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# Digital Front Door: A Scalable and Omnichannel Approach to Care Delivery and Consumer Engagement



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# A Case for Digital Front Door in Healthcare

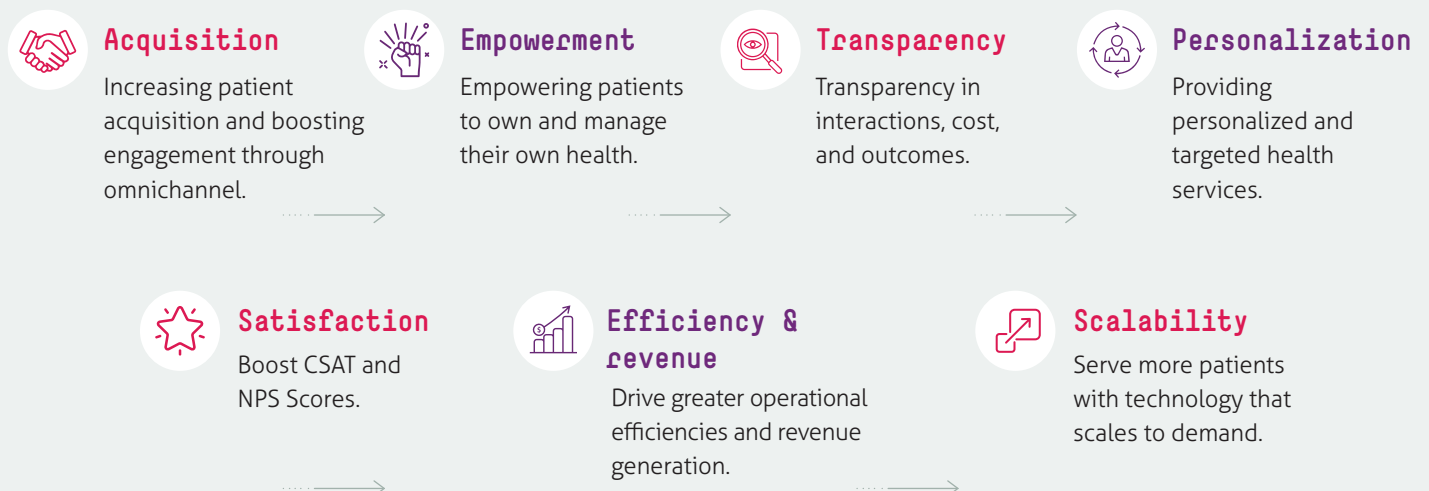
Consumerism is revolutionizing every aspect of healthcare including care delivery. Healthcare consumers now expect the same degree of convenience, flexibility, omnichannel experience, and personalized services from healthcare organizations that they routinely get from industries such as retail, banking, and entertainment that have undergone massive digitization.

The healthcare industry has been relatively slow in adopting digitization that is transforming other industries. Factors such as the complexity of healthcare systems and the healthcare consumer journey with multiple touchpoints, have impacted the pace of digitization. However, we are at the brink of a new era in healthcare – digital innovations such as **telehealth and wearables** along with health and wellness **apps** and **portals** are helping healthcare players unlock and provide value by delivering enhanced digital experiences for consumers. Moreover, the entry of consumer and retail organizations such as Amazon, Walmart, etc., along with partnerships between healthcare and non-healthcare companies, is accelerating the pace of innovation. The pandemic also served as a catalyst for the adoption of digital innovation to serve consumers better and at scale.

## Digital Front Door Unlocks a Holistic Healthcare Approach

Digital Front Door is a strategic approach of connecting with healthcare consumers digitally at each point along the patient journey, while utilizing innovative digital technology that is user-friendly and intuitive. While Digital Front Door creates a seamless experience for patients with a single-entry point, it spans multiple healthcare players and disparate systems at every stage of the patient journey. In other words, the Digital Front Door is the primary access point for a healthcare consumer – a singular, trusted gateway for holistic solutions and services.

