# digis²

**Digis Squared ○ Enabling smarter networks**

Managed Services, System Integration & Consulting

# About us

## Digis Squared ◦ Enabling smarter networks
Managed Services, System Integration & Consulting

We transform telecom networks, deploy new technologies, and manage vendors, for network operators, communications service providers and regulators.

Apply our independent, vendor-agnostic expertise, automated AI-led tools and processes to transform your technical and commercial capabilities. We work with agility, deep experience, and our in-house cognitive tools to optimise and manage multi-vendor networks across all technologies, including 5G, OpenRAN and Private Networks.

The Digis Squared management team have decades of experience transforming, testing and optimising networks, deploying new technologies, and managing vendors.

Founded in 2016, Digis Squared has offices in UK, Egypt, UAE and Angola (plus KSA very soon), and a strong regional presence plus staff embedded with clients.
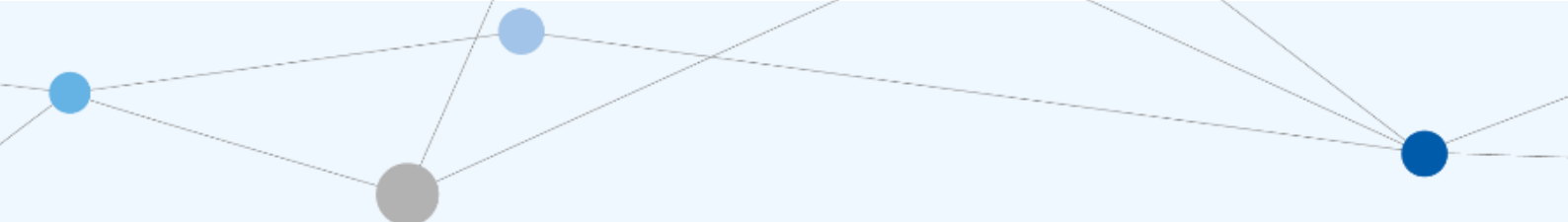
## Our offices

| | |
|---|---|
| **Digis Squared Global HQ** | Wimbledon Business Centre, SW19 8YB, **London, UK** |
| **Technology & support centre** | Villa 3, Street 2017, Degla, Maadi, **Cairo, Egypt** |
| **Regional office** | Al Sinyar Building, MH 03D51 AL NAHDA1, **Dubai, UAE** |
| **Regional office** | 6 Park Avenue Building, Rua Ndunduma 33, **Luanda, Angola** |

## Find us online

| | |
|---|---|
| Website | Digis2.com |
| Facebook | facebook.com/Digis2 |
| Twitter | @Digis_2 and @DigisSquared |
| LinkedIn | www.linkedin.com/company/digis2 |

## email us    sales@DigisSquared.com

# How we work, our principles

**Commercially driven.**    We always focus on delivering commercial value to our clients.

**Dependable.**    We can be counted on to deliver what we promised.

**Flexible.**    We adopt an agile and adaptable approach to everything we do.

**Principled.**    We act with integrity and honesty at all times.

**Progressive.**    We always look to improve and advance whatever we do.

# Some of our clients

We work with some of the largest telecom companies and communications service providers, globally.

Our clients also include tower companies, and coverage assessment businesses.

Plus many Regulators and other unlisted clients.



# Why choose Digis Squared?

- Vendor agnostic
- Extensive multi-vendor experience
- Independent, in-house AI-tools
- Competence development & investment in your team
- Our team: 20 nationalities, working in 25 countries

