For latency, we can see that it has different values in seven different locations. In A bloc alepa, Teila and DNA have high latency, compared to Elisa and Wi-Fi which have low latency. Due to the complex environment in the indoor scenes that lead to increased latency. In Abloc, alvari park, birdwatch and metro station, the latency is low. This is understandable because outdoor environments can often achieve line of sight conditions with less signal interference and attenuation, and higher quality communications. Surprisingly, the latency did not increase significantly at the metro station, which we hypothesize is due to the installation of specific signal amplification devices inside the metro station to ensure the quality of the communication. In TUAS, on the other hand, the delay is higher due to the high density of people and the complexity of the indoor scene. Inside the elevator at JMT1, latency was high due to the familiar shielding effect of elevators on signals. By the way, for the three different operators, elisa had relatively low latency.

For upload rates, compared to indoor environments, rates in outdoor environments are almost always improved, except for Birdwatch, which we presume is due to the fact that it's too far away from the base station and the signal strength is lower. When in the elevator, the data rate was almost 0, which is not a good time to use the network. Similarly, DNA's rates tend to be worse in different operators, perhaps DNA needs to upgrade their service.

For download rates, WIFI can be used to its advantage, and in many scenarios WIFI can achieve higher rates, if WIFI is available. This changed at TUAS, where WIFI suddenly became bad, we presume because of the number of devices using WIFI is too big. Of course, in this case we would recommend using the mobile network. We can see that DNA's upload rate is higher than the other two operators, and DNA pulls one back.

对于延迟，我们可以看到，在七个不同的地点，延迟有着不同的数值。在A bloc alepa，Teila和DNA有很高的延迟，相比之下Elisa和Wi-Fi的延迟就很低。我推测是因为在室内场景中，复杂的环境限制导致延迟的增大。在Abloc、alvari park、bird watch和metro station，延迟较低。这是可以理解的，因为室外环境往往可以达到line of sight的条件，信号干扰和衰减更少，通信质量更高。出人意料的是，在地铁站的延迟并没有明显增大，我们推测是因为在地铁站内安装有特定的信号放大装置，保证了通信的质量。而在TUAS，由于人员密度大，室内场景复杂，延迟较高。在JMT1的电梯内，由于大家熟知的电梯对信号的屏蔽作用，延迟很高。By the way，在三个不同的运营商来说，elisa的延迟相对较低。

对于上传速率，相较于室内环境，在室外环境的速率几乎都有提高，除了Birdwatch，我们推测是因为这里距离基站太远，信号强度较低。在电梯里的时候，数据速率几乎为0，此时不适合使用网络。类似地，在不同的运营商里DNA的速率往往是更差的，也许DNA需要提升他们的服务。

对于下载速率，WIFI可以发挥它的优势，在很多场景下WIFI可以达到更高的速率，如果有WIFI的话。这种情况在TUAS发生了变化，WIFI突然变得糟糕，我们推测是因为使用WIFI的人数太多了。当然在这种情况下，我们更推荐使用移动网络。我们可以看出，DNA的上传速率要高于另外两家运营商，DNA扳回一城。

In A bloc alepa, Teila and DNA have high latency, compared to Elisa and Wi-Fi. Due to the complex environment in the indoor situation that lead to increased latency.

The latency is low in A bloc, alvari park, birdwatch and metro station. This is understandable because outdoor environments can often achieve line of sight conditions with less signal interference.

Surprisingly, the latency did not increase significantly at the metro station, which we think is because of the installation of specific signal amplification devices to ensure the quality of the communication.

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