

Churn

- When nodes are constantly joining, leaving, failing
 - Significant effect to consider: traces from the Overnet system show *hourly* peer turnover rates (*churn*) could be 25-100% of total number of nodes in system
 - Leads to excessive (unnecessary) key copying (remember that keys are replicated)
 - Stabilization algorithm may need to consume more bandwidth to keep up
 - Main issue is that files are replicated, while it might be sufficient to replicate only meta information about files
 - Alternatives
 - Introduce a level of indirection, i.e., store only pointers to files (any p2p system)
 - Replicate metadata more, e.g., Kelips (later in this lecture)