HOW A CLAIMS MANAGEMENT SERVICES PROVIDER MAKES PROGRESS
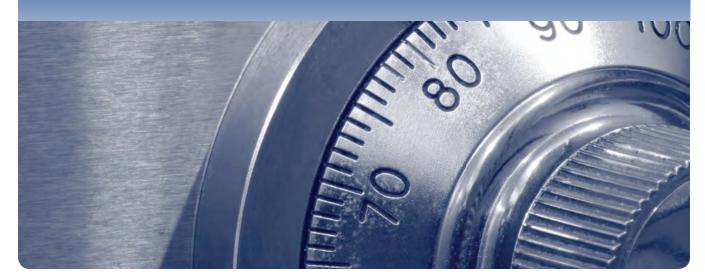

INSURANCE SERVICES PROVIDER PROTECTS ITS CUSTOMERS' DATA AND REPUTATIONS WITH PROGRESS® OPENEDGE® TRANSPARENT DATA ENCRYPTION (TDE)

Imagine having to contact 10 million customers, not with a special offer, but with the bad news that their social security numbers may have been compromised due to a lost backup disk in the mail. The financial consequences for your organization would be immense. The postage alone would cost over four million dollars. But the long-term costs associated with a damaged reputation, a loss of customer faith and, worse, customer attrition could snowball into a loss of hundreds of millions of dollars. Now imagine you could have avoided all of that pain by making a nominal up-front investment to protect your data?

This leading claims management services provider was determined not to let this scenario happen—either to itself or to its Fortune 500 customers for whom reputation is paramount. For the past two years, the organization has relied

CHALLENGE

Prevent the loss of sensitive customer and company data that could result in a damaged reputation, customer attrition and massive financial costs

SOLUTION

Progress® OpenEdge® Transparent Data Encryption (TDE) to protect its terabytes of data when at rest

BENEFIT

Since using TDE the business has managed a half a billion transactions every single day across 11 databases without a single encryption-related problem

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on Progress® OpenEdge® Transparent Data Encryption (TDE) to protect its terabytes of data.

A leading North American provider of innovative claims and productivity management solutions, this organization has been a Progress partner for over 20 years, leveraging the Progress OpenEdge platform as the foundation for its state-of-the-art information management and delivery system.

While the company has very little data of its own, it is responsible for managing terabytes of data and 26 million claims annually for its marquee clients. With so many high-profile instances of data exposure in the news, the company's software architect says the company was motivated to do everything in its power to ensure its customers' data was as safe as possible.

"Unsecured data can leave a company and its customers highly vulnerable to risk. Because the information we manage for both our clients and our employees is extremely sensitive, it is our obligation to do everything we can to keep that data private. We knew that encrypting our data-at-rest would give us the security and peace of mind we needed."

OPENEDGE TDE DELIVERS MAXIMUM SECURITY WITHOUT IMPACTING PERFORMANCE

When the organization decided to implement transparent data encryption, it had two options: either roll out its own encryption, which would require a large-scale application change, or work with long-term partner Progress Software. The company concluded that to retrofit a home-grown solution could cost upwards of $10 million and would require years of testing and development.

"Our application has been in continuous development since the 1980s, with some 30-plus developers constantly making enhancements," says the software architect. "We have approximately three million lines of code and 50% of the references in that code are based on tables that we know have sensitive information. So a significant amount of the code would've had to change, been reviewed and tested. We would've also had to prove to customers, prospects and auditors that our cipher was good enough and that we could constantly retrieve the data."

"Every single day our company manages around a half a billion transactions, updating transactions using these databases against encrypted objects... we have not had a single encryption-related problem."

Software Architect
Claims Management
Services Provider

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With a 99% customer retention rate for the past decade, the organization wouldn't gamble on comprising the performance and reliability of its application. "The system is mission-critical. It is the engine that drives our whole company," explains the software architect. "If it's down, checks don't go out the door; nothing happens."

Realizing a home-grown solution was not a viable option, the company approached Progress Software. "At the time, OpenEdge TDE did not yet exist. So we collaborated with Progress to develop the requirements for the solution and then actively participated in both the alpha and beta programs," explains the software architect. "Progress really delivered for us. An in-house solution would have required that we change several million lines of code, and the testing phase alone would have taken upwards of 12 months. With OpenEdge TDE we completed the testing within a few months—most of that on the technical side, just to make sure that the database stayed intact. We didn't really test the application itself because we made no changes to the code. We've been involved in a lot of different projects with Progress—testing enhancements and new features. And in my 20-plus years of experience with Progress, this was the smoothest rollout yet."

Today, this claims management services provider works with some of the largest databases utilized by Progress customers and partners. "On the production side, we are using OpenEdge TDE on 11 databases, the largest of which is two and a half terabytes in size and it supports 4,000 current users," explains the software architect. "We are a 24x7x365 business: every single day our company manages somewhere around a half a billion transactions, updating transactions using these databases against encrypted objects. Those numbers equate to half of the volume managed daily by the New York Stock Exchange. We've been running at this rate, on these databases, for a very long time now, and we have not had a single encryption-related problem."

