

Agilent CrossLab Lab-Wide Instrument Services

Abstract

A strong service strategy is a critical component to enhancing laboratory operations and enabling laboratory excellence, directly supporting a company's core competencies and objectives. A purposeful strategy facilitates maximizing scientists' time for science, instrument fleet uptime to support those personnel, and operational expenditure. When analyzing laboratory service strategies, four distinct methodologies have become common industry practice: each instrument type serviced by its own original equipment manufacturer (OEM), a single supplier handling service of all equipment, a single partner offering vendor consolidation (including use of in-house teams), or an optimized program model in which a network of providers is actively managed by a single strategic partner. Each method brings its unique benefits, requirements, and considerations. However, a lab-wide managed program, blending direct support and strategically managed services, yields the most advantages to optimize your laboratory.

Introduction

Today's laboratories are required to focus on scientific research, development, and quality control. They are constantly working to balance the competing goals of managing global-health demands, cost pressures, personnel, and compliance standards while operating at an unprecedented speed without compromising quality or instrument availability. In short, labs are complex and need to be run much like a business, with considerations far beyond the scientific outcomes. To meet ever-growing demands and unpredictable challenges, these laboratories often

use an array of equipment types from a range of manufacturers. Laboratory diversity often exceeds 100 OEMs. Although necessary for scientific output, this range also brings distinct maintenance challenges – how can this collection of varied assets be serviced most efficiently?

Agilent CrossLab Lab-Wide Instrument Services is being adopted to address this need. CrossLab Lab-Wide Instrument Services is a transformational approach in which a single strategic partner actively manages and sources a compilation of service experts in support of a tailored service strategy. Due to the

collaborative nature of this relationship, the service partner is both better aligned with the lab's goals and better positioned to execute a successful service strategy. The partner in this situation oversees all service activities across any number of service providers to ensure that the entire lab is serviced by the most appropriate experts. Those experts, working on separate equipment types, are sourced by the partner and held to a uniform standard with oversight and governance of service deliverables. This strategy has evolved from three traditional laboratory service models, as demonstrated in Figure 1.

