Im mostly working as a systems integrator and network technician, and do need to cache updates onsite for customers who only have really bad Internet [or as we call it in Germany: <u>#DorfDSL</u> (village DSL) & <u>#EDGEland</u> (Because in #Neuland, we only have EDGE!] connectivity.

And I mean really bad: Like 56k, ISDN, Eutelsat tooway and/or uselessly throttled LTE [not because a real flatrate is prohibitively expensive, but reception even with pointed roof antennas is crap] that is sometimes cobbled together using expensive <u>Viprinet routers</u> [which is almost always not an option due to budget!] just so that when someone opens google.com it's loaded before lunch break.

Until & Windows 8, a <u>simple transparent proxy</u> worked just fine and also allowed me to have a "portable updater system" that would allow to offline-update clients whilst in workshop or at a customer. This worked fine until Windows 10 came and borked it.

Now a single Windows 10 machine updating can effectively DoS a 2,3 MBit/s SDSL line so hard, that everything else just doesn't work so that I had to get on-site and QoS/"traffic shape" Windows Update connections...

Timing the Updates doesn't alleviate the issues, since this further cuts into the workflow of users, and at > € 0,20 per kWh it would also drive up electricity costs significantly, even if it was practical to WoL all machines and have them update and eventually boot-orgy before the first people need to use them.

This is similar to <u>another thread already posted</u> but the issue is the same.

And yes, a WSUS & Windows Server is neither practical nor budget-wise possible.

And on upcoming projects, the <u>P2P update distribution</u> (even if reliable - which to my knowledge & experience it never was and due to Ransomware risk is not an option in terms of security) would not work due to use of <u>CGNAT</u> in a <u>BFWA/WLL/WISP</u> setup in a rural area.

Cuz even if <u>legal and technically possible</u> and not considered "marketing suicide" in Germany, I might <u>need to block windows machines</u> from said network in order to <u>prevent them from DoS'ing the uplink</u>, at which point said project would be impossible to even market since not being able to use Windows would kinda pervert broadband internet for most customers.

A WSUS wouldn't work here either since there is neither administrative access nor control over the machines (since when did someone provide an ISP access to their machine? [Scammers preying on 'tech-illiterates' don't count!]), and even if then I'd be required to license hundreds of CALs and the datacenter version upfront and charge customers for that - which they'll give me the finger for...

So what should I tell the affected customers?

• "Get a Windows Server and WSUS for 4-digits per year in licensing and maintenance!"

I mean, if that would be the only option, then I might as well migrate them to <u>Ubuntu Advantage</u> or macOS since that would be cheaper and have less <u>GDPR-based headaches</u>...

• "Move away to a place with better broadband!"

Which everyone of those able to do already did, but considering the fact that those customers may be heavily-regulated industries (i.e. car mechanic shops & bodyshops with paint-spraying facility) that - even if financially viable - can't just open a new facility somewhere else and close the original location like a stupid warehouse full of books.

"Continue using Windows 7 despite it's designated End-of-Life!"

Obviously that's not something that I can't and won't take the responsibility for - even if I wasn't risking to get fined into insolvency or even imprisonment for gross leglect in such scenario, it would still be dishonest and false to my customers. And Microsoft will obviously not compensate me if the "s\*\*t hits the fan" and virtually everyone has me on their "never hire for anything in this company"-list, damages, no insurance in the world will cover for me even if that's legally possible.

It feels like someone purposefully designed a tank inlet (or charging port) on a new car model to only work with the fuel nozzles (or chargers) of a single gas (or charging) station chain and does completely prevent the use of a jerry can (or electrical adapter).

I would love to hear any official response from Microsoft Reps, or at least some known-to-work workarounds others have deployed.

Thanks for your time reading this!