



Mobile Systems Intelligence

Business Case Analysis

Connect Inc.

The mobile infrastructure is critical to all mobile associates completing business-critical tasks. Yet most mobile enterprises do not measure the direct impacts of mobile infrastructure on mobile associate productivity in a way that leads to improvements.

The Opportunity: Mobile Systems Intelligence (MSI) measures these impacts, providing visibility for data-driven decisions that reduce costs, gain efficiencies, and limit risk to shareholders.

The Impact: Any mobile enterprise can potentially eliminate between a few hundred thousand to over ten million dollars annually in direct labor and IT cost savings with MSI support.

What is Mobile Systems Intelligence?

MSI is a software-driven mobile infrastructure support service based on mobile/wireless transactional data analytics.

Inputs

- Data analyses of all mobile transactions and connections
- Mobile user feedback

Outputs

- Measurably more productive end-users
- Efficient IT support teams
- Data-driven decision making around mobile operations and infrastructure

The Value of MSI

"What cannot be measured, cannot be improved." — Peter Drucker

The core value of MSI is knowledge gained from visibility into mobile infrastructure performance in relation to business outcomes. MSI provides specific opportunities to make improvements that impact the largest cost centers: labor, shipping, infrastructure, and management.

Mobile and Operational Efficiency

Unbiased measurements of mobile system performance on associate productivity

IT Spending, Budgeting & Accountability

Inform and prioritize spending on technology and human resources

Risk Management

Reduce risks that technology defects or management failures will impact shareholders

Value Driver #1: Mobile and Operational Efficiency

The Impact

Reducing inefficiencies in mobile user experience improves the business by reducing downtime and increasing uptime. Benefits include:

- Reduced number of mobile associates needed
- Lower labor spend
- Reduced associate turnover
- Fewer mobile computers required to meet productivity goals

Key Metrics

MSI Metric	Mobile User Experience	Business Impacts
Mobile System Response Time	Time mobile user waits for host response (screen update)	Labor cost per unit shipped
Average Interruption Rate	Number of times associates must stop work to reboot or report issues	Downtime/Uptime, Associate turnover, Operational costs, Revenue
Idle Time	Time between mobile inputs (varies by work type)	Operational efficiency, Productivity

Industry Standard vs. Reality

Industry Standard: 1% of mobile transactions slower than 2 seconds

Example Enterprise Performance:

- DC #298: 51% of transactions delayed
- DC #351: 7% of transactions delayed
- DC #550: 26% of transactions delayed

☐ **Financial Impact:** Annual estimated increased labor cost of \$600,000 to \$1.2M for these three facilities alone (minimum loss, excluding downtime, lost revenues, or IT spend).

Key Finding: Only a small fraction of delays experienced by mobile associates are reported to IT support, yet still impact mobile users and the business.

Value Driver #2

IT Spending, Budgeting & Accountability

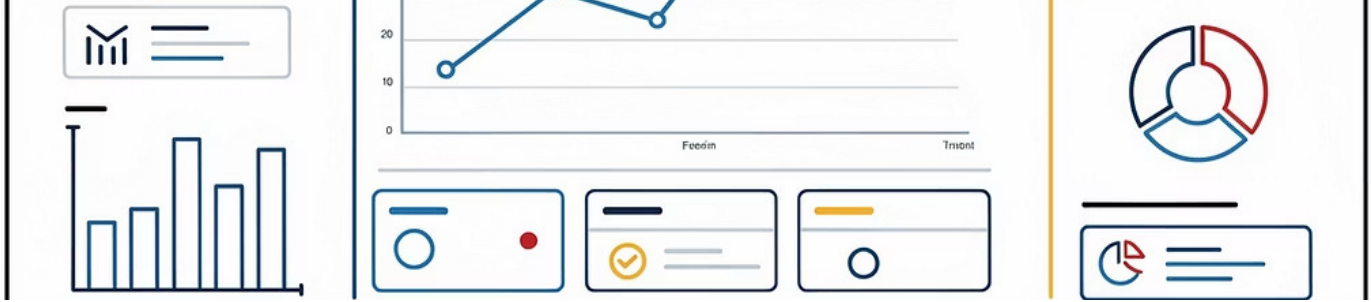
The Opportunity

Data-driven business decisions and proper management are the most effective means to reduce the cost and risk of owning technology infrastructure. MSI enables IT management to justify costs and allocate resources to diagnosed problems impacting production.

IT Cost Centers Reduced with MSI

- IT support travel and expenses
- Emergency spending on testing, vendor support, consultants
- Spending on technologies that don't address problems
- Allocation of human resources
- Outside consultant spending





Case Examples: Avoided Misallocated IT Spending

Company/ Industry	IT Spend Proposal	MSI Recommendation	Actual IT Spend	Savings
Global Materials Manufacturing	\$160,000 for application optimization	Address RF network issues diagnosed by MSI	\$10,000 to resolve VLAN and coverage issues	\$150,000
Beverage Bottling	\$200,000 over two years in bandwidth upgrades	Address incompatibility between application and mobile browser	\$1,400 to purchase compatible browsers	\$198,600
Furniture Retail	\$34,000 on new wireless network and mobile devices	Use session persistence server to avoid session loss	\$2,500 to purchase and install server	\$31,500
TOTAL	\$394,000		\$13,900	\$380,100

