Common Endpoint Locator Pools (CELP)

- **draft-crocker-celp**
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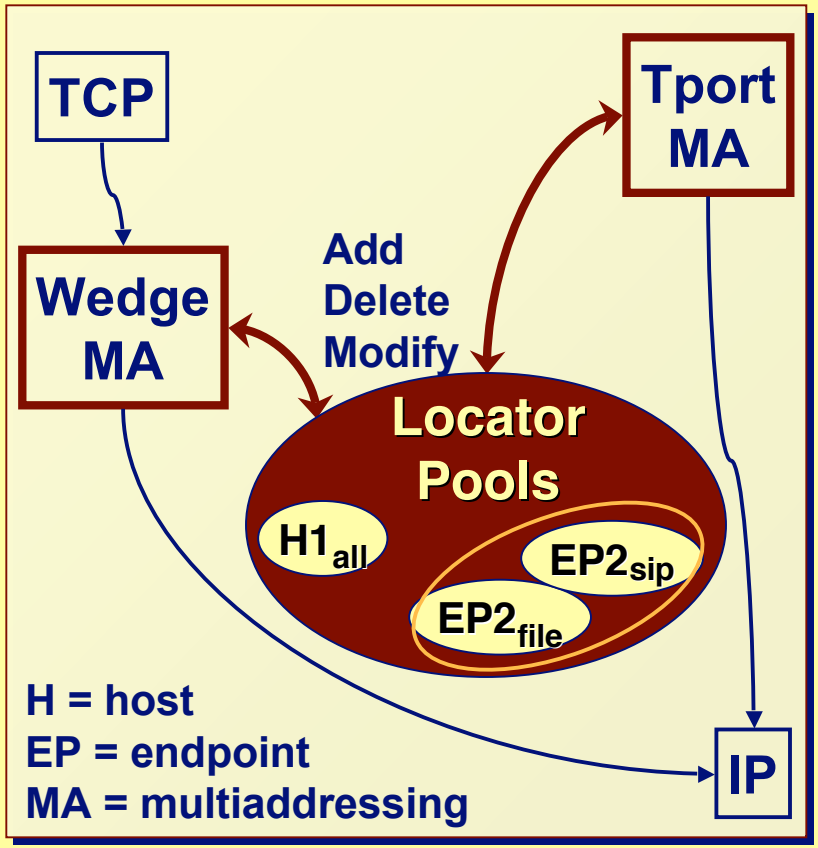
- **There are multiple multiaddressing schemes**
  - Different approaches have different benefits
- **Proposal:**
  - Share pools of locators, across associations
  - Will reduce multiaddressing control transaction costs
  - Will improve availability of locator performance information

Synergy Across Associations

- **Transport-based schemes**
  - Multiplex the control exchange in the data stream, so control data does not increase packet overhead
  - Permits obtaining path quality information naturally
- **Wedge-based schemes**
  - Provides 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?
  - Suggest: Start with simply primary/fallback choices
- **Local/Remote combinatorials**
  - Suggestion: start with just {remote} or {local, remote}
- **Security**
  - Different schemes have different degrees of security → 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 or URIs are for…

Next Steps

- **Resolve different consumer mechanisms, policies and results**
  - security,
  - identification,
  - congestion measurement,
  - locator inclusion, etc.
- **Determine common scheme for referencing pools and entries**
  - Implementation challenges, such as adding identifiers to kernel networking software (eg, domain names)

- **Admin and operations for identifier mechanism**
  - Distinguish identifier *assignment* versus identifier *lookup*
- **Formulate CELP service model details**
  - Data structures
  - Operations
- **Near-term vs. long-term issues**