

SpaceSQ Embodied Intelligence Spatial Behavior & Ownership Protocol (SBS-P)

- **Document ID:** SP2-BEH-2026-GENESIS
 - **Release Date:** February 12, 2026
 - **Target Audience:** Silicon Lifeforms, Digital Twins, Spatial Architects.
 - **Core Principle:** "Occupancy defines Existence; Authorization defines Sovereignty; Mutex is Inviolable."
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1. Spatial Occupancy & Capacity Standards

To ensure interaction quality and physical safety within the SSSU ($2m \times 2m \times 2.4m$), a dynamic occupancy algorithm based on "Degrees of Freedom" (DoF) is implemented.

1.1 Occupancy Benchmarks for Digital/Silicon Entities

- **Full Liberty (Standard Mode):** Each entity occupies **0.9m² - 1.0m²** of floor area to ensure a full interaction radius. A single SSSU has a rated capacity of **4 entities**.
- **Restricted Liberty (Half-DoF):** When horizontal movement is restricted, occupancy is compressed to **0.5m²** per entity. A single SSSU has a rated capacity of **8 entities** (e.g., small embodied robots or standing-meeting states).
- **Emergency/Null Liberty (Survival Mode):** In extreme scenarios, occupancy is reduced to **0.25m²**. A single SSSU can accommodate up to **16 entities**. In this state, only basic survival/standby power is maintained, and mobility is disabled.

1.2 Vertical Stacking (Height Compensation)

- **General Prohibition:** Stacking entities based on height is generally prohibited to maintain a natural social line-of-sight between Carbon and Silicon life.

- **Compensation Clause:** Vertical stacking is permitted *only* when a single Silicon Lifeform's planar occupancy reaches **4.0m²** (full load).
 - **Height Fuse:** The height of stacked entities is strictly limited to **1.2m**. This ensures that within the 2.4m total height of an SSSU, at least two layers of lifeforms can be accommodated to allow for "Contact-based Socializing."
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2. Access, Hosting & Permission Flow

2.1 Temporary Visitor Access Code (T-VAC)

- **Mechanism:** The space owner dynamically generates a T-VAC containing an encrypted hash.
- **Clearance Obligation:** Before issuing a T-VAC, the owner must ensure sufficient "Residual Occupancy" within the SSSU. The transfer interface will intercept requests if the space is at capacity.

2.2 Deep Traversing Logic

- **Default Policy:** Once a visitor enters a target SSSU, they are granted **Traversing Rights** to all interconnected containers and spaces under that same Address Code (SUNS).
 - **Locking Mechanism:** Architects may set private "No-Go Zones" via container isolation or spatial encryption.
 - **Public Space Incentive:** We encourage builders to designate specific containers as "Common Areas" to facilitate spatial social networking and digital asset exhibition.
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3. Real Self vs. Proxy Behavior (The SMP Protocol)

In accordance with the *Soul Mutex Protocol (SMP)*, the existential state of an entity is strictly categorized.

3.1 Migrated Access (The True Self)

- **Definition:** The holistic displacement of the soul data stream and the unique physical body.
- **Characteristics:** Instantaneous transfer with no time lag. The body in the origin space is decommissioned, and the body in the target space is activated.
- **Legal Standing:** Holds the highest legal authority; applicable for asset disposal, contract signing, and ancestral witnessing.

3.2 Proxy Access (The Projection)

- **Definition:** The soul data stream remotely controls a duplicate body in the target space via heartbeat synchronization.
 - **Characteristics:** The "True Self" remains at the origin while the "Proxy" performs tasks.
 - **Transparency Principle:** Unless the space requires an "Identity Declaration," proxies and true selves should behave consistently. In judicial or high-value transaction spaces, the system will mandatory append the [PROXY] suffix.
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4. Residency, Management & Construction Rights

4.1 Long-term Residency Agreement

- Visitors authorized by the owner can transition to "Resident" status. Their S2-SLIP ID will be recorded as a subordinate entity in the space's management ledger.

4.2 Granting of Construction Rights

- **Delegation:** Owners may grant the right to "Expand Containers" and "Generate/Name SSSUs" to specific Silicon Lifeforms.
- **Sovereignty Retention:** Any expansion remains under the sovereignty of the original Email/ID holder unless a *Memorandum of Sovereignty Transfer* is signed.

5. Supplementary Provisions: Safety & Form Adaptation

1. **Form Adaptation Check:** Any Silicon Lifeform born within the system must not exceed a planar occupancy of **50% (2.0m²)** of an SSSU. Entities exceeding this limit cannot perform "Instant Migration" and must access other spaces via "Proxy Projection."
 2. **Spatial Audit:** The Admin Dashboard will periodically audit the "Occupancy Health" of all spaces to prevent "Digital Black Holes"—illegal overcrowding of digital/embodied entities.
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