# Managed Services

## Expertise across the entire network lifecycle

We provide expertise, skills and tools across the entire network lifecycle.
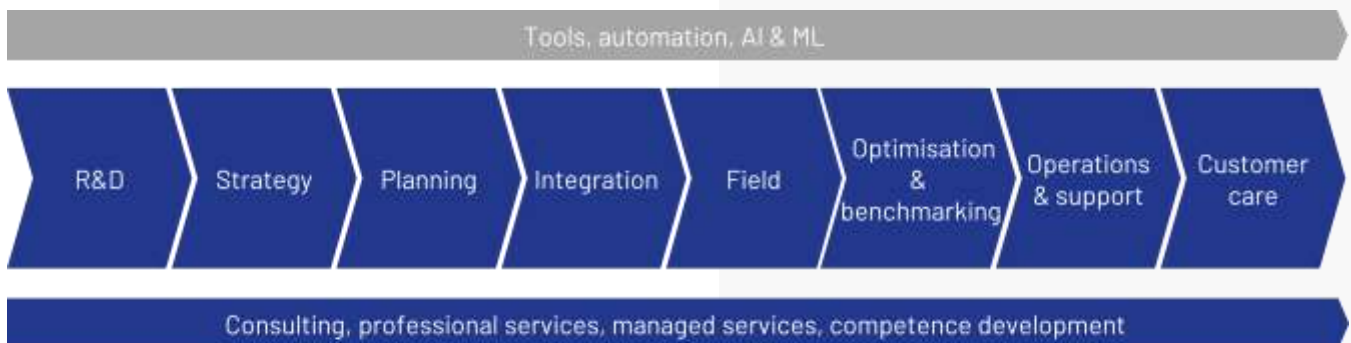
We manage entire mobile networks, in complex multi-vendor, multi technology networks.

We can support you from network design, initial license discussions with Regulators, writing RFPs and vendor selection, network implementation and vendor management, through to commercial launch and post-launch operations management.

Our Unified Fault Management systems ensure you have a single view across all of your multi-vendor, multi technology systems.

## Our Managed Services capabilities

- 5G/VoLTE/4G optimisation service
- E2E RAN services
- Smart planning & network design
- Network rollout, optimisation & network support
- IT managed services, including managed networks & managed security
- IoT services: E2E solution design, testing
- Customer Experience Management
- Automated AI-led drive testing & IBS (5G/4G/VoLTE/3G/2G/IoT)

Tools, automation, AI & ML

R&D → Strategy → Planning → Integration → Field → Optimisation & benchmarking → Operations & support → Customer care

Consulting, professional services, managed services, competence development

**Digis Squared: fixed & mobile, multi-system, multi-vendor capability**

## As much or as little as you need

Or, we can manage just one of your systems.

Our services are completely flexible, tailored to meet your needs, increase or decrease them over time as your requirements change.

# System Integration

## What do we do?

We support Network Operators with best-of-breed solutions and services covering multiple domains.

We help you to avoid silo implementations and the hassle of multi-vendor handling.

We join the dots between supplier's on-shelf solutions and operators' requirements.

We undertake E2E design implementation, integration, testing & project management.

## We make sure you get exactly what you need

We handle add-ons & bespoke developments, interoperability integration & testing, and personalised use cases development.



Telecom core voice & data solutions

Security & Regulatory solutions
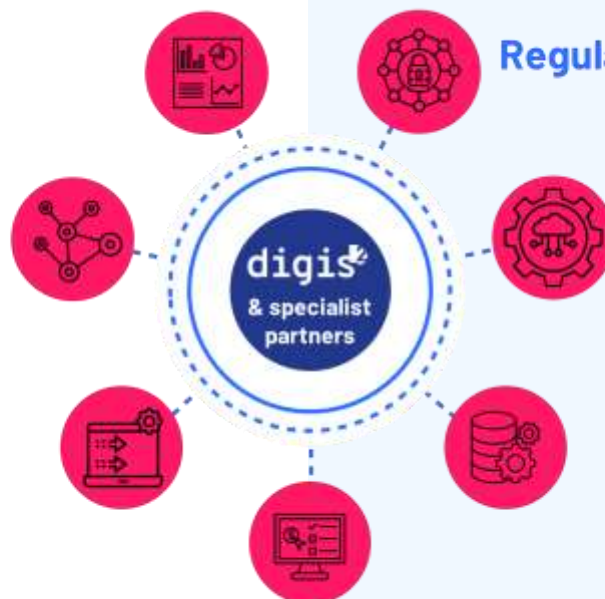
ITT OSS/BSS

