



# A blueprint for digital customer experience implementation

Become digital-first organization and deliver superior experience faster to the customers

**Credits** 

Ramon Kampinga

Rohit Karthikeyan

# **Inherent organizational and technological** challenges inhibits service providers from delivering an elevated digital experience

Customers are increasingly evaluating service providers in the connectedness industry based on the quality of the digital experiences. A delightful digital customer experience (CX) strengthens the overall brand perception, **built upon consistent interactions across digital channels of their choice.** 

# **Challenges in delivering the digital CX vision**



**Organizational and cultural challenges:** In contrast to digital pure-play companies like Alphabet, Meta, and Microsoft, service providers transform their organization in a piecemeal rather than systematic approach. As a result, they are outperformed by new players.



**Increasing breadth of product portfolio:** Providing the desired level of immediacy and agility in service is a major challenge due to the increasing breadth of the product portfolio



**Lack of digital maturity:** Lack of "innovate and fail faster" approach restrains service providers from elevating their digital maturity levels

# www.prodapt.com

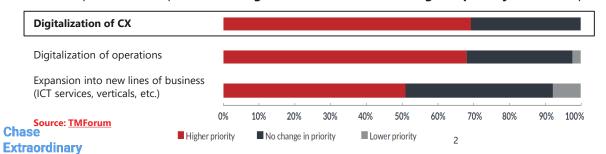


**Increasing business complexity:** Consolidation between organizations that have traditionally occupied separate market verticals, such as fixed-line, broadband, broadcasting, and content, has increased the variety of customer archetypes in the base



**Absence of hyper-personalization:** Lack of unified customer intelligence and 360° customer centricity become roadblocks to offering a hyper personalized customer experience

Covid-19 pandemic has positioned "Digitalization of CX" as the highest priority for service providers



A delightful digital CX is no longer a nice-to-have. It has become a mission-critical differentiator and top priority for every service provider.



# **Key imperatives** for service providers to redefine CX in a digital-first world





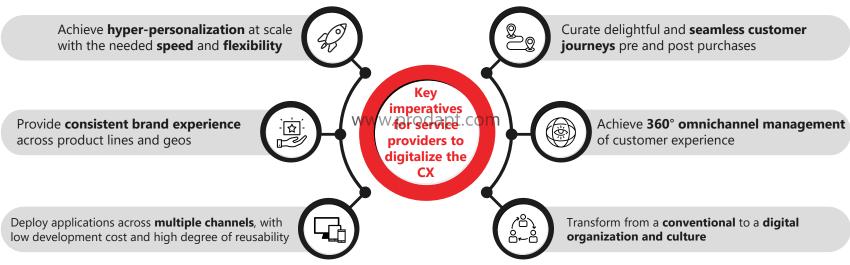








As digital pure-plays such as Microsoft, Apple, Alphabet, etc., continuously reinvent themselves by delivering simple, immediate, and individualized experiences, even other service providers in the connectedness industry must make bold moves to build dynamic digital ecosystems around the customer needs





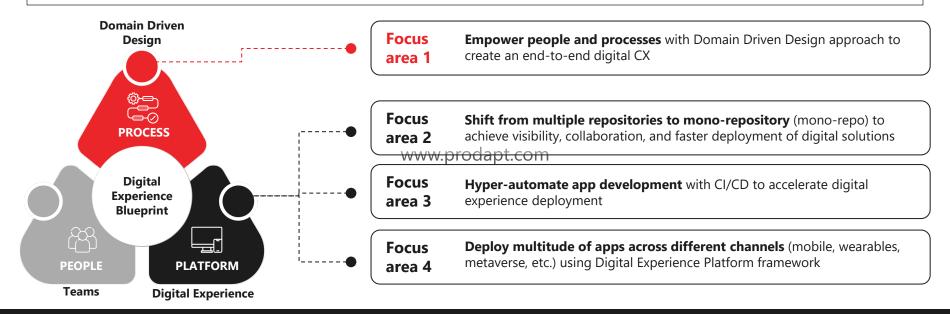
To digitalize the entire CX landscape, service providers must evolve from a multi-stack and multi-channel operator to a unified digital operator. Digital CX implementation enables service providers to become a Digital-first organization and bring superior customer experiences faster to market.

