Protocol Transparency Rating

Tori (trUSD)

Independent Proof of Solvency, tori.accountable.capital

GRADE	**BBB** · composite 2.79
CAPTURED	**2026-11-20 07:56 UTC**
DEPTH	**Dashboard Deep-Audit (Protocol Transparency Rating v3.1)**
METHODOLOGY	**Protocol Transparency Rating v3, 2026-07-20 (RockawayX Research)**

A Protocol Transparency Rating grade rates disclosure, not safety. It measures how much of what a risk professional needs is actually on the page: not whether the assets are safe, and not whether the displayed numbers are true. A dashboard can be fully backed and score poorly because it proves none of it; it can score well and still hold assets that later fail. This is not a credit rating.

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Summary

Composite **2.79**, band A, published **BBB**. No item moved this week. One critical omission (item 3) caps the grade at BBB; no other gate binds. The letter still rests on one judgment, whether the accountant letters count as equivalent evidence for the institution names (Rule 1). No new letter was published this week, so the evidence behind the 6 November reading is unchanged and this pass holds it.

Captured 2026-11-20 07:56:57 to 07:57:27 UTC from the full rendered page after scroll, with the browser timezone set to UTC. The page served the 07:46:00 feed cycle. The absence protocol ran alongside. Every FAQ entry was opened one at a time, every tooltip text was read from the expanded page, and every address row was clicked with `window.open` intercepted.

What changed on the page since 13 November:

Change since 2026-11-13	Items	Effect
The Monad leg lent against Tori's own tokens rose from USD 3.28M to USD 4.83M. Together with the Ethereum leg, lending against Tori tokens is USD 4.95M, 6.39% of reserves	1, 3, 25	No change. Both rows stay flagged and reconcile on-chain. The page states no limit on these legs
The "AUSD - Morpho (unallocated)" row is gone: the Monad vault holds no idle cash. A row "AUSD - AUSD", USD 78, takes its place	1	No change
No HT Digital letter dated after 6 November. The page still reads "Signed letter, weekly" and "As of 6 Nov 2026"	13	Held at 3.5; a letter still missing at the next pass takes item 13 to 3
The breakdown sub-rows are now dated 18 November in the payload, two days before capture, and the table no longer sums to the Strategy Allocation (USD 19,958 apart)	21	No change

At capture	
Composite	**2.79, band A, published BBB**
Gates	`k` = 1 (item 3), `j` = 0, `m` = 0, `v` = 0, no kill-switch minus
Total Protocol Reserves	USD 77,520,927
Total Supply (USD)	USD 77,453,632, **reproduced on-chain exactly**
Collateral Ratio	100.09%, Reserve Fund USD 67,296 (**0.09% of supply**, 0.12% on 2026-11-13)
Custody	Custodian banks 77.60%, investment banks 9.06%, on-chain 13.34%
On-chain leg at published addresses	**USD 10.34M of USD 10.34M displayed, 99.99%**
Reserve assets lent against Tori's own tokens	**USD 4.95M, 6.39% of reserves**, flagged (USD 3.41M, 4.40% on 2026-11-13)
Address links	17 of 17 rows resolve, 15 unique addresses, each to its own Etherscan page
Confidence	High on the liability, on control and on the on-chain leg; Medium on the 86.66% off-chain

What holds the grade at BBB is the same single ground. For 86.66% of backing, institutions are named only as classes: "regulated custodian banks" and "regulated investment banks". Under v3.1 that is a critical omission unless Rule 1 applies. The page states a reason and links four dated, signed letters, but the letters attest amounts by asset

category and say nothing about the institutions. This report does not accept them as equivalent evidence. Accepted, the grade is **A** (see How fragile this grade is).

Lending against Tori's own tokens grew by half in a week, and the buffer fell again. USD 1.51M moved from the Ethereum leg to Monad, where it is lent in markets whose only collateral is Tori tokens. The Reserve Fund fell from USD 89,823 to USD 67,296. The Tori-token legs are now 73.6 times the Reserve Fund, against 37.9 times on 13 November. Neither is a disclosure gap in itself, and neither moves the grade.

How to read this grade

The grade measures **disclosure**: how much of what a risk professional needs is actually on the page. It is not a view on whether the assets are safe or whether the displayed numbers are true.

Under v3.1, twenty-five items are grouped into nine weighted dimensions. Each is scored 0 to 4 on evidence tier:

Score	Evidence tier
4	Reproduced or on-chain-verifiable
3	Shown in detail or independently attested
2	Headline only
1	Ambiguous
0	Absent

The **composite** is the weight-normalized sum of the dimension means, also 0 to 4. Item 19 (credit quality) is not applicable to a book with less than 5% loan-type exposure; it then drops out, and the remaining weights are renormalized over 94.

Composite	Band	What a reader can do with the page	What is typically still absent
3.60 to 4.00	AAA	Assess the position from the page alone	Nothing decision-critical
3.20 to 3.60	AA	Assess it, with one gap to close by asking	One notable item, most often per-leg true freshness
2.70 to 3.20	A	Assess it after closing a small number of gaps	Two or three items, commonly feed control and credit performance
2.20 to 2.70	BBB	Work from the page; **the adequacy threshold**	One decision-critical field, or several soft gaps
1.70 to 2.20	BB	Size the position, but not the risk inside it	A decision-critical field: usually pricing source or redemption terms
1.20 to 1.70	B	Read the headline figures and little else	Composition detail, custody granularity, any verification path
below 1.20	C	Not enough to assess anything	Almost everything beneath the headline

An item is **omitted** when it scores 1 or below. Which omissions are critical is fixed by a list, not judged by the rater. The gates then apply to the band, in order, to produce the **published grade**:

	Trigger	Effect
Critical-omission ceiling	`k`, omissions on the critical list (items 1, 3, 6, 7, 8, 14, 16, 19, 20, and 10 with 11 as one)	One caps at BBB, two or more at B
Medium-impact ceiling	`j`, omissions on the medium list (items 2, 5, 13, 15, 17, 18, 22, 23, 24, 25)	Caps at AA
Single-vendor cap	`v`, set when items 10, 11 and 13 are all absent	Caps at BBB
Mismatch downgrade	`m`, set when a figure on the page contradicts a primary source and is unresolved	**One band lower, marked ▼**
Kill-switch flag	Item 22 absent with no independent verification path	A trailing (minus)

A grade is only valid with its capture date, and describes the page as it stood at that moment.

