SUCCESS CASE 38.2026

SD-WAN

SOFTWARE-DEFINED-WIDE AREA NETWORK AS AN ENABLER FOR END-CUSTOMER DATA



THE CHALLENGE

The digitalization of energy supply significantly increases the importance of reliable end-customer data. Consumption values from smart meters, information from customer portals, invoices, and billing-relevant data must be as up to date, secure, and available at all times as possible. SD-WAN helps energy suppliers and distribution system operators meet these requirements through a flexible, intelligent, and highly available communication infrastructure.

Unlike traditional WAN architectures, SD-WAN continuously monitors the quality of all available connections, for example in terms of latency, packet loss, bandwidth, and stability. If a line fails or transmission quality deteriorates, data traffic is automatically redirected to a better path. Critical applications such as smart meter communication, customer portals, or billing systems therefore remain more accessible even during disruptions.

THE SOLUTION

- End-Customer Benefits in Brief
- More up-to-date consumption data: Smart meter values can be transmitted more reliably and displayed more promptly in the customer portal.
- Higher availability of digital services: Customer portals, invoice information, and self-service offerings remain more accessible even during network disruptions.
- Faster response times: More direct cloud connections reduce delays and improve the user experience.
- Less support effort for customers: Reliable data reduces inquiries about missing, outdated, or incomplete information.
- Greater transparency and trust: Customers receive clear, up-to-date information on consumption, feed-in, and billing.

MAIN ACHIEVEMENTS

The benefits are particularly clear in smart metering: when metering data is transmitted regularly and reliably, customers can better understand their energy consumption, identify potential savings, and respond more quickly if needed. At the same time, energy companies benefit from more stable processes, fewer disruptions in market communication, and higher quality in billing and customer service.



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KEY SUCCESS FACTORS

SD-WAN combines several transmission paths such as MPLS, fiber optics, internet, or mobile communications and automatically selects the best path depending on quality. This creates greater resilience than rigid WAN structures, where backup lines often become active only after a delay.

In addition, SD-WAN can prioritize business-critical applications. Metering data, billing systems, or customer portals therefore receive priority over less critical data traffic even under high network load. This improves the stability of the services that are directly visible to end customers.

Netz Niederösterreich has been using its in-house SD-WAN solution since 2022 and has been continuously expanding it. With a smart meter deployment rate of 99.9%, this approach delivers significant benefits in the meantime.

WAY FORWARD

SD-WAN is more than a network technology. For energy suppliers and distribution system operators, it is an important building block for providing digital customer services in a more robust, faster, and more customer-friendly way. The central benefit for end customers lies in more available data, more reliable online services, greater transparency, and overall higher service quality.

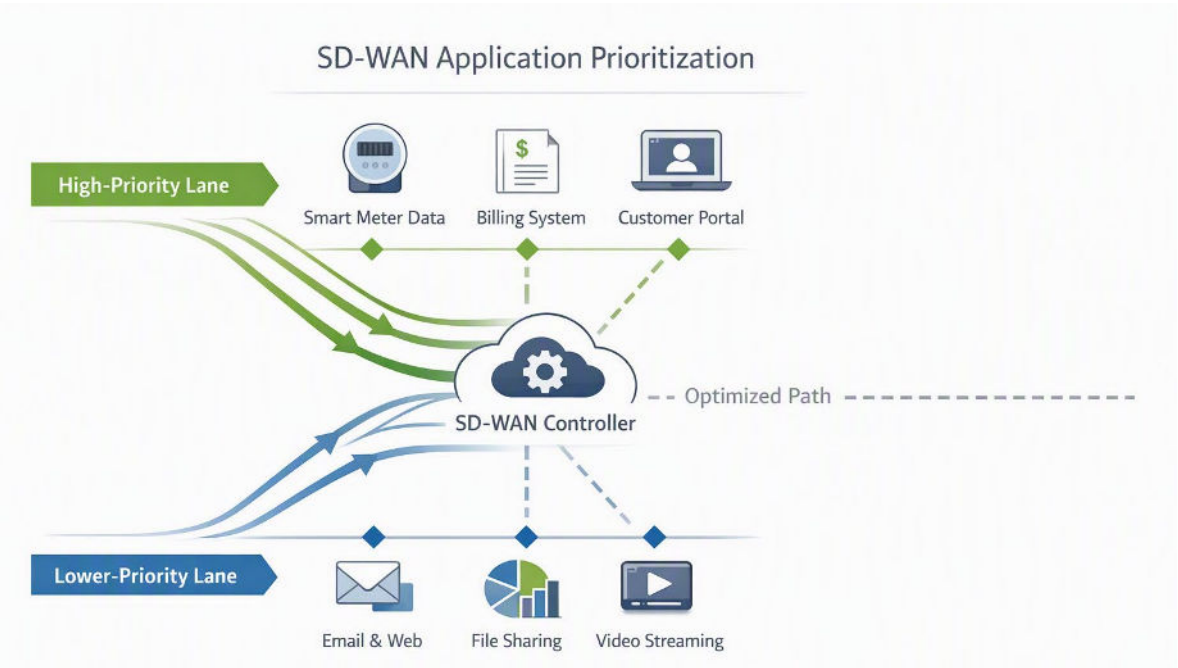


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