Moosend

Hosted Infrastructure and Security Overview

Introduction

Moosend provides an email marketing platform, offered as a service (SaaS), accessible through a standard web browser. This document provides an overview of the Moosend infrastructure, the hosting provider, the data center design and the certifications aiming to protect the integrity of the client data.

Application Security

Moosend clients sign in to the hosted platform through a set of username / password credentials. Both the username and the password are created by the client during signup. The password is immediately encrypted and is never transmitted or presented as clear text. The Moosend team is not in a position to recover a client's password, while at the same time the client can change the password at any time. Active sessions will automatically logout out based on each customer's configuration settings, as set by such customer's system administrator.

Data Security

Moosend uses a series of Microsoft SQL Server databases to store client data including emails and analytics. Both the database layer as well as the platform applications are behind firewalls. No direct access is provided, while at the same time only a restricted set of our employees have direct access to the production environment, for the purpose of performing their duties. Customer data is also segmented through the platform itself and prevents one user to view other users' data via the API, the management interface or any other means.

Data Center Design

Moosend is using –LeaseWeb Netherlands – an OCOM company – as tis infrastructure as a service provider. Every aspect of a LeaseWeb data center—from location and accessibility to power density and redundancy—is designed to guarantee its security, resiliency, and efficiency. The data center is staffed 24x7 with experts to troubleshoot and address the rare issues that can't be directly resolved through automated management systems.

The data center offers:

- UPS Battery Backup Units.
- Backup Power Generators.
- Cooling Infrastructure.
- Fire Detection and Suppression.

- Access Control.
- Power Usage Effectiveness: PUE 1.2 (design load).
- Uptime 99.999%.
- 45 carriers and 2 Internet Exchanges present (AMS-IX and NL-IX).
- Security measures: CCTV cameras (inside and outside), 3 Meter high perimeter fencing, Biometric scan, electronic ID scan (passport), all alarms monitored 24 × 7 × 365, Security guards on-site, monitoring, mobile patrol of business area 24 × 7 × 365.
- Borg Class 4 for building and electronic safety

About the data center:

A. Standardized best-practices-based facilities

The data center facility features best-in-class methodologies to support thousands of servers. Leveraging standardization, key data center performance variables are optimized, including: space, power, network, personnel, and internal infrastructure.

