Blockchain Playbook

for the
U.S. Federal Government

This playbook proposes a process and a series of phases

to support the United States Federal Government in its understanding and application of blockchain and distributed ledger technologies for its mission.

Each phase contains a set of key activities organized in functional areas that go beyond just the technical aspects of blockchain but also include management, people, process, technology, and acquisition areas

5 Phases Developed in 2 Stages

Current phases

1 ASSESSMENT — Determine if blockchain is the appropriate technology to solve my problem

2 READINESS — Prepare the organization for the use case

3 SELECTION — Enabling the organization to operationalize the use case

Future phases

4 IMPLEMENTATION — Implement the solution

5 INTEGRATION — Integrate the solution

Key Activities

	Management	People	Process	Technology	Acquisition
ASSESSMENT	• Choose the use case for review to achieve mission goals	• Identify potential stakeholders and collaborators	• Know the use case and the value proposition	• Understand the attributes • Prepare for ATO	• Determine the options
READINESS	• Define initial schedule, budget and governance	• Identify the key end users and DLT network participants	• Define scope • Validate impact and develop target ConOps	• Assess readiness for risks related to nascent DLT technology, security and decentralization	• Establish Consensus on DLT Governance Model • Baseline target KPIs
SELECTION	• Reinforce schedule, governance and budget	• Confirm DLT Participants • Identify skill gaps	• Validate scope • Test ConOps for target state • Develop Change Management Plan	• Choose technology platform • Define business architecture • Define Operating model	• Define Performance Metrics • Develop Acquisition model and milestones

1 ASSESSMENT
Determine if blockchain is the appropriate technology to solve my problem

Inputs

Blockchain
Primer. Basic understanding of Blockchain

Business
• Problem Statement
• Use Case Ideas

GRC
Awareness of :
• Applicable NIST Guidance – FISMA, 800-53 (Security), 800-63(Identity)
• Agency specific compliance
• Government-wide & agency-specific policies

Key Activities

Management	• Choose the use case for review to achieve mission goals
People	• Identify potential stakeholders and collaborators
Process	• Know the use case and the value proposition
Technology	• Understand the attributes • Prepare for ATO
Acquisition	• Determine the options

Key Outcomes

Engaged	Defined	Planned
Program/mission office executive and rank and file	A blockchain solution is applicable. (Selection is not defined in this phase)	The ROI permits MGT, procurement options exist

Outputs

Blockchain
• Technical Vision
• Non Functional Requirements

Business
• Valid Use Cases
• Future State Vision
• Stakeholder Analysis

GRC
Guidance on:
• Applicable government-wide and agency specific policy and compliance requirements.

Getting Started

BLOCKCHAIN PLAYBOOK:

https://blockchain-working-group.github.io/blockchain-playbook/

PREP WITH THE BLOCKCHAIN PRIMER:

https://www.actiac.org/act-iac-white-paper-enabling-blockchain-innovation-us-federal-government

2 READINESS
Prepare the organization for the use case

Inputs

Blockchain
• Technical Vision
• Non Functional Requirements

Business
• Valid Use Cases
• Future State Vision
• Stakeholder Analysis

GRC
• Guidance on:
• Applicable government-wide and agency specific policy and compliance requirements.

Key Activities

Management	• Define initial schedule, budget and governance
People	• Identify the key end users and DLT network participants
Process	• Define scope • Validate impact and develop target ConOps
Technology	• Assess readiness for risks related to nascent DLT technology, security and decentralization
Acquisition	• Establish Consensus on DLT Governance Model • Baseline target KPIs

Key Outcomes

Engaged	Defined	Planned
• Blockchain SMEs, PM, EA • Network Participants • Cross-Functional Team	• Governance Model • Key Performance Indicators • Business Capabilities	• Change Management • Mitigation for top blockchain risks

Outputs

Blockchain
• Enterprise Arch. Guidelines
• KPI Baselines

Business
• Target State Concept of Operation
• Scope
• Procurement Plan
• Validated AS-IS Process Maps

GRC
• Initial Cost & Schedule Estimates
• Change Management Plan
• Governance Model
• Risk Management Plan

3 SELECTION
Enabling the organization to operationalize the use case

Inputs

Blockchain
• Enterprise Architecture Guidelines
• KPI Baselines

Business
• Target State Concept of Operation
• Scope
• Procurement Plan
• Validated AS-IS Process Maps

GRC
• Initial Cost & Schedule Estimates
• Change Management Plan
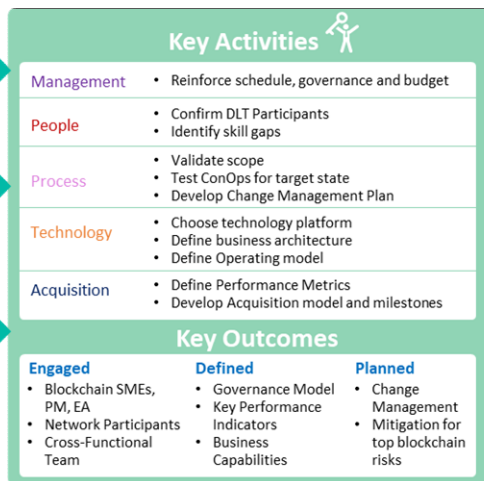• Governance Model
• Risk Management Plan

Key Activities

Management	• Reinforce schedule, governance and budget
People	• Confirm DLT Participants • Identify skill gaps
Process	• Validate scope • Test ConOps for target state • Develop Change Management Plan
Technology	• Choose technology platform • Define business architecture • Define Operating model
Acquisition	• Define Performance Metrics • Develop Acquisition model and milestones

Key Outcomes

Engaged	Defined	Planned
• Blockchain SMEs, PM, EA • Network Participants • Cross-Functional Team	• Governance Model • Key Performance Indicators • Business Capabilities	• Change Management • Mitigation for top blockchain risks

Outputs

Blockchain
• Conceptual Platform Architecture
• Operational Model
• DLT Network Basics

Business
• Business Architecture
• Resource Plan
• Acquisition Milestones
• Success Criteria

GRC
• Revised Cost & schedule estimate
• Acquisition Plan
• Operational Model