

BeyondCorp: Beyond fortress security


BA.net Private Cloud Office



Open Source Software

Freedom, flexibility, low cost, no vendor lock-in, no jumping through monopoly license hoops, byod, local software, hybrid cloud, retire old firewalls, new security model zero trust, corporate access proxy.

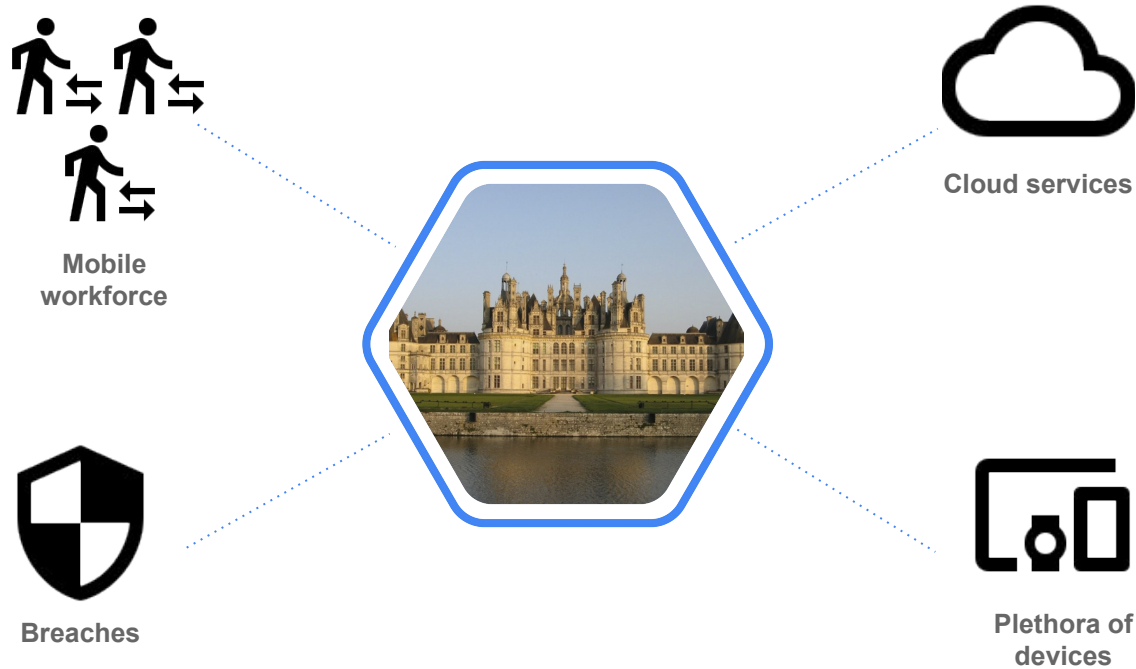
New hybrid cloud model: risks and threats

A large, ornate French chateau with multiple towers and domes, situated on a grassy bank overlooking a river. The building is illuminated by warm, golden light, likely from the setting or rising sun. The sky is clear and blue. The text "How some enterprises think of security" is overlaid in white, centered on the image.

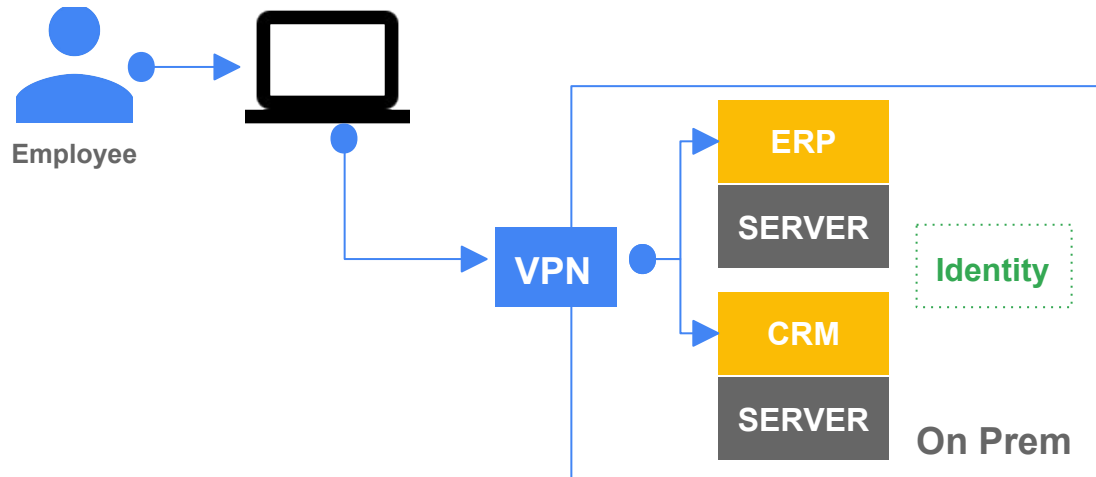
How some enterprises
think of security

But there are issues with this approach...

