INSTITUTIONAL SETTLEMENT

THE SETTLEMENT BLUEPRINT

Modern settlement.
Your existing infrastructure.

September 2026

FRAME

The settlement layer
for modern finance.

THE OPERATING CASE

A practical route to modern settlement

For the people responsible for payments, treasury and the systems behind them.

A settlement project crosses several teams before it crosses a network. Payments defines the service, treasury supplies the liquidity, technology connects the systems, and risk establishes the conditions under which money can move.

This report gives that buying group a shared way to make the decision. It connects current institutional developments to the questions that determine an implementation: what changes, what stays, who authorizes release, and how the outcome is recorded.

03 The operating case

08 Choose a workflow

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16 Build the business case

18 Resolve the boundaries

19 Price the complete flow

20 Plan the evaluation

21 Make the next decision

THE OPERATING CASE

The decision in brief

Modernize a measurable settlement workflow around the infrastructure you already operate.

New payment mechanisms are increasing the choices available to institutions. Turning those choices into a reliable service requires a common operating discipline across funding, permissions, execution, exceptions and reconciliation.

The strongest first project has a named owner and a specific outcome. It might reduce the balances needed for an intragroup cycle, apply the same release policy across payment routes, or give a counterparty a record it can verify. Each starts with a workflow the institution already understands.

Measure completion

Track when the recipient can use the funds and when both sides can reconcile the transaction. Network arrival is one milestone in that sequence.

Retain execution control

Identify the ledgers, accounts, keys and payment platforms that will remain responsible for moving and recording funds.

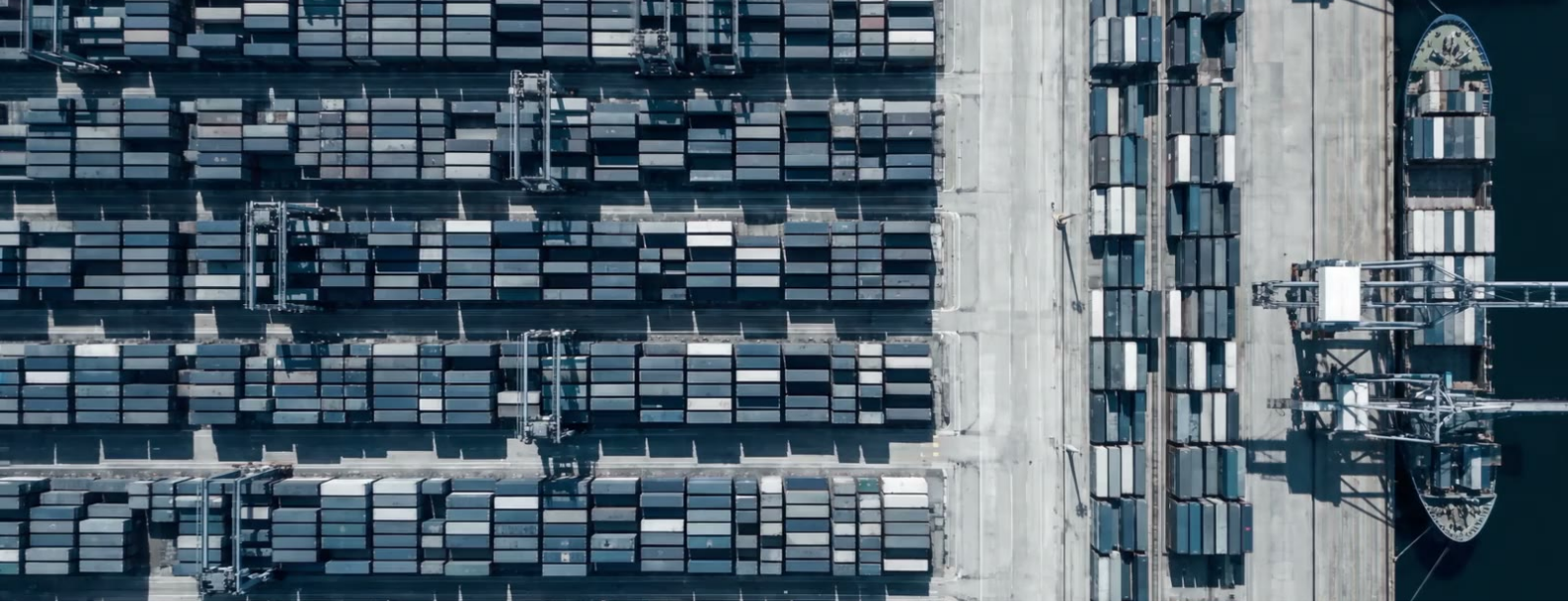
Put controls at release

Agree the policy decision, authorization and evidence required before execution. Define what happens when a check fails or a system is unavailable.

