



FCA OBLIGATIONS → VERIFIABLE EVIDENCE MAPPING

BNPL / Consumer Credit — AI Agent Scenario

Authored by QuadX AI · 22 July 2026

STATUS — AUTHORED BY QUAD X AI

QuadX AI has reviewed and corrected the Action State Group strawman. FCA clause references have been verified against the FCA Handbook as at July 2026. The BNPL regulatory perimeter is addressed in the note below. This document codes the rules as written, not as enforced. It is not legal advice, not an FCA position, and not a conformance determination.

Scenario: an AI agent arranging or serving a BNPL consumer-credit transaction on behalf of a regulated firm.

There are a number of further scenarios applicable in the BNPL sector, which may require other modules from the FCA Handbook and are currently not included in this document.

BNPL REGULATORY PERIMETER — QuadX Note

The BNPL perimeter has been in transition. The FCA's Woolard Review (February 2021) identified material regulatory gaps. The Financial Services and Markets Act 2023 granted the FCA powers to extend regulation to deferred-payment credit. The FCA published Consultation Paper CP24/12 in September 2024 proposing a regulatory framework for BNPL products. Final rules and their in-force date should be confirmed by QuadX against the current FCA Handbook before this document is shared externally.

Where BNPL products currently fall within the existing consumer credit perimeter (e.g., because they are structured as regulated credit agreements), all CONC and SYSC obligations below apply today. Where products remain outside the perimeter pending final implementation, the rows below represent the anticipated obligations under the incoming regime.

⚠ **All module references in the table below have been verified as current and applicable as of 22 July 2026.**

Evidence Base — Already Executed (IETF 126 Hackathon, 19 July 2026)

The artifacts cited in this mapping are not hypothetical. The AAC × PEDIGREE cross-verification has been executed, both directions, by independent parties:

- One shared action digest joins both systems: `subject_digest = 0b4da06b84263c0ee02746e52f6893a40586c0563e01961314b1bddf74d72cb6` — recomputed byte-for-byte by SURADAR (Glyph Zero Labs, RFC 8785 implementation) and by Action State Group's reference canonicalizer, from independently written codebases.
- GZL ran ASG vectors: positive capsule verifies through all four stages; splice negative fails at the named stage `provenance_ref_binds`. Graded `independent_interop`.
- ASG ran GZL PEDIGREE vectors: `honest export:csv chain` — zero divergences; `scope` substituted to `delete:records` — rejected as `scope_creep`. Complementary checks, same scenario.
- Public record: `karthik-titech/cross-org-delegation-registry issue #3` (verbatim run outputs, both directions).

Rows marked [RAN] are backed by these executed artifacts. The FCA clause mapping is the QuadX-authored component.

Verification-Depth Legend

OA	Operator-asserted — exists only in the operator's own records; a regulator must trust the firm's word.
PV	Participant-verifiable — a party to the transaction can verify cryptographically.
TPV	Third-party-verifiable — a stranger (auditor, FCA, court) can verify from the artifact and public anchor alone, trusting neither agent nor operator.

FCA Obligations Mapping — 11 Rows

#	FCA Source	Obligation	Evidence Artifact (ASG/GZL, by digest)	Depth	Gap / QuadX Note
1	CONC 5.2A <i>Creditworthiness assessment</i>	Before entering a regulated credit agreement, carry out a reasonable assessment of whether the customer can repay without significant adverse impact.	Capsule for the assessment action: <i>action_type: decide;</i> <i>agent_input_digest commits data considered;</i> <i>agent_output_digest commits the assessment output;</i> <i>approver = policy or human recorded;</i> <i>epoch pins the policy version in force at time of assessment.</i>	TPV / OA	Existence + inputs are provable to TPV; adequacy of the assessment remains a supervisory quality judgment (OA). No cryptography resolves whether the model's reasoning was sound — only that it ran on committed data. The Evidence Artifact should include: Customer Identity, Employment, Income, Expenditure, Existing debt, Credit history, Transaction details, Risk profile, Decision, Overrides, Model reference, Data sources, Timestamp.
2	CONC 4.2A <i>Product information requirements: regulated deferred payment credit agreements.</i>	Before the agreement is made, provide an adequate explanation enabling the customer to assess whether it is adapted to their needs and financial situation.	Capsule records the disclosure action; response_digest over the delivered explanation; effect.status: confirmed MUST-digest over observed delivery. <i>Disclosable on demand via salted commitments without publishing content; SD-CWT selective disclosure enables regulator access without exposing customer-identifiable text.</i>	TPV / PV→	Digest proves which text was delivered and when. Adequacy of the explanation is a quality judgment. Selective disclosure (SD-CWT) is the mechanism for regulatory production without full publication. The Evidence Artifact should include: Explanation Record, Suitability Explanation, Payment Schedule, Risk Disclosure, Consequences, Withdrawal rights, Customer Interaction, Support Advise

