CEPHCONTEXT

A CephContext represents a single view of the Ceph cluster. It comes complete with a configuration, a set of performance counters (PerfCounters), and a heartbeat map. You can find more information about CephContext in src/common/ceph_context.h.

Generally, you will have only one CephContext in your application, called g_ceph_context. However, in library code, it is possible that the library user will initialize multiple CephContexts. For example, this would happen if he called rados_create more than once.

A ceph context is required to issue log messages. Why is this? Well, without the CephContext, we would not know which log messages were disabled and which were enabled. The dout() macro implicitly references g_ceph_context, so it can’t be used in library code. It is fine to use dout and derr in daemons, but in library code, you must use ldout and lderr, and pass in your own CephContext object. The compiler will enforce this restriction.