Company Name
The Norwegian Labor Inspectorate (Arbeidstilsynet)

About:
The Norwegian Labor Inspectorate (Arbeidstilsynet) is a Norwegian government agency subject to the Ministry of Labor and Social Affairs. It supervises that private and public entities comply with the requirements of the Working Environment Act, the Public Procurement Act, the Vacation Act and parts of the Tobacco Damage Act. The Labor Inspectorate is organized with a directorate in Trondheim and seven regions with underlying supervisory offices spread throughout the country.

Problem Statement/Definition:
Being subject to the Ministry of Labor and Social affairs, Arbeidstilsynet is set to the highest standards of security and compliance. Arbeidstilsynet had a clear strategy to migrate their on-premises applications in a cost-effective manner without sacrificing security standards. They wanted better control of their internal and customer facing application to achieve operational excellence. Better control of their underlying infrastructure has direct impact on services they are able to provide for employees and employers across the country. After close evaluation, Arbeidstilsynet chose Amazon Web Services as the solution that would provide the most stable, cost-effective and future-proof infrastructure to migrate their business applications.

The first phase of the migration involved moving some of their homegrown applications to AWS. These applications use Microsoft SQL Server at database level, on-premises Microsoft Active Directory, and built using .NET programming language. A successful deployment to the cloud is highly dependent on their core Microsoft technologies running in an optimized way.

Solution Description:
After scoping and cost assessment, Arbeidstilsynet realized that AWS would be their chosen platform for migration to cloud. Arbeidstilsynet took on a fail fast approach with AWS and started to test basic services like Windows EC2, RDS for SQL Server and Elastic Beanstalk. This became the grounds for migration of key Microsoft technology based applications. The first applications migrated were in-house built applications that support labor inspection processes.

Key Project Outcomes:
- Well-architected Landing Zone setup, aligned with existing governance and security policies
- Trust and authentication established from existing on-premises Microsoft AD to AWS Directory Service for Microsoft AD
- Migration of on-premises SQL Server to RDS for SQL Server
- Use of Elastic Beanstalk to deploy .NET application code directly from Visual Studio.
- Automated deployment of Windows EC2 application servers

In the first waves of migration, Crayon helped to guide the learning process through architecture advisory, .NET developer dojos and game day workshops. Arbeidstilsynet was able to accelerate their learning curve and accelerate the pace of migration of their homegrown applications into AWS. An example of their accelerated migration was a gameday workshop where we accomplished a complete migration of AD, database, and application within 3-4 hours. Speed and flexibility are areas that Arbeidstilsynet has highlighted as benefits to their migration.

Arbeidstilsynet is positioned to continue their migration of applications from on-premises to the cloud with AWS. As they have become more familiar with the World’s leading platform, they are
finding new ways to innovate and deliver the operational excellence that they are after. Crayon will continue to provide Arbeidstilsynet with AWS migration advisory to help them leverage investments in Microsoft technologies on AWS.

**Primary AWS Services used:** EC2, EBS, RDS, ELB, Route53, AWS Directory Service for Microsoft AD, VPC, Cloud Trail, CloudWatch

**Project Architecture:**