



INFORMATION

Location: Toronto, ON
 Web site: www.webkinzjr.com
 Industry: Retail

CHALLENGE

Engineer a scalable architecture able to support massive volumes and rapid growth. Develop a content management system that allows non-technical staff to change content without involvement of development or system personnel.

SOLUTION

A complex, interactive, high-volume Flash-based site with many virtual locations, a deluxe subscription tier, and extensive Parent's Area. Complex client-server infrastructure created by building front-end within an Action Script framework using atomized Flash components, and connecting it to a scalable back-end.

TECHNOLOGIES

- Flash Action Script 3
- JEE
- Microsoft SQL Server
- ASP.NET
- Postgres
- Linux

Ganz provides a safe place for kids and parents online

The Canadian gift and toy manufacturer Ganz is the maker of one of the most popular children's toys in North America, Webkinz. This stuffed plush toy was released in 2005, and following on its great success, Ganz created Webkinz Jr, the first spin-off of the Webkinz line, aimed at a younger audience of 3-6 years of age. Both Webkinz and Webkinz Jr are unique to the children's toy industry as a secret code accompanies each toy. This code is used to access the online virtual "Webkinz World" where users can own a virtual version of their toy. Before the highly anticipated Webkinz Jr toy line could be launched, Ganz turned to Affinity Systems to architect and implement the virtual-world educational activity site. This project was a very important undertaking for Ganz, as it added to the success of Webkinz by bringing a new product line to market.

Affinity Systems was asked to engineer and implement a scalable architecture capable of supporting massive volumes for a virtually unlimited number of users. To implement the new product vertical for Ganz, a complex, high-performance solution was developed under budget and in a tight timeframe of nine months.

OUR SOLUTION

Affinity Systems recognizes the importance of incorporating the right platform to deliver the client's needs in the most effective way. The Webkinz Jr solution included the entire design process for the full system including design and custom development for DB replication, data collection and content delivery systems. To implement both the front and back ends for the Webkinz Jr website, Affinity

Systems included a content management system, business intelligence, database management, and all server side components. Development was focused on high performance reliability and scalability of the solution to make effective use of hardware and network resources. A key factor in Affinity Systems' design for the

"Affinity Systems successfully managed a large, diverse development team in creating a highly reliable and flexible infrastructure through an aggressive development cycle."

— Rodney Gill
 Senior Architect, Affinity Systems



server side was reusability for new gaming offerings, thereby reducing future development costs and improving time-to-market for new verticals. In order to achieve this, Affinity designed and implemented a high-performance transaction

GANZ®

BENEFITS

With the scalable architecture implemented by Affinity Systems, the Webkinz Jr site is capable of supporting a load in excess through a scaling out strategy, offering a highly responsive experience for end users.

- The software infrastructure is fully fault-tolerant and able to run 24 hours a day, 7 days a week.
- Content managers are able to manage and deploy content without the involvement of the development team.
- Design components and frameworks can be reused by other Ganz web properties in order to improve developer productivity, software quality and system performance.
- The Webkinz Jr web site is a secure environment that ensures transactions cannot be tampered with to prevent “hacks” as well as leaks of upcoming content.
- The web site is able to support thousands of registrations a month.

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framework to support synchronous transactions and high reliability caching mechanisms. A Distributed Cache was incorporated in the design to ensure redundant, failover site stability. In order to support the broad range of dynamic



updates, complex personalized scheduling, and multi-lingual and multi-cultural content in various locations, a sophisticated and flexible content management system was developed. This system allows non-technical Ganz staff to change content without development or system personnel intervention.

This way, customer service personnel can upgrade tiers, move pets from one child's account to another, as well as a multitude of other services to maintain customer accounts. Other software developed included an extensive parent's registration site geared toward modifying the educational experience of the child, and also included an e-commerce hook-in.

Another integral feature of the design was the incorporation of a business intelligence solution. This system produces dashboard reports useful to Ganz, such as popularity of activities, most common customer service complaints and trending for account sign-ups. These data analysis tools can be used by all end-users, thus freeing the development team from generating reports for them.

Affinity Systems was also responsible for the front end Flash development as a platform for the Flash games and infrastructure. For the display of the Webkinz Jr site, a re-usable Flash framework, built in Action Script, was developed with atomized Flash components, connecting the front and back ends for a complex client-server infrastructure.



The finished Webkinz Jr site hosts a large number of educational Flash games in multiple locations and languages. The site provides a safe online social environment for young children. Affinity Systems is proud of the sophisticated, interactive, and high-volume site created, yielding results that far-exceeded Ganz's original requirements.