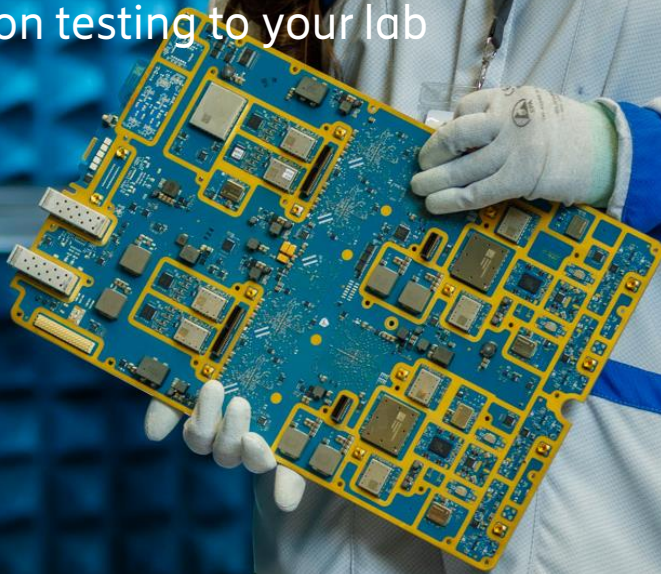




[ericsson.com/
devicelab](https://ericsson.com/devicelab)

Device Lab as a Service

Bringing advanced device and
application testing to your lab



The latest technology
Puts a complete Ericsson
4G and 5G network in
your lab

Around the clock
Access 24 hours to a real
cellular lab environment

As a Service
Take advantage of our
expertise and don't invest
in cellular infrastructure.

The Ericsson Device Lab as a Service gives you access at your own premises to a state-of-the-art cellular network tailored to 3GPP research, development, verification and certification of all type and form of devices.

Get the latest available feature set and SW releases for your device testing projects, all included in a real 4G and 5G infrastructure environment.

Keep your devices in house, our solutions are tailored to your high security prototyping testing needs.



Key features

Test on a real network

Access to the latest technology.

Full support for 4G, 5G, IoT, RedCap, Differentiated Connectivity, eSIM.

Several radio band configurations available. Always with local RAN deployments.

Customizable

Local and Remote solutions.

Network Exposure

APIs for automation

Live support

Expert Consulting Services

Virtual lab configuration

Use Cases

Access to the latest features

4G & 5G Feature testing

Real Use Case validation.

