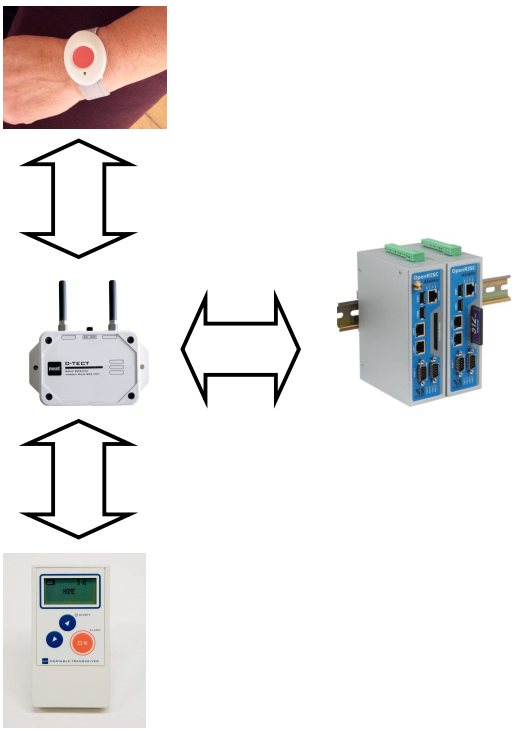
Internal system; D-SERVER



NEAT Electronics has the pleasure to release a internal system call D-Server.

Description

In the D-SERVER system, a central server handles all alarms. The server collects triggered alarms, decides on the appropriate action, and distributes the alarms to relevant receivers.
Examples of alarm sources are portable alarm triggers, door and smoke detectors;
Examples of alarm receivers are portable transceivers (hand-held alarm display units) and care phones. Typical environments where you will benefit from the D-SERVER system are nursing homes and geriatric clinics

A Typical Alarm Scenario

The following is a typical alarm scenario: a patient in a nursing home needs help from a nurse in the ward. (Names within parenthesis are products from Neat Electronics.)

1. A patient triggers an alarm
   The patient wears a portable alarm trigger (ATOM) as a watch, and presses its alarm button.
2. Transceivers detect the alarm
   A transceiver (D-TECT) on the corridor wall detects the alarm and sends it to the central server.
3. The central server handles the alarm
   The central server (D-SERVER) decides on which personnel to inform about the alarm, and sends a message to the transceivers.
4. Transceivers distribute the alarm
   The transceivers broadcast the message about the alarm to the nurses that are on duty in the ward.
5. The nurses are informed
   The message about the alarm is displayed on the nurses portable transceiver (D-TREX). Typically, this message shows who triggered the alarm, equipment type and the location. For example “Patient A”, “Trigger”, “Room 3”.
6. The central server waits for a response from the personnel
   The central server waits a while for a response, and then decides on how to proceed. Typical cases are one or more of steps 7-9.
7. A nurse responds to the alarm
   If a nurse acknowledges that he or she has received the alarm, the central server takes no further action and the alarm disappears from the other TREX that has received the alarm message.
8. More nurses are informed
   If no nurse acknowledges the alarm, the central server both re-sends the alarm to the nurses in the ward and sends the alarm to the nurses in an adjacent ward.
9. An alarm central is informed
   If no nurse in either ward acknowledges the alarm, the central server sends the alarm to a care phone (NEO) that calls an alarm central. The alarm central calls the ward or sends personnel to investigate.

System parts

D-SERVER. This central server handles all alarms in the system. The server receives triggered alarms, decides on alarm receivers, and sends messages with alarm information to those receivers.
The server is placed in a central location and connected with cables to transceiver units.

D-TECT. This transceiver unit detects triggered alarms and sends them to the central server. The unit also broadcasts messages from the server to the alarm receivers.
The transceiver units are placed where there is good radio reception, for example high up on corridor walls. There must be enough transceivers to cover the whole reception area, for example a building.

D-TREX. This portable transceiver is used by the personnel to view and acknowledge the alarms that they have received.

The personnel uses the unit to log on the system when they start working. They log off the system when they stop working. The personnel can also state that they are busy at the moment, or trigger a personnel alarm.

Other alarm receivers. The system can include other alarm receivers besides D-TREX units. For example:
• Care phone (NEO).
• Radio receiver (LINK) used to control external equipment, for example a siren.

Alarm sources. A wide range of alarm triggers and detectors can be used in the system, for example:
• Portable alarm trigger (ATOM). The trigger is worn as a watch or necklace.
• Portable alarm trigger (D-ATOM) used together with a position transmitter (D-POS) for positioning.
• Open door detector (DOOR).
• Smoke detector (SMOKE).

PC. To configure the system, you configure the D-SERVER with a web browser on a PC. All system configuration is stored on the D-SERVER and includes the names of patients, types of alarms, room numbers, and positions. The D-SERVER uses this information to create the text messages about the alarms that are sent to the D-TREX units.

Technical data

The D-SERVER is a fan less industrial computer equipped with an ARM-processor. The operating system is Linux.

The configuration is stored on a memory card. The type of card is Compact Flash (industrial grade, SLC NAND).

The alarm log can be stored either on the memory card or on an external hard disk drive connected through USB.

The communication channel between the D-SERVER and D-TECT units is a RS-485 multidrop serial bus.

The power supply for the D-SERVER is 9-30 VDC. When the power supply is 12 V, the power consumption is maximum 1.5 A and typically 0.5 A.

The power supply for the D-TECT units is 7-24 VDC. They can be supplied through the network cable (serial bus). The power consumption is maximum 0.5 A when the power supply is 12 V.

Documentation

Manuals are available in English.

System Overview (English)	NE41 09009-02
Technical Manual (English)	NE41 09010-02
User Manual (English)	NE41 09010-11

Product numbers

The standard version of the D-Server has the product number as below.

D-Server HW and SW	NE10 09238-01
For 60 or less alarm points	NE10 09238-20
For 61 to 135 alarm points	NE10 09238-21
For 136 to 180 alarm points	NE10 09238-22
For 181 or more alarm points	NE10 09238-23

The system has to be ordered with D-Server hardware and software (NE10 09238-01) and product numbers for size. Add up the product numbers to receive a complete delivery.

D-TECT kit, receiver unit	NE10 07014-01
D-POS control unit for ferrit/ loop	NE10 07026-01
D-POS ANT, ferrit antenna	NE10 07027-01
D-ATOM	NE10 07036-01

If the customer needs another configuration or another change, the unit will have another product number.

Contact

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