Privacy, Security, and Governance

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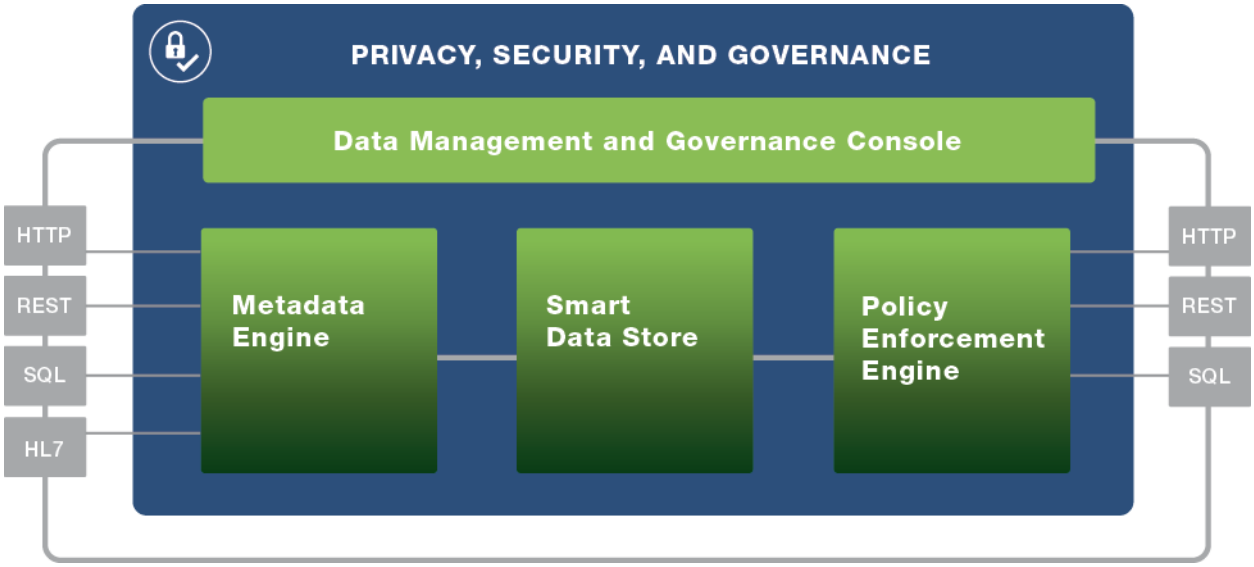
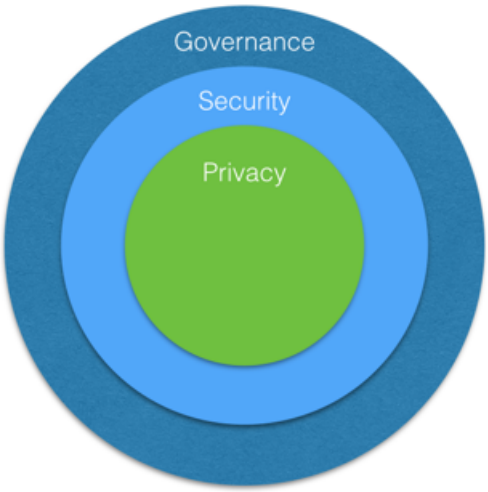
The intention of privacy, security, and governance is to protect information and ensure rightful access.

PHEMI Central is designed from the ground up to be able to manage crucial aspects of privacy and security, and to be able to accurately reflect your organization's governance policies.



Privacy, security, and governance are not all the same thing.

- Privacy is restricting information access to those who have the right to access it.
- Security is the means by which you maintain privacy and protect information assets.
- Governance is the set of processes, roles, policies, controls, and metrics that an organization develops and implements around information to manage its security and privacy.



Privacy

Privacy is restricting information access to those who have the right to access it.

PHEMI Central's innovative Privacy by Design framework was designed from the ground up to define, manage, and enforce data sharing agreements and privacy policies.

- **Attribute-based access control**—Users are tagged with attributes that describe their level of authorization. Data is tagged with attributes that describe its visibility. These two attributes can be used in access policies that are applied to data collections and datasets to enforce rightful access privileges. For example, a data analyst with Level 1 clearance might be able to export fully identified data, an analyst with Level 2 clearance might only have access to de-identified data. Attribute based access control reduces complexity and reduces the risk of data breach. Also, an attributed-based approach to privacy is helpful when not all uses or access requirements for data are understood up-front, or when new types of data are frequently introduced into the system—both common scenarios in health care, for example.
- **Selective data tagging**—Configured attribute-based access can be enriched and extended with context-specific protections by using the Data Processing Function framework to extract and re-tag information. For example, a Social Security or Social Insurance Number extracted from a health scan generally marked confidential can be selectively retagged as personally identifiable.
- **Automatic anonymization and de-identification**—PHEMI Central can be set to automatically invoke a Data Processing Function that can de-identify, encrypt, redact, or mask any data element. A DPF can even include sophisticated data dependency algorithms to reduce the risk of re-identification. A PHEMI Administrator can also construct datasets that strip out identifying data elements. Centralizing anonymization and de-identification helps reduce data sprawl and reduces the risk of data consistency errors.
- **End to end access policy enforcement**—Every query for data to PHEMI Central is mediated by the PHEMI Policy Enforcement Engine, which compares the request against the privacy protections that have been placed on the data. At no time can users, applications, or external systems bypass the Policy Enforcement Engine to access data directly.

Security

Security is the means by which you maintain privacy and protect information assets.

PHEMI Central includes a number of security mechanisms:

- **Role-Based Access Control**—User roles determine what operations a user can perform. For example, only users with a role of PHEMI Administrator can configure the system, while only users with a role of Data Analyst can query data and execute or export a dataset.
- **Configurable Password Policy**—PHEMI Central allows you to configure the password policy that defines how strong user passwords have to be.
- **Audit Log**—PHEMI Central maintains complete audit logs of system and user operations. They include all create, modify, and delete operations, and a record of all queries made to the system through the RESTful API. The audit log files are completely tamperproof for all users.
- **Encryption in motion**—PHEMI Central assumes your system is deployed on a trusted network. However, you can encrypt links from data sources and to consuming applications and analytics tools using either Secure Sockets Layer (SSL) or Transport Layer Security (TLS).

Governance

Governance is the set of processes, roles, policies, controls, and metrics that an organization develops and implements around information to manage its security and privacy.

Information governance is about controlling and protecting an organization’s data. The data may be sensitive, or perhaps it is important that the data be absolutely accurate, or perhaps the organization must achieve legislative and compliance targets. Data governance includes the process and policies around the protection, curation, and access to data and encompasses all of privacy protection, data security, lifecycle management, and data audit.

A governance policy is a coordinated approach to protecting data and assigning privileges to users. To control and protect your data, your organization should have a clearly defined policy governing data.

How do I define a governance policy?