B. Redundant power, cooling, and network services

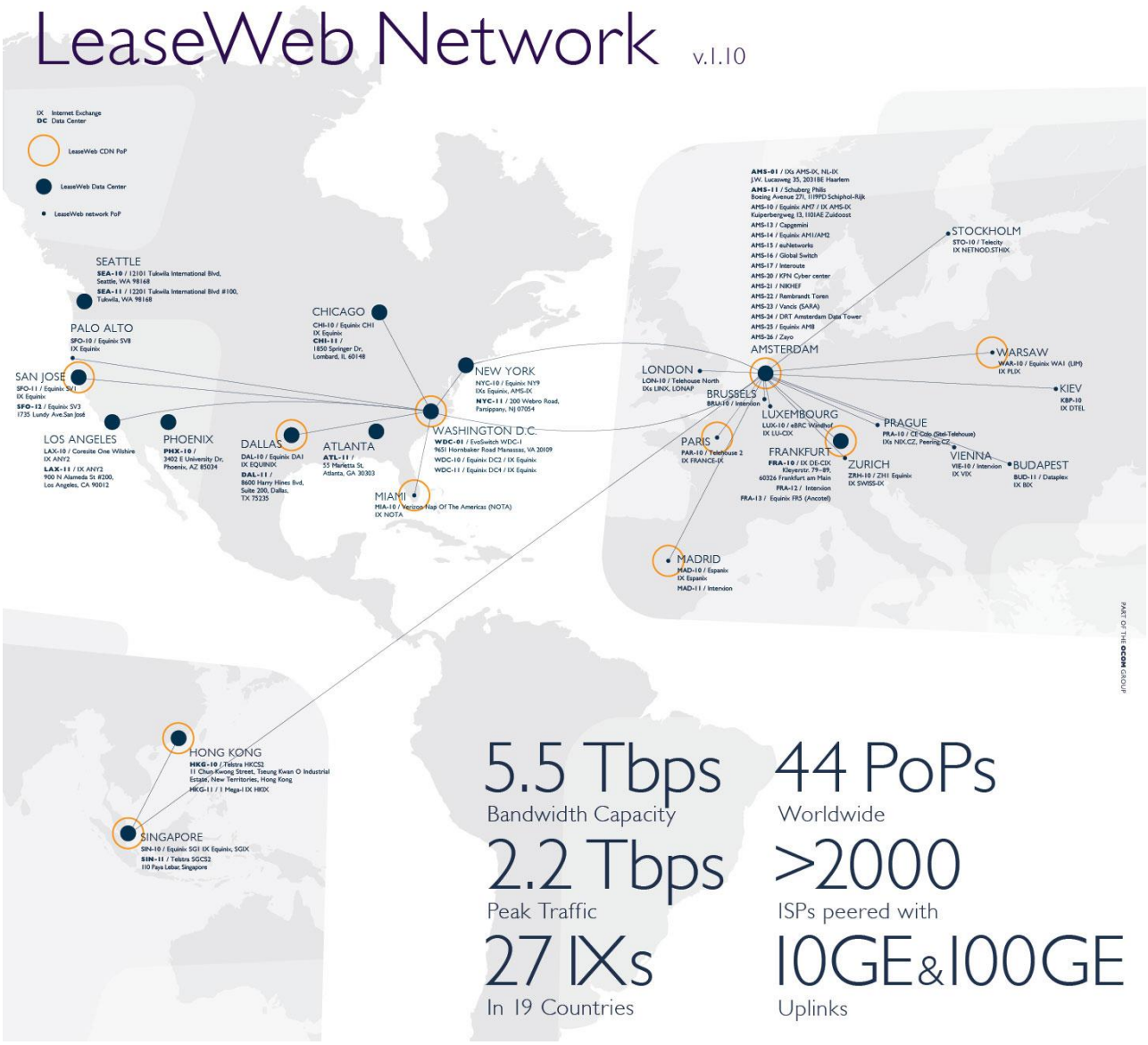
The data center maintains multiple power feeds, fiber links, dedicated generators, and battery backup. They are built from industry-leading hardware and equipment, ensuring the highest level of performance, reliability, and interoperability. We regularly inspect and test our redundant (n+1) power and cooling resources to guarantee stability in our data center pods.

C. High Performance Rack Architecture for better power, bandwidth, and support for each server

The racks have high bandwidth, ample power, simplified system deployment, and faster issue resolution. Each rack has multiple 10Gbps fiber connections—for private networking, and to the public network—for exceptional and consistent network performance for every system.

Networking

Moosend is using LeaseWeb's global Next Generation Network for data transmission. Public, private, and management traffic travel across separate network interfaces, segregating and securing traffic while streamlining management. The global network boasts more than 5 Tbps of capacity towards the rest of the internet. The network benefits from multiple transit connections as well as peering links to additional service providers and access networks.



1. Public Network

The network has multiple connections to top-tier transit and peering network carriers.

The network delivers stability, speed and scalability. Quickly. Predictably. Without fail. In fact, LeaseWeb offers one of the largest, state-of-the-art networks in the world. Incorporating points of presence and Internet Exchanges across the globe, the network delivers massive bandwidth capacity, blazing speed and unsurpassed connectivity for your workloads.

LeaseWeb uses geographically separated core routers that are interconnected to worldwide data centers and, subsequently, to the Internet. The result is a core uptime of 99.9999% and a bandwidth capacity of 5.5 Tbps. So you can be sure your mission-critical applications will keep on running, even in the event of an unexpected surge in demand.

LeaseWeb uses a combination of global transit providers and private peering arrangements to extend global reach and best-in-class connectivity. LeaseWeb is able to deliver fully available robust connections to the Internet, while providing good pricing.

Inside the data center, Moosend is offered up to ten gigabits per second of bandwidth to individual servers to meet even the platform's demanding network-intensive workload.

2. Private Network

Moosend servers are connected by a private network. This private network is separate from the public network. The private network offers secure private VLANs.

3. Management Network

In addition to the public and private networks, each Moosend server is connected to an out-of-band management network. This management network, accessible via VPN, allows access to the servers for maintenance and administration purposes. To perform OS reloads, power-cycle a server, or simply use the IPMI connection to watch a server boot up as though you were standing in the data center with a keyboard, monitor, and mouse physically connected.

