Enterprise Mobility Services and Support



What good is the latest technology?

Real good...

if it meets your expectations and delivers a return on your investment.

At **LOWRY**, we understand that. Let us show you how it's done.



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Lowry Enterprise Mobility **Services & Support**

For nearly four decades, thousands of companies look to our industry-leading experts for services that deliver a true business advantage.

Professional, Software and Support Services from Lowry are specifically designed and delivered to offer you long-term value, return on investment, and optimized performance. We support you with the deepest enterprise mobility, automatic identification and data capture (AIDC) experience in the industry, a nationwide after-sales support service network, leading wireless networking, AIDC, RFID and bar code data collection consultants and systems integration experts.

What's the bottom line? Lowry Enterprise Mobility Services and Support will deliver measurable improvements in productivity, operational efficiencies, quality, cost and customer satisfaction.

Enterprise Mobility Services

Our experts tap into their vast experience and in-depth knowledge, putting into place a systematic approach to translate your business needs into relevant solutions for a real return on your investment.

What good is the latest technology if it doesn't meet your expectations or deliver a return on your investment? Our highlytrained professional services team offers specific expertise in technology implementation covering Enterprise Mobility, Automatic Identification and Data Capture (AIDC) technologies. Lowry has decades of experience implementing RFID, barcode, wireless networking and mobility technologies. We can provide the services for the entire lifecycle of an enterprise mobility project.

Lowry understands that each enterprise has its own specific issues and requirements and that in order to provide best-in-class solutions to address these issues, a deep understanding of our clients' unique business processes is a necessity. To us, success is rooted in our ability to enhance and grow our customer's business.

Our Proven Process For Success



Discover

Plan

Achieve



Lowry's solutions make our customers' businesses more competitive by providing:

- Improved business process efficiency
- Improved staff productivity
- Supply chain standards compliance
- Mobile worker empowerment

Using our proven Structured Solution understand your business needs, match the appropriate technology solution, and follow within your budget and time requirements.

Enterprise Mobility Services



Discover

- Business Systems Consulting
- Feasibility Analysis



Plan

- System Design
- Software Services



Implement

- Project Management
- Custom training
- Staging
- Provisioning



Achieve

- Managed Services
- On-Site Service
- Help Desk
- Asset Disposal

Enterprise Mobility and AIDC - Business Systems Consulting

Looking for a low-risk assessment of Enterprise Mobility, AIDC (RFID, wireless data collection, bar code) or other technology before committing project-scale resources? Our team of experts collaborates with key players at your organization to develop realistic expectations for the business case.

Feasibility Analysis

We delve deep to examine your requirements, compliance issues and performance objectives, then carefully construct a case for applying the technology to solve a business problem. We take into consideration current or proposed systems and specific external factors such as compliance with customer requirements or requirements for improved performance.

Comprehensive Feasibility Analysis services include:

- Document current state of business and IT environments
- Outline business strategy, goals and objectives
- Perform gap analysis
- Develop future state solution architecture
- Identify initiatives and projects to solve key business challenges

Business Software Development

Using industry leading tools and trained resources, Lowry can provide business solutions for bar code and RFID labeling, enterprise mobile, AIDC and RFID applications. By using tools that do not require coding, the applications can be delivered faster and can be easily modified by the customer without any programming experience. By using these development tools, we can deploy to virtually any mobile device. Integration tools for backend systems make getting data to and from ERP, WMS or other business systems easier.

Custom Training & Information Sessions

Lowry training services offer expert trainers, stateof-the-art facilities, advanced equipment, timely and results-oriented curriculum combined to offer you true value when it comes to gaining a true return on investment. Training is rarely a "one size fits all" endeavor. Custom Training Services provide needs analysis, design, development, test and delivery of custom training to meet your requirements.

Contact us for custom training facilities, equipment and coursework combining hands-on equipment training and knowledge. The range of programs are held at your site, or at our location in Brighton, MI.

Project Management

Project Management encompasses all the activities required to plan, coordinate, and manage all aspects of a project from concept to production. Project Management from Lowry provides you a single point of contact for this coordination and ensures timely communication and change management through action plans, review meetings, and status reports.

As a focal point, the Lowry Project Manager works closely with all levels of your organization to ensure that requirements are well understood and documented, keeping user involvement high and goals and expectations clearly set and visible. Further, the project manager documents and assesses the impact of any changes and issues that arise, works to resolve them, and assists in developing operational procedures.

Staging Service

With Lowry Computer Products staging services all equipment can be provisioned, tested, repacked and shipped to all of your locations around the world. Equipment from multiple vendors can be assembled, software loaded and the entire system tested. Battery charging can take place and required activation may be part of the device staging process. Prior to shipping to your sites, the system can be inventoried, documented and professionally packed. A fully tested system with well documented instructions ensures a quick on-site installation.

Lowry will develop and document device staging procedures then develop the device software load that includes the OS and customer applications. We catalog and maintain device and application images for our clients in order to help your staff support the end user. Lowry has many years of experience in easing the transition to new devices by engineering, writing, and developing instruction sets for your mobile devices.

Opening a newly delivered device direct from the manufacturer can result in lost man hours, lost accessories, and lost savings opportunities. The need to track critical and sensitive device data like serial numbers, pre-loaded software, and location version information is a must. Utilizing Lowry's staging services to load and test the most up-to-date image will reduce ship back costs and time out of service for your many devices in the field. The value of the project exists only while the device is up and running.

A Lowry **PMP Certified** project manager will oversee and coordinate activities and milestones of Lowry, customer, and third-party resources.

This would include the following:

- Project milestones and responsibilities
- Project timeline
- Projet dependencies and critical paths
- Single point of contact

Wireless Service Activation

The wireless wide area network cannot be used until the device is activated on the network. Lowry can establish the subscriber account with the wireless carrier. After activation, the device can be provisioned to enable the connection to the network. By allowing Lowry to activate the mobile device, this will assure that the device has been powered on and tested, virtually eliminating out of box device failures. Theres no fee charged by Lowry for activation services.

Provisioning Service

Provisioning is the process of making your equipment operational for the user. This can include hardware configuration as well as software installation and configuration. If a handheld device includes a connection requirement to a wireless Wide Area Network, provisioning can include configuring the device to physically and logically connect to the carrier's network. Provisioning services can be performed on-site at your facility, or they can be performed in Lowry's product staging center. Lowry can design the provisioning service that best meets your business requirements.



Get the **LOWRY** Advantage

Wireless Services



Discover

- Network Assessment
- Business Review
- Security Review
- Mobile Device Management Assessment



Plan

- Site Survey & Design
- Infrastructure Design
- Security Design
- Mobile Device Mgt.
- Plan Development



Implement

- Network Provisioning
- Infrastructure Install
- Network ValidationSecurity
- Implementation

 Mobile Device
- Management
- Training



Achieve

- Troubleshooting
- Performance
- Management

 Network Managed
 Services
- On-Site Service
- Help Desk
- Asset Disposal

Wireless Network Assessment

Is your existing wireless LAN operating at peak performance or have recent moves and changes within your facility affected the coverage of your wireless network? Are there dead spots that are impacting employee productivity? Can your existing implementation support the addition of more mobile devices or more wireless applications? Lowry can assess your existing network to determine if it can support the planned mobile devices or mobile applications. The assessment includes overall system health assessment, a check of system performance, interference from other wireless networks that may impact your own and comprehensive mapping of the coverage and density of your wireless network.

We will deliver a full report detailing the current state of your wireless network along with recommendations for increasing its usability and stability.

Wireless Business Review

You have a wireless network, maybe not even a full implementation, but you know that there are many applications which you can take advantage of if only you had a plan of attack. Lowry is capable of bridging the gap between your business desires and putting technology to work to make them happen. A Lowry Wireless Business Review starts by investigating your current processes and applications and relating them to our vast knowledge of state-of-the-art wireless practices that can increase your productivity, eliminate waste, keep your customers happy and enhance your bottom line.

Some of the areas which will be investigated include geographical usage areas, mobility requirements, throughput needs and security enforcements. The results are detailed in a Wireless Business Requirements document which will be reviewed with you and will serve as a roadmap toward greater reach for your business.

Wireless Design Services

Network Site Survey and Design

Today's successful wireless network designers need to understand how the wireless system fits into the rest of the company's network and its business. Through a comprehensive and repeatable process we create a roadmap toward the successful implementation and future growth of the network as a whole. Beyond typical wireless hardware placement and configuration items, our process also includes future maintenance concerns, network and closet capacity, bandwidth requirements, application requirements, existing infrastructure and future growth and expansion plans.

The next several sections detail our view and approach to the processes involved. Some may or may not be needed in certain cases, but rest assured that Lowry is capable of designing a far reaching, robust wireless network capable of growing with your business and addressing the infrastructure needs behind it.

Using state of the art tools and equipment, Lowry will survey the area where wireless network coverage is desired to determine the number and placement of wireless access points, wireless sensors, etc... Deliverable includes access point placement and installation details, wireless coverage maps, spectrum analysis of all Wi-Fi frequencies, scans for Wi-Fi equipment that can be "heard" within the facility and wired network interface and port capacities.

Using state of the art tools and equipment, Lowry will provide a wireless network survey unmatched in the industry.

