GLOBAL ON-LINE FINALS - CONCEPT PAPER

Project Team Details

Team Number (as assigned to your team):

New Jersey

Team Name (come up with a good one):

Nokia Beyond

Team Members (list the name of people in your team):

Iftekhar Ahmed
Kayden Bevando
Victor Caraballo III
Juan Escudero
Javier Perez
Ethan Singh
Reynol Tejada

Team Contact (name of the contact person, e-mail, mobile phone accessible during the event):

Javier Perez, 180455@pcti.mobi

Proposed Solution (service, product, or innovation)

Executive Summary (brief description: what is it and for whom?):

Our product is the Nokia Beyond. It is a phone dock that converts a Nokia smartphone into a "traditional" desktop computer. Since the target consumer age range is from eighteen to twenty-five years old, the Nokia Beyond would cater to the needs of any college student or employee in today's rigorous corporate workforce. The product would be useable for anybody that desires portability and could be used by those who would use a laptop in the workplace. As long as the product is kept as cheap as possible, young adults will desire it.

Innovation (describe the innovative character of your solution):

This device allows the user to be productive at work, school, or home with their phone and Nokia Beyond dock as their primary tools. With the relatively low price of the device, especially compared to a modern desktop computer, financially stressed students and employees can buy the Beyond at an affordable price without compromising their productivity. Furthermore, the Nokia Beyond adds more functionality to smartphones and provides the consumer with just another creative way to effectively use their Nokia device.

Detailed Description (design/functions/features/benefits):

The Beyond contains the following ports: USB-C (2), HDMI (1), and USB-Type A (3), and SD card reader (1). The Beyond will utilize one Micro USB connector to connect the phone to the dock, however, a USB-C connector can be adapted with ease. It will use the two USB-C ports to either charge the built in 2500mAh battery or to transfer data between devices; both ports feature the same functionality. The HDMI port will display the OS onto any modern display, whether that be a monitor or tv. The Beyond will feature a SnapDragon 435 processor which features audio drivers, GPU control, and Bluetooth 5.0. Once connected to the dock, a Nokia smartphone shares computing power with the Nokia Beyond in order to provide a capable solution that yields a smooth user experience in addition to being able to handle stressful programs with ease. To maintain a comfortable temperatures for both the connected Nokia smartphone and the dock's internal components, the Beyond will have three built in fans; two of which are dedicated to cooling the internals and one the connected device.

Target group(s) (who is the user of the solution? who will pay for or invest in the solution? who decides on buying/investing in the solution?):

Eighteen to twenty-five year-old college students and professionals will be the target consumers for the Nokia Beyond. Of course, the product will appeal to anyone who needs or desires a portable solution for their desktop computing. Nokia will be able to pay or invest in the Nokia Beyond since it is a proprietary product.

Needs (what needs will the solution fulfill? are the needs of each target group the same?):

The Beyond replaces the need for a laptop or desktop PC with an affordable and portable, all-in-one device. Furthermore, the Nokia Beyond empowers all existing Nokia devices and allows them to provide consumers with more functionality - something which modern smartphones have been struggling to accomplish. This allows students and employees to work from home, in the workplace, and on the go in a convenient and practical fashion.

Feasibility

Uniqueness (compared to other solutions that are available: what is so special about yours? what distinguishes your solution from the others? what makes your solution more attractive?):

Main competitor: Samsung Dex
Differences: Integrated speakers, headphone jack, 2500 mAh battery, utilizes Snapdragon 435 chip, customized Nokia OS, and bluetooth 5.0.
As of today, the phone-desktop market is rather barren. The few solutions that do exist are either too costly, perform poorly, or do not fully realize the potential of a phone-desktop computing solution. Our design aims to correct all of those shortcomings while remaining affordable. The Nokia Beyond has greater functionality thanks to the additional processing power provided by Beyond's internal components. This allows the Beyond to provide a fully realized desktop

experience without compromising speed or comfort for the consumer. In short, the Nokia Beyond pioneers a relatively uncharted market and realizes the untapped potential of a phone-desktop computing solution which has the ability to make a Nokia smartphone more than just an ordinary smartphone.

Marketing (how do you intend to market your solution? how will you make sure the end user has access to the solution? how will you make sure the end user wants and is able to make full use of the solution?):

Our main target audience is eighteen to twenty-five year-olds. This includes professionals in the workforce in addition college students. Therefore, different targeted advertisements must cater for two target groups. Our first exposure will be through contacting popular tech advocates on multiple social media platforms so that they may disseminate the Nokia Beyond to the public. This strategy will easily reach college students in search of a computer for their studies. For our older audiences, we will create TV advertisements and feature them on popular channels like News 12, Channel 9, TruTV, ABC 7, Get TV, QVC and other notable examples with demographics that suit our target age range.

Finances (what are the costs to produce/provide the solution? what is the investment the buyer has to make to make the solution work? you do not need to quantify these, just note down your thoughts or areas of investment/cost categories):

It will cost about $100 to manufacture a single unit and it could likely be marketed for a minimum of about $250. If 100 units are sold, this would provide a net profit of about $15,000 for Nokia. The Beyond would also require a considerable of money to develop and perfect, but in the end, this tactic provides the consumer with a trustworthy device that has the potential to permanently impact the computer and phone industries alike. Moreover, the Nokia Beyond would have very little competition so it will dominate the phone-desktop market and set the standard for all competing solutions to come. Therefore, a somewhat expensive design-phase pays off in the long-term.

Implementation (how will your solution be produced/implemented? does your solution require any particular technology?):

The Beyond will require what is now commonplace, inexpensive, and accessible hardware - that being at least a keyboard, mouse, and monitor, screen, or TV. The Beyond will be mass produced and manufactured similar to other smartphone and compact, computing devices. In order for the Beyond to be fully operational, the user will need a Nokia phone that has a Micro USB port. However, with the advent of USB Type-C and its increasing prominence in today's smartphone and computing industries, the Beyond can be adapted to feature a USB-C connector or simply updated with a newer model that features USB-C as its stock connector. Of course, since the Nokia Beyond allows a Nokia smartphone to act as a fully-functional desktop computer, an operating system is required. This is where Nokia truly has the opportunity to create, innovate and refine the OS such that it ensures the smoothest and fastest possible user-experience which

optimizes productivity and comfort. The OS and UI should be familiar and simple enough such that the common consumer feels right at home with Nokia's phone-desktop solution while simultaneously giving developers and creators the freedom that they need to be able to use the Beyond as their primary computer. In short, the OS for the Nokia Beyond will be something that enhances the overall experience and makes the purchase of a Nokia smartphone appealing to the vast-spectrum of consumers.