What this dashboard does not show

Seven items score 2 or below. Ranked by what each costs the composite:

	Not shown	What a reader therefore cannot answer	Composite points lost
8	Custody location per leg	Which institutions hold the 77.60% at "regulated custodian banks" and the 9.06% at "regulated investment banks"	0.128
3	Counterparty identity per leg	Which banks and investment banks hold 86.66% of backing, and how many there are	0.089
15	First-loss or junior buffer	What absorbs a loss beyond the USD 67,296 Reserve Fund, 0.09% of supply	0.085
25	Mandate and allocation constraints	Which assets, venues and markets the operator may allocate to, with what caps, and who must sign to change them	0.080
4	Concentration	Whether the largest single counterparty is 5% of the book or 50%	0.074
5	Underlying position volatility	How far the money-market and cash books can move. A net equity delta is shown for the 7.67% delta-neutral leg only, and no net currency position for the local-currency money-market book	0.074
17	Maturity and lock-up	How far below NAV each leg would realise at its stated time to cash. Horizons are given, deviation bounds are not	0.071

Negative-Space Map

Legend: ● shown, ◐ partial, ○ absent. Classification: critical, medium, mismatch, soft.

Critical: item 3, counterparty identity per leg (score 1)

- ◐ **Off-chain institutions named as classes.** 77.60% of backing is held at "regulated custodian banks" and 9.06% at "regulated investment banks", with no name, no count and no concentration figure. Rubric 4.2 scores a class-level name at 1, a critical omission unless Rule 1 applies.
- ● **Reflexive allocation, flagged.** The rows read "USDC - Morpho (Tori token collateral)" and "AUSD - Morpho (Tori token collateral)". Every position at the published addresses was checked (L1): the labels are complete, and the

cbBTC label is correct. The page does not name the markets or the Monad vault, which is an item 10 gap, not an item 3 cap.

Rule 1 decides the letter. The three conditions, for the off-chain institution names:

Condition	Met?	Evidence
1. The page states the reason for withholding	Yes	"Tori does not disclose institution names to protect operational security"
2. Equivalent evidence covers the withheld field specifically	**No, on this rater's reading, held from 6 November**	No letter was added this week. The 6 November letter, like the three before it, attests balances by asset category. It does not name, count or characterise the institutions, and it takes the accounts' designation "from management"
3. The evidence is checkable	Yes for the letters; no for what the page says beyond them	Four dated letters, each with a signature whose integrity verifies. The page's "Segregated custody: Yes, as of 6 Nov 2026" and "Full access to the underlying books and records" are not statements a reader can find in any letter

Condition 2 is a judgment on which raters may differ, and the report gives the letter on both readings in the next section.

No medium-impact omission

`j` = 0. Items 5 and 25, at 1.5, are the nearest to the boundary.

No mismatch

`m` = 0. Every displayed figure tested reconciles to its primary source. Several descriptions sit badly with the page's own figures, with the chain or with the documents it cites. None contradicts a displayed figure, and each carries a reading under which it holds, so each goes to the issuer as a question. All but the second half of the first were open on 13 November:

- **"Same day".** The page defines time to cash as "the slowest settlement period within a class".
  - Money Markets is labelled "Same day", while the tooltips describe USD 2,555,855 of that class as "available on the next business day" and USD 14,276,468 as "fixed-term" (average maturity 15.4 days in the payload, not rendered; 21.4 days on 13 November).
  - On-chain Liquidity is also labelled "Same day". At the retrieval blocks, 68% of it could leave on demand (94% on 13 November): the Monad markets' free liquidity covers 32% of Tori's position there (L1).
  - A reading in which these positions can be converted early is consistent, but the page does not say so, or at what cost.
- **"Segregated custody: Yes" against the letter it links.** See the Rule 1 table.
- **"Signed letter, weekly".** The latest letter is dated 6 November, 14 days before capture.
- **"Two layers of assurance".** The letters say an assurance engagement will follow "in the future"; the platform footer says Proof of Solvency "is not an audit, assurance opinion, guarantee".
- **"Off-chain balances are as of the date of the latest report".** The latest letter gives its off-chain balances as of 5 November, while the off-chain class values change from week to week.
- **On-chain scope.** The On-chain Liquidity tooltip says "held on-chain on Ethereum and Base", while the sub-row tooltips put 46.69% of the leg on Monad. The wallet table is headed "verifiable Ethereum-mainnet".

