Hardware and System Requirements PONTON X/P Messenger 5.1.0

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1 Minimum system requirements

These are requirements for the software without any specific context, which might not match any stricter requirements on a system which is officially supported by a specific industry solution like Equias or papiNet!
These system requirements are valid for PONTON X/P Messenger 5.1.0 and higher Versions until PONTON has published new system requirements.
PONTON does not support the PONTON X/P Messenger on environments with versions of Operating Systems and Databases which are not supported by the vendors.

Please contact the PONTON help desk via https://support.ponton.de if you have a system environment, which is not mentioned as supported.

2 Hardware

Minimum hardware requirements for installing the Messenger are as follows:

Property	Value
Available Disk space for PONTON X/P Messenger	1 GB
Free RAM available for PONTON X/P Messenger	512 MB
Processor	2 Cores, 2 GHz

3 System recommendation with high message load

To ensure a high-performance system environment with a large message volume (more than 10,000 messages per hour), significantly higher system requirements are necessary. The exact requirements depend heavily on the individual environment and message volume. The following hardware specification demonstrated good performance with high message load during load tests.

Property	Value
Available Disk space for PONTON X/P Messenger	50 GB
Free RAM available for PONTON X/P Messenger	2048 MB
Processor	4 Cores, 3 GHz

Furthermore, PONTON recommends Linux as the operating system and PostgreSQL or Oracle as the database, as such system environments have shown the best performance results in our own load tests (under laboratory conditions).

4 Operating Systems

PONTON X/P Messenger is compatible and supported with the following operating systems:

- Windows Server 2022
- Windows Server 2025
- Linux
  - Debian 12 (Bookworm) with package rng-tools5
  - Debian 13 (Trixie) with package rng-tools5
  - Red Hat Enterprise Linux 8 with package rng-tools
  - Red Hat Enterprise Linux 9 with package rng-tools
  - Red Hat Enterprise Linux 10 with package rng-tools
  - Oracle Enterprise Linux 8 with package rng-tools
  - Oracle Enterprise Linux 9 with package rng-tools
  - Oracle Enterprise Linux 10 with package rng-tools

5 JAVA Runtime

PONTON X/P Messenger is compatible and supported with the following JAVA Runtimes:

- Oracle Java 25
- OpenJDK 25

6 Databases

PONTON X/P is delivered with an embedded **HSQL** database which may be used for **testing** purposes during the **TRIAL** period only! Please only use officially supported databases for **production** purposes.

PONTON X/P Messenger is compatible and supported with the following databases:

Database / Version	JDBC Driver
Oracle 19c	Oracle Thin Driver ojdbc11 Version 23.9.0.25.07
Oracle 21c	Oracle Thin Driver ojdbc11 Version 23.9.0.25.07
Oracle 23ai/26ai	Oracle Thin Driver ojdbc11 Version 23.9.0.25.07
MS SQL Server 2019	Microsoft JDBC 13.2.1.jre11
MS SQL Server 2022	Microsoft JDBC 13.2.1.jre11
Azure SQL Edge 1.0	Microsoft JDBC 13.2.1.jre11
Azure SQL Edge 2.0	Microsoft JDBC 13.2.1.jre11
MySQL 8.0 (with InnoDB Engine)	MySQL Connector/J 9.4.0
MySQL 8.4 (with InnoDB Engine)	MySQL Connector/J 9.4.0
PostgreSQL 14	pgJDBC v42.7.8

Database / Version	JDBC Driver
PostgreSQL 15	pgJDBC v42.7.8
PostgreSQL 16	pgJDBC v42.7.8
PostgreSQL 17	pgJDBC v42.7.8

Database performance considerations
The performance of the database is relevant for the performance of the PONTON X/P Messenger. For example the latency for receiving and sending messages is dependent on the performance of the database in use. Different databases use different locking strategies depending on their database configuration. Optimum setup of the database depends on the requirements such as the amount of messages transmitted (per time unit), the maximum rate at which messages are expected and how time-critical the message transmission is. Based upon these criteria following steps should be considered:

- The database settings have to be optimized or/and
- The limitations of the different databases

Hint: MySQL Database might not be the best choice for critical installations.

7 Supported Browsers

- Firefox ESR 140+
- Microsoft Edge v141+
- Google Chrome v141+

Other Browsers may be supported with minor restrictions.

The web UI is optimized for a resolution of 1920×1080 pixel.

8 Network

- The PONTON X/P Messenger supports only IPv4 environments.
- PONTON recommends to use permanent internet connections and no dial up connections.