MSI Benefits by Business Function

Deployments Mobile computers, Android OS, Applications, New wireless infrastructure • Baseline for before/after comparison • Avoid deployment delays • Effective use of IT support • Hold vendors accountable • Reduce risk of negative productivity impact • Compare unbiased data	Routine Support Helpdesk, Network teams, Application teams, Mobile assets • Reduce all IT troubleshooting costs • Focus teams on priority issues • Automate problem capture and diagnosis • Reduce mean time to resolution	Center of Excellence Monitor improvements, Manage technology spending • Direct tie between associate success and mobile system performance • Link performance defects with root cause • Validate corrective actions • Trackable metrics and actionable data
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Value Driver #3: Risk Management

The Risk

The enterprise mobile system comprises:

- Hundreds of thousands of lines of application code
- Billions of wireless transactions
- Tens of thousands of mobile computers

When functioning optimally, it delivers productivity. When not, it presents negative business impacts from lost productivity to customer dissatisfaction to shareholder losses.

Shareholder Risk Statement

In annual reports of most publicly traded companies, there is a section on corporate risk factors including IT infrastructure risk. Example:

"Although we believe that we have adopted appropriate measures to mitigate potential risks to our technology and our operations from information technology-related disruptions, given the unpredictability of the timing, nature and scope of such disruptions, we could potentially be subject to production downtimes, operational delays and interruptions in our ability to provide products and services to our customers. Any disruption caused by the unavailability of our computer systems could adversely affect our sales and consolidated results of operations."

MSI as Risk Mitigation

Analysis of the wireless transactional dataset generated by MSI is a measure of the true performance of IT infrastructure, IT management, and vendors. The best way to mitigate these risks is to monitor and maintain adequate support for these systems.

- ❑ MSI is an appropriate and prudent measure to limit the risks and impacts of mobile system outages—comparable to how network security monitoring mitigates data security breaches.

Financial Summary & Key Problems

Costs Without MSI

Per Mobile Associate (Annual)

Minimum estimated losses: **\$2,800** (labor + IT support costs)

Per 1,000 Mobile Associates (Annual)

- Labor productivity losses: **\$624,000 to \$8.3M** (depending on delay percentage)
- Misallocated IT spending: **\$380,000+** (demonstrated from three incidents)
- Extended troubleshooting: Weeks to months per issue
- Deployment risks: Unquantified but substantial

MSI Investment

Cost: <1% of potential savings

ROI Characteristics:

- Immediate value from first root cause diagnosis
- Lowest upfront cost for accessing actionable data
- Payback typically within 3-9 months

Example Impact Calculation

Scenario: 1,000 mobile associates with 5% average transaction delays

- Annual excess labor cost: **\$208,000 to \$416,000**
- MSI cost: **<\$4,000 annually**
- **ROI: 500 to 1000%**

Key Problems MSI Addresses

Lack of Required Visibility

Budgeting and investment decisions made without complete understanding of how mobile systems affect user experience increases risk of misappropriating funds and resources.

Impacts: Misallocation of funds and misguided investment decisions, Limited vendor accountability, Uninformed decision-making at facility and executive levels

Inability to Systematically Identify and Resolve Issues

Poor communication and accountability related to capturing and resolving mobile infrastructure issues results in higher costs.

Key Statistic: 95% of mobile users attest to mobile issues negatively impacting productivity. Only 33% of IT managers believe mobile issues negatively impact productivity.

Impacts: Direct costs (Labor and shipping), IT support and solution delivery costs, Lost revenues and customer satisfaction, Associate turnover (29% of mobile users experiencing issues leave the company)

Extended Mean Time to Resolution

Four factors preventing faster MTTR:

1. **Incident reporting:** Mobile associates report long after incidents occur, if at all
2. **Troubleshooting process:** Limited information leads to guesswork and trial-and-error
3. **IT support organization:** Segmented teams create scheduling and resource challenges
4. **Vendor finger-pointing:** Without objective data, vendors blame each other

MSI Solution: One customer completed 68 root cause analyses in 10 months, with each delivered within one hour or less (compared to weeks/months/never traditionally).

Conclusion & Strategic Imperative

The Business Case

At an enterprise-wide cost of less than 1% of potential savings in labor and IT support, MSI provides the lowest upfront cost for accessing and utilizing actionable data to improve the business.

Two Critical Rationales for MSI

Guide Technology Investments

IT and Operations leadership continually evaluate solutions for mobile infrastructure. The best way to guide those investments is to know where the mobile system is performing well or poorly, and why.

Complexity Guarantees Hidden Problems

The nature and complexity of mobile infrastructure guarantees that system defects exist. If allowed to remain undetected, they will negatively impact the business.

The Strategic Imperative

The lack of knowledge of a pervasive mobile user problem at evaluation time does not obviate MSI's value. MSI represents the low-hanging fruit for uncovering costly inefficiencies that can be corrected to benefit the company.

MSI monitoring of mobile infrastructure (applications, networks, and devices), determining root causes of poor performance, and applying corrective actions represents an executive-level rationale for data-driven mobile operations management. **With MSI as part of critical mobile infrastructure, the enterprise will have the required data to avoid losses and improve business outcomes.**

Implementation Priorities

1. **Routine IT Support** — Automate problem capture and reduce troubleshooting costs
2. **Wireless, Application, and Mobile Hardware Changes** — Baseline and validate all deployments
3. **Capturing and Resolving Mobile-User Issues** — Systematic identification before they impact productivity

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