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GRAND CANYON INFRASTRUCTURE

SAGUARO RACK SUPPLY CHAIN CRISIS

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EXECUTIVE SUMMARY

Immediate Actions:

- Proportional supply allocation
- Prioritize high-value markets
- Transparent customer communication
- Logistics optimization (air + ocean freight)

Key Constraints:

- 1,500 units/month component limit
- 720 racks/month CM capacity (primary bottleneck)
- 12-week lead time
- Projected unmet demand: 1,680 racks (H2 2025)

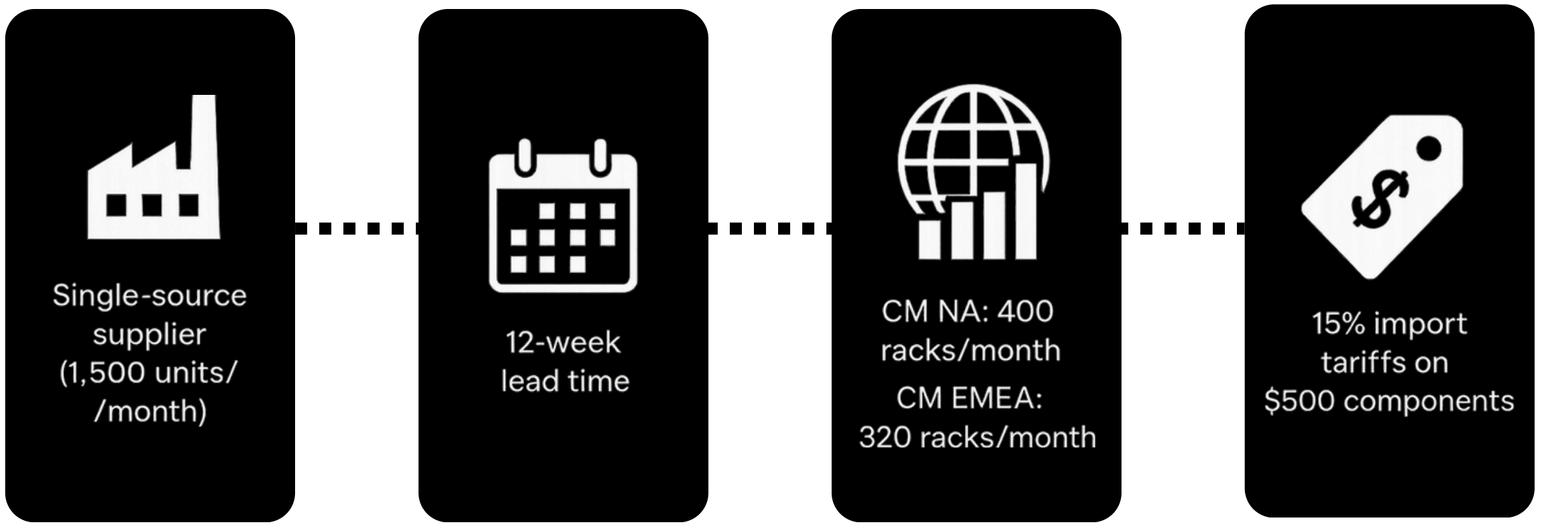
Tariff Management:

- $648,000 tariff cost (H2 2025)
- Use Foreign Trade Zones (FTZs) to defer/reduce tariffs

Mid-Term: Secure new suppliers, expand CM capacity
Long-Term: Product redesign, offshore assembly

