

Getting Started with Salt Open

SALT ARCHITECTURE AND OVERVIEW



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IT Strategy



Often not clear until problems emerge

New product launch overload

Embarrassing security breaches

Automation helps

- Formalizing systems and processes
- Eases expansion
- Provides insight to enable audits



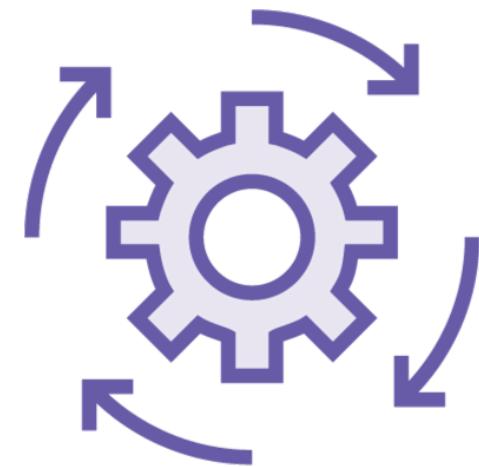
Salt Open



Free and open-source



Commercial
support available

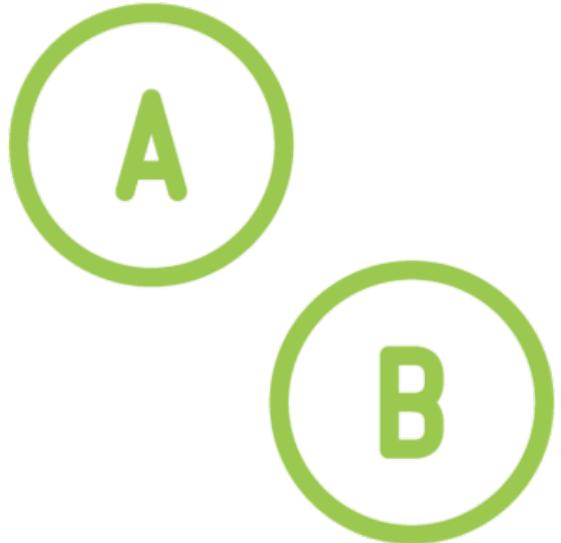


Automation





Competitive Options



Ansible

- Agent-less
- Slower authentication
- Gentle learning curve, less powerful
- Can use agents with extra setup

Puppet

- Steeper learning curve
- Ruby and Domain Specific Language (DSL)

