

THE TRANSACTION MARKETPLACE

Dynamic Transaction Competition and the Future of Transaction Allocation

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Patents Pending

Chris Buker
Founder, Decyra

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1. The Missing Layer

The payments industry has spent decades optimizing how transactions are executed. Networks expanded acceptance, issuers developed sophisticated portfolio and rewards strategies, Payment Service Providers improved authorization and checkout performance, digital wallets reduced friction, and orchestration platforms introduced intelligence across increasingly complex payment stacks. The result is an ecosystem containing extraordinary sophistication across nearly every stage of payment execution.

Yet a different economic question remains comparatively underdeveloped: when multiple ecosystem participants have an economic incentive to win the same transaction, what mechanism determines how that transaction opportunity is allocated? Today, much of that allocation is determined before payment execution begins. A consumer selects a payment instrument based on habit, remembered benefits, wallet position, financing availability, loyalty preference, or another preexisting factor. Once that selection occurs, sophisticated infrastructure primarily optimizes how the transaction is executed.

Consider a consumer preparing to make a \$2,000 travel purchase while holding several eligible payment instruments. One issuer may provide a standing travel reward, another may offer financing, and a third may have a strategic objective to capture more travel spend from that customer. The merchant may have its own reasons to improve conversion or customer economics. Each participant can value the same transaction differently, but those interests generally remain fragmented rather than coordinated around the individual opportunity.

Decyra explores what happens if that transaction becomes contestable. Rather than asking only which existing payment option provides the strongest value, eligible participants can evaluate the individual opportunity and determine whether winning it justifies a different economic proposition. An issuer could enhance the economic proposition it is willing to provide through additional rewards, a transaction-specific credit, financing, or another permitted benefit, while another participant could independently respond according to its own economics. The transaction itself becomes an input into the value participants are willing to provide.

Importantly, transaction-specific economics do not require a provider to make unconstrained changes to its underlying financial product every time a transaction appears. Participating providers can establish proposition types, eligibility criteria, economic limits, profitability requirements, budgets, exposure constraints, and other boundaries in advance. Their systems can then determine which permitted proposition, if any, they are willing to expose when an eligible Transaction Opportunity emerges. The economics can therefore become responsive to the individual transaction while remaining within authority controlled by the provider.

The innovation is not rewards, financing, loyalty, personalization, or real-time decisioning. Those capabilities already exist throughout the payments ecosystem. It is creating a mechanism through which independently motivated participants can express transaction-specific economic value around the same opportunity before payment selection is finalized. Decyra calls this

Dynamic Transaction Competition. The environment it creates is the **Transaction Marketplace**, coordinated through the **Decyra Decision Layer** to influence **Transaction Allocation**.

Payment infrastructure determines how a transaction is executed. Decyra explores how the economic opportunity represented by that transaction is allocated.

2. Dynamic Transaction Competition in an Agentic World

Commerce is beginning to move from systems that assist consumers toward systems capable of acting on their behalf. AI agents can increasingly discover products, compare alternatives, interpret preferences, and initiate transactions within defined permissions. This changes the environment in which payment preference operates because an agent does not need to rely on habit, memory, or wallet position. It can evaluate available economic options programmatically for each transaction.

For issuers, this could weaken the durability of traditional top-of-wallet advantage. An agent instructed to maximize economic value can evaluate eligible payment instruments according to the consumer's objectives rather than simply selecting the card used most often. The competitive challenge may therefore shift from securing persistent preference toward remaining economically relevant when an individual transaction decision occurs. In that environment, transaction-specific economics become increasingly important.

Agentic commerce does not, however, eliminate the need for Decyra. An agent can become exceptionally effective at selecting among the economic propositions available to it, but that does not inherently make those propositions responsive to the transaction. Dynamic Transaction Competition introduces the supply-side mechanism through which eligible participants can determine how much they value the opportunity and, when economically justified, improve the proposition they are willing to provide. The agent makes selection programmable, while Decyra makes competition for that selection programmable.

This creates the potential for increasingly programmable demand and supply. A consumer agent can represent preferences, permissions, and objectives, while issuers and other economic providers can programmatically represent how much they value particular Transaction Opportunities. Providers can establish the economic authority within which their systems are permitted to respond, including eligible proposition types, profitability requirements, customer rules, budgets, exposure limits, and other institutional constraints. Their systems can then determine which permitted proposition, if any, should be exposed when an eligible opportunity appears.

This distinction is important because economically programmable commerce does not require institutions to surrender economic control to autonomous systems. Consumers define the authority under which agents can act on their behalf, while economic providers define the authority under which their systems can compete. Decyra coordinates the interaction between

those independently governed systems within merchant, consumer, provider, regulatory, and technical constraints. Transaction Allocation can then reflect both consumer intent and dynamic economic competition.

The strategic shift therefore extends beyond top of wallet or even top of agent. If economic propositions can change transaction by transaction, persistent preference becomes less decisive. Participants can compete selectively for the individual opportunities that matter without increasing economics indiscriminately across every transaction.

Agentic commerce makes the buyer programmable. Dynamic Transaction Competition makes the market responsive.

3. The Transaction Marketplace and Decyra Model

Dynamic Transaction Competition becomes actionable through the Transaction Marketplace. Decyra is envisioned as an API-driven decision layer positioned between commerce intent and payment execution. It does not process payments, issue payment instruments, manufacture rewards, originate financing, or replace infrastructure responsible for authorization and settlement. Its role is to coordinate economic competition before an eligible transaction path enters execution and preserve enough marketplace state for the resulting economic proposition to remain connected to the transaction outcome.

The process begins when sufficiently developed commerce intent creates a Transaction Opportunity. Decyra establishes the eligible competitive set using merchant acceptance, consumer permissions, payment availability, financing eligibility, program rules, and other applicable constraints. Not every transaction needs to enter competition. Higher-value or behaviorally uncertain opportunities may justify intervention, while routine transactions can proceed normally when competition is unlikely to create sufficient incremental value.

Eligible participants then independently determine how much they value the opportunity. An issuer may maintain its standing proposition, expose an enhanced transaction-specific proposition within economic authority it has established in advance, or decline to compete based on its own economics. Other economic providers can respond according to their objectives. Participants retain their proprietary decisioning and expose only the proposition they are willing to make, allowing Decyra to coordinate competition without owning their underlying economic models.

The Decyra Decision Layer evaluates those propositions within the framework governing the transaction. Consumer preferences and permissions remain fundamental constraints, while merchant objectives, financing terms, economic value, and other permitted factors may influence the outcome. Decyra can return a recommendation for consumer confirmation, ranked propositions for an agent, or an allocation when sufficient authority has been delegated.

The selected proposition introduces an important operational requirement. If a consumer or authorized agent changes payment behavior because a provider has offered incremental

economic value, that value must remain capable of being honored after the decision is made. The economic proposition therefore may need to become a durable commitment associated with the Transaction Opportunity before or as the selected payment path enters execution.

This creates an important distinction between **economic commitment** and **economic fulfillment**. A provider may be capable of determining at transaction speed that it is willing to provide additional rewards, a statement credit, financing value, merchant-funded economics, or another permitted benefit without simultaneously completing every downstream process required to deliver that value. The real-time requirement may therefore apply primarily to the economic commitment, while fulfillment can occur through existing provider systems after the transaction progresses through existing payment infrastructure.

