*Hello Everyone, thanks for joining the innovation day.*

*Bring innovation through technology --- VOLVO IT China*

*Today, in this exhibition hall, we are going to show you a new genre of gathering truck runtime data through ECU.*

*When it comes to truck runtime data, what’s going to come into your mind,*

*Talking about truck runtime data, what’s going to come into your mind.*

*RPM,*

*Speed,*

*Distance,*

*Warning flags… and so on,*

*Yep, that’s right, but these data are always shown on the truck/vehicle, what if the data are collected and send back to a central server?*

*We can do a lot of things based on these data, e.g. know how healthy the truck is, maintenance plans, and we can do a lot things with your imaginations.*

*With several years of development, raspberry pi has been widely used in IoT solutions as a general platform. Compared with other solutions of collecting truck data on the market, what we are going to show you is an achievement of how to use raspberry pi as a local central unit, to communicate with cloud service to collect and process the truck running data. -- the IoT based, truck running data management system.*

***Tools—***

*In this POC, we have an ECU simulator which simulates truck, this is where the data is coming from, in the real word, this would be a truck.*

*The EML 327 is a programmed microcontroller produced by ELM Electronics for translating the OBD interface found in most modern trucks/vehicles. It’s a Bluetooth device.*

*The raspberry Pi, a popular small single-board computer with low cost, which connects to the EML 327 with Bluetooth protocol and then read truck runtime data following the OBD protocol. And here we use the OBD python library.*

*Once the data is read from ECU, it then will been send to the central database on AWS cloud with the SDK provided by Amazon.*

*We can also set some rules on AWS, if the rule is broken, a warning message will be send by mail or by SMS to notify the truck owner or fleet owner.*

*Let’s start the show:*

*Let’s change the truck runtime data by spinning the button on the simulate, as you can see the speed is changed on the simulator*

*You will also see the speed shown on the monitor on the small truck changed accordingly, the speed of the small truck changed as well, see the wheel.*

*The data will send to the central database every minutes, and we got a mail as well.*

*The truck owner can monitor the information when connecting the database with an application.*

*Convenient*

*Efficient*

*and economical.*

*You can enjoy your coffee time, then to check the result directly on the display.*

*Technology changes your life, and changes mine,*

*Why not give it a try!*