Blockchain Working Group

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 - B. Working group process and approach to recommendations

III. Blockchain and its Defining Characteristics

- A. Fundamental shift from centralized control
 - 1. Shared data and ownership
 - 2. Trust and integrity
 - 3. Consensus and decision-making, parties involved
- B. Authentication and fraud mitigation
 - 1. Cryptographically secured ledger
 - 2. The blockchain's distributed and immutable nature
- C. Efficiency and friction

IV. Considerations for Appropriate Application

- A. Ethical considerations
- B. Information technology systems, data architecture and "Blockchain Readiness"
 - 1. Data sources, reliability
 - 2. Digital ID and identity management
 - 3. Cybersecurity: managing security and risk
 - 4. Financial and personnel cost of implementation and operations
 - 5. Privacy infrastructure
 - 6. The mechanics of adopting new technology
 - 7. Public engagement
- C. Decision tree or matrix: When is blockchain appropriate? When not?
- D. Transaction stakeholders
 - 1. Individual to individual
 - 2. Government to individual
 - 3. Government to government (local, state, federal, international)
- E. Clarify regulatory framework

V. Potential application areas

- A. Vital records: birth, death, marriage
- B. Health records
 - 1. Records management
 - 2. Standards and interoperability

- 3. Patient choice and control
- C. Supply chain
 - 1. Food and beverage
 - 2. Firearms
 - 3. Pharmaceuticals

D. Property

- 1. Real estate
- 2. Vehicles and parts
- 3. Insurance

E. Utilities, natural resources

- 1. Energy, electricity, carbon
- 2. Groundwater

F. Finance, payments & commercial business

- 1. Benefits (Unemployment, Workers' Comp, Medi-Cal, SNAP)
- 2. Taxes
- 3. Remittances
- 4. Banking
- 5. Business permits and licenses

G. Justice & civic participation

- 1. Chain of evidence, video testimony
- 2. Voting, elections records, campaign finance

H. Education & workforce

- 1. Academic institutions
- 2. Credentials: degrees, professional certification

VI. The role of State government

- 1. Development of appropriate regulations
- 2. Development of technical standards
- 3. Education and outreach about blockchain
- 4. Keeping the tech industry in California

VII. Recommended roadmap

- 1. Pilot studies and use cases
- 2. Recommended amendments to California statutes
- 3. Readiness matrix

VIII. Appendix

1. Recommended resources