Network Site Survey and Design responsibilities include:

- Using the customer's existing floor plan, along with details of the current or planned WLAN and radio frequency equipment at that site, to create a software model of the wireless network using WLAN survey tools
- Working with the customer's staff to fully define interior details of the model and WLAN
- Performing a physical survey of the desired coverage areas using site scanning tools
- Collecting data at current and projected Access Point/ Access Port (AP) locations
- Measuring standard RF survey parameters, including signal strength, Signal-to-Noise Ratio (SNR) and coverage overlap
- Providing a graphical representation illustrating standard survey parameters as appropriate, including AP coverage mapping, signal strength, channel interference, a list of detected rogue devices and a characterization of WLAN performance

After gathering business requirements and performing the wireless network site survey, a network will be designed providing a network to support the business requirements. The deliverable for this service includes a network design document showing the type and placement of wireless access points, wireless sensors, including antenna models and placement. It also includes network diagrams showing connections to wiring closets, and other wired network components. This document will include a bill of material including all wireless network components including power supplies, power over Ethernet, etc... This document will also identify any locations where power will need to be installed. For outdoor placement of wireless equipment, this report will include the appropriate enclosures, lightning protection and anything required to protect the equipment from the environmental conditions. Depending on other business requirement, this report will include any security software or hardware required and an appropriate controller to support the designed network and business requirements.

Cabling Infrastructure Site Survey and Design

With today's increased usage and reliance on wireless networks the need for matching excellence in the area of the cabling infrastructure supporting the network has become paramount. In addition to the standard wireless site survey and design, this optional service includes gathering information for the proper design of the data cabling infrastructure needed to support a proper wireless network system.

The information gathered and the design of the cabling system includes optimizing the cable pathways, determining cable support needs, barrier penetration, fire sealing, code adherence, and distribution frame patch panel capacity.

The deliverable for this service is added to the standard wireless design to create a comprehensive data closet to access point connection system. In addition, such items as cable management, data cabling Category specification, even color coding will be addressed.

Conduit/Cable Tray Site Survey and Design

The information gathered and the design of the cabling system includes optimizing the cable pathways, determining cable support needs, barrier penetration, fire sealing, code adherence, and distribution framepatch panel capacity.

The deliverable for this service is added to the standard wireless design to create a comprehensive data closet to access point connection system. In addition, such items as cable management, data cabling Category specification, even color coding will be addressed.



Closet/Cabinet Site Survey and Design

When creating a wireless system in an area previously un-serviced, there are times when standard cable lengths are exceeded. This may force the addition of new wiring closets or cabinets which must be tied back to the network backbone. Lowry's optional design service, Closet or Cabinet Design, creates for you a complete and comprehensive set of documents detailing the placement and population of the new closet or cabinet needed.

Our design will account for location, installation method, layout and powering of the new frame. Whether it's a hard-wall room or an enclosure on a column line this service adds to the value of having experienced Lowry engineers designing every nuance of your new wireless system.

Wireless Implementation and Commissioning

Lowry defines the "Wireless Implementation" as the commissioning of the wireless network. This means that we will configure any wireless controllers and update their firmware to the latest code, create any redundancies between multiple controllers, program all access points and associate them to the controller, if applicable, and validate the system's operation. Depending on the security measures required, Lowry will also test the connection to back-end systems such as RADIUS servers. This service is available regardless of who designed your system. However, having Lowry both design and implement your system is the surest way to a smooth operational transition for the new system.

Validation of the system is done by mapping the actual coverage of the system in all operational frequency bands throughout the service area. This is done while associated to the wireless network and simultaneously accessing resources on the wired network. The goal of validation is to produce a working system that closely resembles the coverage designed during the Design phase. To reproduce this may entail adjustments to power output, channel, antenna orientation and sometimes even physical location.

When complete, a documentation package containing all configuration parameters and electronic configuration backup copies will be made. The worksheet created with parameters such as IP addresses, DHCP configuration, etc... will be included. If changes are made to the operational specs during the validation phase these will be noted. If Lowry created your wireless design the documents produced during that phase will serve as the basis for as-built documentation.

Wireless Installation Services

Wireless Physical Installation

If preferred, for any number of reasons, Lowry can take responsibility of physical installation of the access points, any external antennas needed, power supplies, controllers and patch cables for the system. During the design phase of the project, if Lowry is involved at thatpoint, we gather information pertaining to the physical installation in the event our expertise is needed.

Lowry will supply its own ladders, tools, and lift vehicles for this operation and will schedule a kickoff meeting to review the work to be performed. We will work with your facilities contact to insure adherence to proper work and safety practices.

Upon completion of the installation an as-built document will be created with details concerning the physical installation of the system. This documentation will be combined with all other documents created so that there is a complete record of the installation.

Wireless Backbone Installation

Whether or not Lowry was involved in the design of the cabling backbone, we can add installation of the data cabling to the project plan just as described for access points and antennas. We can supply all data cabling, cabling support (J-Hooks, bridle rings), patch panels, and wire management. We can accommodate any available data grade cabling including Category 5e and Category 6.