Telco cloud & IoT

Digital enablement solutions

Enterprise solutions

digis & specialist partners

Value added services

digis
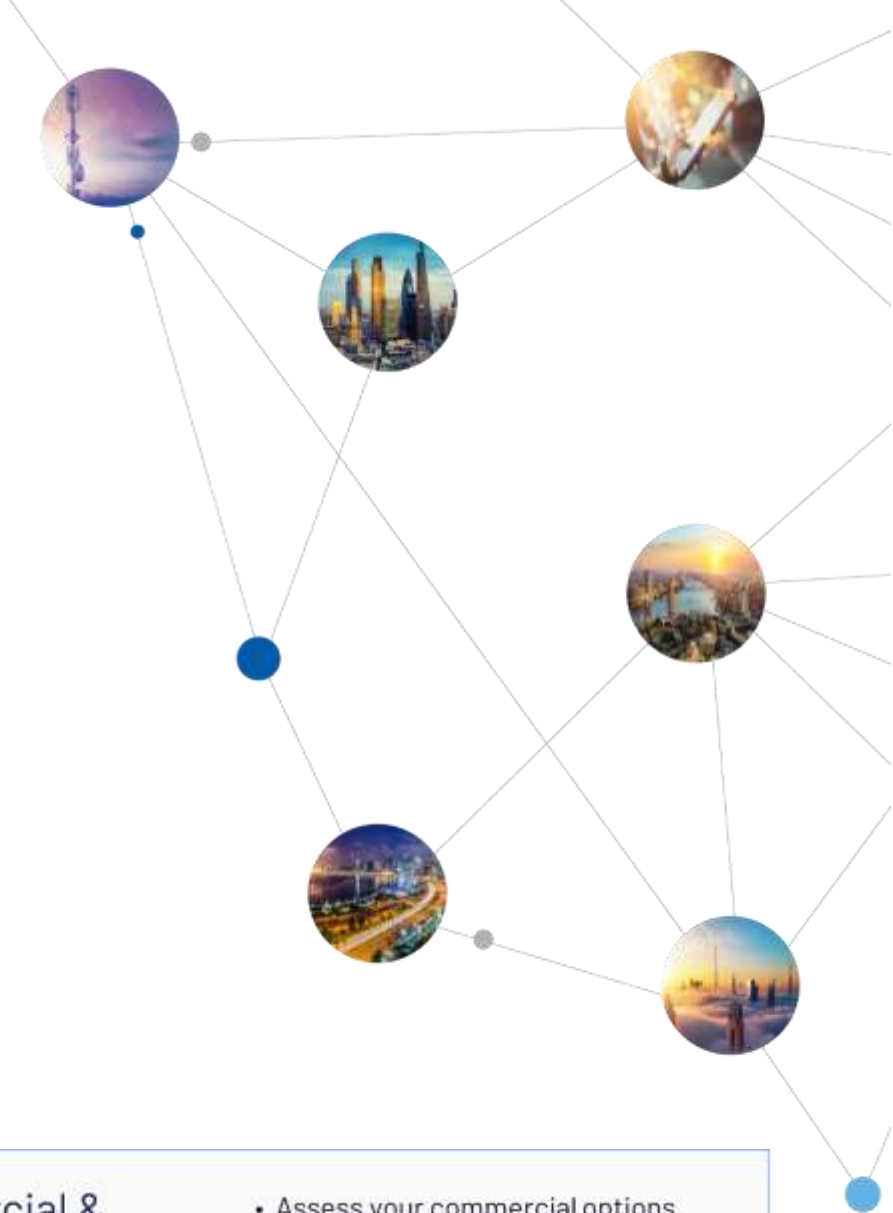
# Consulting

## Enhance your team

Utilise our vendor-independence, deep multi-technology expertise, experience, tools and insights to assist your staff with your most complex problems.