Proof of concept & demos

Device testing

Application Testing

Time critical use cases with edge core

Flexible payment model

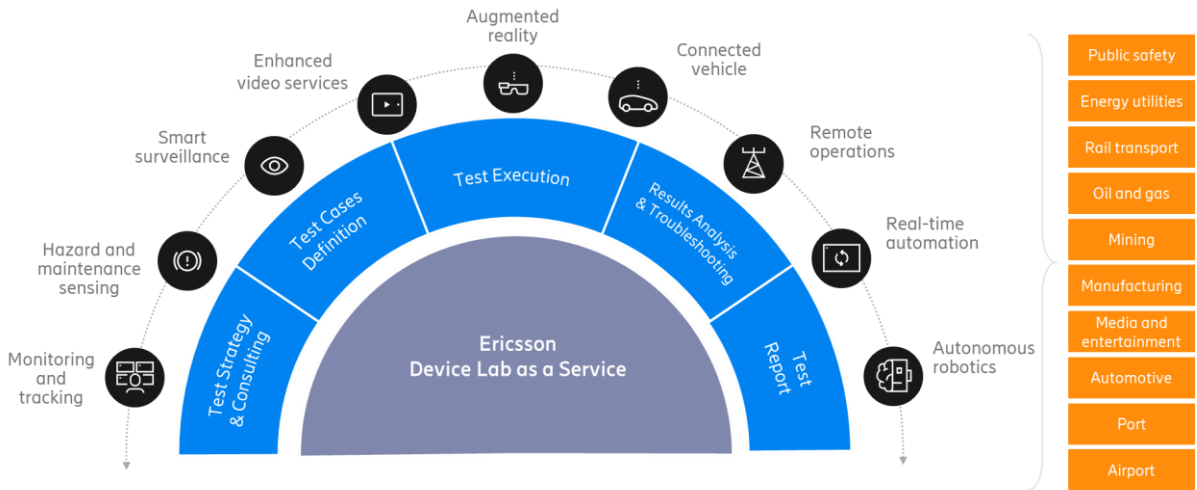
Monthly Subscription

Global accessibility

Flexible & scalable

+450

API-calls available for 4G and 5G

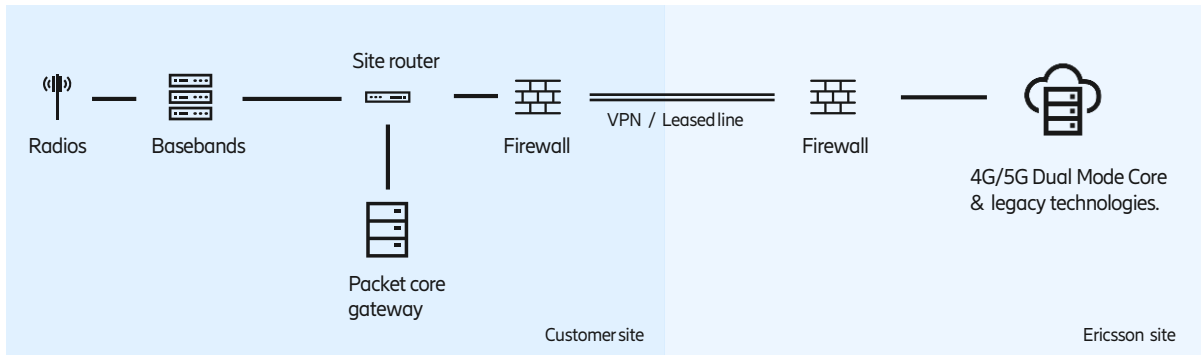


Dedicated setup: RAN and Core Network at your facilities.

An end-to-end network deployed at your lab, all dedicated to your testing needs.

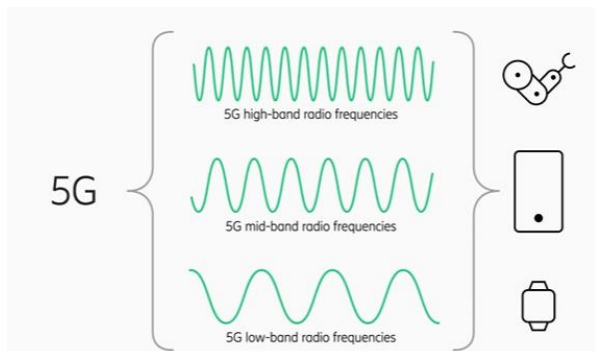
Hybrid setup: Local RAN with edge core connected to a remote core

The radio network equipment and User Plane Function (UPF) plus firewall will be located at customer site and exclusively used by the customer. Core network elements (SMF, AMF, UDM, SAPC/PCRF, SMS-Center, IMS etc.) are located at Ericsson facilities in a multitenant environment.



Technical capabilities and features

- Cellular technologies: 4G, 5G NSA & 5G SA
- Frequency Bands: Low, Mid and High
- Dual Connectivity: NR-DC, EN-DC,
- Voice services: VoLTE, VoNR, VoWiFi
- IoT Connectivity: LTE-CATM, NB-IoT & Redcap.
- Location based services: A-GPS, A-GNSS
- Public Warning System: WEA 3.0, ETWS.
- SMS: SMSoIP, SMSoGS.
- Multiple PLMN and multiple APN's per device



