

## Overview of actions taken by operators to limit routes for infection

April 2020

### **Purpose and scope of this document**

The key challenge for operators is twofold: firstly to protect their employees and limit routes for infection and secondly to ensure that data centres are adequately staffed to provide business continuity and meet customer demand. This overview focuses on the actions that operators are taking to reduce transmission of COVID-19 both within the data centre, and outside it. The objective is to provide an aide-memoire for operators in the form of a checklist so they can compare notes, and demonstrate the steps being taken within the sector to external observers.

Not all operators will implement all the measures listed below and some measures, such as recording body temperature, are only being implemented on a few sites. Many of the precautions being taken are common across all industry sectors but there are some areas where data centre environments present particular challenges. For instance there is an active discussion underway within the operator community on the difficulty of balancing social distancing requirements with some of the essential operational tasks required -such as installing a heavy piece of equipment. These notes therefore include brief summaries of these issues under the relevant headings.

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## 1 Introduction and summary

Operators have been working collectively to share information on procedures to limit infection and on decontamination routines since early March. Precautions reflect location and distribution of sites, the footfall to those sites, and individual site characteristics. All operators have implemented new guidelines and upgraded security controls. Intra company communications have been stepped up and reporting lines shortened.

Operators were quick to implement precautions like shift segregation with no movement of personnel between shifts and no-contact handovers long before formal social distancing requirement were implemented. Similarly staff movement between sites has been restricted for some time, and within sites workloads are no longer shared. There has been a widespread ban on industry gatherings for months and both foreign and domestic travel constraints were in place long before lockdown.

Those who can are working from home and for operational staff, access to sites has been restricted, maintenance deferred and remote support stepped up to reduce footfall. Many sites are running essential work only. Access and security controls have been adapted and screening is widely in place, though only a minority of operators are implementing temperature readings. The issuance of PPE is mixed, with a variety of approaches being implemented. Standard measures like increased levels and frequency of cleaning, use of viricidal wipes, sanitisation measures have all been applied across the board.

Looking further ahead, operators are already planning post-contamination procedures, irrespective of whether these will be needed and considering whether and how the measures currently in place may need to be applied in the longer term.

## 2 General: processes, strategy

### a) Guidelines & Procedures

- New guidelines and security controls implemented for all areas of business
- Remote working business continuity procedures tested and implemented
- Tools, training and guidance provided for staff for home working environment
- Environment Agency Permits compliance process modified to allow social distancing whilst maintaining controls

### b) Communications

- Increased level and frequency of intra-company communications
- Close engagement with customers and suppliers to ensure SLAs continue to be met and critical spares can be obtained under a range of scenarios

### c) Employee health

- Staff health status checks carried out daily, information reports maintained by HR
- Risk assessments for home working staff implemented.
- Emergency medical response kits provided on site. Emergency medical room designated.
- Mental health monitoring through comms, Buddy system, social activities, self help and awareness training.
- Regular reviews of staff activity to check personnel health, workload and status of teams

### 3 Outside the data centre

These are measures that have been in place since the beginning of March and in all cases well before lockdown (see our initial COVID-19 Bulletin). Some operators had restricted travel and inter-site movements as early as January.

#### a) Travel restrictions in place before UK lockdown period

- Work related international travel restrictions applied widely: blanket ban on high risk areas and other travel needing Board approval
- Staff declaring any annual leave to foreign countries in advance and self-isolation required for those returning from holidays in higher risk areas
- No movement of staff between facilities or between construction sites
- Supply chain restrictions – where equipment is sourced from quarantined areas, installation staff / commissioning engineers must be sourced from low risk areas
- No operational staff to attend industry events, followed by a blanket ban on all personnel

#### b) Reducing footfall to sites (see our [separate paper on footfall](#))

- Non-operational staff now working from home wherever possible. Remote working tools enhanced where necessary.
- Customer access restricted either to essential work only or by appointment only to limit numbers and comply with social distancing. In some cases customer access has been further restricted.
- Contractor and supplier access also restricted to essential / appointment only
- Services like smart hands and eyes stepped up by operators (where their own staff perform tasks for customers) limiting footfall to the facility
- Numbers on site reduced numbers on site to minimum essential operations
- Non essential maintenance deferred

#### c) Reducing staff reliance on public transport

- Hiring vehicles or providing taxis for staff usually obliged to travel by public transport

