

Infrastructure

Email is a critical communications tool; interruptions are costly

This means that businesses evaluating solutions for their email hosting and related services – continuity, security, archive, and encryption – should pay close attention to the design and reliability of the infrastructure for their service providers.



At LOGICnow, we have invested significantly to develop email security services that are reliable, scalable, and secure. The software and network architecture were developed by a team of senior architects and engineers with extensive experience building and managing high-volume, mission-critical applications.

1 Network Architecture

Our network architecture is distributed globally across data centers in the United States, United Kingdom, Germany, and Amsterdam. These sites have diversified ownership, operations management, bandwidth providers and power sources, so that an operational issue impacting one data center is unlikely to also impact another facility. All of the data centers share key features, including:

- Continuous uninterruptible power supply (UPS) systems
- Multi-gigabit connectivity to multiple tier 1 backbone providers
- Sophisticated climate control
- 24-hour manned guard stations
- Institutional banking quality access procedures
- Third-party certifications (including IDW PS 951, ISO 27001, SAS 70, and SOC 2)

Customers are given multiple unique MX records for each domain that point to multiple data centers in their geographic region. The geographic clustering enables European customers to comply with regulations requiring local (EU-based) processing and storage of their messages, while also assuring that all customers are serviced by multiple datacenters regardless of their location.

2 Systems and Software Architecture

Our systems architecture inside each data center is modular, and includes load balancers, inbound and outbound message handling servers, message handling database servers, configuration database servers, storage systems, asynchronous job processing engines, monitoring components, and other systems. All front- and back-end systems are redundant and run in parallel.

Our software is engineered to scale with the rapid growth of junk mail. Message processing is designed to be atomic, to ensure that no emails can be lost in the event of a transient error. Our software will confirm receipt of a message only after that message has been verifiably delivered or otherwise handled. The software's reliability has been proven through the processing of billions of messages for our customers.

Each component of the architecture is continuously tested at the network and service levels by redundant monitoring systems. Furthermore, we conduct around-the-clock, full-path message monitoring, which tests real-world system performance across the application.

3 Encryption

Our services are designed to enhance email security. Email is inherently unsecure; messages are normally sent in unencrypted, plain text format across many networks from sender to recipient. Customers benefit from automatic encryption of inbound and/or outbound messages via the widely accepted TLS protocol, which transmits messages through a secure channel. Additionally, our service uses secure, encrypted channels (e.g., HTTPS, IMAPS and LDAPS) for the control panel and for other communications with customer infrastructure.

4 Storage

In most circumstances, MAX MailProtection does not store copies of email messages, and the log files maintained by the service only contain message header information rather than message contents. Exceptions are for brief durations, such as a quarantine period or when a customer's mail server is offline.

MAX MailArchive employs several methods to ensure that data remains confidential and tamper-free. All messages are protected by 256-bit AES encryption. Private keys are stored separately from the messages themselves, so even if somebody gained access to a server storing archived messages, those communications would be unreadable. Additionally, all messages are stored in read-only format and are digitally signed to ensure the integrity of the original message and metadata.

Archived messages are stored in multiple data centers – either in North American or Europe, depending on the primary location of the company using the archive service. This ensures redundant, geographically distributed storage, and limits storage to the customer's broad geographic area.

5 Tightly Controlled Access

We maintain numerous safeguards to protect the systems used for our services. This includes tightly controlled physical access to the datacenters, servers and other service components as well as multiple levels of electronic protection. Servers are only accessed via secure protocols – and only by authorized personnel – with stringent policies and multi-factor authentication mechanisms in place for all systems in the production environment.

Connect with us!

Please get in touch if you have any questions about any of our services.



UK: +44 0 1313 414899

US: +1 855 801 5461

APAC: +61 8 7123 4068



info@LOGICnow.com



[@LOGICnow](https://twitter.com/LOGICnow)

DISCLAIMER

© 2016 LOGICnow Ltd. All rights reserved. All product and company names herein may be trademarks of their respective owners. The information and content in this document is provided for informational purposes only and is provided "as is" with no warranty of any kind, either express or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, and non-infringement. LOGICnow is not liable for any damages, including any consequential damages, of any kind that may result from the use of this document. The information is obtained from publicly available sources. Though reasonable effort has been made to ensure the accuracy of the data provided, LOGICnow makes no claim, promise or guarantee about the completeness, accuracy, recency or adequacy of information and is not responsible for misprints, out-of-date information, or errors. LOGICnow makes no warranty, express or implied, and assumes no legal liability or responsibility for the accuracy or completeness of any information contained in this document.

If you believe there are any factual errors in this document, please contact us and we will review your concerns as soon as is practical.