

Action Manager

AMI Operations Management

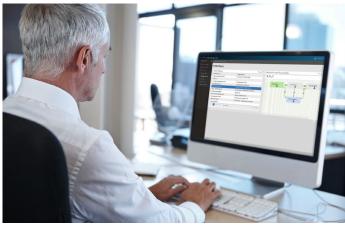
The performance and value of any AMI operations solution is not measured by just identifying problems that occur in the field, but by the swift and efficient resolution of these problems. By attacking operational challenges using a well-coordinated operations team applying an effective set of investigative and corrective workflows, you can ensure that your AMI system is delivering strong business value consistently day in and day out.

Action Manager provides a highly innovative tool and framework to manage— and even automate—resolution of all types of exceptions and incidents at scale. Action Manager's framework provides the ability to receive externally detected faults from source systems and, based on a configurable set of priority rules, progress those faults through a designated workflow to ensure the problems are resolved in a timely, efficient and consistent manner.

These workflows include both manual steps performed by individual personnel as well as automated actions executed by Action Manager. Together, these make up a logical, path-based progression that assesses state, investigates the problem and applies the appropriate corrective action.

Action Manager extends the capabilities of Performance Manager by streamlining, automating and tracking the exception management process. Conditions that require attention are identified by the source system application and handed off to Action Manager to execute predefined workflows. This includes assessing the state of the device using various means, such as pinging the device, performing an on-demand read, checking device time, and, if necessary, creating an investigative or replacement work order. Establishing ownership of tasks drives a division of responsibilities and greater efficiency. Action Manager eliminates duplicate work and ensures that exceptions requiring certain skill sets are assigned to operators who possess them. By tracking the status of all

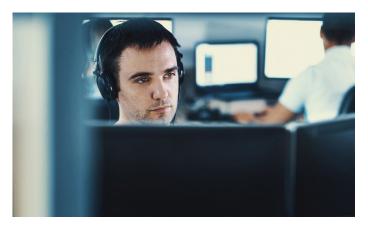




exceptions across workflows and by monitoring the workload across members of a team, you can stay well-informed about the state of the system and the distribution of work across your team.

Not all problems are resolved in the back office. Occasionally, an exception requires an in-field investigation or a device replacement. Action Manager integrates with work order management systems for dispatching work to the field for investigation or replacement as part of an automated workflow. With a well-defined workflow, you can ensure that investigative due diligence is performed prior to issuing a work order and rolling a truck.

The ability of Action Manager to provide comprehensive visibility, actionable information and valuable feedback increases team effectiveness and enables a fully integrated operational experience from the back office to the field. Through its customizable framework of steps and workflows, a configurable set of work assignment rules and optional automation features, Action Manager enables operational teams to take performance and efficiency to a new level.



With Action Manager, you benefit by:

- » Knowing and understanding workload—Any defined set of work requires clear ownership and an anticipated timeline to complete the work. Through assignment and duration tracking, Action Manager allows operations teams to establish ownership and accountability in investigating and resolving the day-to-day exception workload.
- » Ensuring issues are resolved—Identification of a problem is important, but resolving it is more important. Action Manager ensures that all issues are tracked and managed fully to resolution.
- » Automating the automatable—Not all work requires operator intervention or oversight. Action Manager comes with a set of optionally automatable workflow steps that the application is capable of executing on its own.
- » Spreading the workload evenly across the team—Work hours are finite and operators only have so much bandwidth. Action Manager provides visibility into all the tasks assigned to operators so that the workload can be evenly spread across the team to avoid any resource overloading.
- » Funneling exceptions to operators with the appropriate skillsets—Different operators have different skillsets and specialties. More experienced operators typically have more advanced permissions and access privileges than new team members. In Action Manager, work is assigned to operators with the right skills and permissions for each step of a workflow.
- » Consistently applying corrective actions—When investigating an endpoint problem, attempting to establish communications with an endpoint or applying corrective actions, Action Manager and its predefined workflows enable operations teams to apply a consistent and repeatable process flow to exceptions detected in the field.

- » Flattening the operator learning curve—AMI operators require training and acclimation prior to running the system. By presenting the work inside of Action Manager's defined workflows, new operators can hit the ground running as the application guides them through each workflow step.
- » Measuring the effectiveness of investigative steps and corrective actions—Performing the work is important, but is it the right work? Is that work worth the time spent performing it? By tracking the history of workflows and the outcome and duration of each step, your operations teams can evaluate workflows on an ongoing basis to improve their effectiveness.
- » Connecting the desktop team with the field technicians— Back-office operators on an operations team spend their day in an office. Field technicians spend their day in their vehicles and in the field. It's difficult to keep the two groups in sync and aware of what each is doing. Action Manager brings these two groups together as a single team through work order integration, shared workflows, customizable field notes, investigative outcomes and attempted corrective actions.



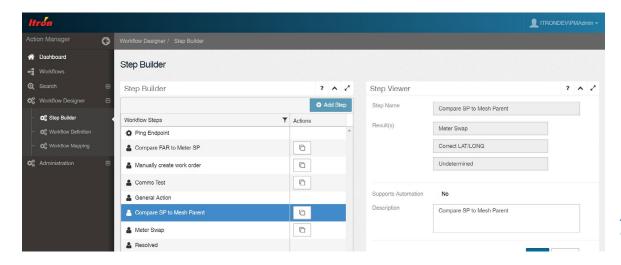
- » Facilitating the network mitigation process—Network mitigation is the process by which the communications network is extended and enhanced to address hard-to-reach areas. This process includes a series of steps that must be followed in succession so that hard-to-reach meters and devices can be identified as a case, surveyed, mitigated and resolved. Action Manager workflows provide the proven framework needed for utility deployment and operations teams to employ their own network mitigation procedures and track the status and history of each mitigation case.
- » Tracking operator productivity—Different operators work at different paces. Certain workflow steps require more time to complete than others. Using Action Manager, an operations manager can see the steps each operator completes, the operators that are resolving the most exceptions and how long it takes operators to complete their work.

