How Can Architecture Modernization Enhance Digital Customer Experience?

To improve is to change; to be perfect is to change often.

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CUSTOMER EXPERIENCE IS THE NEW MARKETING!

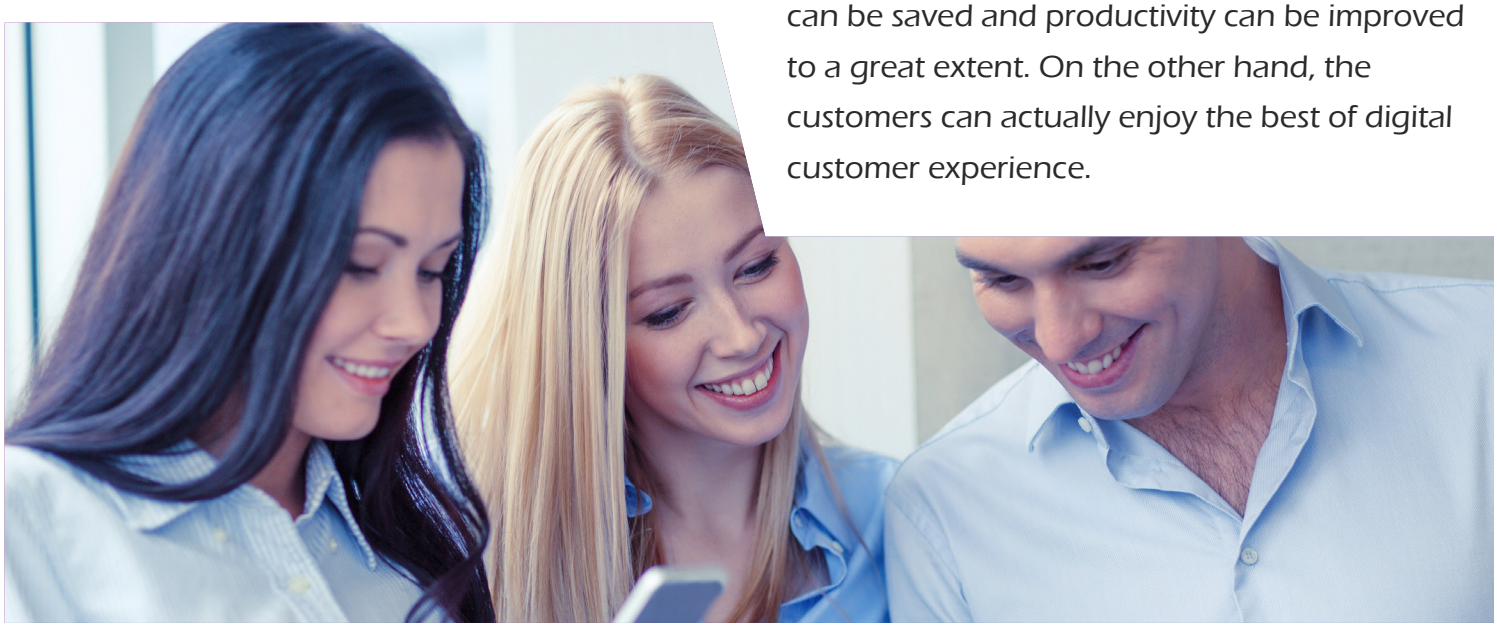
These are the times where everything is digital and digital is everything. Digital Customer Experience is a step ahead of customer experience as it is the combination of the kind of digital interaction a customer can have with the company and the associated impression about the company. It is no more just the cost or the product that builds a business but the kind of experience that customers get. Dissatisfied or unhappy customers can be absolutely dreadful that none of the brands or organizations want to encounter at any point of time. Customers end up being dissatisfied when they tend to have a bad experience with a brand or a product.

Customer experience is inarguably the most important factor that needs to be improvised in order to retain the customers who become brand ambassadors in most cases. Word-of-mouth plays an important role in one's business since generating valuable ones is almost equal to keeping the customers informed and updated. It can make or break one's business easily. A damaged reputation can have a huge effect on one's business and takes forever to bounce back from it. A recent survey predicts that customer experience will be the key differentiator by 2020 which makes it apparent for organizations and companies what they need to concentrate on.