Material

- **The reflexive legs grew by USD 1.55M.** USD 4,954,345 is lent against Tori's own tokens: 6.39% of reserves and 73.6 times the Reserve Fund (USD 3,406,603, 4.40% and 37.9 times on 13 November). Tori now supplies 37.1% of the Monad AUSD/strUSD market (25.4%), which is 88.1% utilised (80.0%). The page flags the legs and states no limit on them (item 25).
- **How the USDC reached Monad is not on the page.** The Custodian withdrew USDC 1.2M from the Ethereum USDC/cbBTC market in three steps on 17, 18 and 19 November. The Custodian and the DeFi Operator sent USDC 510,000, 500,000 and 500,000 to `0x1103...7936`, an externally owned address the page does not list. That address passed each amount to `0x651C...4C62`, another unlisted externally owned address, within 20 minutes. The same route carried USDC 1.0M on 26 October and on 3 November. Tori's Monad AUSD position rose by the same USD 1.51M. Item 18 asks what is in transit and through whom; the page shows no in-transit row.
- **Item 17: "Same day" holds for 68% of the on-chain leg.** See No mismatch.
- **Item 1: one hedge is described but not sized.** Derivatives Margin is USD 7,817,359, 132% of the only derivative the page sizes (USD 5,931,497 of short single-stock futures). The tooltip states that the margin also secures "USD futures for currency exposure". Those futures have no notional or memo row.

Soft

- **Item 21.** The composition sub-rows are dated 2026-11-18 in the payload, two days before capture, and render undated.
  - The breakdown table totals USD 77,500,969 against the Strategy Allocation's USD 77,520,927, USD 19,958 apart. On 13 November the two matched exactly.
  - The live payload splits the two hedged classes differently from the table: delta-neutral USD 6,734,152 and cash and equivalents USD 7,121,307, where the table shows USD 5,942,678 and USD 7,919,197.
  - The pricing-source dates are retrieval stamps. The three off-chain class values were identical to the cent across the 07:46 and 08:01 cycles.
- **Item 18.** Pending redemptions are stated as zero. USD 3.12M of trUSD sits in the unstaking cooldown contract (4.03% of supply, 1.31% on 13 November), which the page does not show. The Asset Manager connection lists an "In Transit" category in the payload, with no rendered row and no value.
- **Item 15.** The Reserve Fund is USD 67,296, 0.09% of supply: 0.77% on 2026-09-30, 0.57% on 2026-10-13, 0.41% on 2026-10-23, 0.40% on 2026-10-30, 0.20% on 2026-11-06 and 0.12% on 2026-11-13. No subordination is described, and the page does not explain the fall (see Quantified decisive risk).
- **Item 25.** No mandate is published.
  - The Protocol Control text states that API operations are "restricted to configured markets, contracts and initiators" and that "unmatched transactions are blocked". An allowlist therefore exists, but its content is not shown.
  - The custody card refers to "Tori's mandate" without stating it.
  - The Monad Tori-token leg rose 47% in the week, with no statement on the page of what bounds it.
- **Item 13.** The HT Digital letters are reviews ("we have had sight of the following collateral"), not assurance engagements, and the ISAE 3000 engagement is still described as future. No letter dated 13 November was on the page at capture, 7 days after its date; the longest signing lag observed so far is 7 days (the 16 October letter).
- **Item 24.** The admin timelock was replaced this week (L4). The page's "owner-level changes behind timelocks" still gives no timelock address or delay.

How fragile this grade is

Item 3, a critical-list item, sits at 1. All letters below are from `tools/score.py`:

Item 3	Composite	K	Published
0.5	2.78	1	BBB
1 (as scored)	**2.79**	**1**	**BBB**
1.5	2.81	0	**A**
1, with Rule 1 accepted	2.79	0 (item 3 counted as medium)	**A**

A half-point on item 3, or the Rule 1 judgment alone, moves the letter one band. The composite is 0.093 above the A floor: with Rule 1 accepted, a half-point lower on item 7 (2.75), or item 13 at 3 (2.77), still publishes A. On the low side the grade is 0.59 clear of the BBB floor.

Two further judgments are recorded:

If this changed	Composite	Letter
"Same day" treated as contradicted by the page's own tooltips and the chain, `m` = 1	2.79	**BB ▼**
Item 13 to 3 for the missing weekly letter	2.77	BBB

This report applies neither. A label with a consistent reading is scored as a gap and put to the issuer, under the standing rule, and the letter's delay is still within the signing lag already observed.

Item-level scores

#	Item	Score	Evidence
1	Composition by instrument	3	Four classes, each decomposed, with a short futures book and net equity delta. Morpho rows carry their collateral class. The USD futures the margin secures have no notional or memo row
2	Asset-category mix	3.5	Four classes with value, percent, sub-rows and time to cash
3	Counterparty identity per leg	1	Off-chain institutions as classes only, for 86.66% of backing. Reflexive legs flagged, so the rubric 4.2 cap does not apply; on-chain legs name Morpho and the collateral class, not the market or vault. Rule 1 not applied
4	Concentration	1.5	Class and sub-row percentages only; no counterparty count, top-1 or top-10 share
5	Underlying position volatility	1.5	Net equity delta USD 11,181 against a USD 5.94M long book, for the delta-neutral leg only; no net currency position for the hedged local-currency book
6	Ratio and definition	3.5	Formula stated, NAV methodology stated, maximum theoretical daily NAV movement stated
7	Pricing / oracle source per leg	2.5	Three named source classes dated with their retrieval time, plus the Payment Service provider statement date; no valuation date for the off-chain marks, no mapping of source to leg, no update authority per leg
8	Custody location per leg	2	The weakest material leg governs: 77.60% at custodian banks, given only as a class. The on-chain leg is at address granularity for 99.99%
9	Custody tier, source-directness	3	Seven named connections. The Asset Manager API (86.53% of reserves) is retrieved direct from source. Signed accountant letters; a dated MPC-provider policy confirmation