Four issues that are wrecking the castle approach

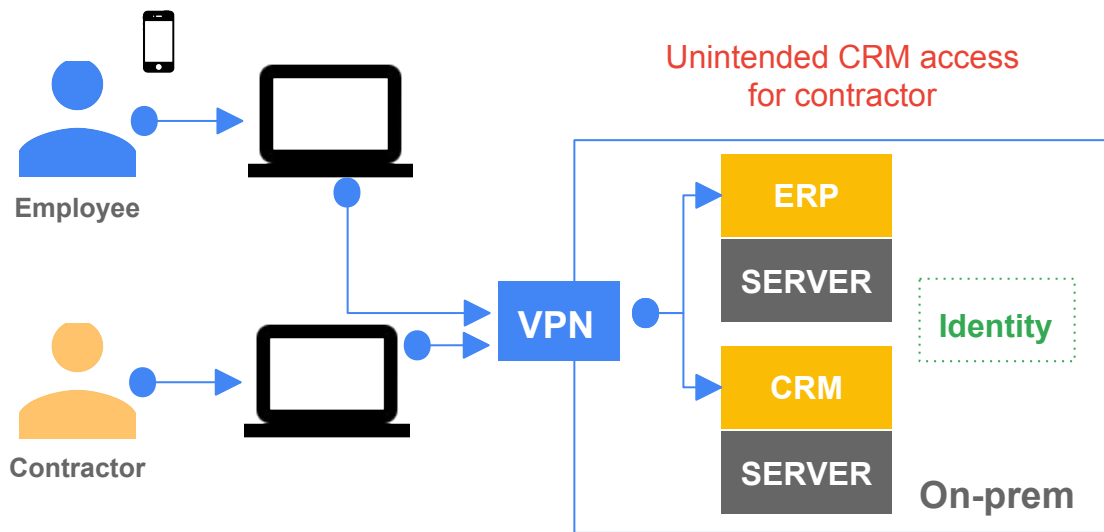


Access yesterday: On-premises walled gardens



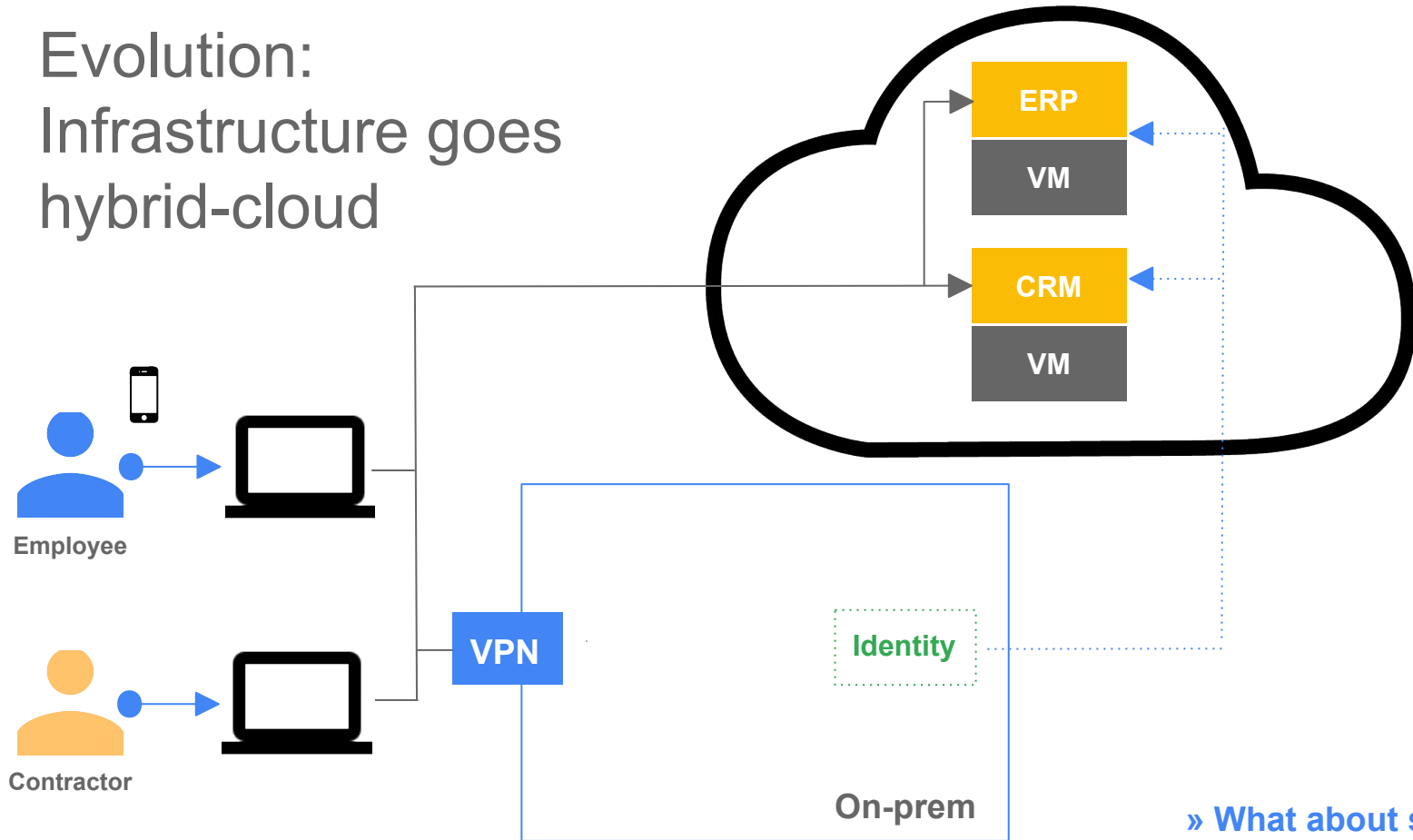
» What about contractors?

