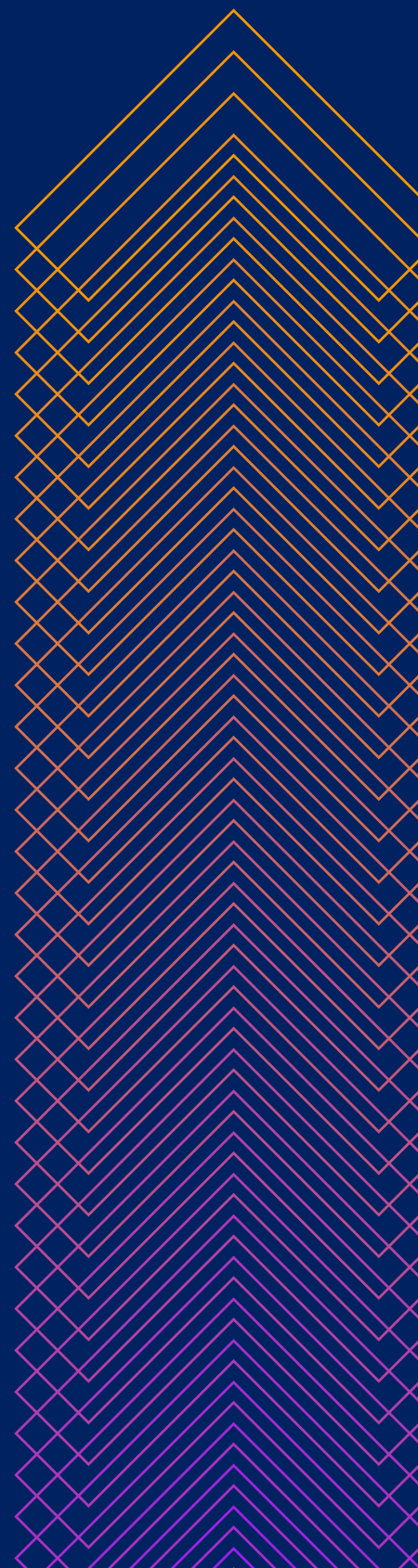


BLUEPRINT FOR A DATA-DRIVEN IT SUPPORT PROGRAM

**Strategies for Building
and Maintaining Support
for a Mobile Workforce**

*By Shari Christofferson, Chris Christofferson,
and Greg Kling*



INTRODUCTION

The use of mobile applications to facilitate work is now a competitive requirement for manufacturing, logistics, retail and healthcare enterprises. **This reality makes the mobile-user experience a business priority.** Despite this fact, mobile workers report technology-related work interruptions verbally or manually, not digitally, to IT and the business.

IT Service teams receiving verbal complaints lack the required visibility into the mobile-user experience to accurately determine the causes of reported interruptions. As a result, IT and Operations do not share a single source of truth to evaluate and improve the mobile-worker's experience in mission-critical or customer-facing tasks; and executives lack a clear understanding of how existing technology performance impacts business and customer outcomes.

Incorporating digital technology and a process that directly informs IT Service teams of incidents and associated root causes quickly improves the frontline experience and drives a technology strategy focused on performance.

In this whitepaper we discuss how transformative technology advancements are carrying IT Service Operations from legacy to digital and why that advances continuous operational improvement, labor cost controls, and customer retention aligning IT and business to drive successful technology innovation and investment.



THE MOBILE-WORKER'S TECHNOLOGY EXPERIENCE

- The term **“mobile worker”** covers almost any remote or deskless employee with a repeating and task-focused job enabled by mobile computers and digital applications.
- This means that without the full functionality of their mobile computer, completing tasks becomes difficult or impossible.
- The period mobile employees are remote is often referred to as **“in the wild.”**



Encounters ‘in the wild’

In the wild—away from IT managers or technical support resources—diverse types of issues arise that interrupt mobile workers’ tasks. These typically fall into two categories:

- **Immediately resolvable issues:**
Problems that can be fixed with a known process, such as replacing or charging a battery.
- **Intermittent, unresolved issues:**
Technical problems that lack an obvious cause, quick fix, or mitigation procedure. These issues disrupt and interrupt workflows and are not immediately resolvable.

