PNC Ledger Design System Modernization

2-Year Strategic Partnership & Statement of Work

Knapsack × PNC | SAFe Enablement & Design System Transformation

Program Vision

Mission: Accelerate PNC's design system maturity from **Level 3 (Fragmented Implementation)** to **Level 4 (Scaled Product System)** with MCP/AI readiness—while ensuring Product Teams continue delivering BAU commitments without disruption.

Core Diagnosis: PNC does not have a "design system problem." PNC has a **system-of-systems activation problem**. The platform exists, but the control plane isn't operating. This engagement builds the governed engine that makes intelligence safe.

Engagement Model: A Design Maturity Assessment establishes baseline placement, followed by four maturity phases spanning 24 months—stabilization and governance in Year 1, execution enablement and intelligence activation in Year 2. *Modernization comes before intelligence. Trust gates everything.*

Foundation: Design Maturity Assessment

Strategic Input for All Workstreams

The Design Maturity Assessment establishes the baseline understanding of PNC's current state across people, process, and technology dimensions—informing prioritization, sequencing, and success metrics for all subsequent workstreams.

Assessment Dimensions

Conducted during Mobilization (Weeks 1-2)

People: Team structure, skill distribution, design ops maturity, cross-functional collaboration patterns

Process: Current workflows, governance gaps, decision-making pathways, handoff friction points

Technology: Tooling ecosystem, integration health, technical debt inventory, platform readiness

Assessment Outputs

Feeds into Workstreams A/F, B, C, D/E

Maturity Scorecard: Current state rating across 12 capability areas with benchmark comparisons

Gap Analysis: Prioritized improvement opportunities mapped to business impact

Roadmap Input: Sequencing recommendations based on dependencies and quick wins

Maturity Assessment Framework

Capability Area	What We Assess	Informs Workstream
Design System Adoption	Component coverage, usage consistency, deviation tracking, adoption barriers	B D
Token Architecture	Token coverage, naming conventions, theming readiness, density support gaps	C
Documentation Quality	Completeness, accuracy, discoverability, maintenance burden	D
Governance & Decision-Making	Decision clarity, escalation effectiveness, RACI gaps, bottlenecks	A D
Tooling & Integration	Tool sprawl, integration friction, automation opportunities	B
Team Enablement	Onboarding effectiveness, skill gaps, support model clarity	D
PI Planning Maturity	Planning hygiene, traceability, dependency management, Dojo readiness	A
Technical Debt & Migration	M3/Angular readiness, component modernization blockers, platform constraints	B

How the Assessment Drives Prioritization

Assessment findings directly shape workstream sequencing and resource allocation. Low maturity scores in governance accelerate Workstream A timelines; critical token gaps may front-load Workstream C activities; migration blockers inform Workstream B pilot selection.

Maturity Acceleration Journey

> **The Strategic Frame**
>
> This 2-year partnership is not a services engagement—it's a **maturity acceleration program**. Each phase has explicit exit criteria that must be met before advancing. Trust gates everything. MCP/AI capabilities are unlocked only after the control plane is operating.

Current State → Target State

Current: Level 3

Fragmented Implementation

Workspace 1 live, others blocked · Docs + tooling present · Governance strong in Ledger only · Trust status: Yellow (recovering)

Target: Level 4+

Scaled Product System

Control plane operating for Mobile + Ledger · Cross-system governance active · Governed changes flowing through CI/CD · AI piloted against trusted context

Four Maturity Phases

Phase 1: Stabilize & Complete Implementation

Level 3 → Operational | Make the platform reliably usable without heroics. Resolve workspace stabilization, entitlements, repo access, publishing blockers. Teams can publish + update without Knapsack intervention.

Exit Criteria: Mobile or Ledger team can publish independently · Workspace 2 live or date-certain · Access no longer blocking work

Phase 2: Control Plane & Governance Activation

Level 3 → Level 4 | Turn "systems" into a system of record with decision authority. Resolve fragmented governance, token misalignment, cross-team disconnects, "who decides what?" ambiguity.

Exit Criteria: Token strategy approved and enforced · Governance model active beyond Ledger · Clear rules for Mobile / Ledger / PB interaction

Phase 3: Execution Enablement & Scaled Delivery

Level 4 Operational | Prove that governed intent can safely become production change. Resolve CI/CD trust gaps, component drift, upgrade risk, "looks good but breaks downstream" issues.

Exit Criteria: One meaningful change ships end-to-end via Knapsack · Upgrade path validated · Teams trust system to enforce standards

Phase 4: Signals, Intelligence & AI Pilot

Level 4 → Early Level 5 | Introduce intelligence only after trust exists. Resolve lack of visibility into value, enable safe AI experimentation with explicit guardrails.

