



WHITE PAPER

Why switch to OMNIS Client/Server (C/S)?

Organizations are constantly looking to optimize their operations and reduce costs. One of the most significant areas where cost savings can be achieved is in the management and scalability of server infrastructure.

The OMNIS Client/Server (C/S) software platform is designed to streamline server operations, allowing businesses to reduce the number of servers required to support their operations. By leveraging the advanced capabilities of OMNIS C/S, organizations can achieve substantial savings in operational server costs every year.

This White Paper presents a compelling business case for switching to OMNIS Client/Server—a cutting-edge software solution that offers unparalleled scalability and efficiency for businesses.

INTRODUCTION

This White Paper outlines the key benefits of OMNIS, highlighting its scalability, cost-saving potential, and the positive impact it lends to overall business performance. The following sections cover more specific advantages of OMNIS, providing detailed insights into how this innovative solution can transform server management and drive significant cost reductions. Whether you are a small business looking to optimize your IT infrastructure or a large enterprise seeking to enhance operational efficiency, OMNIS offers a robust and scalable solution that can meet your needs.

The cost savings for two different scenarios are calculated in this White Paper: medium- and large-scale organizations. For mid-sized environments involving 20 laboratory locations, the OMNIS Client/Server solution offers significant savings by reducing the number of servers tenfold—from 20 to just 2. For large-scale organizations with 60 laboratory locations worldwide, the solution enables substantial cost reductions by decreasing the number of servers from 60 to 6. These calculations demonstrate the scalability and cost-effectiveness of the OMNIS Client/Server solution across various customer environments.

COMPARISON OF *TIAMO*™ MULTI AND OMNIS CLIENT/SERVER

– SCALABILITY

tiamo™ multi Limitations

A dedicated *tiamo*™ multi server is needed for each laboratory location.

OMNIS C/S Advantages

OMNIS C/S offers exceptional scalability, allowing businesses to easily expand their server infrastructure as needed. This means that as the business grows, OMNIS can seamlessly accommodate increased demand without compromising performance or efficiency.

OMNIS is designed to scale up over many locations and countries without any negative impact on performance in a wide area network installation (WAN). By reducing the number of servers required to support operations, OMNIS C/S helps organizations achieve significant cost savings. This includes lower hardware costs, reduced energy consumption, and decreased maintenance expenses, resulting in substantial annual savings.



– SECURITY

tiamo™ multi Limitations

Security was not as predominant an issue when **tiamo™** software was designed 20 years ago. Unencrypted connections are used and an outdated Java platform results in a limited security level.

OMNIS C/S Advantages

Security is a top priority with OMNIS C/S. The platform includes robust security measures to protect sensitive data and prevent unauthorized access. This ensures that your server infrastructure remains secure and compliant with industry standards.

OMNIS will be maintained regularly with fixes and security patches by the Metrohm OMNIS Software development department. OMNIS is developed on the latest Microsoft .NET core framework version, is security-patched regularly, only uses encrypted TLS connections, and follows a secure software development lifecycle to meet the highest security standards.

– SERVER OUTAGE ACTIONS

tiamo™ multi Limitations

Production stops if the server service experiences an outage.

OMNIS C/S Advantages

OMNIS C/S is built to deliver reliable and stable server performance, minimizing downtime and ensuring continuous operation.

The unique Offline Mode feature provides additional redundancy in case of a server outage – all attached laboratories can continue to work without interruption for 96 hours. This reliability is crucial for maintaining business continuity and avoiding disruptions that can impact productivity and revenue.

– ANALYSIS METHODS

tiamo™ multi Limitations

tiamo™ was designed as a pure titration measurement software solution.

OMNIS C/S Advantages

OMNIS is designed as a multiple measurement technology platform currently supporting titration, near-infrared (NIR) spectroscopy, and process analytics.

The platform will be continuously extended to support even more measurement technologies and devices in the future.

– MAINTENANCE REQUIREMENTS

tiamo™ multi Limitations

IT administration tasks must be repeated for every laboratory location.

OMNIS C/S Advantages

Server management becomes more straightforward and less time consuming with OMNIS C/S. The platform provides intuitive tools and features that streamline administrative tasks, making it easier for IT teams to monitor and maintain server infrastructure. All applied settings are automatically synchronized over all attached computers in the OMNIS Client/Server system eliminating repetitive administration work.

– USER INTERFACE

tiamo™ multi Limitations

User interface is outdated.

OMNIS C/S Advantages

OMNIS C/S offers users a modern, intuitive user experience.

