Water Services Division
Digital Innovation Journey

Presentation to Standing Policy Committee for Innovation

Winnipeg

Water Services Division: Digital Innovation Journey

Initial State - 2017



No ability to view work on a map to support operations. Work assignment to the crew is done through paper and phone calls as there is no internet connectivity capability out in the field. Data is hard to maintain and processes rely heavily on paper (i.e. logbook) and manual workflows.



311 receives calls from public, but the service request or work status information at that time may be unavailable or limited.



Management does not always have timely information on location of crews or status of work. Manual processing and mapping information can create delays during peak operational activity.



Public access to information is minimal and it is not available in real time. Work locations that impact customers are described in text format only and not mapped.



Other divisions and departments have to request an export of data on case-by-case basis. Information is aggregated across multiple applications and cleaned up before sharing. Data exports and reports quickly become outdated and version control is hard to maintain.

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Initial gaps Water Services needed addressed



Establish a real-time map of work activity and specific asset information



Enable documentation of field activities electronically to avoid additional work/re-work and reduce manual effort to fulfil data and information requests



Store historical operational data in a single repository, so accurate information can easily be retrieved for record keeping and claims



Provide reliable channels to 311 and public to get accurate and timely information about water activities and temporary emergent locations

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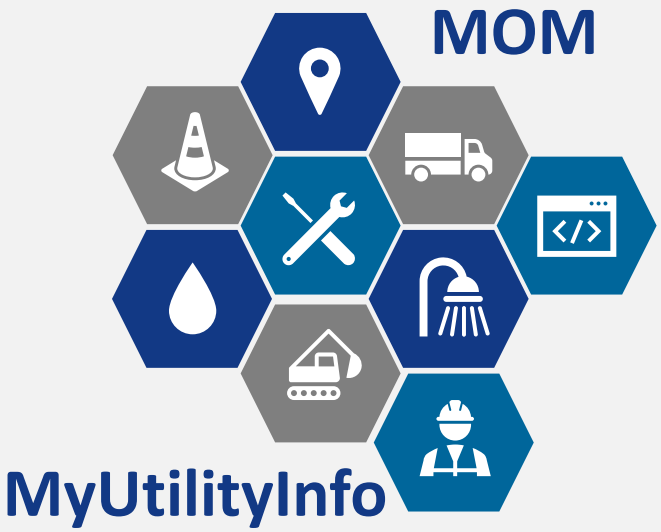
Solution



Mobile Operations Management (MOM) is a web portal and mobile app that helps manage day-to-day work within the Water and Waste Department (WWD).

MyUtilityInfo is a public portal which provides information about WWD operations relevant to the residents of Winnipeg. (https://myutilityinfo.winnipeg.ca).

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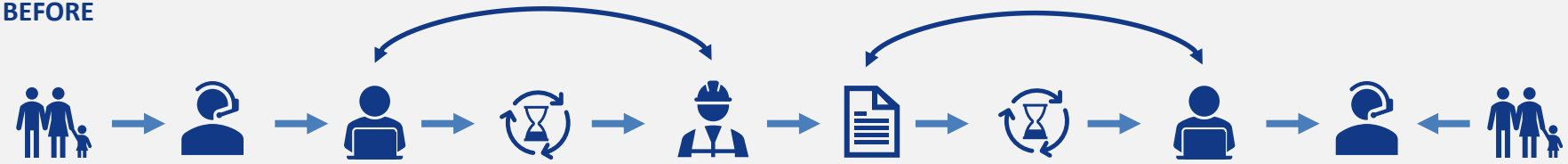
A day in the life of Emergency Night Crews

BEFORE



Resident reports an incident to 311

311 records information in EM Professional

WS Dispatcher gets service request from EM Professional and calls the crew to schedule the work

Crew either confirms the work or asks Dispatcher to contact the other crew

Crew performs the work and fills in information in paper logbook

Crew calls night Dispatcher with information to update EM Professional

311 gets updated EM Professional ticket

Resident can request update on the incident, but information might not be up-to-date

AFTER



Resident reports an incident to 311

311 records information in EM Professional

Crew sees service request in MOM, performs the work and updates the ticket. In case of work conflict, the crew is able to self-dispatch work to other crews.