#### d) Testing

*At time of writing Government is testing essential workers with symptoms or who are living with symptomatic people. The objective is to enable those self-isolating to return to work if they are not infected. Data centre operators are classified as critical workers so operational staff who are self isolating should qualify. The guidance is changing frequently so please check the latest updates here: <https://www.gov.uk/guidance/coronavirus-covid-19-getting-tested#essential-workers>.*

In the meantime, several operators are

- exploring the supply chain for testing kit suppliers
- Validating potential providers (eg <https://www.surescreen.com/>)
- Defining processes (self testing for staff or appointing a medical practitioner to administer tests)

### 4 On arrival at the data centre

#### a) Security and access

- Visitor registration sign-in books suspended: electronic registers, video and security logs maintained.

- Biometrics under review to limit infection through fingerprint readers / contact (usually achieved through provision of additional hygiene regimes)
- Use of “man traps” (two stage security entry gates) modified to limit infection
- One in / one out controls implemented at entry to site
- Front of site reception desks modified by installing full height Perspex screens

#### **b) Screening**

*Most if not all operators are screening visitors to establish whether they are likely to have been exposed to infection. Many operators have refused entry to site on the basis of failed screening.*

- Visitors required to complete a health screening questionnaire; those who fail are refused entry.

#### **c) Temperature readings (see also our [Data centre COVID-19 Q&A](#))**

*Some larger operators have implemented temperature reading at point of entry but this is still a minority of sites. As of 24 April none of our community of UK operators reported that they had refused entry on the basis of body temperature. Operators report no resistance from visitors to temperature monitoring. Some operators are reluctant to implement temperature readings because these require a degree of proximity and there is a risk of false positives.*

- Non-contact readings of body temperature implemented (only on a minority of sites). Entry refused to those with temperature of 37.3 and above.
- Procurement of non-contact temperature reading equipment in case requirements escalate
- Processes and procedures to take temperature put in place, in case requirements escalate

NB: A non-contact temperature reading can be achieved in several ways:

- By using a tympanic thermometer with a nitrile gloved hand. This uses a disposable single-user cap which is then ejected from the device once used.
- Using an IR scanner (see link below): Visitor uses sanitiser, takes scanner, points to forehead without touching it and security read temperature

## **5 Inside the data centre**

#### **a) Shift segregation**

- Maintaining separate shifts – no movement of staff between shifts (implemented at an early stage in the outbreak by many operators, especially multinationals).
- “No contact rota”: virtual handover between shifts - no physical handover
- Essential work allocated to one individual at a time, one to a room; workload not shared
- Operations rooms locked to all but key staff and one in - one out process enforced as above
- Teams split into on site / off site
- Duplicate teams in reserve (wfh) to backfill site requirements if needed
- Only one external maintenance contractor on site (along with engineering team) at a time

#### **b) Social distancing**

- Social distancing measures (2 metre rule, etc) are being applied in all buildings
- All tasks on site are risk assessed for social distancing
- Tasks are modified to enable social distancing (eg teams are split and scheduled to different parts of site)
- Tasks that cannot be modified to account for distancing postponed where possible

- If an essential task cannot be completed within social distancing guidelines, a modified operational procedure (MOP) is developed. Approval to proceed usually required from data centre manager or above.
- Risk mitigation for tasks includes PPE, additional hygiene measures and follow up clean.
- Contractors are explicitly required (and reminded) to follow government guidelines.

### **c) Hygiene**

- Increased frequency of cleaning and disinfection of touch points, and often-used surfaces like door handles and access screens. After each known contact or every two hours.
- Enhanced hygiene mandated for contractors, visitors and staff
- Guidance for correct application of hygiene issued to all site users / displayed clearly (how and when to use gel, disposal of wipes and tissues, hand washing etc)
- Customers and contractors obliged to follow defined routes to their working areas (to limit opportunities for contamination and allow decontamination to be correctly targeted)
- The use of fingerprints for biometric control reviewed and sign-in / registration book suspended (see above)
- Mandated handwashing before entry and at set points in the building
- Virucidal wipes, alcohol hand gels, antiseptic spray, tissues etc made available for users across site. Sanitising stations in key locations (gel, wipe, disposable gloves, instructions)
- Daily restocking process for sanitisation and hygiene equipment.
- Cleaning rotas, cleaning areas, cleaning teams and monitoring processes all revised.
- Touch points reduced where possible.

