PANW · Palo Alto Networks · NASDAQ   Last **$348.66** (−2.79%)   As of **Jul 20, 2026** close   Framework **STORM**

Window **Apr 2023 – Jul 2026**

Exhaustion at a record 200-day extension: selling the pause, not the crash

A triple rejection of the $366–369 zone at the largest 200-day moving-average extension in the security's modern history, expressed through a defined-risk bear call spread expiring the Friday before the fiscal Q4 print.

THE READ

PANW has traded a textbook exhaustion sequence — a July 6 spike high at a record +76.8% extension above its 200-day average, a failed marginal breakout to a new all-time high on July 17 (a 2B by 17 cents), and a July 20 lower-high rejection that closed −2.79% in the bottom 2% of the day's range. Conditions for a top are as extreme as this name has ever printed. The timing evidence, however, says rejection days inside this run have been coin flips over one to two weeks, and the one true historical analog resolved on an earnings catalyst. The recommended expression therefore requires only a *pause*: a short Aug 21 '26 $355/$385 call spread, collected at roughly a third of width, that wins anywhere below +1.8% at expiry and dies before the estimated August 24 report.

STRUCTURE	EXPIRY	CREDIT TARGET	BREAKEVEN	MAX LOSS
−355C / +385C	Aug 21 '26 monthly	≥ $10.00 (≥33% width)	≈ $365 (+4.7%)	≈ $20 R:R ~1:2
SIZING				
≈ 7% disc. Kelly				

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SITUATION

The tape: three probes, three rejections, record altitude

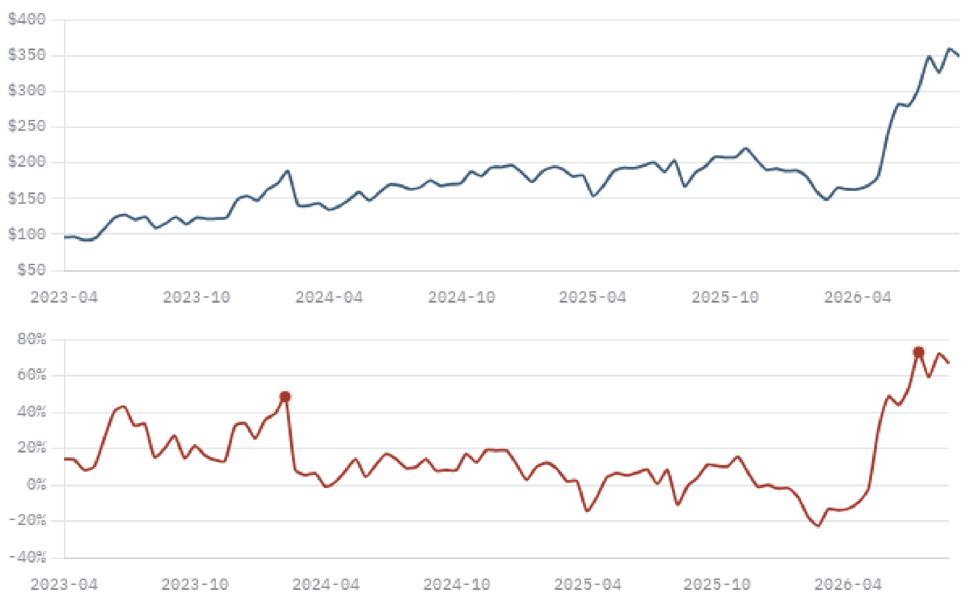
The setup rests on two pillars — a completed exhaustion sequence at a fixed price zone, and an extension reading with essentially no precedent in the file.

Price anatomy. The stock spiked to $368.17 intraday on July 6, closing +2.7% at what proved the extension record. Eight sessions later, on Friday July 17, it printed $368.80 — a marginal new all-time high by 0.17% that could not hold into the close, the classic 2B / failed-breakout signature. Today it rallied to $366.31 — a lower high, 0.7% shy of Friday — then reversed to close $348.66, down 2.79%, thirty cents off the session low. Three probes of $366–369 in ten sessions, each rejected, the third failing at a lower high and closing on the lows. That is legitimate exhaustion structure, not a routine pullback.

The extension. The 200-day simple moving average sits at $209.15. Today's close is +66.7% above it — the 99th percentile of the April 2023–present distribution, where the 90th percentile is just +35.6%. The July 6 peak reading of +76.8% is the record for the entire dataset. There is also a genuine internal divergence: Friday's marginal price high arrived at +72.1% extension versus +76.8% at the July 6 high — though the 200-day is itself rising roughly 6.9% per month, so a portion of that compression is mechanical.