Evolution: Not just employees with corporate devices



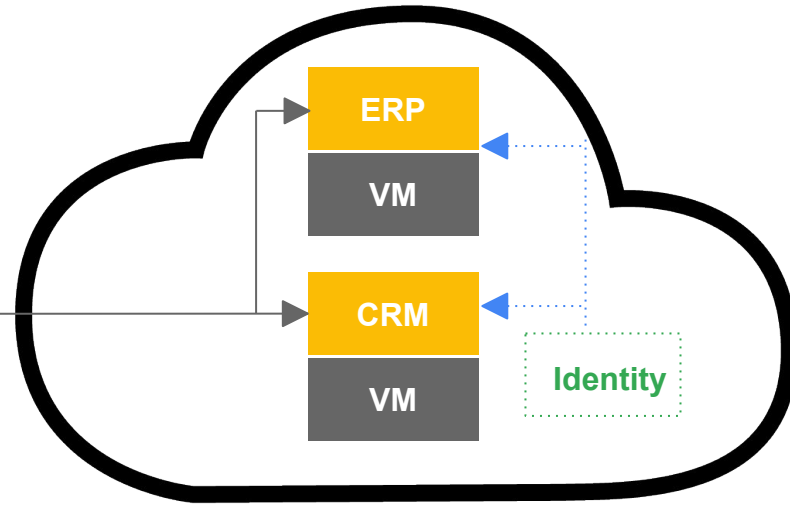
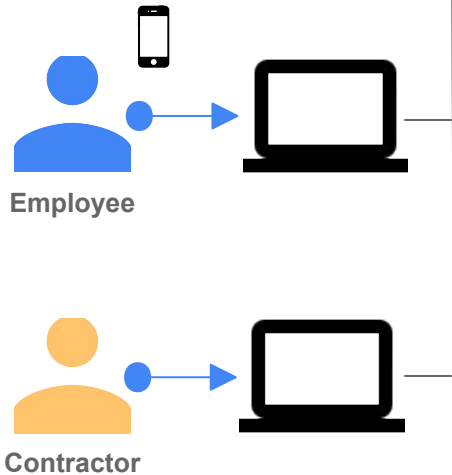
» What about the cloud?

Evolution: Infrastructure goes hybrid-cloud



» What about single sign on?

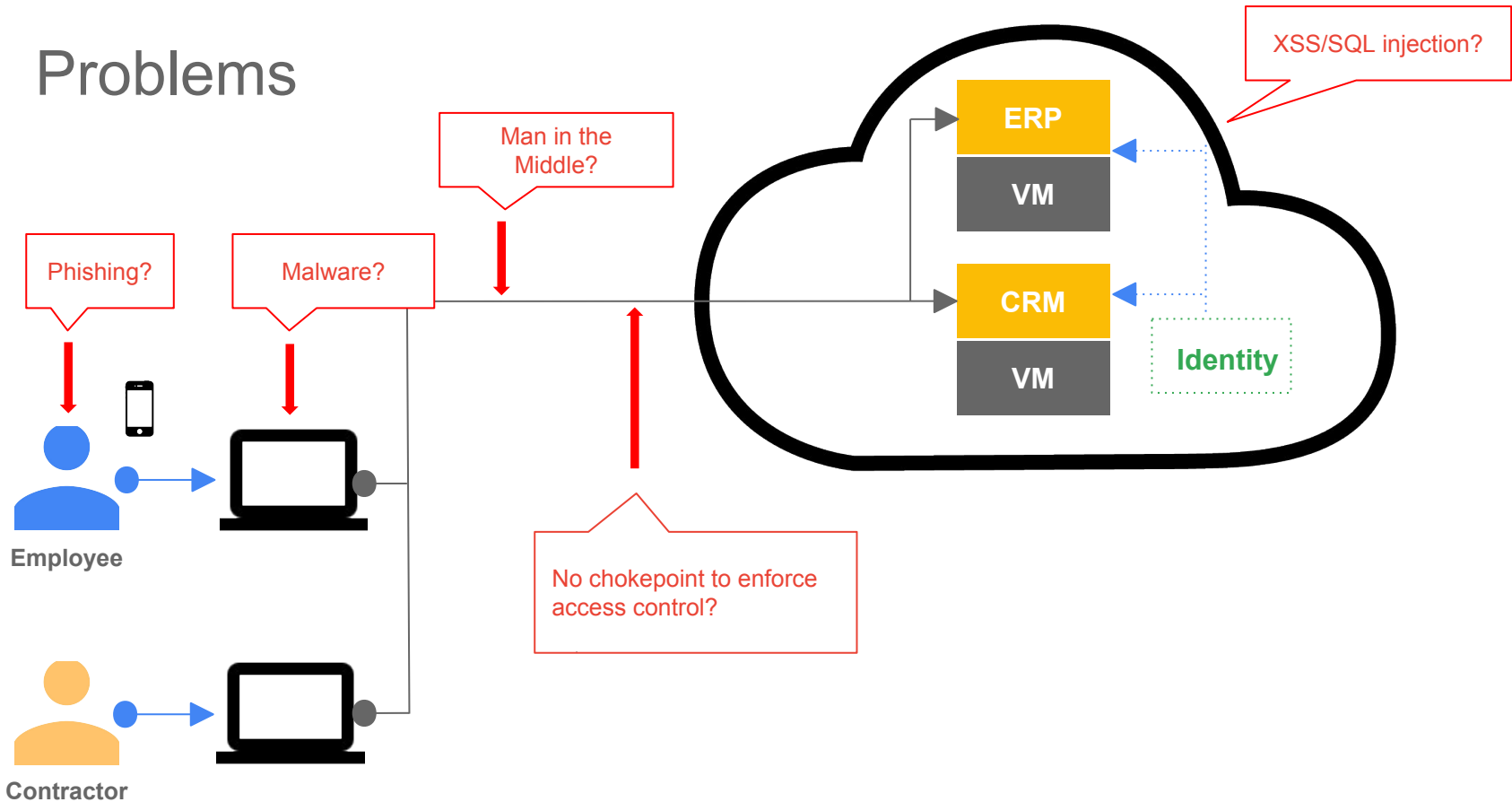
Evolution: Identity goes hybrid-cloud



Now everything is either local software
or cloud replicated

» What threats are there in this new cloud world?

Problems



» What should I do?

