ABSTRACT

Open cluster that being developed by LIPI is one of the alternative ways to built a parallel computation with low cost budget, and it's build from several computers and open for public. Usually a cluster is closed for public, and only have limitted acces link to the outside. We all knows the algorithm of parallel looks to have speed-up in theoritical, but when it's implement to the real system, it give a less result/output and it give some problems that can limmited the works of parallel programing, such as : *memory contension, to much sequential code, delay communication, delay sinchronyzation, etc.*

As a new system, open cluster need another benefactor system that can support the operational system such as monitoring system, because monitoring is the heart of cluster system management. For my thesis, I develop a monitoring system for hardware like ethernet trafic, memory usage, cpu resource and system static for each node in the cluster. Beside that management to arrange the node, monitoring item, power control and user management needed too. To collect the data, I use SNMP (Simple Network Management Protokol) and other supporting tools. Because this cluster is open for public, so the monitoring system that being develop is the system that can be access by public from web as the media.