



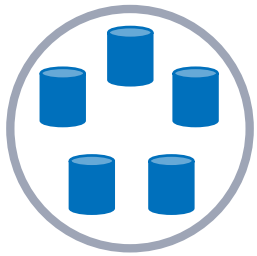
DATAVANT

Connecting the world's health data

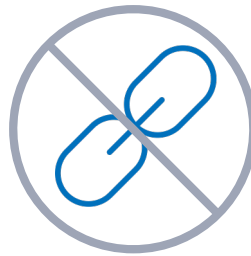
CONFIDENTIAL

The Problem: Healthcare data is siloed

While available health data is growing at a rate of over 50% / year, health data is . . .



Siloed, preventing the development of a holistic view of the patient



Difficult to share, forcing decision-making with incomplete information



Highly regulated, leading to large compliance costs and a reluctance to share

Fragmented health data sources are a key factor holding back progress in clinical and scientific research



The Solution

- **Datavant's goal:** Enable the safe connection of de-identified healthcare datasets to unlock the power of health data for research and analytics purposes
- **Applications to HRA members:** Datavant technology can help you or your constituents remove the friction associated with sharing data across institutions, to create deeper / longitudinal datasets and assemble a more holistic overview of patients

Our Product



1. Protect

De-identify datasets to protect patient privacy and reduce risk



2. Link

Connect matching patient records across datasets to increase data completeness and dimensionality



3. Share

Securely exchange data in our open ecosystem as either a data owner or data user



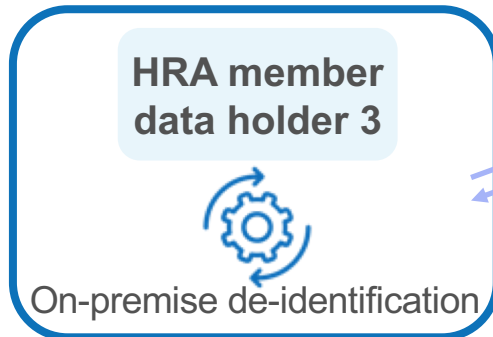
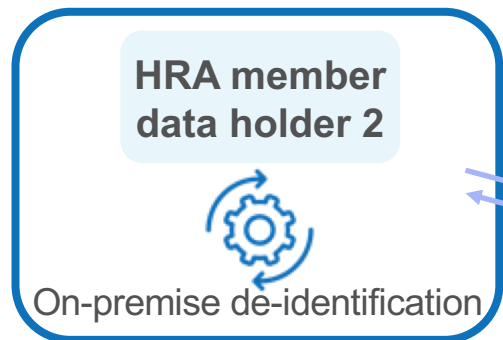
Assemble a more holistic view of the patient to expand the set of questions that can be answered in healthcare

De-ID, then Link: Datavant tech users can de-identify records at the patient-level and enable linking to internal and external datasets

Illustrative

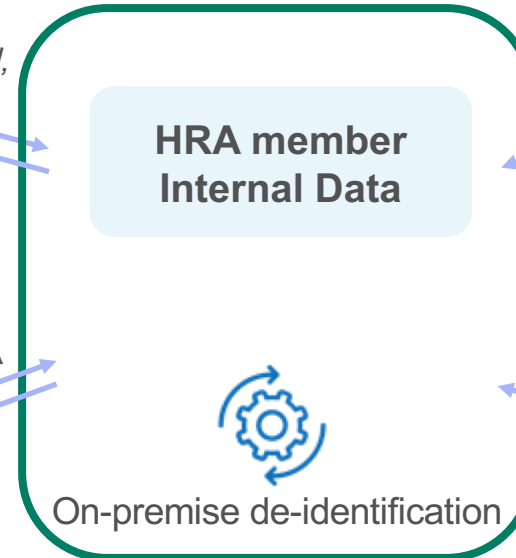
- **Connect de-identified data** from other HRA partners or other healthcare data holders and enable linkability **without ever sharing PHI**
- **Fully configurable** to any layout
- Add **HIPAA-compliant** encrypted tokens for each patient
- **Site-specific encryption** for maximum security