BeyondCorp's realization

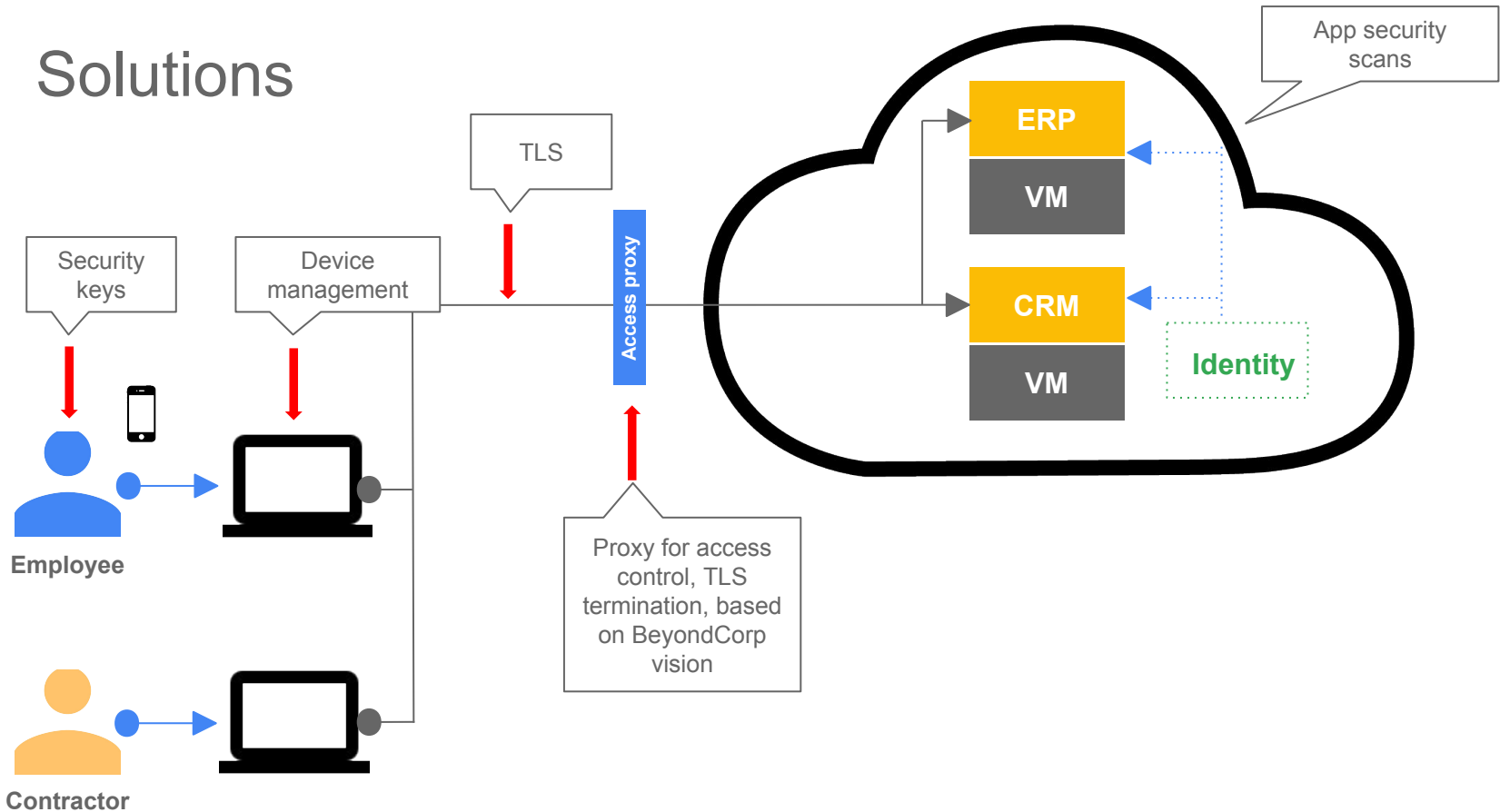
WALLS

DON'T

WORK



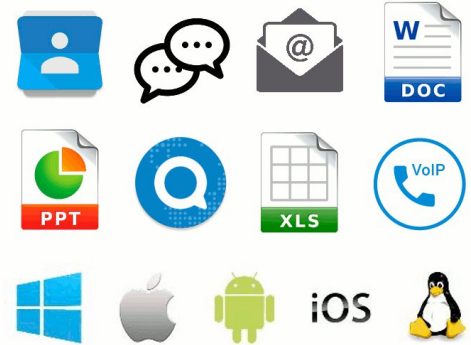
Solutions



» So what's the ideal?

I want my Office application service to be:

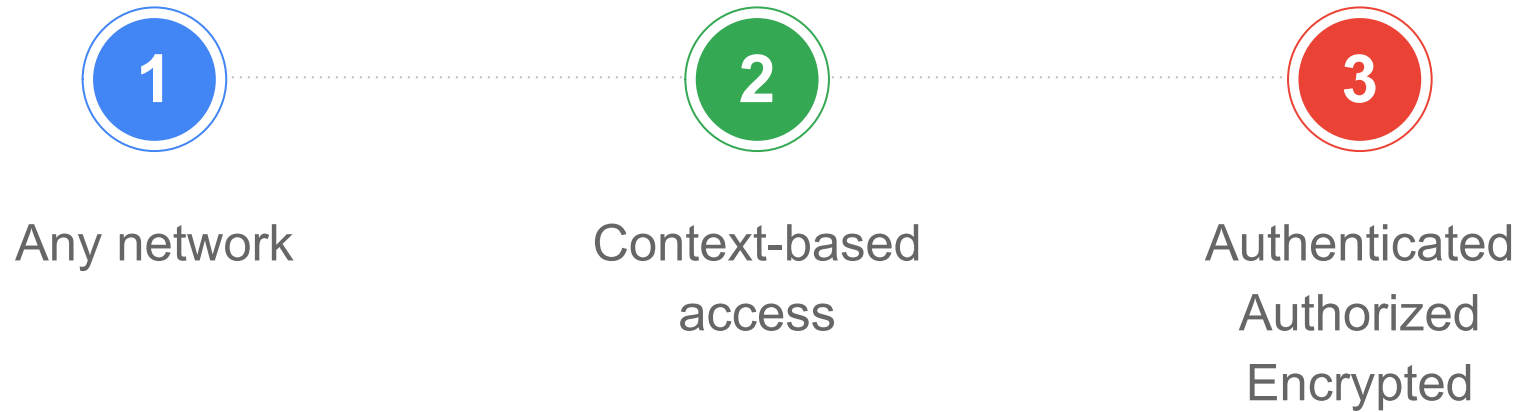
- Accessed only by employees
- From well-managed client devices
- In home country
- Using strong user authentication
- And proper transport encryption and
- Hardened against application attacks



