual incompatibility. Large enterprises will not normally single-source with one hyperscaler only, but will work with several, spreading their workloads and risks across multiple suppliers.

This practice is now so widespread that we can say multicloud operation is the normal way of life for platform as a service (PaaS) and infrastructure as a service (IaaS) consumption. This prudent approach, which, among other advantages, avoids the old problem of vendor lock-in, also brings with it a serious cost in terms of agility.

The problem

A large organization has workloads on different incompatible platforms. To become a composable enterprise, it will need to:

- Access multiple cloud provider platforms
- Identify the desired objects on those platforms and move them across to a specialized composable platform
- Build a new use case or value proposition
- Move the completed item back to the market-facing customer portal or sales platform

To do this, you need individuals with different skill sets to managing different, often proprietary, tools, together with additional skills for testing and for managing the entire process. This requirement just about negates all the benefits of composability and could undermine the business case entirely. It also means that the strategy for multicloud loses much of its appeal, if cloud also brings with it an additional cost in terms of time and overhead.

One additional concern here is the rising cost and short supply of engineers with the right skill sets for this type of activity. Despite optimism about the role of AI in this process, right now enterprises are seeking to employ large numbers of human engineers, which means entering an over-heated job market competing for scarce resources, addressing the common challenges of people management and retention, and then dealing with the (inevitable) human errors.

The solution

NTT DATA has developed a multicloud composable platform to address this issue and resolve it entirely.

The platform is fully built on open standards and makes use of the latest technology software and paradigms. This makes it possible to provide a single interface, through a customized user dashboard, that shows the entire catalog of PBCs available for use, irrespective of where they are actually hosted. Its interface enables coordination of the user overview and also shows, accurately and in a timely manner, the exact level of resource use and deployment.

By using common standards in this way, **enterprises can deploy, track and manage thousands of business objects and applications across virtually any number of cloud platforms.** This extends beyond the four largest hyperscalers and embraces the smaller, more agile, and locally based providers that are entering and extending the market.

In practice, NTT DATA's multicloud composable platform gives enterprises access to a single view of the truth, together with a single interface for building new propositions. This also has the benefit of helping to manage governance more effectively, allowing use of a comprehensive toolset for tracking everything from resource use, to employee time and carbon emissions.

The platform abstracts the application management layer from each individual cloud platform and combines it inside a cloud-neutral solution, designed for simplicity, speed, control and full compliance. It is fully compatible with the Cloud Native Computing Foundation (CNCF) stack, supported by the Linux Foundation. Because it is, itself, an open standard solution, adopting NTT DATA's platform does not lead to vendor lock-in.

Use cases

Use cases already exist, as the platform has been trialed by users as diverse as regional public bodies to major energy providers.

- **City management, Italy**
  Composability is being used to handle the extremely diverse range of services offered, with the need to customize for highly specific requirements.
  In planning, for example, the NTT DATA composable platform has helped the city to plan resource use, manage transport routes and ensure that citizens can access all major services close to where they live. As the scope of this project grows, we expect to see even more challenging tasks in the future and expect other city and regional bodies to use the same approach.

- **Major energy provider**
  NTT DATA is working to make in-house IT fully compliant with the new cloud platform that a national regulator is mandating for the near future.
  This will be entirely composable, as it assumes a single management platform for multiple providers, which means that a major transformation is required.

The composable platform developed by NTT DATA, and supported by a targeted design and consulting team, provides further evidence of the high level of intellectual property in our global corporation. It will encourage cloud adoption, accelerate ecosystem working and add value to customers virtually from day one. It is an important contribution to the customer journey.

Supporting the composable enterprise

The journey to composability

A step-by-step process

Becoming a composable enterprise is an iterative process. It requires the full mobilization of decision-makers and stakeholders, the careful assessment of priorities, strong governance and continuous measurement.

We base our approach to composability on **the Multicloud Composable Platform Adoption Framework**, which is shown in Figure 5.

Stages	Discovery & Assessment	Design	Integration & Execute	Adoption
Steps	Interviews Stakeholder Fill Adoption Module	Licensing Model Service Model Estimating Volumes	Design Architecture Policy Deployment Integration Customer AD App Deployment	Activation Billing Operations
Guidelines	• Interviews with stakeholders: architectures, app engineering, service manager … to address the fitting Adoption Module based on current infrastructure, apps to manage, policies to enforce, KPIs to be monitored • Assessment outcomes and filled modules are analyzed by KUMO architects for design stage	• Share the main needs to be addressed, the challenges to be filled then start with the design of the KUMO platform • Estimate volumes and define the best service model: standard and advanced features, licencing, managed services	• Configure KUMO modules and setting environments: design network facillity w.r.t. customer already existing VPCs, subnets, hybrid connectivity, firewall rules and specific permissions needed to operate • Map and integrate Customer´s Active Directory to permit authentication and authorization based on current systems. Roles for diefferent users and profile are created and assigned	• Automated KUMO Deployments: advanced cloud suite automation and orchestration toolkit: template, best practice, framework • KUMO infratructure provisioning • Enabling KUMO control plan • Policy Deployment • Applications Deployment
Outputs	• Assessment Outcomes • A report by KUMO experts that provide suggestions about platform configurations and setting: from architecture design and technologies, optional tool to implement, advanced modules to service/licencing model, security policies to configure	High Level Design package • Technical Document with solution design and service details • Solution Base Costs Business/Commercial Contract • Licensing • Service Conditions • SLA	Low Level Design package • Deep dive logical and technical architecture • Reporting, providing technical docs about network rules, role mapping, users, permissions Deployment KUMO platform	• KUMO Platform ready to service • Invoicing Billing KUMO Services

Figure 5: Multicloud Composable Business Adoption Framework

This sets out a meticulous process that covers all key stakeholders and socializes the ideas and techniques in depth and very widely across the organization. It is based on detailed discovery as a necessary first step. Once we reach the end of the process, we automate deployment across multiple cloud platforms, while bringing a high level of automation into provisioning and orchestration.

The end result is a highly flexible policy-driven, approach to composability, taking full advantage of a growing catalog of PBCs to bring new levels of agility to the entire organization.

A major step forward

Business composability will be a major new step forward for large enterprises and many public bodies. It has the potential to remove whole layers of complexity from organizations, reduce costs, cut out human error and create higher quality, customized services that can be delivered with unprecedented responsiveness and agility to markets that are moving in the most unpredictable ways.

NTT DATA understands that adopting a major business change of this kind is a complex process, with three major steps:

- **New ways of thinking,** new strategic vision and a willingness to embrace innovative structures and policies across large organizations.

- **New architectures,** in which the PBC will be a key factor. The ability to encapsulate business functionality in modules that have standard interfaces to all other modules is a key breakthrough. This approach unites software development practices with purely business functionality. Building a large and growing catalog of PBCs will be transformational – but there are new skills to be learned along the way.

- **New technologies** and, especially, new ways of deploying and managing across hybrid cloud platforms without the risk of vendor lock-in. Having a composable platform is the key to achieving this goal, enabling organizations to unlock the benefits of composability at high speed, with lower cost and risk than could otherwise be the case.

The journey to being a composable enterprise is complex, and each journey will be different. We are ready to help make the journey as trouble-free as possible.