

Optimizing Field Service Cost & Performance

Best Practices & Advanced Techniques from Fortune 50 MSOs to
Increase Pre-Appointment Confirmation, Dispatch Accuracy and
Overall Field Service Effectiveness

A Technical Paper prepared for the Society of Cable Telecommunications Engineers
By

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Overview

SkyCreek works with a number of the top Multiple System Operators (MSOs) in North America, helping them optimize their pre-appointment customer reminder and confirmation programs to maximize field service efficiency on a daily basis across national service footprints.

In the decade we have been managing these programs, we routinely see that one of the more complex moving parts for MSOs is accurately managing the daily repair and installation service load and weeding out inefficiency, wasted dispatches and poor customer experiences.

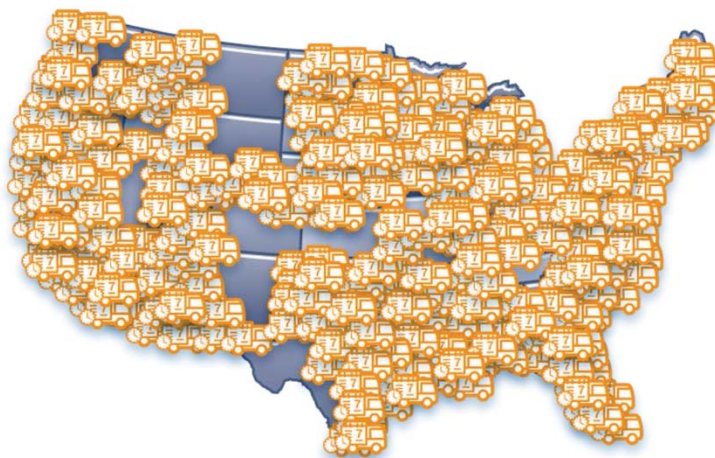


\$50 - \$100 Per Wasted Dispatch

Between vehicle cost, gas, insurance and the workforce, the cost potential of dispatching service to unconfirmed customer appointments is high, ranging between \$50–100 per wasted truck roll. In today's world of cost containment objectives, MSOs need improved best practices and advanced techniques to 1) increase the effectiveness of their call-ahead dispatch appointment reminder/confirmation programs and, 2) further integrate processes and key technology foundations to more precisely manage the day-to-day cost potential of avoidable and actual wasted truck rolls.

The historical technology gaps between billing, workforce management, and contact management must close so that more dynamic, real-time information flows between key functions, providing the foundation for more advanced and conditional processing of unconfirmed customer appointments, right up to the moment of dispatch. Shorter appointment windows, ETA call-ahead, technician post-visit follow-up call compliance, and conditional appointment cancelation policies all significantly reduce operating cost exposure, but they all require more dynamic sharing of information across traditionally

siloed functions and a more adaptive and intelligent customer contact capability to get there.



The issue is magnified for providers on a national scale and compounding the problem are an increasingly growing number of customers who have hardening preferences about how they should be contacted (landline call, mobile call, TXT, email), when it's acceptable to be contacted and why. So just as the problem of more precisely managing unconfirmed service calls has come into perspective for many, the contact part of the equation is evolving, creating a further challenge for cost and experience conscious MSOs.

The net result is that MSOs must work backwards from their "ideal" model for handling unconfirmed customers. They must create policies, procedures and cross-system integrations at more defined intervals (48hrs out, 24hrs out, day of job, 1hr prior, etc.) as the potential wasted truck roll cost event nears so they can optimize both the performance and cost of these programs.

How do you reduce missed appointment rates by 10-15%, increase "Repair No Longer Required" rates by 8-12%, sustain day of job customer appointment actions over 70%, minimize repeat go-back appointments on unconfirmed dispatches to under 30%, drive to 1 hour appointment windows, and other field service efficiency objectives?

This whitepaper will detail how.

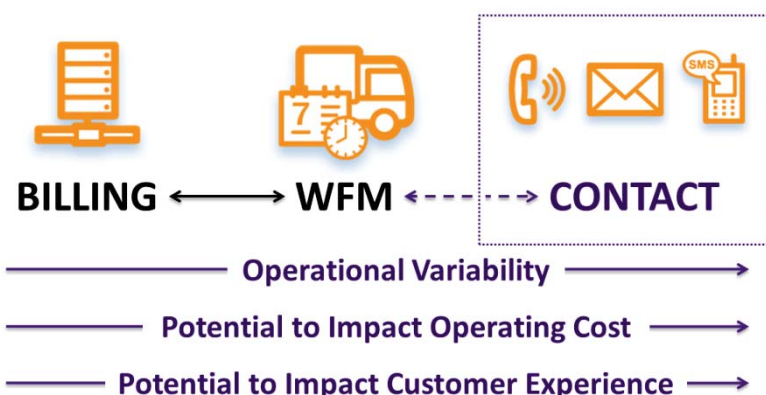
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Where are the Opportunities to Optimize Field Service Performance and Cost?

When discussing field service performance and cost, it's natural to focus initially on trucks, people and logistics. These key parts of the equation obviously are critical to achieving an acceptable baseline experience for your customers. What is not as obvious is the impact effective customer contact can have on field service cost and overall performance and efficiency.

Optimizing Field Service

Where are the opportunities?



While advancements in workforce management, inventory control and operational systems have vastly increased the efficiencies of the trucks, people and logistics, customer contact has typically lagged behind in investment, creating both a challenge and an opportunity.

Yet our experience in managing several national field service customer contact programs shows that:

- 1) The contact part of the field service equation is growing in complexity as customer contact attitudes are shifting and appointment windows narrow.

- 2) Innovations in contact strategies, techniques, capabilities and dynamic messaging can generate and sustain significant cost savings in key metrics like appointment confirmation rates, repair-no-longer-required appointment recapture rates and overall wasted truck rolls and missed appointments.
- 3) The quality, timing, personalization and the coordination of automated and live customer contact can move the needle on the end customer experience.

The challenge for many MSOs in capitalizing on these contact optimization opportunities comes in moving away from a collection of one-size fits all contact management solutions to one that is:

- Fully multi-channel—IVR (Interactive voice response), email, SMS (short message service)—capable,
- Designed to leverage the vast amounts of customer contact history, customer channel preferences and contact performance data to increase the personalization of the contact, expand the intelligence of the contact itself and elevate the overall quality and delivered experience.

