# Architecture overview

ManageEngine M365 Manager Plus is a comprehensive web-based solution for Microsoft 365 reporting, management, auditing, and monitoring. Simplify your tasks, enhance security, ensure compliance, cut administration costs, and gain valuable insights—all without the need for complex PowerShell scripts.

This document explains its architecture, the various modules available, their purpose, and how these modules communicate with each other.

Overall architecture
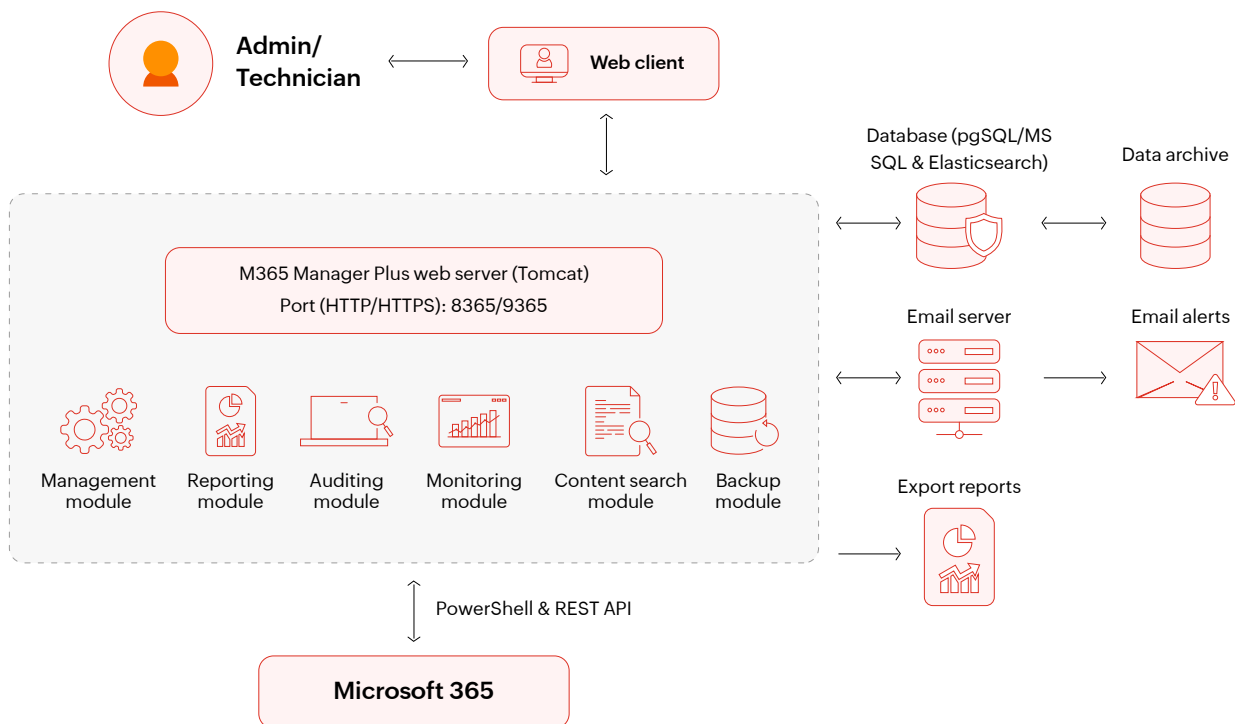
M365 Manager Plus uses PowerShell and REST API to collect information from the Microsoft 365 tenant, and to perform the required management operations.

The information collected is then stored in the databases configured in the product, for further processing and analysis. This information can be retrieved in the form of reports, anytime.

All management operations carried out in M365 Manager Plus will directly result in appropriate changes in the Microsoft 365 tenant.

Web client

M365 Manager Plus modules

M365 Manager Plus's client is browser-based, and you can access the server by entering the IP address or host name and port number of the M365 Manager Plus server as the URL. The web client can be accessed from any machine that is on the same network as the M365 Manager Plus server
E.g.: http://testserver:8365 (or) http://192.45.89.71:8365.

The M365 Manager Plus Server contains a Tomcat web server as illustrated in the architecture diagram. This server can be accessed from the M365 Manager Plus web client, and it can be used to:

- ⊘ Configure Microsoft 365 tenants, and product-related settings.