Chef

- Steeper learning curve
- Ruby and Erlang



Salt

Active and growing

Well-documented

**Support for other
network equipment**

Commercial support

Mature and solid
First release 2011





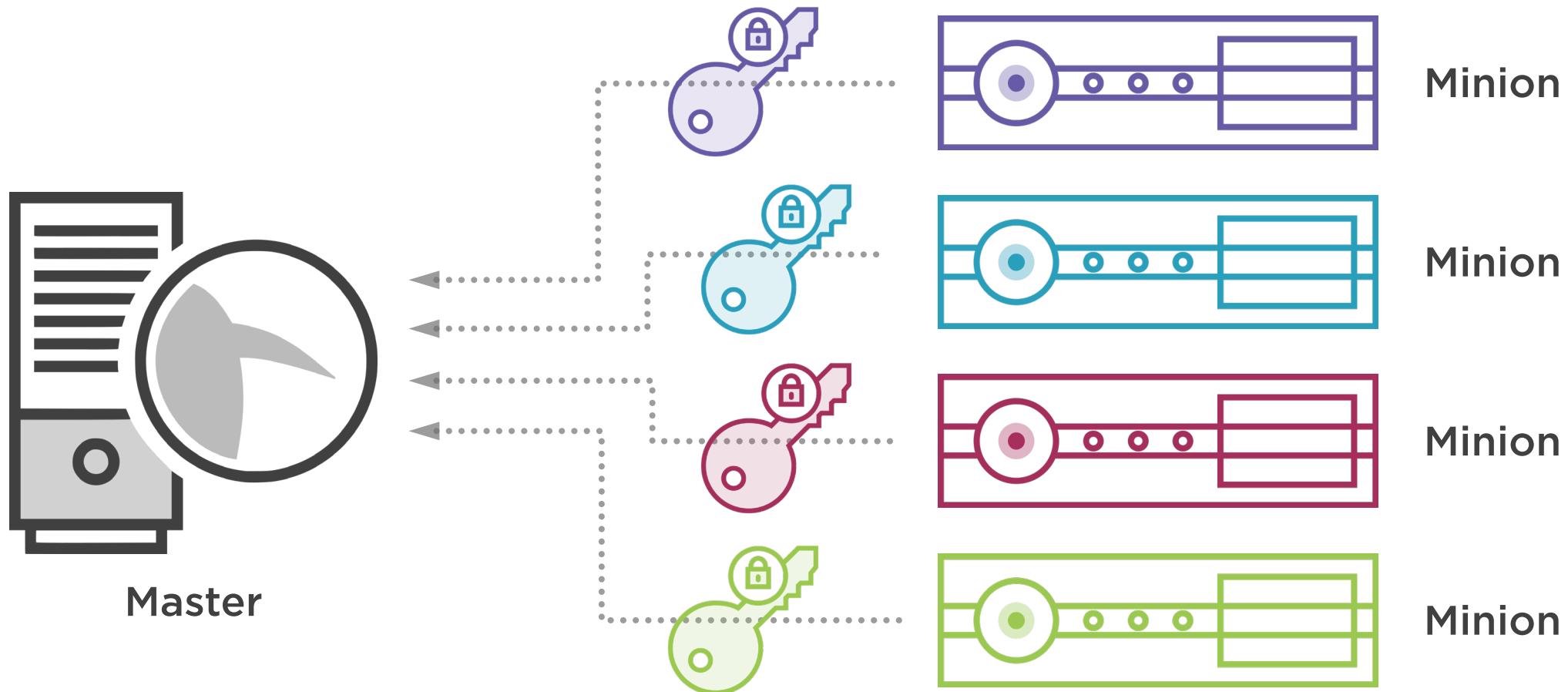
Live video

Talking head

Perhaps images for configuring a server, or going through a checklist, or showing a collection of files animated as they move into a server which changes color and connects to the Internet?