The opportunity is that making the move to a more precise, data driven, and customer-specific contact model can quickly differentiate you in the minds of customers and weed out the often significant cost of low-probability, ineffective customer contact efforts.

So how do you get a handle on all of these dimensions at play in optimizing your field service operation?

We present a three step approach:

Step 1: Understand How Changing Customer Preferences & Service Quality Expectations are Impacting Your Field Service Contact Performance Right Now

The customer contact model is changing, making it more difficult to attain higher performance and even sustain it for field service communications like appointment reminders.

The trends are evolving at the 10,000 foot view but they impact your field service operation at the 10 foot reality—often making them difficult to see in the day-to-day details.

There are four top trends impacting field service customer contact.

Trend 1 – Customers are less tolerant of field service impacts on their daily lives.

No shocker here. Now that MSOs are servicing 2nd and even 3rd generations of customers since their inception, the expectation is pretty well ingrained into the market's consciousness that waiting on the cable guy is at best a necessary evil. The challenge always has and continues to be how to shorten appointment windows when there is such variability at each stop in the typical dispatch.

***Answer:** Closing the contact gap between the technician and the customer in a way that is not only real-time but that is integrated across the workforce and customer contact management platforms*

The answer to the age-old problem of shorter appointment windows is, unfortunately, not fully solved by outfitting technicians with laptops, tablets, smart-phones or other technologies. These enhancements do provide more real-time information to flow between the technician and the workforce system; allowing MSOs making these investments to do more dynamic dispatching.

However, even in this scenario, MSOs are potentially rolling trucks to unconfirmed customers in the dispatch queue.

The missing piece is to integrate, in real-time, the results of a coordinated multiple-retry, multiple-channel, and multiple-message contact effort to reach, remind and confirm the

customer and use this to avoid or “move-back” high-probability no-shows in the dispatch queue.

Closing this “availability loop” is central to reducing wasted routes and further tightening appointment windows.

Trend 2 – Customers are increasingly contact channel sensitive- i.e. have stronger personal preferences for how they are being contacted.

With the advent of more and more connected devices in our lives, customer preferences are rapidly evolving. Customers are becoming increasingly more channel sensitive and loyal and as a result less tolerant to “even average” interaction timing, design and quality.

Just as it’s increasingly more important in how you say something, for customers it’s no longer just enough to be contacted with an appointment reminder; the new expectation is about how they are contacted and when.

***Answer:** Increase multi-channel customer capabilities that can dynamically deliver the message either on the customer’s preferred channel (IVR, email, SMS) or according to the channel with the best probability of connecting based on past contact history.*

Contact preference is highly personal—and as such the best approach is the approach favored by each customer first and secondarily according to their responsiveness by channel in past contact attempts.

The reason you should care is because of the impact even a minor uptick in pre-dispatch appointment confirmation can have on the overall efficiency and cost of the operation as a whole. There is even cost to be saved in swapping customer IVR calling to other less expensive channels where there is a preference or a historical justification.

If you’re not currently doing multi-channel customer contact around your field service operation, you will need to be soon. Make sure it’s an integrated platform as mashing together different single channel solutions simply creates a different set of problems in maintainability, less effective cost containment and integration difficulties and limitations.

Trend 3 – Customers are more discerning and appreciative of proactive contact that offers a more personalized and professional field service experience

Perception is reality. With customer expectations continuing to evolve toward more pertinent, proactive and personalized contact from their service providers, MSOs face the challenge of keeping pace with the market's perception of what a quality automated contact interaction looks and feels like and more specifically for field service, how respectful they are of the customer's time.

Answer: MSOs need to go beyond the out-of-the-box, scripted contact strategy for their field operations and purposefully design in new proactive customer contacts to keep pace with expectations and to further reinforce and differentiate the care they have for their customers.

Proactive communication is the key to delivering more value in your field service operation. Everything from “en-route” and “running late” notifications, estimated time of arrival updates, service no longer required cancel options, self-service appointment rescheduling and other proactive and professional-grade interactions demonstrate care for the customer and directly communicate an expectation to their worth to the organization. The return from adding in these extra communications is not just fluffy make-the-customer-happy stuff; there are real operational savings to be had.

Specifically, ETA call ahead provides an extra layer of customer-at-home confirmation just prior to rolling to their address, offering an extra prevention of the \$50-\$150 MSO on average spend on wasted truck rolls. Likewise, offering service-no-longer-required cancellation options on appointment reminder customer contacts prevent potential no-shows from entering the dispatch queue altogether. Generically, these additions to your field service contact strategy can stave off the cost of calls going into the call center, increase customer loyalty and increase the likelihood of customers recommending your service and your brand.

In the same way plumbers put on boot covers before entering the customer's home to show respect for their carpets, so too can proactive communications show respect for the customer in taking off time from work to wait for the technician to show.

Trend 4 – Customers are made more compliant when they experience a positive technician interaction and are further made more loyal and brand zealous when they receive unexpected attention and courtesy from the technician directly.

We are all social creatures, and this fact is at play in field service where customers are psychologically forced into a 30 minute relationship with the technician in their home. The more they naturally feel engaged, respected and liked in a positive interaction with the technician, the more latitude they will give you in overcoming any other source of dissatisfaction and/or their feelings on the time they invested in waiting for the visit.

We see hundreds of examples of this phenomenon a month where the technician is rated high but other aspects of their experience are rated low.

While best practices, training, and hiring decisions can control the likeability and professionalism of your technician fleet, extending the coordination of employee and automated contact to the customer, even in field service, won't just improve the customer's experience; it will weed out repeat visits, future appointments and costly calls going into the call center.

Answer: MSOs need to further integrate all the parts of their various automated and employee initiated customer contact functions—into a fully coordinated customer contact model.