Real-time economic commitment does not necessarily require real-time economic fulfillment.

Consider an issuer that determines a \$2,000 travel transaction justifies a \$75 statement credit. The issuer does not necessarily need to reduce the merchant's purchase price, alter payment settlement, or post the \$75 credit during checkout. Its system can commit to the permitted proposition when it wins the Transaction Allocation, while the \$2,000 payment proceeds normally through the existing PSP, network, and issuer infrastructure. Once the executed transaction is matched to the commitment and satisfies the applicable conditions, the issuer's existing downstream systems can fulfill the \$75 statement credit.

This preserves the central architectural boundary. Existing payment infrastructure remains responsible for authentication, authorization, routing, processing, capture, and settlement. Existing provider systems remain responsible for rewards, credits, financing, loyalty, servicing, and other underlying economic products wherever practical. Decyra coordinates the competitive decision and preserves enough marketplace state to connect the selected economic commitment to the transaction and its eventual outcome.

This does not mean Decyra needs visibility into every payment message or becomes the provider's financial ledger. It requires enough transaction continuity to determine whether the payment associated with the commitment occurred, whether applicable conditions were satisfied, and whether the resulting economic benefit reached an appropriate outcome. A PSP may provide that continuity by preserving or mapping a reference between the pre-execution Transaction Opportunity and downstream transaction events, although the appropriate technical mechanism remains a hypothesis requiring validation.

The distinction between fulfillment, reconciliation, and attribution is equally important. Fulfillment delivers the economic benefit. Reconciliation establishes whether the expected marketplace lifecycle actually occurred, including whether the commitment corresponded to the executed transaction and reached an appropriate final state. Attribution then asks whether Decyra materially influenced Transaction Allocation or another commercial outcome relative to what would likely have occurred without the competitive intervention.

The architecture can therefore be summarized as:

Commerce Intent → Transaction Opportunity → Eligibility → Dynamic Transaction Competition → Decyra Decision Layer → Transaction Allocation → Economic Commitment → Existing Payment Execution → Provider Fulfillment & Reconciliation → Attribution & Learning

This architecture remains a hypothesis rather than an assertion that existing financial institutions can already support every required function. Transaction matching, provider fulfillment, commitment state, exposure management, servicing, latency, and integration requirements must be validated directly with participating institutions and infrastructure providers. The objective is to determine whether these functions can be connected credibly while preserving Decyra's core architectural principle.

Decyra decides before execution; existing payment infrastructure executes.

Decyra does not replace the payments stack. It creates the market immediately upstream of it while preserving enough continuity for the economic decision made there to become operationally real.

4. The Economics of Participation

Dynamic Transaction Competition only works if participation is economically rational. Issuers must have a reason to compete, consumers must receive meaningful value, merchants must see the potential for improved commercial outcomes, and PSPs need a reason to enable the capability. The economic foundation is straightforward: different participants can rationally assign different values to the same Transaction Opportunity. Decyra provides the mechanism through which those differences can become actionable.

For issuers, the motivation already exists. Rewards, category incentives, retention offers, financing, loyalty programs, and other economic levers represent substantial investments intended to influence spend and share of wallet. Decyra potentially makes that investment more precise by allowing an issuer to determine whether a specific transaction warrants incremental economics. Instead of increasing incentives broadly, an issuer can selectively compete for opportunities it values based on customer, category, portfolio, relationship, or other economic objectives.

Participation remains controlled by the provider. An issuer can establish proposition types, profitability thresholds, customer eligibility, incentive limits, budgets, exposure constraints, and other rules governing when additional economics may be deployed. Decyra does not determine how much an issuer should spend to win a transaction or require participation whenever an opportunity appears. The marketplace creates the opportunity to compete, while each participant determines independently whether competing is economically rational.

Consumers benefit when that competition creates economic propositions that would not otherwise have been available. An issuer may enhance rewards or provide a transaction-specific

credit, a financing provider may improve affordability, or another participant may contribute value specifically because the Transaction Opportunity has become contestable. Those propositions remain subject to consumer preferences and permissions rather than allowing the participant willing to spend the most to override consumer intent.

Consumer value also depends on fulfillment. If a consumer changes payment behavior because a provider commits incremental economic value, the resulting benefit must ultimately be delivered according to the conditions that influenced the decision. A compelling proposition that is not reliably honored undermines the economic exchange at the center of the marketplace. The value of Dynamic Transaction Competition therefore depends not only on the economics presented during decisioning, but on the ability of participating providers to convert selected propositions into fulfilled economic outcomes.

Merchant value requires a different standard. Moving an inevitable transaction between issuers may create issuer and consumer value without materially benefiting the merchant. The stronger opportunity occurs when competition improves conversion, financing utilization, basket expansion, loyalty, retention, or another commercial outcome. These circumstances can expand the total economic value surrounding the transaction rather than simply reallocating an existing payment between providers.

This distinction separates **value transfer from value creation**. If Issuer B spends additional economics to capture a transaction that would otherwise have gone to Issuer A, the marketplace has changed the allocation of economic value and may still create legitimate issuer and consumer benefit. If competition instead enables a transaction that would not have occurred, increases the basket, improves affordability, or creates another incremental commercial outcome, the marketplace may generate broader economic value across multiple participants. Both forms of value can matter, but they should not be described or measured as equivalent.

PSPs gain a reason to participate when Dynamic Transaction Competition improves merchant outcomes or strengthens the value of their commerce platform. PSPs increasingly compete on authorization performance, fraud management, routing, checkout optimization, financing, and other capabilities intended to improve merchant economics. Decyra potentially extends that optimization further upstream by introducing economic competition before payment selection is finalized.

The updated operating model creates another potential PSP role. A PSP may be capable of providing continuity between the pre-execution Transaction Opportunity and the transaction that subsequently authorizes and captures, allowing a selected economic commitment to be matched to the appropriate downstream payment. Whether PSP infrastructure can provide this capability with sufficient reliability, latency, and integration simplicity remains an important hypothesis requiring validation.

Decyra's preferred business model aligns compensation with incremental outcomes. If competition causes an issuer to capture transaction volume it otherwise would not have

received, Decyra could participate in a small fractional share of the economic value created. Similar models could develop around merchant conversion, financing utilization, basket expansion, or other attributable commercial outcomes. The exact commercial structure remains subject to validation, but the preferred principle is that Decyra's economics improve when the marketplace creates incremental value.

The operational model creates an important sequence underneath that monetization thesis.

Fulfillment determines whether the promised economic value was actually delivered.

Reconciliation establishes whether the selected commitment, executed transaction, qualification conditions, and resulting benefit reached an appropriate factual outcome.

Attribution then asks whether Decyra materially changed Transaction Allocation or another commercial result relative to what would likely have occurred without the competitive intervention.

Only then does the commercial model determine what Decyra is owed.

This distinction matters because operational completion and economic incrementality are not the same thing. A provider can make a transaction-specific proposition, win the allocation, execute the payment, fulfill the promised benefit, and reconcile the commitment correctly even if the consumer would have selected that provider anyway. Conversely, an apparently changed allocation does not represent a complete marketplace success if the economic proposition that influenced the consumer's decision is never honored.

