

# China Telecom Corporation Limited Zhejiang Branch

Harnessing the power of data with Vertica to provide personalized services for tens of millions of customers

## Who Is China Telecom Zhejiang?

World leading telecommunications company China Telecom provides a wide range of information services including mobile, broadband and 5G internet connectivity to businesses and individuals throughout China. China Telecom Corporation Limited Zhejiang Branch (henceforth: China Telecom Zhejiang) is the division of the company responsible for activity in Zhejiang Province.

## Growing Cost and Complexity

As competition in China's telecommunication industry heats up, providers are locked in a fierce battle for greater market share and increased customer loyalty.

For telecommunications companies like China Telecom Zhejiang, the key to future success

**"We have cut the total cost of ownership of our analytics environment by 50 percent and reduced our storage infrastructure costs by 30 percent thanks to the powerful compression capabilities of Vertica."**

### MR. XIAODONG CHEN

Deputy Manager, Enterprise Information Department  
China Telecom Corporation Limited Zhejiang Branch

lies in the large volumes of customer and operational data that it has collected over the years. While detail-rich data is abundant, managing this information cost effectively and mining it for fresh insights presents a series of complex technical challenges.

"Data is the lifeblood of our organization and powers key business functions including marketing and financial planning," explains Mr. Xiaodong Chen, Deputy Manager, Enterprise Information Department, China Telecom Corporation Limited Zhejiang Branch. "And with data volumes set to increase exponentially, it's essential that we can manage and analyze the mission-critical data supporting our businesses effectively."

With multiple legacy solutions supporting its analytics activities and data siloed across multiple systems, China Telecom Zhejiang found that its reporting processes were no longer performing optimally, with some overnight reports running into business hours the following day. In addition, the complexity of the company's existing infrastructure generated significant costs and limited the ability of the Enterprise Information Department to quickly share data between different business units.

"Enhancing our core analytics infrastructure would enable us to optimize our use of resources and better serve multiple departments with the data and reports they need to



## At a Glance

- **Industry**  
Telecommunications
- **Location**  
Zhejiang, China
- **Challenge**  
Analyze large volumes of business-critical and customer data to deliver personalized mobile and internet services at scale.
- **Products and Services**  
Vertica Analytics Platform
- **Critical Success Factors**
  - + Supports better decision-making with up to 50X faster reporting
  - + Enhances the granularity of customer profiling—helping to deliver tailored services
  - + 50% lower total cost of ownership
  - + 30% reduction in storage infrastructure costs

**“By evolving our analytics capabilities with Vertica we’ve been able to improve knowledge sharing across our business, which enables us to be more responsive to our customers’ needs and stay ahead of our competitors.”**

**MR. XIAODONG CHEN**

Deputy Manager, Enterprise Information Department  
China Telecom Corporation Limited Zhejiang Branch

Contact us at:  
[www.vertica.com](http://www.vertica.com)

Like what you read? Share it.



drive smart decision making,” says Mr. Xiaodong Chen.

### Robust, Reliable Infrastructure

To step up its analytics capabilities, China Telecom Zhejiang decided to replace a costly, low-performance set of analytics solutions and databases—including Teradata solutions—with a single, integrated relational analytics database built on Vertica from Micro Focus.

Mr. Xiaodong Chen comments, “Compared to other solutions, Vertica offered the easiest and quickest migration path from our legacy analytics systems. We were able to transfer most of our core analytics activities to Vertica in under eight months, which included reprogramming thousands of scripts and rebuilding thousands of models.”

During the selection process for its new analytics solution, China Telecom Zhejiang explored the option of building its analytics solution exclusively with the Hadoop Data Platform. While this approach required a low initial investment, it couldn’t offer the performance improvements that the company wanted to achieve and was anticipated to be more expensive to manage and maintain in the long term when compared with proprietary solutions.

“We were impressed with Vertica because it could provide a stable, reliable and performant analytics infrastructure that is easy and cost-effective to manage,” adds Mr. Xiaodong Chen. “What’s more, the robust disaster recovery options built-in with Vertica enable us to create an

architecture that can be quickly restored without incurring significant data loss in the event of unexpected disruption.”

After deploying Vertica as its main database using Vertica in Enterprise Mode, China Telecom Zhejiang is now exploring the option of configuring Vertica in Eon Mode—a move that will “enable the platform to reach a higher level in terms of resource isolation, concurrency capability and data security, and thereby play a greater role in our company.”

### Optimizing Efficiency

Since consolidating its analytics infrastructure with Vertica, China Telecom Zhejiang has achieved significant cost savings while also improving the performance of mission-critical reporting activities.

“We have cut the total cost of ownership of our analytics environment by 50 percent and reduced our storage infrastructure costs by 30 percent thanks to the powerful compression capabilities of Vertica,” explains Mr. Xiaodong Chen. “At the same time, we have accelerated some tasks by a factor of 50, so that some reports run in 5 minutes instead of 2 hours previously.”

“We’ve achieved these efficiency savings while also enhancing the performance of our analytics function. With Vertica we are able to meet all of our internal service level agreements on reporting—giving our teams the timely information they need to make smart strategic decisions.”

With Vertica powering its analytics function, China Telecom Zhejiang can double the amount of data points that it uses in its marketing and profiling analyses—helping the company to build a deeper understanding of customer preferences and deliver tailored customer experiences at scale.

Mr. Xiaodong Chen concludes: “By evolving our analytics capabilities with Vertica we’ve been able to improve knowledge sharing across our business, which enables us to be more responsive to our customers’ needs and stay ahead of our competitors.”