The organization has not had to sacrifice in terms of reliability or performance since using OpenEdge TDE. The company's main database has been up for 1,500 hours straight since its last maintenance event. "Performance and reliability are a big deal for us. Losing data from a table that has a billion rows or having a database that's already pushing the limits slow down 20% were not options. Over time, Progress was able to refine the

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solution enough so it was within a few percentage points of where we were before—very reasonable given the benefits."

In fact the company experienced so little performance degradation with OpenEdge TDE that the software architect was able to upgrade their development system over one weekend, encrypting all of the tables and data without the developers knowing. "We didn't share any of the information with them until several weeks later; they didn't notice a thing."

AGILITY TO MEET BUSINESS, CUSTOMER AND INDUSTRY REQUIREMENTS

The software architect says a significant advantage of OpenEdge TDE is that it hasn't required the company to change its underlying application or configuration. "When it is time to import new data into the database, it is as simple as identifying whether the data needs to be encrypted or not. We essentially flip the switch or we don't—that is as far as it goes. That level of flexibility is highly advantageous. For example, one of our tables contains 770 million rows, 300 gigabytes of data. While the data is encrypted, none of the indexes currently are. In other instances, we have tables that contain both encrypted and non-encrypted indexes. The ability to selectively decide where we are willing to compromise a couple of points in performance makes a big difference when you are dealing with billions of transactions."

Worst case scenario, if a customer using OpenEdge TDE wants to encrypt all of their data, the software architect says it is as easy as dumping and reloading the database versus an in-house solution that would require millions of dollars in development costs and far more time.

The software architect says more and more customers are asking for data encryption at rest, and he believes it is just a matter of time before all states establish regulations to address security breach issues. "Regulations like HIPAA do not apply to us; but I have no doubt that in the near future there will be new regulations we will have to follow. What we consider non-sensitive information today may be considered sensitive by law next year. With OpenEdge TDE we have the flexibility to both quickly and easily meet those requirements because we don't have to make changes to the underlying code."

"OpenEdge TDE means that if someone can hack your machine and actually look at the disk, steal your disk drives or steal your backups, they're wasting their time."

Software Architect

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A 360° APPROACH TO SECURITY WITH OPENEDGE

The company's software architect says OpenEdge TDE is a great complement to the other security features OpenEdge already has to offer, like the ability to encrypt the application servers and communication channels.

"OpenEdge TDE means that if someone can hack your machine and actually look at the disk, steal your disk drives or steal your backups, they're wasting their time. That feature, in addition to forced logins and other security measures, makes it a great package deal. Progress has made it close to impossible for unauthorized users to get into your OpenEdge database—which is the goal. Unless someone actually gets your encryption key, they can have at it. They can create a supercomputer and work on it for a year and still not be able to crack this data."

As for the cost of encrypting data-at-rest, the software architect challenges people to think about how much it would cost if their business wound up on the front page of the *Wall Street Journal*. "The cost of the OpenEdge TDE solution versus the costs associated with a damaged reputation and infuriated customers is minimal. It is almost a no brainer. If your data is stolen, you're talking magnitudes of cost, pain, embarrassment and lost reputation. You can't put a dollar on that. And there is no way to buy back lost trust or faith."

PEACE OF MIND DELIVERS A COMPETITIVE ADVANTAGE

Knowing that the data entrusted to the organization is completely secure, no matter what, gives both the company and its customers tremendous peace of mind. "Whether an innocent mistake is made, like a backup disk gets lost in the mail or an employee misplaces a laptop, or there is malicious intent to try to gain access to our databases, we know unequivocally that our data is safe. With OpenEdge TDE we will never be in a situation where we need to alert 25 million people that we may have lost their social security numbers. That's a big comfort for everyone involved. Our ability to tell executives within our customer accounts that there is no chance they

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are going to be in the news due to a data breach is a major selling point and competitive advantage."

The software architect doesn't anticipate that the organization will move its application to the cloud anytime in the near future because the model doesn't fit their current business requirements, but he recommends that anyone considering a move to the cloud or SaaS consider OpenEdge TDE. "If you're going to put your data on the Internet, you should seriously consider encrypting it. A potential data breach—whether innocent or malicious—is a very real possibility, and it is the one time you'd rather not be on the front page of a newspaper."

From an internal business perspective, OpenEdge TDE also greatly simplifies the company's operations and strategic planning. "TDE is now just a check box. It has removed a lot of the stress and complexity from the process, and the contracts demonstrate that. Without TDE we had to put a series of compensating controls in place. We'd have to sit down with the client and their auditors to explain in painful detail how we would ensure their data remained secure. That whole process has boiled down to one question and answer: "Do you do encryption at rest?" "Yes." "Okay, then let's move onto the next question…""

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