Attribution therefore remains a core Decyra capability. Controlled experimentation, historical behavior, payment allocation patterns, transaction outcomes, and counterfactual methods may contribute to determining whether Decyra materially influenced an observed result. Perfect causal certainty for every transaction may not be realistic, but the methodology must become sufficiently credible for participating institutions to trust the relationship between marketplace activity and compensation.

The economic model also requires competition discipline. Not every transaction should become contestable, and participating providers should not be encouraged to increase economics indiscriminately. Transactions where additional competition is unlikely to influence behavior can proceed normally, while providers retain control over the opportunities they value and the economics they are willing to deploy. Over time, Decyra may become better at identifying where competition is likely to create enough incremental value to justify occurring at all.

The objective is not to maximize competition. It is to make competition economically productive, operationally reliable, and measurable.

5. Commercialization and Defensibility

Decyra should enter the market narrowly rather than attempt to create a universal Transaction Marketplace at launch. The strongest current hypothesis is a PSP-enabled deployment focused on higher-value transactions, a limited number of economically motivated participants, and a

deliberately constrained proposition model. PSPs already sit close to merchant configuration, transaction context, payment eligibility, checkout behavior, and execution infrastructure, while increasingly competing on their ability to improve merchant outcomes. This creates a practical environment for testing Dynamic Transaction Competition without rebuilding the payments stack.

The PSP-first model may also provide an important operational advantage. A PSP sits at a potential bridge between the Transaction Opportunity created before payment execution and the authorization, capture, and other transaction events that occur downstream. If a PSP can preserve or map the reference associated with a selected economic commitment through the payment lifecycle, it may provide the continuity required to connect Decyra's pre-execution decision to the provider systems responsible for fulfillment and reconciliation.

Whether PSP infrastructure can provide that continuity with sufficient reliability, latency, and integration simplicity remains a hypothesis rather than an established capability. PSP-first should therefore be treated as both a commercialization hypothesis and an operational integration hypothesis. Wallets, agent platforms, issuers, merchant platforms, networks, or other commerce environments could ultimately provide alternative distribution or integration points if evidence demonstrates that they offer better access to transaction intent, participant economics, consumer permissions, or downstream transaction events.

The initial objective is not transaction volume. It is proving a **Minimum Viable Marketplace** capable of completing the economic and operational loop. A Transaction Opportunity must emerge, eligible participants must value it differently, at least one participant must be willing to alter its proposition within economic authority it controls, and that competition must influence Transaction Allocation or another meaningful commercial outcome. The selected proposition must then become an economic commitment capable of remaining connected to the transaction as existing payment infrastructure executes.

The commitment must subsequently be matched to the appropriate transaction, the applicable conditions must be established, the provider must be capable of fulfilling the promised economic value through existing systems, and the resulting lifecycle must reconcile. Only after that factual outcome is established can Decyra determine whether the competitive intervention created incremental economic value and whether that value can support a sustainable commercial model.

The initial environment should therefore remain deliberately constrained. One PSP or commerce platform, a small number of participating economic providers, a defined higher-consideration transaction category, and one primary proposition type may be enough to test the mechanism. Participants can establish their own eligibility rules, economic boundaries, budgets, and response strategies, while Decyra coordinates the Transaction Opportunity, competitive process, decision framework, and resulting marketplace state.

Operational complexity should also be constrained. The first pilot does not need multi-party funding, broad proposition diversity, sophisticated rebidding after authorization failure, or every possible refund and adjustment scenario. A simple commitment model, provider-owned fulfillment, clear funding and servicing responsibility, conservative failure rules, and sufficient reconciliation to determine how each commitment closes provide a more credible starting point.

This creates a more demanding definition of validation than simply demonstrating that issuers are willing to compete. A functioning Decision Layer without participant response does not prove a market exists. Participant response without a change in Transaction Allocation does not prove economic impact. Changed allocation without a durable commitment does not prove the proposition can become operationally real. A commitment that cannot be matched, fulfilled, or reconciled does not complete the economic loop. And a successfully completed lifecycle does not establish incremental value unless attribution indicates that Decyra materially influenced the outcome.

The pilot should therefore be designed around falsifiable hypotheses. If providers do not alter propositions when presented with individual Transaction Opportunities, the core competitive thesis weakens. If propositions change but consumer or agent behavior does not, the allocation thesis weakens. If allocation changes but providers cannot operationalize the selected commitment, the operating model requires further development. If the complete lifecycle works but participant economics are unattractive, the commercial model may not be sustainable. If issuer economics work but merchants or PSPs experience little value, the distribution or use-case strategy may need to change.

The objective of the first partnership is consequently not to commit an institution to building the future Transaction Marketplace at scale. It is to create the smallest controlled environment in which **transaction-specific economic competition can be observed, operationalized, fulfilled, reconciled, and economically evaluated using existing infrastructure wherever practical.**

This raises the natural strategic question: why would an established PSP, issuer, network, wallet, or technology platform not simply build the capability itself? They can build sophisticated decisioning, and successful validation should be expected to attract incumbent competition. Decyra's defensibility cannot therefore depend on possessing an algorithm others cannot reproduce. The harder problem is creating a trusted, liquid, interoperable, multi-participant market around that technology.

That market can develop reinforcing advantages. More issuers and economic providers increase competitive density, while more PSPs, merchants, wallets, and agents create additional Transaction Opportunities. Repeated interactions can improve opportunity selection, attribution, marketplace intelligence, and understanding of which economic propositions can be operationalized reliably. Governance, participant relationships, operating history, and trust can create additional barriers that are substantially harder to replicate than software alone.

The updated operational model introduces another potential source of defensibility: **interoperability**. If providers can connect their proprietary decisioning and fulfillment capabilities to a common proposition and commitment interface rather than create separate transaction-specific mechanisms for every distribution environment, Decyra can reduce repeated integration work. Provider adapters, commitment standards, transaction-matching patterns, lifecycle mappings, reconciliation processes, and institutional operating knowledge can become part of the platform's value.

This does not mean Decyra should attempt to standardize every rewards, financing, loyalty, or accounting system. The opposite is more strategically attractive. Providers can retain their proprietary products and fulfillment infrastructure while Decyra standardizes only enough of the marketplace boundary for heterogeneous economic propositions to compete and become operationally real. **Decyra standardizes the commitment interface, not the fulfillment infrastructure.**

The combination creates several potential layers of defensibility. Participant relationships create access to economic supply. Distribution partnerships create Transaction Opportunities. Interoperability lowers the friction of connecting those sides of the market. Marketplace governance creates trust. Transaction history improves attribution and decision quality. Operational history improves understanding of how commitments can be fulfilled reliably. If those capabilities reinforce one another, the Transaction Marketplace becomes progressively more difficult to reproduce than the underlying Decision Layer.

Decyra's long-term advantage is therefore not simply the algorithm or Decision Layer. It is the network surrounding it. If participants prefer connecting once to a trusted market that reaches Transaction Opportunities across multiple environments and provides a repeatable mechanism for turning selected economic propositions into reliable commitments, the Transaction Marketplace itself becomes the strategic asset.

The technology enables Decyra. The market can make it defensible.

