



## **Detection and Alarm against Ingredient Harm**

ScanAvert's mission is to provide the general consumer a method of detecting harmful ingredients in food, beverages and OTC products, on a real-time automated basis, that may cause an allergic reaction, interfere with a prescribed drug, aggravate symptoms of a condition or illness, or exceed their specified recommended allowances. As an ISV, independent software vendor, for Symbol Technologies, now Motorola, ScanAvert introduced its first generation software for the kiosk environment in 2003, and was a 2005 CEWIT (Center for Excellence in Wireless IT) Featured Developer, and Second Place Awardee Consumer Application of the Year, 2006's IEEE's CCNC, Consumer Communication Network Conference. However, HIPAA, Health Information Portability & Accountability Act, made retailers wary of disseminating personal health information on kiosks in their store aisles. ScanAvert continued development efforts incorporating new features for personal device usage and technological advancements have yielded several handset models for our ease-of-use service. The process is simple:

For \$8 per month subscription, customers register and establish a consumer profile at the ScanAvert website, choosing among the allergy, dietary, illness, and prescription categories. A separate database maintains the products by barcode, containing related ingredient and nutritional information. As the item's barcode is scanned via the user's cell phone [+2.1 mega pixel auto-focus lens is required], its corresponding ingredients are compared to the consumer's profile. If a product's composition is incompatible with a customer's profile, an alert is generated identifying the substance(s), accompanied by proposed compatible substitutes across the phone's LCD. ScanAvert translates synonymous terminology used in food labels for each of the "Big 8" food allergies. A parent is alerted that a snack containing "spart" is harmful to her wheat-allergic child. A pregnant woman purchasing Advil is alerted that it is not recommended for pregnant women in their last trimester. A customer managing Diabetes is alerted that the carbohydrate grams per serving of his chosen cereal exceed the dietary limits he established in his profile. The customer purchasing grapefruit juice is alerted that it is contra-indicative of his prescription Lipitor, or that the performance of his child's prescribed antibiotic, e.g. Cipro, is suppressed by the zinc in his multi-vitamin, purchased weeks earlier. While shopping histories are maintained largely for commercial gain, never before have they been classified by more meaningful criteria and harnessed for consumer benefit.

The need for such technology could not be more timely. The Administration has dedicated a record \$117 billion dollars to combat diet-based illnesses. According to US Census, over one third of US Adults are obese, two thirds of Americans follow some form of diet, however less than 15% know what their recommended dietary allowances should be, IFIC, International Food Information Council. Consider a study published by the National Council on Patient Information and Education, NCPPIE, in which only 15% of seniors in an urban hospital knew what prescriptions they were taking and what substances were contra-indicative of those substances. Further, recent counterfeit drug activity [Heparin], resulting in 19 deaths and hundreds of illnesses, the deaths of 6 VA school age children, [February 21-22, 2003, NYTimes], numerous e-coli breakouts, and contaminated imports, e.g., toothpaste and pet food, demonstrate the need for a method to determine similarities in the supply chain, e.g. common retailer/vendor, manufacturer, distribution site, etc, and a system to track and contain such contaminated products before an increase in victims. ScanAvert is the first solution to offer such methodology in over the 25 years since the 7 Tylenol deaths, because it extends to where all other technologies fail to, the consumer at the end of the supply chain.

Through the registry information, requiring email and mobile phone contact, ScanAvert has the means, to contact its customers *post* point-of-sale in the event of a product scanned that was recalled for label omissions/errors, bacterial contamination or product tampering, a valuable and possibly life-saving service, as well as a Homeland Security and FDA priority; according to the HHS, "our Nation's most vulnerable terrorist target is it's food supply". Further, if a customer records his prescription on his registration page and that prescription is recalled, ScanAvert delivers a recall message regardless of where he purchased his prescription. It is our belief that all consumers will insist upon this safety feature regardless of allergy, prescription, illness management or dietary concerns.

Inherent in ScanAvert's subscription, is the creation of a single site where information regarding illness/conditions, allergies, prescriptions, and consumption reside that the consumer can choose to share with his chosen physician(s) and health facilities, to ensure optimum care, a precursor to Executive Order 13335, signed into law, November, 2004, mandating an electronic health record for all citizens by the end of the decade. Recent judicial decisions have supported companies, like Clarion Health and REX Materials, that foster/reward employees that adopt healthy lifestyles and pass higher insurance assessments directly to the employees that don't, stating such practices are non-discriminatory. ScanAvert is an integral tool in the fight to lower benefits costs.

The Administration has recognized that it can no longer ignore the effects of consumable products on the health of the public. ScanAvert provides effectiveness to the intent of these NIH [HHS] initiatives, as well as those of the FDA, CDC, and Homeland Security. We maintain that the "Primary Care Provider" of any individual is not her physician, but herself; our goal is to arm the public with the tools to be responsible about their health & well being.

