

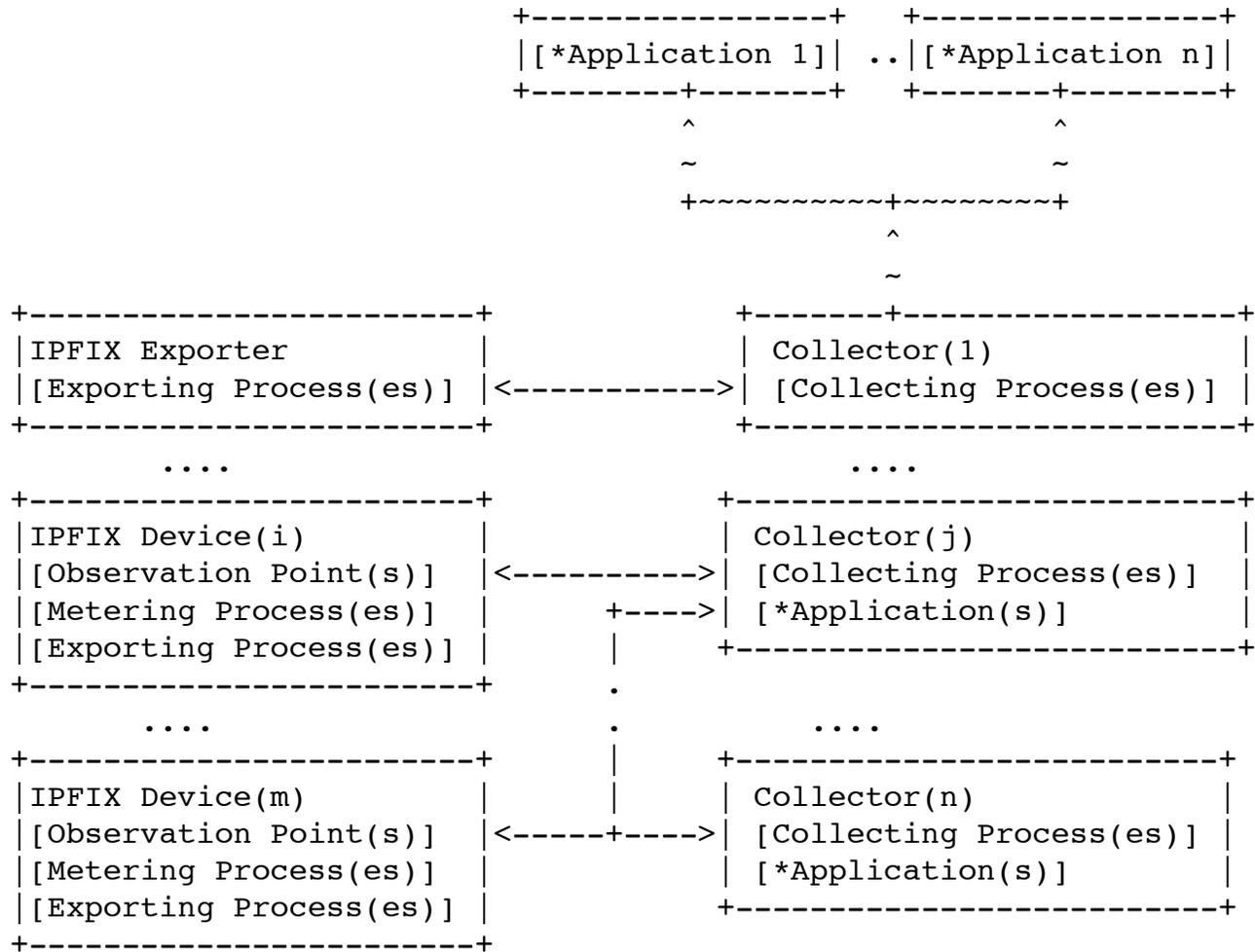
draft-bclaise-ipfix-reliability-01

- http://www.employees.org/~bclaise/public_files/draft-bclaise-ipfix-reliability-01.txt
- Draft specifies requirements for Billing apps
 - Data record de-duplication and completeness
 - Mandatory collecting process failover support (e.g. active/standby, primary/backup)
 - Optional RSerPool support

IPFIX Architecture

- draft-ietf-ipfix-architecture-09:
 - Exporting processes: ‘export’ IP flow information that has been measured/observed (e.g. routers)
 - Collecting processes: ‘collect’ the exported IP flow information for processing, storage, etc.
 - Flow export is transported over (PR-)SCTP

IPFIX Reference Model



IPFIX Requirements

- IPFIX requirements: defined in RFC3917
 - draft-ietf-ipfix-as-06: reliability requirements are not sufficient to guarantee the level of reliability that is needed for many usage-based accounting systems.
 - Reliability requirements are insufficient for billing applications.

RSerPool for IPFIX

- Collecting processes are Pool Elements, registered under a pool handle/set of pool handles
- Exporting processes are Pool Users, configured to use a specific pool handle
- (Default) round-robin policy for element selection is currently specified
- State cookie mechanism provides the context for the failover collecting process

Open Issues

- Investigating other RSerPool pool policies:
 - Select a new collecting process when SCTP association is not “down”, but “congested” (e.g. insufficient bandwidth) - here, the pool element could still be made available to other users.
 - Return to the “original” collecting process if it becomes active again
- Application level acknowledgments