311 gets updates on EM Professional ticket in near real-time

Resident can request and receive a near real-time update on the incident

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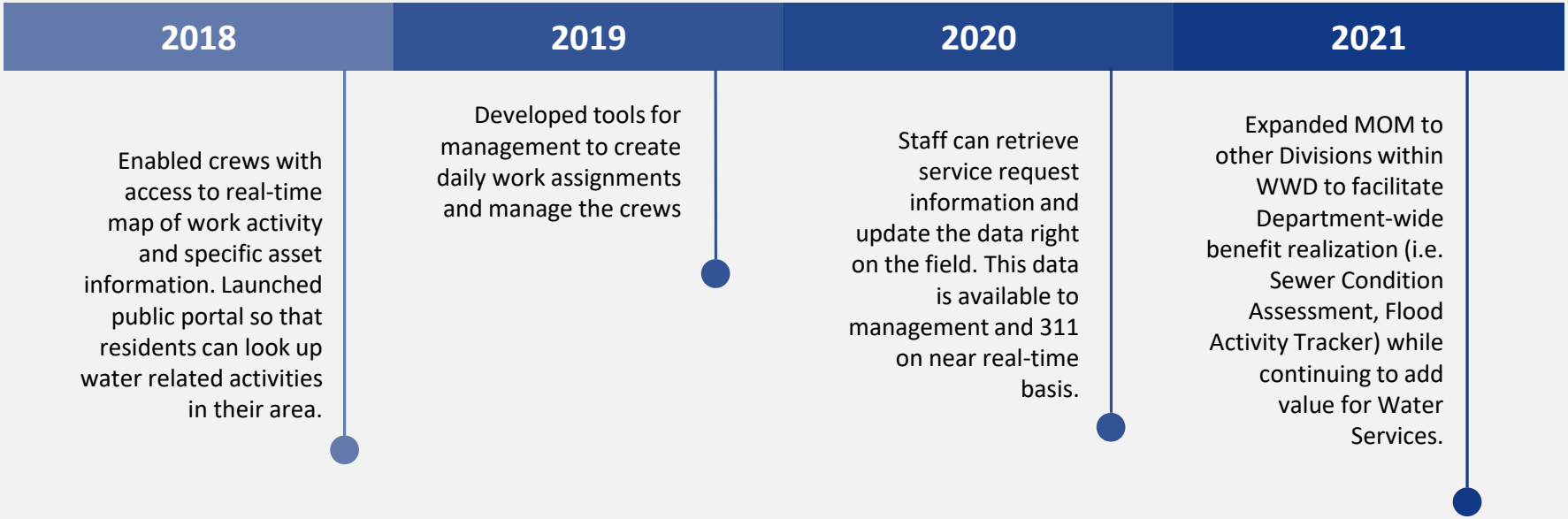
Benefits realization timeline



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Current state – 2022



Provided crews with access to work details in a map view, and enabled the ability to update information out in the field. This improved the accuracy and quality of data, as well as timeliness of case resolution during off hours and emergency response time.



Management can easily create daily work allocation and optimally assign tasks to the crews. Any changes to the work plan are visible to the crew in real-time and displayed on TV monitors in common areas.



Other divisions and departments have access to consolidated and accurate information that improves collaboration efficiencies between the teams.



Direct updating of service request details by field crews enabled 311 to have near real-time data.



City of Winnipeg residents can use the public portal (MyUtilityInfo) to look up the water related activities in their area. The information is near real-time and displayed on the map.

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Value added development

STATE OF THE ART TECHNOLOGY

Both MOM and MyUtilityInfo are part of same application framework and are built using the most modern techniques and technology.

FASTER TIME TO DELIVER CHANGE

New features and modules for divisions and other stakeholders can be created and delivered faster! Common foundation and services reused to meet new business needs.

REDUCED COST OF INFRASTRUCTURE

Since servers are shared between multiple lines of business/divisions, MOM's operational cost is as efficient as possible.

EASY INTEGRATIONS

WWD Divisions and other stakeholders beyond (e.g. 311) can benefit from MOM's expanding library of various modules and system integrations to achieve their business needs.



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Thank you

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