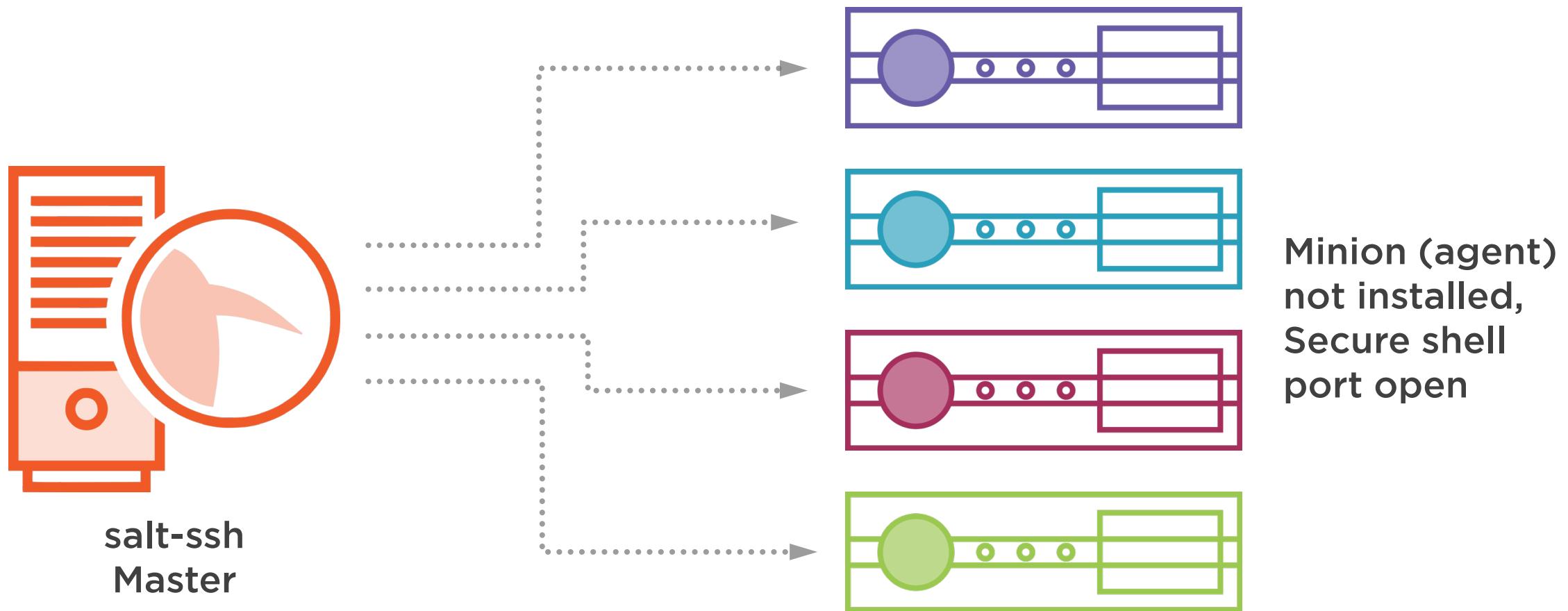


Salt Architecture





Salt SSH Architecture



Agent or Agentless?



Agentless systems require SSH to be open on all the target machines

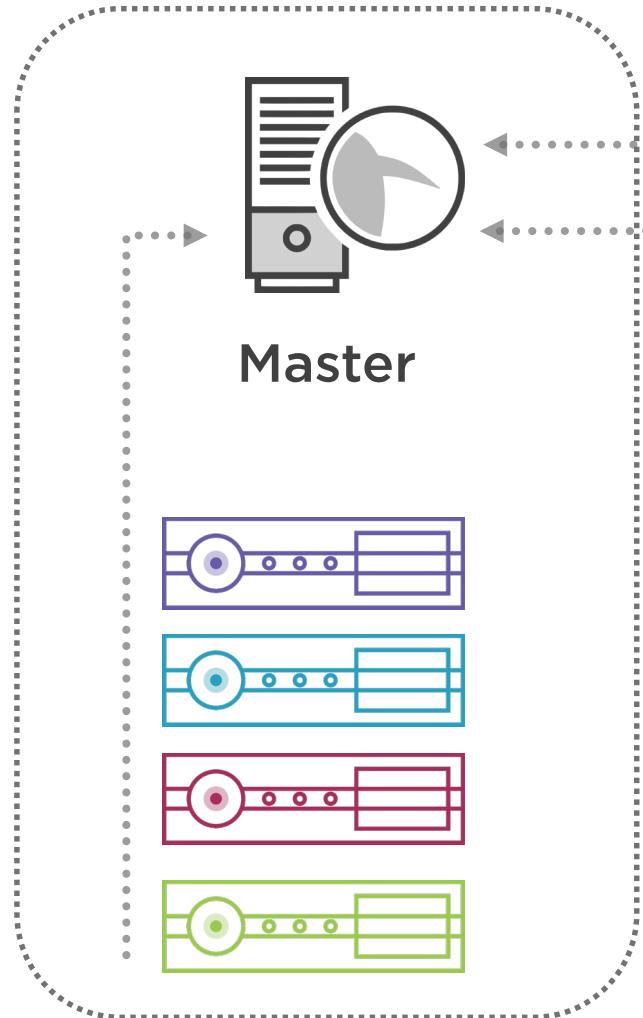
- Increased attack surface
- Remote minions should use a VPN
- Please do not use port forwarding