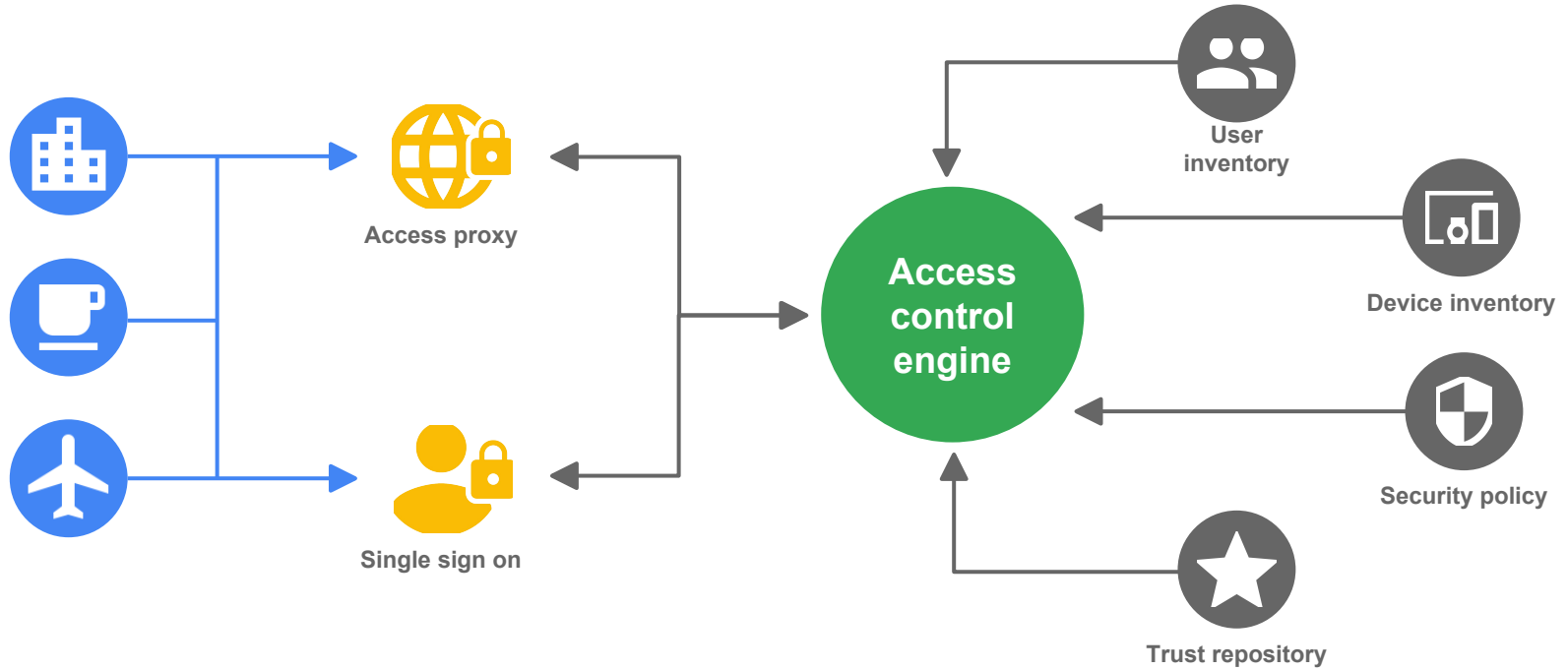
BA.net Private Cloud Office

Implementing BeyondCorp

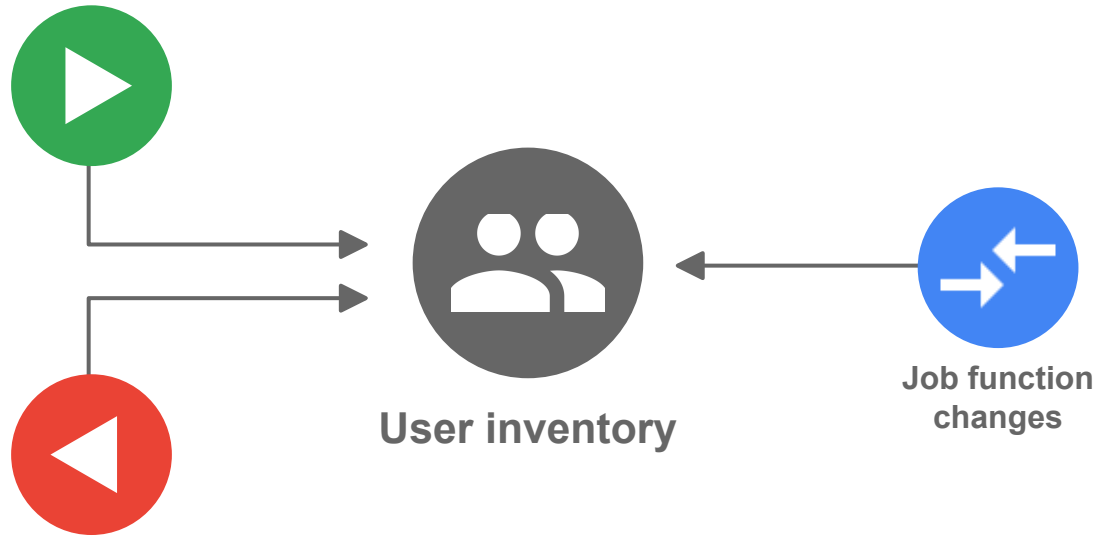
Core principles of BeyondCorp:



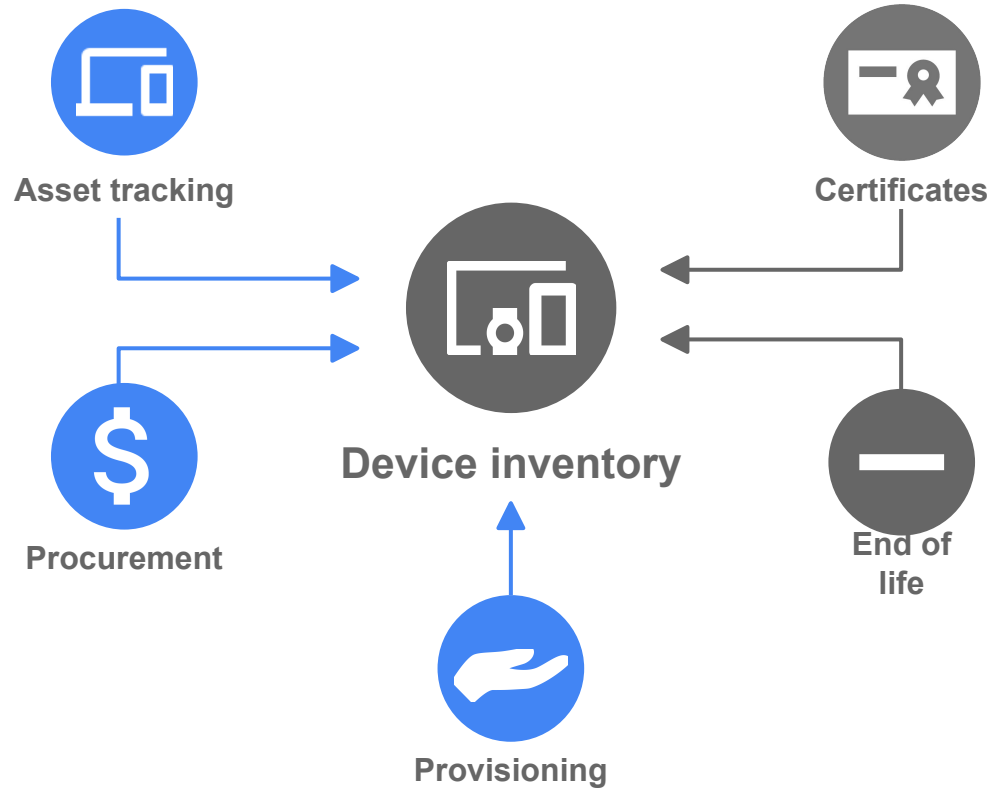
High level



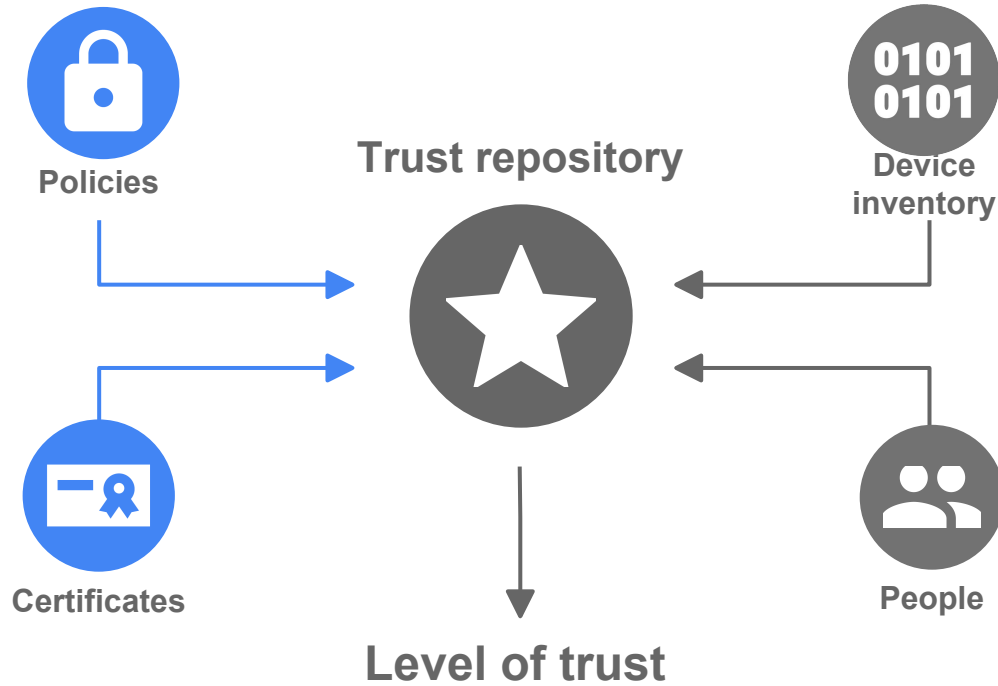
Know your people



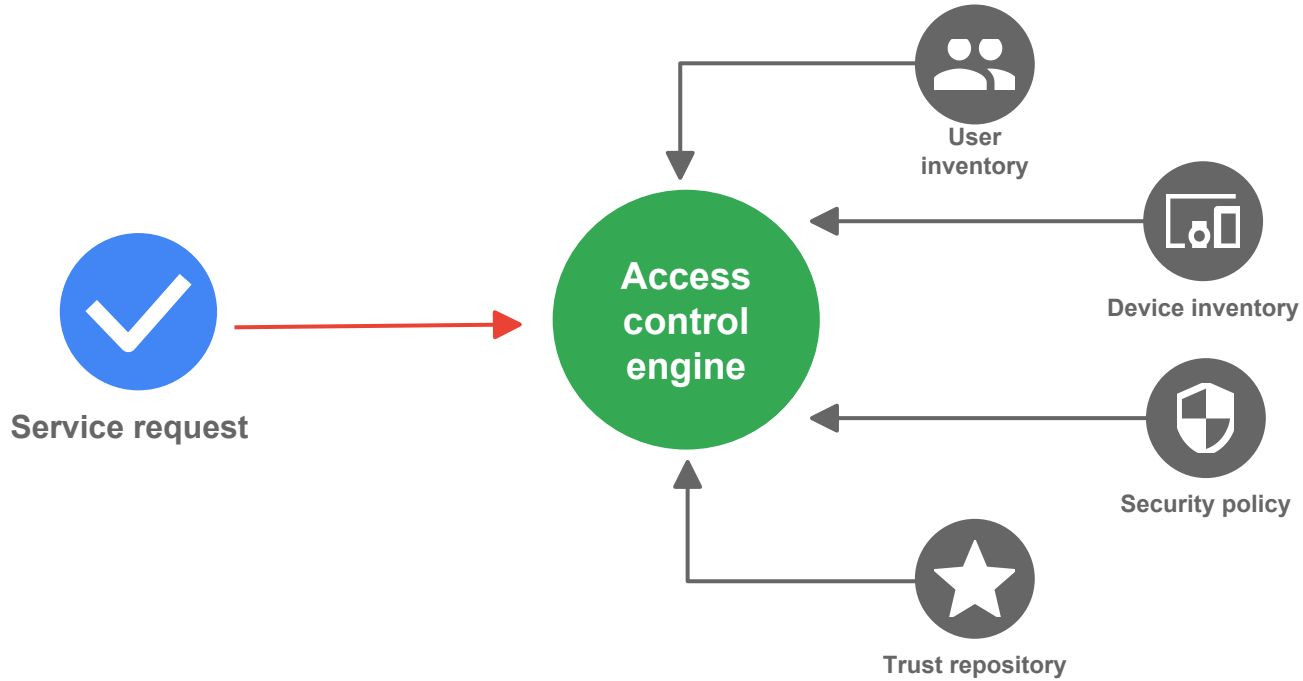
Know your devices



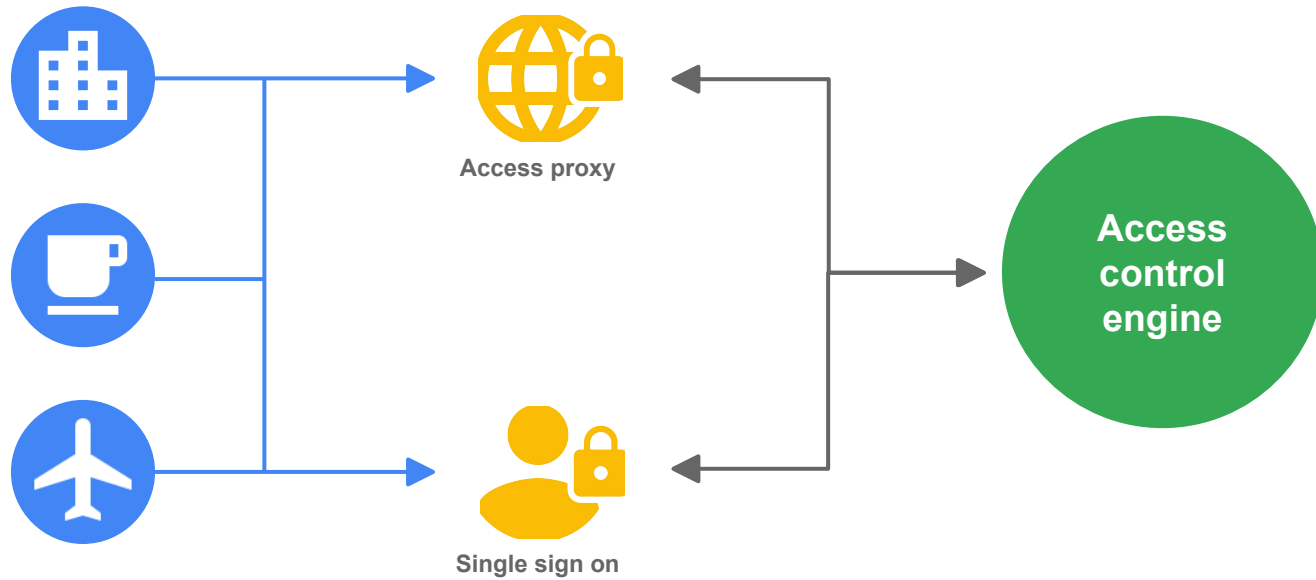
Dynamic trust repository



Access policy



Access from anywhere



An aerial photograph of a massive herd of wildebeest migrating across a vast savanna. The herd is densely packed in the foreground and middle ground, moving from the left towards the right. The landscape is a mix of green and brown grass, with scattered acacia trees and rolling hills in the background under a clear sky.