MOBILE-FIRST APPROACH BEFORE ANYTHING ELSE

Eric Schmidt, the former CEO of Google during the Mobile World Congress in 2010, put forward that "mobile first is everything" that designers should follow. What made him say that can be the importance of mobile-first approach when it comes to responsive designing. Mobile-first approach is the designing an application or some functionality for the smallest device, a mobile phone.

It is because of the ideology that designing mobiles are comparatively challenging since it has more restrictions like screen size and bandwidth. Later, the same design can be used to build for a desktop, laptop, or tablets. Another reason to embrace this technique is that the enormous growth of mobile phone users in the recent times that increased the sales as well. When this approach is preferred, the product design time can be saved and productivity can be improved to a great extent. On the other hand, the customers can actually enjoy the best of digital customer experience.



INFORMATION ARCHITECTURE IS THE CORNERSTONE OF STRONG CX

Knowing the principles of good information architecture is more than a necessity for any organization or brand that attempts to satisfy the customer. Information Architecture can be interpreted as a structure for a website or product, created to allow its users to understand where they are and the information they are in need of, viz. it is all about organizing the information in a logical manner to help the users navigate through huge amount of information without making it a laborious process. When the information is in the right place, the users will be able to find it and make use of it.

Otherwise, not everyone is ready to spend time looking for what they need when they can get the same easily without much effort. That being the case, good information architecture makes sure that the users focus on the information rather than finding their way out. It is equally important to provide more appropriate and personalized data for the targeted audience based on what their preferences are. Providing seamless and context-sensitive navigation with the proper information architecture is salient for a good digital customer experience.

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING: TWO PEAS IN A POD

Artificial Intelligence is the way of making a computer or software work intelligent or smart, similar to the way human beings do. On the other hand, machine learning is the system or application that can learn on its own, saves time and minimizes manual intervention. Siri, the virtual assistant developed by Apple and Echo by Amazon are the best examples of continuous self-learning systems that evolve to be more smart and intelligent. Applications need to be able to take decisions and learn on their own unlike traditional software which needs manual intervention to control the capacity of the system. Apparently, applications should be developed in such a way they are more adaptive in nature, understand the load, can be built in the metrics, have the ability to decide how it needs to grow on a demand basis or shrink when it reduces. One of the surveys by Gartner predicts that by 2020, 85% of a client's relationship will be managed by without interacting with a human. Both Artificial Intelligence and Machine Learning are inspiring prospects for businesses and organizations to enhance the digital customer experience.

SECURITY AS A VALUE

The security of data or any information is more than just significant that needs to be taken care of and encryption of systems is needed since everything has a risk factor associated with it. Data breaching, password reuse, and phishing is more prevalent and companies are left with no option other than having multiple layers of defense which is the purpose of Multi-factor authentication (MFA) and Multi-Level Security (MLS). MFA and MLS are the potential defense against the possibility that the customer passwords are already compromised. It deals not only about data protection but also providing a better and convenient mechanism for an end user to authenticate. This is where General Data Protection Regulation (GDPR) comes into picture that gives the users the control over their data on the web and provides organizations with new rules on how to handle the data. Security breaches can be eliminated to a great extent by enabling Secure Sockets Layer (SSL) since a SSL Certificate provider can offer complete verification of the identity of the certificate holder. Secured environment not only gives the customer the assurance of data security but brand loyalty to the organization as well. This has many indirect benefits for both the company and customers that enhances their experience.