Connect and share data with other HRA members:

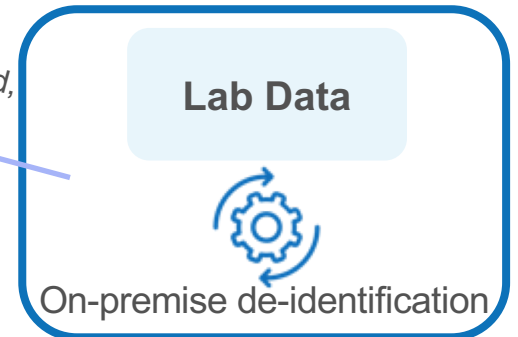
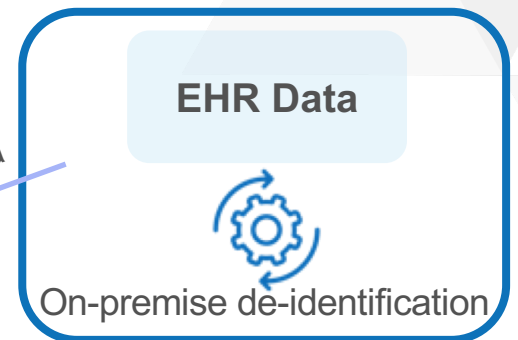


De-identified,
linkable data

De-identified,
linkable data



Bring in additional data sources, e.g.:



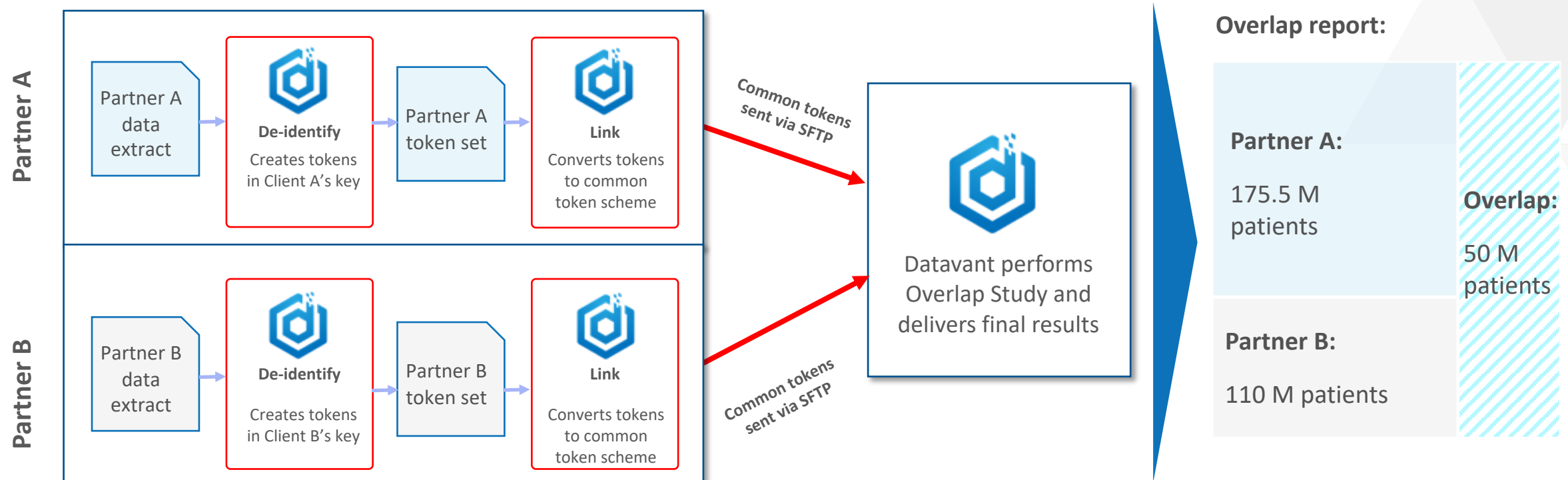
De-identified,
linkable data

De-identified,
linkable data

Please visit <https://datavant.com/protect/> for more information and technical detail around our de-identification and linking technology

