Composable Architecture Maturity Model

In today's fast-paced digital era, businesses are navigating an ever-evolving landscape where change is constant and adaptability is paramount. The traditional monolithic architectures that once served as the backbone of enterprises are proving insufficient in meeting the demands of modern business dynamics.

This is where the concept of composable architecture emerges as a revolutionary force, reshaping the way organizations design, build and scale their technological foundations. Cognizant understands the challenges and opportunities that organizations face when striving for agility, innovation and growth. With our expertise, we empower businesses to transform their architecture landscape into a highly adaptable and responsive framework.

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- **The composable revolution:** Composable architecture is not just a trend; it represents a fundamental shift in how businesses architect their digital ecosystems. It is a response to the pressing need for agility, innovation and data-driven decision-making. At its core, composable architecture empowers organizations to break free from the constraints of rigid, one-size-fits-all systems. Instead, it embraces a modular, data-centric approach, where components and services are orchestrated dynamically to create a fluid and adaptable infrastructure.

- **The data-centric paradigm:** At the heart of composable architecture lies data, the lifeblood of every modern organization. Data is not just information; it's the fuel that powers innovation, customer experiences and a competitive advantage. Businesses today recognize that to thrive, they must harness the full potential of their data assets. This is where Cognizant's approach to composable architecture aligns seamlessly with industry standards, leveraging the groundbreaking concept of data mesh.

- **Game-changing data mesh:** Data mesh, a pioneering concept that is gaining traction in the industry, emphasizes the decentralized ownership and access to data. It breaks down data silos and fosters a culture where data is treated as a product, democratizing access across an organization. Cognizant's approach recognizes the pivotal role of data mesh in composable architecture, enabling our clients to harness the power of distributed data and analytics.

- **Importance of composable architecture in businesses today:** In a world where change is constant, where customer expectations evolve rapidly and where market disruptions are the norm, organizations must be poised to adapt and innovate with agility. Composable architecture offers the agility to pivot swiftly, the flexibility to scale effortlessly and the foundation to turn data into actionable insights.

Pillars of the maturity assessment

Traditional architectural models often pose significant challenges to organizations, hindering their ability to adapt, innovate and remain competitive. At Cognizant, we offer a comprehensive Composable Architecture Maturity Model that enables organizations to assess, plan and elevate their architecture strategies. Our model is built upon years of experience and industry insights, ensuring a holistic approach to architectural transformation.

- **Assessment:** We begin with a thorough assessment of your existing architecture, evaluating its alignment with business goals and its ability to adapt to changing demands. Our assessment provides a clear view of where you stand on the composable architecture journey.

- **Roadmap creation:** Based on the assessment, we work closely with your team to create a tailored roadmap. This roadmap outlines the steps needed to transition from your current state to an agile and composable architecture, emphasizing data-centric principles.

- **Implementation and optimization:** Our experts guide you through the implementation process to ensure a seamless transition. We optimize your technology stack, integrate data management best practices and enable you to harness the full potential of composable architecture.

- **Continuous improvement:** Composable architecture is not a one-time effort, but an ongoing journey. We help you establish feedback mechanisms and data-driven processes to continually improve and adapt your architecture to emerging trends and business needs.

Common pain points and challenges in traditional architectures

Cognizant's Composable Architecture Maturity Model directly addresses the pain points and challenges that organizations face with traditional architectures. Our data-centric approach, combined with robust data management and governance, empowers organizations to overcome these hurdles and embark on a transformative journey toward greater agility, efficiency and innovation. Here, we'll explore common pain points and demonstrate how Cognizant's Composable Architecture Maturity Model effectively mitigates those challenges, with a particular focus on the pivotal role of data management and governance in achieving success.

- **Rigidity and lack of agility:** Traditional architectures are inherently rigid, making it difficult for organizations to respond quickly to changing market conditions or evolving customer demands. The result is often delayed product releases and missed opportunities for innovation.

  - Data-centric flexibility: Our model places data at the core, enabling organizations to compose and recompose their architecture swiftly. This data-centric approach allows on-the-fly adjustments, enhancing agility and responsiveness.

- **Inefficient resource utilization:** In traditional architectures, resources are often underutilized due to the siloed nature of systems. This inefficiency not only drives up costs, but also limits an organization's ability to scale effectively.

