Let It Go

Oracle Autonomous Data Warehouse:
A Data Warehouse That Drives Itself

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Right now, data management is the "it" topic. Everyone's talking about it because, well, there's a lot of data being created today. And whether your business is digitally mature or less so, there's no doubt you're generating data—and will continue to.

Where does all that data go? Currently, there are two ways businesses store it:

1. Traditional (or simple) storage

- Simple storage secures data that sits idle.
- Data lakes contain unstructured data.
- Database storage files and holds structured data for easier use.

2. Intelligent warehousing

- Intelligent data warehouses allow data to be filed, stored, processed, ingested, and applied proactively to powerful data intelligence solutions.

- Intelligent data warehousing is the equivalent of a decision support system that reveals insights and new ideas with data visualization.
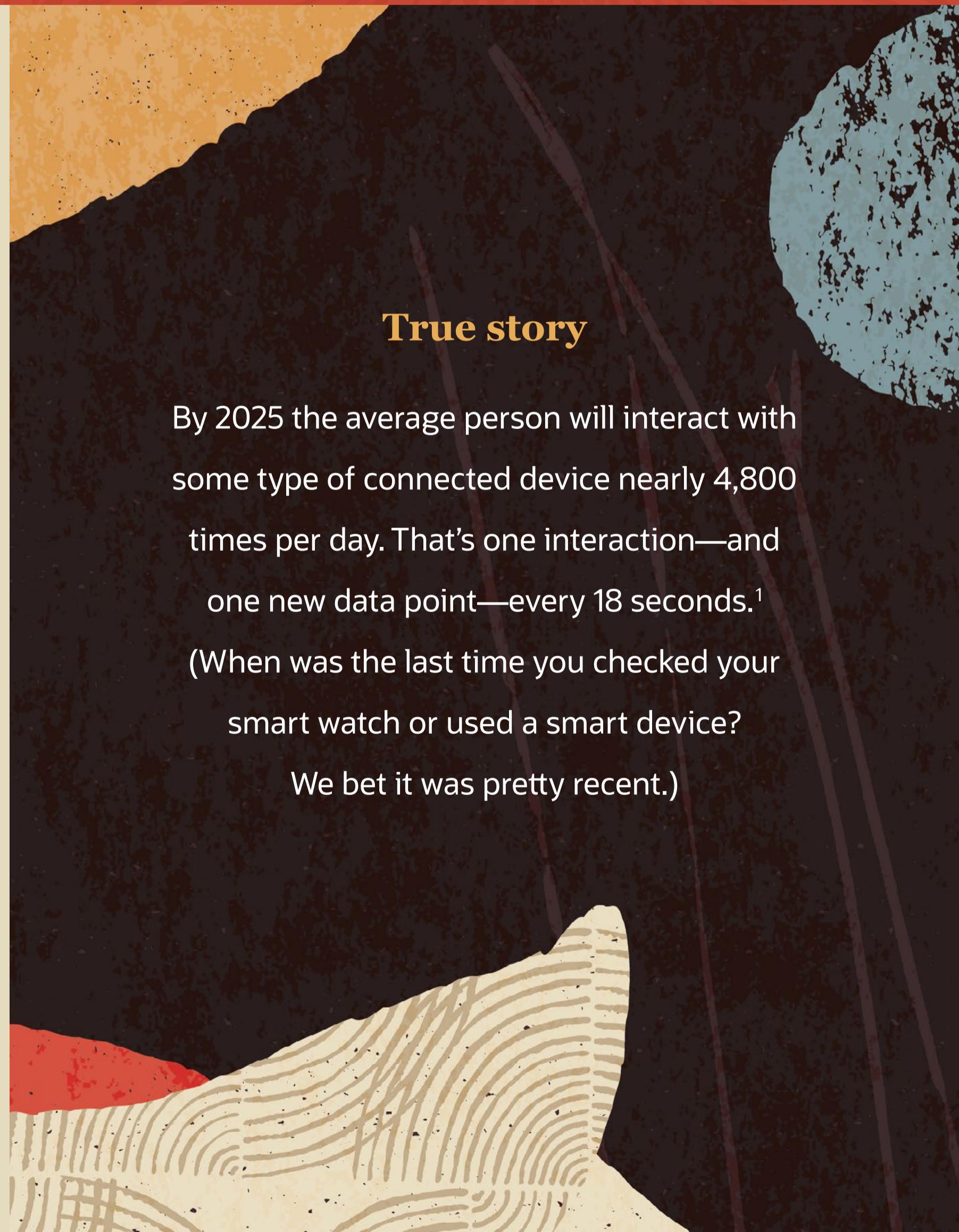
True story

By 2025 the average person will interact with some type of connected device nearly 4,800 times per day. That's one interaction—and one new data point—every 18 seconds.[1] (When was the last time you checked your smart watch or used a smart device? We bet it was pretty recent.)

Trying to decide between simple storage and intelligent data warehousing?
Take a look—the differences are bigger than you might think.

Simple Storage vs. Intelligent Data Warehousing

Simple Storage	Intelligent Data Warehousing
Handles structured & unstructured data	Handles structured, unstructured & semi-structured data
Analysis requires a separate data engine	Comes with a data engine inside
Holds data in a silo	Connects to other data streams & apps
Minimal data analytics	Deep data analytics
Gives you access	Gives you analysis
Sits	Thinks
Like a box	Like a brain

Say Hello to Letting Go

Oracle Autonomous Data Warehouse

As you're probably starting to realize, being able to store and access your information is the first step on your way to becoming a data-inspired business. To make real use of the intelligence all around you though, you'll need a system that can help you see hidden patterns, and shape new projects and processes.