Exit Criteria: Signals prove faster, safer change · AI adds value without risk · Execs can articulate ROI + next bets

> **AI Guardrails**
>
> **AI capabilities are delayed until Phase 3 exit criteria are met.** When activated in Phase 4: limited to 1-2 use cases, read-only or advisory first, no uncontrolled generation, must operate against governed context only.

PI Objectives Alignment

All engagement work maps to PNC's six PI Objectives, ensuring strategic alignment and enabling traceability from objectives through execution.

Modernization
M3, Angular 18/20+ upgrades improve performance and reduce technical liability.

Enhancement
Tables and modular components improve satisfaction and reduce duplication.

Accessibility
WCAG 2.2 and a11y-first design expands access and reduces ADA risk.

Token Strategy
Cross-channel theming and density alignment; centralizes standards.

Knapsack Migration
Single source of truth for components; consolidates documentation.

Maturity & AI
Assess design system maturity to drive roadmap and AI readiness.

- **Committed** — High-confidence, resourced
- **Needs Collaboration** — Dependencies or decisions required
- **Exploratory** — Requires further definition

All work classified as: **BAU** / **Modernization** / **Enabler** / **Exploratory** with explicit tradeoffs documented.

2-Year Engagement Structure

The engagement maps directly to the maturity journey: **Year 1 delivers Phases 1-2** (Stabilize + Control Plane), **Year 2 delivers Phases 3-4** (Execution + Intelligence). Workstreams are the vehicles; maturity phases are the gates.

2026 — Phases 1 & 2

Stabilize → Control Plane

Primary: SAFe Dojo Readiness (A) · Token Strategy (C) · Documentation & Governance (D)
Continuous: Modernization Enablement (B)
Gate: Governance operating, tokens enforced

2027 — Phases 3 & 4

Execution → Intelligence

Primary: Modernization at Scale (B) · Token Governance Maturation · AI Pilot
Continuous: PI Execution Support
Gate: Changes ship safely, AI adds value

Workstream Overview

Each workstream maps to specific maturity phases. Work that doesn't advance maturity is de-prioritized.

Workstream A: SAFe Agile Dojo Readiness

Year 1 (2026) — Phases 1 & 2

Establish PI-ready standards for planning, traceability, dependency management. Delivers control plane for program execution. *Exit: Dojo-ready, governance operating.*

Workstream B: Modernization Enablement

Years 1-2 (2026-2027) — All Phases

De-risk platform upgrades (M3, Angular). Light in Phase 1-2 (pilots, playbooks), heavy in Phase 3 (scaled delivery). *Exit: Changes ship safely via governed pipelines.*

Workstream C: Token Strategy & Density

Year 1 (2026) — Phases 1 & 2

System-wide token standards with governance. Foundations (Color & Typography); Follow-on (Spacing & Density). *Exit: Tokens approved, enforced, and owned.*

Workstream D: Documentation & Governance

Year 1 (2026) — Phases 1 & 2

Single-source documentation, onboarding, entitlements. Cross-system governance model. *Exit: Governance active beyond Ledger.*

Workstream → Maturity Phase Mapping

Workstream	Phase 1: Stabilize	Phase 2: Control Plane	Phase 3: Execution	Phase 4: Intelligence
A SAFe Dojo	PI pre-work kit	**Primary focus**	PI support	Reporting
B Modernization	Blockers removed	Playbooks, pilots	**Primary focus**	Knowledge transfer
C Tokens	—	**Phase 1 & 2**	Governance	Signals
D Docs/Gov	Standards defined	**Primary focus**	Maintenance	—
AI	Delayed	Delayed	Gated	**Pilot (1-2 use cases)**

Year 1 (2026): Foundation & Governance

Workstream A — SAFe Agile Dojo Readiness & Program Execution

Goal: Prepare Ledger Design System to confidently engage with PNC SAFe Agile Dojo.

