Flash Forward: How Flash Technology Is Changing Software Search

By Emeka Akaezuwa
Gaviri Technologies
About Gaviri Technologies:

- Founded in 2001, is the only company that provides a flash-based portable, universal search engine that works on desktops and networks.
- Pioneer of portable, universal search technology.
- Provides portable and embedded search solutions to home, small business and enterprise customers.
- Redefining search from a desktop-only-based approach to a universal approach that enables users to find their data across devices and datasources.
Flash Memory as Driver for New Search Technology

- Flash technology has created a new type of user – the On-the-go user
- Today’s users could work from anywhere
- Today’s users use many flash-based devices (flash drives, SD memory cards, MP3 players, etc.
- Flash memory storage capacity is growing, allowing users to carry gigabytes of data and applications with them on all types of devices
- This new computing paradigm requires new solutions, especially for search
New Paradigm, New Search Use Cases

- Desktop-centric search is no longer sufficient
  - Desktop search is like a mothership, everything revolves around the mothership
  - But in a multiple device environment every device must be seen as an autonomous, self-sufficient device that can function even when not connected to the desktop

- We need on-the-go search for the mobile user
  - Ability to run search from flash memory devices is critical

- We need a portable, distributed search so we can run on flash drives, SD memory cards, MP3 players, etc.) not just on the desktop or on one flash device

- On-the-go search requires on-the-go privacy and security
What a Flash-Based Search Engine Must Do – 1 of 3

- Run on Flash-based devices, desktops and networks
- Perform On-the-go device search without leaving any file traces on the host computer
- Provide On-the-go, home and office ID management
  - Flash devices are used on many systems, the search engine must be able to identify which system it is running on and know how to index and or search each system
- Desktop-search assumptions of privacy and security won’t work
  - We need search-based device registries and encryption
- Integration with desktops and networks
  - A one-stop search of the user’s information depositories
What a Flash-Based Search Engine Must Do – 2 of 3

- Work with multiple, portable computing environments: U3, Ceedo, etc.
- Use cross-platform development techniques
  - Flash memory devices run on many OSs and frameworks, users want to search these
- Must work like a mission-critical application
  - Most users are not tech-savvy and so do not shutdown devices gracefully, search and indexer must work at all times
What a Flash-Based Search Engine Must Do – 3 of 3

- Use a small footprint for search and index
  - Storage is a premium commodity
- Make minimal use of system resources (RAM, CPU, Storage)
- Perform. The search engine and indexer must perform fast regardless of the speed of the flash memory device
How Has Flash Technology Changed Software Search – 1 of 2

- Changed search focus from a desktop-centric search to universal search. Users are now able to take their search with them just as they do their data.
- Introduction of the first Tri-mode universal search platform – able to work as a portable search engine as well as a desktop and network search engine.
- Superior search integration for portable devices, the desktop and network resources.
- Better search integration of users’ data regardless of where the data are stored.
How Has Flash Technology Changed Software Search – 2 of 2

- Introduction of profile-based search for improved privacy and security
- Better use of system resources (RAM, CPU, Storage)
- Flash-based software design techniques are superior to desktop approaches
Gaviri Universal Search Platform Running on Flash