# **Key transformation focus areas** to deliver a superior digital CX across multiple channels



A high level of digital maturity ensures the delivery of an elevated CX

To achieve such a digital maturity, service providers must focus on 3Ps – 'People, Process, & Platform'



Although this insight touches upon the 'People' aspect, focusing which service providers would gain a distinct competitive advantage, it provides a much broader and deeper understanding about the 'Process' and 'Platform', focusing which service providers can achieve 60% faster time to market and 30% increased sales conversion rates through different digital channels.

# Empower people and processes with Domain Driven Design (DDD) approach

to create an end-to-end digital CX

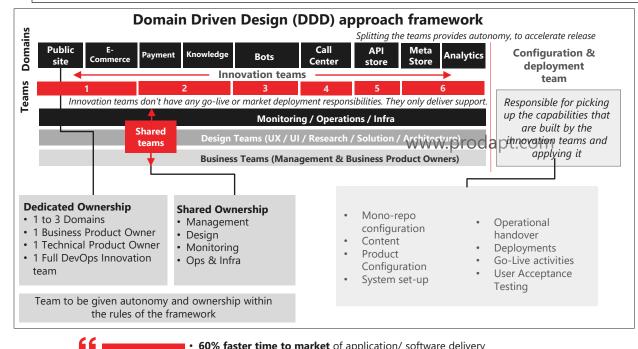








- **DDD approach splits teams** based on responsibilities, because having broader set of responsibilities can deviate team's focus and be counter productive
- DDD approach accelerates software delivery by empowering teams with domain ownership
- Each team is given dedicated ownership. E.g., Innovation team drives innovation strategies, Config & Deploy team manages testing and go-live activities, etc.



- 60% faster time to market of application/ software delivery
- · Achieve higher digital maturity
- Achieve increased software delivery efficiency

# Challenges with traditional software delivery approach

- A single team responsible for the end-to-end delivery of a software/ application affects the quality of delivery and slows the time-to-market
- Teams that are given the responsibility of systems and not of entire domains can lead to inefficiency and fingerpointing when something goes wrong
- Each team having disparate systems with different IT stacks leads to duplication of work

# **Recommendations for adopting DDD approach**

- Model a complex domain accurately while creating compliable code that is readable with the right documentation. Ensure that the code and design never aet out of sync.
- Encode business rules in the design to eliminate potential bugs
- Adopt a customer journey-based approach to manage end-to-end domains, helpful in delivering a part of that customer journey
- Assemble a series of small, testable functions into a complete use case, and compose these individual scenarios into a large-scale design
- Create a functional domain model that works with traditional databases, NoSQL, and event stores and safely expose the domain via a website or API



# Shift from multiple repositories to mono-repository (mono-repo) to achieve

visibility, collaboration, and faster deployment of digital solutions



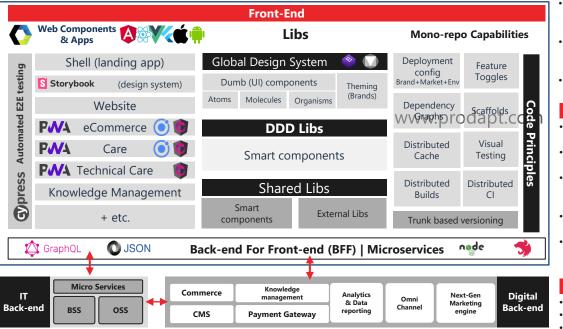




# Mono-repo – Smart and extensible framework for building web applications

Mono-repo stores everything in a single repository, whether it's code, documentation, or any other asset required for building software/applications. As a best practice, digital pioneers such as Google and Microsoft host all their codes in mono-repo, which has tens of hundreds of commits per day.

# No Best practice implementation of Nx mono-repo (reference) architecture



# Challenge

- The multi-repo approach provides a **separate repository for its different areas** of responsibility, making it difficult to keep track of versions and dependencies globally
- There is often **code duplication** since multi-repo leads to a siloed culture that prevents teams from repeatedly solving the same problem. Also, the team must **manually update the several versions** as and when required
- **Increased maintenance cost** for maintaining all the repositories, security patches, etc.

