

Executive Brief:

4 Principles for Great Multi-Channel User Experiences

Drive app adoption and deliver the intended business value with a user-centric approach to multi-channel design.



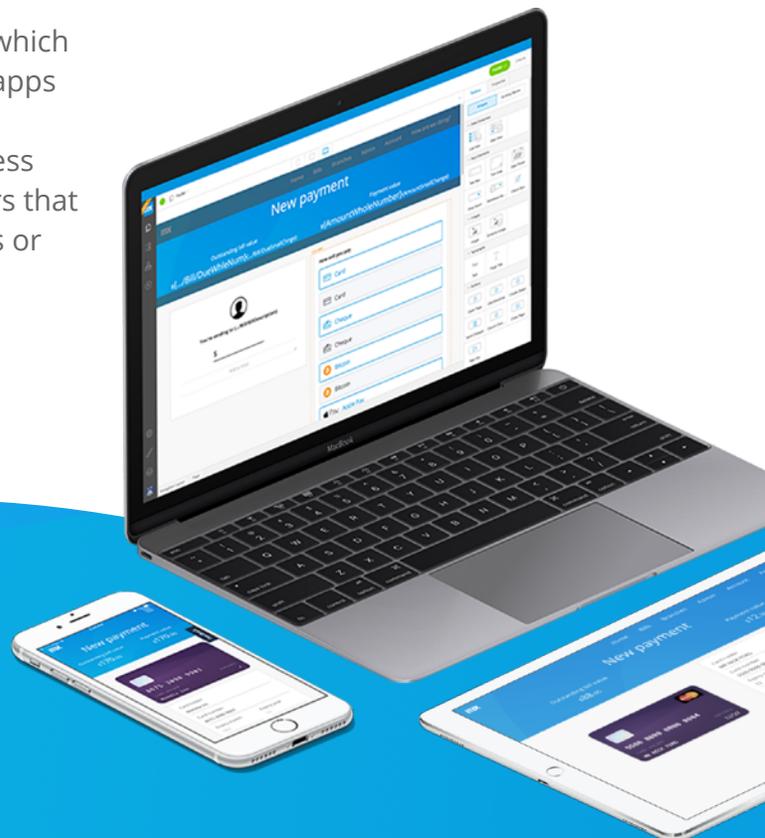
Approaches to Multi-Channel User Experience

It has long been recognized that customers interact and transact with businesses using a multitude of devices, often beginning with one and switching to another midstream. Increasingly, employees, partners, and suppliers require the same flexibility depending on their roles and the contexts in which they're using applications. Thus, multi-channel application design is relevant and essential to all enterprise app scenarios, whether B2E, B2B, or B2C.

There are a multitude of approaches employed by enterprise IT teams to execute multi-channel strategies, each with their pros and cons. Two common approaches are:

- **Responsive Web Design (RWD)** – RWD automatically adjusts the application's layout for different screen sizes and orientations, ensuring a consistent look and feel across device types. It can also help combat "app fatigue," as users won't need to install another app on their mobile device(s). Despite the benefits, RWD isn't a 'silver bullet' for effective multi-channel design. That's because the approach doesn't account for the fact that the same user will behave differently on different device types, due to the unique characteristics or constraints of each device as well as the settings in which an app is used.
- **Multiple, Device-Specific Apps** – Building a separate application for each required device type (e.g. smartphone, tablet, desktop) helps ensure precise control over the user experience for each channel, including both UI and functionality. The main drawback is that this approach can result in high development cost and complexity. Through a componentized or microservices approach, however, your team can assemble the right set of capabilities and UI for a given channel in a more efficient and cost effective manner, while ensuring consistency through reuse.

Ultimately, depending on the users and the scenarios in which they'll use the app, the right solution might be to deliver apps for specific device form factors in parallel with RWD. This approach can offer the best of worlds: multi-channel access and functionality, with a consistent look and feel, for users that don't feel like installing an app, and additional efficiencies or capabilities for users that do.