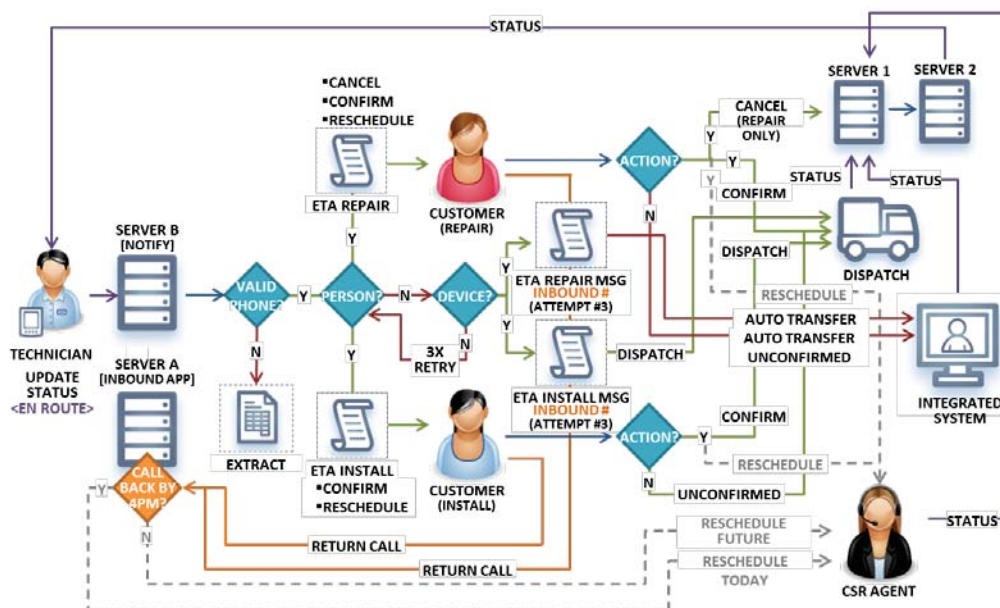
Even MSOs who have outfitted their field teams with the latest communication gadgets can increase the return on these investments even further by coordinating the actual contact taking place on these devices with updates from automated contact efforts. Whether to confirm an appointment, provide ETA or other updates, or to validate that no status change has occurred on an unconfirmed stop in the route, it's the intelligence coming from the automated contact processes, and the results they yield, that can further empower the technician to make the "right contact" with the customer.

The other advantage of coordinating in-the-field contact with fixed customer contact strategies is that the right automated multi-channel contact infrastructure can enhance the experience even further. Presenting branded caller ids, automating preambles and regulatory messages, and direct-to-technician transfers can further increase the payback in reduced missed appointment cost, reduced waste and increased customer compliance.

Step 2: Realize that Systems Integration, Process Improvement and Responsive Support are Essential Foundations to Optimizing Field Service Customer Contact

There are a lot of moving parts to a contact management foundation that can accommodate the shifting customer contact preferences, requirements and market dynamics shaping today's field service landscape.

Lots of Moving Pieces



MSOs that realize this and seek the right relationships with the vendor market will succeed where others fall short in trying to maintain a tighter control over everything.

This is a key step in optimizing your field service contact performance and cost metrics. Unlike other technology models, returns on investment with field service contact solutions—such as unconfirmed-at-time-of-dispatch rates, actual missed appointment rates, wasted contact cost and avoided wasted truck rolls—must be finessed out of the system.

Brute force approaches that are more rigidly scripted or self-service contact management systems that are largely self-service interfaces invariably hit a performance ceiling and often steadily decline over time.

To break through, the contact strategy must be dissected, analyzed and improved at each step of the process with ongoing reviews and assessments to further fine tune it based on results—*optimizing*.

It's easy to discount the need for contact support, and there are plenty of technology solutions out there betting that you will. The support you have and the experience and expertise they bring to the table as partners in your field service model is directly correlated with the amount of performance and cost optimization that can be achieved.

Field service customer contact is an “effort” model; without the horsepower and resources to analyze performance, innovate new approaches, and continually improve the quality of processes, you'll keep seeing the same results and you will eventually see them start to degrade. Having the right data management and analytics are the foundations to benchmark results, identifying/justifying process improvements to re-engineer performance.

Those achieving optimal field service efficiency and effectiveness are proactively managing pre-appointment confirmation performance daily and relying on partners to help them do it.

Optimizing field service customer contact requires the right partners for the job.

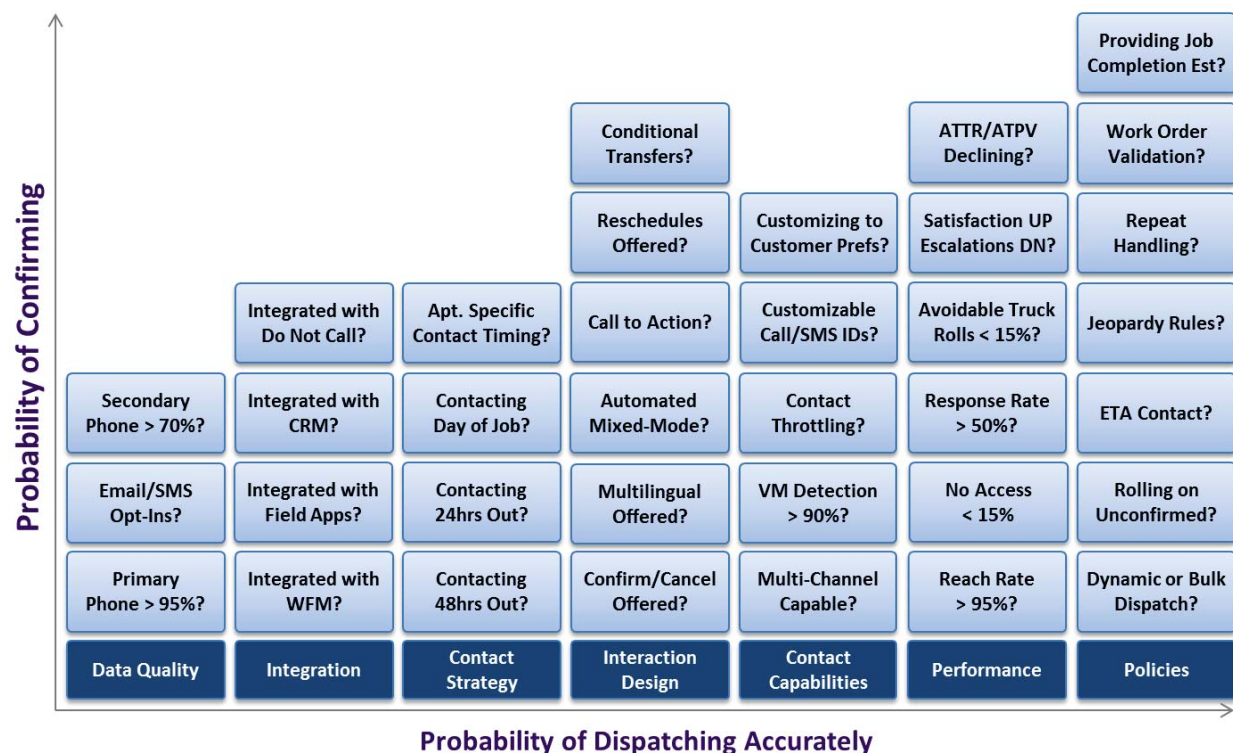
Step 3: Leverage Best Practices to Organize and Direct Your Field Service Contact Improvement Strategy

Where do we start?