### Recommendations

- Prevent version conflicts using a single central shared library with dependencies
- Provide visibility to front and back-end developers during the coding stage.
   This results in first time right working integrated code
- Maintain code principles to ensure standardization and quality of coding.
   Furthermore, code principles ensure easy scalability of teams working together in the mono-repo.
- Deploy test automation inside the repository to accelerate the software development process, and eliminate any potential bugs
- Split the smart components that handle business logic from the standard components that handle UI. This would enable teams to gain speed and focus on the software development and delivery process

- Single source of truth to manage several applications and libraries
- 65% reuse of codes thereby accelerating application deployment time
- Easy maintainability of code libraries
- High-security standards for customer data across applications





# Hyper-automate app development with CI/CD to accelerate digital

# experience deployment



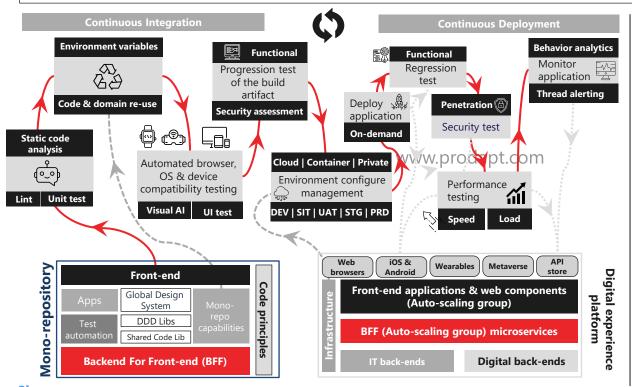






# Continuous Integration/Continuous Delivery (CI/CD) pipeline automates the end-to-end software delivery process

The pipeline builds code, runs tests, and safely deploys a new version of the application. It eliminates much of the toil, allowing service providers to release on-demand.



# Challenge

 As the scope for managing the build and delivery of software gets bigger, maintaining thousands of scripts becomes a source of significant toil

# Recommendations

- Streamline application coding, testing, and deployment by giving teams a mono-repo. Provide automation tools to combine and test the codes consistently
- **Build artifacts in environment variables** to ship features based on a mono-repo configuration script
- Perform static code analysis to find code defects, and achieve security compliance and quality during development
- Perform automated browser test to check if the application works on the different devices, OS, and browser specifications
- Perform functional testing, including progression and regression testing and security assessment, to check if the application complies with requirements
- Execute performance testing, including speed and load test of the application

- 70% cost reduction in app development
- CI is enabled effectively as all the codes are unified in one place
- The CI/CD deployment process and shared build process can be reused for every project in the repository



# Deploy multitude of apps across different channels (mobile, wearables,

metaverse, etc.) using Digital Experience Platform framework



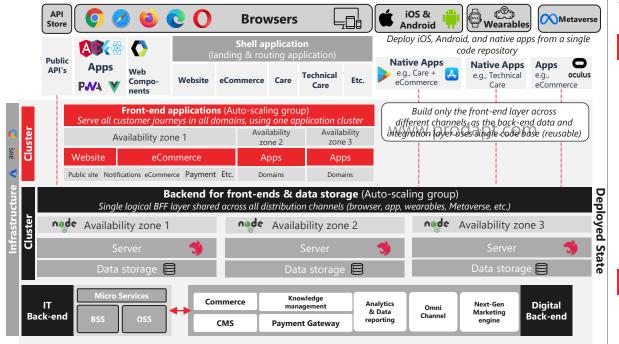






# **Digital Experience Platform (DXP) framework**

- The DXP framework is a cumulation of DDD approach, mono-repo, and CI/CD pipeline
- The DXP framework builds and deploys multitudes of apps across different channels. DXP is future-proof, as it uses a single code base to deploy any number of applications, across multiple digital channels



# Challenge

- Service providers struggle to build, deploy and continually improve websites, portals, mobile, and other digital experiences
- They are challenged to provide a high degree of flexibility and reuse of code and domains