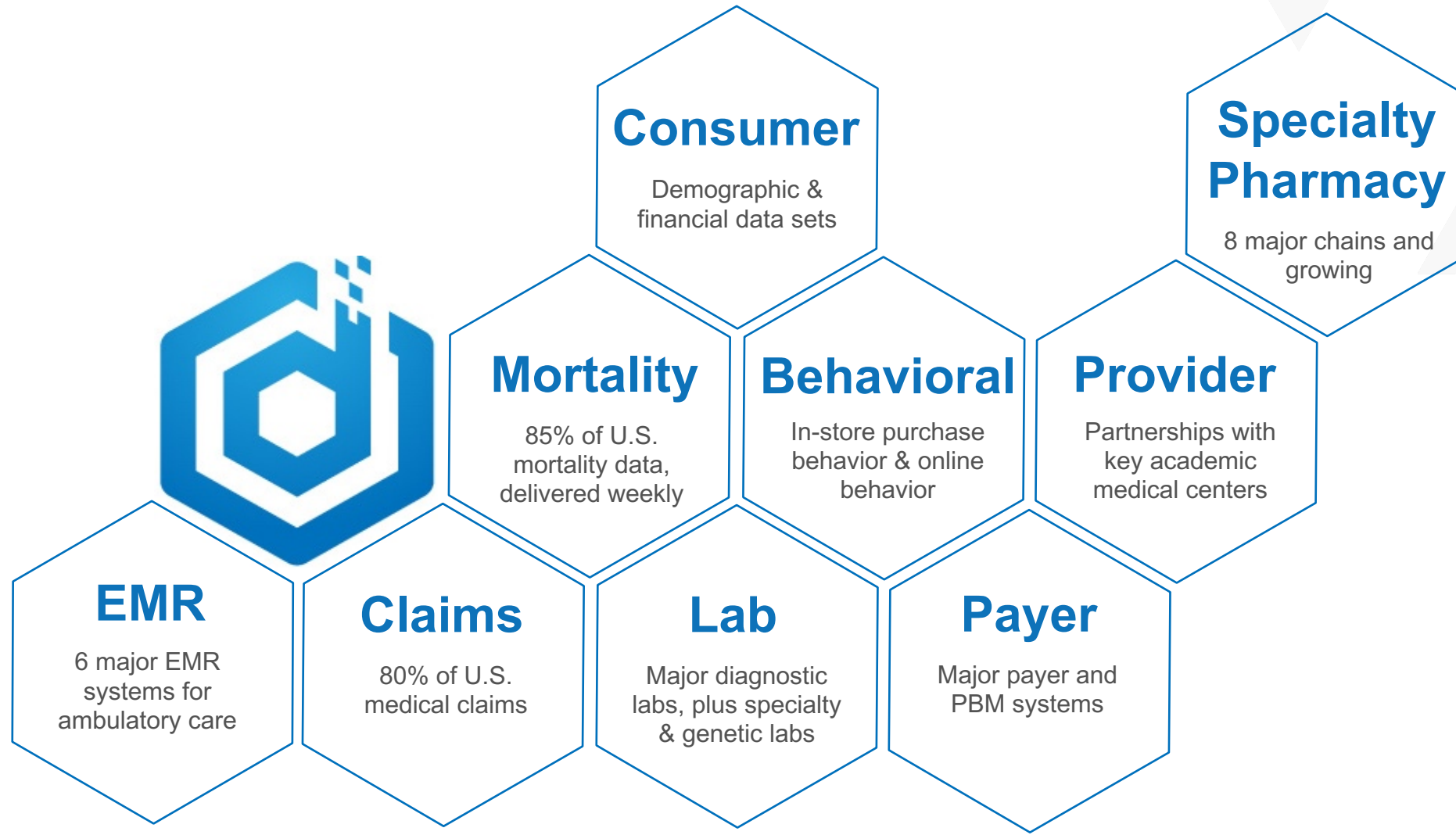
Share: Datavant's technology allows data holders to perform overlap studies before deciding whether to share data with each other

