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Up Your Uptime with Automation: Outage Pre-Verification

Joann Shumard

VP, Engineering Operations
Comcast
770.652.3836

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Focus Areas

What is Outage Pre-Verify (OPV)?

Process Alignment

Simplification/Automation Opportunity Identification

Solution Development- The Automation!

Change Implementation

Value and Results

Conclusion

OPV is node triage activity to validate the outage

Nodes go into soak when a certain percentage of modems served by that node goes through a registration state change (to offline)

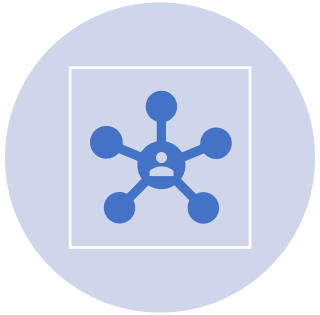
Our Operations Center Technicians have a standard set of LOQs (Lines of Questioning) they execute on nodes that remain in ‘soak’ after 10 minutes to gain more understanding of the outage and to verify if a fix agent dispatch is needed

Process alignment is critical to single-solution development

- Review all relevant processes and find or create a best process (utilize your data, KPIs, SLAs and more)
- Manage teams through the change to achieve process sameness
- Measure and report results of best practice implementation
- Partner with tool/system teams to deprecate unused tools, processes, etc.
- Utilize resource efficiencies for one solution and one process going forward

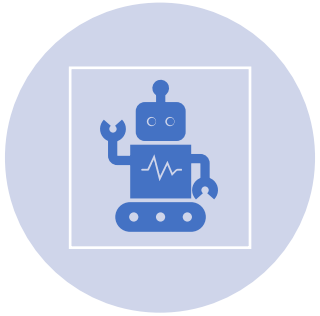
Once process is the same, find efficiency opportunities

Are there repetitive or non-complex tasks that can be automated?



Is there information from the network to provide insight?

How might Machine Learning be applied?



What work can be automatically dispatched without manual intervention?

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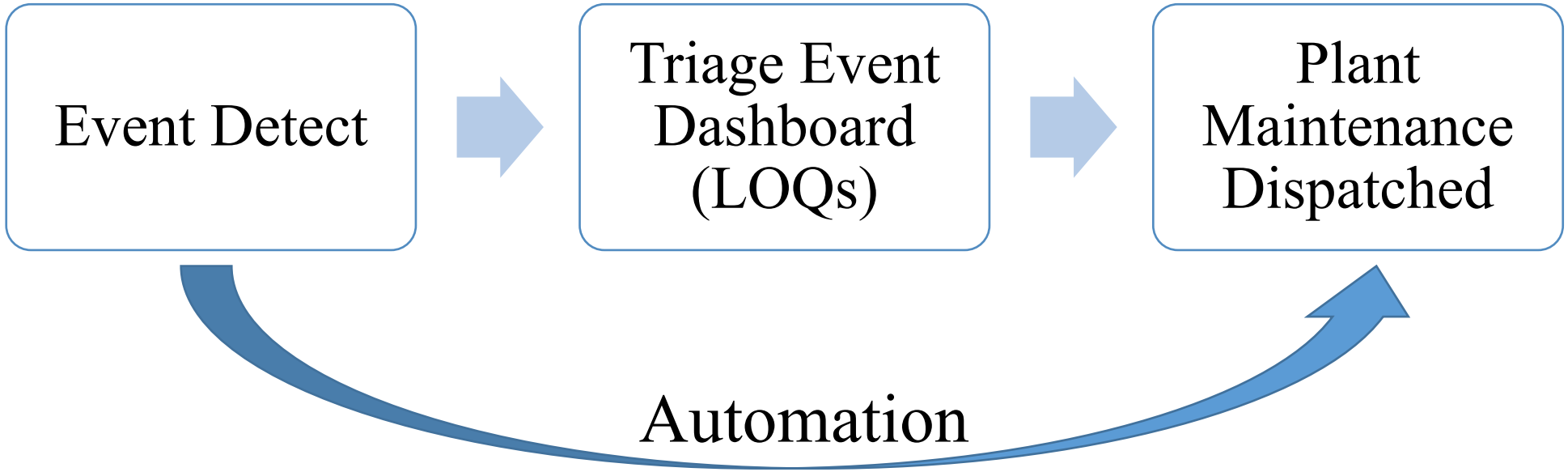
Technical Development

Agile methodology applied to standardized manual processes.

