



TOWARDS THE NEXT GENERATION CONTROL ROOM

**NEW OPPORTUNITIES TO SAFEGUARD
COMMUNITIES AND HELP STAFF WORK SMARTER**





INTRODUCTION

The maturing of cloud technology enables emergency services staff to access critical communications systems and resources from any location, securely and at scale. As the needs of public agencies and the communities they serve evolve, it's time to rethink decades-old ideas about the role of the physically centralised control room.

This paper discusses a new generation of cloud-hosted control room solutions, designed specifically to support the needs of police, fire & rescue and ambulance services as well as other agencies requiring mission-critical communications. Hosting applications in the cloud presents significant workflow efficiency benefits for control room teams. This approach also delivers greater system resilience, agility and collaborative possibilities compared with traditional on-premise hosting.

Secure, flexible and freely scalable, CommandCentral from Motorola Solutions is a fully integrated command and control software platform that supports decision-making and streamlines control room workflows. Enabling new functional capabilities for emergency services, it also allows the realisation of significant operational cost savings.

PUTTING TODAY'S CONTROL ROOM IN CONTEXT

The control room is described here as an environment where various phases of the incident lifecycle are orchestrated. This workflow extends from inbound contact by members of the public to dispatch and coordination of appropriate resources.

As the home for communication systems, IT infrastructure and operational staff, a control room is typically located at the main headquarters of an emergency services operator or on a dedicated separate site. Equally, ad hoc control rooms may be established on a temporary basis in proximity to the location of a major incident, such as acts of terrorism or natural disasters.



ADAPTING TO THE NEEDS OF A CHANGING WORLD

Control rooms have been typically identified with the co-location of personnel and ICT resources at the same fixed location. More recently, however, agencies are re-examining their control room strategies with a view to realising fresh operational efficiencies and cost savings.

The need for agile new solutions was demonstrated by the global 2020 pandemic, prompting emergency services to re-think call handling and dispatch operations when physical access to control rooms was severely limited. Similarly, organisations in public and private sectors are flexing to accommodate a shift towards home and remote working that is rapidly becoming the 'new normal' for millions of employees.

Against this backdrop of changing work practices, emergency response infrastructures are under strain from a complex and unpredictable spectrum of threats to citizens' safety and public order. 112 call volumes have increased by 11% nationally over the last two years, putting staff under pressure to manage a rising tide of inbound information from a growing range of multimedia sources. Phone calls from members of the public are one strand in a complex web of inbound information, alongside radio, emails, SMS, web chat, social media, in-vehicle and body-worn video, CCTV and even sensors connected to the Internet of Things (IoT). This shift towards non-voice communication is underlined by data from one European police force, suggesting that almost half of inbound traffic to its emergency call centres now comes through digital touch-points.

Equally, there is an observable trend towards 'silent dispatch', with messages and notifications being delivered to response teams and frontline personnel via channels such as SMS or email sent to officers' mobile devices rather than by voice.

This spiralling volume of information means staff face significant challenges in acting as an effective 'bridge' between numerous siloed communication channels. Situational awareness during an incident depends on a team's ability to connect and contextualise relevant information, associating disparate forms of data and mapping this against other relevant sources – such as previous contact between an agency and an individual involved in the current incident. This has been starkly highlighted in a number of high-profile public incidents, where compromised communications between stakeholders – and the inability to discern linkages between seemingly disparate data points – have had regrettable and sometimes tragic consequences.

As operational pressures increase, emergency services are also under scrutiny to demonstrate value for money against capital investment in public services. The need to 'deliver more from less' has never been greater.





LIMITATIONS OF THE TRADITIONAL CONTROL ROOM

In common with other enterprise-grade communication platforms, the control room has traditionally represented a significant aggregation of ICT hardware, software applications and data storage. On-premise resources are overseen by dedicated staff who are responsible for everything from deploying new applications, features and users to bug fixes, security enhancements, routine maintenance and periodic system updates. These skilled workers naturally represent a significant additional overhead in staff costs, alongside front-line call handlers, dispatch and supervisory staff.