6. The Strategic Opportunity

The long-term Decyra opportunity rests on a sequence of developments already reshaping commerce. Commerce is becoming increasingly machine-readable as credentials, policies, preferences, and economic propositions become accessible through programmable interfaces. It is becoming machine-decidable as AI agents and automated systems evaluate those inputs and act within defined permissions. The next possibility is **economically programmable commerce**, where participants can determine dynamically how much they value individual Transaction Opportunities and encode the authority under which their systems can respond.

Economically programmable commerce does not require financial institutions or other providers to surrender economic control to autonomous systems. Providers can establish proposition types, eligibility criteria, profitability requirements, budgets, exposure limits, customer rules, and

other institutional boundaries in advance. Automated systems can then determine which permitted proposition, if any, should be exposed when an eligible Transaction Opportunity emerges. Economic strategy becomes increasingly executable through software while remaining governed by the institution responsible for it.

The same principle can operate on the demand side. Consumers can establish the permissions and preferences governing how an authorized agent acts on their behalf, while economic providers establish the authority governing how their systems compete. Decyra coordinates the interaction between those independently governed systems around the Transaction Opportunity.

Dynamic economic decisioning requires delegated authority, not delegated control.

If these conditions develop, Transaction Allocation no longer needs to remain primarily a consequence of historical preference. Consumers or their agents can programmatically represent demand, while issuers, merchants, financing providers, and other participants can programmatically represent the economics they are willing to deploy. Dynamic Transaction Competition provides the mechanism through which those independently motivated interests can interact.

The resulting economic decision must also be capable of becoming operationally real. A provider can determine that it values a Transaction Opportunity and expose a stronger proposition, but the market mechanism becomes durable only if the selected proposition can become an economic commitment, remain associated with the transaction that subsequently executes, and ultimately be fulfilled through the appropriate provider systems. Economically programmable commerce therefore requires more than responsive decisioning. It requires sufficient interoperability for those decisions to become reliable economic outcomes.

Existing payment infrastructure can continue executing the resulting transactions. Existing provider systems can continue administering rewards, credits, financing, loyalty, servicing, and other underlying economic products. Decyra's opportunity is to coordinate the economic decision before execution and preserve enough marketplace continuity for the selected commitment to reach its eventual outcome.

This creates a deliberate architectural boundary around the long-term vision. Decyra does not need to become a universal system responsible for payment processing, rewards, financing, loyalty, settlement, or every other economic function surrounding commerce. The opportunity is to coordinate independently controlled capabilities already distributed throughout the ecosystem when multiple participants have different reasons to value the same Transaction Opportunity.

The initial opportunity is deliberately narrower. Payment allocation provides an observable environment in which issuer incentives, merchant acceptance, consumer preferences, financing, and transaction economics already converge. It provides a specific environment in which Decyra can test whether participants value individual opportunities differently, whether

they are willing to respond dynamically within authority they control, whether those responses influence Transaction Allocation, and whether selected economic propositions can become reliably fulfilled commitments.

If Dynamic Transaction Competition works there, adjacent forms of economic value can gradually enter the marketplace. Merchant-funded incentives, loyalty propositions, financing, and other benefits could become additional economic inputs where evidence demonstrates that broader coordination creates incremental value. The Decision Layer could therefore evolve from coordinating payment allocation toward a broader **Transaction Decision Layer** coordinating economic competition around the transaction itself.

Expansion should remain disciplined. A new form of economic value should not enter the Transaction Marketplace merely because it can be represented during decisioning. The provider must also be capable of honoring the resulting commitment, the marketplace must be able to associate that commitment with the appropriate transaction or commercial outcome, and the resulting lifecycle must be sufficiently fulfillable, reconcilable, and serviceable to maintain institutional and consumer trust. The future Transaction Decision Layer becomes credible only when both the decision mechanism and downstream operating model support the proposition.

That future must be earned through evidence. Decyra still needs to prove that participants will dynamically alter propositions, that those changes influence allocation or commercial outcomes, that selected propositions can become durable economic commitments, that existing infrastructure can execute and fulfill those commitments reliably, that sufficient economic value remains after the cost of competition and operationalization, and that incrementality can be credibly attributed. The mechanism must also operate within acceptable latency, regulatory, privacy, governance, integration-cost, and consumer-experience boundaries.

These are not assumptions to conceal. They are the hypotheses the next phase of Decyra is designed to test.

If those hypotheses hold, the strategic opportunity becomes larger than payment optimization. Transaction Allocation becomes programmable, competition for that allocation becomes dynamic, and the market coordinating that competition can become a distinct layer between commerce intent and payment execution. As participation and interoperability develop, that layer could coordinate increasingly sophisticated economic interactions without requiring Decyra to own the underlying financial products or payment infrastructure.

The long-term strategic asset would therefore not simply be a Decision Layer. It would be the **Transaction Marketplace** surrounding it: economic providers capable of expressing transaction-specific value, distribution environments capable of creating Transaction Opportunities, common interfaces capable of making selected propositions operationally real, and accumulated market intelligence capable of improving how those opportunities are allocated.

Payments infrastructure transformed how transactions are executed.

Decyra is designed to test whether a Transaction Marketplace can transform how they are won.

Appendix A: Decyra Transaction Flow

From Commerce Intent to Payment Execution

Decyra operates between sufficiently developed commerce intent and existing payment execution. It does not replace the PSP, network, issuer, wallet, or payment rail. Its role is to coordinate economic competition before payment selection is finalized, preserve the economic commitment created by the selected proposition where applicable, and maintain enough marketplace continuity for that commitment to be connected to its eventual outcome.

The following flow represents a simplified partner-facing view of the Decyra architecture.

1. Commerce Intent

A consumer or authorized AI agent reaches a sufficiently developed purchase decision, but payment selection has not yet been finalized. The merchant, transaction value, and relevant commerce context are known.

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2. Transaction Opportunity

The transaction becomes a structured economic opportunity that eligible participants can evaluate. Decyra determines whether the opportunity warrants Dynamic Transaction Competition.

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3. Eligibility

Merchant acceptance, consumer permissions, payment availability, financing eligibility, program rules, and other applicable constraints establish the eligible competitive set.

Providers also retain control over their own economic eligibility. Customer rules, profitability thresholds, budgets, exposure limits, proposition types, and other provider-defined constraints determine whether and how each participant is authorized to compete.

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4. Dynamic Transaction Competition

Eligible participants independently determine whether and how they want to compete for the Transaction Opportunity.

Issuer A | Maintain

Standing economics remain unchanged.

Issuer B | Compete

Exposes an enhanced transaction-specific proposition because it values winning the opportunity.

Provider C | Differentiate

Contributes financing or another eligible form of economic value.

Participants retain their proprietary economics and expose only the propositions they are willing and authorized to make.

↓

5. Decyra Decision Layer

Decyra evaluates eligible propositions within the authorized decision framework. Consumer preferences and permissions remain fundamental constraints, while merchant objectives, financing terms, economic value, and other permitted factors may influence the outcome.

The highest nominal incentive does not automatically win.

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6. Transaction Allocation

Decyra returns a recommended payment path, ranked propositions, or an allocation depending on the authority granted within the commerce environment.

If the selected proposition contains incremental economic value, that proposition may now need to become a durable economic commitment.