Common examples of intermittent interruptions include:

- Slowness or delays in screen response (commonly called the **“wheel of death”**)
- Blank screens
- Device drops or disconnects
- Any failure rendering the mobile device **temporarily unusable**

In many cases, the mobile worker may recover functionality with a reboot or device swap. However, clocking in at **3 minutes on average to stop, reboot, and login** this workaround can quickly add up to **significant lost time and productivity**. When the mobile worker is customer facing, the waiting and frustration of the employee may result in a **poor customer experience**, which directly impacts revenue.

CURRENT METHODS AND RATES OF COMMUNICATING FEEDBACK

The most common way mobile workers report tech issues is in person to a manager. In some rare cases, workers may use:

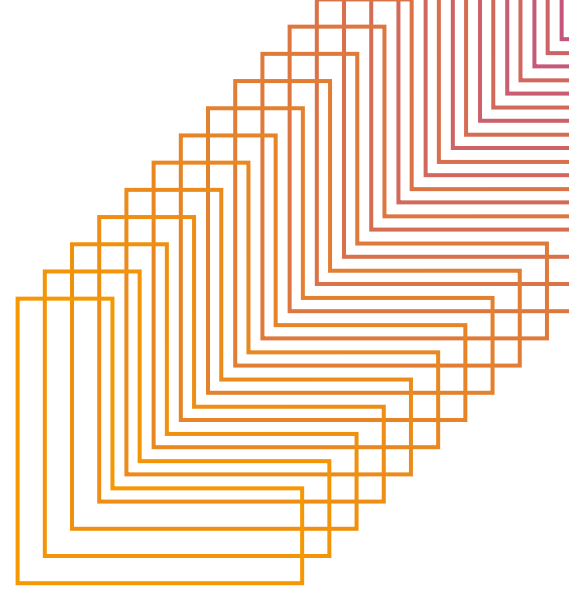
- Corporate messaging apps (e.g., Microsoft Teams, Slack)
- SMS
- Internal ticketing systems (where available)

However, these are not commonly accessible in **manufacturing or distribution** environments. Mobile workers are often incentivized to complete tasks quickly, with performance tied to their pay. While many want to report issues, doing so often means:

- Stopping work
- Locating a manager
- Calling in a report

These steps can take **more time than the issue itself**, discouraging reporting. This is why **less than 10%** of mobile workflow interruptions are ever reported to the business (Connect Inc, proprietary data).

Workarounds to speed processes may involve **skipping barcode scans of products, causing missing items** for orders and directly **impacting customer satisfaction**.



THE IT SUPPORT EXPERIENCE AND THE MOBILE WORKER: THE TRIAGE GAP

Once a report is given to a manager, it is out of the mobile worker's hands and either in the hands of their supervisor or a helpdesk. Feedback is:

- **Qualitative in nature**
- **Filtered through local supervisors** (e.g., store, warehouse, or manufacturing)

Unstructured feedback and reporting leads to a need for a technician to query the worker directly and/or an attempt to recreate the issue before it can be understood well enough to move to troubleshooting and diagnostic steps. **This is both a time and information gap we call the "triage gap."** Without an adequate capture of the reported problem, the support technician uses trial and error to test resolution. This is time consuming and has a low chance of success driving up support costs while lowering efficiency for both IT support and the mobile worker.

It is during the triage gap when workarounds become entrenched:

- **Workers hide assets**
- **Avoid areas of the warehouse**
- **Report a loss of motivation leading to productivity delays**

In customer service facing situations avoidance of interactions and inability to quickly access information degrades customer service and may result in loss of revenue or loss of the customer entirely.

If IT Service Operations exist to meet end-user expectations, then the first step of incident or event management does not meet the process's goals because IT service teams cannot effectively service the end user.

The mobile workforce is at least twice removed from the incident management process as discussed above, and the IT service teams have virtually zero visibility into the mobile user experience in the wild.

- For example, a mobile worker may believe it is normal that a function in the mobile app requires ten or more seconds for a response.
- If not reported as a problem to IT support, then the wait-time persists without resolution affecting productivity and increasing labor costs.