4 Principles for Great Multi-Channel User Experiences

Creating great multi-channel experiences means providing users not only with the right look and feel across all required device types, but the appropriate workflow and navigation as well as cohesion across that continuum of devices. To do so effectively and consistently across your entire app portfolio, we have identified four key principles.

#1: Put users at the center of the design process

The first step in multi-channel user experience design is to know your users, and keep them front and center throughout the app design and development process. Your team will need to understand not only multiple user groups and multiple device types, but how the same user will have different needs and expectations for each of those device types.

To do this, define personas using real data, such as user studies, surveys, and interviews; once the app is in production, analytics data can help augment your understanding. Complement personas with scenarios that illustrate how your users will use the application on different devices. Avoid making assumptions that result in faulty design and wasted development time. One common assumption, for instance, is that users will only use their mobile device on the road.

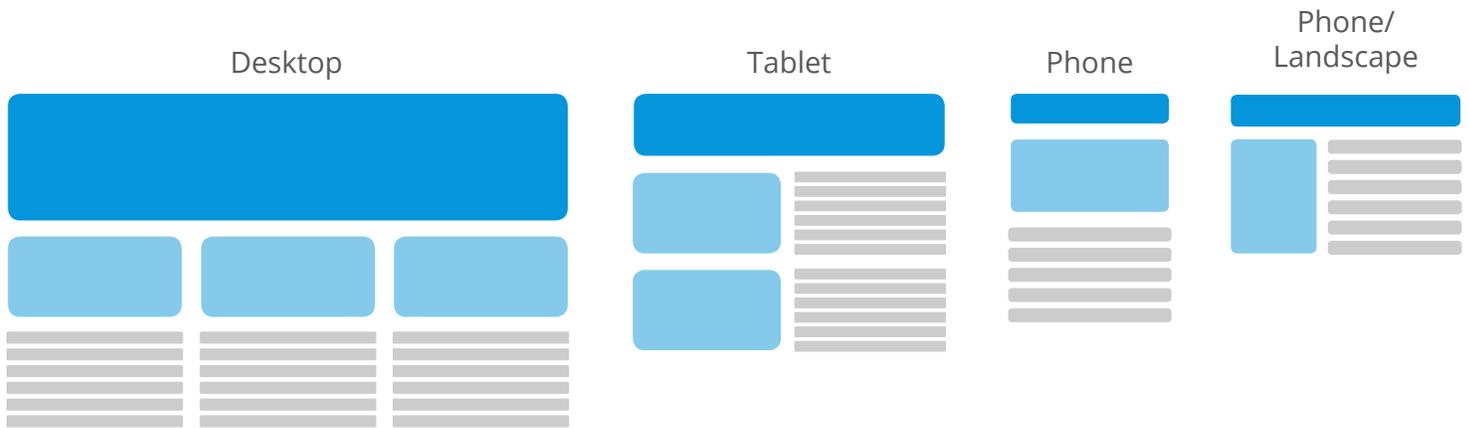
This process of knowing your users may seem like a lot of upfront work, especially for IT organizations running a Mode 2 capability as part of their bimodal strategy. However, you can limit the amount of effort required by aligning your personas and scenarios to the agile methodology. Gather enough details to describe your minimal viable product (MVP), and then continually validate and refine this information as you iteratively develop the application. Be sure that you have a process for capturing feedback from end users and business stakeholders at each step in the application lifecycle.



#2: Leverage RWD as a foundational UX element

Once you understand your users and have defined persona- and device-specific workflows, you can begin designing and building your application. Here, the second principle comes into play: leveraging responsive web design (RWD) as a foundational element of multi-channel user experiences.