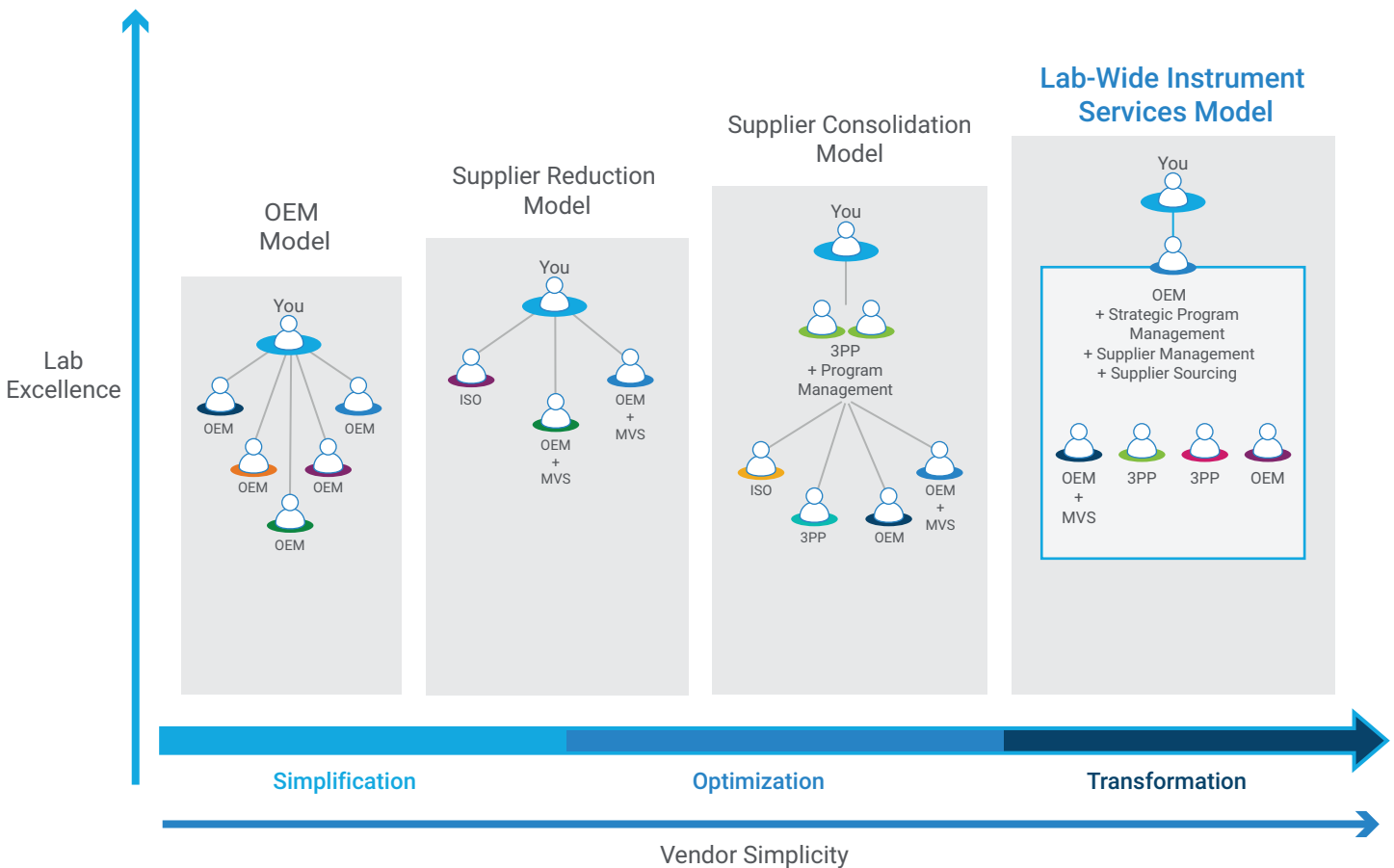


Figure 1. The various laboratory service models: (1) OEM model, (2) Supplier reduction model, (3) Supplier consolidation model, and (4) Agilent CrossLab Lab-Wide Instrument Services model. The evolution and adaption of these models enables vendor simplicity by providing a more simplified, optimized, and transformational service management approach. This approach supports your entire laboratory to reach its full operational potential of ever-improving lab excellence. More information on each model can be found in the glossary at the end of this document.

These traditional models aim to directly support a scientific organization's most significant need – time for science. Maximizing time focused on science is the driving force behind instrument service strategies, especially for this newest approach. Scientists' time comes at a premium and must be used as purposefully as possible. Despite this recognition of need, the evolution of the three traditional service strategies, even supplier consolidation, has failed to keep pace with modern laboratories' growth in complexity. As the next level in lab service, Lab-Wide Instrument Services management aims to address that gap.

Focus on science

The driving reason for developing a service and maintenance strategy is to enable science. Maximum instrument uptime is a critical and measurable metric to achieve laboratory business objectives. While the OEM service and supplier reduction models can directly contribute to increased uptime, each still requires a high degree of attention, time, and effort on the part of laboratory management. Despite having a service partner, laboratories using traditional methods still spend time managing scheduling, payments, escalations, and entitlements. The supplier consolidation approach reliably handles instrument uptime and some responsibilities that consume staff in the first two traditional approaches, but not all.

In contrast, the managed lab-wide strategy takes a far more proactive approach. By managing all service providers, the effort and time of the organization is reduced even further. These reductions minimize costly distractions such as time spent scheduling, escorting, escalating, reviewing, and sourcing providers – all of which a partner can handle. Rely on experts for advanced technologies and cost-effective yet qualified resources for simpler equipment.

Furthermore, sourcing partners bring scale and efficiency, market insights, noteworthy purchasing power, and industry recognized TQRDC supplier assessments. This strategy ensures operations, quality, compliance, contracts, entitlements, and more are all handled by experienced and dedicated professionals in each of those areas.