Salt only requires open ports on the Master

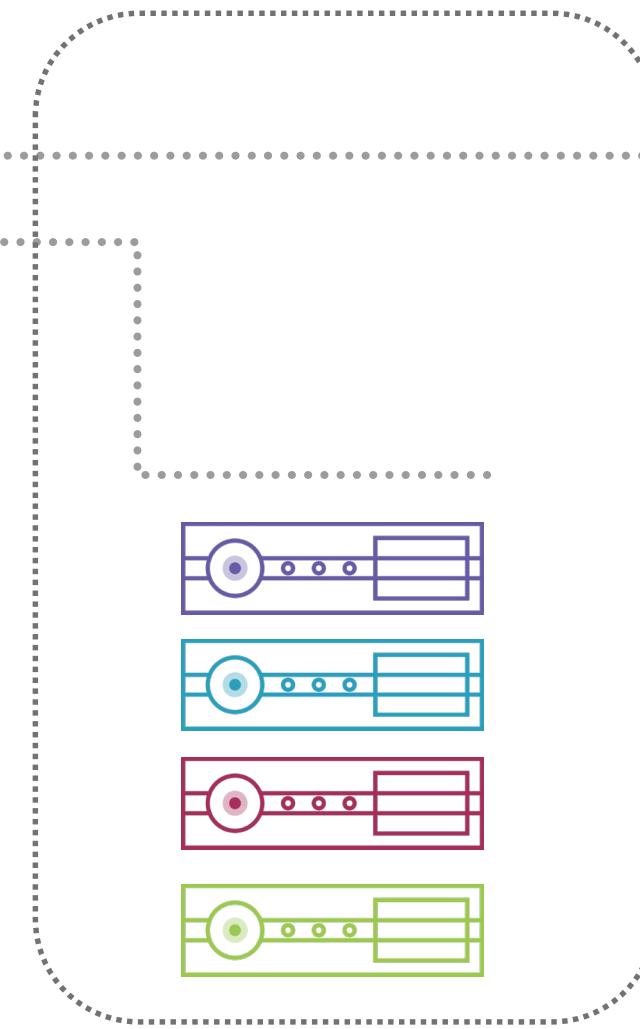


Alternative Topologies

