**OCR HHS – Compliance Complain**

* + - Impermissible uses and disclosures of PHI
    - Lack of safeguards of PHI
    - Lack of patient access to their PHI
    - Lack of administrative safeguards of electronic PHI
    - Use or disclosure of more than the minimum necessary PHI

**Healthcare Policy Compliance Problem**

* For stronger security guarantees, demonstrating / proving policy compliance is must
* Policy compliance is challenging since policies can range from national level policies to state-level, city-level, organization-level policies, and also individual user level
* Problems in policy specification and implementation remain unidentified until a breach
* Organizational subcultures often lead to policy violations

**Policy Enforcement**

* Enforced while evaluating authorization decision
* Executed available and applicable policies
* Must be related with subject, object, action, and other conditions
* Detection of violations and taking action when a violation occurs
* Well-defined and implemented policies ensure proper authorization
* Improper policies lead flawed authorization decision

**Policy Compliance**

* Indicates how organizations are following ordinance or guidelines
* Ensures better protection mechanisms are active
* Indicates further improvement

**Policy Provenance**

* Provides lineage of all activities of a policy
* Gives all operations history for subjects
* Shows performed actions on objects or resources
* Maintains integrity to ensure immutable lineage records
* Ensures proper policy enforcement and compliance

**Compliance Issues**

* Audit trails are not analyzed timely and properly
* Audit trails are tampered to cover unwanted activities
* Policy provenance not maintained strictly
* Users oriented compliance reports not given

**Proposed Approach**

* + - Integrating and enforcing Patient-Provider Agreement (Informed Consent) with other policies
    - Immutable, integrity verified storage of audit trail
    - Blockchain’s decentralized consensus mechanism
    - Implementing policies as smart contracts ensures compliance via auto triggering and consensus mechanism
    - Proof of Compliance (PoC) blockchain consensus mechanism to verify compliance and non-compliance actions