It's the question asked most frequently when looking over the entirety of processes, technologies and strategies that constitute your field service operation. The answer always is that it depends on where you are, and how far you want to go in optimizing waste out of your field service operation. There is no right answer, but there is a right way to approach all the moving pieces to prioritize what should be done and in what priority based on the end cost saving or performance improvement objective.

In helping large-scale field service operations across North America, we have developed the following best practices model for improving field service operations. It focuses on the two key metrics that dictate overall field service efficiency: the probability of confirming a customer prior to dispatch and the probability of accurately dispatching.

Where to Start? Best Practices



The model is intended to function like a roadmap across the key components of your operation, from the quality of the data powering your customer contact effort to the policies driving key route and dispatch decisions. Each block represents a discreet function, capability or a performance standard that should be a part of your dispatch management objectives to further optimize performance and cost across the operation. The blocks offer a cumulative increase in value both as you go up each stack and as you go left to right across stacks, allowing field service managers to also understand the interconnectivity between different aspects of their operation, helping to see how the various pieces work together and reinforce each other.

Data Quality Optimizations. While not having much of an impact on dispatch accuracy, data quality has a direct impact on the probability of confirming the customer prior to dispatch.

- **Primary Phone > 95%** – Taking steps and injecting processes into the customer interaction design to increase the accuracy of stored primary phone numbers for

customers and keeping it above 95% is the first step. While it may seem trivial and obvious as companies scale their field service operation and expand across different markets, the task becomes more difficult to ensure data quality, all of which has a trickle-down effect on your pre-appointment calling programs and ultimately your unconfirmed-at-time-of-dispatch rates.

A requirement for your contact management capability is to ensure it can detect bad numbers—whether it's an incorrect area code, a dummy number or email address padded in by a CSR rep (999-999-999, email@email.com) or other data quality issue—all so you prevent wasted calling and message cost.

- **Email/SMS Opt-ins** – Capturing opt-ins is a precursor to adding these channels to you pre-appointment confirmation capability. There are stern laws and penalties for violating these regulations and as such field service operators need to look beyond their own footprint and work with other parts of the organization to capture these customer authorizations in other interaction scenarios so they can be leveraged in pre-appointment confirmation efforts.
- **Secondary Phone > 70%** – Secondary phone simply expands the opportunities to reach the customer. Our direct, in-field research indicates that keeping a greater than 70% secondary phone rate for customers has a direct impact on customer reach rates around field service contract.

Often different functions within the broader field service and customer service operation interact with customers but don't capture secondary phone numbers. Although capturing this information may not be required for their specific function, it would be a perfect opportunity to capture secondary phone numbers to improve downstream contact efforts; look for ways to capture this information and you will improve your pre-appointment confirmation and missed appointment rates.

Integration Optimizations. Systems that contact customers need to be integrated with the systems that manage work. We routinely see customer contact capabilities existing in a siloed fashion without any direct integration to other key field service management foundations like the workforce management system, billing systems, other specific field apps, customer relationship management systems and ultimately State and Federal Do Not Call registries.

- **Integrated with WFM** – The first step is directly integrating with the workforce management (WFM) system. Batch passing data from the WFM to your contact management process is a good first step in establishing who needs to be called on a

day-to-day basis, but under this model there are several shortcomings, including inter-day changes made in the dispatch function, not updating the contact process (i.e., customers still being called to confirm after the appointment has been cancelled) and status changes gathered through the customer contact process not being able to route back to the WFM prior to trucks rolling to a potentially no-longer-required service appointment.

Other valuable data like the customer's contact status from past service appointments and whether there was a successful appointment can provide further intelligence and insight into the probability of an unconfirmed customer likely to be home when the technician arrives.

- **Integrated with Field Apps** – This same logic applies to any field apps being used by your technicians to update statuses and coordinate other functions of their daily routes. With these apps also integrated into the contact process, even in a pass-through scenario through the WFM, the tech can benefit from the latest status on the effort to confirm or cancel the appointment.
- **Integrated with CRM** – Integration of your customer contact model with the customer relationship management (CRM) system adds a new dimension to how, when and where you contact customers active in your field service repair/installation and delivery processes. Pertinent information on the customer, and even the monthly reoccurring revenue they represent to the business can all be used to adjust the contact strategy, the channel and techniques used, the messages used to confirm (how stern or lenient to be) and even the decisions to roll on an unconfirmed status (how valuable the customer is).
- **Integrated with Do Not Call** – Last, integration with Federal and State and company specific Do Not Call registries can help determine insights into which customers are sensitive to automated IVR phone calls. With a business relationship with the customer you have the right to call the customer; the question is should you be calling or using another channel to confirm the customer. Having this data integrated with a multi-channel contact management function allows your pre-appointment customer contact processes to dynamically re-process a customer contact into an email or SMS message, if IVR is disallowed, and if opt-ins exist, and if no, then route to a live agent for direct contact.

Contact Strategy Optimizations. Contact strategy dictates the contact intervals and retries you use to reach the customer and confirm or cancel them for their

upcoming service appointment. This aspect of your customer contact program can have a profound impact on the percentage of unconfirmed appointments still remaining in the queue at the time of dispatch.

- **48hr, 24hr, & Day of Job Contact** – The model is simple, the more attempts made starting at 48 hours out from the appointment and going through to the actual day of the job, the higher your confirm rates will climb. At the end of the day customers are individuals each with their own attitudes, preferences, and quirks and the more contact attempts made the more these individual differences in their likelihood to answer a call, respond to an email or reply to a text message fade, resulting in better reach rates, cancel rates, confirm rates and missed appointment rates.

One best practice for MSOs offering repair services is to issue contact back to the customer shortly after the creation of the service ticket offering an appointment cancel option. This will help weed out any tickets created as a result of a recent service outage to reduce potential avoidable wasted truck rolls and to also lower the overall work queue and free up slots. This also provides a perfect opportunity to present additional instructions to the customer about their upcoming repair appointment—“You must confirm your service appointment on the day of job or your appointment will be cancelled”—all to increase overall customer compliance.

