# The benefits of being single - when it comes to your database

### SingleStore

**DIGITAL REPORT 2021** 



# **O** SingleStore

## SINGLEIS **BEST WHEN** CHOOSINGA DATABASE PARTNER

SingleStore is challenging the fragmented cloud database market in what its CEO, Raj Verma calls *The Modern Database Era*. Here's his vision for a business that touches all our lives

aj Verma has lived his whole adult life exploring and navigating the landscape of data and data storage. His education focused on computer science engineering and maths. When studying for his degree he toyed with the idea of making his university thesis all about artificial intelligence and robotics. He's a data junkie.

He sees the industry in which he works as nothing new and likes to tell you data database technology and the world of data storage has been around far longer than he has: "Fifty years, maybe even longer," he says.

"It's not that this industry is anything new. It's just the way data has been processed and the way computers and storage have tangled together, which has changed."

Untangling that past and streamlining the way the company stores and processes data in the future is Raj Verma's mission as CEO at SingleStore.

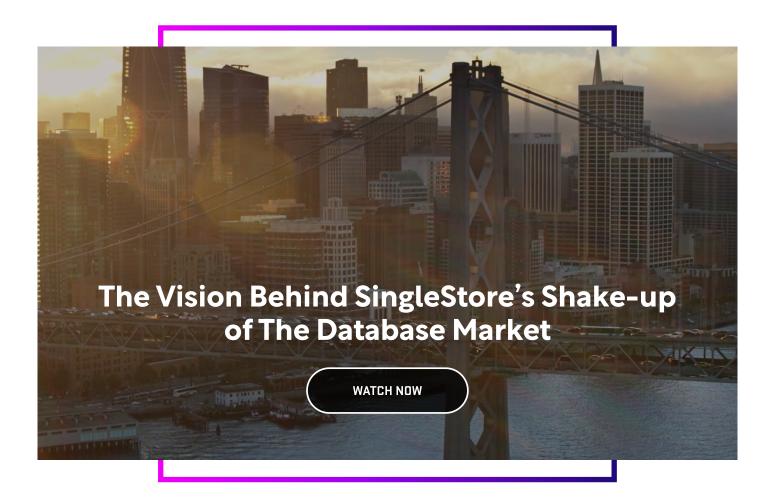
It's not that he is a man ahead of his time. He is a man of his time... and he is on a mission to explain – which he does with great clarity. Why? Because data storage is no longer the preserve of the few. It is now a global requirement of us all. Raj says data storage is something which touches all our lives, even though many of us may not realise it. We cannot function without it.



Executive Team Standing with Nasdaq Billboard in Times Square







Raj Verma likes to take highly complex concepts and explain them in a way so we can all grasp them.

"Twenty years ago, data was a certain type of data. We were very used to it. The volume, variety and velocity of data was very well understood and had been understood for about a couple of decades."

"Yes, I know the Internet has made some difference to it and we thought "oh my goodness, because of the Internet, data is exploding."

"But not fundamentally. The velocity and the volume did not increase that dramatically... and then this happened, right around 2008." As he says this Verma waves his smartphone in the air... and the point is made.

Verma cites the birth of social media networks such as Twitter and Facebook as the turning point. Add to that the way internet delivery speeds ramped up at

The last 18 months has fundamentally made a huge paradigm shift as to how companies use data"