In Scope

- **Dojo Readiness Assessment:** Review PI planning inputs/outputs, roles, ceremonies, tooling; gap analysis mapped to Dojo expectations
- **Standardized PI Pre-work Package:** BAU vs. modernization classification, capacity templates, dependency ownership model, commitment confidence labeling
- **Dojo-Aligned Planning Artifacts:** Program Board visualization, "North Star + Principles" guardrails, decision log format with SLAs
- **Jira & Traceability Framework:** Objective tagging (6 PI Objectives), Program Board Action Items, reporting views
- **Program Operating Rhythm:** Biweekly system health reviews, dependency/SoS cadence, leadership readouts

Traceability Framework (from PI Planning)

End-to-end visibility from strategic objectives to team execution:

PI Objectives → Epics & Features → Team Assignments → Dependencies → Program Board

- **Objective-Aligned Tagging:** All Jira items tagged to PI Objectives enabling filtering and progress tracking
- **Scope Classification:** Clear distinction between BAU, Modernization, Enabler, and Exploratory work
- **Dependency Visibility:** Critical dependencies surfaced with owners and escalation paths
- **Action Item Tracing:** Program Board actions captured with due dates, owners, and linked work items

Note: *Current PNC Jira configurations limit objective-level traceability (no Feature level; limited objective fields). A minimum viable approach using standardized epics, labels, and dependency matrix will be implemented while engaging the Dojo to enable more durable reporting structures.*

Workstream C — Token Strategy & Density Program

Goal: Establish system-wide token standards supporting theming, density, and consistency.

In Scope

- Facilitated token strategy working sessions
- Token taxonomy, governance, and lifecycle definitions
- Phased rollout plan: **Foundations:** Color & Typography | **Follow-on:** Spacing & Density
- Pilot implementation plan and success criteria

Workstream D — Documentation, Governance & Onboarding

Goal: Establish durable operating model ensuring Ledger scales safely and predictably.

In Scope

- **Documentation Quality:** Completeness criteria, quality standards, prioritized Knapsack migration backlog, review workflow
- **Governance & Decision Model:** RACI covering tokens/components/docs/releases, decision SLAs, escalation paths
- **Onboarding & Enablement:** Role-based assets (designer, developer, contributor), "getting started" pathways, training outlines
- **Entitlements & Access:** Validation steps in workspace deployment, team readiness checklists, role alignment

Year 1 Timeline (2026)

Q1-Q2 2026: Initial PI Enablement Cycle (10-12 weeks)

Weeks 1-2	**Mobilization, Assessment & Dojo Readiness** *Design Maturity Assessment (baseline + gap analysis)* · SAFe Dojo readiness assessment · Finalize PI operating model · Deliver PI pre-work kit · Configure Jira objective tagging
Weeks 3-6	**Enablement & Foundations** Execute modernization playbooks · 1-2 pilot migrations · Token Strategy Phase 1 (Color) · Define documentation standards · Stand up dependency cadence
Weeks 7-10	**Operationalization & Hardening** Harden PI planning artifacts · Initial Knapsack migrations · Deliver onboarding assets · Finalize governance RACI · Leadership dashboards
Weeks 11-12	**Handoff & Next PI Readiness** Validate Dojo engagement readiness · Capture improvement backlog · Prepare next PI inputs · Formal handoff

Q3-Q4 2026: Governance Maturation & Token Expansion

Q3	**Governance Operationalization** Execute governance cadence · Expand documentation migrations · Token Strategy Phase 2 (Spacing) planning · Continue modernization office hours
Q4	**Year 1 Optimization** Governance retrospective · Token Phase 2 pilot · Modernization progress review · Year 2 planning & scope refinement

Year 2 (2027): Scale & Optimization

Workstream B — Modernization Enablement (Continued)

Goal: Continue de-risking platform upgrades and supporting component modernization at scale.

Year 2 Focus Areas

- Scaled migration support across additional product teams
- Advanced migration playbooks for complex component patterns
- Continued office hours and escalation support
- Dependency mapping refinement as platform evolves
- Knowledge transfer to PNC internal teams

Token Governance Maturation

Year 2 Focus

- Ongoing token governance and lifecycle management
- Token usage signals and adoption metrics
- Refinement based on Year 1 implementation learnings

Governance & PI Execution Maturation

Ongoing Support

- PI execution support and continuous improvement
- Governance model refinement based on Year 1 learnings
- Documentation maintenance and expansion
- Onboarding optimization for new teams

ROAM Risk Matrix

Risks identified during PI Planning with mitigations aligned to engagement workstreams.

