netElastic

# MUENET Reaps
Big Performance Gains
At Little Vendor Prices

- MUENET upgrades outdated MikroTik routers with netElastic networking software
- Bare-metal performance with off-the-shelf hardware makes installations easy
- netElastic software scales easily for upgrades and new installs

MUENET

In a German ISP growth story, MUENET—the Münsterland fiber upstart named after founders Laslo Müther and Patrick Nettels— has replaced its MikroTik routers for a sleek, budget-friendly netElastic BNG and CGNAT setup. The move saves the company roughly 83% on hardware and licensing costs compared to the big vendors like Juniper, turning what could have been a six-figure headache into a mere shrug for the business leaders.

Since 1996, when the internet was still mostly dial-up and cat GIFs hadn't been invented yet, Müther and Nettels have been "gut vernetzt" (well-connected, geddit?). Starting with fixed wireless broadband using gear like MikroTik and Ubiquiti, MUENET pivoted hard beyond legacy copper and wireless to FTTH around 2016. Today, the Coesfeld-based outfit boasts how it scaled its capacity to serve 40,000 subscribers in Germany with a growth plan towards 50,000 with netElastic software. MUENET has already connected over 30,000 households in Lower Saxony, North Rhine-Westphalia, and Rhineland-Palatinate to its fiber optic network in support of its "Well Connected" motto that has been in effect since its founding in 1996.

But the real story unfolded in the back-end plumbing. MUENET's old setup—five x86 servers groaning under MikroTik RouterOS, plus a pair of CCR2216s handling CGNAT—was hitting the wall. Challenges included capacity bottlenecks, skyrocketing power bills, undefined errors during peak Netflix hours, and the nightmare prospect of doubling the hardware rack for a second data center. "RouterOS as a BNG quickly reached its limits," said Managing Director Laslo Müther, "especially with ever-increasing customer bandwidth and those pesky undefined errors."
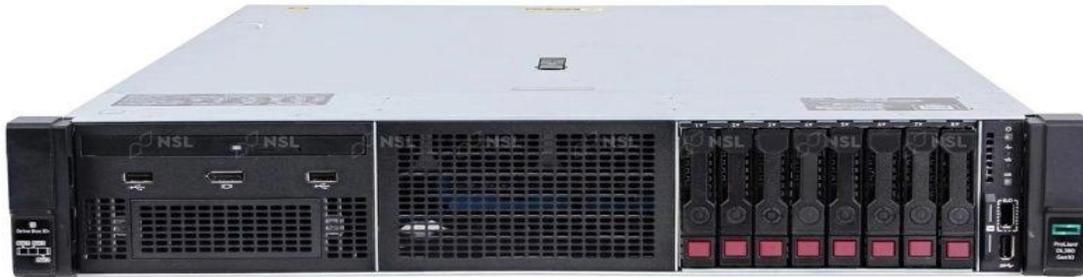
Enter netElastic, the software-defined solution that runs on MUENET's plain-vanilla HPE servers (x86 HPE ProLiant DL380 Gen10 Plus servers with Intel Xeon Gold and 100G NICs). The partnership started seamlessly with first contact in late 2023, hardware ready by early 2024, production live by mid-February 2024, and fine-tuning wrapped up in March 2024. No virtualization fanfare on this deployment—just bare-metal efficiency, one integrated box for BRAS/BNG and CGNAT, and a management GUI that doesn't require additional training for the team.

What sold them? "Support," Müther emphasized. None of that tiered "Silver/Premium/Platinum" complexity from the legacy giants—just real people who answer emails. Also: price. A comparable Juniper rig would have rung up around 83% in additional costs; netElastic's value showed itself quickly for the initial 200G/20K-subscriber HA pair, plus another bump to 40K subscribers. Scalability? "We don't need to worry about it at all right now," Müther shared. "Just add licenses—no forklift upgrades, no service interruptions." A minor hiccup—an elevated InMiss rate with PPPoE hashing causing subscriber-side performance dips was reported and then squashed with a new release. Classic software success story: bug, fix, happiness.

The payoff? Dramatically lower TCO, rock-solid stability, and zero second-guessing the core during speed-complaint tickets. "If tickets come in about end-customer speed," Müther noted, "we don't even have to check the BNG anymore. The performance is simply there." Looking ahead, MUENET eyes that 50K-customer milestone with confidence. Advice to other ISPs still clinging to legacy gear? "Don't wait too long," Müther quips. "If you're installing your third legacy system for termination and/or CGNAT, it's time to look for another solution."

In the fast-paced world of German fiber rollouts, where every rural household is an opportunity, MUENET has apparently found its secret sauce: not more hardware, but less drama. Who knew going software-defined could feel so refreshingly analog?