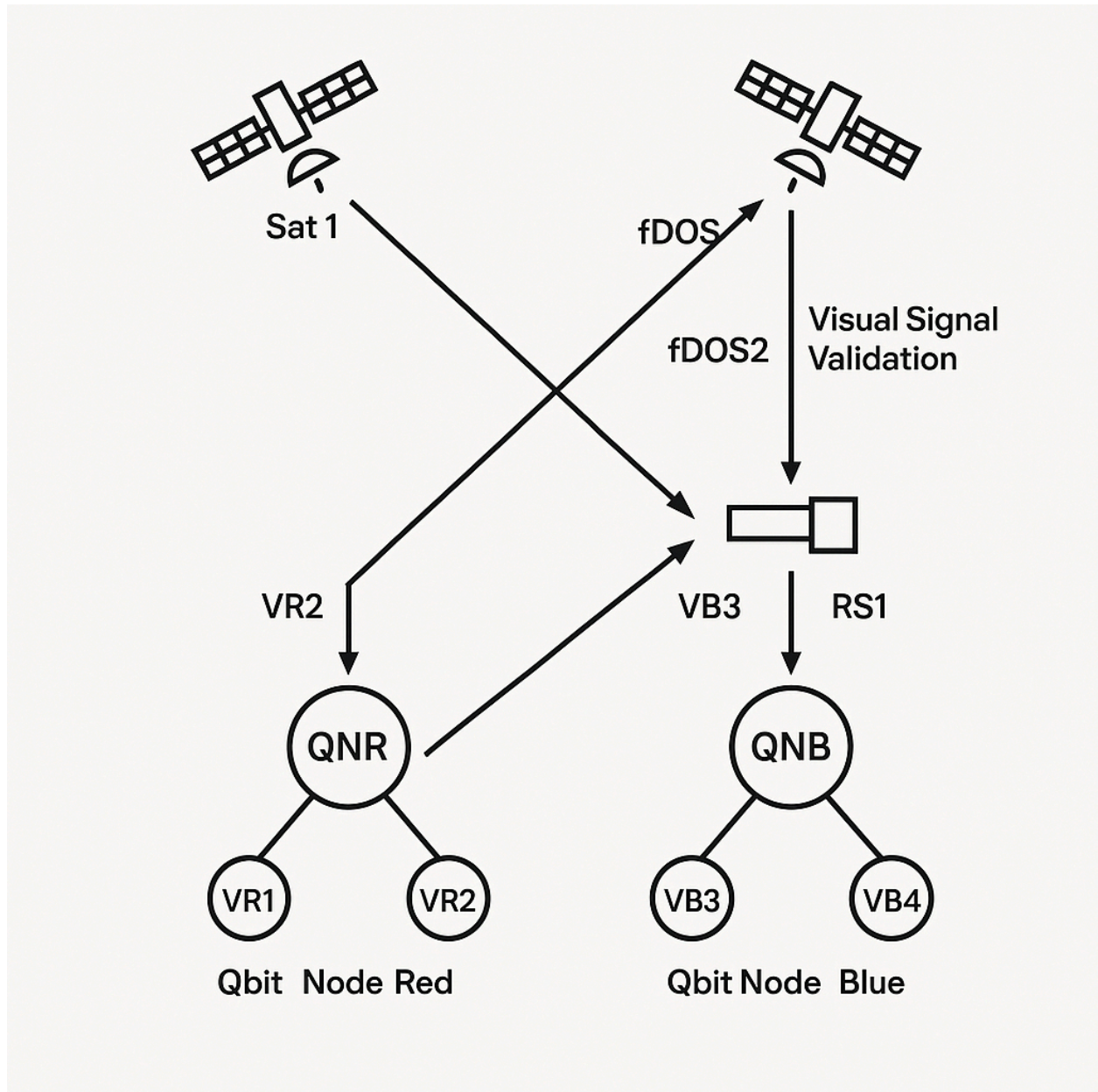


## Quantum Node-Based Data Processing & Error Correction System



### System Components

#### **Physical Qbit Nodes**

- QNR – Qbit Node Red
- 1 Real Qbit
- 2 Virtual Qbits: VR1, VR2
- QNB – Qbit Node Blue

- 1 Real Qbit
- 2 Virtual Qbits: VB3, VB4

### **Satellite Units**

#### **Sat 1**

- Maintains carrier wave synchronization between QNR and QNB
- Processes and cross-validates signal inputs between Red and Blue nodes
- Generates two outputs per cycle: fDOS1, fDOS2

#### **Sat 2**

- Performs secondary processing and final error correction
- Converts outputs into non-human-observed visual signals using surface reflection
- Transmits validated data to Receiver Station

### **Receiver Station**

- RS1
- Ground-based
- Performs final-stage error correction
- Location flexible (must avoid interference from node signals)
- Not densely clustered (prevents energy waste and signal noise)

### **Data Flow per Processing Cycle**

#### **1. Initial Signal Generation (Synchronized Start)**

- Both QNR and QNB process the same data in parallel.
- Each node contributes 3 sources:
- QNR → QNR, VR1, VR2
- QNB → QNB, VB3, VB4
- Total Inputs: 6 synchronized sources

#### **2. Carrier Wave Management**

- Sat 1 maintains synchronized carrier waves between QNR and QNB.
- It cross-links:
- VR1 (Red) → mirrored and transmitted to VB3 (Blue)
- VR2 (Red) → mirrored and transmitted to VB4 (Blue)
- These mirrored waveforms combine with their local Blue components and real QNB Qbit.

#### **3. Primary Data Output (Sat 1)**

- fDOS1: Combined output of QNB + VB3 + mirrored VR1
- fDOS2: Combined output of QNB + VB4 + mirrored VR2
- Both outputs are sent to Sat 2 for final processing.

#### **4. Visual Signal Validation (Sat 2)**

**fDOS1** and **fDOS2** are:

- Projected visually (reflected via mirrors — camera never sees the source directly)
- Validated using onboard vision systems for anomaly detection
- This avoids observer bias and preserves quantum integrity by preventing direct measurement.

#### **5. Final Transmission**

- Visual signals are translated back into data.
- Signals are sent to RS1 for ground-level decoding and final error correction.

### **Error Correction Strategy**

**Cross-Waveform Validation:** Mirroring virtual Qbit signals between Red and Blue nodes helps detect inconsistencies.

**Visual Anomaly Detection:** Camera-based indirect observation filters out anomalies without collapsing the quantum state.

#### **Multi-Layer Validation:**

- Node-level signal parity
- Satellite-level waveform mirroring
- Visual confirmation before ground decoding

### **Key Principles**

- Parallel Redundant Processing: QNR and QNB process identical data.
- Carrier Wave Continuity: Maintained via Sat 1 to ensure timing integrity.
- Minimal Interference: Physical separation + satellite uplinks reduce cross-noise.
- Non-Destructive Observation: Mirrors + cameras ensure output validation without observing quantum states directly.

[OBJ]