# Migration Solution

## Meeting future demands

**RipEX**

Companies have used SCADA systems for many years and for many different purposes like monitoring systems and maintaining their infrastructure in real time. Many are now finding these **SCADA systems are too old** to meet modern, mission critical requirements and have high maintenance demands; these networks are rapidly coming to the **end of** their effective **lives!**
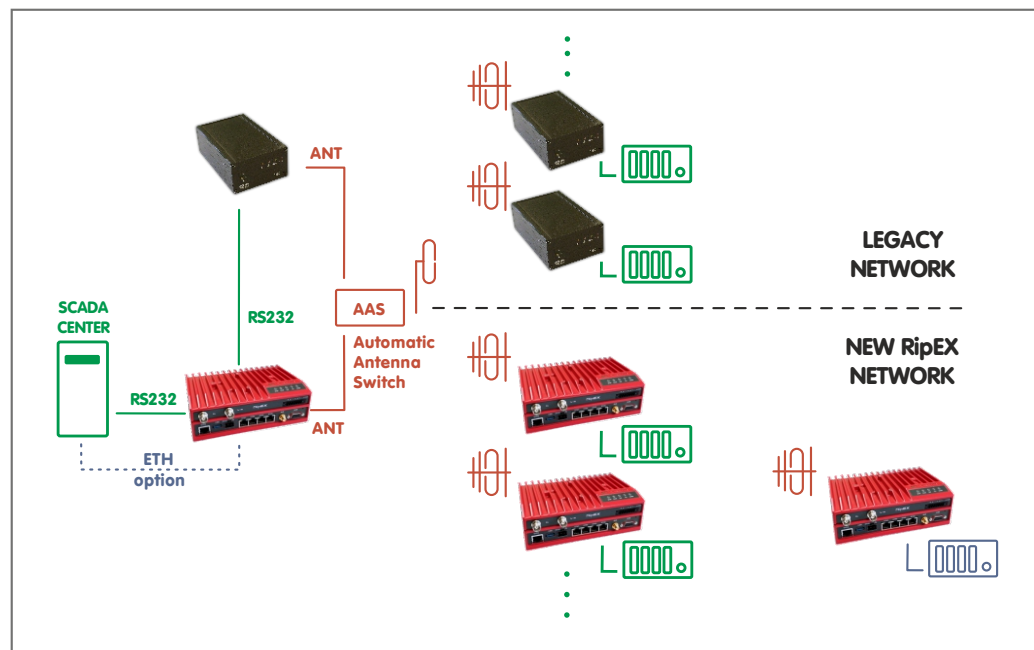
The optimal solution would be a **phased upgrade** to a modern, **future proofed** radio network using **staged funding** and **available manpower**. This would allow the scaled upgrade to be completed in a well-managed way with **no network outages** in the legacy network.

**RipEX** was designed to **handle just such a scenario**. Any RipEX unit can be used as a base station and routing tables are used to manage the traffic. Both of these factors enable migration **without** the need to buy expensive **temporary migration hardware.**

**The RACOM Migration Solution works equally well for any scenario; whether existing polling or report by exception networks are to be migrated or expanded.**

## Customer benefits

- **Standard RipEX units used - no expensive temporary migration HW required**
- **Budget investment directed where needed**
- **No network outage during migration**
- **Migration as part of regular maintenance**
- **Gradual one by one replacement**
- **Pay as you grow!**

**RipEX2**

- **1.7 Mbps / 200 kHz / 256QAM**
- **6.25 - 300 kHz**
- **4×ETH,1×SFP,2×COM,1×USB**

**RipEX**

- **166 kbps / 50 kHz / 16DEQAM**
- **6.25 - 50 kHz**
- **1× ETH, 2× COM, 1× USB**

**Common features**

- **0.1 - 10 watts, - 40 to +70 °**
- **Solar ready**
- **Wifi management**
- **Customized protocols**
- **Fast remote access**
- **IPsec**

## RipEX networks

- **Future proofed**
- **Exceptional Data throughput**
- **Optimized Radio protocols**
- **Unlimited Network design**
- **Backup routes**
- **Native IP environment**
- **3 year warranty**