Spend transparency, right-sized contracts

After choosing a service strategy, the focus then becomes maintaining visibility into service activities and ensuring the entitlements spelled out in service contracts are properly fulfilled. In terms of visibility, a single provider servicing an entire lab often edges out conglomerations of OEMs and independent service organizations (ISOs) for the sake of simplicity. While the quality or transparency of contracts provided by multiple vendors may be sufficient, these contracts and accompanying metrics, if present, are not streamlined or standardized for your convenience and oversight. At the same time, those limited offerings are unable to adapt with an expanding organization.

By building off its predecessors, the transformational Lab-Wide Instrument Services model highlights the advantages of a true partner over a service provider. With intimate familiarity of a lab's operations, a true partner knows exactly what to report. Given the network-based structure, the collection of reports and entitlements will be synthesized to a digestible output of your preference. In essence, your managing partner provides you a single source of truth for all service activity. A typical report clearly shows where your service spend goes, what the return is on spend, and how providers compare to one another. The Lab-Wide Instrument Services provider creates such reports. Therefore, operations leaders also have a great deal of input

as to what the reports need to show including scope and level of depth. This setup ensures that the organization receives the benefits of a consolidated network of partners and the visibility and transparency of a close single partner. Your service strategy supports your unique business goals and service spend or service savings objectives. It is these reports that help you track your progress quarterly, semi-annually, and annually on your journey to achieve your laboratory optimization goals.

Value for spend

Each solution looks to improve an organization's value received from their service spend, though not in the same ways. Both a direct service and a supplier reduction approach allow the operations leader to shop the market and find the service providers offering the most contractual value for each piece of equipment. These savings are realized immediately by simply spending less upfront. Alternatively, by offering a team of providers coordinated by a single party, the supplier consolidation approach offers the consistency of interactions with one provider. Using a single provider reduces the time spent sourcing or organizing those disparate providers. Savings here are in time given back to the organization and can be more difficult to quantify.

The Lab-Wide Instrument Services model is the only option that actively investigates the current service strategy and all service partners to ensure that organizational needs are being met, and thus spent dollars are truly being stretched. Research indicates that many labs today are spending up to 25% more than they should in acquiring and maintaining service contracts. This overspend can be countered when you have the data to respond and the support to maintain your fleet at its optimum point, as demonstrated in Figure 2.

