

LoST routing

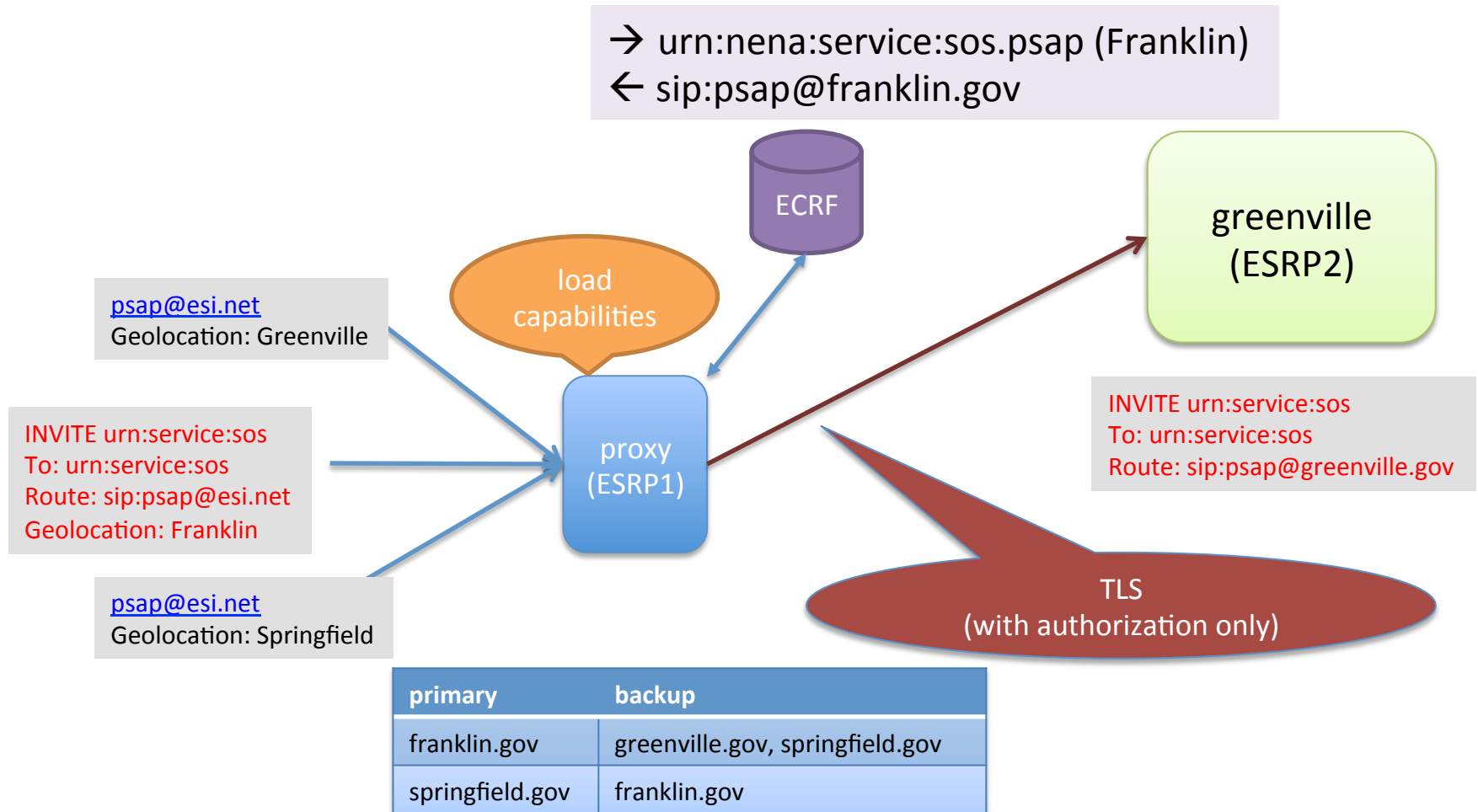
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Call routing

- At any proxy, next hop (request URI) is function of (one or more)
 - incoming **request URI, To, Route** headers
 - location of caller → LoST
 - restricts reasonable set of PSAPs
 - availability of PSAP
 - load at PSAP
 - special consideration (e.g., language, media capabilities)
 - others...
- Assumptions:
 - ECRF data (including urn:nena:...) cannot be kept secret and needs to be consistent everywhere
 - Must work even if PSAPs are on public IP addresses, with and without B2BUA