### **d) Personal Protective Equipment (PPE)**

*When we surveyed operators on the use of PPE in data centres the responses were nuanced. Many operators are following government guidelines which do not currently mandate the provision of PPE. Those without inventory stock are tending not to procure PPE to avoid putting further pressure on existing supply chains: they are anxious not to erode the provision of much needed PPE in clinical and care environments.*

*All operators without inventory stock responding to our survey would supply PPE to operational staff if it were readily available. Those who had limited quantities would supply it more readily. There was also concern that PPE had to be worn correctly to be effective, and that the provision of PPE might lead to unintended consequences such as a relaxation of other important sanitisation measures such as hand washing.*

*Some concerns were expressed about different levels of awareness, training and vigilance demonstrated by visitors. There was a wide range in terms of operator responses and the points below summarise general trends, unless specified.*

- PPE available for frontline staff in majority of sites but use generally not mandatory (a few operators are mandating the wearing of non-medical grade PPE (cloth masks) for all operational staff and visitors but this is atypical)
- Contractors and customers arriving on site are requested to bring their own PPE, primarily because of potential liability
- Some operators considering mandating PPE for all visitors, especially if they have to work in environments shared with data centre staff
- PPE generally issued at non-medical grade to avoid compromising supply chains. Clearly described as such.

- Some operators issuing cloth masks (to reduce risk of infection spreading from asymptomatic carriers - as opposed to protecting personnel from airborne infection). This trend increasing as stock becomes available.
- Operators with sufficient stock are making PPE available to contractors and visitors as well as employees. Many are issuing some forms of PPE but not others (such as gloves, but not masks). Hygiene upscaled across the board especially where PPE not issued.
- Operators without existing PPE stock are tending to follow government guidelines and not issuing PPE.
- Checking supply sources outside NHS supply chain for gloves, [visors](#), cloth masks, etc. (See links below)

#### **e) Post contamination: cleaning**

Operators are already planning post-contamination cleaning procedures, irrespective of whether these will be needed. Approaches include.

- Visitor movements monitored and tracked to facilitate and focus decontamination
- Cleaning in line with PHE recommendations (PHE guidance for decontamination in a non-clinical setting [can be found here](#))
- Use of viricidal wipes where bleach solution is inappropriate
- Isolating contaminated workspaces for 72 hours
- Provision for deep cleaning / fogging where needed.
- Cleaning protocols appropriate to environment (may differ between data halls and office areas)
- Specialist cleaners being identified and availability verified.
- 24 hour deep clean response agreement and processes implemented
- Alternative measures being put in place where availability of specialist services is likely to be limited.

## **6 Other information and useful links**

### **a) Government guidance**

- Testing: <https://www.gov.uk/guidance/coronavirus-covid-19-getting-tested#essential-workers>
- PHE: [decontamination in non-healthcare settings](#)
- Social distancing in the workplace: <https://www.gov.uk/guidance/social-distancing-in-the-workplace-during-coronavirus-covid-19-sectorguidance>

### **b) Potential supplier links**

- CE marked visor supplier: <https://www.networkmedical.co.uk/ophthalmic/product-type/innovia-face-visor/>
- Testkit provider (several orders placed; we await feedback) <https://www.surescreen.com/>
- IR temperature scanner: [http://www.visiofocus.com/index\\_EN.html](http://www.visiofocus.com/index_EN.html).

### **c) techUK briefings and information (all these are accessible from our [Information hub](#))**

- Bulletin 1: 19 March: [Data Centre Sector Position Statement](#)
- Insight: 16<sup>th</sup> March: Operator actions on COVID-19 resilience: <https://www.techuk.org/insights/news/item/17070-covid-19-what-are-the-operational-implications-for-data-centres>

- Data centres and COVID-1 – footfall and transport modes: <https://www.techuk.org/insights/news/item/17269-covid-19-and-data-centres>
- Data Centre COVID-19 Q&A: <https://www.techuk.org/insights/news/item/17135-covid-19-and-data-centres>

#### d) Other useful sources

- Operator statements – on our COVID-19 data centre information hub: [https://www.techuk.org/covid-19-information-hub/data\\_centres](https://www.techuk.org/covid-19-information-hub/data_centres) (scroll down to the bottom)
- Uptime bulletins: <https://uptimeinstitute.com/covid-19-minimizing-critical-facility-risk>

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