

The Modern IT Stack Map

Seven layers every organisation runs, whether or not anyone has drawn them. Work bottom to top: a weakness in a lower layer undermines everything resting on it, which is why access problems cannot be solved one application at a time.

Layer	What sits here	What good looks like	Absent	Basic	Solid
7 Observability & Security Operations	Uptime and cron monitoring · error tracking and alerting · log aggregation · application performance monitoring · distributed tracing · alert routing and on-call	You find out from a system, not a customer — and every alert has an owner and a documented response.	☐	☐	☐
6 Applications & Productivity	Line-of-business applications · email and calendars · documents and collaboration · finance and billing · customer records · helpdesk and ticketing	Every application has a named owner, a renewal date on a calendar, and a known answer to “where does our data go if we leave?”	☐	☐	☐
5 Data & Integration	Systems of record · data exchange between applications · reporting and warehousing · file transfer · retention and archiving	One agreed source of truth per data type, and integrations that are documented rather than remembered by one person.	☐	☐	☐
4 Infrastructure & Hosting	Servers and virtual machines · containers · websites and hosting · databases · storage · backup and recovery	Backups are tested by restoring them on a schedule — and you know the date of the last successful restore.	☐	☐	☐
3 Network & Connectivity	Internet connectivity and failover · firewalls · internal networking and wireless · remote access · DNS and domains	You know what is reachable from outside, domains and certificates renew without anyone remembering, and remote access does not depend on a shared password.	☐	☐	☐
2 Devices & Endpoints	Laptops and desktops · mobile devices · patching and updates · endpoint protection · device enrolment and disposal	Every device is enrolled and patched automatically, and a lost one can be locked or wiped the same day.	☐	☐	☐
1 Identity & Access	Directory and accounts · single sign-on · multi-factor authentication · permission groups · privileged accounts · joiners, movers and leavers	One account per person across everything, multi-factor by default, and access ends the day someone leaves — not whenever it is noticed.	☐	☐	☐

How to use this map

Tick one box per layer, honestly, then read the lowest layer marked Absent or Basic. That layer is where your next piece of work belongs, regardless of which layer is generating the most complaints. Modernization sequenced from the top down gets redone; sequenced from the bottom up, it holds.

Two things this map deliberately leaves out

It names no products. The right tool at each layer depends on your size, sector and obligations, and a map that named vendors would be a sales sheet. It also shows no org chart: ownership of a layer can sit with staff, a provider or a mix — what matters is that someone is named for each one.