  - Optimized resource allocation: Through composable architecture, we streamline resource allocation, eliminating redundancies and ensuring optimal resource utilization. This leads to cost efficiencies and improved scalability.

- **Data silos and inconsistent quality:** Traditional architectures often result in having fragmented data across different systems, leading to data silos and inconsistent data quality. This can impede data-driven decision-making and hinder innovation.

  - Unified data management: Cognizant's model prioritizes comprehensive data management and governance. It breaks down data silos, ensures data consistency and establishes data quality standards to empower organizations with a reliable data foundation.

- **Compliance and security risks:** Maintaining compliance with regulatory requirements and safeguarding data security is a paramount concern. Traditional architectures may lack the governance required to address these risks adequately.

  - Robust governance framework: Our model integrates a comprehensive governance framework that addresses data compliance and security. This includes data access controls, encryption, audit trails and adherence to data privacy regulations.

- **Scalability challenges:** Scaling traditional architectures to meet growing demands can be complex and costly. Organizations may struggle to add new functionalities or expand their infrastructure seamlessly.

  - Scalable data ecosystem: Cognizant's approach ensures that data scalability is an integral part of architectural planning. With a focus on composable components and services, organizations can scale their architecture in line with their growth requirements.

Benefits and opportunities of this model

The adoption of Cognizant's Composable Architecture Maturity Model offers numerous opportunities and benefits for your organization:
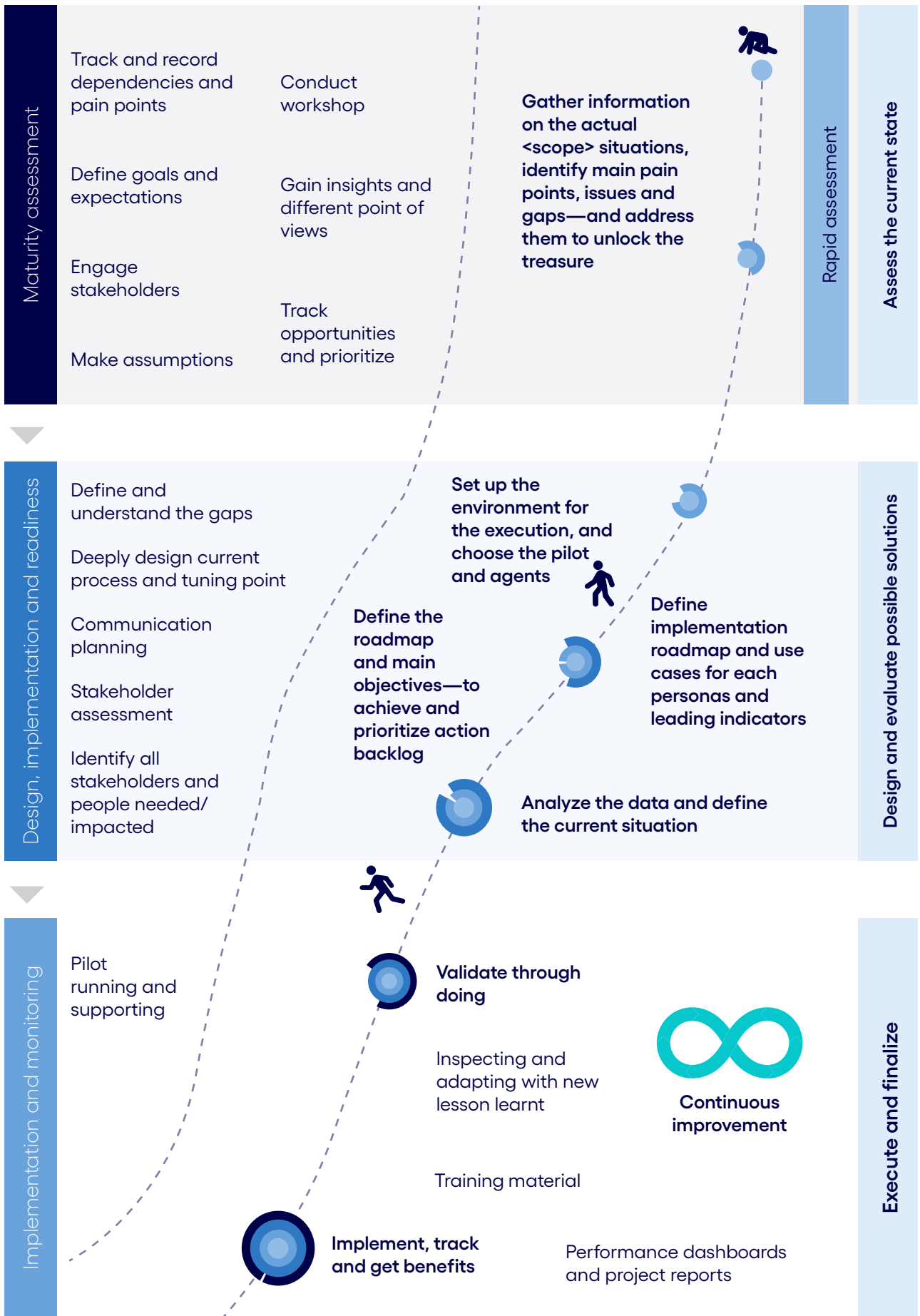
- **Enhanced agility:** Unlock the ability to rapidly respond to market changes and customer demands through flexible and data-centric architecture.