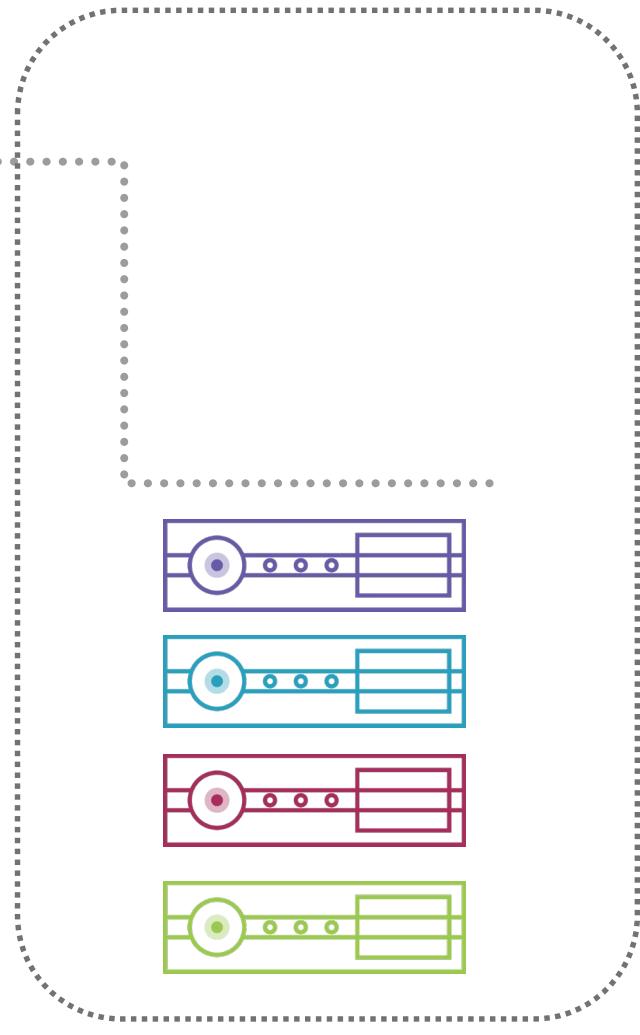
Datacenter A



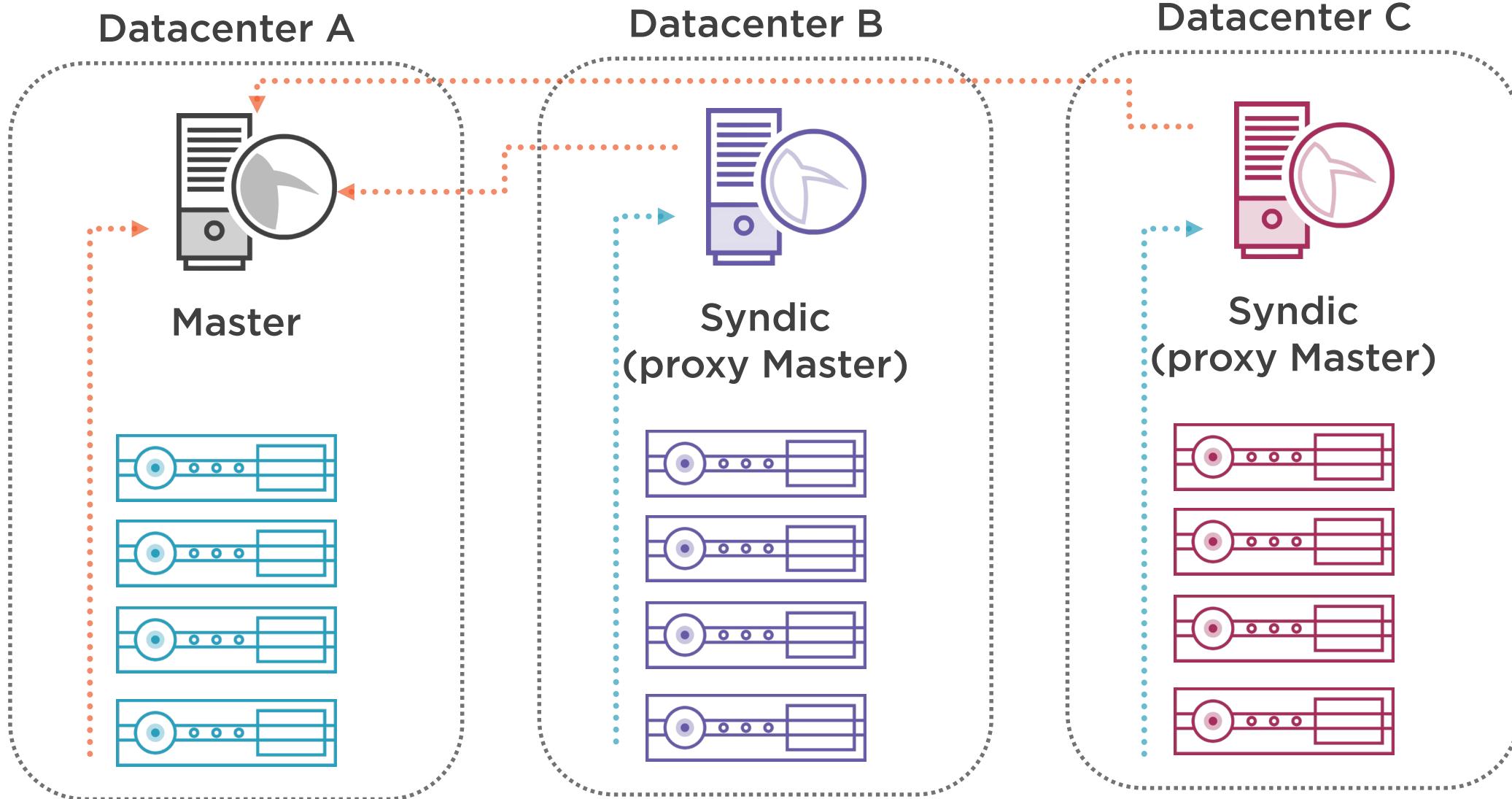
Datacenter B



Datacenter C



Alternative Topologies