Prove the business case

Compare current and proposed costs for the same flow. Count usable funding released and observed operating effort, with all delivery costs included.

A good first outcome is a workflow your teams can operate, measure and explain.



THE OPERATING CASE

Measure the whole settlement journey

The relevant clock stops when the funds are usable and the records agree.

A payment can reach the receiving institution quickly and still require work before the beneficiary can use the money. Local processing, account restrictions, operating hours and data quality all sit inside the customer experience.

That distinction should shape an evaluation. Improving one system response is useful only when the team can show how it changes the complete workflow. Define the starting instruction, the cash movement and the accounting record before choosing a performance measure.

Instruction accepted
The receiving system has accepted a valid instruction. Acceptance alone does not establish that a beneficiary has been credited.

Funds available
The relevant account or instrument can be used under the agreed service and legal terms.

Records reconciled
The parties can connect the instruction, execution response and ledger record, including any exception.

Use the same definition of completion in the business case, service design and acceptance test.

Sources: [1] Swift; [2] Financial Stability Board. See references.

Arrival and completion are different measures

A useful speed benchmark identifies both its population and its endpoint.

EXHIBIT 01 / END-TO-END PERFORMANCE

Within one hour: bank arrival versus beneficiary credit

Q1 2025 wholesale payments of at least USD 100,000. FSB / Swift.
Credited measures exclude forward-dated payments; speed calculations exclude non-business days.

The FSB's latest annual monitoring report, published in October 2025, shows the difference between network delivery and beneficiary credit. In its Q1 2025 wholesale sample, 88.5% completed the Swift inflight leg within one hour; 54.6% were credited to the beneficiary within one hour.

The G20 target is for 75% of wholesale payments to be credited within one hour by end-2027, with the remainder within one business day. Swift's separate Spotlight on Speed study examines why receiving-bank processing can delay the last part of the journey.

For your own flow, timestamp instruction acceptance, each release decision, the execution response, beneficiary availability and reconciliation. Compare a representative set of normal and exception cases, including weekends and the relevant local operating windows.

Choose the endpoint first
A treasury availability target and a payment-message delivery target answer different questions.

Measure the difficult cases
Include incomplete data, changed instructions, held funds, unavailable services and ambiguous responses in the sample.

Ask where the remaining time is spent before promising that a new route will remove it.

Sources: [1] Swift; [2] Financial Stability Board; [8] Financial Stability Board. See references.

THE OPERATING CASE

Designing connections between systems

Public-sector programmes are testing how money, assets and controls work together.

Institutional programmes are exploring several ways to coordinate settlement. Some connect an existing central-bank-money system with an external asset platform; others test tokenized commercial-bank and central-bank money together.

Agorá's testing shows the operating work that sits around the technology. A payment mechanism needs defined authority, participant procedures and recovery arrangements. These should be part of the design from the start.

Project Agorá: controlled real-value testing
July 2026 testing covered 17 scenarios using tokenized deposits and reserves. Contractual responsibilities, runbooks, maker-checker controls and fallback procedures accompanied the prototype's payment mechanisms.

Bank of England: synchronisation design
The 2026 lab supports a live capability targeted for 2028: coordinating RT2 transfers in central bank money with movements on external ledgers.

ECB Pontes: connecting cash and asset systems
Pontes is designed to connect market DLT platforms with TARGET Services for central-bank-money settlement. Its initial launch is planned for Q3 2026.

For your workflow, identify the accounts that change, the connection that coordinates them and the system that completes settlement.

Sources: [3] Bank for International Settlements; [4] Bank of England; [5] European Central Bank. See references.