Illustrative



- Datavant technology can be utilized as a self-contained system for determining the number of records shared between two data sets **without exposing PHI**
- This allows HRA members to perform an overlap analysis to **determine the patient overlap between their datasets**, before deciding to share data with each other, to create complementary datasets across the same patients, or, conversely, to enrich existing datasets with additional new patients

Our Data Ecosystem



Example use cases

1. Academic group conducting **survival analyses by linking mortality data to internal data sources**
2. Medical center connecting ophthalmology EHR data across other centers to create a **master dataset for research purposes**
3. National aggregator of laboratory diagnostic data using Datavant to assemble a **longitudinal view of patient laboratory data** by stitching together patient-specific data from multiple sources about the same cohort of patients
4. Large hospital system utilizing Datavant to securely share EHR data with a third-party analytical partner to **identify patients at high risk of readmission and flagging patients at risk for higher-touch care**
5. Genetic diagnostic provider leveraging Datavant to integrate external EHR data with its own datasets to **build a robust understanding of clinical phenotypes and outcomes for its patients**
6. Major provider of data analytics for U.S. hospitals **connecting mortality data** to internal data to flag patients who are likely to be deceased, **applying larger dataset for mortality and morbidity studies, and for fraud detection**
7. Clinical trial analytics company utilizing Datavant to **connect specialty pharmacy data to pharmaceutical data for analytics** on behalf of a biopharma client

Key Advantages of Using Datavant

- 1 Datavant ecosystem of data sources powered by our connectivity layer is the fastest growing in the space, enabling you to assemble a best-in-class dataset
- 2 Technology allows for you and your partners to share data and maintain its linkability without ever sharing PHI
- 3 Technology is quick to install and ready out-of-the-box to enable HIPAA-compliant de-identification and linking of data
- 4 Datavant offers our technology free of charge in support of your nonprofit / academic research goals

We are excited to explore opportunities to partner with HRA members.

Want to learn more? Please contact Vera or visit www.Datavant.com for further information!



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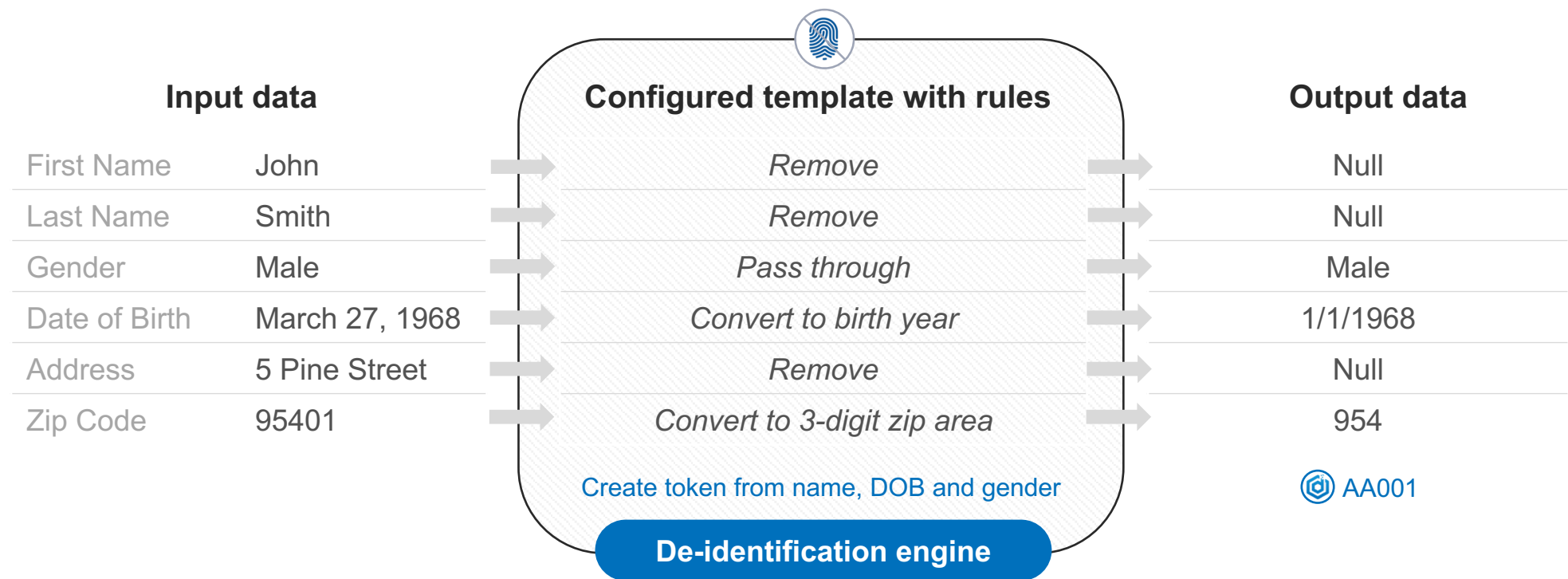
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Partnerships