Multi-stage routing

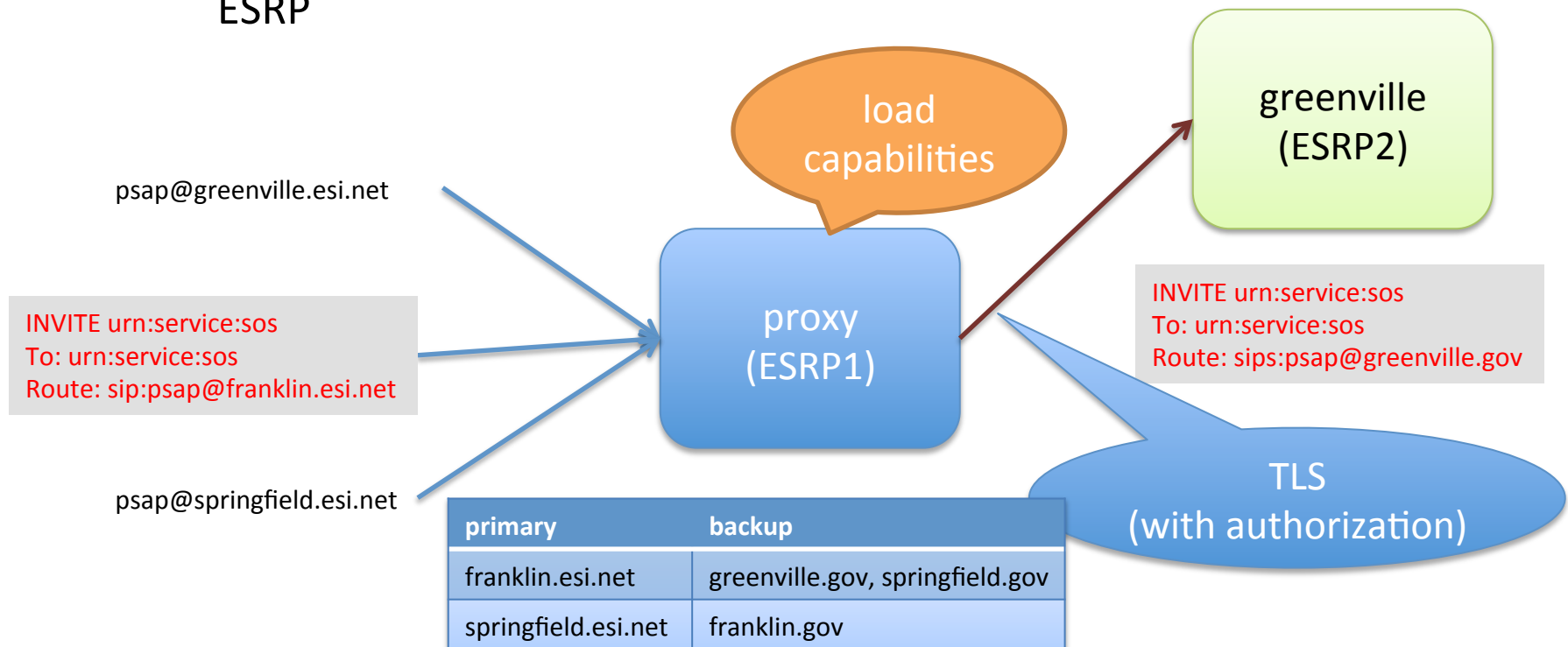


Multi-stage Trade-offs

- Can maintain ESInet PSAP table in ECRF
 - but still need to know which PSAPs are substitutable for each other
- More complex data management
 - not just GIS export (need to maintain which service)
- Need to maintain multiple hierarchies
- Multiple queries in one call
- May be difficult to extend to poison control, mountain rescue, etc.
- May be difficult to manage when ESInets are nested or overlap

Alternative 2: Single-stage routing

- Single-step
 - LoST returns final PSAP name (e.g., franklin.esi.net)
 - All PSAPs within served by same ESRP



Single-stage Trade-offs

- Single hierarchy
 - Avoid merge-split of LoST hierarchy when ESI-net structure changes
 - Single LoST lookup
- Public LoST hierarchy has full GIS map
 - unclear whether this matters
 - Exposure of PSAP-specific URL
 - but does not reach PSAP
 - Need table in ESRP to map “public” URL to “secure” URL
 - how is table generated?

Alternative 3: Multi-step, single URN

- Use new LoST query parameter “context”
- Avoids level numbering issues
- Clearly identifies what the context of name is
- Avoids namespace combinatorial explosion

Options

- Describe both Alternative 1 & 2, with trade-offs
- Make sure both work if some ESI-nets choose single-stage, others multi-stage
- Wait for operational experience to update