

Improving company communication for remote working: a use case

Candidate: Andrea Scibetta

Supervisor: Luigi De Russis

Company tutor: Marcello Cerri – Cluster Reply

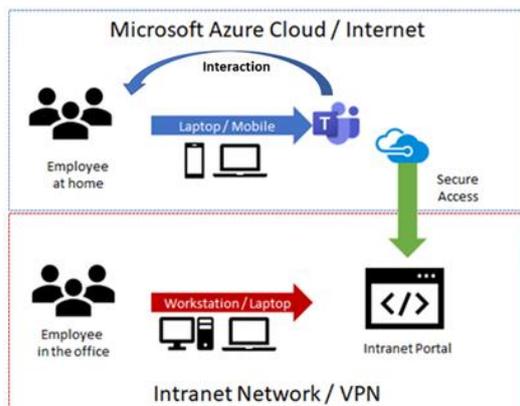
Introduction

This last year represented a new and difficult challenge for many people and companies. With the advent of COVID-19 and many lockdown measures implemented by different countries all over the world, digital communication became a fundamental topic. To keep going on with everyday life, the platforms providing this type of service were of crucial importance. In this context, the discussions about working from home (WFH) became fundamental. This led to a massive use of this kind of platforms, not only for the exchange of messages inside the same working unit.

This situation underlined the need of tools to ease the work life of employees in a context of always working from home, that is something that will remain even after the pandemic. For these reasons, it is necessary to think to solutions that can improve this condition of work.

Thesis Objective

The fundamental goal of this thesis is to develop new instruments for everyday work, following its evolution in relation to WFH.



In this work a real use case will be exploited to explore the potential of communication platforms. The use case regarded the request of a client company of creating a renewed, alternative system for an on-premises intranet portal focused on company's news. To overcome the limitation of the existing portal, the focus has been on possible innovation and on providing a more comfortable usability in working from home. This work wants to allow the access

to the news information from home and from mobile devices, exploiting the new technologies to develop a central hub for WFH.

The real context of business communication was analyzed, focusing on the "company news" concept, at first based on a "legacy" technology, trying to define the set of

technologies that could be adopted to implement this news flow on a communication platform. The study also focused on how this can enrich and innovate the experience for the user, thanks to the features given by new technologies.

System Design

With the new solution, the goal is to replace the flat fruition of content through a web interface, with a new way of interacting with the news, realized through the integration in a platform communication. Because of the technology already used by the company, to maintain a coherence and to provide a familiar environment, the chosen platform is Microsoft Teams. Staying into a Microsoft environment allows to exploit the many functionalities provided by this context, such as Azure or Microsoft 365.

The fact that the existing portal was under Cluster Reply's management allowed to modify it, creating dedicated functionalities that could provide information to an external platform. This brought to the design of two alternative solutions, which could be more immediate and comfortable, thanks to the advantages of the communication platform.

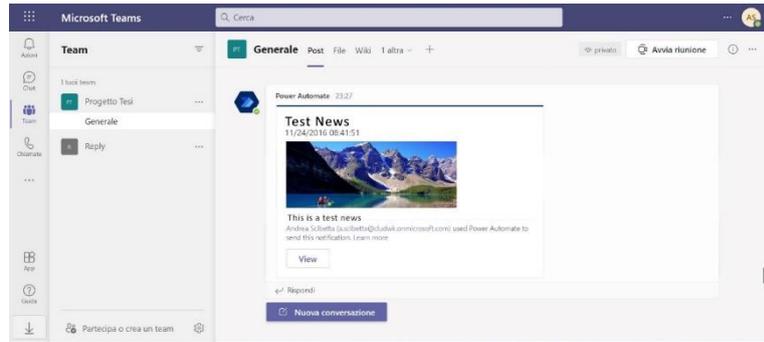
The two different solutions used different approaches, basing on whether to recreate the exact same interface inside the communication platform, or to use Teams channels and posts to provide a more interactive solution. Both can obtain the desired result.

Implementation

For the development of the first solution, a web application was realized and deployed into Azure. It was then connected with Teams, by means of a dedicated app that was created exploiting the App Studio service of the platform. For this solution, some changes on the existing portal were needed, since to provide the news to an external platform and show the proper set of them, is necessary to recognize the user, that in this case is not logged in. To obtain the desired result, the redesign of some endpoints was needed, so that they receive the credentials of the user from Teams and act as requested, sending back the information or applying the requested changes. In this way, the external application can obtain the news and render it inside a tab of the communication platform.

For the second solution, the only change needed to the portal was on the publication endpoints. To develop this alternative, two instruments of Azure were exploited: Logic Apps and Adaptive Cards. With the first one is possible to create automated workflow, as we did. In fact, in this work we realized a workflow that triggers after publication of a news and generate an Adaptive Card basing on the news information received. This card will be rendered in different ways depending on the host application that receives

it. In this case, it is sent to Teams, commanding to post it on a specified channel. It will be rendered as a normal post, using the common interface of the communication platform, maintaining a conformity and familiarity for the users.



Results

These two solutions follow two different approaches, one more conservative while the other more progressive. Both changes the perspective of the employee that consult the news, while maintaining unchanged the point of view of editors that publish and manages them. Although in both cases the desired result was obtained, there are important differences between them.

The main advantage of the first solution is the repurposing of the same identical interface in an external environment. It can fulfil the desire of maintaining a coherence with the existing portal and it will automatically show the news basing on the audience of the user. Its disadvantages are related to the extended modifications required to the existing infrastructure, in order to provide each functionality to an external application, and the limited possibilities of interaction with other Teams services.

Regarding the second solution, with it is simpler to automate the publication of the news on Teams, and it provides a full integration of them with the communication platform functionalities. The main disadvantages are related to profiling, since it requires the creation of many channels where to publish the news, and to management of the news after publication.

Future work

Future research on this topic should focus on implementing this solution in real scenarios, to test these solutions in different situations, evaluate the effectiveness of them and determine the improvements in comfort and productivity for the employees.