Safety National needed an easy-to-implement and powerful solution to improve its loss and premium modeling process – they found it in XLeratorDB.

EXECUTIVE SUMMARY

- Safety National wanted to improve one of its loss and premium models to run faster and support greater volumes of data.
- Safety National found XLeratorDB easy to use, even for non-coders, and more efficient than their Excel-based models.
- Safety National benefited from detailed XLeratorDB documentation and great support from Westclintech.

Safety National (http://safetynational.com) provides insurance solutions, including alternative risk funding products such as excess workers' compensation, loss portfolio transfers, and reinsurance.   As part of its continual process-improvement focus, Safety National was looking to improve one of its actuarial models. They were trying to enhance their Excel-based models, ultimately requiring a format that would run in Microsoft SQL Server. The company's criteria included a system that was easy to implement, cost-effective, and more efficient than their current models.

As David Wolf of Safety National described it, his group performed loss and premium modeling that utilized **random number generation** and **statistical distributions** in Excel. Safety National already had certain processes running in Microsoft SQL Server and they wanted to leverage SQL Server more to help speed up the overall modeling process.

XLeratorDB provides **in-database analytics** for SQL Server and included all the **familiar statistical functions** from Excel that David was currently using. Safety National downloaded a trial version and, within a few days, had XLeratorDB running smoothly in their environment. Less than a week later, David had confirmed the results between the Excel and SQL Server / XLeratorDB models. According to David, "the **ease of incorporating XLeratorDB into their model** was pretty close to a no brainer."

Not only were the XLeratorDB functions simpler to use than the comparable native SQL Server functions, the detailed documentation available provided examples on how to incorporate them. As an actuary with no formal coding background, David found the XLeratorDB functions intuitive given their similarity to Excel functions; he could basically 'copy / paste edit' examples straight from the XLeratorDB documentation into the code for his models. XLeratorDB also removed the need to create work-arounds in SQL code in cases where SQL Server functionality

was limited, as with certain statistical distributions. David was impressed that the XLeratorDB was so **easy to implement** and the software immediately proved its worth.

In addition to the ease of implementation, David was very pleased with the **significant performance improvements** the company achieved by using XLeratorDB's functions natively within SQL Server. The original Excel-based model (incorporating Visual Basic macros) supported 50,000 simulations, with each simulation generating up to 1,000 data points. These models took more than six hours to run and could not run unattended because they would not always run to conclusion. With the addition of XLeratorDB, he was able to move the models over to SQL Server where he could take advantage of its computing power. He could increase the number of simulations and the model would complete in a more-efficient 1.5 hours with no fear of system crashes. This meant he could **run multiple iterations of a given model in a single day**. Without the XLeratorDB functionality, the performance advantage of using SQL Server would diminish significantly.

The ease of implementation and performance improvements led to a quick transition to using the XLeratorDB product in production.

Safety National has proven for over 75 years that they are an industry leader who takes their responsibilities to their clients very seriously. Safety National is a trusted partner to its customers who rely on their expertise and risk management resources. All of this is underpinned by Safety National's risk modeling. Safety National found an effective partner with Westclintech and its XLeratorDB solution. For a small investment in licensing fees and less than two weeks of work, Safety National was able to significantly improve their loss and premium modeling, which helped the business make better decisions.