**RAJ VERMA** CEO. **SINGLESTORE** 

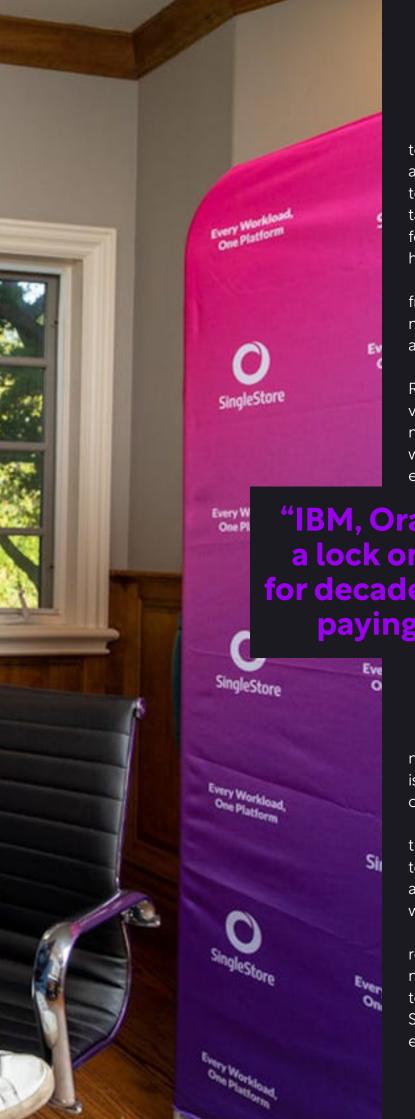
the end of the last decade and you have all the criteria for a perfect storm which changed the face of the data landscape.

This is what Raj Verma refers to as 'Modern Data'.

"There was this explosion of data that happened. And this modern data had a very different volume and a very different velocity."







Verma uses the example of taking a holiday to Italy in the pre-Modern Data era. Take a picture, come home, develop it and send it to a few friends. "Now you pick up your mobile, take a lot of pictures and BOOM! You send it to forty thousand people – some of whom you have never met and will never meet."

"Just imagine. Multiply this amount of data from one person by millions and then by more millions. This is what is now being thrown at enterprises."

Back in 2011 as CMO of Tibco Software, Raj Verma gave a speech where he said the volume of data was doubling every eighteen months. When I said that I remember people were saying "Holy hell. Data is doubling every eighteen months, how are we going to

"IBM, Oracle and SAP have had a lock on the database market for decades and now people are paying the full price for this"

> **RAJ VERMA SINGLESTORE**

manage that?" And now I'm reading that data is doubling every month and some people are claiming it's every week.

So, that kind of deluge of data being thrown at all of us is something which the old technologies and databases, like the Oracles and the IBMs and the SAPs of the world, just weren't built to manage."

And in that statement, we get to see the real driving force behind Raj Verma and his mission at SingleStore. He is in this business to shake it up, force it to evolve and ensure SingleStore's technology is sitting right in the eye of this storm.

But Verma makes another of his intentions very clear. This seismic change in the way we need to manage and analyse and process data is also about collaboration between older legacy systems and the new kids on the block.

"I'm not here to beat up a competitor. I'm just saying they were used to handling the non-modern data, the pre-2008 data."

#### Removing the barriers

Verma says it was impossible for those nonmodern data enterprises to predict what was going to happen back then. He says when they began managing data with computer power it didn't come with a warning that forty years on, data would start to engulf them. But he also says those that survived did so because they were nimble enough to react to the changes.

Nimble, yes. But, according to Verma this reactive approach was ultimately short sighted. He calls this the 'Swim Lane' mentality which companies adopted to ride out the tsunami of data.

"All this data came at these enterprises so they started buying Oracle or IBM's DB2, Mongo or Couchbase or X, Y or Z technology - all in the hope these 'Swim lane' solutions would bridge the gap between modern data reality and the data architecture of the past."

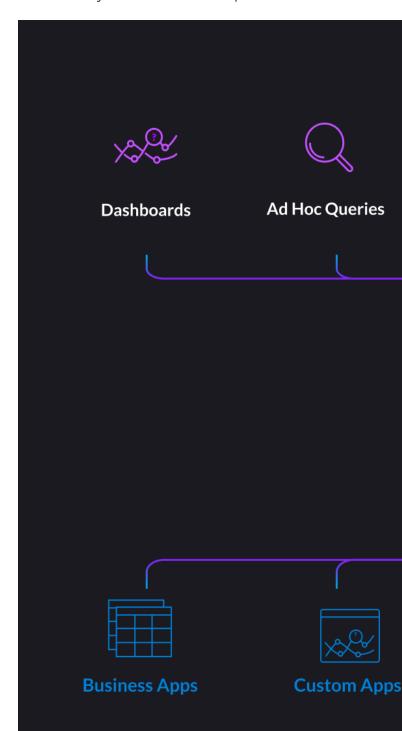
Verma says this has been going on for some time and there are at least three hundred of these 'Swim lane' databases to choose from. But, he says, this is ultimately a counterproductive strategy. This is where SingleStore comes in. From the outset, just under a decade ago, the SingleStore approach was not to pick a swim lane but remove the barriers.