- **Appointment Specific Contact Timing** – A higher-end contact strategy that can produce even more confirmation results beyond adding 24 and day of job contact is to adjust the timing of the contact with respect to the appointment itself. For example, for a 4PM contact today, the contact is issued two hours prior. By tailoring contact to correspond with the appointment time you are attempting to better align contact with the customer’s schedule and increase the odds of reaching the customer and confirming their participation in the upcoming appointment.

Interaction Design Optimizations. Central to both the probability of confirming and the probability of dispatching accurately, interaction design has one of the largest impacts on field service performance and the cost required to achieve it. It’s in this dimension where the dynamism of your customer contact capability will be tested to the greatest extent; and where many fail to reach their full potential in terms of performance and cost containment.

- **Confirm/Canceled Offered** – Going beyond simple non-interactive appointment reminders is the first step. You need to allow the customer to actively confirm or even cancel the appointment directly through a DTMF capture on the phone, through a link click in an email, or through a short code reply in a text message. No-options-

provided reminders by themselves are only marginally effective because there is no tactile event that impacts memory for the upcoming appointment; helping customers remember they have to be home on Monday. The simple act of pressing 1 to confirm does make a difference and on a national scale the numbers add up and it often provides the biggest payback in terms of cost containment.

However, one-size-fits-all, generic messaging will only provide limited results. It's all about how you present the information, how you ask the question, in what order, what specific wording is used, etc. The quality and alignment of your message is directly correlated to the confirm and cancel rates you produce. Simply increasing the contact volume will produce diminishing returns and will more than likely drive your customer experience downward, increasing complaints, calls into the call center and negative trending in social media.

- **Multilingual Offered** – Multilingual detection and adjustment is a growing opportunity for providers working across diverse customer populations. There is a deeper alignment established between the brand, the customer and their feelings and subsequent responsiveness through automated communications to them. This does require multi-language recordings of call scripts and the ability to dynamically deliver the right script at the right time to the right customer; but again the impact on confirmation rates has proven to be worth the effort downstream in minimizing inaccurate dispatches.

At one MSO operating in the New York City market, they are achieving a moving 4% - 9% participation rate in Spanish for their pre-appointment customer contact and are now adding Arabic and Mandarin. They, however, are detecting the language preference saved on the customer from previous contacts and from contacts happening in other parts of the company and playing the language accordingly, offering an option to switch. This is a departure from the normal; pick a language strategy in most contact programs and an example of how to further optimize the impact of language on your field service customer contact efforts.

- **Automated Mixed Mode** – Can your contact management foundation dynamically switch contact channels to accommodate real-time changes to the contact strategy on an individual customer basis on the fly? As customer contact preferences continue to evolve, it's imperative to be able to utilize a mixture of calling, emailing and texting to reach the customer for the job at hand and to begin to formulate histories, patterns and preferences for the customer about what channel works best in different scenarios and when each is appropriate and most probable to produce

results. Over time this data becomes invaluable and lends itself to more individual interaction management.

- **Call to Action** – It's one thing to remind your customer of their appointment and to give them options for confirming, cancelling, or rescheduling; it's another thing to effect actual cancellation policies through your automated contact efforts. Adding an effective call to action in the form of a cancellation policy, a warning or inversely to offer an opportunity for their compliance can tremendously increase response rates—we have seen as much as a 75% increase in response rates in implementing this optimization technique.
- **Reschedules Offered** – What if the customer can't make their scheduled appointment but they still require the service? Do you want them to have to first cancel their current appointment in the current interaction and then have to call back in to reschedule? Ideally your pre-appointment contact offers a reschedule option for customers falling into this category—typically in the range of 2-3%.

Transferring these customers to a live agent is the first step. However, MSOs wanting to avoid the cost of these transfer events, with the right real-time integration between their WFM and contact management systems, can automatically present alternative schedule slots, allowing the customer to select themselves, routing the cancel and reschedule back directly into the WFM and the active schedule and work queues.

- **Conditional Transfers** – Invariably a percentage of the customers you contact regarding their upcoming service appointments will have questions or will be confused. Providing a transfer option for these customers is a great way to increase the service provided in these interactions. That is assuming they are routed to an agent who has the right experience, familiarity and who can answer their questions.

Having your contact management system integrated with other support systems to do direct-to-agent transfers, bypassing the call center and the automated call distribution queue will not only save you cost it will make for a better, more aligned experience for the customer.

Contact Capabilities Optimizations. The flexibility, integration and dynamism of your customer contact capability drive the optionality you have with your pre-appointment confirmation and customer contact efforts. Optimizations in this category are designed to elevate the function across this critical component of your field service

operation and in turn increase both the probability of confirming and dispatching accurately.

- **Multi-Channel Capable** – If you're just relying on IVR calling to reach your customers in your field service function you are missing out on better aligning your contact strategies to those customers forming more definitive preferences for email or text based communications. Each customer deserves to be contacted in the manner they choose and you need a contact management foundation that is not only capable of simultaneously issuing IVR, email and SMS contact but doing so from a single, integrated platform. Attempting to reach the level of mixed-mode messaging that is expected today by customers is made that much more difficult trying to string together isolated systems, from different vendors, with different reporting interfaces and different rules, conventions and limitations—make the investment in a truly multi-channel contact management infrastructure.
- **Voicemail Detection > 90%** - Voicemail is pervasive and unfortunately there are no standards across the different systems out there from the mobile carriers, to VoIP providers, to even legacy answering machines still in use by older populations. As a result, detecting voicemail prompts from that of a live person remains challenging even for more sophisticated contact management solutions. It's important because when the contact system fails to properly detect a voice mail or answering service the system proceeds as it was a live caller. Systems with only marginal or limited detection capabilities will often play the live answer message on the recording which may not be appropriate because of length or message content; they are likely to only deliver a portion of the full message as the script plays before the recording triggers and it will contribute to the call status being logged as a message left (adequate for many field service operations to roll on) when the customer may not get the message or be able to understand it.

