

Today's technology is developing rapidly over time. One example is the advancement of wireless sensor network technology used for fire alarm systems to prevent building caught on fires. The impact that can be caused from building caught on fires is the threat of losing lives, property and shelter. To prevent the occurrence of fire related problems, a Fire alarm system is needed, that has the application of technological methods to the topology system network to be able to quickly and accurately notify the building if the fire is detected and can function as an early warning system. The workings of the fire alarm system that will be created is by using sensor data that will be displayed in an android phone in order to find out the temperature, light and gas pressure in the room. In the fire alarm system the application of mesh and star topology technology methods is used. Based on the results of research on the application of mesh and star topologies on the fire alarm system, by comparing the two methods, that the mesh topology is 1.9 seconds faster in terms of delay with 4% packet loss, compared to star topology which has 13% packet loss, using mesh topology will produce sensor data faster and more accurate compared to star topology.