



## Flexible data protection accelerates cloud-first strategy

World Fuel handles massive growth by consolidating 40-plus data centers in AWS. Flexible, cloud-capable data protection speeds the migration of workloads and enables granular restores.



Energy

United States

### Business needs

Through numerous acquisitions, World Fuel had acquired more than 40 data centers that they wanted to consolidate for cost savings and easier management. Committed to being fully migrated to cloud within three years, they sought a high-performing data protection solution that would be easy to manage and enable granular restores.

### Solutions at a glance

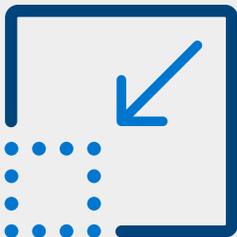
- [Data Protection Suite](#)
- [PowerProtect appliances](#)
- [PowerProtect DD Virtual Edition](#)
- [Cloud Tier](#)
- [AWS](#)

### Business results

- Reduced data center footprint
- Granular restore for born-in-the-cloud apps
- Easy, powerful data protection across on-prem and cloud
- Lower cost storage tier in AWS

#### Reduced

data center footprint



#### Lower

cost storage tier in AWS



World Fuel Services is a Fortune 100 company that delivers a wide range of energy solutions to customers in aviation, marine, commercial, industry and land transportation sectors. They offer their customers a powerful, integrated platform that includes advisory services, credit, finance and logistics. For data protection, they've chosen a powerful, integrated solution that is fueling their move to cloud: Dell EMC Data Protection and AWS. It's a great match for the company's focus on value and innovation.

*“We needed a solution that would let us restore individual tables and users. Data Protection Suite and Data Domain gave us that flexibility.”*

Marino Diaz,  
Squad Leader,  
World Fuel Infrastructure Team

“We've been working with Dell Data Protection for several years,” says Marino Diaz, Squad Leader for World Fuel's infrastructure team. “We have Data Protection Suite and Data Domain appliances on-premises, and recently refreshed to Data Domain 9300. When we decided that it made sense for us to extend our applications to the cloud, we started looking for a data protection solution that would fit both our on-prem and cloud workload needs.”

World Fuel's goal is to have their data protection environment fully migrated to the cloud in the next three years. The company has grown massively through numerous acquisitions. “We acquire a lot of companies,” says Diaz, “and we're still growing. We

have 40 to 60 data centers around the world. We're trying to consolidate everything in one place where we can manage it. Adopting a cloud-first strategy simply made sense.”

## High Test

World Fuel's plan to eliminate their on-prem data center footprint within three years meant they did not want to spend significant dollars refreshing hardware and adding capacity as a part of their cloud data protection solution. They tested solutions from Druva and IBM Workload Scheduler. In addition, Dell worked with World Fuel in evaluating a solution comprising PowerProtect Data Domain Virtual Edition (DDVE) and Avamar Virtual Edition, a component of Data Protection Suite. After the testing was done, World Fuel decided that Dell EMC Data Protection would be their long-term strategy for cloud data protection going forward.

“Ease of use and the ability to do granular restores were important factors in our decision to go with Dell EMC Data Protection,” says Diaz, “because we've moved a lot of our workloads to EC2. You know, you can have a solution like snapshots, but it won't give you granular restores for SQL. We needed a solution

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that would let us restore individual tables and users. Data Protection Suite and Data Domain gave us that flexibility, because we could back up to EC2. We could restore individual files and keep the retention as long as we wanted. Also, Data Protection Suite and Data Domain is our solution on-prem, and we know it works. That's why we went to the cloud with it.

"We can back up an on-prem instance and move that backup data to AWS, and either promote to production or bring back to the test/dev environment. Replicating our on-prem workloads also became easy to shift to AWS, as we could simply have our on-prem Data Domain talk with and replicate data to our Data Domain Virtual Edition."

*"We just go in and do a granular restore. If we used snapshots we'd have to restore a backup of the whole system."*

Marino Diaz,  
Squad Leader,  
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## Easy Distribution

Diaz notes, "We're heavily into AWS. We use their Data Migration Services, we use IDS... we use so many of their services that I can't even tell you without checking. For Data Domain and Data Protection Suite, we're using EC2, S3 and EBS. We took our cloud tier that we used to send to Iron Mountain, replicated to AWS, then we just kept replicating to AWS with a lower storage tier.

"We use the AWS marketplace to deploy Data Protection Suite and DDVE. It's a CloudFormation template that we deploy, so it's an easy experience. Just deploy the templates and everything works. It's easy to install, and if there's a failure, it's easy to just deploy a new one anytime."

## Work in Progress

World Fuel currently has about 20% of its SQL workloads migrated to AWS, amounting to 520 servers they are now protecting in the cloud. In addition, they've consolidated servers from data centers they have closed onto two servers on EC2 with auto scaling. "That's saved us some money right there," says Diaz, "and we'll be saving more in the future."

Currently, World Fuel is in the process of giving account owners and application owners the ability to do their own backups and restores, which will free up time for Diaz's five-person staff when fully implemented.

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“When we finish migrating everything to the cloud,” says Diaz, “we’re going to be doing more refactoring of our applications and moving to containers.”

“Basically, we’re expanding the strategy we already had with Dell. As we continue to grow, we’re going to be needing more licensing, more capacity, more everything. But it’s simply shifting from on-prem to cloud. We don’t have to implement anything new, and I think that’s going to help us in the future.”

## Consistent Performance

Using Data Protection Suite and Data Domain both on-prem and in the cloud, Diaz has seen the same stellar performance for daily backups and the occasional necessary restores. “We had a data corruption incident on a physical server and had to restore it from prior,” he says, “and a few times people deleted files they needed. We just go in and do a granular restore. If we used snapshots, we’d have to restore a backup of the whole system.

“It’s really the same, using physical Data Domain appliances and DDVE – very similar. Everyone is happy.”

## On a Mission

World Fuel’s stated mission is to create value for their business partners by delivering innovative solutions. Diaz notes, “What influenced our choices for Dell EMC Data Protection and for AWS was essentially the same mentality: We always partner with best of breed.

“AWS is one of the best partners out there, and we truly saw that when we did the engagement with them because they were here every day. They trained us. They were hand-by-hand in every project that we did. And with Dell, it’s been great. Sometimes we have our challenges, as with anything. What I like is to have the people to call. They get involved right away in any issues I have. They’re a longtime, trusted partner.”

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