R Resolved O Owned A Accepted M Mitigated

Risk	Impact	Mitigation	Workstream	Status
Timeline Misalignment	High	Capacity planning, realistic sequencing, biweekly health checks	A	M
M3 Migration Complexity	High	Migration playbook, pilot migrations, DS office hours	B	M
System Instability	High	Prioritize stability fixes, clear owners, weekly checkpoints	B	O
Dependency Management	High	Dependency matrix, dependency captains, active program board	A	M
Documentation Gaps	Med	Centralized docs, completeness criteria, SME reviews	D	M
Unclear Governance	Med	RACI, escalation paths, governance kickoff	D	M
Onboarding Challenges	Med	Readiness checklist, training sessions, early adopters	D	A
Role Churn & Transitions	High	Role clarity, single owners for planning artifacts, knowledge transfer	A D	O
Two-BU / Two-Stack Friction	High	Value-stream mapping, escalation path, System-of-Systems vision	A D	A

Structural Reality: Two Business Units

Two business units with different tech stacks create inefficiencies, duplicate work, and limited ability to share capacity. **These are leadership-level constraints, not team-level failures.** The engagement addresses this through System-of-Systems vision facilitation, value-stream mapping, and escalation pathways for structural blockers.

Team Hopes & Doubts (from PI Planning)

Feedback captured during PI Planning workshops directly informs engagement priorities and success measures.

Top Hopes (What Teams Need)

- Early, clear communication of expectations and priorities
- Stable, predictable shared systems and platforms
- Strong guidance and assets for M3 migration
- Realistic timelines aligned to actual capacity
- Clarified ownership and decision pathways
- Better documentation and self-service resources

Top Doubts (What We're Mitigating)

- Timelines may not align with capacity
- M3 migration effort may exceed expectations
- System instability could continue to block work
- Dependencies may not be managed proactively
- Documentation may be incomplete or outdated
- Governance roles may remain unclear

How This Engagement Addresses Team Needs

Every hope maps to a workstream deliverable. Every doubt has a mitigation in the ROAM matrix. The engagement is designed to convert doubts into resolved outcomes through structured execution.

Capacity & Scope Tradeoffs

If everything on the board is treated as must-deliver, the organization exceeds realistic capacity. The engagement establishes:

- **Active Program Board management** — Work moved out of quarters where capacity is insufficient
- **Explicit work classification** — BAU / Modernization / Enabler / Exploratory with documented tradeoffs
- **Dynamic scope decisions** — Revisited when milestones or dependencies slip, not deferred to end-of-PI

Critical Path Dependencies

From the Dependency Matrix—these sequences must be managed to avoid delivery risk:

Maturity Score → Roadmap Depth
Assessment results inform prioritization and investment sequencing

Angular/M3 → Components
Table and component work blocked until M3 foundations complete

Token Strategy → Theming
Density and branding decisions cascade to all product teams

FDE Assignment → System Progress
Architecture track capacity gates token and consolidation work

Deliverables by Year

Deliverable	Workstream	Timing	Owner
Design Maturity Assessment & Scorecard	Foundation	Weeks 1-2	Knapsack
Gap Analysis & Prioritization Framework	Foundation	Week 2	Joint
SAFe Agile Dojo Readiness Starter Pack	A	Q1 2026	Knapsack
PI Pre-work Kit (templates + instructions)	A	Q1 2026	Knapsack
Jira Configuration & Traceability Guidance	A	Q1 2026	Knapsack
Dependency Management Artifacts & Cadence	A	Q1 2026	Knapsack
Standard Reporting Pack (PI Objectives, risks)	A	Q1-Q2 2026	Knapsack
Migration Enablement Playbook	B	Q1 2026	Knapsack
1-2 Pilot Migrations (validation)	B	Q1-Q2 2026	Joint
Ongoing Office Hours & Escalation Support	B	2026-2027	Knapsack
Token Taxonomy & Governance Definitions	C	Q1 2026	Joint
Token Foundations (Color & Typography) Rollout	C	Q1-Q2 2026	Joint
Token Follow-on (Spacing & Density)	C	Q3-Q4 2026	Joint
Documentation Standards & Review Checklist	D	Q1 2026	Knapsack
Governance RACI, Decision SLAs, Escalation Paths	D	Q1-Q2 2026	Joint
Role-based Onboarding & Enablement Assets	D	Q2 2026	Knapsack
Entitlement Validation & Readiness Checklists	D	Q2 2026	Joint

Deliverable	Workstream	Timing	Owner
PI CYCLE IMPROVEMENTS (from Workshop)			
"North Star + Principles" Planning Segment	A	Q1 2026	Joint
"Good" PI Plan & Program Board Examples	A	Q1 2026	Knapsack
Scrum-of-Scrums & Prioritization Cadence	A	Q1 2026	Joint
System-of-Systems Vision Facilitation	A D	Q1 2026	Knapsack
Dependency Matrix & Captains Model	A	Q1-Q2 2026	Joint
Internal Team Debrief (Pre-Dojo)	A	Q1 2026	Joint
Monthly Milestone Roadmaps	A	Q1 2026	Joint
Weekly Cross-Team PO/Lead Sync	A	Q1 2026	Joint

Investment Model

Investment is structured by maturity phase, not just deliverables. Year 1 builds the control plane; Year 2 proves execution and unlocks intelligence.