The regime. This altitude was reached by a +164% advance in five months from the February 24 low of $139.57 — a parabola with fundamental sponsorship: fiscal Q4 revenue guided to roughly $3.35B (+32% y/y), NGS ARR guided up 59–60%, hardware bookings reaccelerating, and a record backlog. Ten-day realized volatility is 67% annualized (95th percentile), with four declines of −2.5% or worse in the last ten sessions against rallies of +5.5% and +6.8%. High-volume churn at highs reads as distribution — but it also confirms dip-buyers remain aggressively present. On the other side of that ledger, senior insiders including the CFO have been reducing holdings into a premium multiple.

FIG. 1 — WEEKLY CLOSE & 200-DAY EXTENSION, APR 2023 – JUL 2026



Marked points on the lower panel: +48.4% (Feb 9, 2024 — six trading days before the −28.4% guidance-cut session) and the +76.8% record of July 6, 2026. Today's +66.7% remains above every pre-2026 observation in the file.

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TENSION

What the studies say — and where they contradict each other

The extension precedent is stark but tiny. Before this run, extension ≥45% occurred on exactly three days in the dataset: February 8–12, 2024, peaking at +48.4%. Six trading days later PANW fell 28.4% in a single session on a guidance cut, and all three observations printed roughly −19% at the 63-day horizon. That is the entire historical base rate for this regime — n=3, one episode, resolved by a catalyst. Sobering; not a sample.

STUDY B — REJECTION-AT-HIGHS ANALOGS (HIGH WITHIN 1.5% OF 52-WK HIGH, CLOSE ≤ −2.5%)

Date	Ext200	Fwd 5d	Fwd 21d	Fwd 63d	Max DD 21d
2023-10-19	+21%	−6.3%	−2.2%	+36.6%	−7.6%
2023-12-04	+28%	+4.6%	−1.2%	−2.7%	−2.1%
2023-12-14	+31%	−0.3%	+9.9%	−5.1%	−6.2%
2024-12-09	+18%	+4.1%	−10.8%	−9.3%	−14.0%
2025-07-29	+3%	−12.8%	−3.2%	+13.6%	−14.8%
2025-10-10	+11%	−0.3%	+3.8%	−9.4%	−2.5%
2026-05-19	+29%	+3.5%	+19.8%	—	−2.0%
2026-07-07	+66%	+4.7%	—	—	—
2026-07-20	+67%	live	live	live	live

Medians run roughly flat at 5–10 days, −1% at 21 days, −4% at 63 days with two-thirds of observations negative, and a median 21-day max drawdown near −6%. There is a real skew toward drawdown, but the signal alone has not top-ticked this run: the May 19 instance ripped +19.8% in a month, and the July 7 rejection — a −5.7% day at 66% extension — was fully recovered within a week.

The tail is the current run measured against itself. Conditioning on extension ≥35% (90th percentile, n=64 overlapping daily observations), the 24-day terminal distribution splits 66% below $355 / 9% between the strikes / 25% above $385, with a median of −6.9%. But every observation in that above-$385 tail traces to late May through mid-June 2026 — the current parabola, sampled with overlapping windows. Strip those autocorrelated observations and no high-extension episode in the file ever produced the +10.4% follow-through that reaches the long strike. The backtest cannot resolve this: the trade *is* the bet that the May–June melt-up does not immediately repeat.

> **Bootstrap check.** A block bootstrap (6-day blocks, 10,000 paths) over the full April 2023–present return set puts 44% of terminal prices below $355 and prices the spread near fair. The same bootstrap fed only the last 60 sessions of returns — the parabola's own regime — puts just 6% of paths below $355 and destroys the position. The entire edge lives in the regime call, exactly where the exhaustion evidence sits.

The calendar. The fiscal Q4 report is currently estimated for Monday, August 24 — the first session *after* the August 21 monthly expiry. That alignment is the point of the structure: the single mechanism that historically broke this pattern (Feb 2024) was an earnings print, and this position is designed to be flat before the next one. The date is an estimate, not company-confirmed, and the prior two fiscal Q4 reports landed August 18–19. A confirmed date on or before August 21 inverts the risk profile entirely and is a structural invalidation, not a judgment call.

