Q: Has e-SIM been tested for NB-IoT use

A: Yes, I have tested e-SIM myself on a nRF9160 DK connected to the Telenor network in Oslo, Norway.

Q: can you give some detail about SigFox and LoRA?

A: We can probably do another webinar specifically on LoRa, Sigfox and other unlicensed radios, it's rather a big topic to cover it here. But definitely a viable option for some usecases if you can live with sending/receiving a few bytes per hour.

Q: does the latest modem firmware support 3GPP R14 features?
A: Yes, we support R14 features.

Q: What kind of latencies are for LTE-M vs. NB-IoT?
A: Looking at throughput, you can expect up to 30 kbps upload (UL) and 60 kbps download (DL) on nB-IoT. On LTE-M, you can expect up to 300 kbps UL and 375 kbps DL. It is not easy to give precise numbers, but you can expect lower latencies on LTE-M vs NB-IoT.

Q: Will Roaming not be an option for NB-IoT ?
A: Roaming will eventually be an option for NB-IOT networks but at the moment is not common and for practical purposes cannot be relied on.

Q: is battery life limited to single cells or can it combine cells to create larger battery banks?
A: You can combine cells to create a large battery pack. I know of one customer that has a 10,000 mAh capacity battery pack for an asset tracking application.

Q: What tools are available to debug NB-IoT connectivity issues?
A: On Nordic's side, we have an LTE Link Monitor tool that can be used. In addition, one can take a modem trace, upload this trace on Nordic DevZone and one of our highly skilled application engineers will help you debug any connectivity issues.

Q: Define the typical payload (size and update rate) for NB-IOT that will give a battery life of > 10 years?
A: Assuming a connection with 10-minute downlink latency on eDRX, you can get an average current of roughly 15 uA (including SIM current). This assumes an LTE-M connection on 23 dBm output power, a 3.7 V battery with a capacity of 2700 mAh.

Q: Does Cat-M networks support voice calls?
A: Yes, there is support for VoIP. However, Nordic does not support this on the nRF9160 SiP.

Q: Does your sim card service is available in India?
A: Please speak with your local RSM. If you do not know who this is, please ask a private question on Nordic DevZone.

Q: Is there a capability with either of these cellular technologies to measure distance between two mobile devices e.g. as there is with RSSI and Bluetooth LE?
A: First off, RSSI and Bluetooth LE is not a great solution to measure distance accurately. Too much noise from RSSI measurement. A better solution would be to use Bluetooth Direction Finding for instance. Regarding cellular, to get a good accuracy, GPS is probably one of the best solutions for outdoor applications. Bluetooth Direction Finding for indoor applications.

Q: What NB-IOT/LTE-M coverage does Soracom offer in the UK? Do you have agreements in place with any MNO in the UK? Thank you.
A: We are offering access to Orange LTE-M network in the UK.

Q: Do I need special SIM Card in Poland to connecting NB-IoT network?
A: Please contact T-Mobile Poland at NBIoT@t-mobile.pl. We will also be in touch once we enable access to their network.

Q: are Nordic dev platform available on Mac Catalina or are only on windows?
A: Yes, we support Mac, Windows and Linux.

Q: Is there any way for the application to get the triangulated position made from cellular antennas in case of GPS out of coverage? like a gps backup?
A: Nordic has support for assisted GPS, which uses cell base station towers to find a coarse position on the cellular device. See more info here:
https://developer.nordicsemi.com/nRF_Connect_SDK/doc/latest/nrf/include/supl_os_client.html
You could maybe use this data to triangulate your position, but it will not be that accurate. For higher accuracy, GPS is a better solution.

Q: can I use a normal SIM in Thingy91?
A: If by normal SIM you mean a 4FF nano SIM, then yes.

Q: Looks like "nRF Connect" is disjoint from the IDEs and SDKs for the nRF51 and nRF52 series. Is that correct? Is there a free-to-use Segger IDE for the nRF91?
A: nRF Connect is our umbrella of development tools, which includes the nRF Connect SDK. nRF Connect SDK is our new SDK with support for the nRF53 Series SOCs and nRF91 Series SiPs. It has optional support for the nRF52 Series. The nRF5 SDK is the older SDK that has support for the nRF51 and nRF52 Series SoCs. You can use the Segger Embedded Studio IDE for both nRF5 SDK and nRF Connect SDK. This means you can use SES in development with the nRF91 Series.

Q: I also need to source NS tested and approved NB-LTE (TIM network in ITA) and GPS antennas... where can I find them?
A: You could take a look at the Thingy:91 reference schematic here for an example:
https://www.nordicsemi.com/Software-and-tools/Prototyping-platforms/Nordic-Thingy-91/Download#infotabs

Q: Will 5G networks in future also support LTE-M and NB-Iot technologies.
A: Yes, 5G networrks will support LTE M and NB-IoT:
https://www.ericsson.com/4a8d35/assets/local/networks/documents/gsma-5g-mobile-iot.pdf

Q: I have to develop a dog tracking solution. Do you have any applications done?
A: We have a cat tracker that may be useful to look at: https://github.com/bifravst/bifravst

Q: Any plans to support nRF Connect SDK on the nRF52805?

A: the plan is to support nRF52 series on nRF connect moving forward. Plesae check in DevZone about nRF52805 to know the latest

Q: The you say that NB-IoT don't have roaming. are you talking between different zones/antennas in the same country or between different countries?

A: Roaming between different base stations. Can be different base stations from the same network provider.

Q: We joined a session a year ago regarding the LTE-M. The coverage was at the time quite limited. How has that developed over the last year?
A: There are a lot more LTE-M deployments now, please refer to GSMA deployments map for the up-to-date information: https://www.gsma.com/iot/deployment-map