Feudal computing

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- we pledge allegiance and entrust our data to them;
- in exchange, they promise to not treat us too bad and provide some kind of service.
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► we choose one or more “lords” out of a handful;
► we pledge allegiance and entrust our data to them;
► in exchange, they promise to not treat us too bad and provide some kind of service.

It is not all bad, but we have about zero power in this equation.
The surveillance morass

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(By the way, everything aside, it is kind of interesting to know what that looks like.)
Now what?

Obviously there is no quick fix, but solutions fall into two categories.

1. Legal/political: improve transparency
   - regulate internet businesses
   - rein in the NSA (ex. no secret law)

2. Technical: “make mass surveillance more expansive”
   - encrypt more (opportunistic, IPsec, DNSsec)
   - incorporate the new information to the threat model
   - target dispersal
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Target dispersal

The internet as a whole was more secure when our email was hosted by 1000 ISPs, but now there is 10. [1] 1:18:40

I.e., the concentration and centralization of data inherent in a feudal internet creates a single point of failure, technically and socially.
Everybody, manage your own email service!

In principle, anybody can host their own email:

- for free/cheap, get a DNS delegation for, say, example.com;
- rent a VPS for $5/mo, or purchase a plug server for $25;
- install Linux and Postfix on it;
- designate your server as MX for example.com.

Et voilà! Email for alice@example.com is now collected by your own server, under your control.
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In fact, the Gmail model works because it permits enormous economies of scale: millions of accounts served but only one infrastructure to maintain.
Administration as software development

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There is no reason why this “software” cannot be mutualized in the same way as all of the other software we use, or why one entity should own all of the metal that runs it.
Some incarnations of this idea

The so-called “Freedom Box” [4] is a project pitched by Eben Moglen (Software Freedom Law Center) in 2010.

The idea is to bundle some privacy-enhancing free software (Tor, privoxy, ...) onto a ready-to-use plug server. Mostly vaporware at this point.
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(Discuss viability?)
Corporate buy-in

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Fortunately, the requirement for the infrastructures of a sufficiently large organization are identical to the requirements for a global infrastructure.
Example: Kerberos, AFS, LDAP

(demo?)
Other dimensions of target dispersal

Come up with decentralized protocols for existing services (Facebook, Dropbox, ...)

Internet Engineering Task Force.
Ietf 88 technical plenary: Hardening the internet.

Nicole Henderson.
Open source project arkos brings simplicity to self-hosting.

Bruce Schneier.
When it comes to security, we’re back to feudalism.

Steven J. Vaughan-Nichols.
Freedom box: Freeing the internet one server at a time.