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OPTIONS

Expressions considered

FOUR WAYS TO BE SHORT A PARABOLA

Expression	Wins when	Loses when	Assessment
Short stock	Crash occurs	Any continuation	Uncapped risk vs ±6% days; rejected
Long puts	Fast, large decline	Chop or drift	Buying 95th-pctile realized vol; theta hostile
−370/+410 CS	No new ATH holds	New high > ~$379	Elegant invalidation; thin credit (~23% width), 1:3
−355/+385 CS	Pause: below +1.8%	Close > ~$365 at expiry	**Selected** — pays the thesis as stated

The 370/410 version monetized "no new all-time high" — its short strike sat above the double top, so a finish exactly at the highs still expired worthless. The 355/385 monetizes the actual thesis — *a pause in the rally* — and gets paid for it: roughly a third of width in credit versus under a quarter, and risk-reward near 1:2 versus 1:3. The cost of that upgrade is geometric: the breakeven (~$365) now sits at the *bottom* of the rejection zone rather than above it, so a retest of the highs that stalls at $367 on expiration day is a small loss rather than a win. The structure converts the $366–369 supply zone from an invalidation level into the P&L fulcrum itself: every rejection that held converts to full credit; the first one that doesn't costs money.

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RECOMMENDATION

Sell the PANW Aug 21 '26 $355/$385 call spread

- **Entry.** Target ≥$10.00 credit (≥33% of the $30 width), quoted off spot $348.66. Scale on strength: with a 91% historical probability of the short strike trading intraday during the window, a bounce into $358–362 fattens the credit materially at identical strikes. Selling full size after a −3% close is the thinnest version of the trade.
- **Sizing.** Kelly-Thorp inputs from the conditional study (win probability 0.70, payoff odds 0.70) give a full-Kelly of ~28% of options risk capital. Applying the standard half-Kelly and a further 50% sample-size discount — three independent high-extension episodes do not merit more — yields ~7% of options risk capital at max loss. The bimodal terminal distribution (outcomes cluster at full credit or full loss; only 9% of conditional observations land between the strikes) argues for treating max loss, not credit, as the sizing unit.
- **Temperament.** Hold-to-expiry. The short strike will very likely be probed (91%) and the breakeven has a 70% historical touch rate; marks will go against the position at some point in nearly every winning path. This is not a structure to manage on a touch.
- **Invalidations.** (1) Company confirms an earnings date on or before August 21 → close or roll to a strictly pre-print expiry, unconditionally. (2) A daily *close* above $369 (new ATH that holds) → the exhaustion structure is broken; review with a bias to close, since the remaining hope is chop, not thesis. (3) A close above $385 → the parabola has re-asserted; max loss is capped by construction, take it.
- **Downside handling.** A close below the July 8 reaction low of $320.59 — the level separating a shakeout from a broken parabola — takes the spread to ~90%+ of max value quickly; harvesting above 85% of credit with more than a week remaining is preferred to holding for the last dollar of theta against a 67%-vol tape.

Option mechanics in full

Pricing across the vol surface. Modeled at 32 calendar days (Aug 21), r = 4.3%, spot $348.66:

BLACK-SCHOLES ESTIMATES — SELL $355C / BUY $385C

IV	Δ short / long	Credit	% width	Breakeven	Max loss	R:R	Req. win rate
45%	0.48 / 0.26	$9.49	32%	$364.49	$20.51	1:2.2	68%
55%	0.50 / 0.31	$10.11	34%	$365.11	$19.89	1:2.0	66%
65%	0.51 / 0.34	$10.51	35%	$365.51	$19.49	1:1.9	65%

Note the compression: raising IV from 45% to 65% adds only about a dollar of credit. In a vertical spread, higher implied vol lifts *both* legs and converges their deltas (0.48/0.26 → 0.51/0.34), so the sold spread approaches — but never reaches — half of width. The practical consequence is that this trade is not primarily a vol sale; it is a probability sale. The credit pays roughly one dollar for every two at risk, and the empirical question is whether the true probability of finishing below $355 exceeds the ~66% the market implicitly charges. The unconditional record says no (44% of 24-day windows since April 2023 finished below +1.8%; the stock's base rate is up-drift, median +3.4%). The high-extension conditional record says yes (66% below $355, median −6.9%). The trade is long the conditional and short the unconditional — which is precisely what an exhaustion thesis means in probability terms.

