



# Cloud Features and Benefits

JML Software Solutions Limited have partnered with UKFast to provide your force with the option of a secure, accredited cloud solution. With our cloud solution, your data is housed in our fully owned government-certified data centres located in the UK.

The cloud solution is fully monitored and maintained on your behalf with agreed service level agreements in place to ensure service performance. Active monitoring is configured to enable early warning and remediation of issues prior to the service being affected.

Chronicle software updates are applied by JML Software Solutions Ltd to mutually agreed timescales.

Operating system updates are regularly applied, with any expected service interruption agreed in advance with you.

Our cloud solution can be flexed during the contract period to cater for your additional future requirements, such as additional Chronicle modules or increased end user population.

Our data centres are approved as Police Approved Secure Facilities (PASF) with connectivity to the private networks used by all the emergency services, including HSCN, PSN, PSN for Policing and the Internet.

## FEATURES AND BENEFITS SPECIFIC TO THE CLOUD SOLUTION

<b>Managed Service</b>	<ul style="list-style-type: none"><li>Remove the need for capital expenditure on server hardware, maintenance, replacement and upgrade</li><li>Remove the need for capital expenditure on software licenses for the above hardware</li><li>Current Chronicle infrastructure can be released, re-tasked or rationalised</li><li>Disaster recovery hardware and software provided by the cloud service saving hardware, software and people cost for DR testing</li><li>No ICT staff required for the maintenance, monitoring and support of cloud servers allowing their redeployment</li><li>No ICT staff required for Chronicle upgrades thus reducing waiting time for upgrades and ensuring the latest version of Chronicle available to the business</li></ul>
<b>Security and on-going CPP</b>	<ul style="list-style-type: none"><li>Fully accredited data centres in the UK</li><li>Reduced cost to forces as all security is provided by cloud supplier</li><li>Independently assured security and compliance</li></ul>
<b>Flexibility and scalability</b>	<ul style="list-style-type: none"><li>Ability to flex business requirements to match demand with no short-term investment in additional hardware</li><li>Easily and quickly scale the chronicle solution with extra modules</li></ul>
<b>UKFast Accreditations</b>	<ul style="list-style-type: none"><li>NCSC Pan Government Accredited Services</li><li>Police Assured Server Facility (PASF)</li><li>Protective Monitoring compliant with GPG-13</li><li>PSN, PSN for Policing &amp; Internet connectivity</li><li>Cyber Essentials Plus</li><li>ISO 27001 Certified</li><li>Secure Mobile Device Support</li><li>ResilienceDirect Hosting Partner</li></ul>

## The Chronicle Cloud Solution

JML's secure Specialist Hosting Solutions for Emergency Services private cloud offering is delivered in conjunction with our partners UKFast who have over 18 years' experience in secure hosting for the MoD, Police forces, Government and NHS Trusts. Accreditations for this service include:

- NCSC Pan Government Accredited Services
- Police Assured Server Facility (PASF)
- Protective Monitoring compliant with GPG-13
- PSN, PSN for Policing & Internet connectivity
- Cyber Essentials Plus
- ISO 27001 Certified
- Secure Mobile Device Support
- ResilienceDirect Hosting Partner

A high-level overview of the security and specification can be found below.

## Networks and Connectivity

Built for redundancy, speed and security, our UK-based enterprise-grade data centres deliver fast and fail-safe routes to the internet.

### Networks

Our multi-20Gb network includes multi-homing to provide the definitive optimised conditions for server hosting. Our uncontented bandwidth is aggregated for various tiers, which guarantees 24/7/365 connectivity. We have multiple transit links into our facilities from different suppliers, including Level 3 and Cogent. Each of these suppliers has been selected because of their global reach and reliability. Our dependable peering strategy, combined with state-of-the-art Cisco hardware, ensures a network with no single point of failure. We have peering arrangements in place with LINX Juniper, LINX extreme, IX Manchester, BT, Virgin, Talk Talk and Sky. Core equipment and circuits are run below 50% capacity, allowing bursts in traffic and network spikes to take place without affecting our customers.