THE OPERATING CASE

Two practical ways to connect bank money

A corporate cash-management adoption and a live interbank transaction show where coordination sits.

The operating arrangements matter as much as the technology label. These two bank-reported examples retain defined account and execution systems while adding a mechanism to coordinate movement.

HSBC and Standard Chartered

August 2026

HSBC announced the first live cross-border tokenized-deposit transaction on Swift's blockchain-based ledger on 20 August 2026. Each bank recorded obligations on its own tokenized-deposit infrastructure. Swift matched and netted them before final settlement through existing systems.

The design connects separately operated bank platforms rather than requiring a single replacement account system. For a buyer, the next questions concern the participating accounts, settlement timing and responsibilities when a step cannot complete.

Mitsubishi and J.P. Morgan

March 2026

On 31 March 2026, J.P. Morgan reported Mitsubishi's adoption of programmable intragroup USD transfers across Singapore, London and New York, using Blockchain Deposit Accounts.

Treasury can define conditions that trigger near-real-time transfers between those accounts. The operational benefit is the ability to respond to cash needs across the named locations without manually initiating each qualifying transfer. Evaluate the funding and account arrangement behind that service, as well as the payment trigger.

Define the coordination you need, then examine the bank accounts, controls and settlement arrangements that make it usable.

Sources: [9] HSBC; [7] J.P. Morgan Payments. See references.

CHOOSE A WORKFLOW

Choose the money and the route together

The form of money, its issuer and its redemption terms affect the workflow.

An institution may use ordinary bank accounts, tokenized deposits, stablecoins or central-bank money in different contexts. Similar-looking interfaces can sit on different claims, access rules and operating arrangements.

Document what the receiver will actually hold and how it becomes spendable for the next purpose. A transfer that creates a conversion or redemption step may change both the cost and the time to completion.

Settlement form	Questions to resolve
Commercial-bank account balances	Which legal entities hold the accounts? Which bank executes each leg? What are the access, cutoff and reconciliation arrangements?
Tokenized commercial-bank deposits	What is the claim on the issuing bank? Who can hold or transfer it? How does it convert to an ordinary account balance?
Stablecoins	Who is the issuer? What supports redemption, through which counterparty, in what currency and under what eligibility conditions?
Central-bank money	Which participants have access? How is the cash movement coordinated with any separately operated asset or payment system?

Make the dependency visible
Include any funding, FX, redemption and off-ramp step in the workflow diagram and cost model.

A faster transfer between two endpoints is useful when the resulting balance is usable for the recipient.

Sources: [6] Bank for International Settlements, Annual Economic Report 2026, Chapter III. See references.

CHOOSE A WORKFLOW

Start where a team owns the outcome

Choose one flow with an observable problem and an accountable sponsor.

A first workflow should be narrow enough to measure and important enough for someone to fund. Define the participating legal entities, currency or asset, systems, normal volume and recurring exception before discussing a wider rollout.

Bank settlement

Coordinate a defined corridor through configured bank connections. Establish each institution's endpoints, execution authority, control requirements and reconciliation records.

Group treasury

Examine recurring obligations between group entities. Test whether eligible obligations can be netted and whether the resulting funding is usable at the right place and time.

Payment controls

Apply consistent release conditions to a payment workflow. Measure manual intervention, policy exceptions and the time required to explain a release decision.

Issuer and counterparty evidence

Define the transaction record another party needs to verify. Agree the disclosed fields, trusted signing keys and relationship to source-system records.

Write the desired improvement in the language of the owner: usable funding, fewer exceptions, clearer controls or faster reconciliation.

YOUR EXISTING INFRASTRUCTURE

Modern settlement. Your existing infrastructure.

Build the workflow around the systems your institution already trusts.

The core ledger, payment platform and treasury system embody years of operating controls and business knowledge. A settlement project should identify their continuing responsibilities explicitly.

Frame is software that coordinates settlement workflows, applies policy checks and produces verifiable evidence. Your institution retains its books, execution systems and signing keys. Your banks and payment providers execute through the configured arrangements.

Cross-bank corridors work through configured connections. Scope the endpoints, controls and execution responsibilities at both institutions before treating a particular corridor as available.