A Digital Front Door empowers patients with access to care at major touchpoints of their journey through interfaces that are convenient, timely, aesthetic, omnichannel, personalized, and based on their preferences. A robust Digital Front Door should help healthcare organizations to attract, engage and retain patients. The advantages of a Digital Front Door include:



# Illustrative Digital Experience Journey

## Engagement with providers and payers

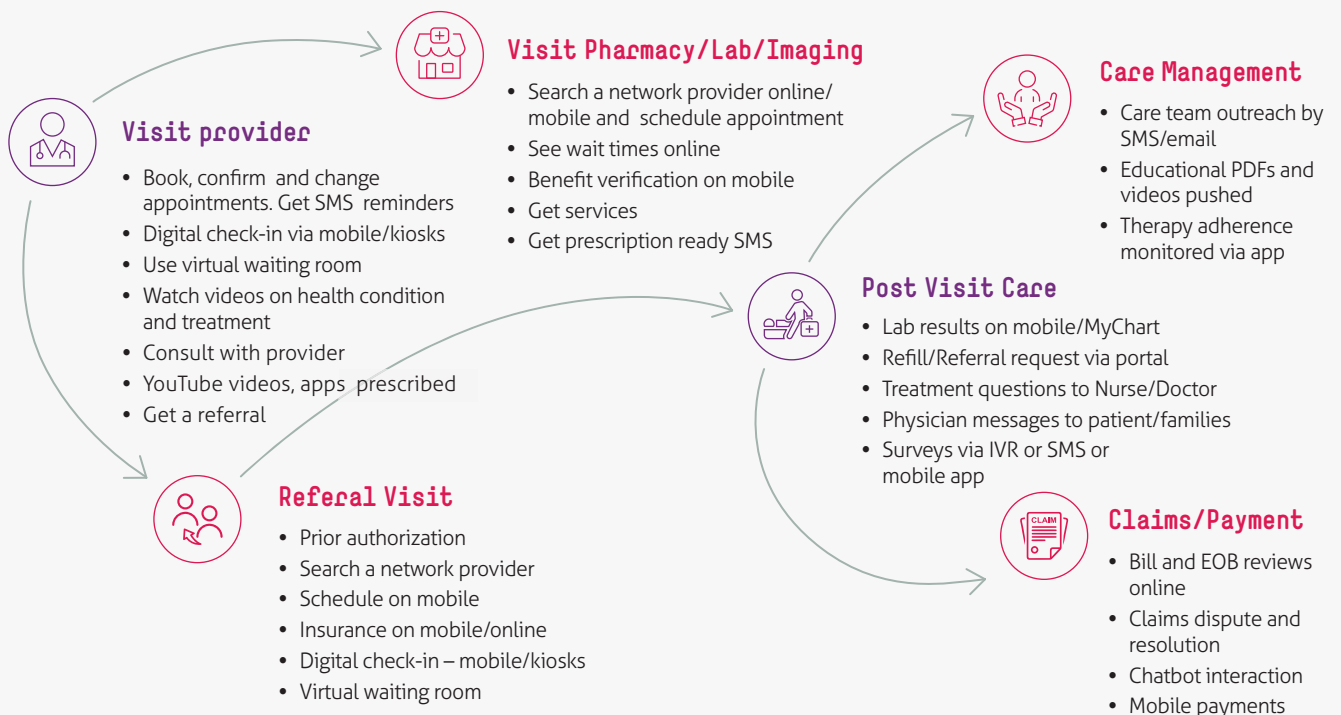


Figure 1: Digital Front Door Touchpoints

## Healthcare Evolution with Digital Front Door

The traditional approach to healthcare is hindered by a one-size fits all approach with a disjointed and fragmented ecosystem that lacks visibility and interoperability. Modernizing the healthcare paradigm through a Digital Front Door strategy will have a ripple effect across all aspects of healthcare, improving the patient experience and surmounting current healthcare shortcomings.

This new normal of digitized healthcare will provide services and solutions tailored to individuals across channel with an interoperable infrastructure that is highly transparent. This shift in the healthcare industry will optimize healthcare with a focus on demonstrating value rather than mere volume of transactions. It will also improve relationships among all players – patients, payers, and providers.

“ The redesign of healthcare benefits should start with enabling the member to make better decisions about healthcare every day. That means a high-tech platform, or a set of technologies that are created to have good user experience, something that enables the user to have convenient access to all the tools and resources provided to that individual.

- Chris Michalak, CEO, Virgin Pulse

# Challenges in Digital Front Door for Healthcare

A new journey poses new challenges; this is true for the road to digital healthcare as well. Adopting novel technology will entail certain challenges. Some of the challenges in digital health focus on **consumers, systems, data, implementation, quality, and regulations.**

## Consumers – Adoption & Experience

The biggest caveat when it comes to adopting a Digital Front Door strategy in healthcare is the fact that it needs to be easy to use and provide a fair degree of comfort to consumers. A convenient level of accessibility to all the consumers is also essential when you intend for overall adoption of the digital health platform to increase.

