

Ecommerce Purchase Process Monitor

Background

City of Chicago Office of the City Clerk sold vehicle stickers through an Internet portal using the City of Chicago ecommerce payment engine to process credit cards. The vehicle stickers were renewed on an annual basis all at the same time. Over 200,000 vehicle stickers were processed through online sales each year.



Client Needs

Sometimes there would be disruptions in the ecommerce process due to server or database problems causing unknown purchase status for purchase transactions that were in process when the disruption occurred causing much manual research and corrective action to be taken in correcting these problem records. The City of Chicago needed to have a system that would eliminate or reduce the amount of manual intervention needed when such disruptions would take place. Disruptions are unwanted changes that cause issues, so the client wanted a system that could manage these unknown and undesirable changes with minimal impact to the purchase process.

Sofbang Solutions

Sofbang proposed the implementation of a Purchase Process Monitoring (PPM) system that would track the state of each purchase through the purchase process and have the ability to take corrective action for any purchase that was disrupted at any state within the purchase process. The solution was devised such that if a payment was not processed the customer would be notified as such and would complete the process at a later time when the system was back up functioning properly. If the payment was processed, the purchase process would be completed to deliver the vehicle sticker once the systems were back in full operation without having to rely on manual intervention.

Effective Results

The PPM was implemented and has proven to be highly effective during several subsequent sticker renewal seasons. Some of the features and benefits of the results are as follows:

- Automatic shutdown and startup of the sticker purchase web site when payment processing issues were automatically detected.
- Key purchase information captured in the database before purchase transaction started allowing creation and delivery of vehicle sticker even if disruption takes place after payment is made but before purchase fulfillment is completed.
- Separate application monitored the purchase processing application.
- Monitor was operational until creation of vehicle sticker was automatically confirmed for every sticker.