### Recommendations

- Use the DXP to build, deploy and continually improve websites, portals, mobile, and other digital experiences
- Develop the DXP on serverless Cloud infrastructure, as it will accelerate app deployment
- Use the Autoscaling feature to scale cloud services automatically, based on defined situations such as traffic or utilization levels
- Manage the presentation layer based on the role, security privileges and preferences of an individual
- Combine and coordinate applications, including content management, search, personalization, integration, and aggregation, collaboration, workflow, analytics, mobile and multichannel support
- Reuse the business logic and data logic layers to accelerate app deployment across multiple channels

- 30% increased sales conversion rates for digital channels
- Stable maintenance effort
- · Unified user experience





# Benefits achieved by a leading service provider in Latin America after elevating their digital experience across multiple channels



Following the key transformation focus areas as discussed in this insight, resulted in the following benefits



**30%** 

increased sales conversion rates for **Digital Channels** 



**70%**Cost Reduction



of software/application deployment



+65%

code reuse





**Low maintenance costs** and release on demand



**Guaranteed security** updates for all apps



**Improved customer experience** score

# THANKS!

# **Get in touch**

### **USA**

**Prodapt North America, Inc.** 

**Oregon**: 10260 SW Greenburg Road, Portland

**Phone**: +1 503 636 3737

Dallas: 1333, Corporate Dr., Suite 101, Irving

**Phone**: +1 972 201 9009

New York: 1 Bridge Street, Irvington

**Phone:** +1 646 403 8161

### **CANADA**

**Prodapt Canada, Inc.** 

Vancouver: 777, Hornby Street, Suite 600. BC V6Z 1S4

**Phone:** +1 503 210 0107

### **PANAMA**

**Prodapt Panama, Inc.** 

Panama Pacifico: Suite No 206, Building 3815

**Phone:** +1 503 636 3737

### **CHILE**

**Prodapt Chile SPA** 

**Las Condes:** Avenida Amperico Vespucio Sur 100, 11<sup>th</sup> Floor, Santiago de Chile

# UK

**Prodapt (UK) Limited** 

London: 1 Poultry, EC2R 8EJ

Reading: Suite 277, 200 Brook Drive,

Green Park, RG2 6UB

**Phone:** +44 (0) 11 8900 1068

### **IRELAND**

**Prodapt Ireland Limited** 

Dublin: Suite 3, One earlsfort centre,

lower hatch street

**Phone:** +44 (0) 11 8900 1068

# EUROPE WWw.prodapt.com

Prodapt Solutions Europe & Prodapt Consulting B.V.

**Rijswijk:** De Bruyn Kopsstraat 14 **Phone:** +31 (0) 70 4140722

**Prodapt Germany GmbH** 

Münich: Brienner Straße 12, 80333

**Phone:** +31 (0) 70 4140722

**Prodapt Digital Solution LLC** 

Zagreb: Grand Centar,

Hektorovićeva ulica 2, 10 000

**Prodapt Switzerland GmbH** 

**Zurich:** Muhlebachstrasse 54, 8008 Zürich

**Prodapt Austria GmbH** 

**Vienna:** Karlsplatz 3/19 1010 **Phone:** +31 (0) 70 4140722

Prodapt Slovakia j.s.a

Bratislava: Plynárenská 7/A, 821 09

### **SOUTH AFRICA**

Prodapt SA (Pty) Ltd.

Johannesburg: No. 3, 3rd Avenue, Rivonia

**Phone**: +27 (0) 11 259 4000

## **INDIA**

**Prodapt Solutions Pvt. Ltd.** 

**Chennai:** Prince Infocity II, OMR **Phone**: +91 44 4903 3000

"Chennai One" SEZ, Thoraipakkam **Phone**: +91 44 4230 2300

IIT Madras Research Park II, 3<sup>rd</sup> floor, Kanagam Road, Taramani **Phone**: +91 44 4903 3020

**Bangalore:** "CareerNet Campus" 2<sup>nd</sup> floor, No. 53, Devarabisana Halli,

**Phone**: +91 80 4655 7008

**Hyderabad:** Workafella Cyber Crown 4<sup>th</sup> Floor, Sec II Village, HUDA Techno, Madhapur

# THANK YOU