Healthcare organizations are offering consumers omnichannel options to interact with providers via virtual care platforms and appointment booking portals. The goal is a seamless customer experience at every stage of the patient journey across disparate systems. Consumers want easy, efficient, and effective ways to interact with healthcare providers. Providers must ensure interoperable data, sharing relevant information with each other, so that patients only have to share their concerns once. However, the risk going forward is that the fragmentation issue can get worse, leading to an overall poor customer experience. So, an effective Digital Front Door strategy must avoid fragmentation and ensure a seamless journey for a better customer experience that is likely to retain patients.

## System Infrastructure – The Need for Interoperability

Digital Front Door creates a necessity for the adoption of interoperability to drive cohesion among various systems and process areas across the back-office, middle-office and front-office. Today's healthcare organizations utilize a gamut of systems, spanning portals, mobile apps, EHR, clinical and administrative systems, billing, scheduling, etc. The technologies supporting these systems span multiple computing eras with inherent design flaws that accentuate a suboptimal experience. The design flaws along with poor or improper training can result in an overall decrease in software usage. Therefore, the existing healthcare infrastructure must be augmented with tailored offerings that facilitate interoperability.

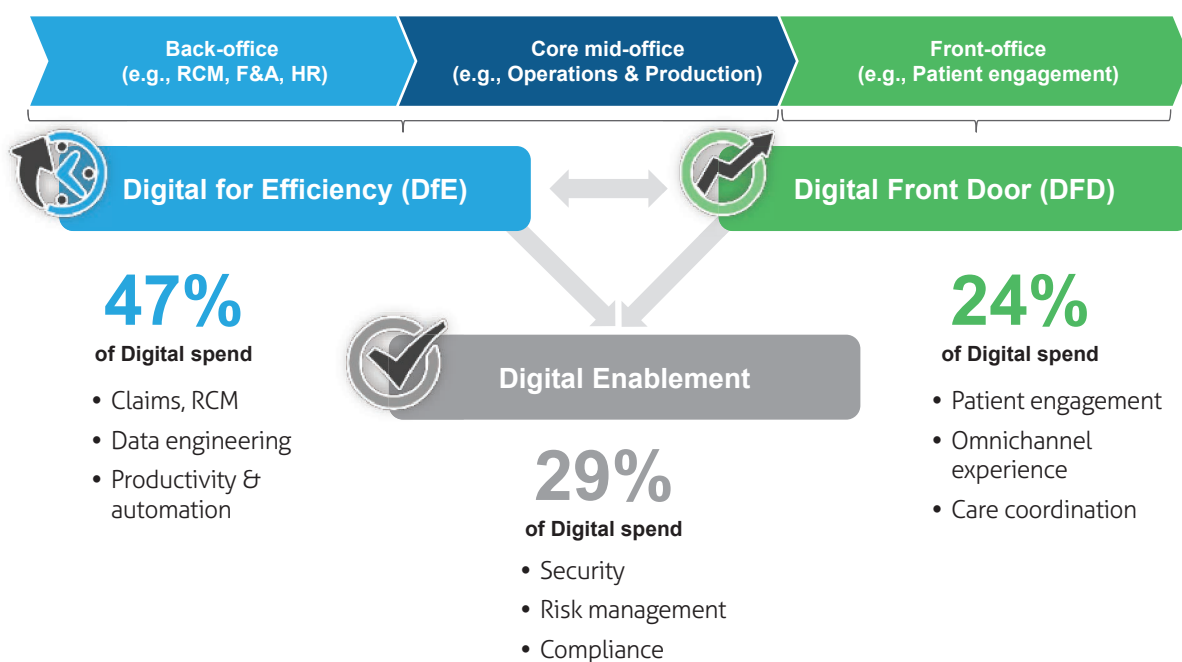


Figure 2: Breakdown of digital spend across the business functions. Source: Everest Group, 2021

## Data Explosion

The third challenge is data. The volume of global healthcare data generated has increased significantly over the last decade and is growing exponentially every second. It is estimated that **healthcare data comprises 30% of the global data volume and continues to increase**<sup>5</sup>. In fact, this growth rate outpaces other industries such as financial services, manufacturing, media, and so on.

Aggregation of siloed data from various sources and the analysis of structured and unstructured data are big challenges. To a patient, data silos can make a doctor's appointment feel clunky, disorganized, and inefficient, as siloed data involves the collection of overlapping but inconsistent data in separate systems and repositories. Digitization of the patient onboarding process from the first step should facilitate hospitals and healthcare facilities to set a precedence by offering patients digital-first capabilities. This will empower patients to take informed decisions with relevant data at their fingertips and manage their healthcare journey.