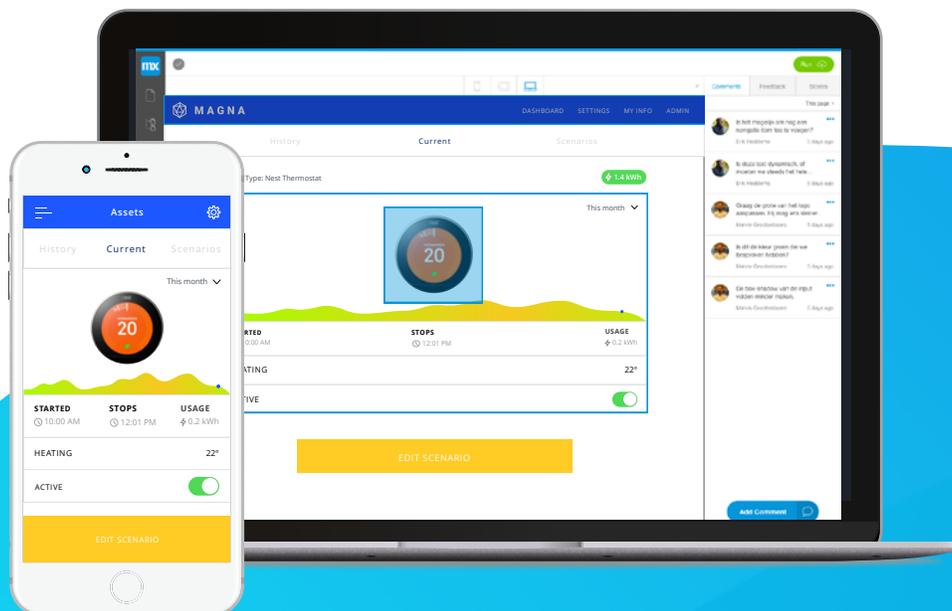
As noted above, the basic idea of responsive web design is that the application's UI elements will automatically adjust their visibility, size, and flow to adapt to the different screen sizes and orientation of different desktop, tablet and smartphone devices. This allows the application to look good regardless of the device form factor.



UI elements adapt automatically to the different screen sizes

In addition to responsive layouts, incorporate responsive content where appropriate. Detecting which device type is connecting, the application can adjust which files and data are delivered to the device. For example, it does not make sense to display a large, high-resolution image on a mobile screen, especially if you want to minimize the amount of data sent to mobile devices.

While RWD is an important element of multi-channel design, providing a consistent look and feel across devices isn't sufficient. For most app scenarios, your users will require more tailored experiences and capabilities by device than what RWD alone provides. At the same time, you'll need to design your user experience to ensure a high degree of cohesion across that continuum of devices.



#3: Create tailored device-specific experiences

Building upon RWD as the foundation, your team can make users feel truly at home on each channel by creating device-specific experiences. There are certain behaviors that users want on certain devices that go beyond how the UI elements respond to different form factors. Thus, to provide a great multi-channel user experience, your applications must leverage the device strengths and enable device-specific functionality.

For desktop usage, for instance, take advantage of the larger screen size to provide more functionality on the UI. In addition, because users will be able to use the keyboard to type longer notes than they would on mobile devices, adjust fields and forms accordingly.

For mobile devices, there are several ways to tailor the user experience by recognizing the constraints of the device or taking advantage of device-specific capabilities:

- **Create Focused Forms** – Designing data entry screens can be challenging, as the requirements of business processes are often at odds with what’s practical on a mobile device. Focus on the main advantage of mobile — closeness to an event — to capture only essential information. Complex forms will lead to users not adopting the mobile solution, mitigating the benefits.
- **Use Mobile Context** – Without the use of a full keyboard and mouse, input is more limited on mobile devices. Use relevant mobile context information from IoT sensors, GPS location and geotagging, calendar data, and time to automatically fill in default values in fields, saving users time.
- **Enable Touch Gestures** – Touch gestures replace traditional mouse interactions with mobile-friendly interactions, such as tap, double tap, drag, pinch, and flick. This allows users to more easily navigate and use apps on mobile devices. However, to ensure users recognize and leverage gesture-enabled functionality, be sure to incorporate appropriate visual cues.
- **Leverage Alternate Inputs** – Use features like voice commands and speech-to-text to improve data entry and allow users to be productive in scenarios where looking at a screen isn’t ideal, or even dangerous. Where appropriate, allow users to take pictures instead of typing words (for example, an assessor recording property damage for a commercial insurance claim).