Keep the authority clear
Name the system that authorizes, the system that executes and the record that establishes the resulting balance.

Connect the handoffs
Carry a common instruction reference and a consistent understanding of states through the workflow.

Modernization becomes easier to assess when each existing system has a clear role before and after the change.

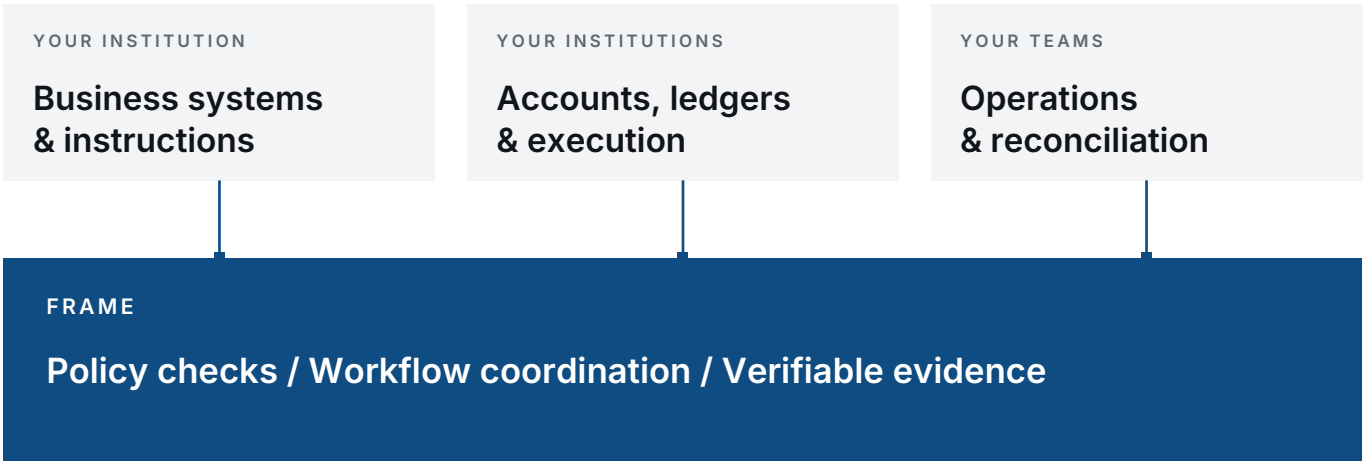
YOUR EXISTING INFRASTRUCTURE

One workflow, clear responsibilities

Frame coordinates the steps. Your institutions operate the money and the books.

EXHIBIT 02 / RESPONSIBILITY MAP

The execution systems stay in place



Start from a valid instruction in the customer platform. The configured policy and authorization requirements govern release. Customer systems then execute and report their responses. Frame records the workflow and supplies signed evidence that can be checked within its agreed scope.

For the chosen flow, agree the endpoints, data contract and execution arrangements. Carry the same instruction reference through each handoff so the operating teams can establish what happened.

Instruction and approval
Your business systems define the transaction and the authority to initiate it.

Checks and coordination
Frame applies configured release requirements and coordinates the workflow.

Execution and accounting
Your banks, payment systems and ledgers execute and record the money movement.

Evidence and reconciliation
Frame supplies the workflow record and signed evidence; the institution reconciles it with its execution and ledger records.

Keep customer execution and accounting visible in every architecture discussion.

YOUR EXISTING INFRASTRUCTURE

Four products around the workflow

Use the capabilities the flow needs, with a shared understanding of the result.

The product roles are easiest to evaluate against a real instruction, an actual control decision and the record the receiving team will need. Use the same example across a demonstration so that the handoffs remain visible.

Frame Settle

Coordinates instructions across configured systems and records the reported outcomes. Define the execution endpoints and the response expected from each participant.

Frame Rules

Applies policy at the release step. Your risk management controls supply signed verdicts; a failed check stops release and an unavailable required gate pauses settlement.

Frame Proof

Produces signed records that can be verified independently against trusted keys. Agree what is disclosed and how the record relates to the source systems.

Frame Netting

Computes residual obligations for an eligible set while retaining the gross obligations and arithmetic. Legal eligibility and funding arrangements belong in the design.

