Scoping Task

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To allow users to add multiple addresses for different types of communication, we need to make a few changes.

In the system where the companies can log in and manage their profiles, we would need to display the predefined communication types and the addresses related to them, allowing companies to edit the addresses and save the changes.

Having in mind that currently only one email address is stored for each company, I assume that it is kept in the Company table. So, for this to work we need to create a new table in which we will store the addresses, the type of communication that the address is for and which company it belongs to.

The types of communication would be predefined (marketing, billing, etc.). They can either be stored in a separate table in the database and then related with the addresses in the CommunicationAddress table with a foreign key, or directly in the CommunicationAddress table.

If we choose to not have the CommunicationType table, we will need to save the communication type in a column in the CommunicationAddress table as a string. A few problems arise with this solution: Differences in the string values may occur, which will cause one communication type to be saved and interpreted as different ones. When adding a new communication type, we will need to insert as many records as we have companies in order to set initial address value for the new communication type. If we have for example 15000 companies, we will need to add 15000 new records.

In order to avoid these kinds of problems, we will add two new tables:

CommunicationType table:

CommunicationTypeId	CommunicationType

CommunicationAddress table:

CompanyId	CommunicationTypeId	EmailAddress

To keep the current functionality, initially their current address (which is saved in Company table) would be used for all communication types. In the user interface, we will display the communication types and the addresses related to them, allowing companies to edit the address and save the changes.

After editing the value of the address for some communication type, we will save a record in the new CommunicationAddress table containing the communication type and the address for it.

For all other communication types that the company has not set a specific different address, we will use the default address from the Company table.

By saving the communication type in a separate table, when we want to add a new communication type, we will simply add it in that table. By doing so, it will be displayed in the UI and if the company sets a specific address for it, the record for the new address will be saved in the CommunicationAddress table.

Additionally, all existing automated processes need to be updated to check if there are defined addresses for the specific communication type. If such an address exists, use it, or use the default address otherwise. With these changes, when the system needs to communicate with the company, it can use the appropriate address based on the communication type.

After implementing this feature, we need to inform the companies about it, so they know that they can set different addresses.