- ⊘ Collect data from the configured Microsoft 365 tenants, based on the settings enabled by the admin, and store it in the database,

- ⊘ Generate reports, audit, monitor, and perform content search with the collected data, and view it using the web client.

- ⊘ Perform management operations which will directly reflect in your Microsoft 365 tenant.

Server

- ⊘ Back up and restore Exchange Online data, which includes emails, calendars, tasks, meeting invites, and more.

We recommend keeping the M365 Manager Plus Server running at all times so that data is collected continuously and every important activity can be tracked.

M365 Manager Plus comes with a built-in PostgreSQL database. You can also configure an external Microsoft SQL or PostgreSQL database as the product database. M365 Manager Plus optimizes its performance further by integrating ElasticSearch alongside its database infrastructure, enhancing the speed and accessibility at which you can access crucial data, particularly for managing audit logs, monitoring activities, and triggering alerts.

Database

The database stores all the product configuration details, such as audit profiles, monitoring profiles, scheduled reports, technician details, data backed up using the Exchange Online backup add-on, and more. Further, all actions performed using M365 Manager Plus are recorded as audit reports and are stored in the product's database. To ensure security, the database is password protected and the login passwords of the default technicians in the product are encrypted using the bcrypt algorithm.

Communication between the client, server, and database

⊘   To access the web client, users need to be successfully authenticated. M365 Manager Plus supports three forms of authentication:

- M365 Manager Plus authentication for the default technicians in the product.
- Microsoft 365 authentication for Microsoft 365 users.
- Active Directory (AD) authentication for AD users.

In all cases, users need to enter their username and password to log in to the web client.

⊘   M365 Manager Plus supports two-factor authentication (2FA) to secure logins. It supports the following eight modes of 2FA:

- Email verification
- Microsoft Authenticator
- Google Authenticator
- RSA SecurID
- Duo Security
- RADIUS authentication
- Backup verification codes
- Custom TOTP authenticator

⊘   Whenever a user executes an action, such as generating a report, the client sends the request to the M365 Manager Plus server. The communication between the client and the server can be secured by enabling HTTPS after applying an SSL certificate. Click here to learn how to apply an SSL certificate in your M365 Manager Plus instance.

⊘   Based on the need, a user can execute any operation from the management, reporting, auditing, monitoring, and content search features in the client. For the management module, the tasks carried out in the client will be directly executed in the Microsoft 365 tenant. When tasks are executed in the other modules, the corresponding module in the server will fetch the data from the product database, and send it back to the client.

⊘   All the actions carried out by users in M365 Manager Plus are recorded in an audit report and stored in the product database.

Ports used by M365 Manager Plus

Source	Port Type	Port Number
Web client	Default	8365
Database	Default	33365
Elasticsearch	Dynamic	9275
Exchange Online	Static	443

Related documents

The table below lists some resources related to M365 Manager Plus that you may find useful.

Resource	What's it about?
Admin guide	This is an all-inclusive guide that covers all aspects of the product and provides step-by-step instructions on how to configure Microsoft 365 tenant in the product.
SSL configuration guide	This guide provides step-by-step instructions on how to apply an SSL certificate in the product, and enable a secure connection (HTTPS) between the browser and M365 Manager Plus server.
Database migration guide	This guide will help you migrate product data from the built-in PostgreSQL to an Microsoft SQL database.
Guide to set up M365 Manager Plus in Azure	This guide will walk you through the steps involved in deploying M365 Manager Plus in Azure.
M365 Manager Plus datasheet	The datasheet provides a bird's eye view of the solution and its features.

Our Products

AD360 | Log360 | ADManager Plus | ADAudit Plus | ADSelfService Plus

Exchange Reporter Plus | RecoveryManager Plus

ManageEngine
M365 Manager Plus

ManageEngine M365 Manager Plus is a web-based, one-stop solution for Microsoft 365 reporting, auditing, management and monitoring that helps simplify Microsoft 365 governance, administration and security. M365 Manager Plus enables admins to gain visibility into various Microsoft 365 components and display key insights through more than 700 out-of-the-box reports. It eliminates the need for writing complex PowerShell scripts and reduces costs associated with administering Microsoft 365.

For more information about M365 Manager Plus, visit
www.manageengine.com/microsoft-365-management-reporting/.

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