#	Item	Score	Evidence
10	On-chain self-verify links	3.5	17 of 17 rows resolve, each to its own address. At the retrieval blocks the published addresses hold 99.99% of the displayed on-chain leg, the Monad leg included. Markets and vaults are not named, links are to Etherscan only, and 47% of the leg is on Monad
11	Cryptographic verification	3	Merkle root `FSQg15QQvpDU3V9kicz163D8FJt2DxHevSuUHkhcfwRg`, timestamp 2026.11.20 07:54:34, signature validated 2026.11.20 07:57:00; enclave attestation and ZK proofs described
12	Acquisition method and issuer credibility	3	Seven connections with type, exposure, interval and last-updated; private channels marked
13	Independent attestor	3.5	HT Digital: four signed letters dated 16, 23 and 30 October and 6 November, linked; liability figures reproduce on-chain. Review scope, not assurance; designation taken from management. No letter dated after 6 November at capture
14	Liabilities (supply)	4	Total Supply USD 77,453,632; `totalSupply()` 77,453,631.7202 on two providers
15	First-loss / junior buffer	2	Reserve Fund USD 67,296, 0.09% of supply; no tranche or subordination
16	Redemption terms and gating	3.5	Mint, stake, unstake and redeem with timing; 7-day cooldown; NAV per share 1.040730; no redemption queue; a 2 to 3% on-chain instant-redemption target
17	Maturity and lock-up	2	Time to cash per class, weighted average maturity 6.1 days (dated 2026-11-18), market depth and cover per class; no deviation bound from NAV for any leg (v3.1 grid cap)
18	Funds in transit and pending redemptions	2.5	Pending redemptions stated as zero; funds in transit, the transfer route to Monad and the unstaking cooldown not addressed
19	Credit quality and defaults	1	Not applicable under v3.1: loan-type exposure 0% of reserves (see Gates applied). The 1 in the score file enters no calculation
20	Cadence, timestamp, history	3.5	Retrieval interval, most-recent retrieval, seven connection stamps, long history on reserves, ratio, APY and rewards
21	Per-leg true freshness	3	Connections and pricing sources dated to the minute as retrieval times; composition sub-rows undated at two days old
22	Feed control and kill-switch	3	FAQ answer, opened and read: Accountable can halt the external server, Tori can disconnect its node, and the dashboard freezes on its last snapshot. Self-reported
23	Key custody and signing policy	3.5	Ten roles with quorum content. Owner / Admin 3-of-5 Safe reproduces on-chain. Fordefi policy for nine vaults dated 2026-10-26, with 2-of-2 MPC signing keys and API rules stated. A static snapshot, 25 days old
24	Deployment security	3	Audits and monitoring linked; "owner-level changes behind timelocks" stated without the timelock's address or delay. On chain, upgrades route only through a 24-hour timelock, replaced this week by a new one with the same delay and roles
25	Mandate and allocation constraints	1.5	No mandate published. The page states that API operations are restricted to "configured markets, contracts and initiators" without saying which; strategy descriptions describe holdings rather than bound them

Dimension scores

Dim	Dimension	Weight	Items	Mean	Contribution
D1	Holdings and Composition	14	3, 3.5, 1, 1.5, 1.5	2.100	0.3128

Dim	Dimension	Weight	Items	Mean	Contribution
D2	Valuation	16	3.5, 2.5	3.000	0.5106
D3	Custody	12	2, 3	2.500	0.3191
D4	Source Integrity and Verification	16	3.5, 3, 3, 3.5	3.250	0.5532
D5	Liability and Loss-absorption	8	4, 2	3.000	0.2553
D6	Liquidity	10	3.5, 2, 2.5	2.667	0.2837
D7	Credit and Counterparty	n/a	19 not applicable	n/a	n/a
D8	Freshness	6	3.5, 3	3.250	0.2074
D9	Control and Operational Security	12	3, 3.5, 3, 1.5	2.750	0.3511
	Composite (weights renormalized over 94)	94			**2.7933**

Gates applied

Gate	Input	Effect
Band from composite	`C` = 2.7933	A
1 Critical-omission ceiling	`k` = 1: item 3	Ceiling BBB, **binding**
1b Medium-impact ceiling	`j` = 0	None
2 Single-vendor cap	`v` = 0 (items 10, 11 and 13 all present)	No cap
3 Mismatch downgrade	`m` = 0. No displayed figure is contradicted; the description conflicts are listed in the Negative-Space Map	None
4 Kill-switch flag	Item 22 at 3	No minus
Grade		**BBB**

Item 19 is not applicable because loan-type exposure is under 5% of reserves:

Leg	Share	Where it is scored
Overnight reverse repo	47.05%	Items 3, 4 and 8
Bank deposits	21.72%	Items 3, 4 and 8
Morpho supply positions, overcollateralised at 86% to 94.5% LLTV	12.55%	Items 1, 3 and 5
Derivatives margin and cash at bank	10.22%	Items 3 and 8
Listed equities, hedged	7.67%	Not a credit exposure
Plain stablecoins and ETH	0.79%	Items 1 and 8

Loan-type exposure is therefore 0% of reserves. At most it is 0.13%, if all of the letter's "cash, receivables and payables" line were receivables. Addendum 4.4 scores overcollateralised DeFi lending under items 1, 3 and 5, not item 19.

Frontier set

`F` is named and counted, **n = 6**: the four followed dashboards (Huma, Tori, Upshift, Yuzu) and Coinshift and Noon, graded outside the followed set. Huma and Tori carry v3.1 grades captured 2026-11-20; the other four carry their v3 grades of 2026-10-23 until their first v3.1 pass. A v3.1 composite includes item 25 and, where item 19 is not applicable, is taken over 94, so composites under the two methods are not strictly comparable and no set mean is given.

