

Application Layer Multicast
Extensions for RELOAD
draft-samrg-sam-baseline-protocol-01

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Changes Since Previous Version

draft-samrg-sam-baseline-protocol-00

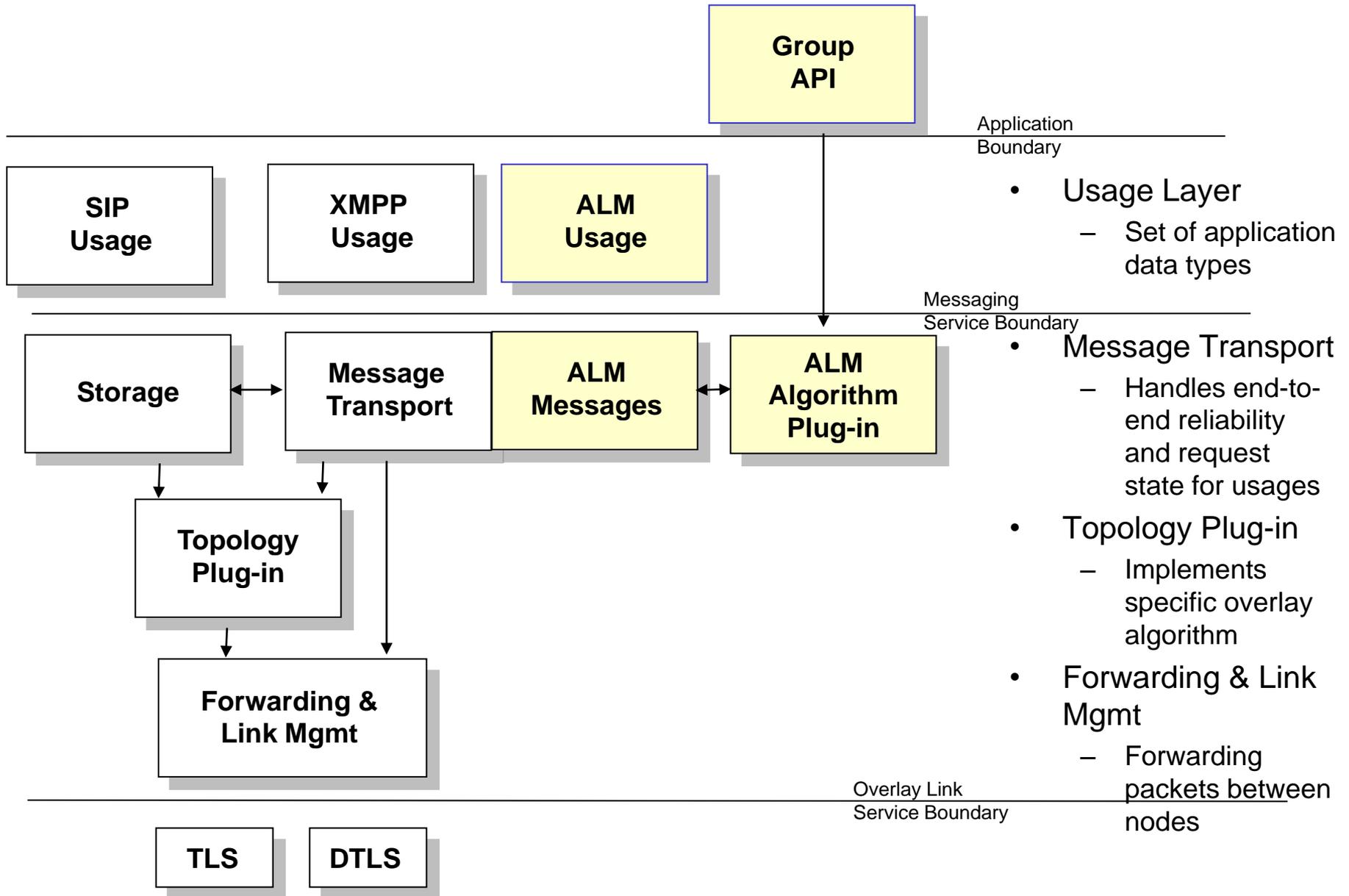
- Add Splitstream algorithm
- Re-assign code points based on latest (-19) version of RELOAD

Changes Since

draft-kolberg-sam-baseline-protocol-01

- Remove Hybrid ALM material, will be moved to separate draft
- Define RELOAD architecture extensions
- Define new RELOAD messages
- Define ALM Usage
- Add Scribe as base algorithm for ALM usage.
- Define code points.
- Define preliminary ALM-specific security issues.
- Add CreateTree and Join examples
- Add open issues section

ALM Architecture Extensions for RELOAD



RELOAD Messages

(encoding per RELOAD -19 draft)

Message	RELOAD Code Point	ALM Message Code
CreateALMTree	35	00
CreateALMTreeResponse	36	01
Join	35	02
JoinAccept	36	03
JoinReject	36	04
JoinConfirm	35	05
JoinDecline	35	06
Leave	35	07
LeaveResponse	36	08
Reform	35	09
ReformResponse	36	x0A
Heartbeat	35	x0B
Push	35	x0C
PushResponse	36	x0D

IANA Considerations

- This memo includes no request to IANA.
- Code points for the kinds defined in this document **MUST** not conflict with any defined code points for RELOAD.
- For Data Kind-IDs, the RELOAD specification states: "Code points in the range 0xf0000001 to 0xffffffe are reserved for private use".
 - ALM Usage Kind-IDs will be defined in the private use range.
- Code points for new message types defined in this document must not conflict with any defined code points for RELOAD.
 - RELOAD -19 defines `exp_a_req`, `exp_a_ans` for experimental purposes..
 - This specification uses only these message types for all ALM messages, with a sub-type to distinguish the specific ALM message
- All ALM Usage messages support the RELOAD Message Extension mechanism.

IANA Considerations

- No new Error Codes are defined.
 - RELOAD -19 defines Error_Exp_A and Error_Exp_B.
This will be used if new error codes are needed.
- Application-ID:
 - The ALM Usage Application-IDs must not conflict with other applications of reload.
 - Additionally if AppAttach is used, the port number must be selected to avoid conflicts.
- Access Control Policies: No new policies.
- ALM Algorithm Types:
 - SCRIBE-RELOAD
 - SPLITSTREAM-RELOAD

Open Issues

- The specific capabilities of clients in terms of tree creation and being parents of other nodes will be described in subsequent versions.
- ALM parameter definitions for the RELOAD configuration file will be defined in a later version.
- Scribe and SplitStream are being adopted as algorithms, should any other ALM algorithms be mapped?