SOCIAL COLLABORATION FOR A HEALTHY RELATIONSHIP

Being able to connect to the right customers and furnish what they need can be a feat without knowing the right platform. To enter into the digital world it is crucial to use social media such as LinkedIn, Facebook, Twitter, etc. which makes a major part of your ecosystem. Using social media, by actually being digital, to collaborate boosts productivity, increases customer satisfaction and experience, and brings innovative ideas to improve business with less effort. However, going digital is not an easy street, as venturing into social media makes it more vulnerable for the data and websites out there online. The probability of data leakage and web-based threats is sky-high that makes it trivial for organizations to have a secured environment for themselves and their customers. Preventing a data breach should be the top priority for any organization since that could cost its reputation. The ability to modify the privacy settings and restricting the access in these social media platforms make it more secured and apparent only to the particular set of friends or connections. Businesses that use social media to interact tend to connect better and accomplish better customer experience without fearing about data privacy. This makes organizations ready to react to the changes in the external environment and more effective in using their most powerful assets.

INTEGRATION CAN MAKE ONE OMNISCIENT

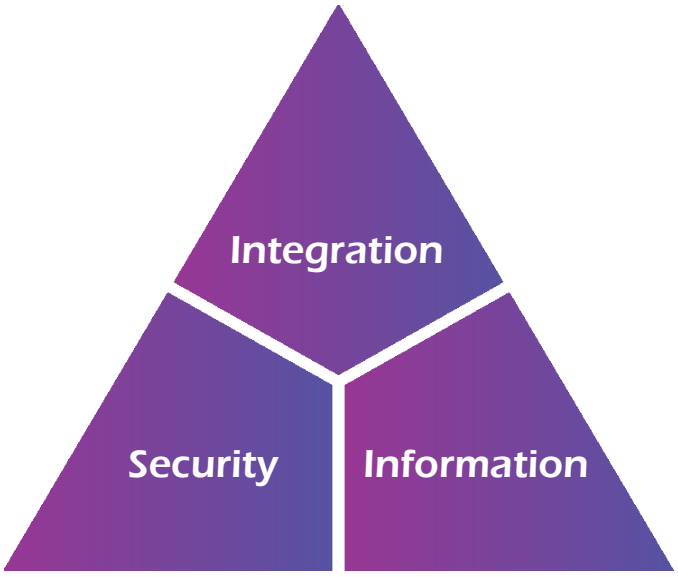
A unified system that maintains the entire database or the applications helps the organizations or business owners to keep track of almost everything such as their logistics, accounting, sales, marketing, human resource marketing and customer relationship management. Applications when integrated make it transparent for the businesses to store the customer information in the right place and provide access to every aspect of a customer's experience.

A customer's order history can be tracked and stored to help the customer have a personalized shopping experience by providing discounts and offers. With this option of integration, the owners can directly address the issues their customers face such as products that are out of stock or unsatisfactory shopping experience. As said earlier, the customers are the brand ambassadors who can take one's business to the next level when treated right.

SECURITY, INTEGRATION, INFORMATION – THE MARRIAGE OF THREE

The love triangle between security, integration, and information makes the relationship stronger as each of them increases the value to the end result. A product that is very informative and integrated with all the systems is going to be incomplete if it is not secured. Similarly, a much secured application with no data in it is like an empty box locked. An application or product that is informative, secured, and integrated with all the required data is more than a bonus for customers. And the number of customers who retain are assets to the organization since the probability of them being promoters are high when they get to have a good digital experience. So, customer churning can be minimized to a great extent when these three aspects are kept intact and chances are high that there will be a good customer experience.

Another important feature to take into account is to maintain a balanced equilateral approach since any imbalance in these three will lead to a compromise on the individual subjects.



HOW ARCHITECTURE MODERNIZATION COMES INTO PICTURE?

The need to stay relevant and change along with the fast-paced technology is crucial since that is what helps businesses and the organization grow. One of the basic factors that a business is built on is its architecture. The term architecture here does not refer to constructing buildings but the designer structure of the business itself. The architecture of the business needs to be up to date; in other words a modern architecture is the cornerstone of business excellence. Having heard enough about architecture modernization it is time to know why it is required now. There are many factors to be considered when it comes to modernizing architecture such as growing customer experience, improved content delivery, security, cost, continuity & future readiness, etc. Being able to cope with the emerging technology and fulfill customer expectations at the same time is more like a trump card as it helps organizations to grow better and win customers.