An on-premise approach suffers from some intrinsic limitations. Any kind of system downtime is unacceptable in a 24/7 mission-critical communications environment. This demands high levels of

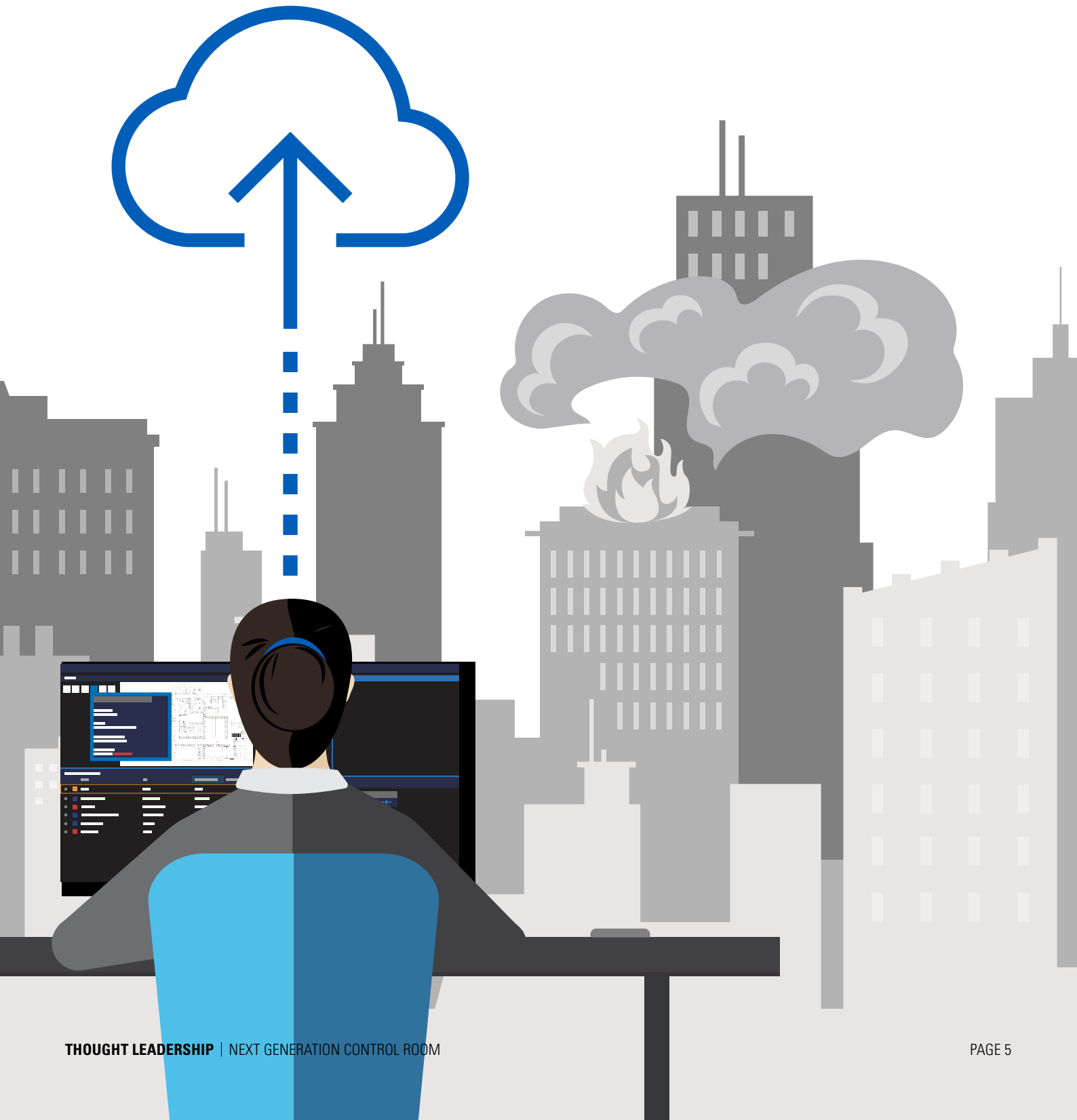
capital investment in duplicate system resources and functionality – typically in the form of infrequently-used ‘dark’ back-up control rooms, either co-located with the main site or at a different physical location. These can be instantly brought online as needed, whether in the event of catastrophic system failure or the need for scheduled maintenance.