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7. Economic Commitment

The selected provider creates or recognizes the economic commitment associated with the Transaction Opportunity.

The commitment preserves what was promised and the conditions under which the resulting benefit will be earned. The benefit does not necessarily need to be fulfilled during checkout.

Real-time economic commitment does not necessarily require real-time economic fulfillment.

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8. Existing Payment Execution

The selected payment path enters existing infrastructure for authentication, authorization, routing, processing, capture, and settlement.

Decyra does not replace these functions.

The PSP or another integration point may provide enough transaction continuity to associate the upstream economic commitment with the payment that ultimately executes.

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9. Provider Fulfillment & Reconciliation

Once the executed transaction is matched to the commitment and satisfies the applicable conditions, the provider's existing systems fulfill the economic benefit.

Rewards can remain within issuer rewards infrastructure. Statement credits can remain within issuer account systems. Financing can remain within financing infrastructure. Merchant or loyalty benefits can remain within the systems responsible for administering them.

Reconciliation establishes whether the commitment, executed transaction, qualification conditions, and resulting benefit reached the appropriate factual outcome.

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10. Attribution & Learning

Once the marketplace establishes what happened, Decyra can evaluate what its intervention caused.

Transaction outcomes support attribution, opportunity selection, marketplace intelligence, and future decision quality. Over time, this feedback can improve when Decyra initiates competition, which opportunities participants choose to pursue, and how effectively the Transaction Marketplace allocates Transaction Opportunities.

The Architectural Boundary

The simplified architecture can be expressed as:

COMMERCE INTENT → [DECYRA TRANSACTION MARKETPLACE] → PAYMENT EXECUTION → PROVIDER FULFILLMENT

Inside the Decyra Transaction Marketplace:

Transaction Opportunity → Eligibility → Dynamic Transaction Competition → Decision Layer → Transaction Allocation → Economic Commitment

Following execution:

Transaction Matching → Provider Fulfillment → Reconciliation → Attribution & Learning

The architecture separates responsibilities deliberately.

Economic providers determine what they are willing to offer.

Decyra coordinates which eligible proposition should influence Transaction Allocation.

Existing payment infrastructure executes the selected payment.

Existing provider systems fulfill the resulting economic commitment wherever practical.

Reconciliation establishes what happened. Attribution determines what Decyra caused.

Decyra does not need to own commerce intent, payment execution, or the systems responsible for administering the underlying financial products. Its proposed role is to coordinate the economic competition occurring between commerce intent and payment execution while preserving enough marketplace continuity for the selected economic proposition to become operationally real.

Decyra decides before execution; existing payment infrastructure executes.

Decyra standardizes the commitment interface, not the fulfillment infrastructure.

Appendix B: The \$2,000 Transaction

Dynamic Transaction Competition in Practice

Consider a consumer preparing to complete a \$2,000 hotel booking. The merchant's PSP is integrated with Decyra, the consumer has several eligible payment instruments, and payment selection has not yet been finalized. Under a conventional experience, the consumer or an AI agent could compare the benefits already associated with those instruments and select the strongest available option.

Decyra introduces a different possibility: before selection occurs, the transaction becomes an economic opportunity that eligible participants can independently evaluate.

The Starting Position

Assume three eligible providers can participate in the transaction.

Issuer A | Current Leader

Issuer A currently provides the strongest standing travel reward and would likely receive the transaction under the consumer's existing payment behavior.

Issuer B | Challenger

Issuer B provides a lower standing reward but has identified this customer and travel spend as strategically valuable.

Issuer C | Alternative Value

Issuer C offers an installment financing capability that could provide value if the consumer prioritizes liquidity.

Without Dynamic Transaction Competition, Issuer A is likely to win based on the propositions already available when payment selection begins.

The Transaction Becomes Contestable

Decyra establishes that all three paths satisfy merchant acceptance, consumer permissions, and applicable eligibility requirements. Each participant can then independently determine how much it values the \$2,000 Transaction Opportunity.

Issuer A determines that its standing economics are sufficient and does not increase its proposition.

Issuer B reaches a different conclusion. Based on its own customer, portfolio, and transaction economics, it determines that winning the opportunity justifies additional investment. Issuer B has already established the economic authority under which its systems can respond to eligible Transaction Opportunities. The \$2,000 hotel purchase falls within those boundaries.

For illustration, assume Issuer B exposes a **\$75 statement credit** if the qualifying hotel transaction is completed using its eligible payment instrument.

Issuer C determines that installment financing remains its strongest economic proposition.

The competitive set has now changed:

Issuer A → Standing travel reward

Issuer B → \$75 transaction-specific statement credit

Issuer C → Installment financing proposition

Decyra did not determine what each participant should offer. Each participant independently decided whether and how to compete within economic authority it controls.

The Decyra Decision

Assume the consumer has instructed the commerce experience to maximize economic value while avoiding financing. Issuer C remains eligible, but its financing proposition does not satisfy the consumer's preference.

The Decyra Decision Layer evaluates the remaining propositions and determines that Issuer B's \$75 statement credit now provides the strongest permitted outcome.

Issuer B wins the Transaction Allocation.

At this point, however, the \$75 proposition cannot simply disappear when the payment enters execution. The consumer has changed payment behavior based on an economic promise. That promise must become sufficiently durable to be honored after the decision is made.

The Economic Commitment

Once Issuer B's proposition is selected and any required consumer confirmation occurs, the \$75 statement-credit proposition becomes an economic commitment under the applicable conditions.

For illustration, assume a commitment reference associates Issuer B's proposition with the \$2,000 Transaction Opportunity, eligible payment instrument, qualifying merchant and transaction conditions, and applicable validity period.

The \$75 does **not** need to be posted to the consumer's account during checkout. Nor does the merchant need to reduce the hotel price to \$1,925.

Issuer B has committed to providing the \$75 economic benefit if the transaction satisfies the conditions governing the proposition.

Real-time economic commitment does not necessarily require real-time economic fulfillment.

Existing Payment Execution

The selected payment path returns to the PSP and enters the existing payment ecosystem.

The merchant still submits a **\$2,000 transaction**.

Existing infrastructure handles authentication, fraud screening, authorization, routing, processing, capture, and settlement. Decyra does not replace those functions, and the \$75 statement credit does not require a new payment rail or change to merchant settlement.

The transaction therefore executes through the same infrastructure that would have executed it without Decyra.

What has changed is the economic decision that determined which eligible payment path entered that infrastructure.

Matching and Qualification

Assume the \$2,000 transaction authorizes and subsequently captures successfully.

The economic commitment must now be associated with the payment that actually occurred. For illustration, assume the PSP preserves or maps enough transaction information to connect the upstream commitment reference with the resulting \$2,000 hotel transaction.

The transaction then satisfies the conditions governing Issuer B's proposition: the eligible payment instrument was used, the qualifying merchant transaction occurred, the applicable transaction value was reached, and the purchase occurred within the commitment's validity period.

The commitment is now eligible for fulfillment.

The exact mechanism through which this matching occurs remains an implementation hypothesis requiring validation with PSPs, issuers, and other infrastructure providers.

Provider Fulfillment

Issuer B's existing downstream systems now fulfill the economic commitment.