FEATURES AND CAPABILITIES

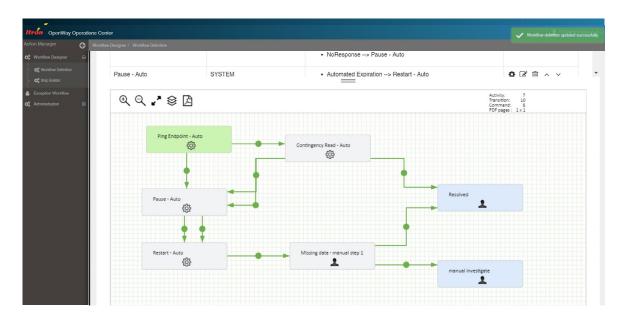
Workflow Definition

An Action Manager workflow is a sequential series of steps and outcomes that include investigative and corrective action process flows that can be applied to exceptions identified in the solution. Each step includes an assigned operator, a start and end time, a description and a list of possible outcomes from which to select.

When using Action Manager's Step Builder, you are able to build your own collection of steps each with their own set of configurable outcomes. Those steps, along with Action Manager's out-of-thebox automated steps, may be configured with assignment rules and grouped together into logically sequential workflows using the Workflow Designer. These workflows, when mapped to an exception, will be automatically initiated by Action Manager when it receives an exception of that type. This customizable click, drag and drop framework ensures that workflows can be constructed to meet the needs of an operation team's exception management approach and investigative processes.



Action Manager – Building an Individual Workflow Step



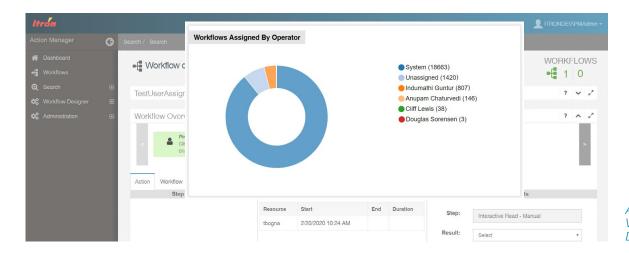
Action Manager – Defining a Workflow

Resource Allocation

Resolving issues quickly and efficiently requires not only an effective detection scheme and a sound response plan, but it also requires a skilled and knowledgeable operations team to carry out the necessary corrective actions. For a team to achieve true efficiency, it is imperative to avoid common pitfalls such as unnecessary rework, procrastination, poor prioritization, orphaned tasks and collision of duplicate efforts.

Action Manager workflows provide direct assignment of resources at the individual step level, so each workflow

component has a clear owner on the operations team, which prevents important work from slipping through the cracks. Configurable assignment rules allow an operations manager to distribute the work to the operators that possess the matching skillsets and divide that work evenly across the team. Action Manager's exception aging and tracking of the historical duration of each workflow step give managers a true view of team productivity and responsiveness.

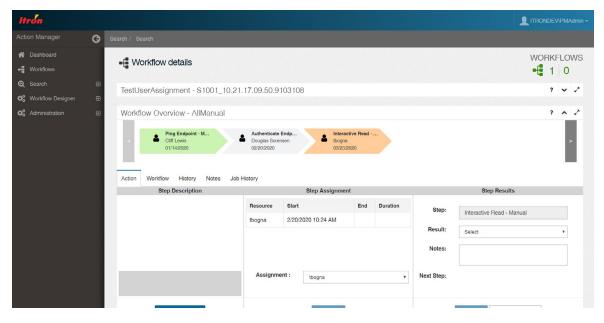


Action Manager – Viewing the Real-time Distribution of Work

Workflow Progression

Once the exceptions have been identified and the tasks assigned, it is time for the operators to do their work. Using Action Manager's workflow view, operators can see relevant data elements and metrics associated to an exception as provided by the source system. They can specify the actual outcome of each step, which drives how the exception progresses through a workflow. Within that step-to-step progression, operators can include notes and comments along the way for their peers to view.

If automated steps are included as part of the workflow, once the step becomes active, Action Manager automatically performs the task, monitors the outcome of the step and upon step completion, progresses to the next step based on the final outcome. Action Manager comes with a set of pre-defined automated steps that your utility operations team can include in any of their workflows. These automated steps include endpoint ping, on-demand reads, reregister endpoint, re-authenticate endpoint, synchronize time and process work order.



Action Manager – Workflow Instance View



PROVIDING A SERVICE TO SOURCE SYSTEMS

Exception Management with Performance Manager

Exception management in Performance Manager focuses on handling cases where the system and endpoints exhibit behavior that can disrupt the consistent delivery of data to the business and thus negatively affect Service Level Agreements (SLAs). Performance Manager uses read rates, endpoint reliability, job error codes, and other attributes and conditions to drive the automatic creation of exceptions. Action Manager, upon receiving those exceptions, will initiate the right workflow to drive the necessary investigative and correction actions. Upon resolution of the exception, Performance Manager clears the exception and alerts Action Manager to close the workflow. Through the initiation of an effective workflow and by attaching the right level of priority, you are better able to maintain your SLAs by comfortable margins.



Join us in creating a more **resourceful world**.

To learn more visit **itron.com**

2111 North Molter Road Liberty Lake, WA 99019 USA

Phone: 1.800.635.5461 Fax: 1.509.891.3355