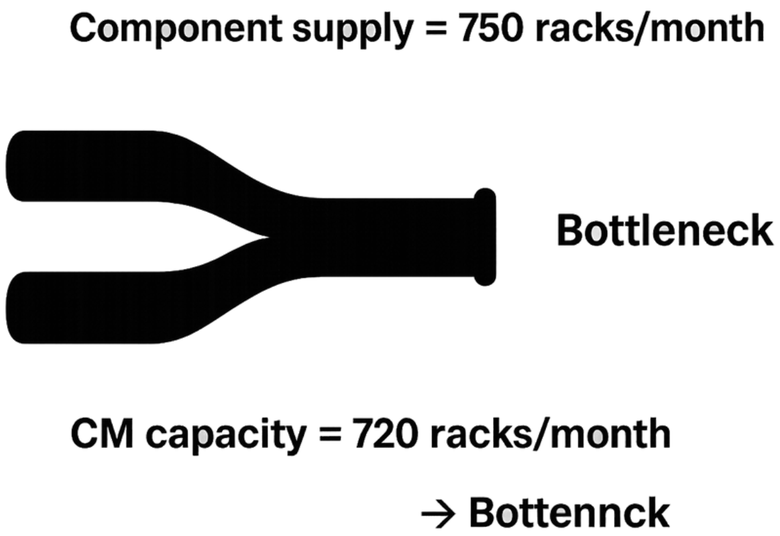
PROBLEM OVERVIEW

- Single-source supplier (1,500 units/month)
- 12-week lead time
- CM NA: 400 racks/month, CM EMEA: 320 racks/month
- 15% import tariffs on $500 components



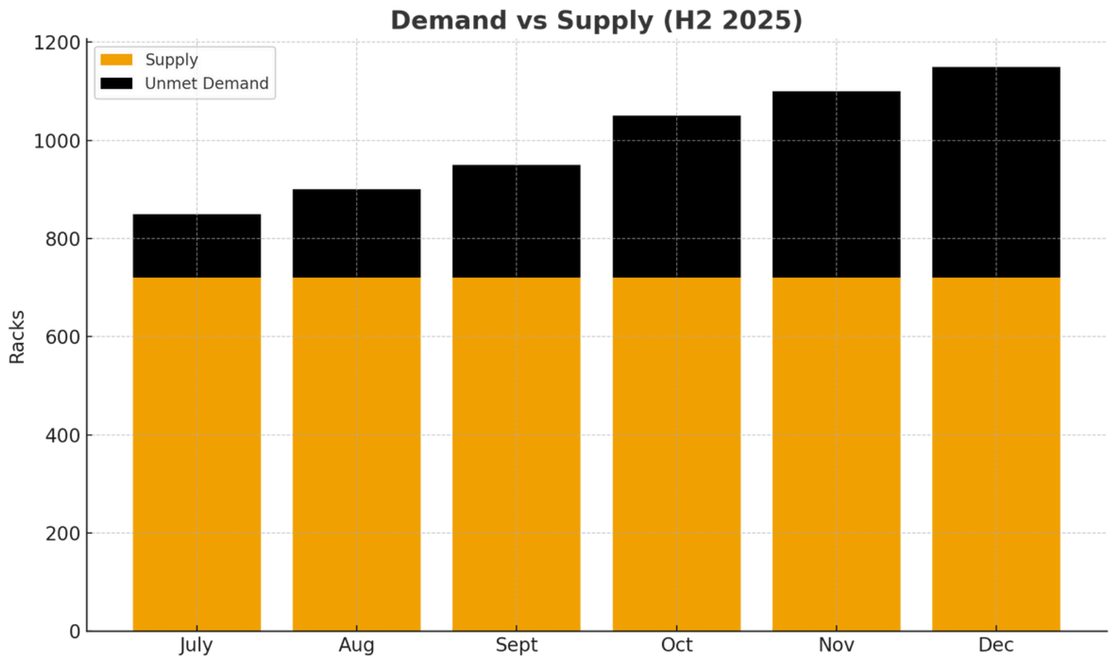
IDENTIFYING THE BOTTLENECK

- Component supply = 750 racks/month
- CM capacity = 720 racks/month → Bottleneck



DEMAND VS SUPPLY ANALYSIS

Month	Demand	Max Supply	Unmet
July	850	720	130
Aug	900	720	180
Sept	950	720	230
Oct	1050	720	330
Nov	1100	720	380
Dec	1150	720	430



- Total unmet demand = 1,680 racks

SUPPLY ALLOCATION STRATEGY

- Allocation based on proportional demand (e.g. July: NA 500, EMEA 350)
- Flexibility to shift toward high-margin regions

IMMEDIATE MITIGATION ACTIONS

- Prioritize key customers
- Transparent delay communication
- Use expedited freight for urgent orders