For illustration, the issuer's appropriate account-credit or offer infrastructure recognizes the qualifying commitment and posts the **\$75 statement credit** to the consumer's account according to the timing communicated with the proposition.

Two related economic events have therefore occurred:

The merchant receives the normal \$2,000 purchase through existing payment infrastructure.

Issuer B separately provides the \$75 economic benefit it committed in order to win the transaction.

Decyra does not need to hold the \$75, alter settlement, or post the statement credit itself. The provider responsible for the economic proposition remains responsible for fulfilling it through the appropriate systems.

Decyra standardizes the commitment interface, not the fulfillment infrastructure.

Reconciliation

The marketplace can now establish the factual lifecycle.

Issuer B offered the \$75 statement credit.

The proposition won the Transaction Allocation.

The corresponding \$2,000 hotel transaction executed and qualified.

Issuer B fulfilled the \$75 economic commitment.

The commitment can therefore reach a reconciled state.

If the transaction later changes, the commitment may need to respond according to the rules established for the proposition. A full refund, for example, could require reversal of the statement credit, while a partial refund could produce a different result depending on the qualifying conditions.

The important point is that the economic promise made before payment execution remains connected to the transaction after execution occurs.

The Economic Outcome

Reconciliation establishes what happened. It does not yet establish what Decyra caused.

The critical economic question is whether Dynamic Transaction Competition caused an allocation that otherwise would not have occurred. If credible attribution indicates that the consumer would otherwise have used Issuer A, Issuer B has captured incremental transaction volume by dynamically competing for the opportunity.

Under Decyra's preferred economic hypothesis, Decyra can participate in a small fractional share of the incremental economic value associated with that outcome. The consumer receives \$75 of additional value, Issuer B wins economically attractive spend, and Decyra succeeds only when its intervention contributes to an attributable change in the transaction outcome.

The complete sequence is therefore:

Without Decyra:

\$2,000 Transaction → Compare Existing Propositions → Issuer A Wins

With Decyra:

\$2,000 Transaction → Providers Compete → Issuer B Offers \$75 → Decyra Selects Issuer B → \$75 Commitment Created → \$2,000 Payment Executes Normally → Issuer B Fulfills \$75 → Commitment Reconciles → Decyra Measures Incrementality

What This Example Does Not Assume

This example illustrates a proposed operating model. It does not establish that existing issuer or PSP systems can already support every required capability.

Decyra still needs to validate whether participating providers can create or recognize transaction-specific commitments within the available decision window, whether PSPs or other integration points can reliably associate those commitments with downstream transactions, whether existing provider systems can consume the resulting commitment and fulfill the benefit, and whether the complete lifecycle can operate within acceptable latency, integration, servicing, regulatory, and economic constraints.

The example also does not assume that statement credits are the only or preferred form of Dynamic Transaction Competition. Rewards, financing, merchant-funded value, loyalty benefits, and other economic propositions may eventually participate where their underlying operating models can support the marketplace.

The \$75 statement credit is used because it demonstrates the central architectural principle clearly:

The economic decision can occur before payment execution without requiring the economic benefit itself to be delivered during checkout.

The Core Shift

Before Decyra, the consumer or agent selects the best proposition already available.

With Decyra, eligible participants can compete to become the best proposition.

And when one of those transaction-specific propositions wins, the marketplace preserves enough continuity for the economic promise that influenced the decision to become real.

Appendix C: Economic Alignment

Why Participants Enter the Transaction Marketplace

Dynamic Transaction Competition only works when participation is economically rational. Participants do not need identical objectives or economics. The Transaction Marketplace allows each participant to determine independently whether a specific Transaction Opportunity is valuable enough to justify participation while retaining control over its own economic decisions.

Participation also requires more than an attractive proposition at the moment of decision. When competition creates a transaction-specific economic commitment, the resulting value must be capable of being fulfilled through the appropriate provider systems. The economic alignment of the Transaction Marketplace therefore depends on both the value created through competition and the operational reliability with which that value can be delivered.

Issuers

Why participate: Selectively compete for economically attractive incremental spend rather than increasing incentives broadly across customers, categories, or portfolios.

Issuers retain control over the economics they are willing to deploy. Proposition types, customer eligibility, profitability requirements, budgets, exposure limits, portfolio objectives, and other institutional constraints can establish the authority within which transaction-specific competition occurs.

Potential value: Incremental transaction volume, share of wallet, customer engagement, retention, and more precise deployment of rewards and incentive economics.

The potential advantage is precision. An issuer does not need to enhance economics across every transaction in order to compete for the individual opportunities it values most.

Participation becomes operationally viable only if a selected proposition can become a commitment the issuer is capable of honoring through its existing or appropriately integrated downstream systems. The issuer therefore retains control not only over **whether and how it competes**, but also over the economic product and infrastructure responsible for fulfilling the resulting value.

Consumers and Authorized Agents

Why participate: Access transaction-specific economic value that may not otherwise have been available while maintaining control through consumer preferences and permissions.

Potential value: Enhanced rewards, transaction-specific credits, improved affordability, liquidity, loyalty value, and stronger overall transaction economics.

The consumer does not need to understand why each provider values the Transaction Opportunity differently. The benefit comes from allowing those independently motivated participants to compete within the constraints governing the transaction.

Consumer value, however, depends on trust. If a consumer or authorized agent changes payment behavior because a provider commits incremental economic value, that value must ultimately be delivered according to the conditions presented during the decision. A marketplace that generates compelling propositions but cannot reliably fulfill them would undermine the economic exchange on which participation depends.

Consumer authority therefore remains fundamental. Dynamic Transaction Competition should improve the set of economic opportunities available to the consumer rather than allow the participant willing to spend the most to override consumer preferences.

Merchants

Why participate: Improve the underlying commercial outcome when transaction economics can influence customer behavior.

Potential value: Conversion, basket expansion, financing utilization, loyalty, retention, and customer value.

Merchant value is strongest when competition creates or expands economic activity rather than simply reallocating an inevitable payment between issuers. A financing proposition may enable a transaction that otherwise would not occur, while an issuer or merchant-funded benefit could prevent abandonment, increase basket size, or strengthen customer economics.

Merchants may also benefit when the Transaction Marketplace can operate through infrastructure they already use rather than requiring substantial new checkout or payment architecture. The more Decyra can leverage existing PSP, merchant, payment, and provider systems, the lower the institutional burden required to test or adopt the mechanism.

The merchant does not need to become an economic bidder in every transaction for the marketplace to create value. Its role may initially be to provide the commerce environment in which transaction-level competition can influence outcomes while retaining control over merchant acceptance, customer experience, and applicable commercial constraints.

Payment Service Providers

Why participate: Extend merchant optimization upstream of authorization and payment execution without becoming an economic bidder.

Potential value: Merchant differentiation, improved commercial outcomes, deeper platform value, and additional strategic relevance in the transaction decision process.

PSPs increasingly compete on their ability to improve authorization, fraud performance, routing, checkout conversion, payment-method coverage, financing, and other merchant outcomes.

Dynamic Transaction Competition potentially adds another optimization layer by influencing the economic decision that occurs before payment execution begins.

The operational model creates an additional potential role. PSPs may be positioned to provide continuity between the pre-execution Transaction Opportunity and downstream authorization, capture, and other transaction events. If that continuity allows a selected economic commitment to be reliably associated with the payment that ultimately executes, the PSP can become an important integration bridge without assuming responsibility for the economic proposition itself.

