Tekniam has developed RUCS, a customizable and instant solution to *bridge the digital divide*.

RUCS is both affordable and rapidly deployable, bringing reliable *last mile connectivity* to communities that need it most. Tekniam is a proud American Company that designs and manufactures the RUCS in Kansas.

The Remote Universal Communication System (RUCS) is an edge-based telecommunications grade network. It provides users with:

**Portable Communications Link (PCL)** creates a standalone local internet or cellular network signal from any available wide area network.

**Distribution Module (DM)** connects directly to the PCL or existing networks, broadcasts signal in a 1000+ ft radius and extends that signal across a wide area.

**TekMESH™ Operating System (TOS)** manages deployments from the Cloud. **Remote Monitoring** and real-time technical support.

### Specifications

<table>
<thead>
<tr>
<th>250+</th>
<th>1000+</th>
<th>3+</th>
<th>&lt;10%</th>
<th>3/4/5G, Ka/Ku/L/S/C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users Per Units</td>
<td>Access Point Radius (ft)</td>
<td>Unit to Unit Range (mi)</td>
<td>Throughput Drop Unit to Unit</td>
<td>All Connectivity Options</td>
</tr>
</tbody>
</table>

- **Satellite link to VSAT**
- **Long Distance Mesh Connection Between DMs**
- **Hardwired from VSAT to DM**
- **VSAT - two-way satellite ground station**
- **Distribution Module**
- **1000+ ft radius broadcast signal**
Portable Communications Link (PCL) creates a standalone network, aggregating the signal from existing satellite, ethernet, broadband or cellular networks.

DMs extend network signal from a PCL or any Ethernet source. They broadcast signal locally over a 1000+ ft radius and extend signal over a wide area through a wireless mesh network.

**PCL**

**Connectivity**
- Environmentally Hardened Industrial Router
- LTE/5G Cellular Modem
- Up-Link Connection Options:
  - Wired WAN/LAN
  - Ka or Ku Band Satellite
  - Point-to-Point Radio backhaul
  - RJ-45 - IEEE 802.3AF
  - 10/100/1000 Ethernet Switch
  - 1G Network Backplane

**Power Features**
- External:
  - 120/240 VAC
  - Portable Generator providing 120/240 VAC or 12 VDC
  - 12/24/36 VDC Solar or Wind
- Internal:
  - Battery Backup for power smoothing and normalization
  - 5/12/24/48 VDC per equipment requirements

**DM**

**Connectivity**
- 2.4 GHz High-power Access Point Radio
  - Up to 250 Simultaneous Wi-Fi Connections
- 3x3 MIMO Wave 2 Protocols
- 3 - Omni-directional antennas
- 1000+ ft radius coverage
- User connectivity via 802.11a/b/g/n 3x3 MIMO Wave 2 Access Point
- Network meshing via 802.11ac 2x2 MIMO
- High Power AI Routed Directional Radios

**Power Features**
- US-made Single Board Computer (SBC) with custom OpenWRT Operating System
- IP-67 rating
- Wind Survival: 140 km/h
- 0.5 amp - 48V DC power via POE
- Temperature Range: -20C to +70C
- Operating Humidity Range 5 to 95%
- Lightning Resistant:
  - 5000 amp surge tolerant
  - IEC 61000–4–5