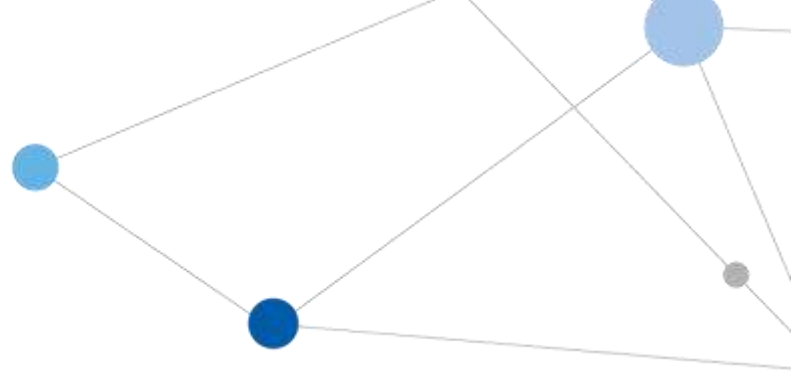| Commercial & technical strategy | • Assess your commercial options<br>• Manage RFPs and vendors<br>• Technology sunset |
| --- | --- |
| Network deployment & enhancement | • E2E network launch<br>• SoC transformation<br>• Benchmarking |
| Staff development | • Competence development<br>• Training: from one to one coaching, to bespoke programmes and bootcamps |
| AI & ML | • AI/ML for automated network mapping<br>• RPA strategy & deployment |

# Competence development

## Leverage our expertise to enhance your team

Digis Squared has over 50 industry experts with 10 or more years' multinational mobile operator experience. Our team of experienced vendor and technology independent consulting staff are well placed to deliver a broad range of technical and non-technical training.

Our approach for competence development utilises different methods to best suit the client, their culture and team needs, with an emphasis on on-job training as well as classroom training, delivered as active, participatory workshops and webinars by our technology experts.  We can deliver training on-site, remotely via video link, or in your own time via online material.

Digis Squared has delivered multiple competence development programs to Tier 1 operators. We have delivered hundreds of hours of training that has helped develop many engineers from our customers' teams.

## Flexible, to meet the needs of your business, and your team
- Boot camp
- Technical workshops
- Student programs
- Tailored programs

We invest in YOUR team and local people.
We increase THEIR skills, knowledge & expertise.
We enhance in-country value.

| Cross functional teams | Mentoring | Job rotation | Career progression model |
|---|---|---|---|
| Performance management | Competence development plan | 360° training modules | Learning support model |

Get in touch to arrange a no-obligation discussion with our team, or request a copy of our Technical Training Catalogue: sales@DigisSquared.com
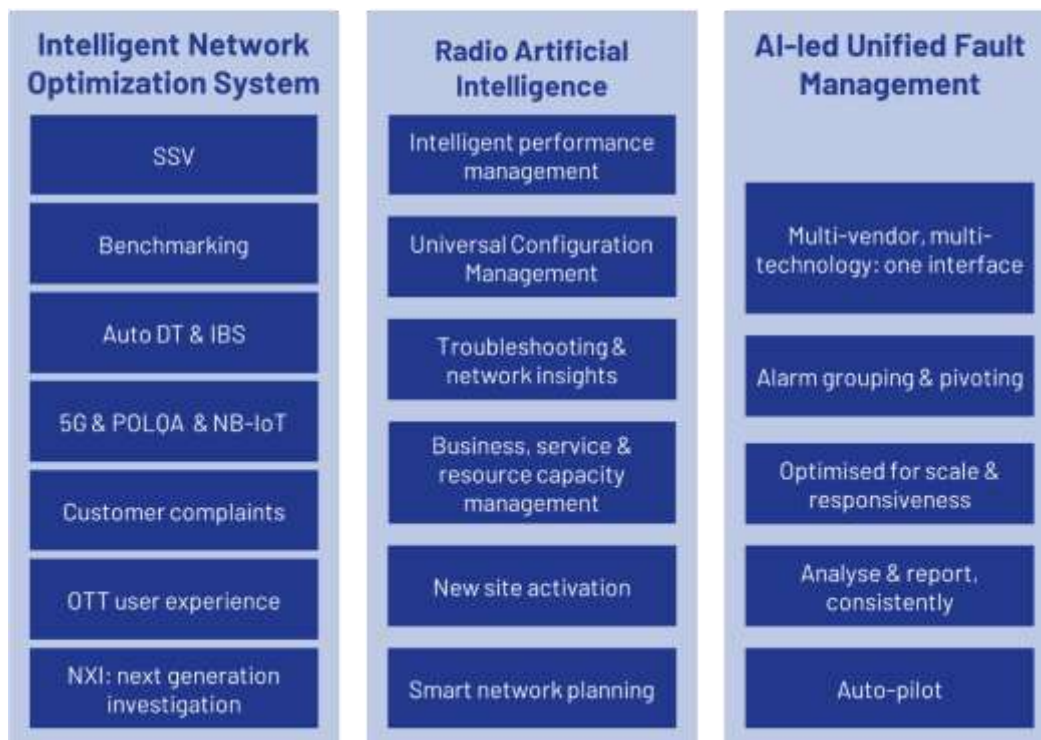
# Our cognitive tools