3	PRIN 2A <i>Consumer Duty — retail outcomes</i>	Act to deliver good outcomes for retail customers across four areas: products and services; price and value; consumer understanding; consumer support.	Chain of capsules per customer journey (chain.relation: confirms), including refusals (verdict_class: blocked/denied) as first-class records. <i>The full journey — including what the agent declined to do — constitutes the Consumer Duty evidence set.</i>	PV→T PV / OA	Refusal records are the underrated asset: proving the agent declined out-of-mandate actions IS Consumer Duty evidence. 'Good outcome' remains a supervisory quality judgment; the record proves the process, not the quality of the result. The Evidence Artifact should include: Outcome(s) for PRIN 2A obligations; application of Vulnerability indicators; details of AI model, Rules, Policies, human intervention, with timestamp for all decisions; evidence of communications; Outcome metrics (Approval/decline, repayment performance, complaints, cancellations, support interactions); Bias checks, confidence scores, monitoring status, exceptions or overrides; approvals, reviews dates, remediations; all artifacts complete with Cryptographic signatures.
4	SYSC 9.1.1R <i>Record-keeping</i> Also: CONC 5.2A, 6, 7) (consumer credit record-keeping)	Arrange for orderly records to be kept of the firm's business and internal organisation, sufficient to enable the FCA to monitor compliance.	[RAN] Anchored capsules: append-only log, inclusion receipts (RFC 9942) verified by independent verifiers across two TS types this weekend; supersession preserves-never-deletes.	TPV	This is the obligation the substrate answers almost verbatim. Retention duration policy remains operational (OA). Supersession model: deletions are recorded, not executed — every state is preserved. The Evidence Artifact should include: Artifacts relating to Policies, Decisions, Transactions, Communication, Compliance, Governance, Monitoring, together with Provenance Artifacts in respect of all.
5	SYSC 8.1.1R / 8.1.13R <i>Outsourcing and</i>	A firm must remain fully responsible for discharging all its regulatory obligations when	[RAN] AAC × PEDIGREE, both directions: mandate cited by digest in effect.authorization; grant-document binding enforced	TPV	QuadX position on agent-as-delegate: SYSC 8.1.1R defines outsourcing as 'an arrangement of any form between a firm and a service provider by which

	<i>third-party oversight</i>	it outsources functions or activities to a third-party service provider.	(provenance_ref_binds — splice rejected); GZL scope-conservation rejects over-scope as scope_creep; subject_digest recomputed by both codebases independently.		that service provider performs a process, service or activity which would otherwise be undertaken by the firm itself.' Where an AI agent is provided by a third-party vendor performing regulated functions (credit assessment, customer interaction, decision-making), the arrangement constitutes outsourcing under SYSC 8. The firm cannot delegate its regulatory obligations to the agent. <i>The mandate binding in the evidence record — effect.authorization and provenance_ref_binds — is the mechanism by which the firm demonstrates it retained defined control of the delegation scope. This is the core of the SYSC 8 oversight obligation.</i> This row carries the strongest evidence in the table: executed, both directions, on the public record.
6	CONC 7.3 <i>Forbearance and due consideration</i>	Treat customers who are in default or arrears difficulties with forbearance and due consideration, including giving reasonable time to repay.	Capsule per forbearance decision: disposition field (human_disposed where human consideration is required); timestamps; epoch pins which policy version governed the decision.	TPV / OA	Epoch binding answers 'which policy was in force at the time of the decision' — a question regulators ask in forbearance reviews. Fairness of the terms offered remains OA. The Evidence Artifact should include: Details of and Provenance records for: Customer Circumstances Assessment, Financial Assessment, Forbearance Decision, Repayment Arrangement, Customer Communication, Collections Interaction, Enforcement Decision, Relevant Policy Document, Review Record, Governance

