

# Helping Volotea to provide world-class **airline services.**



## CASE STUDY



**Striving to guarantee the highest quality of services to their customers, Volotea needed to make the leap from Navitaire's older New Skies flight reservation system to the new and improved one. This meant that a risky, yet unavoidable, upgrade was coming their way.**



## BUSINESS NEED

Navitaire, striving for ongoing improvement, updates their flight reservation system on a regular basis. This leaves airlines, such as Volotea, in need of updating their platforms to match New Skies' altered and expanded versions.

Upgrading to New Skies 4.2 meant that Volotea would have to rebuild and test every single element of the reservation system. To make and quality assure all these critical changes, Volotea knew they could trust PGS Software – a technology partner with whom they've realised over 100 projects.

PGS Software has been making use of their airline domain knowledge to keep Volotea's services and technical functionalities current and competitive since 2013. This allowed them to quickly mobilise a team of developers and software testers to tackle the tectonic system update.

## SOLUTION

The upgrade to NewSkies 4.2 was a complex process involving library changes, a major ODS (Operational Data Store) change, and carefully planned and executed Quality Assurance (QA) efforts. In order to ensure a smooth and safe transition to Navitaire's new flight reservation system, the PGS Software team had to tackle many different technological aspects, relating to the existing system. The upgrade was executed by the development and QA team in several phases – planning, pre-migration, migration, and post-migration.

At the very beginning, the team had to identify all of the applications and internal services, which would be affected by the upgrade. They searched through over 50 different web applications, services, and ODS schema, (which had to be drastically changed). Once they located the relevant items, they updated all of the libraries and technical dependencies and redeployed the applications in newly created New Skies 4.2 environments.

In the next step, the existing ODS databases and resulting schema were migrated to the New Skies 4.2 platform. Though the team had to develop new functionalities to prepare the system for the upgrade, the migration process was in large part a matter of thorough Quality Assurance. A dedicated team of software testers was able to prepare an exact test plan, containing key test scenarios that cover the majority of the main functionalities, before work on the upgrade even began.

Once the development aspect of the upgrade process was completed, PGS Software's testers planned and prepared test cases before moving forward with User Acceptance Tests for existing web and backend functionalities.

All this allowed them to give the rest of the team the green light before the upgrade, as well as ensured risk-free migration and application health across all the affected parts of the system. To maintain the fully functional state of the new services and schema, the PGS Software Quality Assurance team monitored the logs after the upgrade as well.

## BUSINESS BENEFITS

In the airline industry, upgrades have to be realised in a manner that doesn't affect the end users' experience, which can be tricky since online flight reservation systems can be used at any time of day, by any number of individuals. Hence, such changes require designated downtime and usually take place during the night.

PGS Software has been Volotea's trusted technology partner for many years and, as such, was able to provide teams of developers and software testers who worked all through the night during the planned downtime in order to make sure the system was ready for its live release.

Everything went according to plan and they were able to successfully launch the completely updated system at 6:00 a.m. sharp without any major issues of delays.

Furthermore, the upgrade process was also an opportune time for the PGS Software Quality Assurance team to create many reusable test scenarios - which will be immensely useful during future development and update endeavours.

Volotea now has the upgraded Navitaire New Skies version, which allows them to introduce new features that greatly improve their flight reservation system and other related functionalities. Moreover, all this was realised without having affected their day-to-day operations or their customers' reservations.

The upgrade has helped Volotea to realise their business aims of continuously developing their operational processes and ensuring that their customers experience the highest possible standard of services.



**PGS Software has been one of our main technology partners since 2013. In that time, we've realised over 100 projects together. In terms of the New Skies upgrade we had to go through, we knew that PGS would deliver on every level - methodology, development, quality assurance, etc. And, they did!**

Alex Rodriguez  
IT Director  
Volotea

## PROJECT DETAILS

**Solutions** — Scrum, Automated Testing, Continuous Integration

**Technologies** — .NET Framework 4.5, 4.6.2, XML

**Tools** — Splunk, PowerShell, Custom Nuget tools, Nuget package explorer, SOAP UI, Postman, Slack, Selenium Web Driver, Selenium IDE

**Team** — 4 Developers, 3 QA Specialists

## ABOUT THE CLIENT

**Volotea**, the airline of European mid and small-sized cities, offers direct flights at very competitive prices. Since its creation in April 2012, Volotea has carried more than 22 million passengers across Europe and 6.57 million in 2018. In 2019, Volotea operates 319 routes among more than 80 medium and small-sized cities in 13 countries: France, Italy, Spain, Germany, Greece, Croatia, The Czech Republic, Portugal, Malta, Austria, Ireland, Luxembourg and Morocco. The airline expects to carry more than 7.5 million passengers in 2019. Volotea operates its network with 34 aircrafts in 2019. Its fleet includes Boeing 717s and Airbus A319s.



## ABOUT PGS SOFTWARE

**PGS Software** is one of the largest public listed custom software & services providers in Poland. As an AWS Advanced Consulting Partner, we specialise in Cloud projects - consulting, cloud-native development, application modernisation, & migration. Working according to agile methodologies (Scrum, DevOps, & Continuous Delivery), we create mobile & web applications as well as provide Business Analysis, Visual Design, UX, UI, & QA services to clients worldwide. We have development & business entities in Poland, UK, Germany, & Spain.

## For more information about our services:

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