

Abstract for **The 53rd IEEE Holm Conference on Electrical Contacts** by Timothy Dell

The juxtaposition of low-cost Dual Inline Memory Module (DIMM) connectors in highly reliable servers has created a difficult Reliability, Availability, and Serviceability (RAS) conundrum: the connector cost must be low enough to allow hundreds of sockets to be used per system, while at the same time, the system-level reliability must be high enough to prevent connector-related memory failures. This paper explores some of the modeling techniques that can be used to guide system-level fault tolerance decisions in view of the propensity of card-edge connectors to experience corrosion-induced failures, and it explains why understanding the probability density function of the connector failure rate is crucial in establishing the connector RAS strategy to prevent system failures.