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Case Study: Smart Shopper

Introduction

The Fast pace lifestyle has been made well connected by the mobile internet technology. Utilising the present network advancement, Retail stores can offer better, faster and efficient services to the customers. The marketing strategies can also become more efficient, reaching out to more customers in shorter time.

Smart shopper is an M2M enabled smart device designed to communicate with the mobile devices within as well as outside the store active zone.

The device is pre-installed with Smartphone app that is supported by Android and iOS.

Requirement

The need to provide economic and eco-friendly business solutions is the key parameter of Smart shopper device. Generating business and fulfilling customers needs way out this solution stand apart.
According to the Recent Digital Mass Market survey from US:

- 54 percent report they are currently using or would like to use digital touchscreens in the store.
- 48 percent report they are currently using or would like to use a smartphone to shop while in the store or on the go.
- 47 percent report they are currently using or would like to use a tablet to shop while at home

Possible test cases:

- o Push Coupons automatically to customers' mobile in active zone via SMS or Smart phone app.
- o Push Coupons manually to remote customers' mobile.
- o Ability for the customers to redeem offers remotely.
- o GPS route tracking and connecting the customer to the store location.
- o Highlight and en-route the one or more stores on the mobile GPS map when the customer is within one or multiple stores active zone.
- o Updating product stock with respect to customers' feedback .
- o Audio or Visual presentation of offers on customers' mobile.

Proposed Solution

The M2M equipped device applications must support Android or iOS. It must be enabled with internet and GPS technology. The database of priority customers, store stock and feedback data must be managed remotely via AWS Cloud computing.

The Device Functionality focuses on:

1. Fast data transfer and retrieval via local internet and remote cloud computation.
2. Fast and multi-tasking or parallel processing of multiple requests.
3. Automatic hardware reset in case of System failure, restoring the data processed
4. Automatic software reset in case of application failure.
5. Tracking customers' needs based on feedback, updating them with specific offers.
6. Coupons facilitated with audio or visual offers.
7. Manage sales records, customers' database, inventory stock and expand the sales globally, via AWS Cloud server.

Among other things, the **Corpus** board support package for the Smart Shopper device contains the following elements:

8. Development platforms ideally suited for human machine interfaces in automotive and industrial applications.
9. eMMC device driver support as an embedded non-volatile memory system
10. Embedded OS with support for ARM cortex A8.
11. 802.11b/g/n Wireless Protocol
12. EDGE,GPRS,HSPA+,LTE,UMTS Cellular Protocol
13. Firmware Over-the-Air (FOTA) bootable format
14. NMEA Protocol support for GPS connectivity

Corpus Offering

1. OS Porting
2. Board Support Package (BSP) development
3. Firmware development
4. Device driver development
5. Proprietary and Third-party stack integration
6. Embedded application development
7. Software testing & verification

Conclusion

Delivering quality products at reasonable rates in economic way is the most important criteria of Smart shopper. The device also helps in promoting the business in an eco-friendly manner, bringing the market in the visibility range of the customers.

About Corpus:

Corpus Software is one of the faster growing IT solution and services company focused on Digital Media Entertainment, Embedded technology and Business Analytics with offices and partners across Americas, Europe, APAC, Middle east & Africa. We work with clients in most emerging technology, that's where we make their business strong and bring in real difference in the way peer operates. A diverse workplace with continues focused towards developing unique ideas and contributions to make our clients business grow, and to keep the momentum going.

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