

Summary

LogiCare is a set of services that provide lifecycle support for SCADA & MOM solutions with technical expertise specific to a client's application and environment.

Business Value

The program delivers unique support and maintenance services for business-critical SCADA & MOM solutions, customized templates and extensions for:

- Seamless hand-off from the implementation team to the support team
- Consolidated, single point of contact for support of standard products and engineered solutions
- Enhanced production performance by minimizing unexpected disruptions
- Improved reliability and stability through centralized management of SCADA & MOM solution updates, fixes and enhancements
- Investment protection by extending the life of business-critical SCADA & MOM applications with solution knowledge management and upgradability

Post-Implementation Support

Software Solutions Lifecycle Management

Supervisory Control and Data Acquisition (SCADA) and Manufacturing Operations Management (MOM) systems are skilfully engineered and architected to exactly meet business requirements and are critical to the core operations of a modern production facility. SCADA & MOM solutions delivered by **LOGICAL SYSTEMS** optimize production efficiency and asset performance and deliver quality products in the most cost-effective manner. SCADA & MOM solutions are highly configurable and extendible. To meet specific business and manufacturing process requirements, a typical SCADA or MOM implementation contains a mix of off-the-shelf product functionality, business system integrations and custom-developed product extensions such as user interfaces, business rules, reports and analytics.

While support and maintenance for underlying products are provided under software technical assistance centres, support for customized MOM solution components are beyond traditional product support. **LOGICAL SYSTEMS** has developed a comprehensive set of services under the **LogiCare** portfolio to address the unique technical support and application maintenance requirements throughout the lifecycle of a MOM system implementation. By combining both product support and implementation support, customers have access to technical support engineers focused on product performance and configuration support, and a highly specialized solution support team with expertise in the entire engineered solution. The combined product and solution support approach is accessible through a single point of contact and leverages standardized processes to ensure optimal performance. Maintenance, support and continuous improvement of software systems are vital to protect your overall solution and manage change as your business requirements evolve over time.

Service Components

Support Transition

Solution support engineers engage in the implementation phases or hands-on training to gain an in-depth knowledge of the SCADA & MOM solutions and key integration points. This process helps to transition expertise and ultimately ensures continuity of support for your integrated solutions long after the implementation team completes the project.

Application Support & Monthly Health Checks

Each application is specialized and may include custom-developed extensions to address unique process requirements. Our knowledgeable solution support engineers are subject matter experts trained on your solution and are merely a phone call away should you experience an issue with your SCADA & MOM system. They will address your questions, isolate the root cause and provide efficient resolutions. Each month the solution support engineer shall perform an onsite health check to ensure all facets of the solution are performing as designed, averting any potential system downtime.

Integration Support

MOM applications are often integrated with business systems such as enterprise resource planning (ERP), 3rd party applications and with automation systems. These systems integration interfaces are critical to smooth operations. The **LogiCare** solution support team takes ownership of site-specific integration configurations and fully supports and quickly responds to any issue that disrupts the data flow between systems, thus minimizing impact on your production environment.

Services

- Support Transition
- Application Support
- Monthly Health Checks
- Integration Support
- Sustaining Maintenance
- Knowledge Management
- Offline Application Clone
- Upgrade Assessment
- Solution Consulting
- Enhancements

Service Components (cont'd)

Sustaining Maintenance

To meet clients' unique requirements and extend product capabilities, solution development will typically include custom code and configurations. The solution support team provides the engineering services required to protect your engineering investment by ensuring that any custom code and configurations developed by **LOGICAL SYSTEMS** are supported over your application lifecycle, providing any code investigation and fixes as required.

Knowledge Management

LOGICAL SYSTEMS understands the investment clients make in documenting their solutions and the value this documentation provides, especially over the lifecycle of a custom application. Solution support engineers will provide a centralized vault for code maintenance and document management. All changes to the solution will be reflected in the code and documentation with formal versioning and an audit trail which makes maintaining your application highly efficient.

Offline Application Clone

LOGICAL SYSTEMS will maintain an "in-house" simulated development system, a virtual instance of your production system, to facilitate and streamline delivery of engineering services and for offline troubleshooting, unit testing, upgrade assessment and training. This results in expedited issue resolution and greater confidence in the installation of patches and software fixes as they have been tested on your application.