Conduit/Cable Tray Implementation

Depending on local codes or facility specific installation requirements or practices, Lowry can add conduit or cable tray installation to the Wireless Backbone Installation project. This installation does not necessarily require Lowry's involvement in the design although, as described previously, this service is available with full documentation.

As described in the previous two sections, Lowry will supply its own ladders, tools, and lift vehicles for this operation and will schedule a kickoff meeting to review the work to be performed. We will work with your facilities contact to insure adherence to proper work and safety practices.

An as-built document of the pathways, conduit fill factors, and cable populations will be included in the final package.

Closet or Cabinet Implementation

The addition of wiring frames, whether an entire closet or an enclosure or cabinet, may be necessary depending on the reach of the new wireless system and if the existing network backbone extends to the area. Lowry can incorporate the creation of these additional wiring frames into the system. This specific service allows for the supply of all materials and installation of the needed wiring frame assets including extension of the backbone with copper or fiber optic cable, power or backup power.

Lowry will supply its own ladders, tools, and lift vehicles for this operation and will schedule a kickoff meeting to review the work to be performed. We will work with your facilities contact to insure adherence to proper work and safety practices.

As-built documentation including backbone cabling test results (copper or fiber) and digital pictures of the finished product will be added to the documentation package.

Wireless Network Validation

Not all wireless networks are created equally; some are better than others. With the acceptance of wireless networks in the workplace, there are pressures to add applications and access. Is your network ready to support them? If not, do you need to replace the entire network, or is there a happy medium that will allow increased function without throwing everything away and starting anew?

Lowry's Wireless Network Validation is a service that combines the best of wireless design with an eye toward blending new practices with your existing system. During a wireless validation, Lowry will investigate the current state of your network in such areas as coverage, frequency band usage, density coordination (matching users with the available wireless bandwidth) and interference from the outside that may affect how well your network can run.

The wireless environment is not a static one. Internal and external forces constantly change its performance. Through our process we will gather pertinent information and map out the next steps for improving your wireless network. In addition, this service creates a performance and design baseline which is invaluable going forward when the inevitable issues arise. The baseline "snapshot" allows you to have information to compare the before with the current.



Wireless Troubleshooting

What if that application that worked fine now has trouble? "Why doesn't this laptop stay connected like the others?" "We added application "A" to the wireless network and now "B" is happening." These are all real issues with today's ever-increasing reliance on the wireless network. What started with humble beginnings, a way to allow laptop users to move their computer to a conference room, has grown to include cloud computing, multiple applications, real time location services, a myriad of applications that were unthinkable only a few short years ago.

Lowry is prepared to help when things don't go as planned. Wireless Troubleshooting is used to find out the underlying causes of issues and address them head-on. The tools we use like spectrum analyzers and packet sniffing software allow our engineers to get to the heart of the matter and advise you on the best method to alleviate the problems you are experiencing.

We can be used to mitigate the issues or simply provide you with a set of recommendations that will put your network back into working order. Either way, leveraging our experience to resolve your issues is a benefit that should not be overlooked. Additional services can be added on once resolution is complete in order to reduce the future occurrences of similar problems.

Wireless Security Review

The increased reach and reliance of wireless networks has put a strain on security for many companies. Additional applications and increased usage will continue to test your network's ability to keep your data and users safe from those forces that are out to compromise your valuable assets.

Like a doctor's checkup, best practices dictate that your wireless network should be reviewed for security holes. This includes coverage going past its intended stopping point, the types of encryptions used to secure the data over the air, authentication techniques and holes that can be exploited through your guest network. Depending on your specific industry there may be requirements such as HIPAA for medical, PCI for retail or DISA that must be met in order to comply with local, state or federal laws for safeguarding information.

Wireless Security Design

The results from our Security Review may lead to action on your part. Lowry is well equipped to help create specific policies and practices that will result in compliance with internal and external security requirements. Building onto the recommendations of the Wireless Security Review, this service takes the need a step further with a view of the immediate issues and creating a plan for the future.

The document created will serve as a roadmap to additional security policies and take into consideration future applications and usage that has yet to be fully developed.

Wireless Security Implementation

The implementation of wireless security policies can be a daunting task. Lowry will manage all aspects of the wireless security implementation from installation to configuration, reducing deployment time and minimizing deployment costs. All added security measures, whether based in hardware or software, will be fully tested and documented. As directed by you, we can even be used to roll these policies out and train your staff on their usage. Periodic return visits can be scheduled to address fine tuning of the policies or monitoring of the practices to make sure they still meet expectations and requirements.

All hardware and software configurations needed to make the security policies work will be captured and documented to create a traceable accountability of the actions performed for internal or external audit purposes.

With Lowry's Wireless Managed Services, network problems are quickly recognized and corrective action taken. Our goal is to quickly and efficiently configure your needed changes and ensure that the enterprise network is fully operational at all times.