Migrating to BeyondCorp

New unprivileged network



New VLAN

+



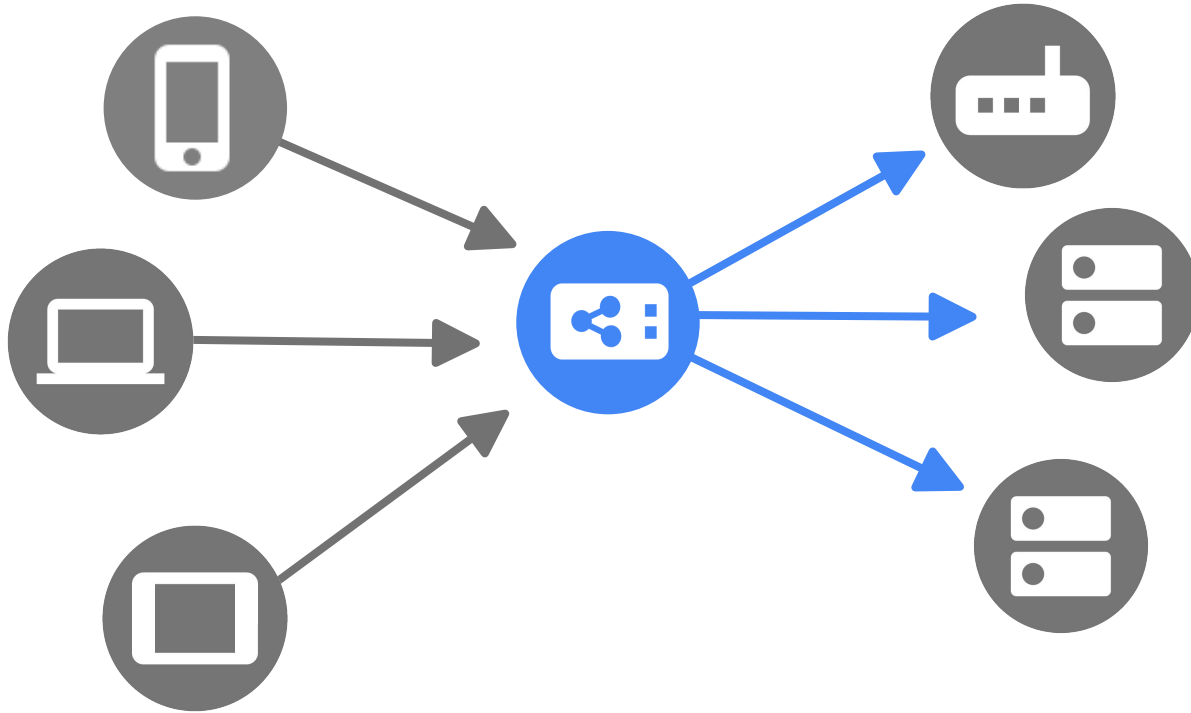
Add devices

+

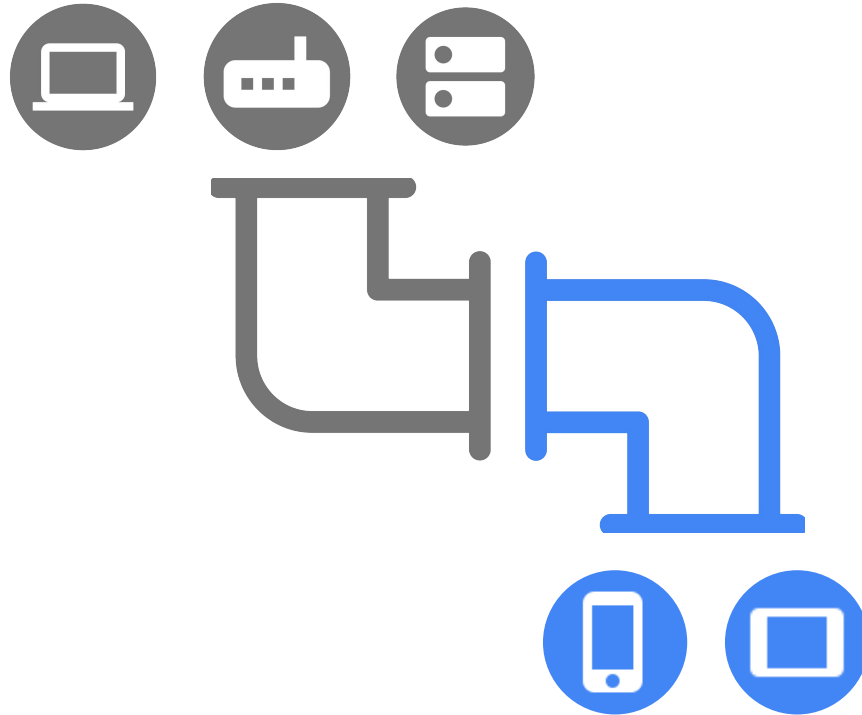


Deploy

Traffic analysis



Safely migrate devices





Better loaners

BeyondCorp Papers

- An overview: *A New Approach to Enterprise Security*
- Front-end infrastructure: *The Access Proxy*
- Migrating to BeyondCorp: *Maintaining Productivity While Improving Security*
- The Human Element: *The User Experience*



Lessons learned:

What 7 years taught us about
migrating services to the cloud

Lessons learned migrating to hybrid cloud

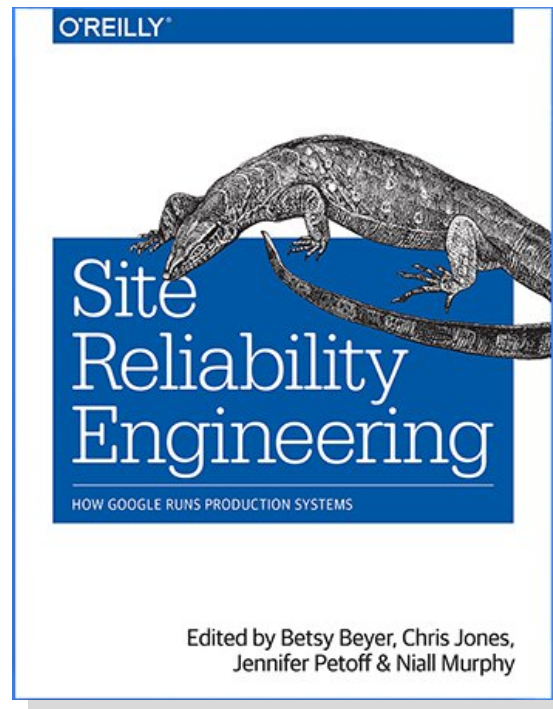
- ✓ Get, and retain, executive support
- ✓ Enable painless migration

Run highly reliable systems



Lessons learned migrating to hybrid cloud

- ✓ Get, and retain, executive support
- ✓ Enable painless migration
- ✓ Run highly reliable systems



Remember:



Have **zero trust**
in your network



Base **all** access
decisions on **what you
know** about the user
and their device



Migrate carefully
so as not to break
existing users



Thank you