### Connectivity

Our public sector data centres are already connected to the PSN with redundant services available for DR and resilience. Each line is delivered as a 1GB Ethernet service to Government Conveyance Network (GCN), currently providing 500MB bandwidth:

- Police Assured server Facility (PASF)
- Public Sector Network (PSN)
- RLI(GC) for MoD
- Health and Social Care Network (HSCN)
- Protected (IPED)
- PSN for Policing

### Key Facts:

- Multiple 10Gb and 20Gb connections
- Unconnected bandwidth
- 24/7/365 connectivity
- Multiple transit and peering links
- Bandwidth operating below 50% capacity
- Global DDoS network infrastructure
- Global CDN

## Data Centres

Our fully managed ISO-certified data centre space is designed to offer you maximum redundancy, security and commercial certainty – for now and the future.

### Power and Cooling

Each data centre is fed from high-capacity primary substations and independent high-voltage networks. They are protected by Uninterruptable Power Supply (UPS) systems and diesel generators in an N+1 configuration; ensuring 100% power availability. Our data centres hold a minimum of 1000 47U racks fed by 32AMP commando sockets beneath the raised floor, with dual A&B feeds for added redundancy. Additionally, our datacentres use air-cooled DX chillers in an N+1 configuration and cold-aisle containment to minimise air loss and increase efficiency.

## Fire and Security

Our data centres are equipped with gas-based fire suppression and world-class VESDA (Very Early Smoke Detection Apparatus) and alarms. The smoke detectors are linked to the DCIM system and monitored continually, ensuring problems are localised and disruption is minimised. The data centre complex is manned 24/7/365 by security guards and is protected by multiple physical and electronic security systems, including 2.8m prison fencing, CCTV and multi-factor access control systems. The complex is managed round-the-clock by an in-house team of data centre and facility management engineers.

## Data Sovereignty

Our data centres were built from the ground up by UKFast who own the land, the buildings and the infrastructure, enabling us to have total end-to-end control – guaranteeing fixed prices, both now and in the future. The data centres are located in multiple locations across the North West of England and are linked to a choice of transit and peering connections. Your data is always stored securely within the UK and with 100% power availability and built-in redundancy for all critical components, you can be assured your mission critical applications will always be online.

### Key Facts

- ISO 27001:2013
- ISO 27017:2015 Cloud Security
- ISO 27018:2014 Code of Practice for Protection of PII in Public Clouds
- ISO 22301: Business Continuity Management
- ISO 9001:2015 Quality Management System
- ISO 14001: 2015 Environment Management System
- PCI DSS Level 1 Service Provider
- Cyber Essentials Plus
- BSI PAS 2060: Carbon Neutral
- Multi-Factor Access Control to data centre facilities
- Staffed 24/7/365 by security-cleared UKFast Staff
- Internal and external CCTV with more than 60 cameras
- 2.8 metre prison fencing, razor wire perimeter fence, car trap and guard house
- NICEIC-approved contractors
- Operating Power Utilisation Effectiveness (PUE) <1.3
- Disaster recovery site on separate power grids away from data centre

## Back Ups

Back ups are a vital part of any hosting environment. Back ups on our cloud are completed daily using CommVault.

### Backup Targets

- All the VMs
- Production and Test Application Servers
- Production and Test Database Servers
- PSN and Internet SMTP Relays

### On-Site

- Daily Incremental. The daily backup is securely stored on-site on a different storage i.e. storage outside the array being used by VMs
- Nightly Database Backups. There are nightly backups for all production databases completed using SQL maintenance scripts. These backups reside local to server and include a full backup of Database and Transaction Logs.

### Off-site

- Weekly Full-Backup: A full backup is completed weekly and copied to tape for secure SC cleared transportation offsite and securely housed in a List X cabinet

### Retention Period

- On-Site daily incremental backups are retained for a period of 14 days
- Offsite weekly full backups are retained for a period of 21 days
- Nightly database backups are retained for a period of 7 days