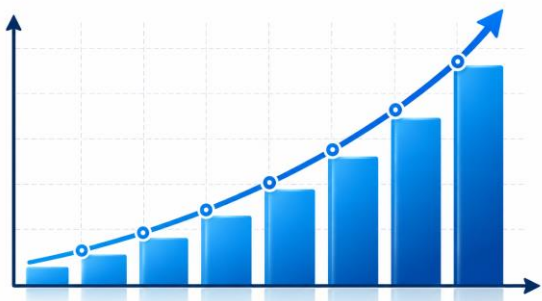


# Building the Software Defined Range with DIFI

## CONTEXT

### Why must the range evolve?

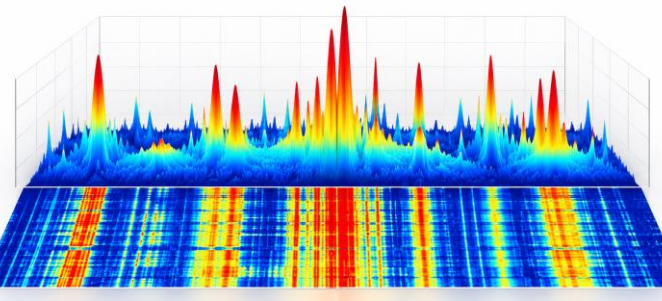
Flight-testing ranges face increasing complexity in aircraft, waveforms and spectrum use. The future air-to-ground link is also uncertain, thus requiring a more flexible, interoperable and software-centric infrastructure.



**Higher telemetry rates**  
More bits per mission



**More simultaneous links**  
More aircrafts and channels



**Spectrum congestion**  
Less margins for planning



**Uncertain future link**  
New waveforms, new architectures

## ARCHITECTURE



## MEASURED RESULTS

### Scalability across compute classes

Real test results with SAFRAN Digitizer and NURON Telemetry RX

**Laptop / COTS PC**  
Quick and easy RX+Decom



**10-30 Mbps**

**Embedded PC**  
Rugged and deployable solution



**Up to 60 Mbps**  
aggregate

**Server**  
High Performance processing



**>400 Mbps**  
aggregate  
8 x 60Mbps  
Or  
4 x 100Mbps