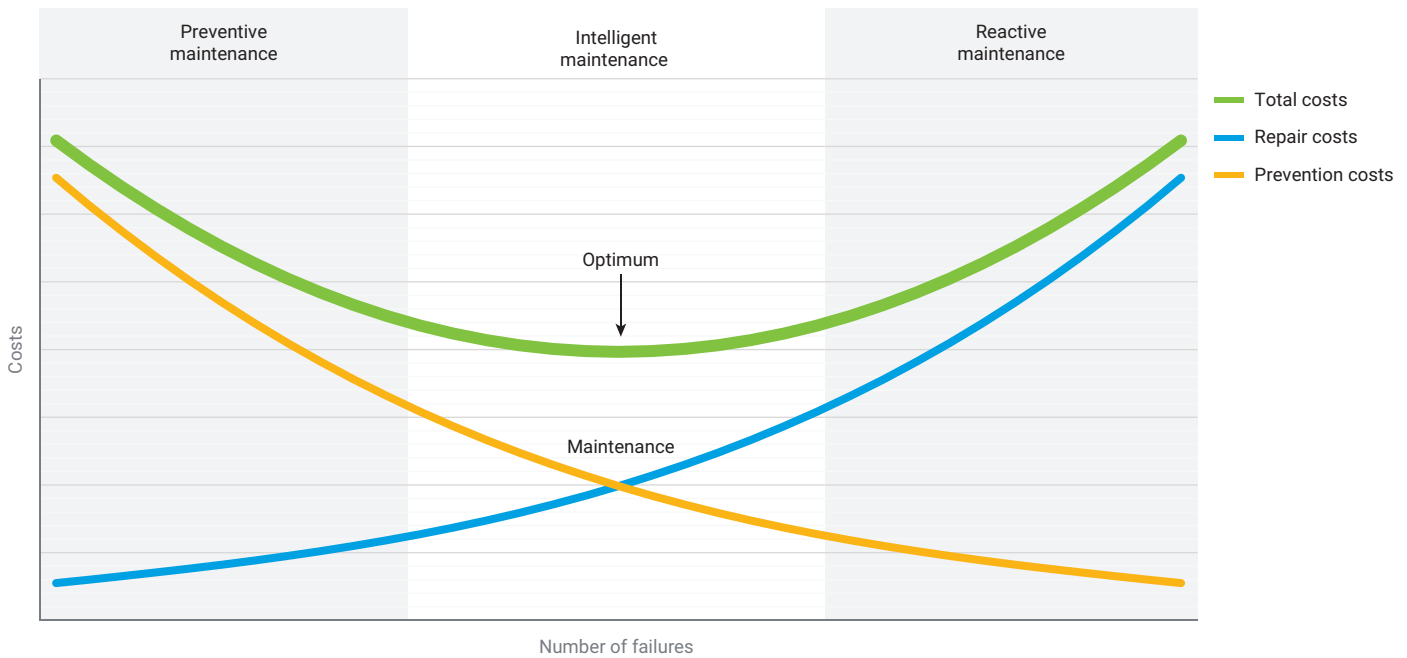


Figure 2. With a service strategy focused on intelligent maintenance across a known laboratory fleet, you can achieve optimum coverage to maximize spend.

Continued investigation also ensures that cost savings are seen year after year. With the legacy models, savings after the first year are slim if they exist at all, and similar assessments are left exclusively for the organization to handle. With the Lab-Wide Instrument Services The Lab-Wide Instrument Services management model focuses on intelligent maintenance. Relationships are leveraged, size is exercised, and partners are continuously pushed to provide the best possible rates and services. The managing partner is then able to pull from its own portfolio of relationships as well as from those of the laboratory to further widen the pool of options. More options allow for high-quality service and value-added savings. This model brings both the savings of lower-cost providers as well as time savings for the organization year after year.

Confidence

In general, as an operation grows, so will the number of providers. As stated before, it is unlikely that a single OEM can service operations at scale. Either

a team of ISOs, a single party focusing on vendor consolidation, or a managing partner is required to effectively execute a large-scale service strategy. However, more hands turning more wrenches can reduce the confidence in the work being performed, especially when multiplying the services across numerous labs or facilities. More hands under more reporting structures create more weak points in the service strategy. Staff augmentation approaches fall short here – simply adding headcount is typically a short-term fix. More than just opportunities for failure, more hands dilute visibility. Any combination of added headcount, ISOs, and OEMs may not be held to an overarching standard. Efforts to measure or compare performance must be performed solely by the operations leader.

The Lab-Wide Instrument Services model incorporates both the direct service and vendor consolidation approaches. This model holds all members of their network, even service providers for Category 1 instruments, to organization-set standards and

continually assesses those providers. This relationship is dynamic so if, for example, a Category 1 provider is not delivering the expected level of service, another can be found and switched in instead. Where performance improvements can be made, this approach jumps on those opportunities. This strategy is built on shared goals and partnership as opposed to consolidation. The results delivered by the managing partner are contingent on strong performance from all partners. Therefore, the managing partner goes to great lengths to ensure all its partners are meeting agreed-upon performance criteria. Where a vendor consolidator may offer a general report-out of performance, the managed strategy frames this information in relation to the organization's overall service strategy and goals. The active transparency provided helps here as well, keeping both the organization and the strategic service partner focused on the deliverable – quality service.

