The Subsystem of Informing on Critical Situations Through Correspondence in ACM Cluster

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On the base of mobile communication opportunities the ACM system allows to be well-informed about the extreme situations occurring in the working territory of Cluster through calling the phone number of the corresponding technical staff given beforehand, besides it manages and protects the working territory of Cluster from illegal entrance, also allowing to form a frequency-time monitoring of people entering that territory. Along with the basic working programs, prevention from illegal entrance and fire protection systems (via information from thermal, magnetic-contact, infra-red, optical transmitters) in Cluster, its technical parameters obtaining is regularly performed, where the temperature, working state and other parameters of the electronic equipments available in Cluster are estimated. And, of course, it is desirable and necessary to govern those parameters(for certain goals, particularly providing for analysis, statistics, security), to control and prevent or arrange the extreme situations arising in that equipments if necessary. Though there are mechanisms in Cluster designed to discover an extreme situation about any equipment, it is actual to get emergency information immediately when being out of the working territory of Cluster. The ACM system has been established for this goals. It is based on the mobile communication opportunities and allows to inform about extreme situations. ACM program allows "his" users to enter the working territory of Cluster after turning off the protection from illegal entrance signal system of the working territory of Cluster , providing that the protection signal system is turned on when going out of the territory. And the system "recognizes" its users according to the password imported during the registration in the users' system. Upon dialing the special phone number of the system and entering the main menu of ACM program, the system demands to import the password of that user beforehand, and then it can implement the following actions,

1. turn off the protection from illegal entrance signal system of the working territory of Cluster,

2. turn on the protection signal system of the working territory of Cluster from illegal entrance,

3. obtain definite current parameters about some physical equipments of Cluster (the amount of working processors, etc.)

Besides giving the entrance right to the users, the system registers the users of its services according to time (e.g. when that user entered the working territory or when left). As it was mentioned above monitoring of technical parameters, including temperature, working state and other parameters of the electronic equipments of Cluster is regularly performed, in the process of which the parameters are estimated. In case extreme situations arise in Cluster

and other rooms adjacent to it then presence of critical parameters specific to the structure of electronic equipments, being damaged or in extreme situation is fixed in the monitoring subsystem. All the technical parameters derived from Cluster are analyzed in the outlined system and arranged in a special base. The parameters received in the conditions of normal working situation from each electronic equipment (as numerical indicators), are in a definite known interval, then in case of parameter values out of those intervals (e.g. any equipment is overheated), the number of the equipment and the numerical indicator of the parameters out of its interval are deduced. The parameters are received by the system with the help of the technology based on IP distant communication, and then the system automatically calls the phone number of the corresponding technical staff given beforehand and informs on specifically which processor is under critical situation.

References

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ԱԿՄ Կլաստերում կրիտիկական իրավիճակների մասին հեռակա տեղեկացման ենթահամակարգը

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Ամփոփում

ԱԿՄ համակարգը՝ հենվելով բջջային կապի հնարավորությունների վրա, թույլ է տալիս իրազեկվել կլաստերի աշխատանքային տարածքում պատահած >քստրեմալ իրավիճակների մասին, զանգահարելով նախապես տրված համապատասխան տեխնիկական կազմի հեռախոսահարին, բացի դրանից այն կառավարում և պահպանում է կլաստերի աշխատանքային տարածքը ապօրինի մուտք գործելուց, թույլ տալով նաև կազմել այդ տարածք մտնող անձանց հաճախական-ժամանակային մոնիտորինգ: