Common Endpoint Locator Pools (CELP)

- draft-crocker-celp
  - Dave Crocker
  - Avri Doria

- Multiple multiaddressing schemes
  - Different approaches have different benefits

- Proposal:
  - Share locator pools across independent associations
  - Reduce multiaddressing control transaction costs
  - Improve availability of locator performance information
Synergy Across Associations

Transport-based schemes
- Multiplex control exchange in data stream, so control data does not increase packet overhead
- Can naturally obtain path quality information

Wedge-based schemes
- Multiaddressing for legacy transports
- Naturally independent of individual transport associations
- Can operate asynchronously of associations, deferring control exchanges, often needing no exchange
- Can maintain pools with different referential granularity
Framework

- Variable granularity
  - \{local, remote\}
  - \{local, remote, flow\}
  - \{local, remote, protocol, port\}
  - \{local, remote, type of service\}

- Status
  - Reachability
  - Performance
Issues

- **Path selection**
  - Which paths are available or better?
  - Suggestion: Defer generality; start with primary and fallback choices

- **Local/Remote combinatorials**
  - Suggestion: Defer generality; start with just `{remote}` or `{local, remote}`

- **Security**
  - Different schemes have different degrees of security \( \rightarrow \) concern about weakest participant affects entire service
  - Maintaining synchrony among different modifiers of pool

- **Referential commonality**
  - Different schemes use different identifiers
  - How to know that different locators refer to same endpoint?
  - Suggestion: That's what domain names are for...
Next Steps

- Resolve
  - Differential security issues
  - Near-term vs. long-term issues
  - Determining common endpoint referencing

- Formulate CELP service model details
  - Data structures
  - Operations