**AS MANY AS 30%
OF WORKERS
SURVEYED GAVE UP
REPORTING ISSUES
ALL TOGETHER.**

(Independent research, B2M Solutions, 2019; and Connect Inc data analysis of enterprise customers)

Recreating Issues and Accountability Avoidance

From a resolution process standpoint:

- **Inaccurate triage**
- **Lack of problem capture**
- **Lack of data-driven root cause determination:**

...all contribute to **accountability avoidance**—by both internal teams and vendors.

Due to the tightly coupled nature of the **networks, applications and edge devices** required for optimal functionality at the edge, it is common for the vendors and support owners to claim **“no fault found”** and push the troubleshooting responsibility to another group. Most vendor technicians wait to see evidence that their system domain is contributing to the problem before making changes.

Mishandling of Support Requests

When **3rd party organizations** are used as an IT Helpdesk—or internal helpdesks operate in a similar fashion—mishandling can occur.

- This often leads to **scripted responses**
- The focus shifts to **closing the ticket**, rather than **solving the problem**

Rate of ticket closure is a helpful metric for a helpdesk that uses closed tickets as a proxy for resolution, or for billing the customer. However, this creates a **false impression**:

A low number of helpdesk or support requests suggests to IT Management that the mobile workforce is doing well. But as outlined in earlier sections, **this is a mistaken assumption**.

Consequences for the business include:

- **Operational cost increases**
- **Productivity loss**
- **Revenue loss**
- **Customer dissatisfaction**



Business and IT Misalignment

From a resolution process standpoint: **Mischaracterizations of the mobile-user experience** feed into business alignment with IT Management.

- **Inaccurate and inadequate information** is often used to make decisions regarding IT infrastructure and edge technology.
- This directly impacts the **frontline mobile worker** and their **operational goals**.
- The extent of this impact is difficult to measure without a meaningful baseline.

Enterprises that utilize mobile-user experience analytics in technology planning gain clear benefits:



Significant spending reductions



Tighter cost controls



Better-informed scoping and purchasing decisions

Large, recurring technology investments include:



Changing or upgrading mobile devices



Adding robotics to assist frontline labor

During a typical request for proposal vendors provide trial technology for demonstration and testing. Enterprises with direct-user feedback tied to consistent performance metrics accurately compare and evaluate incumbent technology alongside trial technology and therefore confidently invest and deploy at a lower cost. Data analytics of 'in the wild' performance puts purchasing executives in a better position to acquire technology that performs best for the lowest price.



THE BUSINESS'S VIEW OF THE MOBILE-USER EXPERIENCE

Assessing Acceptable Risk

Key components of the mobile-user experience include:

- IT infrastructure
- Software applications
- Networks
- Mobile computers

Enterprises invest heavily in these components, along with support and maintenance of the entire system.

The cost of those investments pale in comparison to the annual cost of labor in manufacturing, distribution and retail, and yet most enterprises **do not continuously track the link between technology uptime and performance to frontline labor representing business and shareholder risk.**

