



The NeoKeys™ Interface: Common Questions

Tim Higginson, President

yuvee, Inc.
490 Hazel Ave.
Highland Park, IL 60035
(847) 962-1623

info@yuvee.com



Does it make everything phones do now – and in the future - easy?

- **Yes** - It is demonstrably easier than other user interface solutions for everything phones do
- Usability studies performed at the Illinois Institute of Technology:
 - Text entry – faster, fewer keystrokes, fewer errors – whether by heavy text message users or new text message users
 - Mode switching – ranked very easy by all demographic groups



Does it increase ARPU?

- **Yes** - Amount of usage is closely correlated to ease of use
- The NeoKeys interface provides an entirely new level of ease of use - quantitatively and qualitatively
- The ease of use benefits – and consequently the increase in ARPU - applies across all voice and data services



Does it decrease Operator costs?

- **Yes -**
 - Will reduce help calls, by making everything on the handset easy upfront – the visual displays above the keys provide a self-explaining interface for the majority of features on the phone
 - Enables the operator to streamline its 611 services by tailoring a set of NeoKeys interface displays to simplify, reduce the time on and increase the accuracy of IVR systems



Why should an Operator adopt this interface?

- **To increase voice and data usage -**
 - The NeoKeys interface is the quickest, least expensive, surest way to increase voice and data usage – significantly.
 - Across all demographics of users.
 - For all voice and data services.
 - Period.



Why should a handset manufacturer adopt this interface?

- **To increase handset market share and global reputation**
 - The NeoKeys interface is precisely the type of innovation in handsets that drives consumer purchasing:
 - External, physical form differentiation immediately discernable by users
 - Entirely new external feature
 - Coolest appearance on the market
 - Provides a far better, more personal communications experience
 - The handset manufacturer's customers – the Operators – need a handset that drives up usage of high margin services – which NeoKeys handsets will do.
 - Other examples of innovations that drove handset purchasing decisions and market share changes: flip phone, color LCDs, camera-in-phone, thin phones.



Is it ready for mobile phones now?

- **Yes -**
 - The NeoKeys interface consists of a modular set of LCD assemblies and physical keys with flex circuits
 - Implementation in handsets is a quick, low-cost and high-quality process



What is the manufacturing roadmap?

- A manufacturer:
 - 1) Replaces the current keypad in its phones with the NeoKeys interface modular assembly,
 - 2) Adds a set of connections for the LCD assemblies on the main printed circuit board, and
 - 3) Installs software drivers for the LCDs.



How does it affect battery life?

- **Very little**, if at all -
- The power consumption of the 4 LCD solution – using white E/L backlighting - in our prototype is in the range of 150-250 milliamps at about 3 volts, giving about .5 to .6 watts running all 4 LCDs, with most of the power draw at the chip level already present in mobile phones.
- The NeoKeys interface does not require the lighted keys used on most cell phones, providing a power saving and hardware simplification.



What are the chipset requirements?

- The existing chipsets used in most current mobile phones should be more than adequate for the NeoKeys Interface.



Can Yuvee provide implementation services?

- Yes.
- Contact us for engineering and software services related to reviewing and implementing the NeoKeys interface.



What is the patent protection?

- **NeoKeys Interface Patents**
 - US Pat. 6,703,963. Australia Pat. 2002326972.
 - Other US and foreign patents pending under PCT and Specific Country filings worldwide
- **We license the issued and pending patents.**
- US Patent Counsel: Leydig, Voit & Mayer