

# Half-price books: developing the future

[Technology](#), [Development](#)



This process provides a strong direction for Half-Price Books given their objective. The systems development team will also be instrumental in determining the best format for Half-Price Books to approach disaster recovery and developing a plan of action. With such a team of focused individuals guiding them through the process, the implementation of on-line purchasing, user feedback, and a disaster recovery plan should prove to be a successful venture. System Definition The recent liquidation of Borders. A previously successful book-selling company has revealed the industry may be a dying breed.

Half-Price Books has demonstrated throughout the expansion of their business the ability to continue growth and keep customers coming back to their company. One of the reasons Borders found themselves in trouble was because of their slow transition into e-readers and online book sales. In order for Half-Price Books to grow with the market and remain competitive they need to incorporate online sales into their business objectives. This allows customers to locate books they are interested in and provides the capability to purchase online.

The implementation of user reviews would launch the site into the same arena as Amazon. Mom and allow them to be even more successful. Half-Price Books inventory is 50% from used from the public and 50% overstocks from publishers around the world (Half Price Books Selects Horsetail's Supporters ITS for Service Management Desk). With this strategy, Half-Price Books provides their customers a lower cost product than online competitors. With a motto that promotes literacy and reduced environmental impact Half-

Price Books should focus their energy on developing online sales and reducing their carbon footprint.

**Requirements Analysis** When it comes to implementing any new kind of technology, one has to consider the effect on the current system. Half-Price Books currently operates a complex system of Microsoft's MOMS and SQL server replication to synchronize data between local for Service Management Desk, n. D. ). With these tools, Half-Price Books has the capability to pull data meeting specific requirements from the database. Reports are formulated based on the season or region; inventories can be managed and shifted according to sales trends, and payroll can be processed through one central hub.

This system is not comparable to the system that Amazon operates; Amazon runs on a Linux-based database, with a total capacity of 7. Terabytes (Layton, n. D. ). " The central Amazon warehouse is made up of 28 Hewlett Packard servers, with four Cups per node, running Oracle ii database software," (Layton, n. D. ). The data warehouse is divided into three primary functions: query, historical data, and TTL (extract, transform, and load) (Layton, n. D. ). One of the purposes of OSDL methodology is to provide the steps necessary to complete a brand, task or project efficiently and within budget.

Ideally, such steps are to be taken in a matter of days or a few months to avoid the pitfalls of going over the planned budget (Rose, 2009). To remain competitive in the market, it is imperative that Half-Price Books works with a systems development team to upgrade the hardware capabilities to support

the traffic and security required to operate both online purchasing and a user forum, with their existing functions. To achieve this, it is necessary to focus on every phase of the OSDL. The phases of OSDL are systems definition, requirements analysis, component design, implementation, and finally maintenance (Kerosene, 2012, pag. 38). By transitioning into Web 2. 0, Half-Price Books will be able to expand their market and reach new customers. Another feature of Web 2. 0 interactive software, which the Amazon web site utilizes, is a user recommended selection based on similar purchases. It would behoove Half-Price Books to follow the OSDL process to implement a new web-based application on the Half-Price Books future website that recommends book selections to customers based on what previous customers have purchased.

This application will be very similar to what Amazon currently offers on their website and has helped them become the top selling bookstore in the world. Once implemented this type of application will generate new internet sales and increase overall competitiveness for Half-Price Books. The internet is a highly customizable tool that has become indispensable in allowing businesses to target new markets. For Half-Price Books the internet is a central hub; it can be used for inventory access, Job applications, and information sharing within the company.

By incorporating online sales into the company Half-Price Books will be relying on the internet not only store their inventory but also track shipments, keep customers updated on purchases, process payments, and allow employees within the company o communicate with customers on any

concerns or questions they might have. Essential to the daily function of Half-Price Books is the database storage; this database serves as the foundation of business operations. With internet access to the inventory, customers possess the ability to search for product based on a multitude of parameters including genre or author.

Half-Price Books can maintain their business objectives while promoting the sale of online books. Additionally, customer requirements can be met through email; services include questions and concerns that consumers may have. Providing a streamlined system in which customers can easily adapt and locate the product in which they are looking for will customers on-line. Component Design To achieve the aforementioned system goals and ultimate objectives for Half-Price Books, the hardware in which the company operates with needs to be upgraded.

The capabilities of their current servers are not adequate for the traffic and security levels laid out in the new business model. To ensure the hardware and software are up to standard it is recommended that Half-Price Books upgrade to the latest version of Red Hat Linux, this will support the database requirements, ensuring the operating system remains current. It is also recommended that Half-Price Books increase the current number of servers from two servers to a minimum of 16 ensuring adequate capability to handle traffic and processing requirements for online ordering and inquiries.

Designating several secure and off-line servers to retain client's personal information such as credit card numbers, addresses, and names will ensure that customers are adequately protected from the threat of hackers. " Once

developers have constructed and tested all of the components, they integrate the individual components and test the system," (Kerosene, 2012, page 246). This step in the process takes time. The integration of each individual component in conjunction with the fixes required as errors occur are complicated. It is imperative that adequate time is allowed for this step in the process by the systems development team.