Technology Strategy & Planning

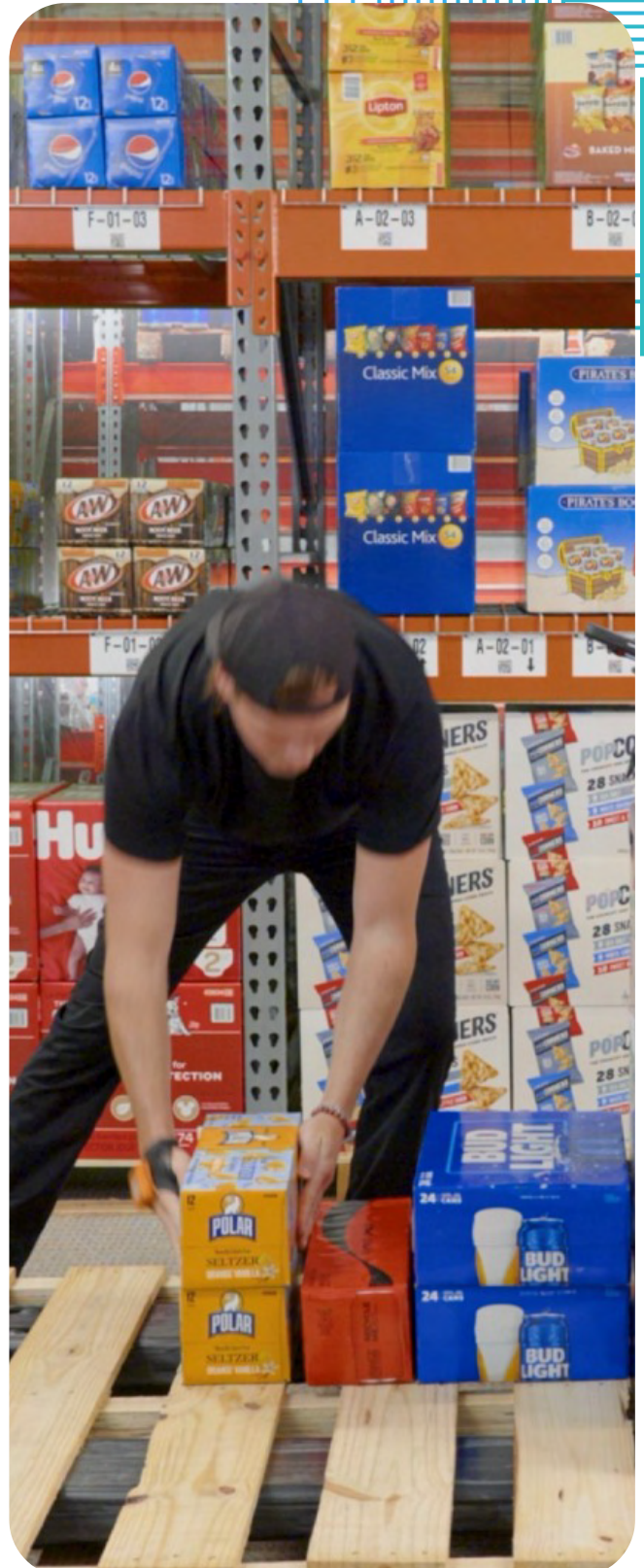
Planning for technology purchases, changes, services and other budgeting decisions also depend on how the business perceives technology needs at the frontline. Innovation projects start with looking at problems that cannot be solved with the existing technology and processes.

How can accurate and effective strategy decisions be made without:

- A clear accounting of current technology performance
- An understanding of its impact on frontline workers and customers?

In other words:

How can a company chart their path to the next horizon if there is not a clear understanding of where they are now?



BRIDGING THE GAP

To stay competitive with technology innovation and change, while also controlling costs and growing a supply chain enterprise, it is critical to identify and bridge technology, process, and visibility gaps—quickly and effectively.

Fundamental Gaps that Degrade the Mobile Worker Experience

These persistent issues continuously undermine both the mobile worker's technology experience and business performance:

1. **Verbal or manual reporting mechanisms** between frontline mobile workers, IT Service Operations, and Operations.
2. **Lack of relevant details** to characterize and recreate mobile-user issues for **root cause analysis**.
3. **Limited or discreet analytics** that fail to reflect the mobile user's experience within **complex, tightly coupled systems**.
4. **Enterprise IT service teams must master multiple 3rd party tools**, creating friction in logging, analysis, and resolution of mobile or robot-enabled worker downtime.



Key Requirements for a Solution that Optimizes the Mobile-User Experience

Utilizing technology and related services that enable **digital processes and visibility**, **data-driven triage**, and **automated synchronization** of relevant data, results in an ITSM program that effectively **automates the information gathering and sharing** needed for understanding the mobile worker's experience and the impacts on business goals.