Dashboard	Composite	Published	Method	Captured
Huma PST	2.97	A	v3.1	2026-11-20 07:56
Tori trUSD	**2.79**	**BBB**	**v3.1**	**2026-11-20 07:56**
Upshift earnAUSD (Monad)	2.00	B ▼	v3	2026-10-23 07:21
Noon USN	1.79	BB	v3	2026-10-23 07:21
Yuzu yzUSD	1.78	BB	v3	2026-10-23 07:21
Coinshift iUSPC	1.12	C ▼	v3	2026-10-23 07:21

Tori trUSD is second of six by composite and by letter, 0.18 below Huma PST. It is the only member whose letter is held below its own band by the critical-omission ceiling.

Quick-win path

Action	Item	Composite effect
Name the institutions, or give a counterparty count with top-1 and top-10 shares	3: 1 to 3, 4: 1.5 to 3	**+0.104, and the letter moves to A**
Publish the mandate: eligible assets, venues and markets, per-venue caps including the Tori-token markets, and who signs a change	25: 1.5 to 3	+0.048
Publish a volatility or drawdown series for the money-market and cash books, with the net currency position	5: 1.5 to 3	+0.045
Describe the loss waterfall beneath the Reserve Fund	15: 2 to 3	+0.042
Give a deviation-from-NAV bound at each leg's time to cash, and render the term-deposit maturity	17: 2 to 3	+0.035
Name the custodian institutions, or the custody structure per class	8: 2 to 2.5	+0.032
Name each Morpho market and vault, and link Monad positions to a Monad explorer	10: 3.5 to 4	+0.021
Date the composition sub-rows	21: 3 to 3.5	+0.016
Have a third party confirm the halt arrangement	22: 3 to 3.5	+0.016
Show the notional of the USD futures the derivatives margin secures	1: 3 to 3.5	+0.015

Each row was run through `tools/score.py`; the full list together reaches 3.17, A.

The first row is the direct route to A. A narrower route needs no name to be published: have the weekly letter itself state the number of institutions, their regulated status and the segregation of the accounts, so that Rule 1 can apply to the names. The composite does not change on that route; `k` falls to 0 and the letter moves to A. Without either route, every other row together reaches 3.06 and the grade stays BBB.

No line of the 13 November list was taken this week.

Verification overlay (does NOT change the grade)

L1 Reproduction ledger

Blocks and providers:

- **Ethereum:** block 26,454,896 (07:44:59 UTC), the last block before the page's 07:45:00 to 07:45:04 UTC retrievals, via `eth.drpc.org`; supply confirmed on `1rpc.io`; event logs via `rpc.mevblocker.io` in 5,000-block windows from block 26,406,873, with a non-empty control in each window.
- **Monad:** block 123,810,625 (07:45:00 UTC) via `rpc.monad.xyz`.
- **Base:** latest block via `mainnet.base.org`.
- **Other sources:** Morpho Blue `position()` and `market()` on each chain, with the Monad positions also read from the Morpho API; holders via Blockscout, re-read with `balanceOf` at the retrieval block; prices from Chainlink at the retrieval block.

Claim on page	Method	Result	Reconciles
Total Supply USD 77,453,632	`totalSupply()` on trUSD `0xd0580192e98ea6ceb9c7b6191ed2e27560911697`, two providers	77,453,631.7202	**Yes, exact**
Collateral Ratio 100.09%	Feed reserves over supply	77,520,927.32 / 77,453,631.72 = 1.00087	Yes
Reserve Fund USD 67,296	Feed `net`	67,295.60	Yes
USDC USD 391,016 (Ethereum)	`balanceOf` at all 15 published addresses	389,643.29 tokens (Custodian 264,600; DeFi Operator 124,796; Minting Contract 247), USD 389,588	USD 1,428 over, 0.01% of the leg
USDT USD 207,555	Same	207,734.70 tokens, USD 207,511	Yes
AUSD USD 12,167	Same	12,176.82 tokens	Yes, at market price
ETH USD 380	Native balances times Chainlink ETH/USD 1,746.05	0.2689 ETH, USD 469	USD 89 under, immaterial
USDC - Morpho (other collateral: cbBTC) USD 4,775,334	Morpho Blue `position()` and `market()`	Custodian USD 4,771,767 in USDC / cbBTC (86% LLTV)	**Yes**, within 0.08%
USDC - Morpho (Tori token collateral) USD 126,526	Same, four markets	DeFi Operator USD 126,418: strUSD 91,007; etrUSD 5,054; PT-strUSD 5,056; PT-trUSD 25,301	**Yes**, within 0.09%; all four collaterals are Tori tokens
Monad AUSD - Morpho (Tori token collateral) USD 4,827,819	Vault `balanceOf` and `convertToAssets`, plus Morpho Blue `position()` for the DeFi Operator	Vault position AUSD 3,327,718, plus AUSD 1,504,023 supplied directly: AUSD 4,831,741	**Yes**, within 0.08%; both markets take Tori tokens
Monad AUSD - AUSD USD 78	Vault idle AUSD, DeFi Operator AUSD balance	Both zero	Not located; immaterial

Claim on page	Method	Result	Reconciles
Base USD 4	Native balance of the Custodian on Base	0.00248 ETH, USD 4.33; zero in the cbBTC market	Yes
On-chain leg USD 10,340,879	Sum	USD 10.34M at published addresses, **99.99%**	**Yes**
Address links	All 17 rows clicked with `window.open` intercepted	17 rows, 15 unique addresses, each opening its own Etherscan page	Yes
Connection shares	Feed `dataSources`	DeFi Protocols 12.55%, equal to the Morpho rows; Blockchain Wallets 0.79%, equal to the plain rows	Yes
Owner / Admin 3/5 SAFE QUORUM	`getThreshold()`, `getOwners()`, `nonce()` on `0x0C6Bbfd2d5666d44bf28580eDEec0263692C8316`	Threshold 3, five signers unchanged, nonce 47. One execution since 13 November (see L4)	**Yes**
Upgrade authority	EIP-1967 slots, role events, timelock events	Implementations unchanged; `TIMELOCK_ADMIN_ROLE` moved to a new 24-hour timelock (L4)	**Yes**
Money Markets, Cash & Equivalents, Delta-Neutral	Off-chain, attested	Not reproducible from public sources	n/a

The Monad position.

