

## Afforestation Support System by IPv6

### Outline

The most serious environmental problem today is Global Warming. One of the negative effect created from this is "Desertification". The desert in Africa and the Southeast Asia continues to grow every year. The arid area in which people cannot live continues to grow, and destitute people who continue to live show no sign of significant decline.

This idea uses IPv6 to support prevent desertification by afforestation, which the NGO also does. The current the method of afforestation is, put a mixture of dirt and manure into a vinyl pot with seeds, and wait for it to grow. But even though it has been improving through breeding, it may become thin by drought, or die due to lack of management. There is a limit of growth in nurturing by human and letting the nature take care of it. In order to solve this problem, a pot that automatically gives water and nutrition is managed all together online. While monitoring the growth of the plants, green is restored on the barren land. This is the dream system for the future of mankind and earth.

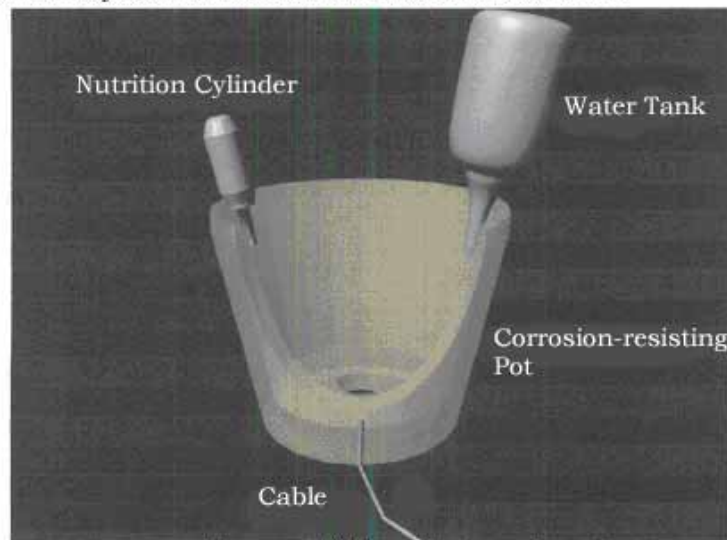


Diagram 1) Idea of automatic pot

### Description

This system uses IPv6 to support prevent desertification. As a system outline, all mechanical pots are gathered together into one network. which is processed and supervised in a facility. Each pot is given an global IPv6 address, and plant information from the pot is used to give water and nutrition. Talking about giving water and nutrition, if drought continues and water in the tank is gone, staff in the facility must go and fix the problem. But, since each pot is given an unique address, the position of the pot can be known right away.

### System Advantage

The reforestation project for preventing desertification should be simplified and efficiency should increase. Compared to the work done today of preparing the land first and then planting the seedlings, if the pots are ready, all you have to is dig a hole where the plants are stable, and place the pots. It is thought that the convenience will increase working efficiency by far. Also, seedling care which is influenced by the environment is automated, so trouble is saved. If planted, the plant will grow with just periodical work, so the installation operation can be done by local residents without special knowledge. A child will also be able to do this. The labor of explaining done by the people of is decreased, so the afforestation area can be expanded efficiently.

Also, even if the number increases as time progresses, IP address will probably not run short due to the characteristics of IPv6. It will probably take time for the trees to enroot to the desert and return the desert to a land full of green. I believe that a streak of light will shine on the afforestation work which cures the scar humans have created til now, so this idea is proposed.