- **Innovation acceleration:** Drive innovation by leveraging composable components and services, enabling you to experiment and iterate with ease.

- **Cost-efficiency:** Optimize your technology expenses by eliminating redundancy, reducing legacy system maintenance and enhancing resource utilization.

- **Data-driven insights:** Leverage the power of data by implementing robust data management and analytics strategies, leading to informed decision-making.

- **Competitive advantage:** Stay ahead of the competition by aligning your architecture with global best practices and emerging trends.

- **Sustainability:** Ensure the long-term sustainability of your architecture vision, adapting to future challenges with ease.

- **Compliance and security:** Mitigate risks through comprehensive governance frameworks, ensuring data compliance and security.

- **Talent excellence:** Attract and retain top talent with a culture of continuous learning and skill development in composable architecture.

- **Ecosystem collaboration:** Collaborate seamlessly with external partners and vendors, fostering innovation and growth.

- **Continuous improvement:** Establish feedback loops and mechanisms for continuous improvement, enabling you to adapt to evolving business needs and technological advancements.

Our approach to unlock clients' potential

We help clients unlock value within their business processes by harnessing the power of data to discover insights that will guide their transformation journey. In that sense, the maturity assessment is the first step, gathering the building blocks that indicate the current state of their processes. At the same time, we gain insights about their goals and expectations. Using this information, we provide an agile, data-driven and high-level diagnostic approach—to identify the challenges and dependencies that can impact the actions required to bridge the gap between their current situation and their desired outcomes. This is the blueprint that guides the design of the transformation roadmap.

The second stage involves detailed design for enhanced results. This includes prioritizing initiatives and establishing measurable KPIs that define the expected improvements for each project. The roadmap also requires the identification of significant milestones to track progress and the impact of the prescribed measures.
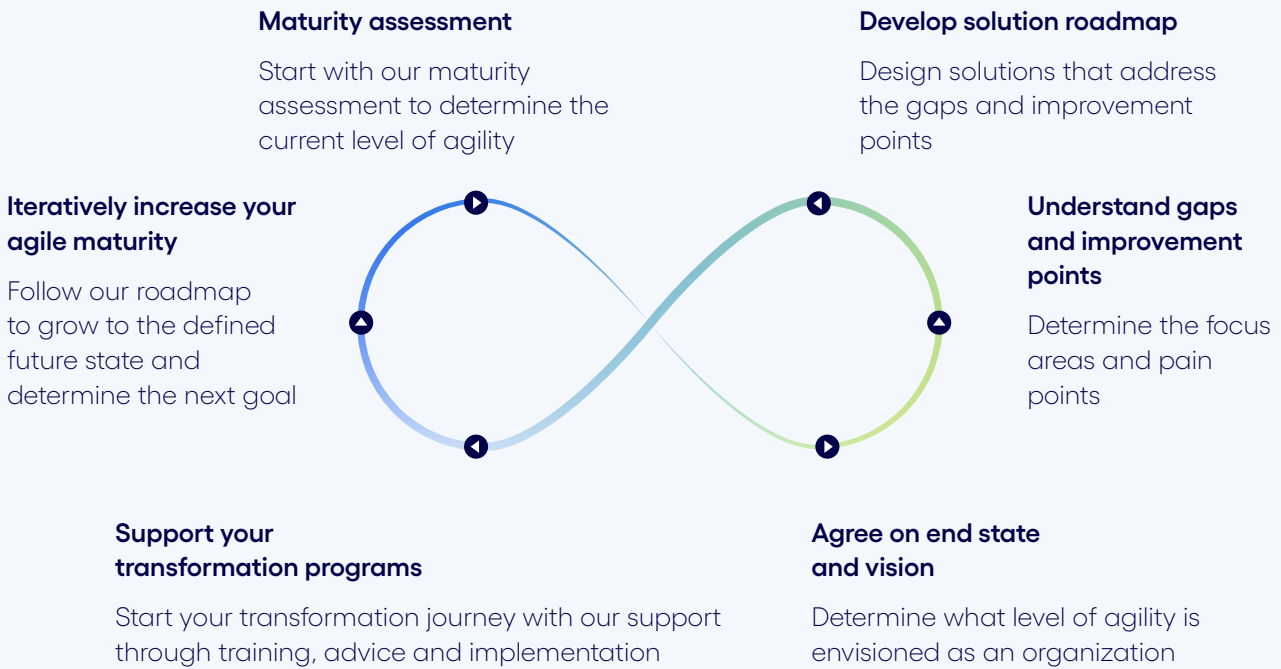
The final step is the implementation of the transformation plan while closely monitoring the deployment of each project—tracking challenges, gains and lessons learned to facilitate agility and foster a culture of continuous improvement.

Maturity assessment

Track and record dependencies and pain points

Define goals and expectations

Engage stakeholders

Make assumptions

Conduct workshop

Gain insights and different point of views

Track opportunities and prioritize

Gather information on the actual <scope> situations, identify main pain points, issues and gaps—and address them to unlock the treasure

Rapid assessment

Assess the current state

Design, implementation and readiness

Define and understand the gaps

Deeply design current process and tuning point

Communication planning

Stakeholder assessment

Identify all stakeholders and people needed/impacted

Set up the environment for the execution, and choose the pilot and agents

Define implementation roadmap and use cases for each personas and leading indicators

Define the roadmap and main objectives—to achieve and prioritize action backlog

Analyze the data and define the current situation

Design and evaluate possible solutions

Implementation and monitoring

Pilot running and supporting

Validate through doing

Inspecting and adapting with new lesson learnt

Training material

Implement, track and get benefits

Performance dashboards and project reports

Continuous improvement

Execute and finalize

Our approach to unlock all the potential value

Roadmap

The roadmap below outlines the objectives, priorities and timelines for this specific type of engagement

Maturity assessment

Start with our maturity assessment to determine the current level of agility

Develop solution roadmap

Design solutions that address the gaps and improvement points

Iteratively increase your agile maturity

Follow our roadmap to grow to the defined future state and determine the next goal

Understand gaps and improvement points

Determine the focus areas and pain points

Support your transformation programs

Start your transformation journey with our support through training, advice and implementation

Agree on end state and vision

Determine what level of agility is envisioned as an organization

Embrace the future of architecture with Cognizant. Our Composable Architecture Maturity Model is your gateway to a more agile, innovative and data-driven organization. Partner with us today to embark on this transformative journey. Your success is our mission and your future is our expertise.

Authors

Stefano Montanari, Head of Retail and Consumer Goods - Stefano.Montanari@cognizant.com
Emil Bombek, AIA AWS Data - Emil.Bombek@cognizant.com

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World Headquarters

300 Frank W. Burr Blvd.
Suite 36, 6th Floor
Teaneck, NJ 07666 USA
Phone: +1 201 801 0233
Fax: +1 201 801 0243
Toll Free: +1 888 937 3277

European Headquarters

280 Bishopsgate
London
EC2M 4RB, England
Tel: +44 (01) 020 7297 7600

India Operations Headquarters

5/535, Okkiam Thoraipakkam,
Old Mahabalipuram Road,
Chennai 600 096
Tel: 1-800-208-6999
Fax: +91 (01) 44 4209 6060

APAC Headquarters

1 Fusionopolis Link,
Level 5 NEXUS@One-North,
North Tower Singapore 138542
Phone: +65 6812 4000