REASONS TO MODERNIZE THE ARCHITECTURE

The reason why the architecture of an organization or business should be modernized is because of the ability to cope with the rapid growth in the amount of customer expectations. And for the need to stay updated and contemporary, to deliver improved content anytime and anywhere, to be cost effective, the need for continuity & future readiness is crucial. Thereby, the applications and systems can be inline and responsive to the constant changes in the market. Apart from these reasons, there are other better decision making capabilities because a lot of data are available immediately through different channels and in very concise form. Digital Customer Experience is the primary reason to modernize the architecture as it improves the overall growth of the organization.

In one of the surveys by Gartner, it seems that a lot of people when interviewed specified that architecture modernization of their core enterprise applications is the way to go forward. So it is not just a few who thinks this is important, but across the globe many enterprises believe the same. That justifies the reason to modernize the architecture not just to improve customer experience but a lot of other factors as well.

Customer Experience is not just the pure cosmetic aspects of it because all these things have to be thought through from the ground up and that is why it is important to understand all the various elements which can bring value to the customer experience.

BUT DO YOU REALLY NEED TO MODERNIZE?

When it comes to modernizing architecture, organizations should actually contemplate before they embrace modernization since not everything in the market needs to be implemented. Organizations need not modernize their architecture by adapting new technology as it is new or popular in the market. The value or the benevolence of the product to the organization should be considered before opting. Also, the fact that whether a company can support the entire process of modernization should be taken into account. For instance, Microservices can be of no help if the company is planning to sell an entire set of services and not individual ones. Hence, it can be a double-edged sword and can make or break one's business.

TRENDS OF ARCHITECTURE MODERNIZATION

On a broader scale, business owners and organizations think about new technologies that will significantly impact the way they operate in the market and how can they improvise their product in order to be attract customers. The current trends prevailing in the market that business can tap for modernization are the following:

DevOps - This approach focuses on building a constant and agile relationship development and operations by maximizing communication across the organization. Also, it aims to make software delivery faster, well grounded, and effective. The internalization of the Continuous Delivery and Continuous Integration (CI/CD) empowers the DevOps teams to collaborate better than before and helps organizations to run seamless business. When implemented right, DevOps can be the ultimate solution to address the issues as the developers can exploit the data in real-time and make changes then and there. Since the resolution time is faster, the developers need not wait to troubleshoot the problem and can proceed to the next level, thereby modernizing the architecture. This approach is not only benevolent to the organizations that implement it, but for the customers as well to have a digital experience since they are provided with products or software that are more than just error-free.

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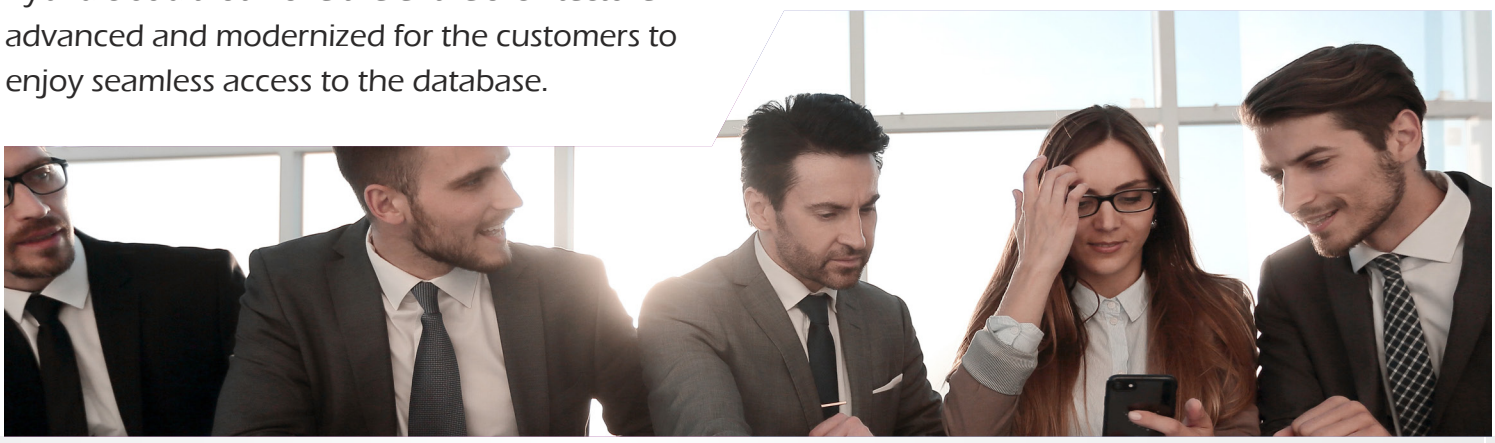
Containerization Vs Virtualization – Containers and virtual machines are distinct in terms of performance, provision, and isolation. Containers operate on operating software, perform natively and have real-time provisioning whereas virtual machines represent hardware-level virtualization, has limited performance and slow provisioning. Containerization also has a flimsy footprint that makes it easier for the organizations to fit in more applications on servers, cut down overhead expenses, and capital expenditures. Since the applications are containerized, portability between on-premise and cloud environments is made easier and the customers are provided access to the applications anytime and anywhere.

