Follow up to “Markets”

A wakeup call to Product Managers

The “we know what our customers want” fallacy

To be blunt – you don’t! I’ve been there, and the speed one loses touch is frightening! If you have never been in the customer space (and a lot of your peers in manufacturing have not been at the cutting edge of production,) stop trying to equate your “experience” with what the 24/7 production space has to deal with.

The “customers don’t know how to articulate requirements” truth

The counterpoint is customers don’t know how to express their requirements clearly. Here is an early 2026 translation. If anyone disagrees, and thinks I’ve missed something essential- please reach out! I KNOW I have a specific perspective. If you think I’ve nearly articulated something, but it doesn’t quite fit, and you don’t want to share with me. That is entirely your prerogative and I respect it!

The conclusion of this fantasy conversation!

Manufacturers are the ones who stand to gain! Dismissing users and field teams for inaccurately describing their problems to you is YOUR PROBLEM ultimately. IF you do the work, you will profit, and that is good for everyone. IF you don’t we will vote with our feet! Maybe not today, but we will begin to strategize how to escape. And a warning to zero sum MBAs – this is not how the customer base in most “verticals” actually work!

My take on “requirements”

This is a non-exhaustive list. A lot of things won’t necessarily apply to specific technologies. Instead of working on the excuses the “nobody has asked for that before” absolute fiction! Just consider “that’s interesting, we’d look at how that works with our roadmap”.

The universal requirements:

1. Device discovery
    a. We need to be able to discover all devices, whatever they are. My initial thoughts are around an MQTT broker- if you want to get maximum gold stars – bundle an HA cluster with ssl AND plaintext authentication, with a manual topic structure. Otherwise, allow us to connect to our own broker without let or hindrance!
    b. I acknowledge that specific manufacturers have value added features. This is why we buy x over y. please feel free to add as much directory structure above my base – but don’t dictate to the root (it’s inappropriate!)
    c. You know what discovery options make you better than your competitors (believe me, we also know!) don’t obfuscate – it doesn’t “add value!”
2. Timing and sync:

    a. We live in a world that relies on timing and sync. A lot of us have PTP grand master clocks and infrastructure for boundary clocks already!
    b. Don't demand anything more than Ordinary clocks for your endpoints. Those of us that need and use boundary clocks know how to do this already
    c. Don't demand transparent clocks to lock us out – simple – we won't buy! IF TCs are a perceivable benefit, show me in an honest side by side – I am happy to change my mind. However, I need to incorporate more devices than you produce! Don't cripple my infrastructure! Please, feel free to add a TC extension. I look forward to changing my mind, and ripping out tens of thousands of sunk cost! Well, I don't, but if you are right, then, I'll have to, and it's not your fault!
    d. Don't lock out based on a subset of ptp domains – allow us to decide the profile and domain! Of course, if you require a specific sync and followup, even announce rate to actually work – that is fine. Please publish this for transparency!
3. Encryption
    a. We need to exchange encrypted media streams on a per channel basis. This must be done using TLS – old AES256 XOR is yesterday's news, and whilst "adequate" is not a modern open way to function.
    b. We also need to publish unencrypted streams for temporary ad-hoc systems/our other manufacturer partners who will adopt at differing rates.
4. Dual-stack
    a. For the same reason as PTP domains – we are stuck with IPv4 and therefore PIM for the moment! I'm of course yearning for IPv6 native, and MLD! I'm just following the US DoD!

NO CLOUD ONLY SOLUTIONS!

Whilst I fully accept that this is seen as a "moat" the reality is, its such a good "moat" that it is questionable whether a whole infrastructure will cross that moat to pay you! I'm not anti "phone home" or "timer starts ticking" to prevent user fraud! However, live reality is that until the cloud is "finished" we can't depend on it 24/7/365! IF we do decide to deploy our own ISO image in our own cloud server, then WE can document this in our boundary statements – not you.

Until the cloud is "finished" then we need on premises solutions, that can be updated on OUR timeline. It is 100% reasonable to require the latest release to support (this saves your time and effort dealing with "bugs" that were long since fixed!)

My Wishlist (see flying pigs in 2026)

Control traffic should be state driven. Polling is so 1970's/1980's we want to reduce bandwidth chatter, and do more cool things. This will require whole industry segments to move. Audio has always been ahead of the game here, and should maintain its leadership position!

It would be fantastic if monitoring was achieved using open telemetry. Whilst not a go/no-go it would add significant value.

An easy way to store configurations in Ansible, or any other human readable form will allow us to orchestrate the entire network, as well as being in better proximity to our colleagues in IT!

Fantasy or reality?

I expect the gaslighting. In a professional environment – software piracy is a nothing burger. If someone “pirates” your code, what material damage have you suffered? A professional installation WILL NOT pirate software! This is a negligence trap of the highest order! Recurring revenue is life- we know that nobody works for free – nobody expects YOU to either. Just be reasonable, and open. We would prefer the risk shift (wherever possible). We see support as the differentiating value add, not some beautiful piece of metal work (but beautiful metalwork is nice!). Our paying customers (hopefully) never see the control screen!

Unreasonable demands?

I’m looking at this as how the “work progresses”. Its tone is strong (English is beautiful, and “should” is the weasel of all native English speakers!) To attempt “balance”. We live in a world where NIS2 is looming. In our pro space – software piracy is just not a consideration (we won’t, because being sued by a software house, whilst unpleasant is a lot less scary than the slam of the cell door!). Please help us to continue to succeed, rather than fretting over non-existent threats. If nobody is buying, its because the product is lacking, not that you are being ripped off! In practice, professional AV products are fantastic. There is a vibrant business here for everyone!

Appendix – possible relaxation

I apologise for the slightly confrontational tone. Sometimes it is necessary! Below a huge tract of references that formed my thoughts informing the requirements above - cybersecurity compliance (NIS2), product liability for software (EU PLD 2024)- software piracy, and government IPv6 mandates (US DoD):

https://www.nis-2-directive.com/

https://eur-lex.europa.eu/eli/dir/2024/2853/oj/eng

https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/844002p.PDF