Whether PSP infrastructure can perform this role with sufficient reliability, latency, and integration simplicity remains a validation question. If it can, the PSP's value to the Transaction Marketplace extends beyond distribution into interoperability between transaction decisioning and execution.

Financing and Other Economic Providers

Why participate: Selectively compete for Transaction Opportunities that align with their own origination, engagement, loyalty, or commercial objectives.

Potential value: Incremental origination, utilization, engagement, and access to qualified Transaction Opportunities through differentiated forms of economic value.

Different economic providers can participate without using identical proposition structures. A financing provider may compete through affordability, a loyalty platform through points or status economics, and a merchant through transaction-specific promotional value. Each provider retains control over the eligibility, economics, risk, and other rules governing its underlying product.

These propositions may also require different operational models. Financing can require eligibility, disclosures, consent, and execution before or during payment, while rewards or statement credits may be fulfilled asynchronously after a qualifying transaction occurs. The Transaction Marketplace therefore does not require every economic product to operate identically.

The common requirement is that the proposition can be represented sufficiently for Decyra to evaluate it and, if selected, become an economic commitment capable of being honored through the appropriate provider infrastructure.

Decyra

Why participate: Coordinate competition that creates attributable incremental economic value.

Potential value: Decyra's preferred model is to participate in a small portion of the economic value created when Dynamic Transaction Competition influences incremental transaction volume or another attributable commercial outcome.

Decyra's role is deliberately different from that of the economic providers. It does not need to determine issuer economics, manufacture rewards, originate financing, process payments, or become the system responsible for fulfilling every economic benefit. It coordinates the Transaction Marketplace through which those independently controlled capabilities can compete around the same Transaction Opportunity.

The updated operating model adds another potential source of platform value. Decyra can provide enough common structure around propositions, commitments, transaction continuity, and marketplace outcomes for heterogeneous provider systems to participate without requiring those underlying systems to become identical.

As participation, distribution, interoperability, and transaction intelligence increase, the Transaction Marketplace itself can become progressively more valuable. Decyra's long-term economics therefore depend not only on individual transaction decisions but on creating a market that becomes more useful as additional economic providers and Transaction Opportunities connect to it.

The Alignment Principle

The Transaction Marketplace does not require every participant to benefit in the same way from every transaction. It requires each participant to decide independently whether competing for the opportunity is economically rational according to its own objectives.

Providers retain control over the economics they are willing to deploy.

Consumers and authorized agents retain control over the preferences and permissions governing selection.

Merchants retain control over the commerce environment and applicable acceptance constraints.

Existing payment infrastructure retains responsibility for executing the selected transaction.

Existing provider systems retain responsibility for fulfilling and servicing the underlying economic products wherever practical.

Decyra coordinates the market connecting those independently controlled functions.

The economic loop becomes complete only when the value presented during competition can become a reliable economic outcome. A proposition must be selected, committed, executed against the appropriate transaction, fulfilled, and reconciled before attribution determines whether Decyra created incremental value.

Consumers gain better economic opportunities. Economic providers compete selectively for outcomes they value. Merchants and PSPs benefit when competition improves commerce. Decyra participates when the marketplace creates attributable incremental value.

Economic alignment creates participation. Operational reliability makes that participation sustainable.

Appendix D: Initial Market Validation Framework

From Strategic Thesis to Market Evidence

The next phase of Decyra is not broad deployment. It is focused market validation designed to determine whether Dynamic Transaction Competition produces observable, operationally viable, and economically meaningful behavior. The objective is to create the smallest environment in which eligible participants can evaluate the same Transaction Opportunity, independently determine whether it is worth competing for, alter their economic proposition when the expected value justifies doing so, and reliably honor the resulting proposition if it influences Transaction Allocation.

This approach treats the initial deployment as a **Minimum Viable Marketplace** rather than simply a technology pilot. The Decision Layer can be technically functional without proving that a market exists. Participants can dynamically respond without proving that their responses change behavior. Competition can change Transaction Allocation without proving that the selected economic proposition can become operationally real.

Validation therefore requires evidence across both the competitive and operational lifecycle.

A functioning market begins when participants value opportunities differently and competition changes an allocation or commercial outcome. A functioning operating model requires the selected proposition to become a durable economic commitment, remain connected to the transaction that subsequently executes, be fulfilled through the appropriate provider systems, and reach a reconcilable outcome. Only then can attribution determine whether Decyra created sufficient incremental economic value to justify broader participation.

A Focused Validation Environment

The initial environment should be deliberately constrained. One PSP or commerce platform could provide access to a defined population of eligible Transaction Opportunities within a higher-consideration category where rewards, statement credits, financing, loyalty, or other economic propositions have sufficient room to influence behavior. A small number of participating economic providers would establish their own eligibility rules, response strategies, economic boundaries, budgets, and exposure controls.

The purpose is not to recreate the complete long-term Transaction Marketplace. It is to reduce the number of variables sufficiently to observe the core mechanism while preserving real economic behavior and enough operational complexity to determine whether the resulting proposition can actually be delivered.

The initial proposition model should therefore remain simple. A transaction-specific statement credit or similarly bounded economic benefit may provide a useful starting point because the economic proposition can potentially be committed during the transaction decision window

while fulfillment occurs later through existing provider systems. More complex proposition types can follow only after the underlying commitment model is demonstrated.

Participants retain control of their proprietary economics. The distribution partner retains its existing merchant and payment infrastructure. Providers retain responsibility for the systems supporting their underlying economic products. Decyra coordinates the competitive decision environment, preserves the resulting marketplace state, and supports measurement of the economic outcome.

This creates a pilot designed to test Decyra without requiring any participant to rebuild its core infrastructure around the experiment.

The Validation Flow

The pilot can follow a deliberately constrained version of the broader Decyra architecture.

1. Identify the Transaction Opportunity

The commerce environment identifies an eligible transaction before payment selection is finalized. Enough transaction context exists for participating providers to evaluate the economic opportunity.

2. Establish the Competitive Set

Merchant acceptance, consumer permissions, payment availability, program rules, financing eligibility, and other applicable constraints determine which participants and propositions can compete.

Each provider also applies its own customer, product, economic, risk, budget, and exposure controls before determining whether it is willing to participate.

3. Enable Participant Response

Eligible participants independently determine whether the opportunity warrants additional economic value. A participant may maintain its standing proposition, expose an enhanced transaction-specific proposition within authority it controls, or decline to compete.

This stage tests one of the foundational Decyra hypotheses: **do economic providers actually value individual Transaction Opportunities differently enough to change the economics they are willing to deploy?**

4. Coordinate Transaction Decisioning

The Decyra Decision Layer evaluates eligible propositions within the agreed optimization framework and returns a recommendation, ranked propositions, or allocation appropriate to the commerce environment.

Consumer preferences and permissions remain fundamental constraints.

This stage tests whether the competitive propositions are capable of changing Transaction Allocation or another meaningful commercial outcome.

5. Establish the Economic Commitment

If the selected proposition contains incremental economic value, the provider creates or recognizes the resulting economic commitment according to the agreed pilot model.