Service status

Disconnect

Lab status

● **In operation**

User

@ username@company.com

Cell status

● **In service**

Radio status

● **In service**

Connected to core

● **In service**

Last health check

🔄 October 10, 2024
6:19 PM

Monthly usage

64 / 4800 minutes

1.33%

Current license period

Contract duration

October 1, 2024 - October 31, 2024

May 29, 2024 - October 31, 2024

Service information
Command logs

Specifications

ISP IP (IPv4)	iPerf Server Version	Idle timeout
10.119.33.161	3.16	15 minutes
ISP Ports	Radio	gNB
5000 - 5003	Band n78	SW Ver -2024Q1

Performance test commands
Network diagram

iPerf

- iPerf TCP Download : iperf3 -c [ISP IP] -t60 -l 1300 -i 1 -P 4 -R -p [ISP Port]
- iPerf TCP Upload : iperf3 -c [ISP IP] -t60 -b 200M -l 1300 -i 1 -P 4 -p [ISP Port]
- iPerf UDP Download : iperf3.11 -u -i 1 -fm -l 1360 -w16M -p [ISP Port] -t 60 -b 200M -c [ISP IP] -P 4 -R
- iPerf UDP Upload : iperf3.11 -u -i 1 -fm -l 1360 -w16M -p [ISP Port] -t 60 -b 200M -c [ISP IP] -P 4

Ping

- Ping : ping [ISP IP] -s 24 -i 1

Network Configuration Tool (NCT)

NCT offers a web GUI and RESTful API interface for high degree of automation, offering customers to configure RAN, Core, and other network element parameters. It is a secure tool with each customer having a dedicated NCT. The Web GUI version supports configuration of eNB and gNB, simple parameter commands, complex script commands, and configuration history queries.

Customizable

Cost efficient

User friendly web interface and API interface

Secure

Role-based access control

Supports automation

+450 API calls available

RTST > Multiple UE E2E

Type MSISDN IMSI 8616003219002 15 : 41 : 31 2023-08-15 Submit -2 min +2 min Clear

Network traces 0 filters applied

Message name...

8616003219002 GNODEB - 200 SBG - 1 AMF - 1 IMS - CORE

Aug 15, 2023 15:40:31.058 NGAP:CU_CP_NG_PDU_SESSION_RESOURCE_SETUP_REQ
NASS:GMM: PduSessionEstablishmentAccept, fiveQI: ...

Aug 15, 2023 15:40:31.061 RRC:CU_CP_RRC_RECONFIGURATION

Aug 15, 2023 15:40:31.090 RRC:CU_CP_RRC_RECONFIGURATION_COMPLETE

Aug 15, 2023 15:40:31.091 NGAP:CU_CP_NG_PDU_SESSION_RESOURCE_SETUP_RES

Aug 15, 2023 15:40:31.358 SIP:REGISTER
CSeq:657154717 REGISTER

Aug 15, 2023 15:40:31.391 SIP:200 OK
657154717 REGISTER CSeq:6...

Message details

```

{
  "Name": "Contact"
},
{
  "Values": [
    "657154717 REGISTER"
  ],
  "Name": "CSeq"
},
{
  "Values": [
    "1730896540_855071088@fc00:0:2:2e:a838:4dff"
  ],
  "Name": "Call-ID"
},
{
  "Values": [
    "<sip:46003111119002@ims.mnc003.mcc460.3gp"
  ],
  "Name": "From"
},
{
  "Values": [
    "<sip:46003111119002@ims.mnc003.mcc460.3gp"
  ]
}

```

E2E signal list

Start time	Events	Interface type
Aug 15, 2023 15:40:31.358	REGISTER	Mw
Aug 15, 2023 15:40:31.391	200 OK	Mw
Aug 15, 2023 15:40:31.392	200 OK	Gm

Real Time Signaling Tracing Tool (RTST)

RTST provides real-time visibility into device-network interactions. Network signaling and interactive messages are displayed on a graphical user interface, enabling testers to identify issues quickly and accurately. This enhances testing efficiency and offers guidance for issue resolution.

LTE, 5G and IMS

Full signaling content

UE real capability query

Trace history

Id of abnormal events

Multiple UE signaling

