"Before implementing Returngoods, the whole rework process was a black hole. We know a bunch of products are coming back but we have no visibility of what we actual received and what we did with them."

James Moskus Program Manager **IBM**

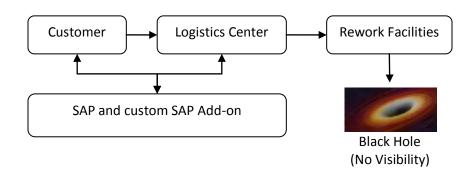
IBM Plugging the Black Hole

IBM (International Business Machine) is a worldwide operation with various business operations. After IBM purchased a computer peripherals manufacturing company Mylax, IBM electronic division in San Jose, CA, where the historical IBM disk drive were developed in the early 1960s, is tasked to integrate the new operation.

A Black Hole

IBM uses SAP ERP system worldwide to run most of their operations. While SAP does a great job of issuing RMA and accounting functions, it doesn't provide any visibility between the time RMA is issued and credits or invoices are generated. IBM Program Manager James Moskus described it as "Black Hole".

Since IBM inherited a rework tracking system from Mylex, a homegrown system written in Oracle tools and database, the plan was to implement the system for the existing IBM operations. However, the system lacks the documentation and knowledgeable technical personnel to take on the new implementation. Furthermore, since new business processes have to be implemented, the system became un-useable. IBM recognized that such a system is required to manage the operation and to plug the "Black Hole".



Plugging the Black Hole

Returngoods.com is an internet (cloud) based solution that manages complete reverse supply chain process. Returngoods demonstrated to the IBM team all of the functionalities their custom solution offer and much more, including functionalities to meet their future plan to have additional rework operations abroad.

Returngoods

"Returngoods is a very user friendly system. It was easy to understand and use so the training was minimal."

Eddie Chan

Repair Center Singapore

IBM

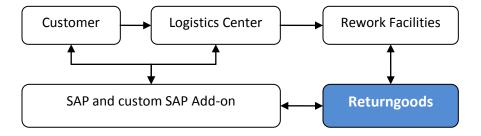
IBM is setup to serve worldwide customer with three logistics locations US, Ireland, and Singapore. All RMAs are issued from the three logistics. locations based on where the customer is located. Customers are instructed to return items to their local logistic center. Credits are issued to the customers from SAP system. Ireland and Singapore logistics center then pack the returned products on a pallet and ship to US.

When the pallet arrives at US logistic center, an operator unpacks the pallet and scans each item and inventory using Returngoods receiving function. The items are then placed on a cart and pushed to the rework station.

Various routings are configured in the Returngoods Rework module based on the Product Type. Therefore, when the technician scans the Product ID, Returngoods directs the technician to the corresponding route. Technician can then perform functional test, diagnostics, repair, Quality check and record related codes and notes. Various codes are set up based on the Engineering and QA specifications. Some Products are set up with more codes to gather in-depth details. If a product or a component can't be repair or reused, system records the scrap.

Reworked inventory is accounted for and uploaded to SAP for accounting purpose. Then reworked inventory is shipped to various locations for advanced replacement purpose. "Like-New Products" are repackaged and distributed to alternate channels for re-market.

After US logistics center successfully implemented Returngoods, Singapore was upgraded to rework operation as planned. Since Returngoods is a cloud based solution, all Singapore personnel needed was a login and remote training to kick off their rework operations.



Results

Returngoods provided IBM with visibility of critical data collected in the rework process and eliminated the Black Hole. Various functional test codes, diagnostic codes, rework Codes and notes collected during the

Returngoods



process are sent to the Engineering and QA team to assess failure analysis. Also, management now has visibility of the returned, inprocess, and scrapped inventory to properly account for in their reports. In addition, since Returngoods streamlined the process, re-marketable products are quickly identified and Time-To-Remarket was improved substantially, eventually contributing to the revenue stream.