

Stranded Capacity Risk

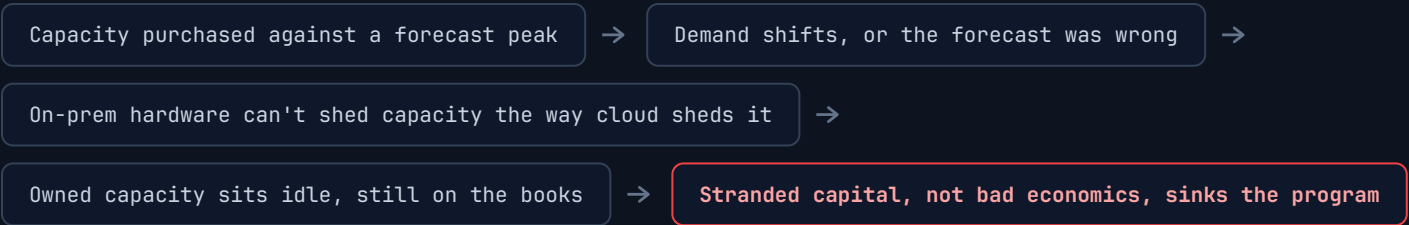
DEFINITION

The risk that capacity purchased for repatriated peak demand sits idle, stranding capital when demand shifts or forecasts miss.

FRAMEWORK FLOW

01 The Condition On-premises capacity is sized against a forecast peak — the same headroom cloud elasticity used to absorb on demand, now purchased and fixed in advance.	02 The Boundary Workload archetype sets the exposure: a Persistent Enterprise Core amortizes fixed capacity well against continuous utilization; an Elastic Burst Platform strands most of what it buys.	03 Failure State Demand shifts or the forecast simply misses. Unlike cloud, on-premises infrastructure cannot shed capacity between utilization peaks — the hardware is owned whether or not it's drawing load.	04 Consequence For elastic and burst workloads, stranded capacity — not the underlying economics — becomes the primary failure mode of the repatriation decision.
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Failure State: Capacity Can't Shed What It No Longer Needs



THE DIAGNOSTIC SIGNAL

ARCHETYPE EXPOSURE Ask which workload archetype is being sized for. Persistent Enterprise Core and Data Gravity Anchor patterns amortize well; Elastic Burst Platform and Seasonal Event patterns carry high stranded-capacity exposure by default.	RISK SEVERITY Ask what tier the risk actually reads: Low, Moderate, or Severe — driven directly by utilization forecast confidence and variance, not by the sizing decision alone.
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TRIGGER CONDITION The risk is dormant at sizing time — every forecast looks reasonable on the day capacity is purchased. It only activates once real demand diverges from the number that was budgeted.	REMEDIATION SHAPE Size to a variance band, not a point forecast — and weight the Workload Pattern Interpretation output before committing capital, not after the peak fails to materialize.
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ARCHITECTURAL RELATIONSHIPS

#76 Repatriation Elasticity Gap RELATED MODERATE The inverse exposure on the same variance problem: Stranded Capacity Risk is owned capacity that sits idle on-prem; the Elasticity Gap is burst headroom given up by leaving cloud.	#77 Cloud Dependency Residue RELATED MODERATE Both are costs that only surface after the compute has already relocated — Stranded Capacity Risk is what sits idle in the new on-prem footprint; Dependency Residue is what stays behind in cloud.
#79 Economic Persistence Bias RELATED MODERATE Persistence Bias distorts the forecast Stranded Capacity Risk is sized against — sunk cost and operational familiarity push the peak estimate toward the comfortable number, not the honest one.	#80 Operational Amortization Window RELATED MODERATE Stranded capacity is dead weight inside the Amortization Window — idle hardware still has to be paid down on the same clock as capacity that's actually earning its keep.

ANCHOR cre.rack2cloud.com FRAMEWORK HOME The Cloud Repatriation Economics Engine's Infrastructure Persistence pillar scores this directly — Stranded Capacity Risk rated Low, Moderate, or Severe against workload archetype and utilization variance, the tool's primary check against over-committing fixed capacity.
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"Cloud sheds capacity you stop using. Owned infrastructure doesn't — Stranded Capacity Risk is the bill for headroom that was right on the forecast and wrong in practice."