# Email in OM FY20Q3

November 2019

# This document outlines the plan for enabling Assistant-triggered emailing from Outlook Mobile for enterprise employees with their primary work account.

# 1. Problem and Hypothesis

## Problem

Email is a core workload for IWs and on mobile device they must use numerous clicks in order to initiate a simple email, enter recipients, type in the subject line, and then add a message body. Based on [user studies](https://ghe-us.microsoft.com/outlook-mobile/research/issues/76) by the Outlook Mobile team, use of an assistant to simplify the parent app experience, and to accelerate everyday jobs provide a lot of value and can quickly build a use habit.

In the case of the proposed work, the aim will be to accelerate the most common email flows. To set the context, let us examine how many clicks are needed in the most basic email composition.

## Current Email Experience in OM (iOS)

A screenshot of a computer

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Let’s count the touches required:

1. New email
2. N number of clicks to a recipient’s name to type down
3. Select the name
4. Repeat again for additional recipients
5. Place focus on the subject line
6. Type the subject line
7. Place focus on the body
8. Type the body.
9. Hit send.

Total = 5 field selection touches + N recipient touches + N subject touches + Type out the body + Send

Total ~= 6 required touches + typing needed for recipients, subject, and message body.

## Hypothesis

We believe enabling email in Outlook Mobile (OM) through voice input that we will:

1. Reduce the required field selection touches needed to initiate emails by 50-70% on average.
2. Reduce the time on task to send an email via Outlook Mobile by 30%.
3. Demonstrate a statistically significant shift in the number of short emails sent via mobile using voice compared to users employing touch only email creation.\*

\*Definition of “short emails” requires additional study and data from Outlook.

# 2. Goals & Constraints

## Goals

* Initiate new email composition using voice
* Support voice invocation of a blank email compose screen
* Support voice-initiated emails to a single recipient (e.g. Send an email to Jane”)
* Support voice-initiated email to single recipient with disambig (e.g. Send email to Jane (actually John))
* Support single shot email to self (e.g. Send me a note to work on the budget)
* Support single short email to a single recipient with a message body pre-filled
* *(Stretch goal) Support voice-initiated emails to a two-recipients (e.g. Send an email to Jane and John”)*

## Constraints

* No email composition within Cortana canvas. Direct hand off to native UI only.
* No multi-turn (also no refinement)
* No voice output
* No file attachment by voice
* No reply and no forward ability (e.g. Cannot start from an opened email and say “Reply to this and say <message body>”)

# 3. Scenario Walkthrough

**Invocation**: Assumes invocation will always be through the search box microphone at this time. This is expected to change as the invocation design exploration progress. The hope is to eventually initiate email actions with voice from any OM screen and be able to factor that context into the LU.

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* Link to full design deck by [@Rachel Ng](mailto:Rachel.Ng@microsoft.com) : [Here](https://microsoft.sharepoint.com/:p:/t/CortanaDesign833/EechaCMhfHlMvQctL1jwlxcBylD7iqy-g7gtbWYqzcgjOw?e=pJES2h)

Scenario 1 - Single shot email *(incl. recipient and body)*

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Scenario 2 – Send an email *(recipient only + disambiguation)*

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Scenario 3 – Send an email *(intent only)*

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Scenario 4 - Send an email *(intent + subject)*

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Scenario 5 - Send a note to self

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# 4. Timeline

Targeting OM beta FY20 June

# 5. Proposed Work & Support Needed

## 5.1 Discoverability and awareness of the skill

|  |  |
| --- | --- |
| Propose Work | Support Needed |
| Add email skills to hints to spur usage. | Need NL capabilities to be enabled, designed, and configured.  POC: [@Beryl Li](mailto:berylli@microsoft.com) & [@Jose Rady Allende](mailto:joserady@microsoft.com) Add a description. Press tab when you are done. |

## 5.2 Functional requirements

|  |  |  |
| --- | --- | --- |
| Use Case | Work Needed | Support Needed |
| Email <contact> <subject slot> <message slot> | 1. Ability to recognize the right intent  2. Ability to recognize the right name  3. Ability to recognize subject and message body within the command | -LU enable the email creation model and analyze the slots -3S return the actionable answer with recommended contact with confidence labels -Client work to hand off to native app for email creation and slot prefill |
| Disambiguation | Build the disambig flow and allow users to self correct & pick the right contact |  |

## 5.3 Accessibility requirements

|  |  |
| --- | --- |
| Proposed Work | Support Needed |
| Pass iOS test with VoiceOver enabled |  |
| Pass Android test with TalkBalk enabled |  |

# 6. Metrics and Telemetry

In order to determine success of the feature as outlined in section 1, we need to gather the following telemetry on usage and understand the user flow dropout rate:

* E2E Task completion rate  
  Funnel analysis with task cancellation rate, abandonment rate and success rate
* Steps/clicks/time saved on email task for both touch and speech-initiated emails to measure the efficiency vs. existing email creation flow
  + Start: Mic invocation
  + End: Email is sent
* Number of emails initiated using touch for voice enabled users
* Number of emails initiated using speech for voice enabled users

# 7. Open questions

* Work with LU team to enable supporting multiple recipients
* Work with LU team to understand how many ways can a user say “note to self”? Will LU handle all these variations ranging from “Me”, “”, to “remind me”.

# 8. Resources

[S+A Github issue 31](https://ghe-us.microsoft.com/Fast/Search-Assistant-Product-Design/issues/31)

# 9. Appendix -Email grammar

## 9.1 Email subject

* Don’t leave the email subject empty. If the user doesn’t specify the subject of the email, we should add something such as “Quick note” as the subject.
* Capitalize the first word of the subject, as well as any proper nouns, but begin any other words with lower-case letters.

## 9.2 Email massage/body

* Capitalize the first word of the sentence and any proper nouns, but begin any other words with lower-case letters.
* Use periods to end sentences.
* Use commas to separate concepts.

Backlog for FY21Q1

* Use question marks to end questions.
* Use quote marks to set off direct quotations.