LOGISTICS OPTIMIZATION

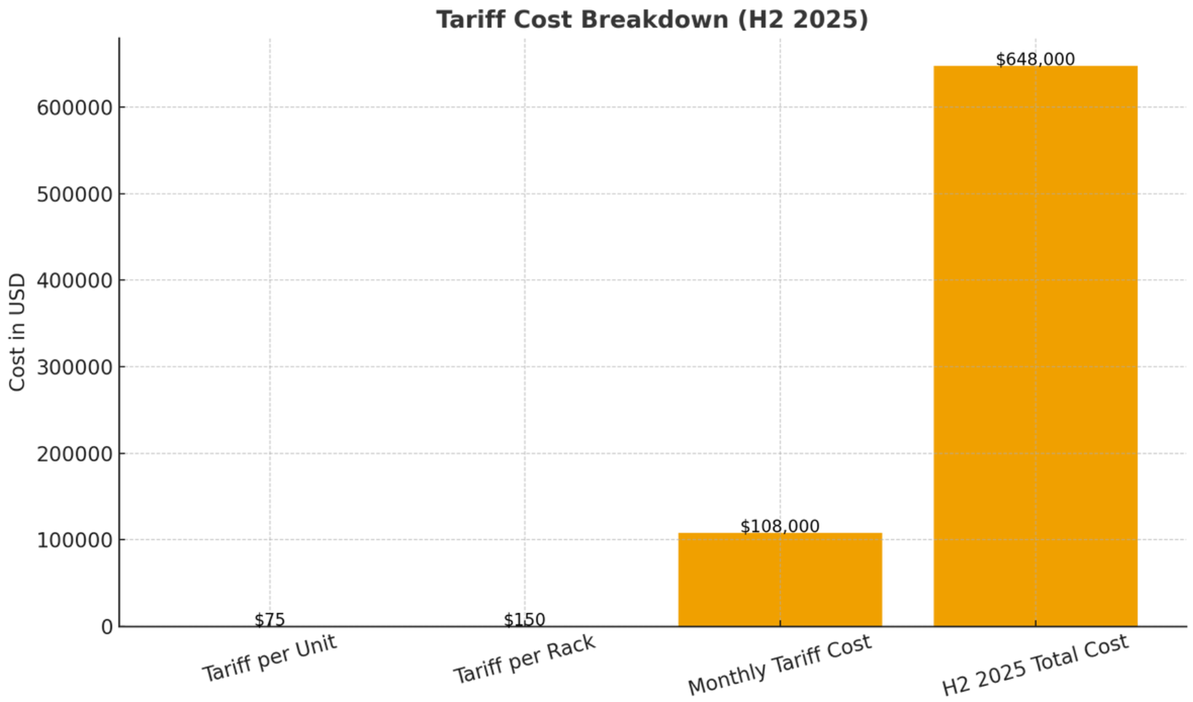
- Air freight for urgent demand
- Ocean freight for cost-sensitive bulk
- Pre-staging inventory, customs pre-clearance

TRADE-OFFS: COST VS SPEED VS RISK

Option	Speed	Cost	Risk
Air	High	High	Medium
Ocean	Low	Low	Low
Buffer Inventory	Medium	Medium	Low

TARIFF IMPACT AND MITIGATION

- 15% on $500 = $75/unit → $150/rack
- $150 × 720 racks/month = $108,000
- Total: $648,000 for H2 2025
- Solution: Use FTZs, explore offshore final assembly



MID-TERM STRATEGY (6–12 MONTHS)

- Secure additional suppliers (dual sourcing)
- Expand CM capacity via contract renegotiation
- Trial supplier onboarding by Month 6

LONG-TERM STRATEGY (12–18 MONTHS)

- Product redesign: reduce unique component dependency
- Evaluate offshore or nearshore final assembly
- Tariff engineering and classification review

TIMELINE OF ACTIONS

Phase	Focus Areas
0–3 mo	Communication, allocation, expedite, FTZ app
3–6 mo	Supplier audits, inventory buffer, dual sourcing MOU
6–12 mo	CM expansion, FTZ active, second supplier live
12–18 mo	Redesign rollout, tariff mitigation complete

THANK YOU!

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