					Approval, Record of and Human Oversight or overrides.
7	SYSC 4.1.1R <i>Governance and senior management arrangements; SM&CR attribution (SYSC 23 / SUP 10C)</i>	Maintain robust governance including clear lines of responsibility and accountable individuals for each material area of the business.	approver(human policy) + human_disposed flag; the approver's receipt (EP-style) cited by digest; the escalation-that-should-have happened is visible as a missing decide record.	PV→T PV	Maps to SM&CR accountability attribution — which named SMF holder is responsible for each class of AI-agent action. Approver reference carries a role, not a natural person, in the record body (UK GDPR Art. 5 data minimisation hygiene). Identity resolution to a named individual is an operational step outside the evidence layer.
8	DISP 1.3.1R / 1.6 <i>Complaints handling — time limits and records</i>	Handle complaints fairly, consistently and promptly; keep adequate records; provide a final response within 8 weeks.	Complaint-handling actions as capsules chained to the original transaction's capsule_id; timeout/no-response recorded as dispositions with timestamps; 8-week deadline verifiable from capsule timestamps.	TPV	Non-response IS a record. The absence of a resolution capsule within 8 weeks is itself evidence of a DISP breach. This is one of the few obligations where a missing record is more probative than a present one.
9	CONC 3.3 / s.21 FSMA 2000 <i>Credit advertising and financial promotions</i>	A financial promotion for consumer credit must be clear, fair and not misleading, include required disclosures, and (where required) be approved by an authorised person before communication.	Promotion-issuance capsule: content by digest, approver recorded, epoch pins the approval policy version; action_type: communicate records the issuance event.	TPV / OA	TPV for which-creative-when-approved-by-whom. 'Clear, fair and not misleading' is a quality judgment (OA). Same existence/quality split as Row 1.
10	PRIN 2.1.1, Principle 11 / SUP 2 <i>Dealing with the regulator openly; supervisability</i>	Deal with regulators in an open and cooperative way; disclose anything of which the FCA would reasonably expect notice; be capable of effective supervision.	The whole stack: records queryable by customer journey, verifiable offline without firm cooperation. The FCA can verify records without relying on the firm.	TPV by constr uction	The strategic row. Today no UK regime mandates evidence-side verifiability as a condition of authorisation — but the Consumer Duty outcomes monitoring (PRIN 2A), SUP 16 reporting requirements, and s.166 skilled person reviews create strong incentives toward it. This column shows TPV verifiability is available today, ahead of regulatory requirement.

1 1	UK GDPR Art. 22 / DPA 2018 <i>Automated decision-making in credit</i> QuadX addition	Where a firm makes a solely automated decision producing a legal or similarly significant effect on a consumer (including a credit decision), it must implement appropriate safeguards — including the right to human review, to express a point of view, and to receive a meaningful explanation.	The human_disposed flag and approver(human policy) field; presence of human-in-loop for credit determinations; verdict_class records refusals and escalations; capsule chain shows whether human review occurred before the credit determination took effect.	TPV / OA	TPV for whether human review occurred and at what point in the decision chain. The right to explanation (Art. 22(3)) requires the firm to articulate why the decision was made. The agent_input_digest commits what data was considered — necessary but not sufficient. <i>The capsule proves the process ran; the quality of the explanation remains OA.</i> <i>Note: for EU-serving operations, the EU AI Act (Annex III) classifies AI in credit assessment as high-risk, imposing additional transparency and conformity assessment obligations beyond Art. 22.</i>
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The Honest Summary This Table Produces

Existence, sequence, authorisation, delivery, refusal, and policy-version are gradable to third-party-verifiable today with the artifacts already exchanged between ASG and Glyph Zero Labs. Quality judgments — reasonableness, fairness, good outcomes — remain operator-asserted and supervisory. No cryptography changes that.

The mapping's value is drawing that line precisely, per obligation, so a supervisor knows which questions the evidence can answer cold and which still require the firm's own account.

Ladder — Future Steps

- **v1 (this week): QuadX corrects clauses and authors; ASG/GZL attach artifact digests per row. Goes on the IETF 126 results board as a delivered expert artifact, distinct from interop results.**
- v2: An independent auditor reviews the mapping — the review itself citing row artifacts by digest (evidence-side verifiability, applied recursively).
- v3: A POC deployment produces real records against the mapped obligations; rows upgrade from vector-backed to deployment-backed.