Upgrade Assessment

Over time, a solution's underlying products will mature and eventually require an upgrade. Other factors such as aging hardware, operating system or database version obsolescence and/or upgrades may also necessitate a need to upgrade SCADA & MOM software to remain compatible. Solution support engineers can perform upgrade assessments to evaluate compatibility of the overall solution. **LogiCare** includes services for altering the customized part of the application to ensure the overall solution continues to function as designed after upgrading the underlying products and modules.

Solution Consulting

Applications and their supporting infrastructure will change as your business grows, as technology advances, and as new ideas, concepts and processes develop. **LogiCare** services help IT teams manage changes related to customized solutions' system architecture, application design, fixes, enhancements, upgrades and drive consistent application performance over time.

Enhancements

As business needs and IT infrastructure change, software applications such as SCADA & MOM may need to be updated and additional functionality developed. **LogiCare** services provide unlimited enhancements and changes to any custom code and a team of engineers who can develop the required additional functionality to extend the SCADA & MOM systems' value.

(Note: Unlimited enhancements, such as addition of new tags of existing equipment, are changes to existing functionality. New functionality and/or features are limited to what can be accomplished during the monthly health checks. Broader enhancements, such as new equipment, may require a separate agreement based on scope.)

LOGICAL SYSTEMS

AUTOMATION & INTEGRATION SERVICES

PLC • DCS • SCADA • IIoT • MOM • BMS • UMS • LogiCare Diagnostics & Support • Training • Certification • Audit

Companies using advanced applications such as SCADA & MOM systems without reliable support can put themselves in disadvantaged positions. Rapid data growth and increasing user demands are constantly changing the requirements of operational and information technology, forcing companies to quickly respond and adapt or face severe consequences. Companies need a proactive partner with the technical expertise and experience to help them maximize ROI with continuous support for technology solutions.

LOGICAL SYSTEMS specializes in automated manufacturing and business systems integration related activities mainly serving manufacturing customers with industrial processes. We deliver a wide range of services focused in this industry including turnkey automation systems, management information systems, IIoT, high availability solutions, training, audits and certification programs. This makes us uniquely qualified to provide comprehensive 24/7 technical support packages that caters to your needs through our **LogiCare** technical support program.



- Upgrades & Patches
- Phone, Email & Web Support
- Self-Service Portal
- 24x7x365 Critical Support
- Designated Account Manager
- Periodic Support Reviews & Assessments
- Onsite Support Visits
- Remote Asset Monitoring
- Hosted Offline Test Environment
- Onsite Mobilization Guarantee

Based on client requirements, we offer three tiers of support. **LogiCare Premier** and **Advanced Premier** builds on our entry-level **Continuous** support model, delivering a team of skilled resources who focus on both your business and your automation strategies. We are engineers, not accountants. There are no upper limits in the number of issues you can report to our specialists regardless of your subscription tier.

Please contact us to get more information on our value-added offerings:

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| ▪ Algorithmic Planning & Scheduling (APS) | ▪ Lab Information Management System (LIMS) | ▪ Energy Management System |
| ▪ Maintenance Management System (CMMS) | ▪ Quality Management System (QMS) | ▪ Performance Management (OEE) |
| ▪ Data Management Services (DMS) | ▪ Statistical Process Control (SPC) | ▪ Enterprise Visibility |
| ▪ Warehouse Management System (WMS) | ▪ Historian & Analytics Client | ▪ Manufacturing Intelligence |
| ▪ Order, Workflow & Task Management (MES) | ▪ Recipe & Batch Management (eBR) | ▪ Messaging & Notification System |

LOGICAL SYSTEMS

AUTOMATION & INTEGRATION SERVICES

Our customers get maximum returns out of their investments in operation and information technologies through our value-driven systems offerings. We maintain expertise in a variety of critical areas to optimize manufacturing operations. The ability to drive change through technology — such as moving from good to great performance, cutting costs, or turning around a crisis — is a key source of competitive advantage. We implement the most suitable technology products for customers driving change through industrial automation and application integration.

Platform independent, full service, systems integration company. We are founded on the core principle of helping our clients.

LOGICAL SYSTEMS

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- Indonesia
- Vietnam

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