OMNIS C/S BUSINESS CASE

We present a comprehensive business case for the OMNIS Client/Server solution in this section, highlighting the cost estimations based on typical operational expenses associated with hosting on Microsoft Azure (**Table 1**). The analysis includes the efforts required to book Microsoft Premium Support, which provides a direct support hotline from Microsoft, ensuring prompt and efficient assistance.

Table 1. Key assumptions made for the OMNIS Client/Server business case.

Assumption	Value
Internal IT admin hours per server per year	18 hours
Internal IT admin hourly rate	EUR 150
Hosting cost per server per year (excluding support)	EUR 1,680
External IT support cost per server per year (Microsoft Professional direct)	EUR 12,000
Internal IT support cost per server per year	EUR 2,700
Overall yearly cost per server	EUR 16,380

Assumptions take into account that even though the servers are hosted on Microsoft's side, a responsible person on the customer's side is still required to maintain the machines. This maintenance effort is crucial for ensuring the smooth operation and reliability of the servers.

While *tiamo*[™] multi was a reliable solution for individual labs, it is not natively designed for wide area (WAN) or internet-based deployment across globally distributed laboratory sites. A dedicated *tiamo*[™] multi server was needed for every single laboratory location (**Figure 1**).

A significant advantage of the OMNIS Client/Server solution is its unique scaling features. These features enable substantial savings by reducing the number of servers required. Instead of requiring one server per location, OMNIS allows for the consolidation of servers, resulting in just one server for all locations worldwide (**Figure 2**). This reduction in the number of servers not only lowers operational costs but also simplifies management and enhances efficiency.

For seamless global integration, OMNIS Client/Server is the ideal choice – allowing all your lab and office locations to connect to a single, centralized server.



Figure 1. With *tiamo*[™], a dedicated *tiamo*[™] multi server is needed for each location.