FIG. 2 — PAYOFF AT EXPIRY PER SPREAD ($10.25 CREDIT) WITH STRUCTURAL LEVELS

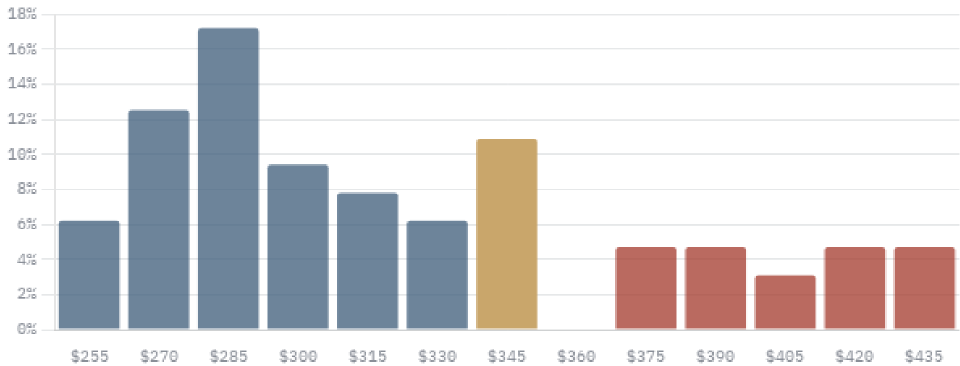
Key geometry: the $366–369 rejection zone straddles the breakeven. A terminal print at the old high ($368.80) loses ≈ $3.60 per spread — the structure is paid for the pause, not merely for the absence of a new high.

Empirical expectancy. Marking the expiry payoff against the historical 24-day forward distributions:

EXPECTED VALUE PER SPREAD AT EXPIRY

Credit	EV — unconditional (n=802)	Win %	EV — ext ≥35% (n=64)	Win %
$10	−$2.26	54%	+$1.32	70%
$12	−$0.26	57%	+$3.32	70%
$14	+$1.74	59%	+$5.32	70%

FIG. 3 — CONDITIONAL TERMINAL DISTRIBUTION (EXT ≥35%, 24 TRADING DAYS, SCALED TO $348.66)



The distribution is bimodal with a hole between $360–375: historically the stock either pauses (full credit) or runs (toward max loss); it almost never lands between the strikes. The shaded right tail is sourced entirely from May–June 2026 observations.

Greeks over the life of the trade. At entry the position is short roughly 20 deltas per spread (0.50 – 0.31 at mid-IV) — a directional position wearing an income costume, and it should be sized as one. Theta is modest early and back-loaded: because the estimated print falls *after* expiry, the Aug 21 series carries no event premium, so the final week delivers clean, accelerating decay with no earnings bid propping the strip — the decay profile a premium seller actually wants, and the reason this expiry was chosen over the post-print series where the headline vol lives. Vega is short but small and shrinks toward zero as the spread resolves; the position benefits mildly if the 95th-percentile realized vol bleeds, but vol path is a secondary driver. Gamma is the enemy in week four if spot sits near $355–365: a pinned tape between the strikes into expiration is the one region where small moves swing the outcome violently, and it argues for taking off at 80–85% of max profit rather than riding the pin.

Path, pin, and assignment. The 91% short-strike touch probability restates the temperament point quantitatively: an intraday breach of $355 is the expected case, not the exception, and is uninformative by itself — only closes matter against the invalidation levels. Early assignment risk on the short 355 call is negligible while any extrinsic value remains (PANW pays no dividend, so there is no rational early-exercise date); it becomes relevant only deep in-the-money near expiry, at which point the position is at max loss regardless and the long 385 caps everything. Spread execution: quote the vertical as a package, work the mid; a 67%-vol underlying keeps these markets wide, and paying up a quarter to fill on a bounce beats chasing on weakness.

What the market must believe for the trade to lose. At $10+ credit, the loss zone requires PANW — already +66.7% above its 200-day, rejected three times at $366–369, with realized vol at the 95th percentile and insiders reducing — to close above ~$365 in 24 trading days *without* the benefit of an earnings catalyst inside the window. It has done exactly that once in the file's history: the last eight weeks. That sentence is both the risk disclosure and the thesis.

METHODOLOGY

Source: BATS PANW daily OHLC, Jan 2022 – Jul 20, 2026 (user-supplied); study window Apr 2023 – present (n=802 daily observations). Extension = close / 200-day SMA – 1. Conditional set: extension ≥ 35% (90th percentile), n=64 overlapping daily windows spanning approximately three independent episodes — treat all conditional statistics with a severe effective-sample discount. Forward horizons in trading days; 24td ≈ the Aug 21 expiry. Bootstrap: 6-day block resampling, 10,000 paths. Option values: Black-Scholes, r=4.3%, no dividend; live market quotes will differ and should be verified against the actual August chain before execution. Earnings date (est. Aug 24, 2026) is unconfirmed as of publication.

DISCLOSURES