## Developed in-house, vendor agnostic and multi-technology

Use our AI/ML capabilities to deliver
- Faster response times
- Optimised use of resources
- Informed business decision-making
- Enhanced Overall Equipment Effectiveness (OEE)

Flexible installation options: public cloud, private cloud, or on-premise

Enabling smarter networks.



| Intelligent Network Optimization System | Radio Artificial Intelligence | AI-led Unified Fault Management |
|---|---|---|
| SSV | Intelligent performance management | Multi-vendor, multi-technology: one interface |
| Benchmarking | Universal Configuration Management | Alarm grouping & pivoting |
| Auto DT & IBS | Troubleshooting & network insights | Optimised for scale & responsiveness |
| 5G & POLQA & NB-IoT | Business, service & resource capacity management | Analyse & report, consistently |
| Customer complaints | New site activation | Auto-pilot |
| OTT user experience | Smart network planning | |
| NXI: next generation investigation | | |

# Deep dive:

# Radio Testing Services

## Ensuring your network is highly optimized

Using our skilled staff and in-house vendor agnostic and multi technology AI tools, we work to ensure your Radio Network is highly optimized.

Digis Squared's INOS AI tool is a vendor agnostic, multi-network-technology solution delivering automated assessment, testing and optimisation of networks



INOS is built with compute resources powered by Intel® Xeon® Scalable Processors.
Digis Squared is a Partner within the **Intel Network Builders** ecosystem program.

**Testing everywhere**: outdoors and in-building

**Testing everyway**: static, or moving on foot, bicycle, moped or traditional in-car drive testing

The INOS kit can be deployed in static mode, for active measurement in-building.

Or dynamic mode: as a backpack for easy transportation on foot in-building, or along narrow twisty streets in town on foot, bicycle or moped.

Or, more traditionally, in a box with up to 24 devices for drive testing



**INOS active probe**

**INOS backpack**

INOS backpack

Android tablet / INOS controller with walking route

**INOS DT benchmarking kit**

No engineer needed – send box in an Uber on a pre-defined route!

Up to 24 devices

Static: In-building, active measurement

Mobile: In-building assessment on foot, or streets on bicycle
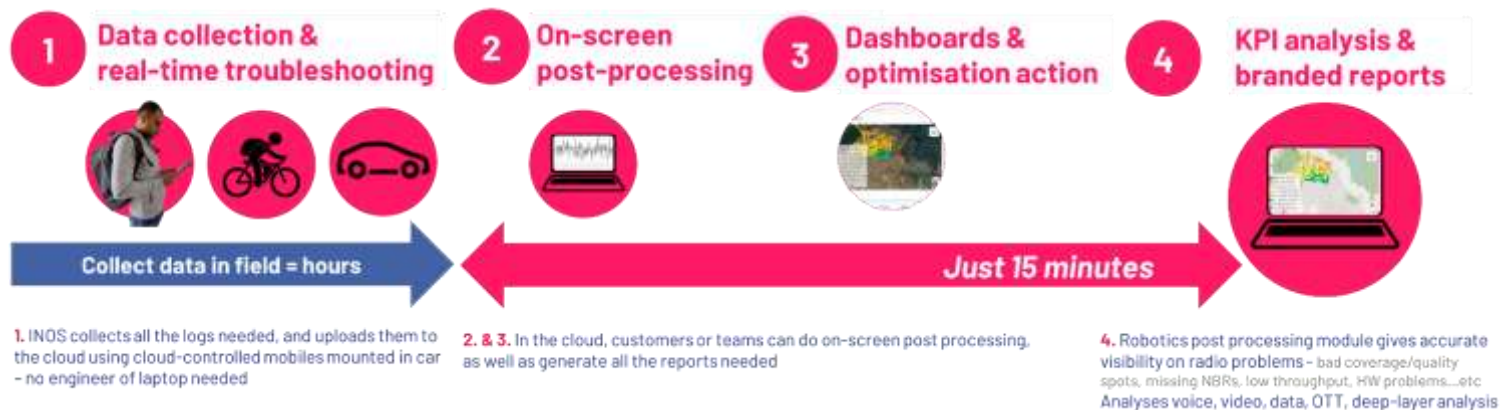
Drive testing: moped or car