Year 1 (2026)

Phases 1 & 2: Stabilize → Control Plane

$300,000

~1,500 hours @ blended rate

Design Maturity Assessment	**100 hrs**
Workstream A (SAFe Dojo)	**350 hrs**
Workstream B (Modernization)	**250 hrs**
Workstream C (Tokens - All Phases)	**400 hrs**
Workstream D (Docs/Gov)	**400 hrs**

Year 2 (2027)

Phases 3 & 4: Execution → Intelligence

$300,000

~1,500 hours @ blended rate

Workstream B (Modernization)	**800 hrs**
Token Governance & Signals	**150 hrs**
Governance & PI Support	**250 hrs**
AI Pilot & Signals	**200 hrs**
Knowledge Transfer	**100 hrs**

Total 2-Year Investment: $600,000 | ~3,000 hours | Year 2 scope adjustable based on Phase 2 exit criteria achievement

Roles & Responsibilities

Activity	Knapsack	PNC
SAFe/Dojo readiness guidance & artifacts	Responsible	Consulted
Facilitation, enablement, playbooks	Responsible	Informed
Traceability framework & reporting	Responsible	Accountable
Assign SMEs and decision owners	Consulted	Responsible
Tool, repo, environment access	Informed	Responsible
Product-team implementation work	Consulted	Responsible
Pilot participation	Responsible	Accountable
Governance & onboarding enablement	Responsible	Accountable

Assumptions & Dependencies

- Named PNC owners assigned for governance and decisions
- Access to required tooling, repositories, and environments
- At least one team participates as a pilot per major initiative
- Standing cadence protected for reviews and planning
- Year 2 scope may be adjusted based on Year 1 outcomes
- PNC maintains BAU delivery capacity during engagement

Out of Scope (Unless Added via Change Order)

- Full-scale product team migrations across all applications
- Net-new component development not tied to PI Objectives
- Platform engineering work beyond enablement and guidance
- Jira administration or configuration implementation (guidance only)
- Custom tooling development outside Knapsack platform

Operating Rules

These rules govern how the engagement operates. They ensure work compounds instead of thrashing.

1. Maturity Gates All Work

Every epic/story must map to a maturity phase: Implementation, Control Plane, Execution, or Intelligence. If it doesn't advance maturity, it is **de-prioritized**.

2. PI Planning Reflects Maturity

Leadership must agree: **modernization + governance come before intelligence**. Volume of work is secondary to maturity advancement.

3. Exit Criteria Are Non-Negotiable

Phases advance only when exit criteria are met. No skipping ahead. No "we'll fix governance later." Trust compounds or it doesn't.

4. AI Is Earned, Not Granted

AI activation requires Phase 3 exit criteria met. Delayed until trust is established. Read-only first. 1-2 use cases maximum. Must operate against governed context only.

Engagement Outcomes by Maturity Level

By the end of this 2-year engagement, PNC will have advanced from **Level 3 (Fragmented)** to **Level 4 (Scaled Product System)** with MCP readiness:

Maturity Baseline Established

Design Maturity Assessment providing measurable baseline across 12 capability areas. Clear current state diagnosis and target state definition. Data-driven prioritization throughout engagement.

PI Planning to the Metal

SAFe Dojo-ready PI execution model. End-to-end traceability: PI Objectives → Epics → Teams → Dependencies → Program Board. Commitment confidence labeling on all work items.

Tokens Governed & Enforced

Token strategy approved with clear ownership and decision rights. Foundations (Color & Typography) and Follow-on (Spacing & Density) complete. Foundation for theming and density support.

Single Source of Truth

Documentation, onboarding, and entitlements consolidated in Knapsack. RACI and decision SLAs operating. Teams self-serve without heroics.

Phase 3 Complete: Execution Proven

Governed changes flowing through CI/CD. Migration risk de-risked with validated upgrade paths. Teams trust the system to enforce standards.

Phase 4: AI Readiness

Signals proving faster, safer change. AI piloted against governed, trusted context (1-2 use cases). Executives can articulate ROI and next investment bets.

The Strategic Frame

"We're not here to deliver features or AI experiments. We're here to help you operate your product systems as a governed engine. That means stabilizing first, governing second, executing third—and only then adding intelligence."

This 2-year partnership systematically advances PNC from Level 3 (fragmented implementation) to Level 4 (scaled product system) with safe AI readiness. Maturity gates every decision. Trust compounds over time.