- **Vault.** "SharpByte AUSD Tori Ecosystem" (`0x790e4f829fe865d432c4Ea83B8B15F8871415B6c`) holds AUSD 5,798,201 (6,220,987 on 13 November). Tori's shares are 57.39% of it (37.28%). It allocates AUSD 5,736,584 to AUSD/strUSD at 86% LLTV and AUSD 61,422 to AUSD/PT-strUSD-4FEB2027 at 91.5% LLTV, and holds no idle cash. The other depositors' share fell from AUSD 3.90M to AUSD 2.47M in the week.
- **Market.** AUSD/strUSD on Monad: supply AUSD 12,931,576, borrowed AUSD 11,393,682, 88.1% utilised (80.0% on 13 November), free liquidity AUSD 1,537,894. Through the vault and directly, Tori supplies 37.1% of the market (25.4%).
- **Withdrawable on demand.** Free liquidity in the vault's two markets covers USD 1.55M of Tori's AUSD 4.83M position, 32% (82% on 13 November). With the Ethereum leg, whose markets cover it in full, 68% of the on-chain class could leave on demand (94%).

Ethereum flows since 13 November.

- The Custodian withdrew USDC 500,000 (17 November 11:21 UTC), 200,000 (18 November 20:00 UTC) and 500,000 (19 November 22:07 UTC) from USDC/cbBTC. No address supplied to a Morpho market on Ethereum in the window.
- The route to Monad is described under Material: USDC 1.51M via `0x1103824cd4b5a34c07719609c26bcb30d7c87936` onward to `0x651CE69295F1BC81f93d70EFAA3294977B964C62`, neither listed on the page and neither named by the explorer. What each address is, and on whose behalf it holds funds in transit, is not established here.

Item 16 probe (v3.1, not scored).

- **trUSD holders.** The largest trUSD address is the strUSD staking contract, at 86.09% of supply (89.23% on 13 November). The unstaking cooldown contract holds 4.03% (1.31%). The top 10 addresses hold 99.51%, and all but

one are contracts.

- **strUSD holders.** A lockbox holds 39.55% (31.79%), Morpho Blue 13.47% (19.34%, borrowers' collateral) and the largest externally owned account 12.22%, about USD 8.15M at NAV or 10.5% of trUSD supply (14.5%). The top 10 hold 94.70%.
- **The buffer.** The liquid on-chain buffer at the retrieval block is USD 5.39M (6.95% of supply, 8.95% on 13 November): USD 0.61M of plain stablecoins and ETH plus the cbBTC-market supply, which that market's liquidity covers in full. It excludes the Tori-token legs. The largest single holder is 1.5 times that buffer (1.6 times).
- An address is not an entity. Unstaking strUSD carries the 7-day cooldown.

L2 Attestation and custody trace

Seven connections:

- the Asset Manager API (verification level 4, 15-minute interval), 86.53% of reserves;
- the DeFi Protocols and Blockchain Wallets connections (level 6), 12.55% and 0.79%;
- a Payment Service Provider's secondary account statement (level 2, periodic), 0.13%. Its statement is still dated 2026-09-25, 56 days before capture;
- CEX and Payment Rail API connections, each at 0%.

The MPC policy confirmation is unchanged on the page: Fordefi, 2026-10-26 17:04 UTC, nine vaults.

The HT Digital letters.

- **Cadence.** Dated 16, 23 and 30 October and 6 November, each a week apart. The feed's `attestation_reports` is unchanged from 13 November. No letter dated 13 November was on the page at capture.
- **Basis.** The letters state that HT Digital was "requested to review the collateral" and "had sight of" it. Off-chain balances in the 6 November letter are taken as of 5 November.
- **What the letters rely on.** They say the assets are held by Tori (BVI) Ltd "in accounts designated for the trUSD reserves", which HT Digital "understand[s] from management".
- **Signature.** The 6 November letter carries a CAdES signature whose integrity verifies over the signed byte range; the certificate names the signing platform, not the accountant. Signed 11 November, five days after its date. Not re-checked this week, since the file is unchanged.

The Attestations block's other entry, a RockawayX wordmark with "Real-time access to the raw, unfiltered data at source, with no Tori system in between", names the publisher of this rating and is not credited under item 13. The page's rating card reads "Last rating Oct 30, 2026", while the ratings page it links shows the 13 November pass; it is not credited under any item.

L3 Adversarial check

The claim tested hardest was the Monad row, because it grew by half in a week and sits in markets that take only Tori tokens. It holds. The vault position (AUSD 3,327,718) and the direct supply (AUSD 1,504,023) together are AUSD 4,831,741 against USD 4,827,819 shown, and both markets the vault allocates to take strUSD or a strUSD principal token as collateral. The idle-cash row of 13 November is gone because the vault holds none.

The second claim tested was "Same day" for On-chain Liquidity. At the retrieval block the Monad markets were 88.1% utilised and could return 32% of Tori's position there; the Ethereum markets could return all of theirs. 68% of the class could leave on demand. A borrower repaying, or the rate rising until one does, is the reading under which "Same day" holds; the page does not state it.