All of these conditions contribute to cost. Support calls, missed appointments, poor experience and satisfaction rating and repeat visits can all result from something seemingly as trivial as detecting a voice mail prompt. The truth is this is very hard and even harder to sustain performance above 90%. It takes different techniques and refinement at the technology level to accomplish this, but the payback is there in eliminating false positive customer “reaches,” missed appointments and the incremental cost from calls running full length that should have been cut short prior to crossing whole-minute calculations in determining calling costs.

- **Contact Throttling** – Contact throttling describes the ability for your customer contact capability to increase or decrease the amount of calls being made at any

one time based on a down or upstream condition; often the number of support resources on hand. Over time you should have a handle on transfer rates, reschedule rates and other metrics that indicate a live transfer to a CSR representative. Having the ability to factor those rates in future contact efforts and to tailor the amount of calls to prevent an overload on available resources is but one example where effective throttling can preserve the customer experience (i.e., no wait times on appointment reschedules) and contain cost. Field service contact operations should also consider further optimizing by using throttles by the number of calls per hour they want to manage, the time of day they want to squeeze all required calling into and/or according to a target number of surveys collected, or by the target number of appointment cancels or confirms.

In evaluating the performance of your automated contact management system you should consider a solution that has multiple throttling capabilities, giving you the flexibility to try different tactics and optimize accordingly.

- **Customizable Caller/SMS IDs** – The trend is growing that customers don't answer their phones if they don't recognize the number or the caller ID shows a block, private or unknown status. It's important for your customers to know who is calling them and by customizing caller IDs to reflect your business by name you will increase answer rates, and thereby cancel and confirm rates.

Don't expect this functionality out of the box from most contact management solutions. Getting caller ID functions to display properly across the scope of your field service footprint requires a mix of technology and experience in working with numerous calling circuit providers, mobile carriers and to design work arounds on the limitations they impose.

- **Customizing to Customer Preferences** – The customer is always right and this mantra is taking hold in terms of company-to-customer contact and the expectations customers have about being contacted, when, why and how. There are several ways to achieve higher customization. Many MSOs have begun offering a portal interface to capture preferences, but this preference can also be captured, or at least cross-referenced, with historical response rates. Traditionally SMS has the highest response rates with email offering the worst. Using these trends and evaluating the customer contact history can reveal a lot about the channel preference they have but also the best time of day to reach them and how far out they can be confirmed from the appointment date with a high confidence of showing on the day.

Performance Optimizations. Optimization opportunities in this category define performance benchmarks your field service customer contact operation should aim for to minimize downstream missed appointment, and thereby wasted truck roll rates.

- **Reach Rate > 95%** – Defined as either reaching a live person on a call or leaving a message, the first and most important benchmark to achieve is to sustain your customer reach rate over 95%. Without first establishing this performance, achieving higher-value performance benchmarks is more difficult, more costly and less like to be sustainable.
- **No Access Rate < 15%** – There are a variety of no access conditions facing your field service technicians and contributing towards your truck roll waste. Everything from person-not-at-home, to no-one-over-18-at-home, incorrect or missing cash on demand, failure-for-customer-to-prepare, to inability-to-access-equipment all represent waste in the system. MSOs wanting to further optimize the efficiency of their operation must design different messages and contact strategies to instruct, remind and confirm customers on the impact of these situations and minimize their drain on the bottom line.
- **Response Rate > 50%** – Reaching the customer is not enough, you need them to take action (DTMF key press, email response, SMS short code reply) for there to be a reasonable assurance that the customer will remain compliant in making their appointment and having taken any necessary preparations. This is where the quality of your message, the tone of the script, the time the message is delivered, the channel it is delivered on and even the language its delivered in all come into play. Most unresponsive contact with the customer is a result of one of these variables not being optimized and while the message may have been played, your field service operation cannot rely on it.
- **Avoidable Truck Rolls < 15%** – Avoidables is a new metric working its way into the MSO field service lexicon. It refers to actual wasted truck rolls that could have and should have never been allowed to roll in the first place—inaccuracies that should have been avoided. It is a metric that defines the potential waste in the system at any time and it offers a different perspective than actual missed appointments as it provides a future target to optimize; versus an accounting of what happened.

MSOs should aim to keep their potential avoidable truck roll rate to under 15% for any given service workday.

- **Satisfaction Rates Up and Escalation Rates Down** – An indirect measure to indicate that your field service customer contact optimizations are paying off is seeing declines in service escalation calls coming into the call center and an uptick in satisfaction rates from post-visit survey results.
- **ATTR & ATTI Rates Declining** – Are you seeing impact on your average time to repair (ATTR) and install (ATTI)? You should see the benefits of more optimized field service customer contact impact the efficiency of the repair or installation visit as well. We see reductions in the range of 3-5% for ATTR and ATTI metrics as a result of the customer contact optimizations happening in other facets of the operation—a positive indication that inefficiency is being weeded out of the system.

Policy Optimizations. The policies that constitute your field service operational model have the most profound impact on your ability to dispatch accurately as they represent the greatest impact on what you do with unconfirmed customers, what you do to verify previously confirmed customers prior to rolling and what you are doing to ensure that the right people, equipment and experience route to the right appointments.

- **Dynamic or Bulk Dispatch** – How you dispatch determines a lot on the contact side of your field service operation. Those doing bulk dispatch out of the WFM to the technician pool at the beginning of each workday are limited in what they can do to make changes to the prescribed routes the technicians work from when changes in customer status are received through contact efforts. In bulk dispatch models customer contact is limited in terms of the benefits it can provide in containing cost because the result of those efforts are not easily factored back into the operation to divert technicians away from remaining unconfirmed appointments or to proceed to the next appointment when a cancel or reschedule request has been received.

This is why a move to dynamic dispatch is advised. With an integrated dynamic dispatch the results of your pre-appointment customer confirmation contact can update the technician on a specific route, allowing them to avoid rolling to a no-access or missed appointment scenario and generating \$50-150 dollars in waste for the operation.

- **Rolling on Unconfirmed Appointments** – Are your technicians still rolling to unconfirmed appointments? If so you should consider updating your appointment cancellation policies and injecting corresponding messages into the various customer contact strategies you are employing to confirm customers. It's often this

last step that precludes the first step (having a defined cancellation policy for unconfirmed customers).

Upgrading your pre-appointment customer confirmation contact can eliminate vast amounts of wasted truck rolls from your operation. However, getting the delivery and message clarity of cancellation messages to the right customer takes refinement and testing so that you don't save money on truck rolls at the expense of more unhappy, confused and downright mad customers calling into your call center, or worse broadcasting it to the world. The best practice is to start in a small footprint, refine policies and messages and analyze results till you achieve the right balance—progressing with a tempered roll-out into other markets and regions you serve.