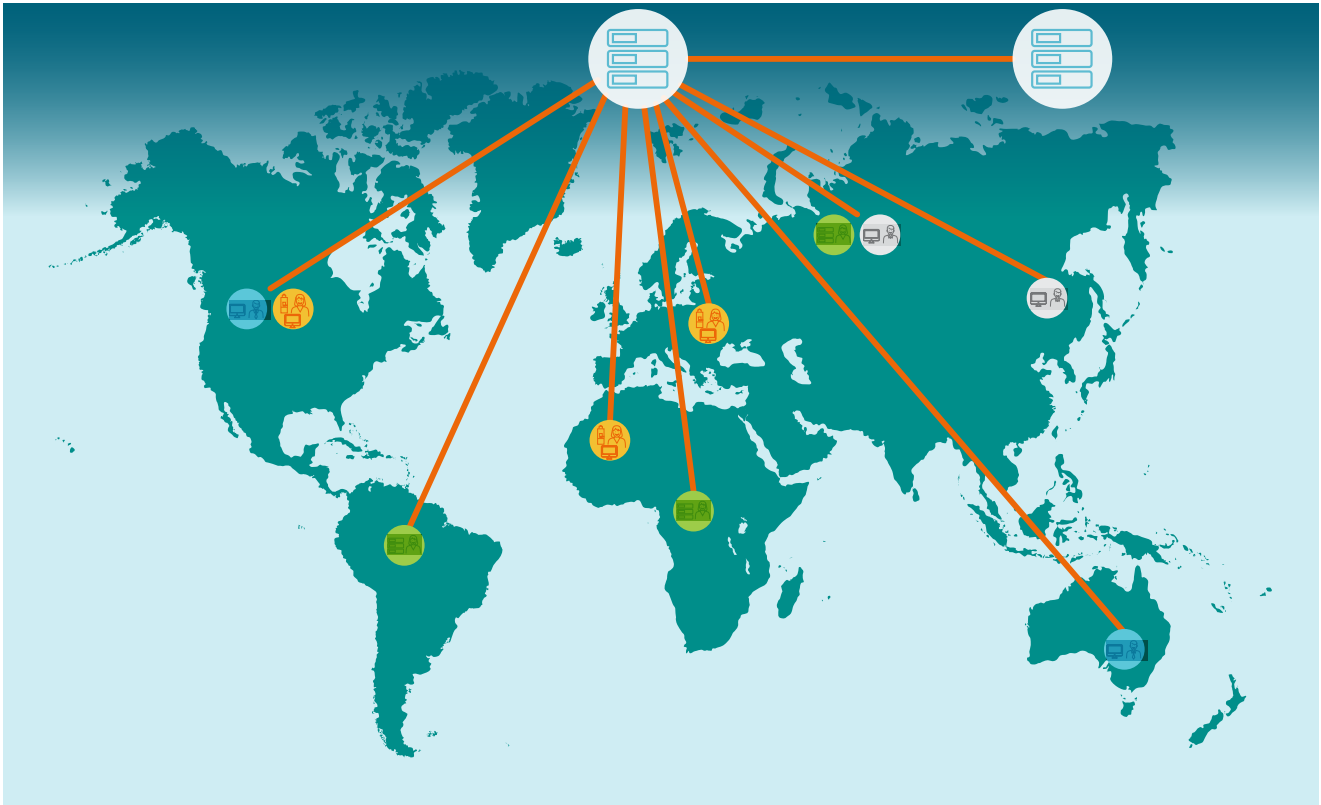


Figure 2. OMNIS Client/Server can serve all laboratory locations from one centralized server infrastructure.

– YEARLY SAVINGS:
LARGE-SIZED ENVIRONMENTS

Here we present the substantial yearly savings that can be achieved by an enterprise company with 60 laboratory locations spread globally (Table 2). By implementing the OMNIS Client/Server solution, the number of servers required for development, pre-production, and test environments can be reduced to only six machines (Table 3). This reduction allows for the decommissioning of 54 servers which were previously necessary when using *tiamo*™.

The transition to OMNIS Client/Server leads to significant cost savings, **totaling more than €880,000 per year**. These savings are a result of the unique scaling features of OMNIS, which enable efficient consolidation of servers and streamlined management. The reduction in the number of servers not only lowers operational costs but also enhances overall efficiency and reliability.

Table 2. Current setup for large-sized environments: *tiamo*™ multi systems.

Metric	Value
Number of <i>tiamo</i> ™ multi servers	60
Yearly cost per server (<i>compute, storage, backup, monitoring, and support</i>)	EUR 16,380
Total yearly cost	EUR 982,800

Table 3. Optimized setup for large-sized environments: OMNIS centralized C/S solution.

Metric	Value
Number of servers (DEV, TEST, and PROD environment) 3× (<i>Application and SQL server</i>)	6
Yearly cost per server (<i>same services as in Table 2</i>)	EUR 16,380
Total yearly cost	EUR 98,280

– YEARLY SAVINGS: MEDIUM-SIZED ENVIRONMENTS

In this section we explore the yearly savings that can be achieved in medium-sized environments by implementing the OMNIS Client/Server solution. For a scenario involving 20 laboratory locations, the number of servers required can be significantly reduced from 20 (**Table 4**) to just 2 OMNIS servers and 2 dedicated database servers (**Table 5**). This reduction allows for the decommissioning of 16 servers, leading to substantial savings.

The transition to OMNIS Client/Server in such a case results in **saving more than €260,000 per year**.

Table 4. Current setup for medium-sized environments: *tiamo*™ multi systems.

Metric	Value
Number of <i>tiamo</i> ™ multi servers	20
Yearly cost per server (<i>compute, storage, backup, monitoring, and support</i>)	EUR 16,380
Total yearly cost	EUR 327,600

Table 5. Optimized setup for medium-sized environments: OMNIS centralized C/S solution.

Metric	Value
Number of servers (TEST and PROD environment) <i>2x (Application and SQL server)</i>	4
Yearly cost per server (<i>same services as in Table 4</i>)	EUR 16,380
Total yearly cost	EUR 65,520

SCALABILITY AND INTEGRATION HIGHLIGHTS

In addition to the substantial yearly server operation cost savings, switching to the OMNIS platforms provides several other advantages:

- Full integration with Metrohm instruments
- Centralized database management
- Advanced reporting and audit trail features
- Secure, role-based access controls
- Cloud-ready options
- Standardized workflows
- Validation cost savings

CONCLUSION

The OMNIS Client/Server solution offers a transformative approach to managing server infrastructure for laboratory environments through centralization. By leveraging its unique scaling features, OMNIS enables significant cost savings and increased operational efficiency for both medium- and large-scale organizations.



Metrohm Enterprise Services

The transition is easy

Metrohm Enterprise Services provides full migration support from **tiamo**™ to OMNIS—including IT project management, architectural concepts, implementation, method transfer, validation, user training, and post-migration support.

Ongoing support you can count on

After implementation, we don't walk away. We offer comprehensive support through a **dedicated maintenance contract** that includes:

- Access to expert technical assistance
- Regular updates and patches
- Priority support for issue resolution
- Service and risk management
- GxP-compliant / GMP-compliant operations
- Preventive system health checks
- Flexible service packages tailored to your needs

This ensures your OMNIS C/S system remains secure, up-to-date, and fully optimized for your lab environment.

Contact Us

To schedule a personalized demo or request a detailed ROI analysis, contact:

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[Metrohm Enterprise Services](#)