### Old network limitations

- Slow data speed
- Obsolete products
- RS232 connections
- Low reliability
- High maintenance costs
- Older protocols
- Outdated security features
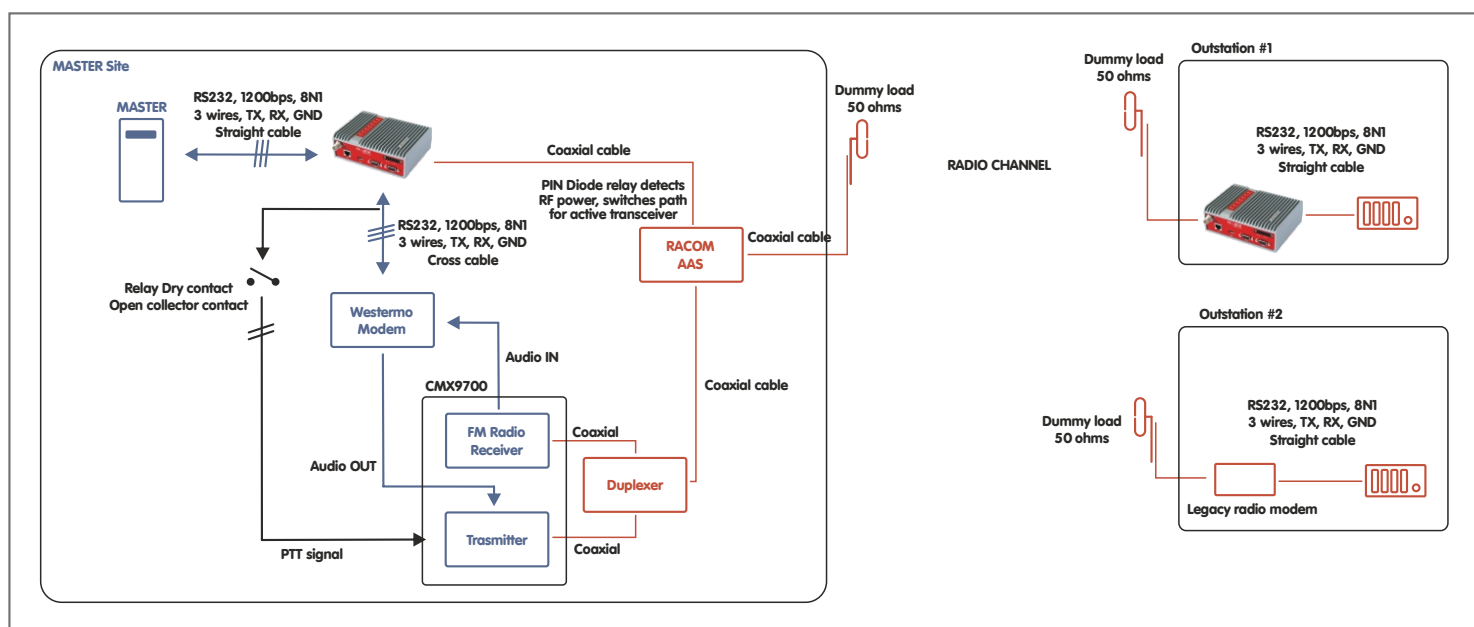
### New network demands

- High data throughput
- Next generation products
- RTU's with Ethernet
- 99.9% uptime
- Low maintenance costs
- Modern IP protocols
- Future-proof security features

**RACOM**

## FEATURES

- **Same frequency can be used for both networks**
- **AAS automatically manages antenna switching**
- **No changes to legacy network required**
- **RipEX routing table manages traffic for legacy and new network**
- **HW contact for ´Carrier On´ legacy base station transmissions supported (not on RipEX2)**
- **Reduced traffic load on legacy network offers improved performance**
- **Simultaneous SCADA upgrade - Serial and Ethernet RTU´s supported**

## BENCH TEST

RACOM was invited by a large European utility company to prove the durability of the RACOM Migration Solution. Bench testing was a unique opportunity for RACOM to prove its suitability.



Equipment used in the legacy network included: Clear SCADA SW from Schneider Electric in the centre, Westermo modem + RF datatech radio CMX 9700FD on base stations. There was RF datatech equipment on remotes: URT500 remote telemetry units and CMX9700FD radios with Westermo modems. Medina communication protocol was used for SCADA.

## Conclusion

**RipEX Migration Solution passed all bench tests successfully at the first attempt!**

**It was confirmed the RipEX Migration Solution would allow a scaled upgrade to be completed over time in a well-managed way, with no network outages in the legacy network.**

RipEX is a best-in-class modem known for reliability, performance and quality, implementing all relevant state of the art concepts and is particularly suitable for systems requiring uninterrupted operation.

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