The commitment preserves enough information to establish what was promised, the conditions governing the proposition, and the relationship between that proposition and the Transaction Opportunity.

The pilot does not require the economic benefit itself to be delivered during checkout.

Real-time economic commitment does not necessarily require real-time economic fulfillment.

This stage tests whether transaction-specific economic intent can become sufficiently durable to survive the transition into payment execution.

6. Execute Through Existing Infrastructure

The selected path returns to the existing PSP and payment ecosystem for authentication, authorization, routing, processing, capture, and settlement.

Decyra does not replace these functions.

The pilot should measure whether the additional competitive and commitment process can operate without creating unacceptable latency, checkout friction, authorization impact, or execution complexity.

7. Match and Qualify the Transaction

The economic commitment is associated with the transaction that actually executes.

A PSP reference, merchant order identifier, provider commitment identifier, payment token, transaction identifier, or another agreed mechanism may provide the required continuity. The exact implementation should be determined with the participating infrastructure provider rather than assumed in advance.

The executed transaction is then evaluated against the conditions governing the selected proposition.

This stage tests one of the most important technical hypotheses in the Decyra model: **can a pre-execution economic commitment be reliably connected to the downstream transaction it influenced?**

8. Fulfill the Economic Benefit

Once the transaction qualifies, the provider's existing or appropriately integrated downstream systems fulfill the promised economic value.

An issuer may post a statement credit or reward. A loyalty provider may deliver loyalty value. A financing provider may administer the financing product according to its own requirements.

Decyra should not need to become the system responsible for delivering the underlying benefit.

This stage tests whether existing provider infrastructure can operationalize a transaction-specific economic commitment created through an external competitive decision process.

9. Reconcile the Lifecycle

The pilot establishes whether the commitment, executed transaction, qualification conditions, and resulting benefit agree.

The commitment should reach a known state such as fulfilled, expired, released, adjusted, reversed, or another defined outcome.

Reconciliation establishes **what happened**.

This stage also allows the pilot to observe how authorization failures, amount changes, cancellations, refunds, and other transaction events affect the commitment without requiring every possible exception scenario to be solved before the first deployment.

10. Measure Incrementality

Once the factual lifecycle is established, observed transaction behavior is compared with appropriate baselines to determine whether Dynamic Transaction Competition influenced Transaction Allocation or another relevant commercial outcome.

Controlled experiments, historical payment behavior, allocation patterns, and other counterfactual methods may contribute to that analysis.

Attribution establishes **what Decyra caused**.

Only after reconciliation and attribution can the pilot evaluate whether the complete mechanism creates enough incremental economic value to support sustainable participant and Decyra economics.

What the Pilot Measures

The initial measurement framework should remain focused on the complete economic loop rather than a broad collection of product metrics.

The first question is whether eligible participants actually respond differently when presented with individual Transaction Opportunities.

The second is whether those responses influence consumer or agent behavior.

The third is whether a selected transaction-specific proposition can become a durable economic commitment within the available decision window.

The fourth is whether that commitment can be reliably associated with the transaction that subsequently executes.

The fifth is whether existing provider systems can fulfill the resulting economic benefit.

The sixth is whether the complete lifecycle can be reconciled with sufficient reliability to support institutional and consumer trust.

The seventh is whether the resulting outcome creates sufficient **incremental** economic value relative to the cost of competition and operationalization.

Depending on the selected use case, relevant measures could include Transaction Allocation shift, participant response rate, incremental transaction volume, conversion, financing utilization, basket expansion, incentive cost, decision latency, commitment creation success, transaction-match rate, fulfillment success, reconciliation exceptions, refund or reversal behavior, and attributable economic impact.

Not every metric needs to be optimized in the first deployment. The purpose is to determine whether the underlying market behavior exists, whether the operating model can support it, and where the strongest economics emerge.

A pilot should also define failure criteria in advance. If providers do not respond differently to Transaction Opportunities, the competitive thesis weakens. If propositions change but allocation does not, the behavioral thesis weakens. If allocation changes but commitments cannot be created or fulfilled reliably, the operational architecture requires further development. If the complete lifecycle functions but economics remain unattractive, the commercial model or use case may need to change.

The objective is evidence, not confirmation.

Partner Roles

A validation partner does not need to adopt the full Decyra vision to participate in the experiment.

A PSP or commerce platform can provide a controlled transaction environment, merchant and payment eligibility context, access to existing execution infrastructure, and potentially the transaction continuity required to connect pre-execution commitments with downstream payment events.

Participating issuers or other economic providers independently determine which opportunities they value, what economics they are willing to deploy, and the authority within which their systems can respond. They also remain responsible for the underlying systems required to fulfill and service the economic products they contribute.

Decyra provides the Transaction Marketplace mechanism connecting those roles. It establishes the competitive environment, coordinates eligible propositions, applies the agreed decision framework, preserves the marketplace state associated with the selected commitment, and supports reconciliation and measurement of the resulting outcomes.

The precise division of responsibilities should be determined with the validation partners rather than assumed universally. Different PSPs, issuers, commerce platforms, and proposition types may support different integration models.

The goal is to identify the **minimum institutional change required to make transaction-level economic competition work.**

What the First Partnership Is Designed to Prove

The first Decyra partnership does not need to prove the entire long-term Transaction Marketplace.

It needs to answer a much narrower set of questions.

Can a real Transaction Opportunity be identified before payment selection is finalized?

Will multiple eligible economic providers value that opportunity differently?

Will at least one provider expose different economics specifically because it wants to win the transaction?

Can Decyra evaluate those propositions within consumer and merchant constraints quickly enough to influence the decision?

Can the winning proposition become a durable economic commitment?

Can existing payment infrastructure execute the selected transaction without material disruption?

Can that commitment be reliably connected to the transaction that executes?

Can the provider's existing systems fulfill the economic benefit?

Can the resulting lifecycle reconcile?

And once all of that happens, did Decyra materially change an economic outcome?

If the answer to those questions is yes, the first partnership has demonstrated something much more consequential than a new rewards feature.

It has demonstrated the core operating behavior of a **Transaction Marketplace.**

From Validation to Expansion

Expansion should follow evidence rather than precede it. If the initial environment demonstrates that participants value Transaction Opportunities differently, dynamically respond when economics justify doing so, influence meaningful outcomes, and reliably operationalize the resulting commitments, the marketplace can expand deliberately.

Additional issuers can increase competitive density. Additional merchant categories can test different economic behaviors. Additional PSPs, wallets, agents, or commerce platforms can increase the volume and diversity of Transaction Opportunities. Proven proposition and commitment interfaces can reduce the burden of connecting additional participants.

The same principle applies to the forms of value available within the marketplace. Issuer competition may provide the initial mechanism, while financing, merchant-funded incentives, loyalty, and other economic propositions can be introduced as evidence demonstrates where broader coordination creates incremental value and where the downstream operating model can support those propositions reliably.

Each expansion should strengthen the core economic and operational loop rather than add complexity for its own sake.

The first Decyra partnership therefore does not require a commitment to build the future Transaction Marketplace at scale. It requires a controlled environment in which the market mechanism can be observed, operationalized, fulfilled, reconciled, measured, and evaluated using real economic behavior.

Start narrow. Prove the complete loop. Expand where the evidence leads.