

Rapid response: Monitoring and managing social distancing



The challenge: The UK hotspots of the pandemic are primarily focussed in city areas where population density and large transport hubs make enforcing social distancing and the ability to get people home safe and secure challenging.

Our solution: Camera tracking and video analytics

As part of our rapid response service, we can offer camera solutions and a management system that can help monitor and manage social distancing.

The system can be used in isolation to detect groups of two or more people congregating and to create automatic alerts using artificial intelligence. This can be combined and adapted with our thermal imaging solution to identify people with elevated body temperatures. This solution is presented in three phases:

1. Measurement and reporting to understand effectiveness of policy and communications
2. Identification of hot spots to allow predictions of how best to deploy resources or introduce additional measures to help maintain social distancing
3. Rapid real-time identification and deployment to gatherings of two or more people.



In preparation, our team have been using offline data analytics to prove that video analytics can be applied to footage from existing CCTV systems to measure social distancing and

identify camera attributes that provide the greatest insight.

Our solution can begin delivering benefits within four weeks, with the full benefit being mobilised within six months. An illustrative view of this programme is outlined below.

Benefits

- Enables authorities or operators to prioritise where they need to deploy resources to help people comply with social distancing measures
- The solution uses a tried and trusted CCTV network and video management system already in use across London
- We can advise on camera height, vantage points, viewing angles and zoom to improve monitoring ability
- Ability to share digital video via an industry standard which we have developed, ensuring data security and GDPR compliance whilst enabling rapid deployment of the solution
- A data rich environment which gives you the ability to record and retain data for enforcement purposes, further study and to help better plan for potential future scenarios
- We can provide assurance and support using an entirely UK based team
- We can deliver these solutions in an agile process agreed with the client.



- Agree pilot CCTV areas
- Agree solution and impact area
- Begin offline reporting



- Assess phasing and commence roll out
- Begin automation of analytics
- Identify hot spots



- Continue roll out
- Make data available to 3rd parties



- Further agile development including:
- Full coverage
 - Traffic surveying
 - Vehicle identifications
 - Increased automatic and analytics reporting
 - Service Desk monitoring and response

We have been delivering integrated leading edge smart infrastructure solutions to meet critical national needs across the UK's energy, water, transportation and defence markets for more than 150 years.

Our purpose is to improve people's lives by keeping water clean and flowing, powering communities sustainably, keeping the nation moving and our people safe.

Our teams of engineers and technologists have been working hard since the threat from COVID-19 was first identified to support the huge national effort of our emergency services and critical national infrastructure operators.

To help the UK manage the impact of the COVID-19 pandemic, we are here to help you respond rapidly to the disruption, build resilience and adapt your operations to be able to emerge quickly and strongly when more stable conditions resume.

Our three core COVID-19 support services are:

1. **Rapid response**
2. **Building resilience**
3. **Critical national infrastructure support.**

For further information please visit www.costain.com/covid19 or to speak to one of our experts contact covid19support@costain.com