

ClearView Technology Stack

Below is a detailed list of the technology stack used by ClearView. There is currently a shift within the product away from a Microsoft stack, but switching out all Microsoft server technologies will be a multi-year endeavor.

Overview

ClearView is a fully-hosted, multitenant SaaS product. All that is required for a customer to access the product is a computer with Internet access running a modern browser (Chrome, FireFox, Safari, IE11, Edge). No plug-ins are required.

The Legacy version of ClearView is hosted within a cluster, with each ClearView server cluster able to support between 5,000 to 7,000 agents. The NoSQL-backed platform supports horizontal scaling through database sharding and has been successfully tested to over 100,000 agents in one environment, and tests are being run in Q2 2020 to test at many times that scale.

Server-Side Technology

- Windows Server – licensed through hosting providers (CTL Cloud and AWS)
- Microsoft SQL Server – licensed through hosting providers (CTL Cloud and AWS)
- ASP.NET C# - used for server-side programming language

Database Technology

- Microsoft SQL Server – licensed through hosting providers (CTL Cloud and AWS)
 - This is the database workhorse of the Legacy platform. Most data is handled through here.
 - On the new platform, SQL Server only houses metadata and data required to drive the UI. Reporting data is now in MongoDB.
 - SQL Server will be phased out in favor of a more scalable Open source relational database (still to be determined)
- MongoDB
 - This is used for the data lake on the new platform
 - It is hosted by MongoDB as their Atlas service
 - Configured for three replica sets (in at least two different AWS AZs) per database shard

Client-Side Technology

For a full list of libraries used, along with license information, please see the attached “ClearView Libraries.xlsx”. ClearView was originally built using JQuery as the main JavaScript library, and using .NET WebForms for most of the presentation layer. Most of the product is now built on AngularJS for the presentation layer and JavaScript framework, with REST APIs being used to pull data from the server. In 2020, AngularJS will start to be replaced with a newer version of Angular.