



White paper: Enabling a better response during crisis situations

Coping with uncertainty by flexing control room resources

By definition, emergencies are unexpected events that often require immediate action. In crisis situations, such as a pandemic, natural disaster or terrorism event, control rooms come under extreme pressure as citizens rush to request assistance. Short of having extra resources on standby — which is usually not financially or operationally possible — how can public safety organisations react effectively when they experience a sudden onslaught of demand? The answer is by changing the way that workload is distributed across resources and allowing operators to work remotely. Working with Frequentis, organisations can do this fast and with minimal disruption, at a time when acting quickly and effectively can make a significant difference to outcomes.

Preparing for the unexpected

Every day, control rooms respond to small-scale emergencies that affect one or a few people. But occasionally, crisis situations occur that have an impact on a region — or even the entire world. For instance, the COVID-19 pandemic has resulted in unprecedented disruption to people’s lives across the globe. Other examples of large-scale crises include natural disasters, terrorism events, civil unrest, armed conflict and nuclear incidents.

These scenarios and others can result in a steep increase in demand on the control rooms of public sector organisations, with little to no warning. Huge numbers of citizens call in simultaneously requesting assistance and reassurance, putting operators and communication channels under tremendous pressure. To illustrate, some control rooms report that the COVID-19 pandemic has led to them receiving between four and five times the usual number of calls.

Unless control rooms can rise to the occasion and find a way to cope with the increase in demand they risk compromising their mission of upholding public safety. Specifically, they can fail to get assistance to citizens directly affected by the crisis situation with sufficient speed. At the same time, public safety organisations must ensure that people calling for help with problems not connected with the crisis can also access their services. To respond effectively in a time of wide-ranging emergency, public safety organisations need to address

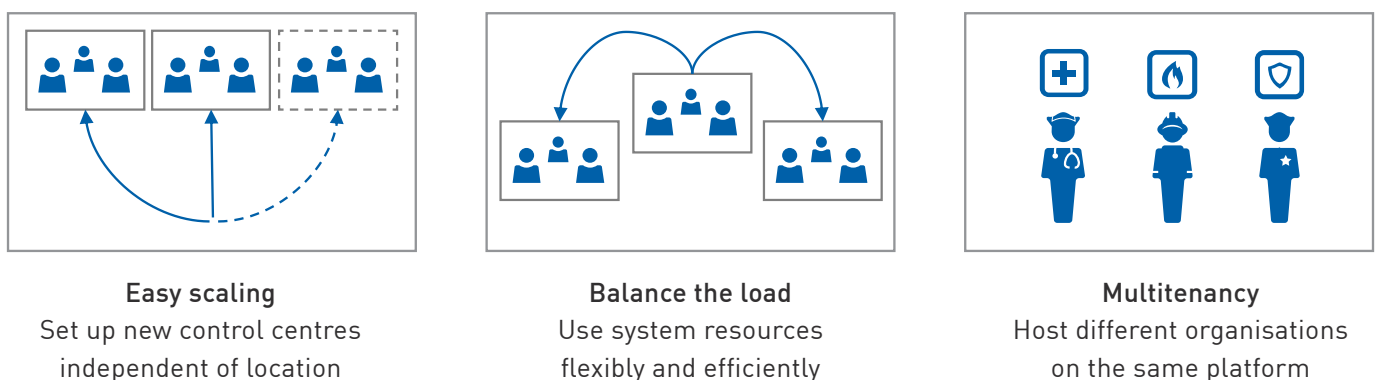
the inevitable capacity issues that a sudden increase in demand will produce. The solution is to reconfigure resources to spread the workload, to scale up operations, or a combination of these two approaches. Crucially, organisations have to do this as soon as possible once a crisis hits, which is not a straightforward proposition. However, there is technology out there to help.

Seizing control of resources

To enable dispatchers to manage emergency incidents from any mobile device or location, organisations must scale up their control room operations beyond physical borders. In a situation where it is difficult or impossible for individuals to access their working positions, this allows dispatchers to provide support without putting themselves at risk. With a web-based front-end, users can access services from commercial-off-the-shelf (COTS) devices and using widely available web browsers that they already have installed. By selecting a communication and collaboration platform that is built for rapid, linear scaling, organisations can set up new control centres — or home-based working positions — flexibly and independent of location. Users can deploy additional clients seamlessly, meaning that, in practice, physical infrastructure is the only limit to scalability, and that can also be easily extended.