A system that fills the gaps should include:

1. On-device, digital reporting mechanisms

- Accessible to mobile workers in the wild
- Sends real-time feedback into a monitoring system capable of isolating each mobile user's interaction with the live IT system

2. Digital problem capture

- Includes data about the mobile device's interaction with the connected infrastructure
- Covers before, during, and after the worker's submitted feedback or automated detection

3. A notification mechanism

- Shares unbiased root cause analytics with the correct system owners
- Enables action, resolution, and accountability

4. Consistent, always-on observability

- Monitors users within the system for performance metrics, resolution validation, and curated analytics
- Supports a variety of business and IT alignment projects, including innovation

The Business Impact

When these requirements are met, **user experience ties directly to problem analytics** and the resulting **actions needed for improvement are accessible and actionable**. An enterprise that incorporates mobile-user experience into its core business performance metrics drives improvements and **innovations more effectively and at a lower cost**.



DOCUMENTED OUTCOMES OF AN OPTIMIZED USER EXPERIENCE

The recommendations presented here align with fundamental practices for improving business success by **increasing customer satisfaction while lowering the costs to deliver products and services.**

Empowerment, Labor Efficiency, and Cost Reduction

A labor force that is enabled to communicate feedback digitally reports:

- **Higher morale**
- **Increased job satisfaction**

Removing feedback barriers **clears a path to increasing efficiency in workflows.** In cases where workers are incentivized by compensation or advancement for their efficiency or customer satisfaction ratings, providing a means to give feedback empowers them to **align their own career goals with the business mission.**

Reducing unintended overtime, providing tools to increase efficiency, and **reducing turn-over reduces both direct and indirect labor costs.** Documented and consistent improvements in the mobile-worker experience result in a cascade of cost reductions and competitive advantages. Positive workforce reviews, for example, **retains workers and makes it easier to attract desirable candidates.**

Customer Experience and Retention

The link between:

- **Labor morale and retention**
- **And customer experience and retention**

...is direct and intuitive.

A customer doesn't need to understand mobile tech to feel the frustration of a **delayed delivery, slow service,** or an **inaccurate order.**

Mobile workers who are **less frustrated, enabled and empowered** to be successful in their work because of optimized technology, increase the chances of **delivering on-time, accurate orders** and help increase the **satisfaction of customers.**

Digitize and Automate IT Service Operations

Shifting an IT Service Operation's focus from **fielding incidents and investigating problems to resolution activities** drives down the cost to implement, manage, support and advance technology initiatives. By digitizing and automating the process to share feedback while eliminating investigative steps, the IT Service Operations functionality **streamlines time, resource allocation and delivery of IT functions**.

Additional benefits include:

- A **lower cost** and **better performing IT department** carries value to **technology strategy, design, and implementation**.
- Access to critical metrics **reduces testing and deployment cycles** for technology change and innovation.
- The **ability to observe and evaluate critical IT systems** during change is a significant cost-control measure when those changes directly impact **mission critical** operations.

When technology advancements involve enabling frontline workers with **robotics and automation**, the critical nature of understanding the worker experience with those technologies increases as does the cost-benefit ratio for streamlining IT Service Operations.

Driving Success Through Digitally Transformed Best Practices

Closing the **communication and visibility gap** between the IT Service Operations teams and mobile workers advances **IT support** functions from **reactive and manual to proactive and digital**.

IT transforms the core functionality from **supporting end-users to optimizing the user experience**. Tracking the success of this transformation is inherent in the technology requirements to automate the support of mobile workers.

As **manufacturing, distribution, logistics, retail and healthcare sectors** race to incorporate the use of automation to increase business outcomes, it is critical that:

- **Lines of communication between mobile workers, IT, and leadership are open, accessible, and meaningful**

Whether it's:

- **A mobile hardware upgrade**
- **Or the inclusion of robotics and AI into mobile workflows**

Digitally enabled, data-driven communication and action is essential to meeting business goals.

TURN INSIGHT INTO IMPACT

The frontline experience is your competitive advantage—if you can see it clearly. By digitizing feedback, automating visibility, and aligning IT operations with real-world performance, your organization can reduce costs, increase productivity, and unlock innovation at scale. Now is the time to close the gaps, connect your teams, and drive measurable success across your enterprise.

REQUEST YOUR CONSULTATION

About the Authors

Chris Christofferson – CEO/CTO of Connect Inc; leads product development, management and engineering.

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