Wireless Performance Management

We all know that a wireless network is an everchanging environment dictated by physics and user demands. Performance that was deemed perfectly acceptable two years ago may no longer meet with today's expectations. But, how do you know where the problems lie? Rather than assume that the problem must exist in the wireless network there are tools that exist to monitor and manage changes in the computing environment. This holistic view would be great to have if it could monitor itself without the need to hire someone new or reallocate an existing employees time.

Lowry's Wireless Performance Management service places tool onto your network that look at the endto-end performance in your network and pinpoint problems that are causing issues through the entire network rather than separating the wired from the wireless network.

As the wireless network matures, Lowry can help to ensure that requirements are maintained and alert you of issues before they adversely affect the performance of the system. As the environment changes, physically or application-wise, Lowry can engineer enhancements to the network to stay ahead of the demand. This results in a continuously improved wireless network that stays ahead of the development of the computing landscape and marries seamlessly with your wired network, too.

Wireless Network Managed Services

Lowry recognizes that not every organization can staff wireless expertise in a scalable and efficient manner. Many of the so-called wireless "experts" are network administrators who have implemented simple wireless networks and whose troubleshooting skills amount to adding additional access points without regard to their overall impact on the network as a whole.

With Lowry's Wireless Network Managed Services we provide a means for your network to be managed at a fraction of the cost needed for dedicated personnel or expensive hardware. We have a range of flexible services under this umbrella that can be customized for your environment. Some of the services that we will perform include assuring that your wireless security policies are enforced, system performance is monitored and guest networks are set up properly. We can even host the management of your network as a cloud service that will allow your network to work autonomously yet be managed and monitored by our equipment.

Wireless Mobile Device Management Assessment

Mobile Device Management (MDM) is a hot button in the IT world right now and for good reason. Only two years ago the average number of wireless devices per person in an enterprise was just barely over 7. Now, with smartphones and tablets that average will soon top 21, a threefold increase in a very short time. What once was an occasional request from a user to gain access to the corporate network with their mobile device has become a flood that most IT staffs are ill-equipped to handle. Likewise, many organizations are seeing a real benefit to allowing their employees to utilize their devices because it means more productivity and less cost of having to supply their employees with the devices. The challenge now is securely allowing these devices to live on the network and not have to pour enormous resources into making it happen. With our long track record in mobile computing and expertise in all things wireless, Lowry is ready, willing and able to help organizations create a roadmap for mobile device management with a series of services devoted to this cause.

The first step is finding out where you are with a quick assessment of the current state of mobile device management. This service allows Lowry to see firsthand how you are performing these tasks and make recommendations based on these practices. This phase of MDM is usually coupled with additional services and is meant to evaluate only the current state. Perhaps what you are doing now is fine for the business you are in and we don't mind telling you that. On the other hand, the landscape in mobile device computing is changing extremely quickly and this first step a creating a plan will serve as a jumping off point toward embracing this fast evolving revolution.

Wireless Mobile Device Plan Development

The next step in creating a comprehensive mobile device environment is developing an informed and well thought out plan. If you know your enterprise is heading toward allowing employee or company provided smart devices on the corporate network then you can skip the previous step, Mobile Device Management Assessment. If you are not sure then consider assessing your current situation first before proceeding.

The mobile device plan needs to consider a wide range of your enterprise's needs for employee information as well as industry trends and developments. It is no secret that companies and application developers are racing to get a handle on this topic as the flood of user requests continues to pour into ill prepared IT departments. Waiting for the dust to settle is no longer an option for many, as employees are clamoring to be allowed to use their device to access company resources. The problem is balancing the need for allowing this to happen with the security and contingency plans needed to protect your valuable computing and data assets.

Developing a mobile device plan is right in line with Lowry's long standing experience in supplying these types of devices for several decades in all industry's including retail, manufacturing and warehousing. Combined with decades of wireless network experience and a multitude of industry recognized certifications, give us an edge on the many companies claiming knowledge in this area.



The process we follow is similar to the other designs/plans we create for customers every day in the areas of wireless networking and software development:



Based on input about your vision for mobile device computing, we will develop a plan to include some or all of these critical factors: allowing devices onto the network securely and with a minimum of IT involvement, allowing access to corporate resources on a time- or location- basis, protecting the employees personal information on these devices, wiping corporate information from the device in case of loss or theft of the device, cloud based application sourcing, cross platform data entry forms development and several others.

The deliverable to our customers for this service includes a written plan of attack that can be followed throughout the implementation process. We also recognize that this area is undergoing a lot of change and innovation and are prepared to refine or change the plan as industry developments alter your strategy.

Wireless Mobile Device Implementation

There is a lot of development going on in the area of mobile device management (MDM). A mere inconvenience less than two years ago has blossomed into a major area of contention for IT staffs worldwide. Like wireless network implementation of years ago, MDM is being driven by acceptance by the user creating feedback to the organization. Upon completion of a Lowry Mobile Device Management Plan, we will be there to implement the plan and adjust it based on your changing environment.