- **ETA Contact** – Are you calling or texting your customers to alert them on how far away the technician is from the customer's home/business? Providing an estimated time of arrival shows the seriousness and professionalism of your field service operation and provides a last opportunity to contact the customer to make sure they are at home or soon will be, prior to the technician committing to rolling to their address. Effective ETA calling, whether done by technicians themselves or through integration between the WFM and automated contact (IVR and/or SMS) system can further weed out the impact of unconfirmed customer appointments, saving cost, while positively impacting the customer experience and overall satisfaction.
- **Jeopardy Rules** – Similarly to ETA calling, jeopardy calling to inform the customer that the technician is running late or is not going to make the appointment shows your appreciation of the customer and their time. Optimizing your field service contact model to include jeopardy calling will minimize poor survey scores and angry customers calling into the call center, all of which incur direct and indirect cost for the operation.
- **Repeat Handling** – Unfortunately for the customer, not every service repair or installation goes cleanly and is completed in a single visit. When these situations present themselves the key is to impart as much empathy and care into the message to inform the customer that a repeat visit is required to complete their service ticket. Optimizing the language used to convey this disappointment to the customer is key, and although outside of the technical side of your customer contact model, how good a job you do in constructing the message can impact the downstream support cost you incur.

- **Work Order Validation** – Are you confirming the customer's work order before you roll to their appointment? How about the work address and any payment arrangements? Often customers forget or are simply confused when they initially schedule their repair or installation appointment. Sometimes they just change their mind or something happens in between the time the appointment was scheduled and the time of the service visit. Regardless of the reason, it means another wasted truck roll for your operation. Presenting the work order detail to the customer ahead of the appointment to confirm helps to avoid these situations, adds further clarity to the WFM in scheduling (scope and level of effort of the work order) the technician's route accordingly and shows the customer a high degree of professionalism all of which contains cost and improves satisfaction.
- **Providing Job Completion Estimates** – Are you being proactive with your customers? Are you informing them of when the technician will arrive but also how long the repair or installation should take to complete? Adding in a job completion message in your ETA calling can further inform the customer and compel their compliance to be at home as it provides a negative incentive to miss the appointment; "If I miss this appointment that's another 2 hours I will have to deal with." It's subtle but it does have impact that can further optimize missed appointments from the system.

What Returns are Possible from Optimizing Your Field Service Customer Contact Program?

The approaches detailed in this whitepaper will provide your field service operation the visibility, the technical and support infrastructure and the best practices needed to systematically optimize your field service performance and the underlying cost to achieve it.

Nothing can justify this claim more than actual results.

Actual Results Produced Using This Approach

In helping a number of national field service operations orient their field service operations to: 1) the importance of changing customer dynamics, 2) the need for effective program support and 3) how to leverage a best practices approach to optimizing their field service customer contact programs, we have witnessed the following results:

- 10-15% reduction in missed appointments

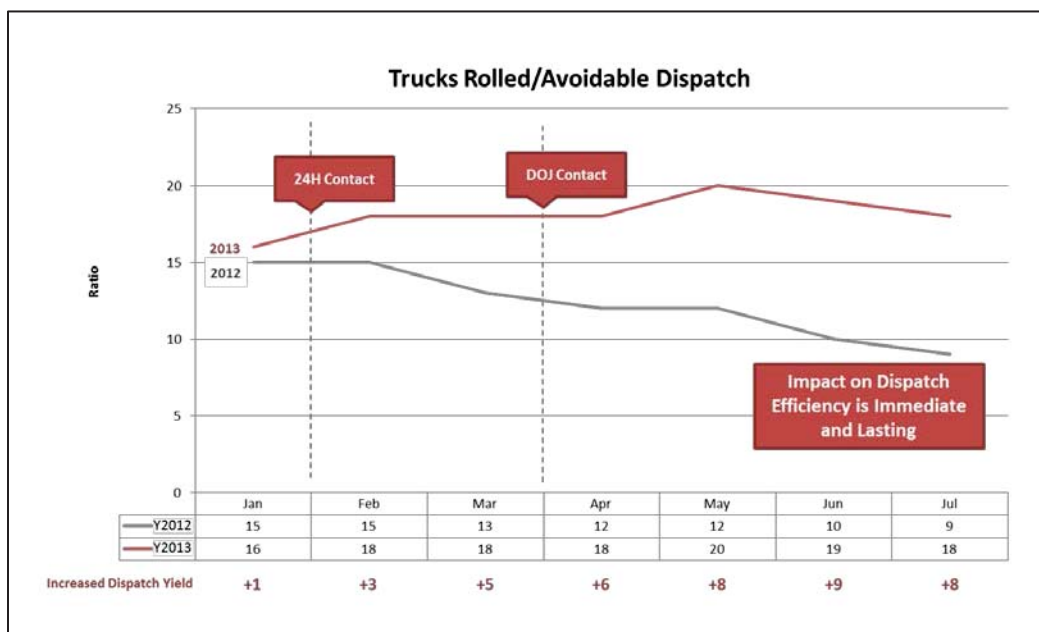
- 8-12% reduction in repair-no-longer-required service visits
- 15-20% reduction in wasted truck rolls for not-at-home service visits
- 70%+ day of job confirmation action rates
- 69%+ of unconfirmed repair appointments being completed by the end of the dispatch window and do-not-come-back in the next 7 days
- 3-5% increase in service completion rates (positively impacting ATTR and ATTI metrics)
- 4-8% reduction of “where’s my technician” calls into the call center

While your results will depend on a number of factors not covered in this whitepaper, these ranges should serve as a target to aim for in your field service customer contact optimization objectives.

