PID Kernel Information Guidelines

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1. PID Kernel Information is in service of machine-actionable services that operate at Internet scales.
   1. E.g., PID KI information used to determine coarse grained, routing/filtering decisions on large lists of PIDs (>1,000,000)
2. PID Kernel Information is stored directly at a Local Handle Service (not referenced).
   1. This is for efficient access. As space at an LHS is valuable and bloat will slow down LHS, PID Kernel Information records should be minimal in size, est. <250KB
3. An LHS is not an authoritative source for metadata.
   1. Thus PID Kernel Information is always a duplicate of metadata whose authoritative version is elsewhere.
4. PID Kernel Information attributes are those that have slow rate of change.
   1. Corollary: no human interaction on updates; updates to a PID KI record could be transactional, affecting more than one record, but transactional updates must be contained to within same LHS (organizational domain)
5. Contents of PID KI record are property of data object owner or owner delegate (repository in which object resides). Because the PID KI is redundant by (3), updates are allowable only by owner or delegate owner
   1. E.g., Revision is update to DO Y by owner A; results in revision DO’. Revision is allowed. Derivation is i) DO Y on LHS A with owner Q is derived from DO X on LHS A owned by R or ii) DO Y on LHS A with owner Q is derived from DO X on LHS B owned by R. In this example i) could be allowed but ii) is not