



Network-On-Wheels

Thin Client Networking Kits for Incident Management

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A mobile thin client networking kit is being developed for incident management. The Network-On-Wheels (NOW) has computer and networking hardware and software stored in a trailer, already configured so it can be deployed quickly at an incident. The project's goal is to develop a cost-effective, rapidly deployed, easily refurbished kit that can be ordered through the national cache system. The Interagency Interoperability Oversight Group (IIOG) is sponsoring the project.

The kit will be evaluated in the Great Basin Geographic Area during the 2009 fire season. The evaluation will assess the kit's ability to meet the information technology (IT) needs of incident management teams, its ease of deployment and system administration, the effectiveness of ordering the kit through the cache system, and overall user satisfaction.

Network-On-Wheels

The thin client networking kit includes a terminal server (figure 1), wireless LAN (local area network) controller, thin clients (figure 2), wireless access points, printers, and associated networking equipment. The components are standardized and have been configured to meet the needs of incident management teams.

All the equipment is stored in a 20-foot air-conditioned trailer (figure 3) that can be towed to an incident. The trailer is set up with three workstations where incident managers will have instant access to the network when the trailer arrives. The kits will support the incident from beginning to end, a change from the present system where each team brings its own computers and networking equipment to an incident.



Figure 1—A terminal server is the heart of the thin client kit. The server and other hardware are mounted in a rugged case for protection. It will be transported and operated inside an air-conditioned trailer at the incident.



Figure 2—A mobile thin client (laptop without a hard drive) is used at an incident command post. The thin client allows users access to applications on the networking kit's server. During deployment testing, the mobile thin clients will use a wireless local area network (LAN).





Figure 3—This trailer will be used to transport the networking equipment to the incident, where the trailer can be used as a workspace.

Benefits of the Network-On-Wheels

Persons working at the incident command post will access applications and data by connecting to the server from a thin client laptop. The thin client laptops are relatively inexpensive computers with no hard drives that normally access the server through wireless access points (although they can be connected with a network cable). All applications run on the server and all files are stored there. Benefits of the system include:

- **A stable, secure IT environment.** All of the incident’s data (including personally identifiable information) is stored centrally on the server—not on the individual thin client laptops. User accounts and permissions are managed centrally on the server.
- **Smoother transitions between incident management teams.** No longer will one team take its server and PCs from an incident while the next team sets up its own equipment.
- **A scalable network.** As an incident grows, more thin client laptops and standard networking equipment can be ordered through the national cache system to expand the network.
- **Standardized, reliable hardware and software.** Standardized equipment will allow consistent operational procedures, making training easier and troubleshooting more efficient.

- **Flexibility.** The thin client laptops can be moved easily because the computer network isn’t strung together with wires.
- **Quick, reliable refurbishing.** After an incident, the kits can be refurbished by the national cache system so they’re ready for deployment on the next incident.

Ordering the Network-On-Wheels

In the future, thin client networking kits will be available through the national cache system, allowing them to be ordered early at the start of an incident. The kits would be assigned to the incident, not to a team, so kits won’t have to be broken down and rebuilt when one team leaves and another team takes over management of an incident.

When an incident is closed, the equipment will be returned to the cache for cleanup, refurbishing, and replacement of components (if necessary)—at minimal cost to the incident.

Once the standard thin client networking kits become commonly available, they can be used for training or other activities during the off season.

Interagency Cooperation

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