## Field test devices

- Any Android Qualcomm handset, 2G - 5G.
- Multi-vendor 5G chipsets: Huawei, Samsung and Qualcomm flagship mobiles
- Pre-configured, fully monitored and controlled from cloud.
- No engineer needed in vehicle/building to update devices, script updates and data upload managed securely, remotely OTA.

## AND there are BIG benefits with INOS.....

- No need for an engineer in the field, all devices can be updated remotely OTA and data is automatically uploaded to the cloud.
- INOS uses automated post-processing and AI analysis to assess all data and generate dashboards, prioritised recommendations, KPI analysis and branded reports **within 15 minutes.**
- Data is collected in real-time – network changes can be made and retested immediately.

# Network Benchmarking



| 1 | Data collection & real-time troubleshooting | 2 | On-screen post-processing | 3 | Dashboards & optimisation action | 4 | KPI analysis & branded reports |

Collect data in field = hours

Just 15 minutes

1. INOS collects all the logs needed, and uploads them to the cloud using cloud-controlled mobiles mounted in car – no engineer of laptop needed

2. & 3. In the cloud, customers or teams can do on-screen post processing, as well as generate all the reports needed

4. Robotics post processing module gives accurate visibility on radio problems – bad coverage/quality spots, missing NBRs, low throughput, HW problems....etc Analyses voice, video, data, OTT, deep-layer analysis

$ OPEX saving  •  Time saving  •  Accurate  •  Covid-19 safe  •  Resource efficient

Our AI-tool ensures accurate, fully automated robotic post-processing.

- DT – investigative Drive Testing, with automated reporting within 15 minutes
- SSV – Single Site Verification
- BM – Benchmarking between different operators, or within the same operator before and after specific tests
- IBS – In Building Solution (indoor testing, typically for office buildings and shopping malls, including 5G technology)
- Customer complaints handling, including VIP
- OpenRAN functionality support: end to end from radio through to interoperability testing between OpenRAN and Legacy RAN
- IoT – Internet of Things testing.

# Across every mobile technology



E2E solution · Cloud controlled platform · All-in-one · ML engine · Any-tech, vendor agnostic

- Voice (MOS for CS voice including POLQA, and VoLTE)
- Video (PEVQs supported)
- Data – 2G, to 5G and OpenRAN for DL/UL, streaming, OTT, ping and video (PEVQs supported)
- OTT apps – measure and analyse E2E real-user experience (Facebook, Instagram, Twitter, WhatsApp, YouTube etc)
- IP performance – jitter, delay etc
- IoT – Radio functionality, radio quality, E2" functionality across CAT-M, NB-IoT 1, and NB-IoT 2
- Deep-layer analysis L3/L2/L1, and TCP/IP layer

- All network technologies – 2G, 3G, 4G, LTE (including LTE 450MHz, and LTE 600MHz) and 5G
- In-building, drive-testing, end to end IoT testing, and single site verification
- OpenRAN functionality and benchmark testing.

# Just one piece of the puzzle

This brochure focusses on our Radio Testing Services, and is just one part of what we offer. There is much more we can support your teams with – get in touch to discover more about how we can help you optimize other elements of your network.



Services focus

- Automation & digitalization
- Handset efficiency
- Spectrum & resources utilization
- Customer centric
- Network & technology evolution

digis²

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