Evaluate the complete handoff from instruction to evidence, including a refusal and an unavailable service.

YOUR EXISTING INFRASTRUCTURE

Make the release decision explicit

A control is useful when its authority, inputs and failure behavior are understood.

EXHIBIT 03 / RELEASE POLICY

Three outcomes to agree before implementation

PROCEED	STOP	PAUSE
Required conditions are satisfied	A required check fails	A required gate is unavailable

A release policy can incorporate transaction limits, approvals, risk decisions and other conditions required for the workflow. Agree which system supplies each input, how that input is authenticated and how long it remains valid.

A risk-management decision and its enforcement are different responsibilities. The source control determines its verdict; the release step acts on that verdict under the configured policy. Preserve enough context to explain the result later.

Conditions satisfied
The workflow may proceed under the configured authorization and policy.

Check failed
Stop release. Record the decision and route the exception to its owner.

Required gate unavailable
Pause. Make the outstanding dependency visible and define the recovery procedure.

Agree who can change a policy, who can authorize an exception and how each decision will be recorded.

Design for the response you cannot assume

Ambiguous outcomes need a controlled operating procedure.

An execution timeout can mean that nothing happened, that a request is still processing, or that a response was lost. Retrying without establishing the state can create a second payment. Every design needs a way to distinguish a request from an observed outcome.

The operating procedure should connect an exception to an owner, a source of truth and a permitted next action. Demonstrate it with the systems that will participate in the actual workflow.

No definitive execution response
Reconcile with the executing system before deciding whether a retry is safe. Preserve the original instruction reference.

One leg reports completion
Identify the state of every remaining obligation and the approved recovery action. Do not infer completion from a single response.

The evidence and ledger differ
Retain the underlying records, investigate the discrepancy and restrict subsequent action according to the agreed control procedure.

Include uncertain and interrupted outcomes in acceptance tests, alongside the successful path.

YOUR EXISTING INFRASTRUCTURE

Give the next team a record it can use

A signed record is most useful when its meaning and trust basis are clear.

An operations team may need to reconcile the movement. A counterparty may need to check what was reported. An auditor may need to connect a release decision to the policy and authority in force at that time. Define these needs before choosing the evidence fields.

Frame Proof supports independent checking of signed records against trusted keys. The result establishes the integrity and signing origin of the supplied record within its disclosure scope. Reconcile the reported outcome with the executing system and the legal terms of settlement.

Record element	Purpose
Instruction and participant references	Connect the evidence to the transaction and the participating systems.
Policy and authorization context	Explain the conditions under which release was permitted or refused.
Execution responses and timestamps	Distinguish what was requested from what each executing system reported.
Signing and verification information	Establish which key signed the record and how the receiver trusts it.
Gross obligations and net calculation, where used	Allow the residual amount to be traced back to the eligible obligation set.

Ask a second team to verify a sample record using the documentation and trust material it would receive in practice.

Build the case from your own flow

Use observed costs and explicit assumptions for the same population of transactions.

EXHIBIT 04 / A TRANSPARENT BUSINESS CASE

Separate the balance released from its annual benefit

USABLE BALANCE RELEASED

Current required funding - proposed required funding

Annual funding benefit = released balance × annual funding rate × time fraction

Measure the current funding tied to the workflow, the fees paid, the cost of handling exceptions and the effort required for reconciliation. Then model the proposed process with its implementation and recurring costs included.

A reduction in obligations does not automatically release the same amount of usable cash. Test account locations, currencies, cutoffs, minimum balances and legal restrictions. Credit only the funding that the treasury team can actually redeploy.

Separate cash released from annual funding-cost benefit. One is a balance-sheet amount; the other depends on a funding rate and the period for which the balance would otherwise remain committed.

Separate capacity from cash savings. Hours avoided may free a team to do more work without reducing payroll; record an actual cost saving only when spending falls.

Funding benefit
Usable balance released multiplied by the annual funding rate and the proportion of the year affected.

Operating benefit
Observed hours avoided multiplied by the fully loaded hourly cost, plus validated fee changes.

Net recurring benefit
Funding and operating benefits, less recurring service and control costs. Show implementation costs separately.