Equally challenging is the comparative inflexibility of physically-hosted control room operations, and the attendant difficulty of scaling capacity when needed. Adding more system bandwidth – either to meet the short-term needs of a major public incident or to support organic growth – is a costly and disruptive exercise.



FROM ON-PREMISE TO CLOUD

Even five years ago, taking mission-critical communication workflows outside the confines of a physical control room would have been technically infeasible for emergency services and public safety operators. Today, however, a growing number of blue and amber light services are embracing the benefits of hosting their mission-critical control room applications securely in the cloud rather than on-premise. As well as enabling more flexible, agile control room operations, this new paradigm allows personnel to access resources from virtually any location – whether it's a backup site or an ad hoc incident room established in proximity to the scene of a major incident.



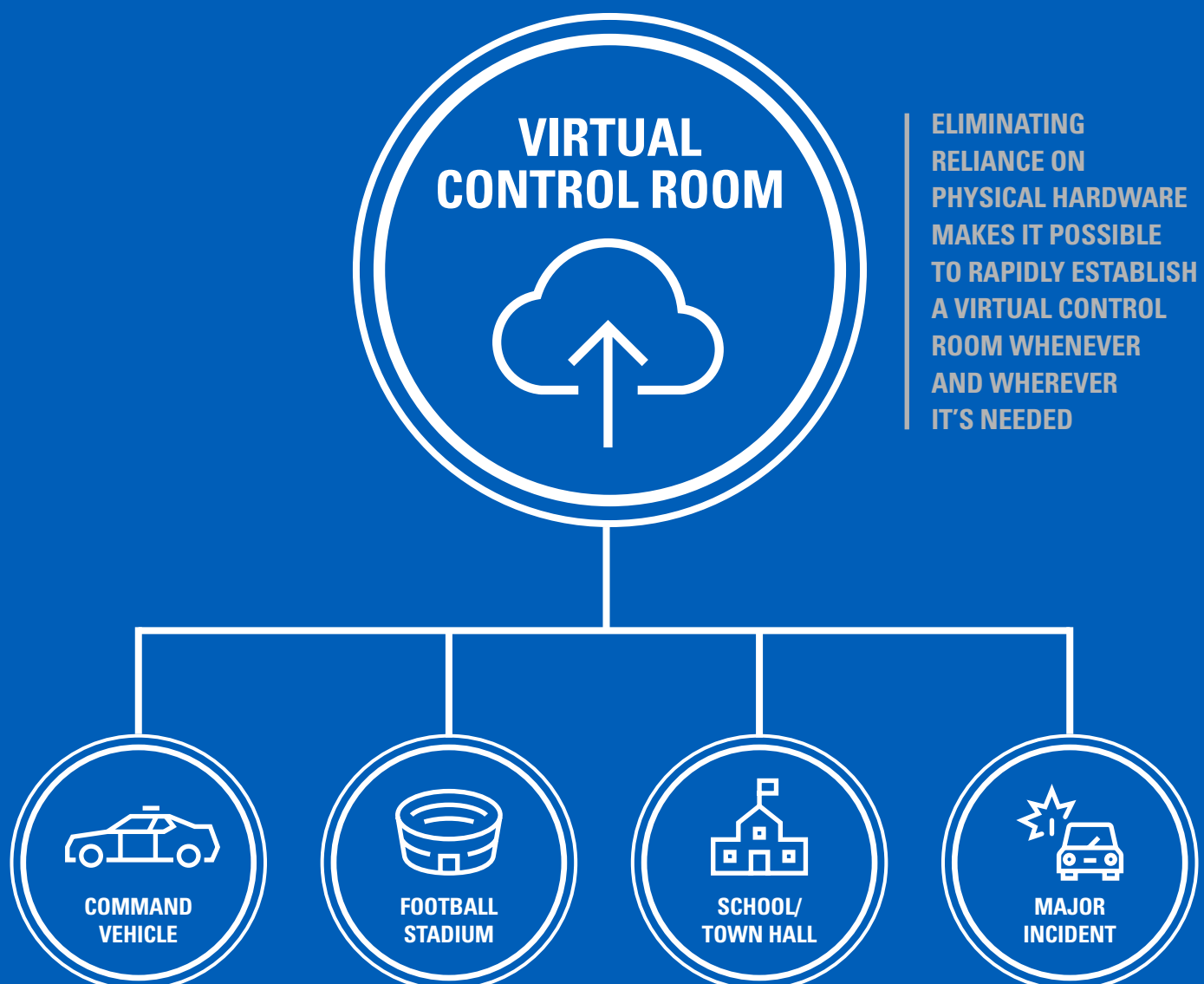
COUNTING THE BENEFITS

Cloud based solutions score strongly on flexibility and agility, with the ability to scale and reassign resources rapidly to meet changing operational requirements. Eliminating reliance on physical hardware makes it possible to rapidly establish a virtual control room whenever and wherever it's needed - in forward command vehicles, inside a football stadium, school or town hall or at the site of a major incident. Operations can also be switched over instantly to a backup site in event of catastrophic system failure or natural disaster.

A fully managed virtual service lightens the burden on in-house IT teams, offering further opportunities to keep operational costs in check. Software and applications hosted in the cloud can be

continually updated, keeping emergency services users ahead of the curve by ensuring they always benefit from latest features, fixes and refinements. This represents a big leap forward from the cost and operational constraints of on-premise solutions, where systems have to be taken offline or switched over to seldom-used backup systems for time-consuming patches and upgrades.

Just as significantly, cloudification of the control room opens up new opportunities for enhanced collaboration and resource sharing within and between agencies. For example, fire and rescue services dealing with a major incident can draw on additional call handling capacity provided by another 'partner' agency located in a neighbouring region – or anywhere else in the country.





