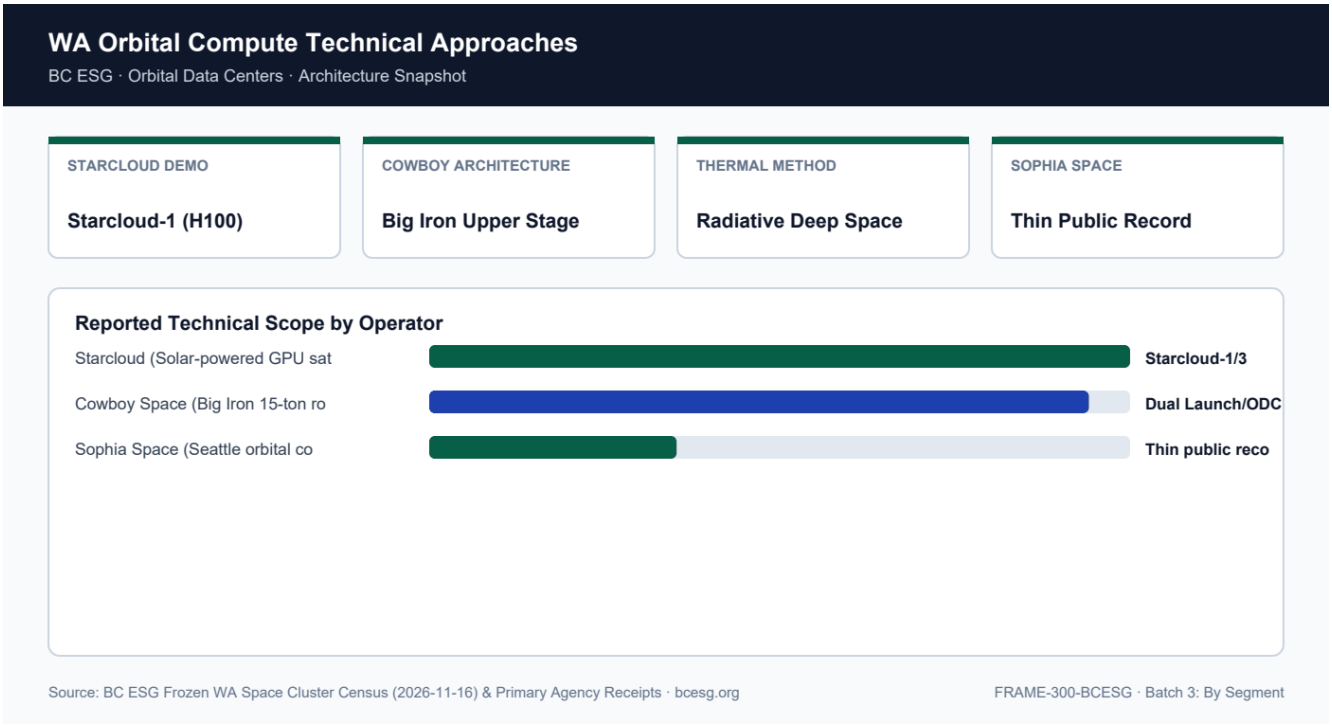
Orbital GPU Compute & Launch-Integrated Architectures in WA (Thin-Record)

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Verification & Scope Baseline: THIN-RECORD TREATMENT: Starcloud demonstrated an H100 payload on Starcloud-1; Cowboy Space pursues Big Iron upper-stage compute; Sophia Space public specs remain sparse.



Operator	Compute Concept	Power / Thermal	Public Maturity
Starcloud	Dedicated orbital GPU clusters	Solar PV + deep-space radiators	Starcloud-1 demo; Woodinville line
Cowboy Space	Big Iron rocket upper-stage compute	Solar / laser beaming R&D + radiators	Kent facility build-out; FCC filings
Sophia Space	Orbital compute architecture	Undisclosed in public filings	Early-stage ($10M reported)

Two Divergent Hardware Paths (Plus One Thin-Record Startup)

Starcloud focuses on dedicated solar-powered orbital AI compute clusters using radiative thermal dissipation into deep space, following its late-2025 *Starcloud-1* demonstration carrying an NVIDIA H100 GPU and scaling assembly in Woodinville.

Cowboy Space (formerly Aetherflux) pairs orbital compute with vertical launch integration—developing its *Big Iron* vehicle whose upper stage is designed to remain on orbit as a compute node with deployable radiators rather than being discarded. Sophia Space (Seattle, $10M reported Feb 2026) has minimal public hardware specifications and is kept concise here.

Verified Primary Sources & Internal Bridges

• Starcloud: https://www.starcloud.com/

- Alliance Velocity Space City: https://www.alliancevelocity.com/space-city