SRT Contribution Checklist

Configure SRT for any public-internet contribution path · 2026 defaults · field-tested

Latency window

≥ 4× RTT, then add jitter margin

Wired same-country
RTT 20–40 ms · set 200–500 ms

Transatlantic fibre
RTT 80–120 ms · set 800–1200 ms

4G/5G mobile uplink
RTT 30–200 ms · set 1500–2500 ms

Geo satellite
RTT 500–700 ms · set 4000–8000 ms

Connection mode

Caller / Listener / Rendezvous

Standard ingest
Caller (encoder) → Listener (server)

Cloud-hosted encoder
Listener (encoder) ← Caller (receiver)

Symmetric-NAT both sides
Rendezvous (both initiate)

Watch out for
Listener-to-listener and bare rendezvous-to-caller fail

Encryption

AES-128 / AES-256 in CTR mode

Passphrase
32+ random chars, rotated, secrets manager

Key size
AES-128 default · AES-256 if compliance demands

CPU cost
Negligible on AES-NI hardware

Watch out for
'password' / 'test1234' passphrases — never

Pre-flight SRT contribution checklist

Walk through every box before showtime. Every one of these has caused a production incident at least once.

- ☐ Measure baseline RTT and packet loss on the production uplink for 10 minutes — not the office Ethernet.
- ☐ Set latency on BOTH ends to the same value. The negotiated budget is the max of the two; mismatch silently breaks recovery.
- ☐ Size the latency window to 4× worst observed RTT plus jitter margin. Default 120 ms is rarely enough.
- ☐ Enable encryption: AES-128 with a 32-character random passphrase stored in a secrets manager.
- ☐ Open outbound UDP on the chosen port at the encoder-side firewall. Many corporate networks block UDP by default.
- ☐ Use caller-listener topology whenever one side has a stable public address. Avoid rendezvous unless symmetric NAT forces it.
- ☐ Configure MTU/MSS to match the path. Default 1316 bytes works on standard Ethernet; lower it inside a VPN tunnel.
- ☐ Monitor retransmission rate. Healthy < 0.5%; investigate at 1%; alarm at 5%. Stats are free — read them.
- ☐ Test SRTLA bonding ahead of show day if mobile contribution. BELABOX is the de-facto standard sender.
- ☐ Stand up a backup encoder on a backup uplink. The cheapest redundancy in the entire pipeline.

The SRT rule of thumb

On a 90 ms-RTT path with 2% packet loss, RTMP halves the send rate from 8 Mbps to 4 Mbps for several seconds per loss event; SRT with a 400 ms latency window recovers via single-packet NAK and keeps the send rate at 8 Mbps. The trade is configurable latency for reliable bitrate — sized to the worst-case RTT on the path.

SRTLA (SRT Link Aggregation) — for mobile and IRL

Bonds 2–6 cellular modems into one SRT stream. Developed by the BELABOX project; now the de-facto standard for mobile contribution. Standard SRT latency budget rises to 4000–8000 ms to absorb cross-modem jitter. Aggregate bandwidth = sum of all links; failure of any single carrier is absorbed by the others.