#4: Enable continuous experiences across channels

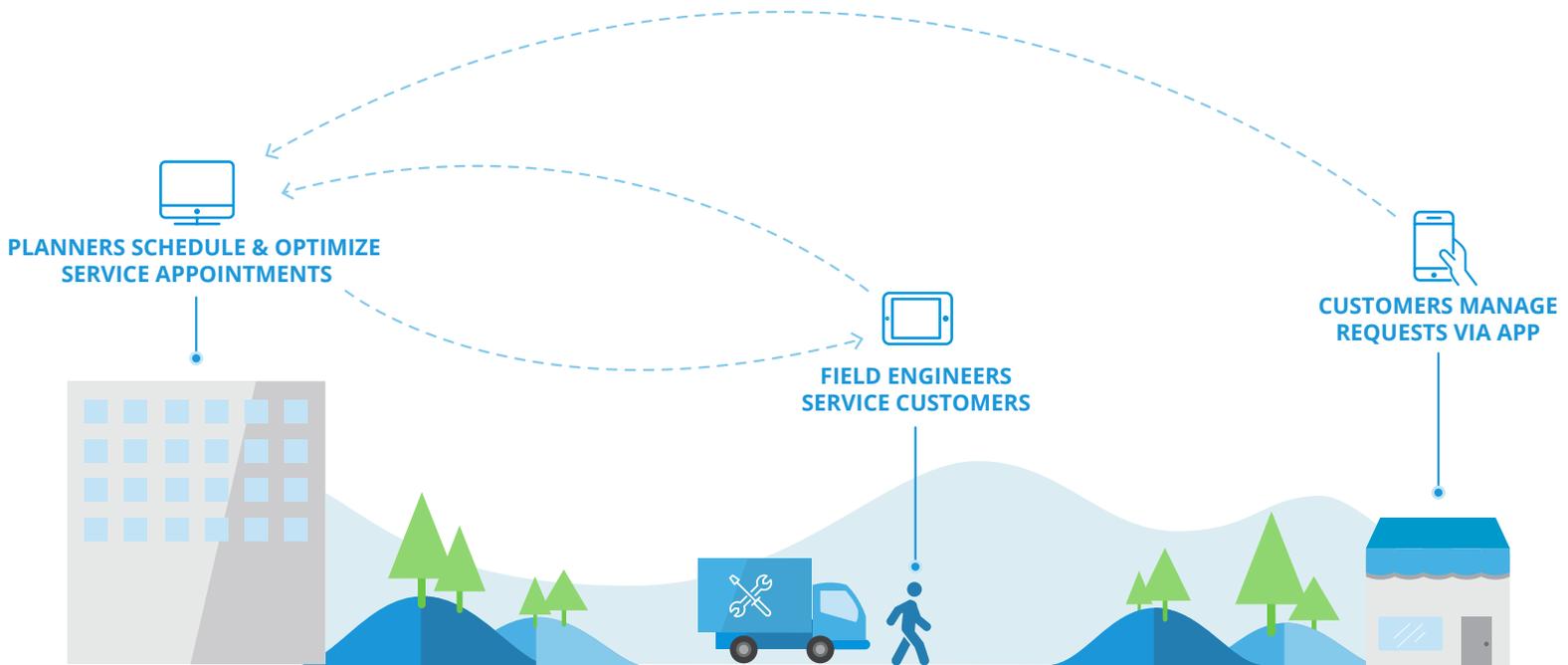
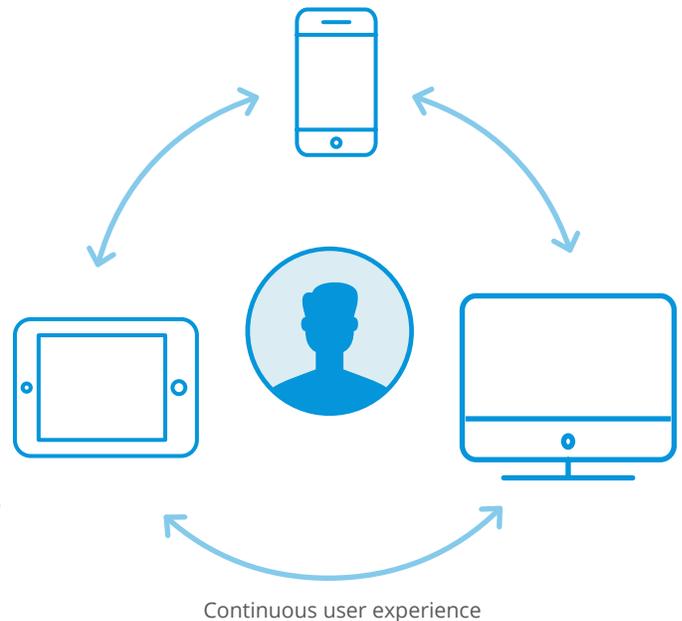
You've established a consistent look and feel across devices, and augmented your application with device-specific capabilities. The next principle for designing truly multi-channel user experiences is to enable seamless, continuous experiences across devices.