The third was "Segregated custody: Yes, as of 6 Nov 2026" (see the Rule 1 table). The status may well be true. Neither source a reader is pointed to establishes it.

L4 Liveness and control

Control.

- Ten privileged roles are published with quorum content. Each matched the chain on 13 November; the Safe and the timelock roles were re-read this week.
- The Owner / Admin Safe reproduces at 3-of-5 with unchanged signers. Its nonce moved from 46 to 47, through one execution on 18 November at 00:39 UTC. That execution:
  - deployed a new timelock, "ToriTimelock" (`0xcd3c66e73abf927eaaf1238aeb5f251b4f2f667b`), with a minimum delay of 86,400 seconds, the Safe as its only proposer, the Proposal Executor as executor and the Proposal Canceller as canceller. Its own admin role was renounced in the same transaction, so these roles can no longer be changed;
  - scheduled, on the existing 24-hour timelock, a call moving `TIMELOCK_ADMIN_ROLE` to the new timelock on trUSD, strUSD, the Minting Contract and four "Locked Pendle YT" contracts.
- The Proposal Executor executed the handover on 19 November at 12:04 UTC, 35 hours after scheduling. At the retrieval block the new timelock alone holds `TIMELOCK_ADMIN_ROLE` on trUSD, strUSD and the Minting Contract, and the Safe holds `DEFAULT_ADMIN_ROLE`. Implementations are unchanged: trUSD `0xb1d1...f631`, strUSD `0x6561...977a`. Upgrades still need the Safe to propose and 24 hours to pass. The page does not name either timelock.
- The two "Locked Pendle YT 25FEB2027" wrappers deployed on 12 November now carry small supplies (15 and 10 units). Neither is shown on the page, and neither holds reserves.
- `FULL_RESTRICTED_STAKER_ROLE` on strUSD: no grant or revocation since 13 November.
- Zero-value and dust USDC transfers between look-alike addresses and the Custodian, the DeFi Operator, the Minting Contract and `0x1103...7936` ran through the week. One look-alike of the Custodian is a proxy whose verified implementation is named "Poisoner". No value went to a look-alike address.

Feed. The FAQ entry on halting is unchanged; it is the issuer's statement, and a halt cannot be tested from outside. A frozen page would still carry its "Most Recent Retrieval" stamp, so a reader can detect a halt by reading the date.

Freshness, polled.

- The capture read the 07:46:00 cycle. A read at 08:12 returned the 08:01:01 cycle.
- NAV per share re-marked from 1.040730 to 1.040733.
- The three off-chain class values were identical to the cent across cycles: money market instruments USD 53,324,589.84, delta-neutral USD 6,734,151.56, FX collateral USD 7,021,128.79. Total reserves moved only with the on-chain legs and bank cash.
- The connection stamp therefore records a retrieval, not a revaluation, as at every pass since 23 October.

No gate was contemplated on freshness.

Quantified decisive risk

Loss-to-impairment. The Reserve Fund is USD 67,296 against USD 77,453,632 of supply, **0.09% of the book**. No junior tranche sits beneath it.

Leg	Share	Loss on the leg that exhausts the buffer
Money Markets	68.77%	0.13%
On-chain Liquidity	13.34%	0.65%

Leg	Share	Loss on the leg that exhausts the buffer
Cash & Equivalents	10.22%	0.85%
Delta-Neutral Equity Arbitrage	7.67%	1.1%
Of which lent against Tori's own tokens	6.39%	1.4%

Money Markets is the leg where the smallest loss reaches par. The reflexive allocation is smaller, but its loss is correlated with the event it would need to cover: the borrowers' collateral is the token the reserves back.

The week's move in the Reserve Fund, from public figures:

	USD
Reserve Fund, 2026-11-13 15:16	89,823
trUSD minted to the StakingRewardsDistributor (`0xa0C4...D375`) on 18 November; the transaction's only USDC movement is USD 123,512 from the Custodian to itself	-123,512
Reserves change not explained by deposits and redemptions: reserves rose USD 60,734 while USD 360,171 was paid in and USD 400,197 paid out	+100,759
USDC paid in above the trUSD minted for it	+225
Reserve Fund, 2026-11-20 07:46	**67,296**

Redemptions were paid at par: USD 400,197 of trUSD burned against USD 400,197 of USDC paid out of the Minting Contract. The week's fall, USD 22,528, is the reward mint less the reserves' gain. The page does not explain it, and the ratio definition's "accrued but undistributed rewards" does not separate the two lines.

Deltas since the last pass

Prior pass: `gradings/2026-11-13-v3.1/dashboard-audit-tori-trusd-2026-11-13.md`, composite 2.79, BBB under v3.1.