Standards such as HL7, FHIR, etc., are put into place to maintain the consistency of structured data. Despite such standards to improve the quality and usefulness of structured data, a huge volume of patient-generated data is often left unchecked by most widely adopted data standards. Data such as sleep and other wellness measurements, although structured, is often stored in proprietary formats making it difficult to compare or even display within the EHRs.

Unstructured data on the other hand poses a much greater challenge to analyze and interpret when compared with structured data. One of the main challenges with unstructured data is the massive gap in the required analytics talent to tap this data for actionable insights that can optimize the patient experience and healthcare outcomes. This challenge is compounded by the volume of data created by the healthcare industry every second. This data explosion **will generate exabytes of data per year with the compound annual growth rate (CAGR) set to reach 36% by 2025**<sup>4</sup>.

This massive volume of data that continues to grow also has cost ramifications in terms of processing, storage, and security. An effective Digital Front Door strategy that harnesses disruptive technology such as Artificial Intelligence (AI), Machine Learning (ML), Internet of Things (IoT) and automation can mitigate these challenges and costs. It can ease the burden of managing growing volumes of data and provide relevant data in a timely fashion with powerful analytics to reap value from this steadily growing mountain of data.

## Implementation Challenges

Implementation of Digital Front Door could face a broad range of challenges across several domains. The first challenge lies in the domain of EHR – how many different EHR systems does the hospital use and do they provide the requisite digital foundation? If they do not, the need to foster interoperability among multiple EHR vendors and versions could cause technical and financial challenges.

Workflow and staffing challenges comprise the second domain. Such challenges typically entail inadequate EHR training, changes in workflow, lack of IT personnel, and the cooperation of the clinical staff and executives in the adoption and use of the Digital Front Door. The third aspect of technical challenges include unavailability of sufficient broadband, usability of the EHR, and poor technical support from the vendor.

The fourth challenge pertains to privacy and security. This entails putting safeguards in place against inappropriate disclosure of information, as well as consent management, two-factor authentication, etc. Maintaining the integrity of data should be of paramount importance as a small error or oversight can put a patient's data in the wrong hands and cause irreparable financial and health damages.

The fifth and final challenges is to ensure that a Digital Front Door strategy does not lead to healthcare inequality. The standard of care should be the same so that everyone receives the same individual care irrespective of access to digital technologies.



**Transparency and easy accessibility of data is key. Interoperability and sharing of data are going to open up the world, providing better experiences for all.**

- David Shapiro, SVP Consumer and Provider Experience, United Healthcare

## Designing a Robust Digital Front Door Strategy

An effective Digital Front Door strategy harnesses technology that is user-friendly and accessible, changing the healthcare landscape by enabling a seamless patient journey with relevant data and guidance every step of the way. This serves as a vital gateway to attract and retain patients – it helps them schedule appointments and is also a powerful tool to help engage with patients throughout their health journey, earning their loyalty and trust through personalized services for optimum health outcomes.

As you can see, a robust Digital Front Door strategy can reshape the entire healthcare paradigm with an emphasis on a better patient experience and healthcare. Therefore, it is not a question of “if” or “when” but “how” to implement a Digital Front Door. With a plethora of solutions and technologies available, how can health organizations design the best Digital Front Door solution for them and their patients?

## Impact on Payers and Providers

While patients are at the heart of a Digital Front Door strategy, it also unlocks enhancements for other players in the healthcare industry, namely payers and providers.

Payers	Providers
Improve accessibility of care	Provide alternate models of care such as Telehealth
Increase operational efficiency	Reduce systemic friction by simplifying interactions and fostering interoperability
Enhance member engagement	Focus on overall wellbeing and population health
Integrated, coordinated, and preventive care	Increase patient retention and satisfaction
Reduce cost of care	Alternate revenue sources through white-labeled solutions



## Pillars of the Digital Front Door Strategy

### User Experience – Keep it Simple

As patients are the focus of the Digital Front Door strategy, it is important to ensure that there is a focus on user design and experience. As patients are the focus of the Digital Front Door solution, it is important to ensure that there is a focus on user design and experience. In 2020, approximately **28% of patients changed providers due to a bad digital health experience**. This marked a 40% increase from the previous year. Moreover, 53% stated they would move to a new medical provider for high-quality digital services such as touchless patient intake and registration<sup>6</sup>. Hence, a user-friendly interface and a solution tailored to user needs and preferences would go a long way in driving adoption and brand loyalty. By incorporating a feedback loop driven by data collected from the user touchpoints, content can be personalized, resources can be allocated optimally, and services can be delivered efficiently.