Lowry partners with best of breed companies to deliver the mobile management solutions designed during the planning phase and monitor their success and acceptance within your organizations. User experiences and the productivity changes you achieve will be measured against expectations.

We recognize that the MDM game is not a one-time operation. Interfaces and access methods for new platforms brought online after the initial rollout will be developed through a combination of your vision and our experience and industry knowledge.

A complete record of the implementation will be kept including copies of configurations, meeting minutes, design parameters and feedback. The allows Lowry and you to refine your processes and take advantage of the tremendous gains that can be achieved by allowing mobile devices proper and well-thought out access to your company resources.



Custom Wireless Training Services

Training is rarely a "one size fits all" endeavor. Custom Training Services provide needs analysis, design, development, testing and delivery of custom training to meet your requirements.

Students gain the experience, knowledge and understanding to become self-sufficient and achieve the highest levels of performance and productivity from the wireless solutions implemented including the network infrastructure itself and mobile device management.

Contact us for custom training facilities, equipment and coursework combining hands-on equipment training and knowledge transfer.

RFID Services



Discover

- Business System
 Consulting
- RFID Site Readiness Assessment



Plan

• System Design



Implement

RFID Site Preparation
 & Site Installation
 Services

- Custom RFID Training Services
- Software Services



Achieve

- Managed Services
- On-Site Service
- Help Desk
- Asset Disposal

RFID Site Readiness Assessment

Even with standards, no data collection technology implementation is truly plug and play. Your environment is unique in its physical setting, technology infrastructure, hardware, product flow, and other considerations.

A necessary component of any successful RFID implementation is a comprehensive Site Readiness Assessment. Our experts work with your team to document all aspects of your business process including product flow and routing, product touch points, data flow and infrastructure. In addition, the facility is surveyed for potential physical barriers and potential radio frequency (RF) trouble spots. Site Readiness Assessment services are the basis for the system design and implementation plan, and include:

- Spectrum Analysis to determine the presence and level of any existing RF interference
- On-site testing to validate the hardware recommendations from the Business Process Assessment
- Tagging and reading products, under actual conditions, to determine read range capability
- Detailed specifications addressing network design, equipment placement, power considerations, and wiring requirements
- Guide for installing and verifying the communication infrastructure

RFID Tag Selection and Placement Services

In spite of the numerous RFID tag and inlay options available today, tagging items remains as one of the most significant challenges to implementing a successful RFID system. Before engaging in the effort to tag your items, the workflow, information needs, user requirements and business processes associated with the items you wish to tag needs to be considered.

We can help you select the tag that will survive in your physical environment while delivering the required performance to meet your business needs. After the tag is selected, Lowry can evaluate the items to be tagged and recommend a placement of the tag on the item for achieving maximum performance of the RFID system.

RFID Site Preparation & Site Installation Services

When it comes to site installation, taking time to thoroughly prepare makes all the difference. Lowry installation specialists conduct customized site preparation prior to equipment installation, readying wiring, communication interfaces, and logistics.

With specific expertise related to power requirements, phone connections, host connectivity, controller, access point and antenna locations, your site environment is ready for installation. Lowry specialists provide on-site assistance in network cabling, software installation, startup, host connection, terminal and network configuration, testing, and documentation of the wireless network.

Expert Site Installation Services form the foundations of a successful system and include:

- Installation, configuration of fixed readers, antennas, portals, light stacks, and equipment according to the results of the site readiness assessment
- Mobile cart RFID smart label applications
- Print, encode-and-apply smart label applications
- Data capture for conveyor and portal applications
- Mobile hand held and fork lift applications



Lowry Solutions | Enterprise Mobility: Services & Support

RFID Custom Training & Information Sessions

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Custom Training Services

Training is rarely a "one size fits all" endeavor. Custom Training Services provide needs analysis, design, development, test and delivery of custom training to meet your requirements.

Students gain the experience, knowledge and understanding to become self-sufficient and achieve the highest levels of performance and productivity from the wireless solution implemented.

Contact us for custom training facilities, equipment and coursework combining hands-on equipment training and knowledge We offer the most comprehensive industry-recognized radio frequency identification (RFID) training courses in the market.

General Training & Information Sessions

- Lowry "Lunch & Learns"
- Technology or industry specific information sessions
- RFID program acceleration
- RF physics

- Interrogation zone basics
- Testing and troubleshooting
- Standards and regulations
- Site analysis (before, during and after installation)
- Tag specifications
- Design selection
- Installation
- RFID peripherals

The range of programs is held at your site, or at our locations in Brighton, MI.



Contact Lowry for custom training facilities, equipment and coursework combining hands-on equipment training and knowledge.

Enterprise Mobility Support Services

Managed Services

Lowry Managed Services allows customers to focus on their core business while Lowry assumes the responsibility of device management. This program provides customers with the peace-of-mind of knowing where their mobile assets are without the work and maintenance involved.