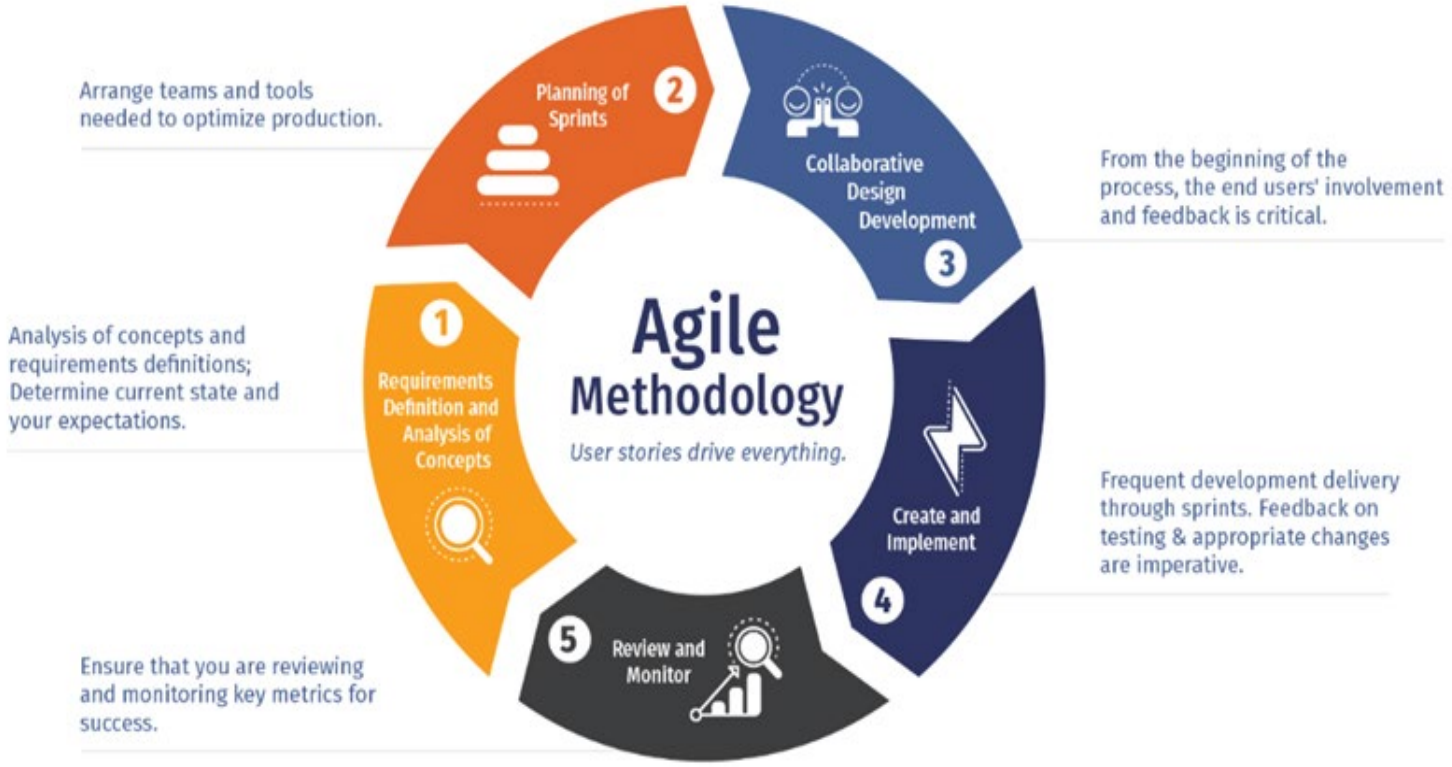
Transforming manual LOQs

- Dashboard event creation
- Manual triage of events to initiate LOQs
- Ticket acknowledgment to plant maintenance dispatch

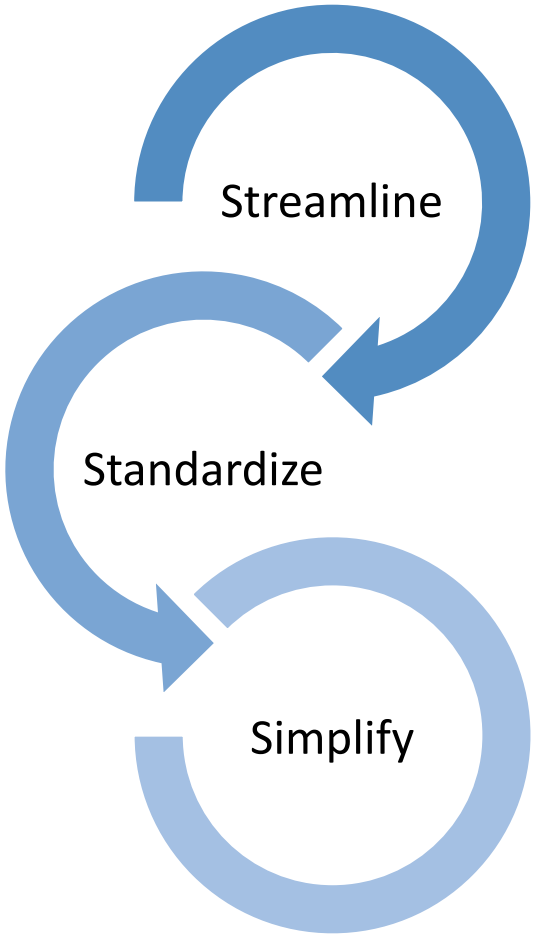


Users drive the development requirements

- LOQ integration into requirements
- Clarity in task prioritization
- Continuous user feedback loop
- Analyzing results
- Achieving incremental milestones
- Standardized process commitment