### Integration and Interoperability – Seamless Journey

In the healthcare industry, the delivery of care is fragmented, and this is compounded by the complexity and fragmentation of data across health information systems. A typical patient is unaware of the multitude of systems behind the scenes that are siloed and lack interoperability. It is important for organizations to design a digital strategy to address this lack of data sharing. The goal is to provide a longitudinal view of the patient journey and enable transparency for a seamless patient journey. This must be achieved by facilitating interoperability while adhering to regulatory and data protection requirements. Health organizations should be able to offer patients a unified digital experience and facilitate greater access to all online patient services via a single point of access – a Digital Front Door.

### Optimize Healthcare Using Analytics and Actionable Insights








Most healthcare organizations can aggregate, cleanse, and analyze clinical and non-clinical patient data to generate insights that can help focus on the most pressing problems and evaluate care options. A Digital Front Door can put these insights into the hands of the healthcare consumer and lead to better health outcomes, and lower costs.

“ First, we must consider the entire customer and patient journey, and not just some disconnected parts or episodes. Second, we need to relentlessly focus on usability and details, always thinking from the consumer and patient perspective. And finally, ensure the experience works very well.

- Tony Ambrozie, SVP, CIO, CDO, Baptist Health South Florida

# How Can Mindtree Help Revolutionize Healthcare?

Mindtree, a “born digital” organization with a strong heritage in delivering technology and consulting solutions to Global 200 clients, can help healthcare organizations design and execute their Digital Front Door strategy. We can help you transform key areas for enhancements such as:

-  A unified healthcare consumer portal along with accompanying mobile apps as the foundation for multiple digital touchpoints along a seamless journey.
-  A 360-degree view of the healthcare consumer encompassing all the sources of information.
-  Data-driven personalization and targeting for a better consumer experience.
-  Security, compliance, and interoperability across systems to bridge silos.
-  Predictive analytics for coaching and behavior change to optimize healthcare.
-  Conversational AI for 24x7 support and enhanced operational efficiencies.
-  User experience design, persona-based needs assessment and design studios for experimenting with new technologies to craft tailored solutions.

## Our Success Stories

Mindtree has worked on various healthcare digital transformations including developing and maintaining an app that provides users with personalized health reminders and virtual visits for the largest not-for-profit health consortium in the US. This organization **serves 9.1 million members in the USA**. The patient mobile app enables users to get personalized health reminders for the entire family, check doctor appointment details, view lab results, or join video consultations from the app. Mindtree continues to maintain the Android and iOS versions with enhanced EHR integration and provides ongoing support, including network device support, and 24/7 monitoring of the devices and services. As a result of this Digital Front Door, **50% of the physician, urgent care & ER visits are handled over video chat, freeing up valuable time and resources.**





Ensure that you have the right operating model, focus on heuristics and hypotheses, iterate jointly for consensus, and deliver monthly, quarterly, and daily insights to monitor the quality and validity of the information. These factors are essential for driving consensus between payers and providers to deliver value-driven outcomes.

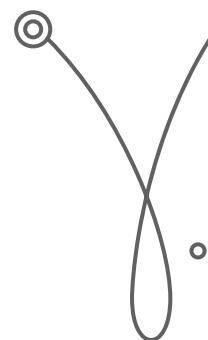
- Asif Mujahid,  
VP Enterprise Data and Analytics, Blue Cross Blue Shield of Minnesota

## The Future of Digital Healthcare

Digitization is ushering in a new normal in healthcare, one that aligns with consumer values and expectations. Creating and implementing a robust Digital Front Door strategy through a synergy of innovation and processes enables healthcare organizations to attract, engage, and retain consumers with convenient, personalized services. This is a crucial next step in the evolution of healthcare towards world-class patient experiences, competitive advantages, operational efficiencies, revenue generation, and better health outcomes. At the end of the day, the key to sustainable business is customer satisfaction. Harnessing digital innovations for a Digital Front Door that delivers a seamless patient journey is the way forward for the brave new world of smarter, patient-centric digital healthcare.

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# About the Authors



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Amar brings a unique mixture of payer, provider, and health tech experience with prior stints at Kaiser Permanente, United Health and Wipro. Amar is passionate about the role of technology in healthcare and initiatives that enhance patient care, provide operational benefits, integrate clinician and non-clinical systems, and reduce cost of care.

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