Lowry Managed Services provides IT and operations managers with improved visibility, intelligence, real-time monitoring, and customized management of device and network components. Devices supported include ruggedized computers, Auto-ID devices, printers, consumer devices and smartphones.

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Asset Disposal

The continuing evolution of our digital lifestyles is both exciting and worrisome. Regardless of the location or the specific technology, all users of electronic devices leave a digital shadow. Whether it is the information created and shared on a desktop computer, smartphone, tablet, or laptop, or the raw (and usually toxic) materials used to manufacture those electronic devices, every individual is now creating future personal and environmental liability through their conduct and use of digital equipment.

Fortunately, the full and complete life-cycle management of an electronic asset can be addressed through Lowry Asset Disposal Services. We address this hidden and forgotten liability for customers by cleansing devices of data, transferring ownership and liability of devices to another entity, and ensuring responsible disposal of devices to preserve the environment.



Mobile Device Management

- Remote Control & Help Desk: Lower support costs and increase device availability by remotely diagnosing and troubleshooting device issues anytime, anywhere
- Advanced Management and Provisioning: Use group policies to automatically secure and deploy software and data to managed devices over any network, thus ensuring devices and apps comply with corporate policies
- Location Services / Geo-fencing: Lost or stolen device? Locate, track and gather information on the movement of your mobile devices wherever they may be. Establish a virtual fence to keep devices in a specific area or to trigger a warning or action if they enter or exit the fence
- Anti-Virus / Malware Protection: Quarantine threats in real-time across the device file system and installed applications. Extend desktop grade antivirus and malware protection to your managed devices
- Secure Content Library: Integrate seamlessly with your existing content management infrastructure to provide secure access to documents, videos, presentations, spreadsheets – anytime, anywhere, and over any network
- Enterprise App Catalog: Deploy and Manage Store and enterprise applications on managed devices

On-Site Service

Lowry provides national, on-site, single source break/ fix solutions for bar code and auto-ID data collection equipment.

Tell us your needs and we'll develop a personal Service Plan for you.

Select Lowry's On-Site Service Level Agreement for security and savings, giving you a variety of on-site maintenance offerings. Lowry's On-Site Service is provided by highly trained and experienced technicians who set the industry standard for excellence.

With nearly three decades of experience in the AIDC industry, Lowry is your trusted Authorized Service Provider for name brand products including Zebra, Printronix, Intermec, Datamax, SATO, TEC, Motorola, Hewlett-Packard, and most leading manufacturers.



Reliable on-site expert repairs

When your equipment fails, your operations come to a standstill. Lowry's On-Site Service is your best bet to stay productive with fast and reliable onsite expert repairs featuring quick response time, quality workmanship and certified technical support. Maintenance Service provides:

- Worry-free coverage, value and cost protection
- Ease of budgeting for maintenance
- Fast turnaround and response times

Same-Day Response

Service technician arrives at your location within four hours of on-site service requests received before 1:30 p.m. local time (Monday through Friday).^{*}

The Standard Extended Warranty package covers all labor and parts (excluding print heads, accessories and batteries), cleaning and adjustment, and preventative maintenance cost."

Next-Day Response

Next business day on-site response. Service technician arrives at your location the next business day on requests received before 4:30p.m. EST (Monday through Friday).

Total Lowry Care (TLC)

Our TLC Service Level Agreement is the most comprehensive maintenance and consumables agreement available on the market today. Service, support, parts, labor, ribbons, and labels are managed under one agreement and through one company — LOWRY.

Time & Materials (T&M)

Lowry's T&M Service Level Agreements provide maintenance outside of normal contract coverage, services not included in a maintenance contract, services provided to non-contract customers, or services provided on an "as needed" basis billed at an hourly rate.

* Four-hour response available only in select locations. Please call for availability in your area.
** Print heads are covered by maintenance agreements when all supplies (labels, ribbons, etc.) are purchased from Lowry,

"Print neads are covered by maintenance agreements when all supplies (labels, hobons, etc.) are purchased from Lowry, and the unit is covered by Extended Warranty agreement (new installations only).

Flexible Plans

When a critical piece of equipment is down, you lose money. Our flexible support services give you complete repair security and peace of mind. With a cost-effective annual fee, you enjoy unlimited repairs and control your equipment repair costs. Lowry's single-source sales/ service team can design a plan that fits your unique business needs, with reduced rates for extended warranties.

Quick Work, Fast

Benefit from quick response time, fast turnaround, quality workmanship and certified technical support. Your support is provided by highly trained and experienced Lowry technicians who set the industry standard for excellence.

Automated Dispatch Systems

Lowry uses state of the art technology to capture and maintain information required to keep the repair process flowing. Service requests can be monitored on line. Service history is available to track and report response and repair times by location or serial number. Contract entitlement is done quickly and efficiently.

