Flexible Stack Architecture - Communication with Choices

Communication with Choices
- Next layer protocols
- Next hop or region
- Resolution mechanisms
- Resolution results

“Layer” Template
- Apply protocol processing
- Verify current location
- Select next available protocol
- Resolve new source & destination
- Enter the new protocol

Flexible Stack Architecture
- Resolution = Glue between Layers
- Dynamic selection of next protocols
- Runtime protocol plug-in & detachment
- Experiment new & modified protocols
- Support flexible selection policies
- Support concurrent or serialization of mechanisms (selection/resolution)

FSA Prototype:
- FreeBSD CURRENT: INET4 Stack with IPv6, ICMP6, & UDP6 modules (KLMs)

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