
P.Lion

Preparing for Deployment



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Overview

P.Lion is the central component of the PTT100 communications network. It manages users, provides communication between clients, records calls and activities, stores and processes geolocation information, and provides many other services.

PTT100 remotely installs, configures, and upgrades P.Lion and the related services on your on-premises hardware or in the cloud, so you do not have to worry about complicated technical details. All you need is to coordinate business details with PTT100 Sales, prepare the environment according to these instructions and grant access to our engineers.

Once the server is deployed, you can **configure** the communication network, deploy Android and iOS clients, and set up dispatcher workplaces.

This document provides detailed instructions on preparing your environment for deploying P.Lion.

Required hardware

- x86 or x64 processor; dual-core or better.
- Gigabit Ethernet adapter.
- Free USB port (for dongle license).
- To improve performance, it is recommended to use a solid state drive (SSD) for P.Lion installation.

P.Lion

Number of users	CPU	RAM	Disk space
100	Intel® Core™ i7-6700 Quad-Core Skylake	8 GB	500 GB
500	Intel® Core™ i7-8700 Hexa-Core Coffee Lake	16 GB	1 TB
1000	Intel® Core™ i9-9900K Octa-Core	32 GB	2 TB
3000	Intel® Xeon® E-2176G Hexa-Core	64 GB	4 TB
5000	Intel® Xeon® E-2176G Hexa-Core	128 GB	10 TB

The actual hardware requirements may vary depending on product features and usage scenarios. The numbers above are only given for reference sake.

Operating system

P.Lion works on Debian GNU/Linux 9.x (x86 or x64). The operating system is installed and configured by the customer.

- Debian should be installed in text-mode (no GUI).
- Debian should be installed to a single / partition with `var`, `tmp`, and `home` directories. Alternative partitioning may result in free space issues.
- Linux Kernel Security (SELinux or AppArmor) must be disabled or set to permissive mode.

IMPORTANT:

We do not recommend any operating system updates (except for security updates) or additional software installations on P.Lion servers. It may result in server's instability.

[Contact us](#) to clarify the warranty terms and conditions before planning such actions for any reason.

Packages

- OpenSSH server and client.
- BASH version 4 or later is recommended.

Network configuration

The following network-related settings are recommended for smooth and secure operation of P.Lion and the related services.

Firewall and security groups

Make sure all servers and the database/cluster are properly secured. It is recommended that you isolate the infrastructure from the Internet and whitelist only known hosts or networks.

Connections to allow on the server

Open the following ports on a firewall:

Port	Protocol	Direction	Use
20	TCP/UDP	Outgoing	File Transfer Protocol (FTP) data transfer
21	TCP/UDP	Outgoing	File Transfer Protocol (FTP) control (command)
22	TCP/UDP	Incoming	Secure Shell (SSH), secure logins, file transfers (<code>scp</code> , <code>sftp</code>) and port forwarding
80	TCP/UDP	Outgoing	Hypertext Transfer Protocol (HTTP)
443	TCP/UDP	Outgoing	Hypertext Transfer Protocol Secure (HTTPS)

Stand-alone servers

Port	Protocol	Purpose	Alternative port	Security	Notes
22	TCP	SSH Console	Can be changed with Linux CLI	Trusted hosts/networks only	
80	TCP	Local Map tile server	Not supported	Unrestricted	In case of using local Map tile server

Port	Protocol	Purpose	Alternative port	Security	Notes
3306	TCP	MySQL	Not supported	No external connections	
4000	TCP	PTT100 Proxy	Not supported	Unrestricted	
4321	TCP	P.Commander	Can be reassigned		
8082	TCP	P.Recorder	Not supported	Unrestricted	P.Recorder client connections
650xx	UDP/TCP	P.Lion	Can be reassigned	Unrestricted	xx depends on the server ID

PTT100 Central Licensing Server (RMP)

Domain or IP address	Port
central.tassta.com	55555
116.203.164.16	55555
central1.tassta.com	55555
167.233.13.223	55555

Host names

Consider giving your servers informative names:

- `t1s1234` for P.Lion Server
- `trs1234` for Recorder Server

Where `1234` is the license/dongle ID.

Supported cloud platforms

P.Lion can be deployed on almost any cloud platform. The following cloud providers have been tested:

- Amazon Web Services
- Microsoft Azure
- Hetzner Online
- OVH
- Alibaba Cloud
- Telefónica Cloud
- Private Virtual Data Centers based on VMware Platform

P.Lion is deployed on the cloud instance with the [hardware configuration](#) and [operating system](#) described in the corresponding topics. The instance is created and pre-configured by the client.

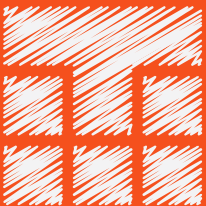
Granting access to PTT100 engineers

Once the environment is fully set up, grant access to the servers / cloud instances for PTT100 engineers:

- Provide a direct SSH access to the servers where P.Lion and the related services will be deployed. If that is not possible due to security or technical reasons, we would require additional time for alternative access routines (such as on-site professional services). [Contact PTT100 sales](#) to request a price quote.
TIP: To improve the security, restrict access to SSH port for the dedicated IP address of PTT100 engineering team. [Contact us](#) to get more details.
- Grant PTT100 engineers root access to the servers on which deployment will be done. If necessary, it can be revoked once the deployment is complete.



Focus on the essentials



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