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Back-up

Ground Rules for De-identification

- Datavant’s technology can be installed on-premise, meaning that **we don’t need access to your data or your system**
- We will work with you to **specify the configuration rules used to de-identify your data based on your needs**

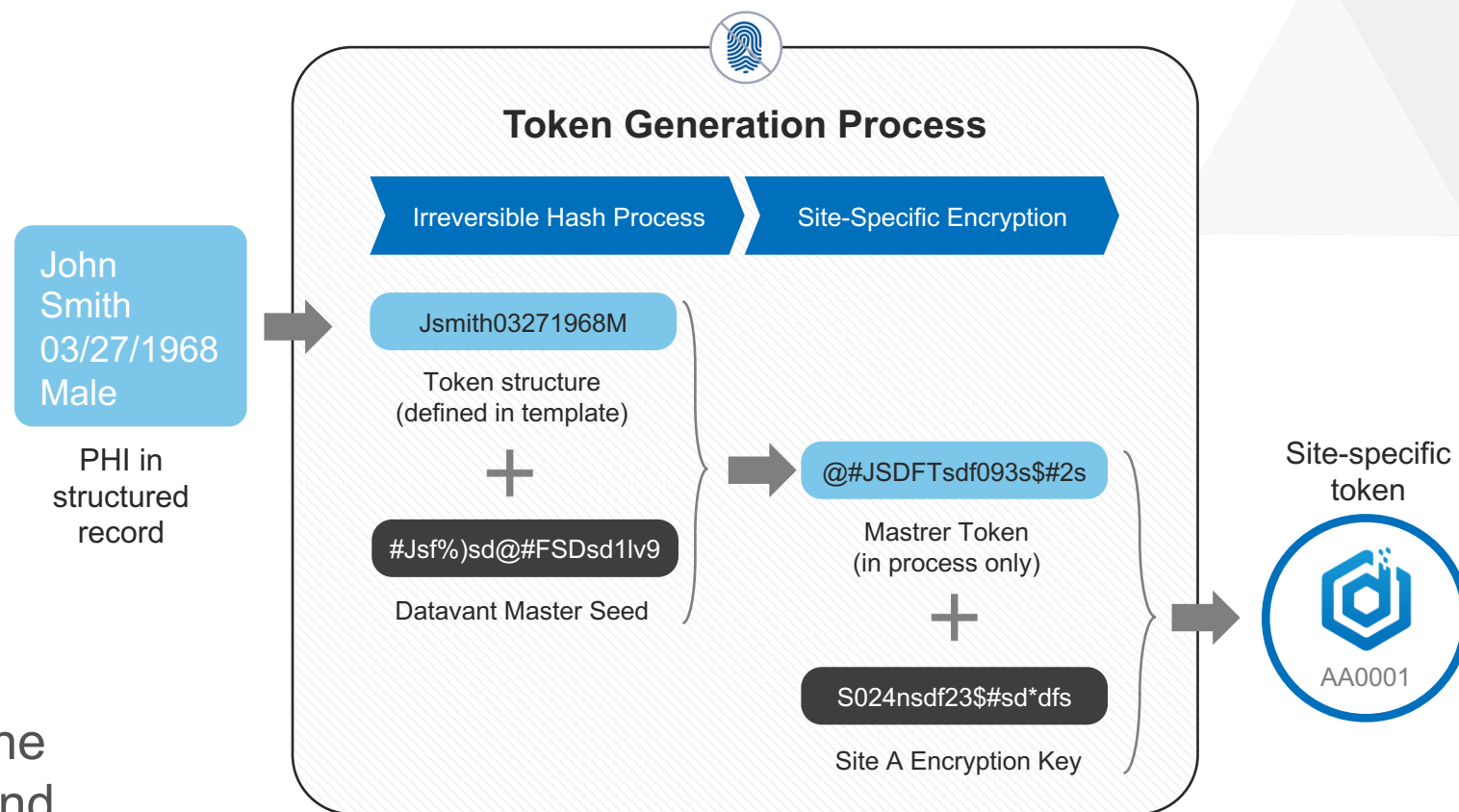


How De-identification Works

There are **two steps**:

1. **Hashing**: Makes your tokens irreversible, securing you from employee or Business Associate regulatory violations
2. **Encryption**: Makes your tokens site-specific, protecting you from a partner's security breach

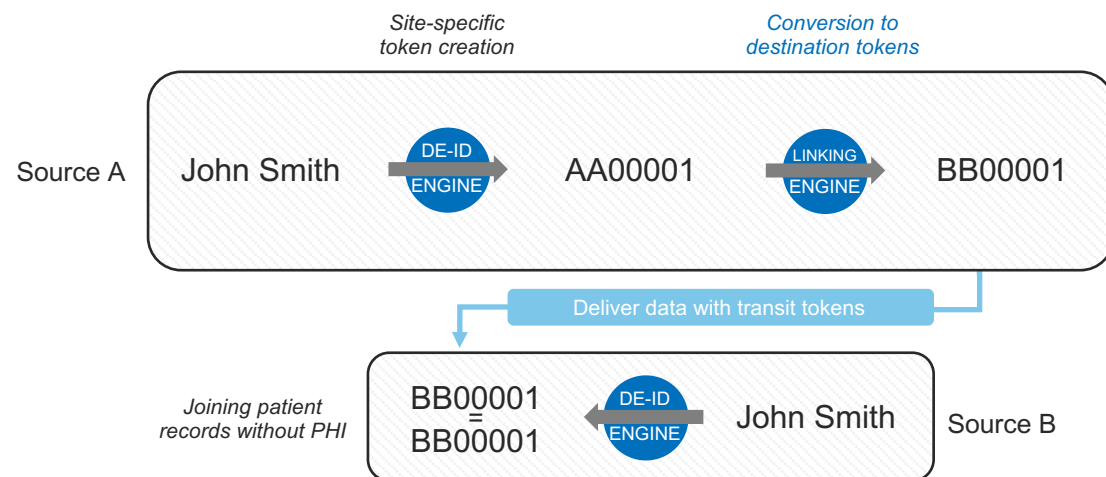
✓ Our process uses the statistical method and is **HIPAA compliant**



How Linking Works

Connect patient records across multiple datasets **without ever sharing PHI**

Sending data to a recipient with linking tokens



Multiple sources sending data to recipient