Conclusion

While service plans using assorted providers laid the foundation for lab maintenance and repair solutions, modern research operations require further advancements. More time given to science, more transparency into service activities, and more savings are now shifting from wants to necessities. As a result, service providers are beginning to partner with laboratories and similar organizations to align on goals while actively managing a service team to support those goals. By coupling sourcing and management expertise with the flexibility to fit a lab's needs and current operations, a Lab-Wide Instrument Services model offers a transformational opportunity. This kind of partnership paves the way for a mutually beneficial strategic relationship that drives continued measurable improvements year after year. Shifting to this partnership lifts the lab's focus off service operations, quality, compliance, contracts, entitlements, and more, leaving more time for scientific goals. For laboratories looking to completely maximize savings and operations, a service plan like this, with oversight of your entire fleet and inventory, is generally part of a larger existing asset management program. Such programs employ use and operating information to further inform lab operations and drive decisions. Such an ecosystem equips the strategic service partner and lab with the most relevant and granular data available so that same partner can continue to optimize services. For the labs of tomorrow, these optimizations are quickly becoming a necessity hence driving the need to adapt to a Lab-Wide Instrument Services management model.

Glossary

Acronyms

OEM: Original Equipment Manufacturer, the organization that produces a specific brand of equipment.

MVS: Multivendor services. One OEM services equipment manufactured by themselves as well as other OEMs.

ISO: Independent Service Organization. A service provider that does not directly manufacture analytical equipment.

3PP: Third party purchaser/provider/procurement. A service provider that does not directly manufacture analytical equipment and/or provides pass-through service capabilities through suppliers.

TQRDC: Technology, Quality, Responsiveness, Delivery, Cost performance.

Elements of strategies

Direct service: An organization works directly with OEMs, using each OEM for its own equipment.

Self-maintained: Service is handled internally by existing staff/personnel. Use of OEMs, ISOs, or other service providers is avoided.

Category/procurement outsourcing: Another party is purchasing contracts on customer's behalf.

Multivendor service provider: One provider servicing more than just one equipment type or OEM.

Multivendor (reduction) strategy: Fewer suppliers, still including OEMs, which is important for quality (OEMs and third parties, or ISOs) . Can be comprised of combinations of the following:

- Direct (along with multivendor service provider offerings)
- Partners (may handle sourcing, management, or more outside the normal scope of a service provider)
- Third party

Hybrid (integrated, headcount) service model: Onsite technicians do some work, the rest is outsourced to external parties.

Category 1: low complexity, general lab equipment (devices) can often be largely serviced in-house or with third-party support; includes: incubators, ovens, shakers, balances, etc.

Category 2: medium complexity, equipment may require a service blend from in-house, third party, and OEMs; includes: HPLC, GC, PCR systems, histology equipment, etc.

Category 3: high complexity, equipment typically requires OEM service; includes mass spectrometry, NMR, DNA analyzers or sequencers, imaging systems, etc.

Strategies

1. **OEM model:** Multiple OEMs are each contracted to service their respective equipment in the lab, where each service provider exclusively supports their own instrumentation. Example: Agilent, Waters, and Bruker each provide direct service for their respective instruments and are contracted independently.
2. **Supplier reduction model:** Providers (including in-house service teams) service equipment from several OEMs, where certain providers support multiple brands. Example: Agilent services Agilent and Waters chromatography instruments, an OEM like Bruker services their high-end NMR, and a single ISO provides low-complexity metrology and calibrations. Agilent, Bruker, and the ISO are all contracted independently.
3. **Supplier consolidation model:** A provider offers vendor consolidation by acting as a single point of contact for a network of service providers, both OEMs and ISOs. From a service delivery perspective, this is the same as the supplier reduction model. However, from a contractual perspective, a single supplier is contracted for procurement, scheduling, and coordinating of all service and maintenance.
4. **Agilent CrossLab Lab-Wide Instrument Services model:**
The newest lab-wide approach combines benefits from each traditional approach with strong sourcing capabilities and relational collaboration to drastically reduce an organization's time spent on service activities. With CrossLab Lab-Wide Instrument Services, the primary partner manages service spend, stretching dollars and leveraging partnerships to compile a specific team of experts at the best price, taking the stresses of service off the lab. In short, the approach maximizes the time and focus on science. To understand where this strategy differs from traditional approaches and how it improves on them, aspects of this newest approach should be considered through the lenses of an organization's overall goals and priorities. While individual laboratory needs will vary, there are common requirements from across the industry: focus on science, quality, transparency, value, and confidence.

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