Cloud-adoption – This technology has been adopted to a great extent as it brings together the best practices and technology for enterprise-wide cloud adoption. The benefits include the ability to store privileged data in the privat e cloud and make use of it whenever needed. The scope for agile development on cloud is high and the organizations become independent of storage devices since they can literally store everything on cloud. The level of flexibility is exceptional as there are multiple options such as public, private, and hybrid cloud that make the entire architecture advanced and modernized for the customers to enjoy seamless access to the database.

Microservices – They have been in existence ever since the servers were created and it is now more refined and in a controlled fashion. A recent survey says "According to 67% Middleware customers and 79% Openshift customers, Microservices are being used to rearchitect existing applications as much as for brand new projects". This is the reason why Microservices has become the fast go-to solution and many adopt and implement it extensively than before.

This service focuses on providing an agile environment and proceeds to the next level by segregating each and every SOA component into single-purpose applications. In short, Microservices follows a strategy where small programs or components of an application are developed individually and are later consolidated into a single application. Each service or component runs as a separate process and can communicate with different application programming interfaces (API). Netflix, Facebook, Amazon are some of the examples of being at the cutting edge of innovation and success. Microservices plays an important role in building their architecture that enhances business value to the next level.



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SaaS/PaaS/DBaaS – The business applications are catering to a vast set of customers ranging from small, medium and large and in terms of total number of volumes. Managing these applications separately is a feat and does not benefit the customer. In order to handle the situation, businesses should unify all these customers into a single platform and provide SaaS, PaaS or DBaaS so that every customer gets the various services such as queuing, routing, or load balancing service and latest applications irrespective of the size and scale. Leveraging these services helps the modern architecture to evolve and improves the digital customer experience to a great extent.

Real-time Analytics – It is also crucial in the sector of Enterprises as it can be harnessed to enhance the performance of various business units in the domain. The service capabilities can be augmented with robust dashboards to provide instant in depth-visibility through which informed decisions can be taken. Targeting audience should be done when the customers really need it. It also augments customer relationship, maximizing satisfaction, and business results during each interaction with the customer.

CONCLUSION

Most of the successful organizations admit the fact that modernizing their legacy systems resulted in better customer satisfaction and increase in profit. Modernized architecture provides tailor-made solutions to the challenges that were faced while using the legacy systems. It also helps in keeping up with the precocious technology using its unique approaches and trends that are way ahead when compared to the ones earlier. For companies looking to bridge the gap between emerging trends and customer expectations, they need to make their business digital-ready by acquiring modern software architectural approaches in Microservices, DevOps, and cloud-adoption services to beat the competition. The best time to adopt architecture modernization is now in order to excel among the competitors and avoid customer churning.

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