PONTON X/P uses several network ports. The following table shows the standard configuration, which can be changed in every individual installation:

Port	direction	Protocol	Remark
2600	inbound	https	Adapter API v2
9000	outbound	https	Offered by the X/P Listener (websocket communication)
8443	inbound	https	Offered by X/P Messenger (admin-GUI)

9 Default SSL Settings

9.1 Included SSL Protocols

TLSv1.2
TLSv1.3

9.2 Excluded SSL Protocols

SSLv3
TLSv1
TLSv1.1

9.3 Included SSL Ciphers

TLS_AES_128_CCM_8_SHA256
TLS_AES_128_CCM_SHA256
TLS_AES_128_GCM_SHA256
TLS_AES_256_GCM_SHA384
TLS_CHACHA20_POLY1305_SHA256
TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA256
TLS_ECDHE_ECDSA_WITH_AES_128_CCM
TLS_ECDHE_ECDSA_WITH_AES_128_CCM_8
TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256
TLS_ECDHE_ECDSA_WITH_AES_256_CBC_SHA384
TLS_ECDHE_ECDSA_WITH_AES_256_CCM
TLS_ECDHE_ECDSA_WITH_AES_256_CCM_8
TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384
TLS_ECDHE_ECDSA_WITH_ARIA_128_CBC_SHA256
TLS_ECDHE_ECDSA_WITH_ARIA_128_GCM_SHA256
TLS_ECDHE_ECDSA_WITH_ARIA_256_CBC_SHA384
TLS_ECDHE_ECDSA_WITH_ARIA_256_GCM_SHA384
TLS_ECDHE_ECDSA_WITH_CAMELLIA_128_CBC_SHA256
TLS_ECDHE_ECDSA_WITH_CAMELLIA_128_GCM_SHA256
TLS_ECDHE_ECDSA_WITH_CAMELLIA_256_CBC_SHA384
TLS_ECDHE_ECDSA_WITH_CAMELLIA_256_GCM_SHA384
TLS_ECDHE_ECDSA_WITH_CHACHA20_POLY1305_SHA256
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256
TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384
TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384
TLS_ECDHE_RSA_WITH_ARIA_128_CBC_SHA256
TLS_ECDHE_RSA_WITH_ARIA_128_GCM_SHA256
TLS_ECDHE_RSA_WITH_ARIA_256_CBC_SHA384
TLS_ECDHE_RSA_WITH_ARIA_256_GCM_SHA384
TLS_ECDHE_RSA_WITH_CAMELLIA_128_CBC_SHA256
TLS_ECDHE_RSA_WITH_CAMELLIA_128_GCM_SHA256
TLS_ECDHE_RSA_WITH_CAMELLIA_256_CBC_SHA384
TLS_ECDHE_RSA_WITH_CAMELLIA_256_GCM_SHA384
TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256

