Fast, efficient dispatching with s.ONE

Reference report: Sønderborg, Denmark

A regional fire and rescue service in southern Denmark is slashing minutes off its call-out times after bringing in the Swissphone s.ONE software platform to streamline its dispatching procedure. Speedier mustering of crews at the fire station can quickly translate into property protected and lives saved.

Based in Sønderborg, a coastal town not far from Denmark's border with Germany, the brigade operates from a main station manned by part-time professional firefighters and a further 14 stations spread across the surrounding district; these rely wholly on unpaid volunteer crews.

When an emergency is reported, the professionals and volunteers alike receive the alert via their Swissphone's RES.Q two-way terminals. These are managed and co-ordinated by the s.ONE system, working alongside the central control room software.

Keeping a count

«First of all, someone dials 112», explains Nicky Iversen, control station supervisor. «Then the police take information about the incident – whether it's a fire or some car accident – and then they provide that information through a secure line to our fire department and our control centre.»

When a call-out is launched, the message is sent to firefighters on the RES.Q terminals they all carry. «These terminals allow the firefighters to respond and acknowledge the alarm», he continues. «That's the way we get the overview of how many are coming, which functions they have and from which station they are coming. We use the s.ONE software to get that overview. The local firefighters use s.ONE in the stations and we use it in the command centre.»

Previously, the firefighters were equipped with conventional one-way pagers which could not return a reply: users were unable to report that they were responding to a call until they actually arrived at the fire station. In Denmark, Nicky Iversen explains, a fire crew receiving a call-out is allowed maximum five minutes to dispatch the vehicle from the garage. Afterwards, the next station is alerted, and they again have maximum five minutes. This process continues until a vehicle leaves. «Before, we had to wait around for four minutes to see if there were enough people to go. And if there were not enough people, we would have to call another station.»

With Sønderborg these follow-up alerts are done centrally, even though s.ONE would also allow to do it locally in the fire station.

«But now, within 45 seconds I can see if enough people are coming to the station I have called out – and if not, I can call another station right away. Within one minute I can call out another station if there are not enough people showing! This saves more than three minutes compared to alerting with one-way pagers.»

Nicky Iversen, Product Manager, Sønderborg, DK

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Hybrid alerting

Sønderborg's firecrew have taken well to the new system, though some have commented that, for battery life, the two-way terminals do not match the old one-way devices. Given the need to support an integrated cellular radio network module for returning acknowledgements, this is inevitable. But the value of the additional information delivered to s.ONE's Monitor module easily outweighs any such drawback. «I can alert a lot easier and a lot faster, and I can see if I have enough people that are responding to the alarm», declares Mr Iversen. «It's easy to see how many firefighters are coming and which functions they have.»

Besides its use as response channel, the cellular network capability of the RES.Q terminal also provides a secondary alerting channel. In case the POCSAG system should ever be down, or in case the firefighter is outside the POCSAG network coverage, the s.ONE Alert module calls out over a cellular network via a multi-provider sim card in the RES.Q. This hybrid alerting approach provides the highest likelihood that the message will get through.

Keeping up to date

In deploying and managing all these pagers, another of s.ONE's family of intelligent modules, s.ONE Fleet, has proved its value. Sønderborg's fire crews hold about 400 pagers between them, each one needing to be configured for the user with settings and occasionally with software upgrades. But all this can be done remotely, keeping each pager fully up to date. This saves a lot of time and logistics to ship pagers to and from a central programming instance, while keeping the control over who gets what upgrade.

For this purpose, programming cradles are put in the stations. When a firefighter passes in the station, he updates his terminal within a few seconds simply by slotting the device in the cradle. s.ONE does the rest, by recognising the pager and updating its configuration and firmware if necessary, as well as encryption keys pre-defined by the master user. s.ONE indicates which terminal has been upgraded and which one not yet.

«If someone does not upgrade their pager, we simply send him an alert asking to update the pager the next time he or she is in the station», Mr Iversen continues.

With s.ONE Fleet it is also really simple to duplicate pagers which were lost or damaged. A station simply needs to stock a couple of spare pagers. If a pager needs to be duplicated, this can be done with a few mouse clicks, and

using the same programming cradle, without any shipment or long drive to the central programming person.

New functionalities for specific needs

With the system now well established in Sønderborg, opportunities for further exploiting the potential of the s.ONE deployment are emerging.

For example, the RES.Q terminal coupled with s.ONE Availability offers the possibility for firefighters to indicate their availability even before an alert. Since the RES.Q terminal also includes a GPS module, Mr Iverson also wants to enhance the brigade's preparedness by using the location service the terminal offers, in case they are suddenly needed. «I would like to get information that firefighters, with the right functions, will be in the area before I get an alarm», Iversen says. «So before I get an alarm, I can see if I have the people that we need to use in the area.»

He acknowledges that not all firefighters would want to be tracked constantly in this way. However, Swissphone offers a geo-alerting solution that protects the privacy of users. «I can select the area from where a station can be reached within a maximum of five minutes driving time. The RES.Q only transmits the function of its user – commander, firefighter or driver – and whether or not the user is within this area. This is all s.ONE needs to know to tell me if I can dispatch a vehicle in time with a crew, for example of a commander, three firefighters and one driver,» says Iversen. This way, the exact location of a firefighter does not need to be transmitted. And he adds: «Already they have the choice to just disable the GPS if they want to».

Also, Swissphone is currently launching a mobile phone app linked to the s.ONE system so that officers on their way to an incident can view the alert text. The app will also work jointly with the s.QUAD terminal, connected via BLE. The s.ONE App upgrades the s.QUAD pager into a two-way device, still providing the battery autonomy of a one-way pager, while offering the same functionalities as the RES.Q terminal.

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Components of the Swissphone solution

Software
- s.ONE software platform

Hardware
- RES.Q

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