

# ZPE Systems Helps one of the Largest Telecommunications Companies Maintain Uptime

Network uptime is the key to success for one of the world's largest telecommunications companies. In rural areas, delivering cable services such as television and internet requires networking that is reliable and accessible. Since customer satisfaction and the company's reputation are directly tied to the reliability of their service, this enterprise demands the full array of comprehensive capabilities that ZPE Systems' Nodegrid has to offer.

## The Challenge

The cable provider's market includes rural cities and towns, where critical equipment is stationed at remote sites. These hardware stacks were capable of serving their countryside service areas, however when equipment issues occurred, response times lagged and customers faced frustrating outages.

Responding to issues required the company to send technicians on-site, which often meant long travel times. Once in front of the equipment, the technician would physically connect their service computer, connect it to the internet via a cellular hotspot, initiate a VPN connection to HQ, and then support staff at HQ would remote-in via RDP. Regardless of the issue, the technician would have to wait on-site while support staff remotely remedied the problem.

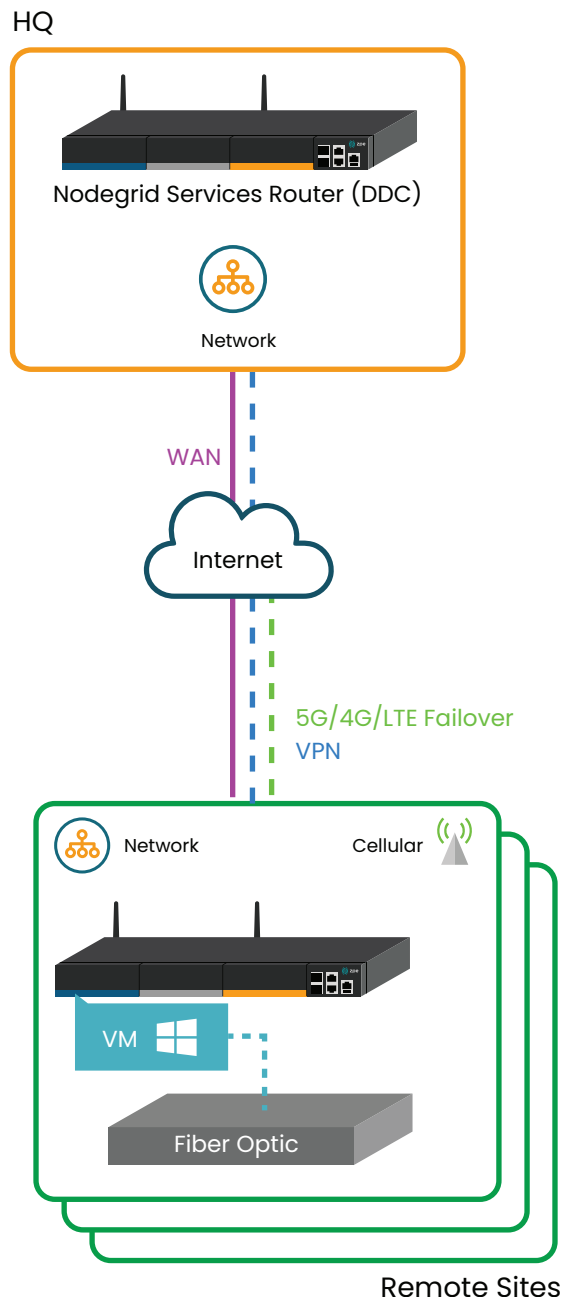
The company needed a better solution to help them save on support costs and improve response times. From a technical standpoint, this would require the ability to:

- Gain out-of-band access via cellular connection
- Run a virtual machine (VM) and guest OS to host proprietary management software
- Establish redundant cellular backup for their out-of-band network

## The Solution

Nodegrid was the only networking platform capable of meeting the company's needs. They deployed the Nodegrid Services Router (NSR) at each site, which gave them a compact, consolidated solution for remote out-of-band, virtualization & app hosting, and built-in LTE connectivity.

The foundation of the solution came from the NSR's powerful x86 internals, virtualization capabilities, and cellular add-on module. With Nodegrid OS, the company had a single box that could run their custom application on a virtualized Windows operating system. And with the M.2 cellular expansion card equipped, the NSR was their gateway to reliable, remote out-of-band access via LTE connection.



## The Results

Using the Nodegrid solution, the media enterprise was able to deploy an all-in-one appliance that could replace their existing devices. At each site, they could simplify their stack and do away with slow dial-up modems.

With an LTE connection and their proprietary management software running directly on the NSR, the company no longer needed to dispatch on-site technicians. Support teams could respond remotely from the enterprise's NOC, gaining a fast LTE connection to their out-of-band network. For most tasks and problems, this remote path proved sufficient. In the rare chance that an issue couldn't be remedied from afar, IT teams could collect crucial log information via the serial console to pass to technicians, who would be able to more efficiently solve the problem on-site.

As for reliability, the NSR provided redundant connections thanks to dual cellular modules and four SIM card slots. If interruptions or degraded cellular service threatened operations, the company could rely on the NSR to seamlessly transition to the next available backup.

## The Benefits

Nodegrid allowed the media enterprise to satisfy all their technical requirements, delivering:

- Fast, near instant response times
- Lower travel expenses and support costs
- Strong and steady levels of customer satisfaction
- More efficient resource allocation
- Detailed logs for auditing

By deploying the NSR at each isolated site, the company no longer needed to manage a cumbersome stack and dial-up modems. Deploying new locations and retrofitting existing builds became easy and efficient.

Because the NSR delivered virtualization and cellular capabilities, support proved convenient for IT teams. Establishing a fast remote connection meant issues could be addressed instantly without spending time and money dispatching on-site technicians. This streamlined resource allocation to keep staff focused on business needs, and all of this came together to help the company maintain uptime for better customer satisfaction.

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**Nodegrid's advanced hardware, software, and out-of-band capabilities keep distributed enterprises connected.**

**If you'd like to experience how Nodegrid can give you more control of your network, call or visit our website for a free demo.**

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