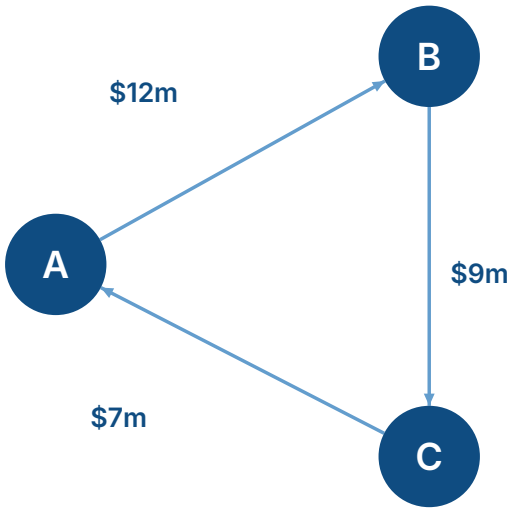
Present a range with the assumptions visible. Keep industry benchmarks out of a customer savings forecast.

Trace the net amount back to the gross obligations

A small example shows the arithmetic and the questions that remain.

EXHIBIT 05 / ILLUSTRATIVE ELIGIBLE OBLIGATIONS

From $28m gross to $5m in residual transfers



NET POSITIONS

A pays	$5m
B receives	$3m
C receives	$2m

Residual transfers: A pays B $3m and C $2m.

Assume three participants have eligible obligations in one currency at a single agreed cutoff. A owes B $12 million, B owes C $9 million, and C owes A $7 million. The gross obligations total $28 million.

The net positions are A paying $5 million, B receiving $3 million and C receiving $2 million. A could discharge the agreed net positions with two transfers totaling $5 million. Under this assumed arrangement, $23 million of the original gross amount does not need to move.

Actual funding benefit depends on the legal netting arrangement, settlement design, account balances, timing and the ability to use the resulting liquidity. Preserve the gross obligations and the calculation so the participants can reconcile the result.

Illustrative eligible obligations in one currency at one cutoff. Funding released must be established from the actual accounts and arrangements.

Resolve the operating and legal boundaries

Make the parties, claims and authorities part of the design.

A settlement architecture needs legal and risk review for the actual entities, instruments and jurisdictions involved. A technology choice does not settle questions about access, authority, finality, netting enforceability or redemption.

Bring the relevant teams into the workflow discussion early enough to change the design. Tie each requirement to a system control, a contractual arrangement or an operating procedure, with a named owner.

Parties and money
Identify the legal entities, account holders, instrument issuers and execution providers. Establish the claim the receiver will hold.

Authority and finality
Define who can instruct and approve each leg, and the point at which the relevant legal arrangements treat an obligation as discharged.

Netting and liquidity
Confirm the eligible obligations, enforceability, treatment of participant failure and location of usable funding.

Information and evidence
Agree what counterparties may see, who can access operational records and how evidence is retained for the relevant purpose.

Use the review to resolve a specific workflow, with the institution's legal and control owners.

Sources: [6] Bank for International Settlements, Annual Economic Report 2026, Chapter III. See references.

PRICE THE COMPLETE FLOW

Price the complete operating model

Compare like-for-like flows and include the work around execution.

Headline transaction pricing can omit the resources needed to fund, operate and reconcile the service. Compare proposals against the same currency, volumes, counterparties, operating windows and exception assumptions.

Separate one-time delivery work from recurring costs. A lower quoted payment fee can be outweighed by funding, conversion, infrastructure or control requirements elsewhere in the flow.

Cost component	What to establish
Implementation and change	Integration, testing, legal work, control design, training and parallel operation.
Recurring technology and service	Platform or usage charges, infrastructure, support and maintenance responsibilities.
Execution and conversion	Bank or provider charges, FX, redemption and any required route to the final usable balance.
Funding	Committed balances, collateral or other liquidity needed at each point in the workflow.
Operations and evidence	Exception handling, reconciliation, control review and records administration.
Exit and continuity	Portability of records, transition effort and operating procedures if a service is unavailable.

Ask for the assumptions behind the quote and the cost of an exception, not just the cost of a successful transaction.

Run an evaluation with a decision at the end

Set the evidence and acceptance criteria before the implementation begins.

