Gilt Innovation Driven by Docker and Continuous Delivery

A Designer Lifestyle at Insider Prices

Gilt transformed online shopping by introducing the concept of flash sales of designer brand merchandise and experiences to their registered members for an exclusive and exciting e-commerce experience. Gilt members gain access to discounts up to 70% off retail on merchandise for women, men, kids, the home, local experiences and more.

The team at Gilt focuses on curating the best merchandise and services to offer customers, while building the best technology platform to engage and retain customers online.

> ### By The Facts
>
> | 100 | 15 | 400 |
> |---|---|---|
> | changes a day | teams | apps |

The Challenge of Scaling Business Growth without Slowing Innovation

As the business grows, teams grow and technology has to scale. A common downside to scaling is that things slow down – innovation and delivery take longer with more peer reviews and approvals into a shared monolithic code base.

Connecting Technology Innovation to Business Goals

That catalyst put Gilt on the path to Continuous Delivery and the breaking down of centralized processes and structures. First, the team of over 100 engineers was reorganized into roughly 15 smaller teams, each owning their own piece of the Gilt application. Teams were now measured via KPIs that mapped directly to the corporate strategy, providing the necessary feedback loop and accountability. This created a model that was self-managing as each person has a level of accountability to Gilt's business goals and pride of ownership into their application or set of applications, resulting in better productivity and developer retention rates that roughly triple the industry average.

> "We are constantly looking for ways to speed up the development cycle - reducing overall business risk while increasing our productivity and focus on innovation. Docker helps us operationalize our production environment, making it safer and easier to make changes, which in turn enables our engineers to focus on building product."
>
> **– Michael Bryzek**
> **Founder and CTO, Gilt**

In parallel, the Gilt application also started the journey from a monolithic code base to a microservices architecture. In order to support decentralization at scale, they experimented for nearly a year with building an internal PaaS that did not lead to any discernible benefits for the technology team. Then Bryzek discovered Docker. It was easy to use and put the control back into the hands of developers.

Docker-empowered decentralization gave engineers the freedom to create their own applications with their desired language isolated inside Docker containers, meaning others did not need to know this language to support it, so no additional operational burdens were introduced.

Empowering Engineers at the Speed of Innovation

Today, Gilt is made up of over 400 microservice-based applications, each owned entirely by a single team from build and test, to deploy and manage. Docker helps Gilt push changes quickly and continuously, sometimes up to 100 changes a day that can include A/B testing of new in-app offers, merchandising, the shopping cart, and various other aspects of the buyer's experience. Not only is Gilt innovating more, it is also doing so while reducing its risk.   Instead of marathon releases packed with features, developers now release code whenever it's ready into production. Lots of small applications make it easier to push out code changes more frequently and make it easier to identify issues that need to be rolled back. Additionally, creativity and innovation is fully distributed to everyone. In the case of one engineer, rather than making changes to the core database, he was able to just create a new database and an application to integrate into the CRM system without having to wait on approvals from other parts of the organization.

> "I love Docker. It's simple for developers and it works for ops. There is a really positive emotional connection that Docker has created with our developer community. We see the results of that connection everyday with our developers as they are more inspired than ever to create new features and apps to make Gilt the best ecommerce experience anywhere."
>
> **– Michael Bryzek**
> **Founder and CTO, Gilt**

Benefits Summary

- **Continuous Innovation:** Change release cadence from once a week to over 100 times a day

- **Improved Customer Experience:** Faster and easier innovation cycles have increased the amount of A/B testing on customer facing offers or UI changes to improve the online experience

- **Reduced Risk:** Application changes are smaller and isolated from other applications making it easy to identify issues and to roll back with minimal impact to other applications

- **Empower Developers:** Pride of ownership and the freedom to create and deploy applications to enhance the Gilt.com shopping experience

- **Happy Developers:** Tenure within the engineering organization is three times higher than the technology industry average

- **Standardization:** Docker provides a standardized and consistent vehicle for developers to run and deploy code with all required dependencies without increasing the operational burden or knowledge of additional languages in the extended team