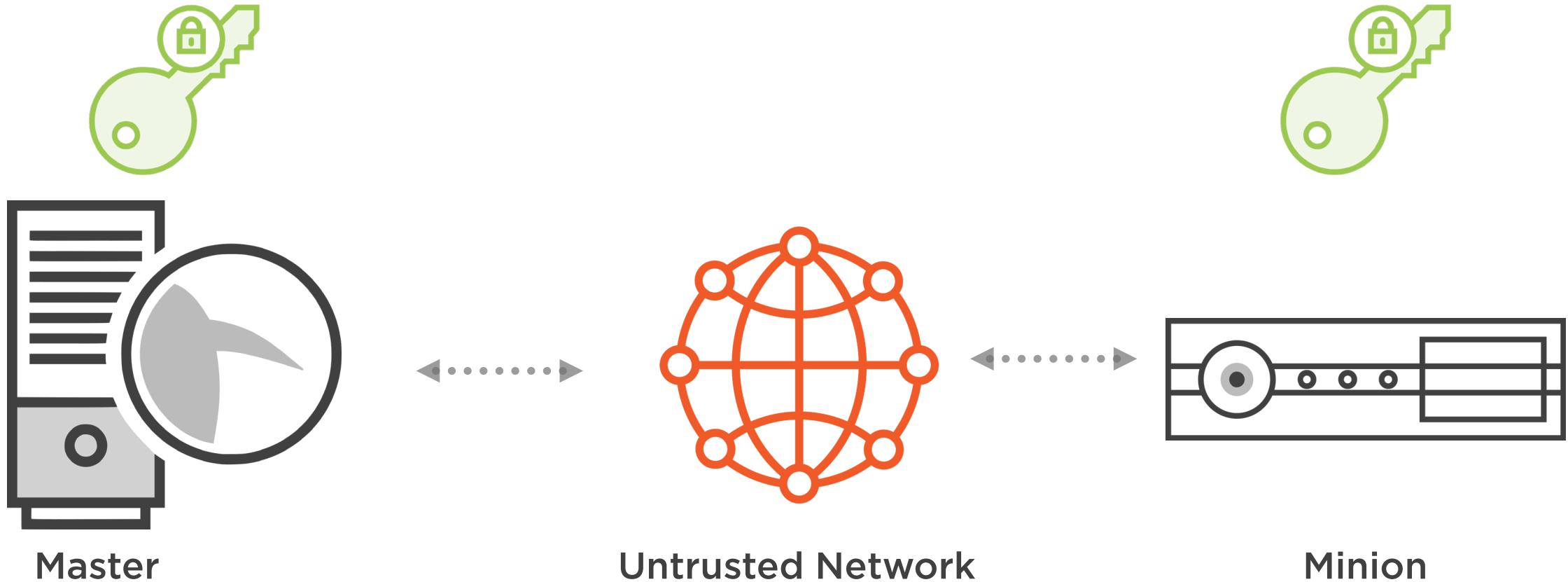




Talking head

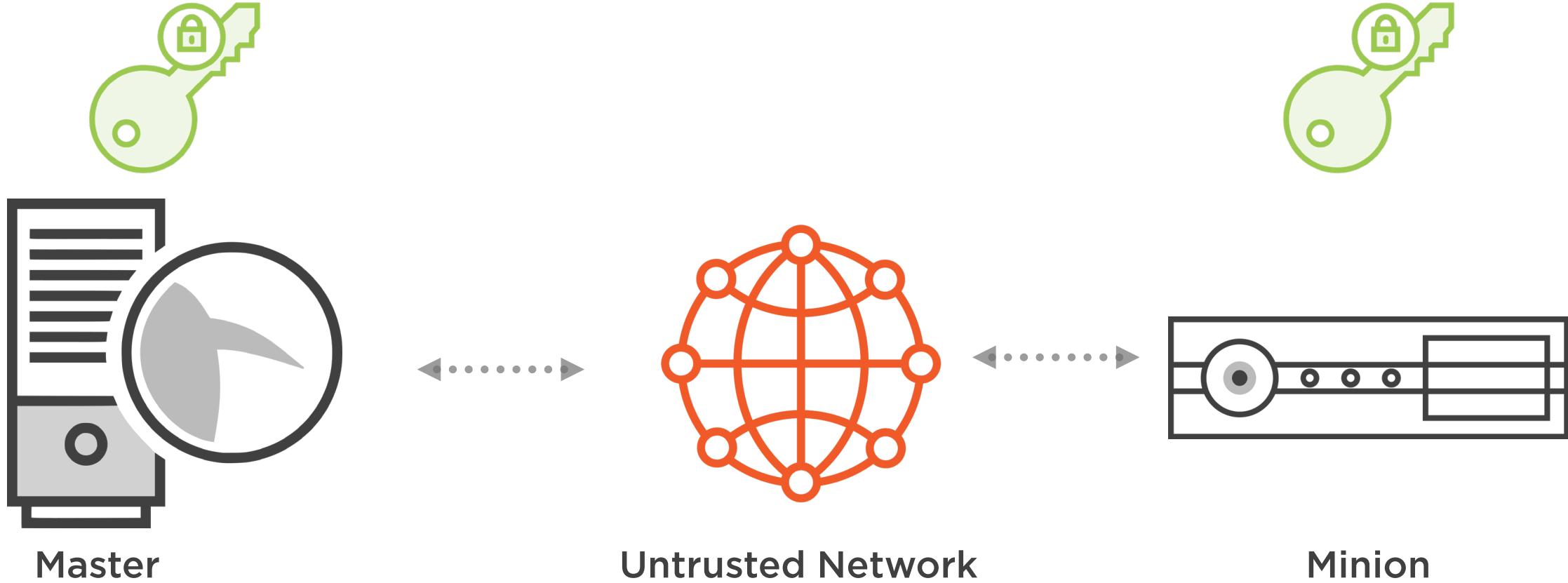


Public Key Cryptography