Power of Automation



Logic

- Upstream Utilization (US)
  - Identification of a significant drop in US traffic
- Upstream In Bps
  - Identification of a significant drop in US traffic
- Power Supply Telemetry
  - Identification of power current change
- Node Device Offline %
  - The Whole node was determined as a whole node outage with a % of the devices being offline
- IVR Call Threshold
- Storm Mode Status

User acceptance of technology

- Trust-skepticism balance is a concept where embedded knowledge must be balanced with accepting the new technology
- Trust is built based on understanding the data
- Confirmation of accuracy can depend on the skills of those receiving the new information
- Trust built on a cycle of confirmation and perceived value
- Building trust is a key to adoption and acceptance

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Change Process and Business Value

Operational integration and impact on business value.

People change is just as important as technical change

A	**Awareness** – Of the need for change
D	**Desire** – To participate and support the change
K	**Knowledge** – On how to change
A	**Ability** – To implement desired skills & behaviors
R	**Reinforcement** – To sustain the change

With OPV, teams were aware that efficiencies were needed to keep up with the workload.

There was desire to implement automation.

Ops teams participated in the testing/trial and knew how we had to change.

There was more complex work to be done by the teams once OPV automation was introduced.

Results are calculated, shared and celebrated

Business Value Assessment

Results: a reduction in the overall number of nodes to be triaged, a reduction in total company average triage time, and a reduction in unnecessary truck rolls.

Nodes to be triaged are down because automation is determining commercial power outage before an operations center technician has to begin triage

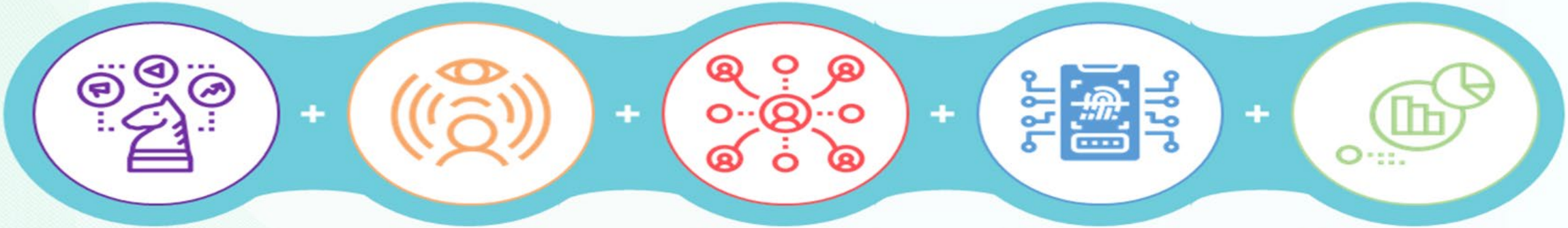
The solution development team initially expected to save 3 minutes per triage as the automation allowed us to eliminate some of the LOQs (Lines of Questioning). The solution is delivering above 4 minutes on average.

The increase in Division Average Completion Time occurs as the division has experienced enough node soak triage reduction, they now have more time to triage, resulting in higher quality triage activity

24% Reduction in total truck rolls | 48% Reduction in average triage time | Quarterly minutes saved: 250k

Quarter	# Triaged	Avg Completion Min	Avg Min on Dash	Max Min on Dash
OPV Prior To Automation	220,917	9.8	18.6	797
OPV With Automation	167,958	5.1	12.2	594
Reduction/Improvement	**52,959**	**4.7**	**6.4**	**203**

Conclusion



- ✓ Automation Vision
- ✓ Business Objective
- ✓ Stakeholder Engagement
- ✓ Process Alignment Analysis
- ✓ Transaction Impacts
- ✓ Change Impact
- ✓ ADKAR Methodology
- ✓ Building Trust
- ✓ Digital Adoption
- ✓ Inclusive, agile development
- ✓ Applying digital automation
- ✓ Integrated Feedback
- ✓ 24% Transaction Reduction
- ✓ 48% Reduced Task Time
- ✓ Resource Optimization

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Thank You!

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