In addition, public safety organisations can use an overflow and routing engine to cope with a sudden influx of calls to control centres. They can filter incoming calls, directing requests for help that are related to the

Figure 1: Scaling and reconfiguring control room resources



ongoing crisis situation to specialised resources. These specialised resources could be dedicated dispatchers. One way that organisations can redirect calls is via an interactive voice response menu, which can notify callers to information available through other channels — such as text message services, chat facilities and Frequently Asked Questions online. Equally, organisations can use call filtering functionality to identify calls that are about other topics, preventing the crisis scenario from dominating emergency services and preventing help reaching those who need it urgently — for example, in the event of a road traffic accident.

By selecting a platform that supports dynamic redistribution of workload, organisations can redirect calls to control centres that are less overwhelmed. Moreover, with a solution that supports multi-tenanted implementation, public safety organisations can come together to host their control centre operations within a single deployment. This allows them to collaborate and coordinate responses, and to boost efficiency by sharing resources.

Supporting dispatchers under pressure

With a communication and collaboration platform built for next-generation control rooms, such as 3020 LifeX from Frequentis, public safety organisations can mitigate the capacity challenges caused by crisis situations. 3020 LifeX provides functions for call handling (via call, social

media, video and text messaging), radio dispatching, recording and control centre integration. It dissolves physical control room borders, enabling dispatchers to work effectively from virtually any location. Organisations can choose to deploy the platform according to their desired topology, whether that is centrally or distributed across locations and even countries. Regardless of the implementation topology, users can benefit from full availability of services from anywhere within the network.

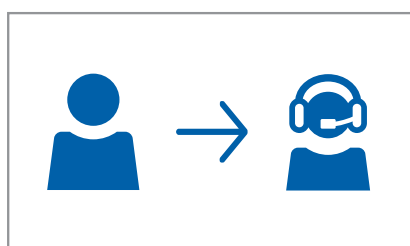
Organisations can better adapt to crisis situations by choosing a platform that enables them to add new roles and adjust existing roles on a dynamic basis. When assigning someone a role, public safety organisations should provide a subset of functionality tailored to the work that they do and access to specific resources. In times of crisis, a platform that allows them to allocate several roles to a single user is valuable. However, it is important that the user can choose between roles to suit their current task when logging in. To meet evolving needs during an emergency, it is helpful for organisations to be able to change the configuration of roles, plus the functionalities and resources associated with them, while operations are ongoing. However, any changes should only be implemented for the user once they log out and in again, to prevent any interruptions to service provision.

To offer dispatchers all the information they need without overloading them, organisations can provide a platform that unites multiple communication channels for voice, video and data with a context-sensitive layout. This

Figure 2: Giving dispatchers the tools to cope with high demand



Full-service availability
Dissolve control room borders



Simple configuration
Adapt and add roles



Multiple channels
Bring together voice, video and data

reduces stress and increases focus for operators, which is especially important in times of high pressure such as crisis situations.

In the face of a dramatic increase in workload, the ability to reply on resilient systems is more crucial than ever. By selecting a communication and collaboration platform that builds redundancy into every element, organisations can ensure that users do not even notice in the event that a component fails.

Meeting current and future demands

Public safety organisations around the world are successfully honing their response to crisis situations with help from Frequentis. For example, the Bavarian Police deployed 3020 LifeX within a year, to meet the deadline of launching a new generation of voice communications in time for the G7 summit — a large-scale event that put the organisation's services under intense pressure. The platform helped the police keep the peace when anti-globalisation activists staged a demonstration.

The long-term roadmap for 3020 LifeX is planned to help users meet emerging demands and take advantage of advances in technology. It is built on an open framework, that is designed to integrate seamlessly with a wide range of systems via common industry standards. This includes NG112, which enables members of the public to engage with public safety answering points (PSAPs) via VoIP, SMS, mobile messaging apps, pictures and video calls.

Frequentis is also developing 3020 LifeX to align with the upcoming MCx standard, which refers to mission-critical push-to-talk (MCPTT), video (MCVIDEO) and data (MCDATA) collectively. The standard addresses the evolution of emergency-services communication technology from TETRA radio to multimedia.

Conclusion

Crisis situations place exceptional pressure on public safety organisations and, more specifically, control rooms. By investing in the right technology, these organisations can ensure that they are better prepared to cope with a dramatic rise in demand. They can do this by spreading workload across available capacity or scaling up resources — both possible at very short notice using 3020 LifeX. Similarly, multiple organisations can set up shared architecture within a multi-tenanted environment to share resources.

By eliminating physical control room borders with 3020 LifeX, public safety organisations can empower their dispatchers to work anywhere, at any time with access to video, voice and data channels in one place. They can create new roles and adapt existing ones in response to fast-changing requirements. As a consequence, they can fulfil their mission of keeping citizens safe and calm in times of crisis. Plus, in times of extreme stress, organisations can make life easier for the control room dispatchers that play such an essential role.

Contact Frequentis today to learn more about how we can help you respond during any crisis.

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