A disconnected, siloed approach to multi-channel interactions will only lead to user frustration, impacting productivity, efficiency, and revenue. The transition between devices needs to be seamless and intuitive to the user, providing a continuous experience across devices. This includes not just look and feel, but consistent data and functionality when users switch from one device to another.

Synchronization is a key aspect of designing multi-channel interactions. Users not only want products and services accessible across a range of devices; they expect the capability to continue where they left off, without having to re-enter data or start over. A good example is a mortgage application. Because the process is long and complex, requiring multiple steps and pieces of information, users might start on a mobile device but then need to finish on a browser.

Equally important in enterprise contexts is delivering a single solution that spans multiple user groups using apps on multiple devices. Consider the use case of field service management. Customers typically want the flexibility to submit and manage service requests online and via a mobile app. Planners in the office would need the additional screen space of a web interface to effectively plan and optimize service appointments. Lastly, for engineers in the field servicing customers, a mobile app would be ideal.

In this context, designing multi-channel interaction entails not only meeting the usability and device requirements for each user group, but orchestrating interactions seamlessly across them in support of larger processes. Personas and scenarios are particularly helpful in keeping this broader context in mind when designing the application.



Conclusion

With enterprises looking to build ever-more applications to drive operational efficiency, customer efficiency, and revenue growth, the stakes are high for delivering great user experiences. After all, applications will only deliver their intended business value if they are adopted by users. And to ensure successful adoption, development teams need to focus on more than just look and feel; they must create desirable, contextual, and highly usable apps that provide a consistent multi-channel experience.

Designing great multi-channel user experiences starts with developing deep understanding of your users, their behavior and expectations, and the scenarios in which they'll use an application. Based on this understanding, your development team can combine responsive design, device-specific capabilities, and continuous user experiences to design applications that are not only optimized for individual channels but seamless as users switch from one to the next.

Although multi-channel user experience design is critical to successful apps, many IT organizations lack sufficient resources to deliver great UX consistently across their app portfolios. As you look to implement the principles in this executive brief, think about how you can take advantage of modern frameworks and development platforms to get maximum leverage from your existing UX/UI resources while empowering your development teams to design engaging multi-channel applications themselves.

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