"Databases take a long time to build," says Rama. "It's been eight years from inception to our first release and now we are in the perfect position to take on the modern data era and provide companies with a single solution,

so they no longer have to run multiple databases with all the complications which go with them."

Verma describes how he sees the rapidly expanding service economy where everything is a service, everything is on 24/7, the competition is a click away and the user experience is everything.

"User experience and low latency are connected," he says. "If I was to ask you if you want to stay on the end of the phone for one



second or five minutes, of course, you want the response quickly – and if a service provider wants to make that happen and improve its customer's experience it needs to change its data layer or that's not going to happen."

"We feel SingleStore fundamentally allows you to manage the modern world of data and the service economy better."

#### Ellison and the old guard

**Point of Sale** 

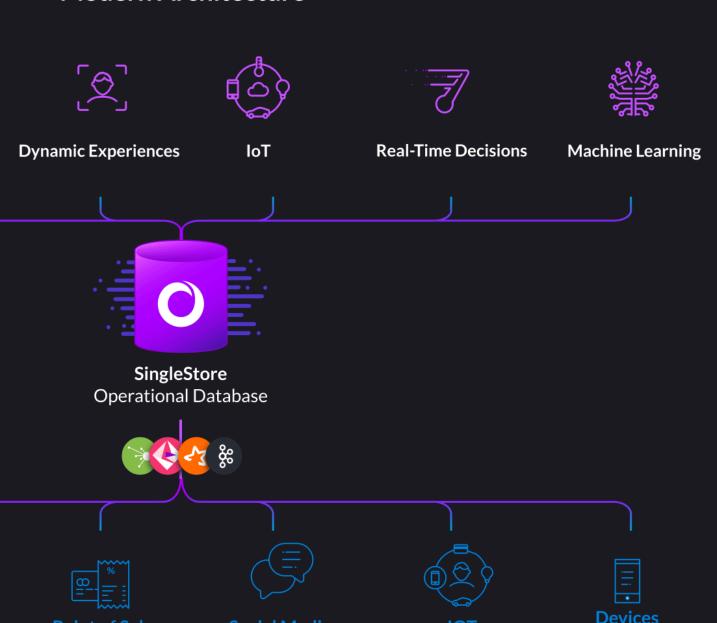
So, if some of the older database companies

are dinosaurs, does that make SingleStore a raptor? Is SingleStore a predator?

Verma has a lot of respect for the old guard – especially for the founding mothers and fathers of the database business - Oracle and IBM.

"I often say that if Larry Ellison (Oracle's Founder) was to create a data database today it would look very much like SingleStore. I have the highest regard for Oracle and for Larry Ellison, Oracle is a solid product and it changed the fortunes of a lot of companies – as did IBM.

#### Modern Architecture



Social Media

"The database market is now growing at around seventeen percent (17%) a year and it is currently worth between \$100 - \$125bn"

**RAJ VERMA SINGLESTORE** 

It is just a different era and I think a lot of those companies are now struggling. History is littered with them. These companies went on to dominate for fifty or sixty years and they are still a force to be reckoned with that's nothing short of phenomenal really."

Phenomenal it may be, but Verma leaves us in no doubt that he believes there is now a revolution in the evolution of the database business. SingleStore has sharp teeth and the hunting instinct for survival while the old guard of Oracle and IBM are stumbling as they carry the heavy burden of outdated legacy systems.

"I do believe there is a better way of handling modern data and building applications. I also believe SingleStore is one of those companies to do this, if not the best option among the better options."

Verma says this is down to a fundamental problem faced by the database world and those who use its technology.

"This is not about a willingness to change," he says. 'It is just the amount of legacy these businesses carry to make that change.



SingleStore is a modern scale-out database and the first real-time operational cloud database to support separation of storage and compute.