4. Network Infrastructure

The network is built from best-in-class networking infrastructure, hardware, and software with exceptional bandwidth and connectivity for the highest speed and reliability. The network infrastructure includes DDOS Protection.

Infrastructure Compliance

LeaseWeb employs independent third party auditors to certify that their systems and processes comply with all the latest industry standards.

All vital aspects are covered. Certifications and assurance reports ensure logical security, physical security, service deployment, customer support, incident management, change management, and operational resilience meet industry-leading standards.

Globally recognized certifications include ISO 27001, PCI DSS, SOC 1, HIPAA and NEN 7510 certifications/assurance reports. The external audit partners are recognized all around the world.

Certifications offer peace of mind. Rest assured that wherever you are in the world we'll have effective operational controls and meet stringent audit levels for data protection and availability.

You need to demonstrate to your customers, shareholders and other stakeholders that you have the necessary compliance in place to counter concerns over issues like

cybersecurity and business resilience. Our infrastructure, data handling and security meet industry-leading standards.

ISO 27001

The International Organization for Standardization (ISO) 27001:2013 is the international security standard used to benchmark the protection of sensitive data. The certification process encompassed organizational security policies, personnel security, physical and environmental security, systems and network security, and business continuity management.

PCI DSS

Payment Card Industry Data Security Standard (PCI DSS) ensures the secure handling of sensitive information and is intended to help organizations proactively protect customer account data. As LeaseWeb does not monitor or has access to Moosend data, applicability of the PCI/DSS certification is restricted to physical security access to Moosend equipment through a combination of management systems and physical access safeguards and procedures.

SOC 1

Service Organization Controls (SOC) reports provide an examination (similar to an audit) of a description produced by LeaseWeb of the system(s) LeaseWeb operates on behalf of Moosend and other clients that are relevant to internal control processes.

HIPAA

The Health Insurance Portability and Accountability Act sets out standards for security controls to protect health information stored or processed online. Although there is no specific HIPAA certification for service providers like LeaseWeb, EY has issued us with a third party statement that recognizes our platform as being compliant with HIPAA's requirements that relate to our service blocks for logical and physical security, operational resilience, incident management, service deployment and change management. This enables customers to leverage our platform as part of their overall HIPAA compliance.

Security

Moosend follows a standardised, industry-leading framework for securing its platform and its customers' workloads.

LeaseWeb data centers are also monitored 24x7 for both network and on-site security.

Personnel Security

Security is maintained through automation (less likely for human error) and audit controls. Server room access is limited to authorised employees only, and every location is protected against physical intrusion.

At the same time, access to customer data by Moosend personnel is restricted to a very limited subset of the workforce and only those who have a need for the purpose of performing their duties. All access to Moosend's infrastructure and application layer is audit logged. Finally, all Moosend employees have signed NDAs.

Data Destruction

When any physical or virtual server or hard drive is destroyed, all data is erased.

Network Monitoring

Moosend is using a series of network monitoring tools to ensure uptime and platform availability, such as Nagios, Pingdom and New Relic.

Also, a LeaseWeb Network team monitors network performance and security 24x7. Automated DDoS mitigation controls are in place should a DDoS attack occur. The primary objective of DDoS mitigation is to maintain performance integrity of the overall infrastructure. With that in mind, LeaseWeb can shield Moosend (and any other customers) from the effects of an attack.

LeaseWeb offers dedicated networking equipment, industry standard VLANs and switch access control lists (ACLs) to segment customer environments. Moosend has the ability to add and manage own VLANs, providing additional security inside Moosend own account. ACLs are configured to permit or deny any specified network packet (data) to be directed along a switch.

Antivirus, firewall & other security solutions

When it comes to security, securing a data center environment and its physical server hardware is only half the battle—it's important to protect the software side as well. To help keep your data safe, Moosend employs software on both the network and server/host level, like a firewall, SSL and other security components.

Firewalls

All Moosend servers are equipped with a world-class firewall solution to filter out traffic based on a set of rules. The Moosend firewalls provide complete, granular control over advanced firewall and security features.

SSL certificates

Moosend encrypts HTTP traffic through a 2048-bit SSL certificate from RapidSSL.