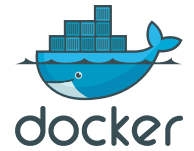# ING Delivers Value to Customers Faster with 1,500 deployments a week with Docker

Empowering People to Stay a Step Ahead in Life and In Business

ING is a global financial services organization offering banking, investment, life insurance and retirement services to corporations, individuals and governments. ING's believes their purpose is to empower people and organization to realize their own vision for a better future – for their customers this means providing a differentiating banking experience to help them achieve their life goals however modest or grand. This purpose translates internally into empowering their teams and in particular their technology teams to create the most innovative software to help their customers reach their goals. ING is focusing on growing sustainably and transparently to maintaining a leadership position through integrity, respect and the larger global community.

Enterprise Challenges of Complexity Slows Everything Down

As one of the top 10 financial services companies in the world, ING operates on global scale - over 50 thousand employees service over 33 million customer in over 40 countries around the world. The IT organization in the Netherlands alone comprised of 1,800 people creating unique challenges of coordinating change across large groups of people, processes and technology. Process sprawl had gotten to the point that 68 separate documents had to be created before any changes could go into production. Process was made worse by the fact that they were tied to monolithic applications that were built upon outdated software technologies. The combination of entangled processes and technology lead to poor quality software. For example, an ING-branded mobile banking app was rated one star in the App Store with customers expressly writing reviews asking how to give zero stars. Additionally it was common for projects to take 9 months or longer to deploy into production. Having grown as a business through mergers and acquisitions, ING also was challenged in trying to integrate and manage every technology under the sun. At one point they even had at least three core banking systems. The team at ING recognized that a dramatic change was required.

> "A bank is basically a big digital organization so if we cannot deliver with speed and agility, then we are in big trouble in the coming years."
>
> **– Henk Kolk**
> Chief Architect of ING Netherlands

To Be the Best Bank You Have to Be the Best Technology Company

The ING leadership team took to heart the philosophy of DevOps and Agile development, to transform ING into a technology leader that in turns gives their customers the best banking experience. This transformation was guided on four key principles:

1. Enable Continuous Delivery for All Teams
2. Focus on Engineering Talent
3. Distinguish by Building Great Software
4. Partner but Not Outsource

From a technology perspective, the bloated application landscape started getting simplified and ING was able to reduce roughly 500 applications from their portfolio due to duplication in functionality. Many of the remaining applications started down the jouney to a microservices architecture.

The organization changed to facilitate the agile methodology from one team of 1,800 people to 180 separate DevOps teams each responsible for creating and managing an application through its lifecycle. ING views this as a critical and often most complex element – changing the organizational structure to support new systems and processes. Their hiring focus shifted exclusively to engineering– no more project management or business analysts. This not only enabled decentralization of development process and application lifecycle but brought engineers closer to the line of business management. ING believes that cultivating the best technical talent in-house is the key to building great software for customers. To enable the best engineers to build great software quickly and frequently, ING implemented Docker into their Continuous Delivery (CD) Pipeline. Docker is the leading open platform for distributed applications allowing businesses to build, ship and run applications anywhere.

Fastest Speed at the Lowest Cost

ING is now able to move faster with their CD pipeline running in Docker containers. Key areas accelerated are provisioning build servers, provisioning and publishing tests, deployment automation and in the functional integration testing environment across their 180 teams. Additionally the increasing levels of automation was starting to strain their infrastructure resources and Docker helped to greatly reduce that utilization and ultimately hard costs, especially within some of their biggest development efforts. Being able to shave minutes of time and dollars at each stage of the CD pipeline adds up across thousands of jobs put ING far along the path to reaching their goal of being the best technology company in Europe.

> "Speed is very important to us and Continuous Delivery is how we do it." Says Kolk, "In ING IT, we are all developers and we want to be better - meaning better code and more customer satisfaction and Docker is the part of our strategy to do all of this, especially faster"
>
> **– Henk Kolk**
> Chief Architect of ING Netherlands

Accelerating Innovation for Happy Customers

- **Continuous Innovation:** Over 1,500 deployments per week across internal and customer facing applications like software for branch offices, mobile banking sites, call center software and many others, with plans to grow to 5,000 weekly deployments

- **Empower Engineers for Better Quality Software:** Engineers empowered with faster tools to create apps that go from a one star to consistent four-star rating in the Apple App Store.

- **Increased Productivity and Speed:** Accelerated deployment from 9 month project timelines to ability to release code within 15 minutes after check-in

- **Lower Costs:** Save over 50% in infrastructure resource consumption in a highly automated CD infrastructure

- **Standardization and Scale:** The CD pipeline is standardized and replicable with Docker enabling a separate division of ING to implement agile scrum and CD across 60 teams in just four months.