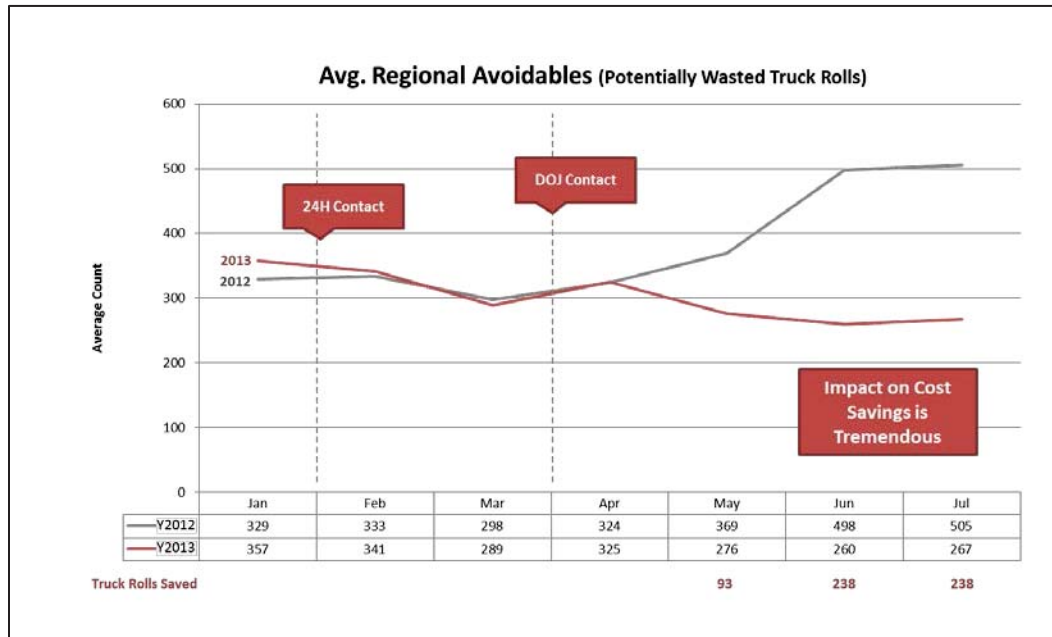
Sample Results from a National MSO Field Service Operation

In addition to the range of results we have helped produce, we offer the following evidence for your consideration:

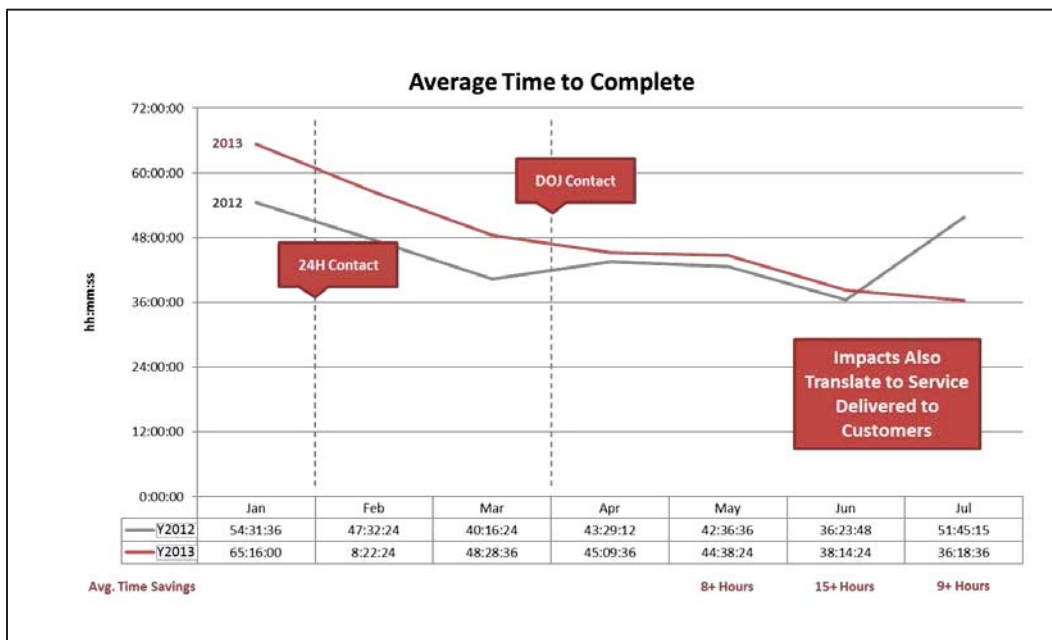
Target Impact on Avoidable Dispatches:



Potential to Save High-Probability Wasted Truck Rolls:



Indirect Impact on ATTR and ATTI (Time to Complete)



Additional ROI Factors

In addition to the direct impact on field service performance, effective field service customer contact contributes to a broader return on investment to your operation in the following ways:

- Revenue Attainment
 - Minimize Days Positive Revenue Outstanding
 - Happy Customers Buy More Service/Features
- Improved Customer Experience
 - Perceived Wasting of Customer Time
 - Keeping Customers Informed
- Empower Greater Service Differentiation
 - Shorter Appointment Lead Times by Reducing the Noise from the System
 - Shorter Appointment Windows
- Improved Customer Loyalty and Retention
 - Proactive Reminders & Relationship-Building Customer Interactions
 - Message Personalization
 - Channel Personalization
- Downstream Cost Reductions
 - Prevent Calls into the Call Center
 - Human and System Rescheduling Cost
 - Reduced Escalations and Go-Back Rates
- Better Utilization of Resources
 - Reduce Upwards of 30% of Expensive Wasted Visits

Why Optimize Field Service Customer Contact?

In a time where customer satisfaction is as equally important as strategic cost management, MSOs need to continue to optimize the efficiency and effectiveness of their field service contact processes. As the customer contact landscape continues to evolve and expectations increase, MSOs who can deliver quality, precision and tailored contact to their customers as part of their field services will build stronger loyalty and improve their reputations, creating the opportunity to establish sector leading performance.

With advancements in customer and workforce management the next logical area to continue to produce returns from is in customer contact. With a multi-channel contact capability that is dynamically intelligent, fuelled with customer history and preference information and that is tightly integrated into the other technical foundations of the operation, there is no limit to the amount of optimization that can occur—regardless if your objective is cost containment, workforce utilization, improved customer experience or all three.

We hope the information in this whitepaper provides evidence of a growing trend in the importance of customer contact in field service operations and that we have provided an actionable roadmap for what optimizations to explore, what they can deliver in terms of impact and what the key interdependencies between them are—all so you can prioritize your own field service customer contact optimization plan.

Abbreviations and Acronyms

CEM	Customer Experience Management
CRM	Customer Relationship Management
EFM	Employee Feedback Management
ETA	Estimated Time of Arrival
IVR	Interactive Voice Response
MSO	Multiple System Operator
SMS	Short Message Service (Text Message)
TXT	Text Messaging
WFM	Workforce Management