Contract Management

Managing company assets and their serial numbers can be difficult. Lowry's service contract team will work with you to keep track of your assets, and make sure that there is never a gap in coverage if equipment is added, deleted, or changes locations.

Parts & Supplies

Lowry stocks genuine OEM parts and supplies for the products we support. Our logistics team makes sure that our technicians have the parts they need, when they need them. Keep your products operating in likenew condition with OEM parts and supplies from Lowry.

We're really fast!

- Response times to fit your needs
- Remedial maintenance, including parts and labor
- Preventive maintenance
- Mandatory firmware revisions
- Mandatory engineering change orders
- Online call support center
- · Hardware installation and operator training
- Bar code verification testing



Depot Service

Select Lowry's Depot Service Level Agreement for security and savings, giving you the protection of a maintenance agreement and the reward of low depot repair prices.

Lowry's Depot Service support is provided by highly trained and experienced technicians who set the industry standard for excellence. Benefit from quick response time, fast turnaround, quality workmanship and certified technical support. Your support is provided by highly trained and experienced Lowry technicians who set the industry standard for excellence.

Advanced Exchange

Enterprise Mobility equipment is mission critical. Employees depend on the equipment to perform their job function. Your company depends on the equipment to provide the productivity, accuracy and security that the system was designed for. With Lowry's advanced exchange service, a call to the Lowry repair depot is all it will take to initiate a fully commissioned device being sent to you for overnight delivery. When you receive the advanced unit, simply place the defective in that same shipping container and return it to Lowry for repair.

Help Desk

Lowry's help desk offers factory trained multivendor telephone support and troubleshooting for all the solutions we sell. Our help desk will begin troubleshooting your problem immediately — the moment of your call. Each help desk professional will confirm the symptoms, diagnose the problem, identify the failure and determine the correct course of action. Can the problem be fixed over the phone? Should an on-site service agent be dispatched to the location? Our objective is to identify and confirm the failure with 90% accuracy allowing us to potentially resolve your problem over the phone.

If your problem requires an on-site visit, identifying and confirming the problem prior to dispatching a service agent will substantially reduce the repair time getting your unit back on-line. With our RIGHT SYMPTOM/ RIGHT PART break/fix philosophy we are ensured an accurate symptom and you are ensured an accurate first call/visit repair.

- Cost effective service agreements
- Flexible and fast repairs with the Advanced Exchange option
- Time and Materials option for non-standard repairs

Standard Extended Warranty

Standard Extended Warranty Service Level Agreement covers all labor and parts (excluding printheads, accessories, and batteries), cleaning and adjustment, and preventative maintenance at no additional cost – with a three- to five-day turnaround. Get the security of maintenance protection for up to three years.

Advanced Extended Warranty

Advantage Extended Warranty includes all the features of the Standard Extended Warranty package PLUS a two-day or better turnaround on all corrective maintenance.

Overnight Exchange

Overnight Exchange Service Level Agreement contract secures a 'spares pool' of replacement unit will be available for overnight shipment. Designed for clients that cannot afford to be without their equipment for more than one business day.

Overnight Exchange Service Plan provides "ondemand" spare devices to fill performance gaps and keep your critical systems up and running.

Time & Materials (T&M)

Lowry's T&M Service Level Agreement provides maintenance outside of normal contract coverage, services not included in a maintenance contract, services provided to non-contract customers, or services provided on an 'as needed' basis billed at an hourly rate. at an hourly rate.

Flat Rate Repair

Get the flexibility of "as needed" repairs at a guaranteed flat rate.

About Lowry Solutions

Since 1974, Lowry Solutions has been implementing technology innovations nationwide, and with over 10,000 customers, it has established itself as a premier Enterprise Mobility and Auto-ID system integrator focused on barcode, RFID, biometrics, enterprise mobility, and asset management solutions.

Lowry understands that each enterprise has its own specific issues and requirements, and that in order to provide best-in-class solutions to address these issues, a deep understanding of our clients' unique business processes is a necessity. To us, success is rooted in our ability to enhance and grow our customer's business.

With a comprehensive North America service network... we do business where you do business.

Our Approach

We don't push technology or brand — we encourage partnerships. Our success depends on how we enhance and improve our customers' business.

Our Employees

Our employees are highly experienced, certified, and accredited individuals with vertical and application specificity that are continually trained on relevant technologies, solutions, and standards.

Our Relationships

We have long-standing relationships with leading providing us access to the best equipment for the solutions with world-class, application — at a more affordable price.

Our Solutions

The solutions we provide are customized for each client to Enterprise Mobility and Auto- ensure the greatest impact ID hardware manufacturers, and most aggressive ROI and we support these 24/7 service.

Our Experience

We are one of the most venerable Enterprise Mobility systems integrators, with a track record of nearly 40 years of success delivering solutions to our valued customers.



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