9.4 Excluded SSL Ciphers

TLS_DHE_DSS_WITH_3DES_EDE_CBC_SHA
TLS_DHE_DSS_WITH_AES_128_CBC_SHA
TLS_DHE_DSS_WITH_AES_128_CBC_SHA256
TLS_DHE_DSS_WITH_AES_128_GCM_SHA256
TLS_DHE_DSS_WITH_AES_256_CBC_SHA
TLS_DHE_DSS_WITH_AES_256_CBC_SHA256
TLS_DHE_DSS_WITH_AES_256_GCM_SHA384
TLS_DHE_DSS_WITH_ARIA_128_CBC_SHA256
TLS_DHE_DSS_WITH_ARIA_128_GCM_SHA256
TLS_DHE_DSS_WITH_ARIA_256_CBC_SHA384
TLS_DHE_DSS_WITH_ARIA_256_GCM_SHA384
TLS_DHE_DSS_WITH_CAMELLIA_128_CBC_SHA
TLS_DHE_DSS_WITH_CAMELLIA_128_CBC_SHA256
TLS_DHE_DSS_WITH_CAMELLIA_128_GCM_SHA256
TLS_DHE_DSS_WITH_CAMELLIA_256_CBC_SHA
TLS_DHE_DSS_WITH_CAMELLIA_256_CBC_SHA256
TLS_DHE_DSS_WITH_CAMELLIA_256_GCM_SHA384
TLS_DHE_RSA_WITH_3DES_EDE_CBC_SHA
TLS_DHE_RSA_WITH_AES_128_CBC_SHA
TLS_DHE_RSA_WITH_AES_128_CBC_SHA256
TLS_DHE_RSA_WITH_AES_128_CCM
TLS_DHE_RSA_WITH_AES_128_CCM_8
TLS_DHE_RSA_WITH_AES_128_GCM_SHA256
TLS_DHE_RSA_WITH_AES_256_CBC_SHA
TLS_DHE_RSA_WITH_AES_256_CBC_SHA256
TLS_DHE_RSA_WITH_AES_256_CCM
TLS_DHE_RSA_WITH_AES_256_CCM_8
TLS_DHE_RSA_WITH_AES_256_GCM_SHA384
TLS_DHE_RSA_WITH_ARIA_128_CBC_SHA256
TLS_DHE_RSA_WITH_ARIA_128_GCM_SHA256
TLS_DHE_RSA_WITH_ARIA_256_CBC_SHA384
TLS_DHE_RSA_WITH_ARIA_256_GCM_SHA384
TLS_DHE_RSA_WITH_CAMELLIA_128_CBC_SHA
TLS_DHE_RSA_WITH_CAMELLIA_128_CBC_SHA256
TLS_DHE_RSA_WITH_CAMELLIA_128_GCM_SHA256
TLS_DHE_RSA_WITH_CAMELLIA_256_CBC_SHA
TLS_DHE_RSA_WITH_CAMELLIA_256_CBC_SHA256
TLS_DHE_RSA_WITH_CAMELLIA_256_GCM_SHA384
TLS_DHE_RSA_WITH_CHACHA20_POLY1305_SHA256
TLS_DH_anon_WITH_AES_128_CBC_SHA
TLS_DH_anon_WITH_AES_128_CBC_SHA256
TLS_DH_anon_WITH_AES_128_GCM_SHA256
TLS_DH_anon_WITH_AES_256_CBC_SHA
TLS_DH_anon_WITH_AES_256_CBC_SHA256
TLS_DH_anon_WITH_AES_256_GCM_SHA384
TLS_DH_anon_WITH_ARIA_128_CBC_SHA256
TLS_DH_anon_WITH_ARIA_128_GCM_SHA256
TLS_DH_anon_WITH_ARIA_256_CBC_SHA384
TLS_DH_anon_WITH_ARIA_256_GCM_SHA384

TLS_DH_anon_WITH_CAMELLIA_128_CBC_SHA
TLS_DH_anon_WITH_CAMELLIA_128_CBC_SHA256
TLS_DH_anon_WITH_CAMELLIA_128_GCM_SHA256
TLS_DH_anon_WITH_CAMELLIA_256_CBC_SHA
TLS_DH_anon_WITH_CAMELLIA_256_CBC_SHA256
TLS_DH_anon_WITH_CAMELLIA_256_GCM_SHA384
TLS_ECDHE_ECDSA_WITH_3DES_EDE_CBC_SHA
TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA
TLS_ECDHE_ECDSA_WITH_AES_256_CBC_SHA
TLS_ECDHE_ECDSA_WITH_NULL_SHA
TLS_ECDHE_RSA_WITH_3DES_EDE_CBC_SHA
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA
TLS_ECDHE_RSA_WITH_NULL_SHA
TLS_ECDH_anon_WITH_3DES_EDE_CBC_SHA
TLS_ECDH_anon_WITH_AES_128_CBC_SHA
TLS_ECDH_anon_WITH_AES_256_CBC_SHA
TLS_RSA_WITH_3DES_EDE_CBC_SHA
TLS_RSA_WITH_AES_128_CBC_SHA
TLS_RSA_WITH_AES_128_CBC_SHA256
TLS_RSA_WITH_AES_128_CCM
TLS_RSA_WITH_AES_128_CCM_8
TLS_RSA_WITH_AES_128_GCM_SHA256
TLS_RSA_WITH_AES_256_CBC_SHA
TLS_RSA_WITH_AES_256_CBC_SHA256
TLS_RSA_WITH_AES_256_CCM
TLS_RSA_WITH_AES_256_CCM_8
TLS_RSA_WITH_AES_256_GCM_SHA384
TLS_RSA_WITH_ARIA_128_CBC_SHA256
TLS_RSA_WITH_ARIA_128_GCM_SHA256
TLS_RSA_WITH_ARIA_256_CBC_SHA384
TLS_RSA_WITH_ARIA_256_GCM_SHA384
TLS_RSA_WITH_CAMELLIA_128_CBC_SHA
TLS_RSA_WITH_CAMELLIA_128_CBC_SHA256
TLS_RSA_WITH_CAMELLIA_128_GCM_SHA256
TLS_RSA_WITH_CAMELLIA_256_CBC_SHA
TLS_RSA_WITH_CAMELLIA_256_CBC_SHA256
TLS_RSA_WITH_CAMELLIA_256_GCM_SHA384
TLS_RSA_WITH_NULL_SHA
TLS_RSA_WITH_NULL_SHA256
TLS_SHA256_SHA256
TLS_SHA384_SHA384

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