



# Bundle Protocol Specification Issues

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# Open Technical Issues (1 of 4)

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- Do we have consensus on the concept of supporting multiple valid representations (e.g., JSON, CBOR, RFC 5050-like [with SDNVs?]) for BP blocks?
  - Advantages:
    - Enables production and consumption of valid bundles using widely available Web tools while preserving the ability to exchange bundles in highly bit-efficient representation for resource-constrained use cases.
    - Adds another degree of freedom, flexibility to the architecture.
    - Results in a slightly smaller BP spec.
  - Disadvantages:
    - Requires that additional specs be drafted for each of the supported representations.
    - Requires that at least some implementations be modified to support multiple bundle representations.
    - Adds an increment of complexity to the architecture.



# Open Technical Issues (2 of 4)

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- Should payload always be the last block in the bundle? Any downside? Should it always have block number zero?
- Can (should) we define a procedure by which a set of nodes collectively transmits a bundle? Is there a use case that needs this capability?
- Can (should) we define a procedure by which a set of nodes collectively takes custody of a bundle? Is there a use case that needs this capability?



# Open Technical Issues (3 of 4)

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- Should the BP spec be divided into two documents? One to talk about conops and context and one that focuses specifically on the protocol?
- Should a node that is able to process a given extension block be permitted to clear the block's "Block was forwarded without being processed" flag?
- ECOS features: omit some or all of these? Is "critical" the right name for the "critical" flag?
- Should "DTN times" in status reports be retained but made optional? Or simply retained as mandatory?
- Who controls the time at which a bundle is forwarded to the next node, the BPA or the convergence-layer adapters?



# Open Technical Issues (4 of 4)

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- Is the “inventory” mechanism in the spec good enough? Revise it, remove it?
- Should we prohibit multiple occurrences of any single block type, requiring that any necessary multiplicity be built into the block-type specific data structure?
- If BP were used for information-centric networking, would cache points “transmit” cached data to clients or would they just “forward” previously transmitted bundles of which they have retained copies?
- Which specific CRC options should we support?