Case Study:

Mitel UC360 Provides a Rich User Experience on Android

Mitel is a recognized global provider of business telephone communications solutions. Looking to expand its product offerings in the videoconferencing market, the company developed the Mitel UC360 Collaboration Point device. With a seven-inch touchscreen display, this device combines in-room presentation display and multi-party audio and visual collaboration with remote participants.

Recognizing that the touchscreen interface would be critical to differentiate the device from the competition and ensure a positive user experience, Mitel partnered with YOUi Labs to replace the default Android home screen with an innovative and rich user interface that runs with exceptional performance.

☒ The Challenge: The Default Android Home Screen

Mitel chose to develop on the Android operating system to minimize time to market. The chip for the device already supported Android, and third-party application solutions for managing contacts and sharing documents were readily available to bundle on the device.

However, the default Android home screen, which simply displays the available applications and widgets for a device, was inadequate for the UC360. The default home screen would not provide users with simple and direct access to the UC360 application. As well, the default home screen exposed features (such as the web browser and online store) that were not intended for use on this device.

While Mitel wanted to replace the default home screen, the company chose to partner with YOUi Labs, proven experts in providing leading edge user experience solutions, rather than taking this project on in-house.

☒ The Solution: Replacing the Default Home Screen with a Natural User Interface

Mitel saw an opportunity to differentiate the UC360 in the market by replacing the default Android home screen with an entire user interface that simulated real-life video conferencing and collaboration activities.

Mitel partnered with YOUi Labs to create an innovative user interface that provides a sense of natural human interactions when performing tasks such as inviting participants to conference calls and collaborating on documents. Once YOUi Labs demonstrated the design possibilities of the natural user interface (NUI) solution, the Mitel design team completely reworked the design concept. The team no longer had to work within the graphics and performance limitations of the Android toolkit, where typical layouts compartmentalize objects and base animation paths on grids. Instead, the design team focused more on the creative process, producing new designs with freeform layouts and animations that better simulate the virtual conferencing and collaboration environment.

YOUi Labs turned this unique and creative design concept into a fully functioning NUI running on the UC360. The NUI presents a virtual boardroom with pleasing graphics, and fluid animations based on natural human behaviors, motions, and actions. Underlying the NUI, the YOUi Labs technology bridges the gap between the designer's vision and operating system's functionality, allowing any design concept to be carried through to implementation.

Because design concepts are not limited to features supported by the operating system, the team worked closely with Mitel to identify the areas where it was important to innovate for differentiation from competitors. For example, using the touchscreen interface to call participants had to be as easy as placing a call with a telephone. The NUI allows users to simply touch the phone icon on a seat at the virtual boardroom table to display a contacts list (such as the company directory). The user then touches the participant's picture in the list, and the participant's phone starts to ring. Once the connection is made, the participant's avatar is seated at the table.

While the UC360 NUI provides many areas of innovation, the technology on which the NUI is built co exists with the operating system.

Where innovation was less important, features supported in the operating system were used. This co-existence allowed the team to spend time innovating in areas that would provide significant competitive advantages while meeting tight project deadlines.

> " *We felt that risk was minimal when offloading this large functional piece of work. Any feature we could dream of, they could do.* "
>
> *– Dave Devlin,*
> *Software Designer, Mitel*

"We're excited about the potential that UC360™ represents. You just sit down, log into your network, and collaborate. It becomes second nature. You're not reaching for a different device. It's just there."
Jason Spainhour,
Director of Information Systems,
SkillPath Seminars

"With UC360™, I can see combining these components (IP conference phone, PC for sharing content remotely) in a single device. That's a real advantage, and another role that UC360 can fill."
Rick DeClerk,
Manager of Network Communications,
Central Technology Services

☒ Ongoing Development in Java

To allow Mitel to continue future development without the participation of the YOUi Labs team, several artifacts were delivered on project completion. One of these artifacts was the Java API through which the underlying code controls the user interface. The Java library provides the flexibility to manage controls, animations, and layouts in the user interface, regardless of the complexity of the call scenario. Specific instances of custom widgets can be created and connected to events or states (such as a call that is ringing or a call that disconnects), as required by a call scenario. At no point do developers manage the user interface in the native code.

☒ Innovation for Distinction in a Competitive Market

Mitel developed the UC360 Collaboration Point device to access a new vertical market. To ensure that this new device would stand out from the competition, Mitel partnered with YOUi Labs to replace the default Android home screen.

In addition to producing a rich user interface that exceeded the client's expectations, YOUi Labs provided Mitel with the artifacts necessary to continue development independently, in the programming language of their choice.

The unique and innovative natural user interface provided by YOUi Labs creates a virtual boardroom, simulating the real-life events that occur in a team video conferencing or collaboration environment. The user experience is feature-rich due to the technology's ability to innovate where the operating system falls short.

YOUi • Labs Inc.
303 Terry Fox Drive, Suite 340
Ottawa, Ontario, Canada K2K 3J1