Of course, the legacy companies understand what they must do. But can they do it? They have so many chains around their feet in terms of tens of thousands of customers who want to stay where they are and keep their data where it is."

Verma describes this dilemma as a tussle between the past and the future where too many businesses believe they are minimising risk by corralling their data 'in a box', modernising around it and then, over time, migrating to the new systems.

Verma argues that this is also an example of short term, counterproductive thinking. He also claims the investment market has woken up to the huge potential of the SingleStore route.

He cites the recent surge in investment. This is not just about his entrepreneurial optimism. It's about hard business decisions.

'Think back to 2017. For probably two decades, or two and a half decades before that, we did not have a database company go public to the best of my knowledge. Then Mongo came about and things changed."

But, according to Verma, that change only came about after the new entrants to the market – spurred on by the Mongo IPO - embarked on an intense "mission to explain" to the public market just how important modern era database technology was going to be in the social media age.

"IBM, Oracle and SAP have had a lock on the database market for decades and now people are paying the full price for this," says Verma. But he adds it was new investment flooding towards the challengers to the old guard which finally gave the market the boost it needed."

He says everything fell into place when investors began to understand that the new players were more likely in the short term to work alongside rather than displace the Oracle generation.

"The point was being able to explain that the market was going to be big enough for new players to come in."

In the last 10 months, SingleStore has raised over \$160m from investors, which values the company at around a billion dollars.

Verma cites the success of MongoDB and its rivals as a sign that the market has shaken off the old guard. Post going public Mongo was valued at around three billion dollars (\$3bn).

"The last time I checked, Mongo is worth ten times that initial offering at around thirtytwo billion (\$32bn). Now, that's a validation that there is a change of guard in what is happening across the database market.

As we were digesting the success of MongoDB, who I think executed brilliantly, we had Snowflake hitting the open market and it is now a hundred-billion-dollar (\$100bn) company."

Raj Verma points out that this would value Snowflake at around eighty percent (80%) of IBM's market cap.

#### Paradigm shift in the covid age

Raj Verma talks about how the database business is not only expanding in size but more importantly, in what services database companies - especially the newer ones - can now offer customers. He also says the Covid era was partly responsible for escalating this change.

"I do think that the last 18 months has fundamentally made a huge paradigm shift as to how companies use data.

Pre-covid even some of the most avid users of data used it as 'taillights' to assess a company's progress: To measure what happened, to learn and to implement new strategies based on the way they analyse their data. Data was used primarily to execute decision making.



However, in the Covid era data can no longer be used as 'taillight'. It has to be used as a 'headlight'. It has to help you see through the fog that we are all experiencing in our business and personal lives."

Verma says the challenges of Covid have forced us to use a database in real time. It has made us demand information based on the data we feed to help us predict the actions we take. This has been highlighted in the way we now expect to order food from our smartphones and know exactly when it will arrive, or know exactly when to walk onto the street to pick up a ride-share.

It also enables the service provider to marry up an array of conditions. In the

SingleStore provides real-time parallel ingestion from Kafka, Spark and other distributed data sources with simultaneous interactive speeds for BI tools like Looker and Tableau.

ride-share example this would include weather, traffic congestion and information about the customer.

"Only when all the factors needed to supply a service are taken into account - from the way you analyse data – can you activate the supply chain. This level of detail - in real time – and the analysis behind it – is just not possible in anything but a modern database such as SingleStore."

#### Disruption is a force of good

Verma argues that the database market is now growing at around seventeen percent (17%) a year and it is currently worth between \$100-\$125bn.

"Per annum it creates a \$20bn new market, so it's probably the biggest enterprise space in software and technology or any other business. So I think there is room for a few more disruptors in this market.

MongoDB disrupted it, Snowflake disrupted it and I do believe that there is a bigger disruption to come, meaning the database market will contribute to valuations that will probably result in between two and a two and a half trillion-dollars of cumulative market cap."

And if that happens Verma predicts there will be between five to ten eventual winners. Which, of course, SingleStore will be one.

"So,' he says. 'It's an exciting market." 🔾











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