Thoroughly testing the system and vetting errors as they occur promote a smooth launch when the final system is released to the public. The team should develop a plan of specific simulations to test during this phase. Testing specific situations, both simple and complicated, will allow for system managers to gauge the readiness of the system and enable IT professionals to evaluate the systems operating capabilities. Once internal system checks have been run, and the team feels that both the hardware and software are ready for the public, beta testing is ready to begin.

Beta testing is the process of releasing the product to a small group of selected customers. These users test the product and report back with any issues that they encountered. This provides the systems development team with crucial real-world feedback as to ease of use and technical glitches with the program. These errors can then be evaluated and corrected as deemed necessary. Implementation Upon completion of all testing and the correction of errors, the system is implemented online, this can be done in one of several ways: pilot, phased, parallel, and plunge (Kerosene, 2012, page 47). For Half-Price Books, the best manner to install a system of this magnitude is with the parallel installation; this technique is more expensive than the other

options but provides ample time to get each piece up and running and acts as insurance for the company if a component fails during the implementation process. This style of implementation is the most beneficial because a pilot installation would only allow access to certain portions of the new system; this would defeat the purpose of the new system for users; the same would apply to a phased installation.

The final installation style, the plunge format, entails disabling the prior format and enabling the new format. This style does not allow any room for errors and as a final result could cost the company valuable business. While parallel installation might cost more, the cost outweighs the other options. Maintenance The final step of the OSDL is maintenance; this step requires monitoring failures as per (p. 248). Failures will occur throughout the system, these will be ranked in order of severity and addressed accordingly.

The IT team then sends out service packs or upgrades to address these issues and correct them individually depending on the system type.

Maintenance is also responsible for adjusting system components to meet changing requirements as necessary; as Half-Price Books grows, the needs of the system will continue to be re-evaluated, and the system adjusted to handle the low of traffic and ensure consumer satisfaction. Consumers do not respond well to slow websites and transaction processing, this is a problem that the systems maintenance team would handle.

The systems development team and Half-Price Books will need to work together to develop proper training standards for their employees, understanding the manner in which the software works and how to help their

customers. If a customer is attempting to locate a book in-store which is out of stock, the employee could use a store computer, locate the book company wide and have it sent directly to the customer's home. This level of customer service will please the customers and increase profits, thus, the importance of employee training programs and a full understanding of the new system capabilities.

While this new system provides many opportunities to expand and increase productivity there is, however, an increased exposure for information loss in the event of disaster, and as such proper measures need be taken to ensure sustainability. Disaster Recovery A business can only survive if it has a good disaster recovery plan. An information genealogy recovery plan should be developed with a business continuity plan (IT Disaster Recovery Plan, 2012). Half-Price Books should conduct a business impact analysis, identify critical business functions and processes, and the resources required to support them.

Working with Quorum to identify, document, and implement a cloud-based storage system will provide a strong disaster recovery plan for Half-Price Books. With that assistance of Quorum, a business continuity team will be organized to compile a business continuity plan to manage any interruptions in revise provided to customers (Quorum Technology Disaster Recovery, 2013). Conduct training should be provided to the business continuity team, ensuring that in the event the disaster recovery plan is enacted the team has experience in the process.



Testing and exercises to evaluate recovery strategies allow Half-Price Books to determine where modifications need to be made and adequate time to implement them. The technology associated with the disaster recovery plan are involved, with the assistance and expertise of Quorum Half-Price Books possess the tools to recover their systems in a timely manner. In the event of a human error or natural disaster Half-Price Books is protected by Quorum's Once Virtual Recovery Nodes, this system will back-up all of Half-Price Books electronic communications and on-line activities.

With Quorum's super-efficient incremental updates and always current merge technology the data necessary for customers will be available, and the data will be as current as 15 minutes (Quorum Technology Disaster Recovery, 2013). This service safeguards consumer information, provides a current copy of inventory and personnel records, and any other pertinent data. The ability to store and restore this necessary to withstand system devastation and recover strong.

Conclusion With the development of such a technologically advanced system, Half-Price Books is prepared for new and current customers with a new set of tools. Incorporating new servers, the ability to search for and purchase products on-line and user feedback has given Half-Price Books the competitive edge they were striving for. Without such upgrades, the future of Half-Price Books was bleak. Through the dedication of a systems development team the company and team members worked together to determine the specific requirements for the system, pertaining to both the functions and the hardware.

Developing the parameters to not only accommodate current business but also to handle prospective future business was key in ensuring that the system would not be obsolete in a few years. Other strengths added to the system included off-line storage for sensitive customer data and a disaster recovery plan; both of the functions ensure that consumers are protected from potential threats. Consumer security was a continued concern, and every precaution was taken to ensure that despite the situation consumers would remain protected while connected.