	2026-11-13	2026-11-20	Note
Composite	**2.79**	**2.79**	**No item moved**
Published grade	**BBB**	**BBB**	**By ceiling on both dates**
Item 3	1, on one ground	1, on the same ground	Institutions still classes; Rule 1 reading held
Total Reserves	USD 77,460,193	USD 77,520,927	+0.1%
Total Supply	USD 77,370,370	USD 77,453,632	+0.1%
Reserve Fund	USD 89,823, 0.12%	USD 67,296, 0.09%	
Custody: banks, investment banks, on-chain	77.49%, 9.12%, 13.40%	77.60%, 9.06%, 13.34%	
Lent against Tori's own tokens	USD 3.41M, 4.40%	USD 4.95M, 6.39%	Both flagged
Lent against Tori's own tokens, times the Reserve Fund	37.9	73.6	
USDC/cbBTC market supply	USD 5.97M	USD 4.78M	USD 1.2M withdrawn, sent to Monad

	2026-11-13	2026-11-20	Note
Share of the Monad AUSD/strUSD market	25.4%	37.1%	Utilisation 80.0% to 88.1%
On-chain leg at published addresses	99.99%	99.99%	
On-chain leg withdrawable on demand	94%	68%	
Monad position withdrawable on demand	82%	32%	
Largest strUSD account against the liquid buffer	1.6 times	1.5 times	
trUSD in the unstaking cooldown	1.31%	4.03%	Not shown on the page
Derivatives Margin against sized futures	129%	132%	
Composition sub-rows	As of 2026-11-12, undated	As of 2026-11-18, undated	Table USD 19,958 short of the total
Weighted average maturity	7.6 days	6.1 days	Term-deposit average maturity in payload 21.4 to 15.4 days
NAV per share	1.038843	1.040730	
HT Digital letters	Four, latest dated 6 November	Unchanged	No 13 November letter at capture
Safe nonce	46	47	New 24-hour timelock takes over upgrade authority

Last week's re-grade triggers:

Trigger	Outcome
A weekly letter covering the institutions, named institutions, or a count with shares	Not taken. No new letter
The 13 November letter: wording, signing lag, a lapse, or a move to ISAE 3000	**Not published by capture**, 7 days after its date
A published mandate, including any limit on the Tori-token markets and the vault cash	Not taken. The Monad Tori-token leg rose 47%
Deviation-from-NAV bounds, and a time-to-cash label that matches the tooltips	Not taken. Labels and tooltips unchanged
The Tori-token legs against the Reserve Fund	73.6 times, from 37.9
The Reserve Fund	Fell again, to 0.09%
A statement of what `FULL_RESTRICTED_STAKER_ROLE` does	Not taken. The role is unchanged on-chain
Any use in the reserves of the two wrappers deployed on 12 November	None in the reserves; small supplies issued

Re-grade triggers

- A weekly letter that states the number of institutions, their regulated status and the segregation of the accounts, or named institutions, or a counterparty count with top-1 and top-10 shares: items 3, 4 and 8, and Rule 1. **This is what moves the letter to A.**

- No HT Digital letter dated after 6 November at the next pass: item 13 to 3 (BBB either way; with Rule 1 accepted, still A).
- A published mandate with caps and a change process, including any limit on the Tori-token markets: item 25.
- Deviation-from-NAV bounds per leg, and a time-to-cash label that matches the Term and Overnight tooltips and the Monad markets' liquidity: item 17.
- The transfer route to Monad: who holds the funds in transit, and an in-transit row while they move: item 18.
- The Tori-token legs against the Reserve Fund, now 73.6 times.
- The Reserve Fund, which has fallen at every pass since 2026-09-30 (0.77%, 0.57%, 0.41%, 0.40%, 0.20%, 0.12%, 0.09% of supply).
- The new timelock's address and delay on the page: item 24.
- A statement of what `FULL_RESTRICTED_STAKER_ROLE` does and who it has been applied to: item 24.

Sources

- **Rendered dashboard**, `https://tori.accountable.capital`, captured 2026-11-20 07:56:57 to 07:57:27 UTC. Browser timezone UTC, full page after scroll. Artifacts: `captures/tori-trusd-2026-11-20-{tabs.json,network.json,overview.png,overview-expanded.png,meta.json}`.
- **Absence protocol**, `captures/tori-trusd-2026-11-20-absence-probe.json`: monotonic expansion over two passes, `textContent`, every title, aria-label and alt value, and a row and button sweep with `window.open` intercepted. The tooltip texts are read from its expanded `textContent`.
- **FAQ and address rows**, `captures/tori-trusd-2026-11-20-faq-tooltips.json`, 08:01 to 08:10 UTC: each FAQ entry opened individually, and all 17 address rows clicked in-page.
- **Freshness reads**, `captures/tori-trusd-2026-11-20-feed-t1.json` (the 07:46:00 cycle) and `captures/tori-trusd-2026-11-20-feed-t2.json` (the 08:01:01 cycle).
- **Backend feed** `https://tori.accountable.capital:8443/dashboard`, including `attestation_reports`, `policy_attestation`, `dataSources`, `underlying_exposure`, `nested_split`, `maturity` and `liquidity`.
- **HT Digital proof-of-reserves letters** dated 2026-10-16, 2026-10-23, 2026-10-30 and 2026-11-06, linked from the page's Attestations block and Proof of Reserves Reports table; text and signature checks as recorded in `gradings/2026-11-13-v3.1/captures/tori-trusd-2026-11-13-overlay.json`, the files being unchanged.
- **Chain reads.** Ethereum, Monad, Base, Morpho and holder reads as listed in L1, each with its block height, archived in `captures/tori-trusd-2026-11-20-overlay.json`.
- **Accountable's ratings page** linked from the rating card, text archived in `captures/tori-trusd-2026-11-20-rating-page.txt`.
- **Prior pass and captures**, `gradings/2026-11-13-v3.1/`.
- **Methodology.** Protocol Transparency Rating v3, `spec/protocol-transparency-rating-v3-2026-07-20.md` and the source PDF, as amended by `spec/protocol-transparency-rating-v3.1-addendum-2026-10-26.md`.

Standing disclaimer

A Protocol Transparency Rating grade rates disclosure, not safety. It measures how much of what a risk professional needs is actually on the page: not whether the assets are safe, and not whether the displayed numbers are true. A dashboard can be fully backed and score poorly because it proves none of it; it can score well and still hold assets that later fail. This is not a credit rating.