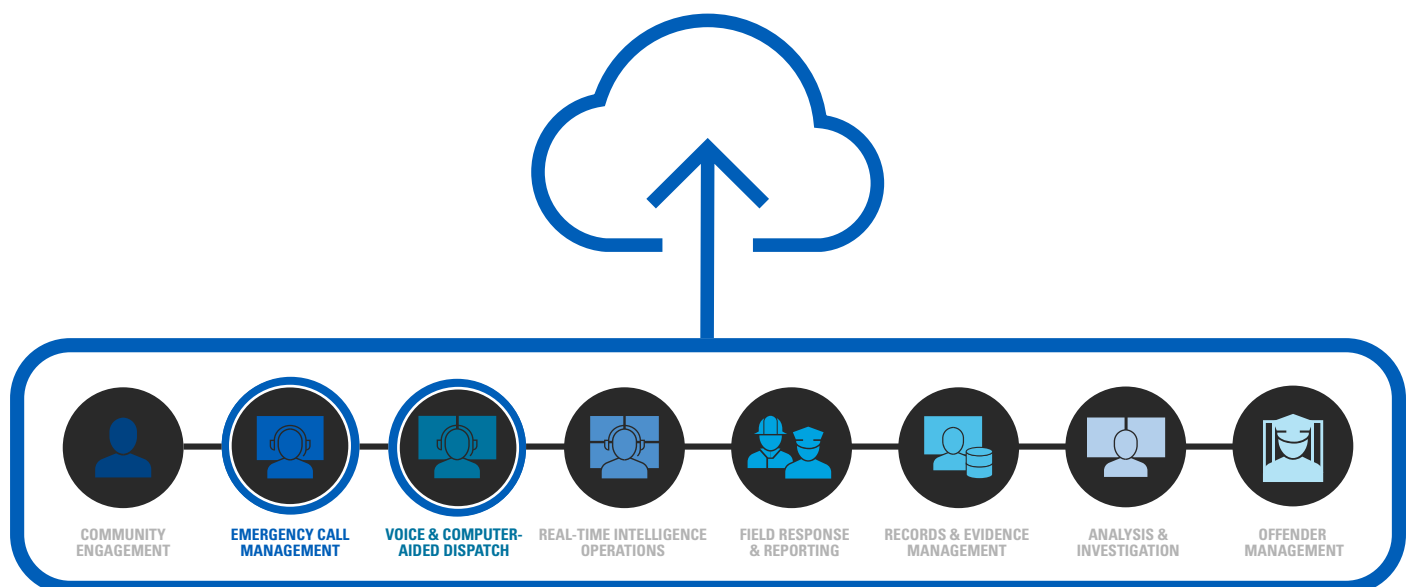
TAKING COMMAND IN THE CLOUD: COMMANDCENTRAL

CommandCentral from Motorola Solutions is a software-based command and control platform that may be hosted entirely in the cloud, on-premise, or a 'hybrid' combination of the two. Bringing greater flexibility and efficient use of resources to public safety operations, this uniquely powerful and flexible end-to-end software platform orchestrates all phases of incident lifecycle management, from awareness and initial analysis through to resolution.

CommandCentral provides a future-proofed hub for voice, data and multimedia communications, harnessing the power of the cloud to simplify emergency control room management. Uniting communications channels and applications within a single workflow-focused interface, it's instantly accessible via a secure

web browser connection – just log in and go. Readily scalable to meet changing mission requirements, the system can effortlessly accommodate the influx of data from today's and tomorrow's frontline sources, from officers' radio and phone calls to webchat, CCTV, body-worn video and even IoT sensors.

CommandCentral is hosted on virtual machines at Motorola Solutions' own data centres, with redundant sites at separate physical locations ensuring exceptional infrastructure resilience. Applications and mission-critical data are naturally protected by multiple levels of security. And since the platform is cloud native, system enhancements are effectively invisible to end users – just like incremental patches and updates on your PC's operating system.





COMMANDCENTRAL: THE BENEFITS AT A GLANCE



CUT COSTS

- Buy only what you need
- Match capacity to demand
- Zero footprint deployment
- Subscription billing model
- Increase flexibility



STAY UP TO DATE

- Always access the most up-to-date features
- Integrated voice logging and Automatic Call Distribution (ACD)
- Access service performance data in real time
- Multi-channel to improve communication with the public



REDUCE RISK

- 99.95% service availability, including planned and unplanned downtime
- Secure accredited service
- Single point of contact for Motorola Solutions Cloud services
- Remove obsolescence



BE FLEXIBLE

- Dynamic capacity for backup and spate conditions
- Browser-based access from any approved device
- Secure IP connectivity from any site
- Minimal training required
- Zero downtime for upgrades

TAKE THE NEXT STEP

Find out more about the benefits of migrating your emergency control room operations to the cloud with CommandCentral at motorolasolutions.com/commandcentral



MOTOROLA SOLUTIONS

Motorola Solutions UK Limited, Nova South, 160 Victoria Street, London, SW1E 5LB motorolasolutions.com

MOTOROLA, MOTO, MOTOROLA SOLUTIONS and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners. © 2021 Motorola Solutions, Inc. All rights reserved. 09-2021