The aim of an evaluation is to establish whether a defined workflow is worth operating under agreed conditions. Keep the participant set and scope small enough that a failed assumption can be understood and corrected.

Progress depends on the participating institutions, endpoints, controls and approvals. Agree milestones around evidence and readiness rather than assuming a universal go-live timetable.

1 / Define

Name the owner, flow, baseline, participating systems and decision criteria. Record the dependencies that could prevent the evaluation.

2 / Connect and demonstrate

Validate the interfaces and data contract. Follow the same instruction through control, execution response and evidence.

3 / Rehearse operations

Run the exception cases, reconciliation, key and policy procedures, and the handoff to the operating team.

4 / Decide

Compare the observed outcome with the agreed baseline. Proceed, revise the design or stop, with the evidence and owners recorded.

A successful evaluation produces an operating decision and a documented next step.

MAKE THE NEXT DECISION

Test the workflow under real operating conditions

A useful demonstration includes the cases the operating team will have to resolve.

Select tests with the owners of the executing systems and control functions. For every case, record the expected state, the observed record and the person who can authorize recovery.

Test	Evidence to request
Valid instruction	The same transaction reference connects the instruction, decision, execution responses and final record.
Policy refusal	Release is stopped and the decision can be explained from the applicable inputs.
Unavailable required control	The flow pauses; the missing dependency and recovery owner are clear.
Duplicate or repeated request	The permitted retry behavior is demonstrated against the executing system.
Ambiguous execution response	The operating team can establish the state without assuming success or repeating a payment.
Changed instruction or expired approval	The revised information is subject to the relevant authorization and policy process.
Independent evidence check	A receiving team verifies a sample record against trusted keys and its source-system references.
Reconciliation and continuity	The teams resolve an exception and demonstrate the procedure for an unavailable dependency.

Record the expected state, observed result and recovery authority for each test in the participating systems.

PLAN THE EVALUATION

Give every handoff an owner

The delivery plan should be as explicit about people as it is about systems.

A workflow often spans a payments owner, treasury, technology, operations, risk and legal. The sponsor needs a single view of the unresolved decisions and the evidence required to close them.

Start with the team that experiences the problem. Assign a technical and operating counterpart, then involve control and legal owners at the points where their decisions affect the design.

Business and treasury

Own the use case, baseline, funding assumptions and economic decision.

Technology and execution providers

Own endpoint readiness, data contracts, authority boundaries and response semantics.

Operations

Own reconciliation, exception handling, escalation and continuity procedures.

Risk and legal

Own policy requirements, approvals, information boundaries and the applicable legal arrangements.

Before a wider rollout, confirm that the team receiving the service can operate and explain it without the project team.

MAKE THE NEXT DECISION

Define your first workflow

Use this page to prepare a discussion with the teams who own it.

01 **The business outcome and the person responsible for it**

02 **The participating entities, currency or asset, and counterparties**

03 **The systems, accounts and execution providers that remain in place**

04 **The current volume, funding, fees and operating effort**

05 **The release controls and the exceptions that matter most**

06 **The evidence needed to proceed, and who will make the decision**

Bring a representative flow and its current operating constraints. A well-defined starting point makes the next conversation useful.

FRAME

THE NEXT CONVERSATION

Bring us one settlement workflow

We will work through the systems, controls and evidence needed to evaluate it.

Frame is the settlement layer for modern finance. It helps institutions modernize settlement using their existing infrastructure, with policy checks before release and verifiable records of the reported outcome.

Start with a bank corridor, a recurring treasury cycle, a payment-control requirement or an evidence need. The discussion should establish the participating systems, the desired improvement and the criteria for a useful evaluation.

See the platform
Explore Frame Settle, Frame Rules, Frame Proof and Frame Netting at frame.xyz.

Discuss the workflow
Use the Blueprint enquiry at frame.xyz/blueprint/#contact or email info@frame.xyz.

frame.xyz/blueprint/#contact

info@frame.xyz

MAKE THE NEXT DECISION

Sources and further reading

Primary institutional sources for the market context and operating models discussed in this report.

Market observations and institutional initiatives are cited at the point of use. Follow these links for the original data, operating models and publication details.

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