We'd like to introduce you to something. Say hello to the world's first autonomous database—**Oracle Autonomous Data Warehouse**.

Oracle Autonomous Data Warehouse isn't just another data processing engine. It's designed to 'think' while making data ingestion and cataloguing easier. It's highly elastic, secure, and harnesses the magic of artificial intelligence and machine learning to detect patterns, highlight anomalies, and reveal hidden insights.

From setup and daily operation to security and repairs, it lifts the manual burden of time-consuming administration and management so your team can put their skills and energy to better use.

Things Your Team Can Do with More Time

1. **Focus on data modeling**

2. **Spearhead security and information lifecycle projects**

3. **Stay informed on database trends**

4. **Get involved with agile development**

5. **Identify new revenue streams with data**

6. **Try new analytics tools**

7. **Lead migration and upgrades—boldly**

8. **Work as data architects instead of administrators**

What makes Oracle Autonomous Data Warehouse unique:

It Drives Itself.

During set-up and orientation, you can be hands-off. The network configuration and ingestion are taken care of for you. You don't need to manage any hardware or install any software. Beyond that, Oracle Autonomous Data Warehouse takes care of its own tuning so operations go off without a hitch—and without a database administrator in the room.

It Secures Itself.

Its architecture always runs the latest security patches—without being told and without costly downtime. And it secures itself across the full stack, from firmware and operating systems to clusterware and databases. It's the first of its kind anywhere in the world. Data in motion and at rest is encrypted by default using Transparent Data Encryption and database clients use SSL/TLS 1.2 encrypted and mutually authenticated connections so everything stays locked down.

It Repairs Itself.

Backups are completely automated. Plus, high availability is built right into the core of the design so you're safeguarded from downtime, all the time. It's a solution that's always working to keep your database running at peak performance. Because no one wants to experience an outage.

True story

90% of the world's data has been generated over the past two years.

(We can't believe it either.)[2]

The Nitty-Gritty

Features, Functions, and Capabilities

With the intelligent features of Oracle Autonomous Data Warehouse, all your tedious, daily to-do's disappear.
Want to know more about what it can do without any manual optimizations? All this and more—with no action required from you.

Locking the door behind itself

Encryption

Data encryption and database connections are implemented automatically in all environments— including on premise, hybrid, or multi-cloud. Communications between the client and server are also fully encrypted and cannot be intercepted or altered.

Global Compliance

For global organizations, it even highlights findings and provides recommendations to assist with regulatory compliance. The findings and recommendations support both the European Union General Data Protection Regulation (EU GDPR) and the Center for Internet Security (CIS) benchmark.

Network Access

You can further restrict connections by specifying a network Access Control List (ACL). By specifying a network ACL, a specific Oracle Autonomous Data Warehouse database only accepts connections from addresses on the ACL— and rejects all others.

Advanced Security

Oracle Autonomous Data Warehouse scans and evaluates abnormal behavior and anomalous user access, flagging suspicious attempts. And, unlike some other data solutions on the market, encryption cannot be turned off, so your sensitive data is always masked.

The Oracle Database Security Assessment Tool is also included in Autonomous Data Warehouse. It looks at various security configuration parameters and discovers missing security patches. It also checks whether measures such as auditing and access control are deployed, and how those controls compare against best practices. If the architecture finds security faults, the Oracle Autonomous Data Warehouse can resolve these issues on its own.

We know some days your to-do list seems to go on forever.
Cut your list short, and do more of what you enjoy, with Autonomous Data Warehouse.

Crossing things off your to-do list

Tuning

Oracle Autonomous Data Warehouse cloud-based service automatically configures the database for high performance queries. You don't need to worry about parallelism, partitioning, indexing, or compression. Just define the tables, load the data, run the queries, and voilà—Oracle Autonomous Data Warehouse keeps you running efficiently.

Scaling

Oracle Autonomous Data Warehouse includes a cloud-based service console for managing the service, scaling the database up and down automatically. This means you'll be able to intelligently and efficiently use your resources; never over- or under-subscribing your system. (And paying only for what you need.)

Insights

Cloud-based notebook applications are also included in Oracle Autonomous Data Warehouse. They provide live querying and data-visualization capabilities, helping teams to collaborate, evaluate, and deploy predictive models and analytical methodologies—fast. All these Machine Learning notebooks are based on Apache Zeppelin technology.

Doing Less Now Helps You Do More

Do More of What You Enjoy with Oracle

With customers, connected devices, and digital properties all in the data-making mix, there's incredible opportunity for companies to discover pent-up product demands and do more about it. But manually sorting, securing, and manipulating all that intel takes time. If you want to be the first to market, you're going to need some help.

Get a Handle on Hands-off

Oracle Autonomous Data Warehouse on Oracle Cloud Infrastructure is a fully autonomous load-and-go system with a pre-assembled security infrastructure that offers secure data migration and unprecedented ease of use.

It shields your business from both accidental errors and malicious breaches, while taking manual patching and upgrades off IT's plate, helping you refocus your time and talent on what's ahead.

Autonomous Data Warehouse gets business users out of the IT queue by letting them set up data marts for self-service access—for insights when they need them. Waiting on IT is now a thing of the past. Doing less has never enabled your business to accomplish so much more.

True story

By 2025, real-time IoT data will make up more than 95% of all data collected.[1]

Oracle Autonomous Data Warehouse

Built with out of sight in mind.

Learn even more about it ▶

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Sources
1) https://www.seagate.com/our-story/data-age-2025/
2) https://www.forbes.com/sites/bernardmarr/2018/05/21/how-much-data-do-we-create-every-day-the-mind-blowing-stats-everyone-should-read/#1e93323260ba