Session: Identical Symmetric Keys



Asymmetric Key Pair



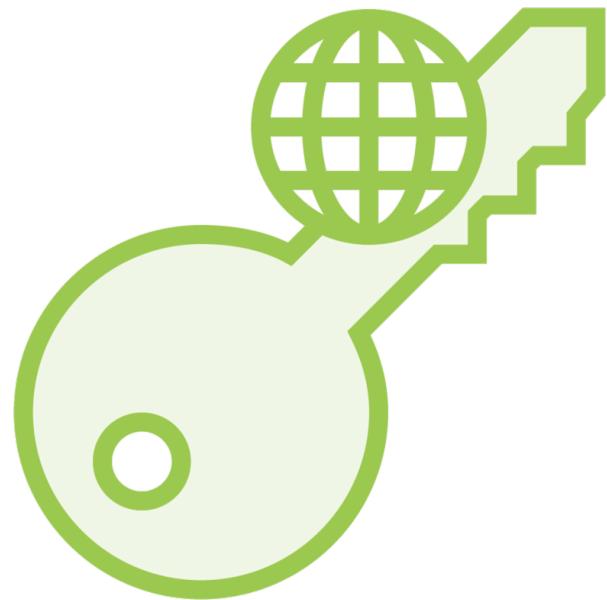
Talking head



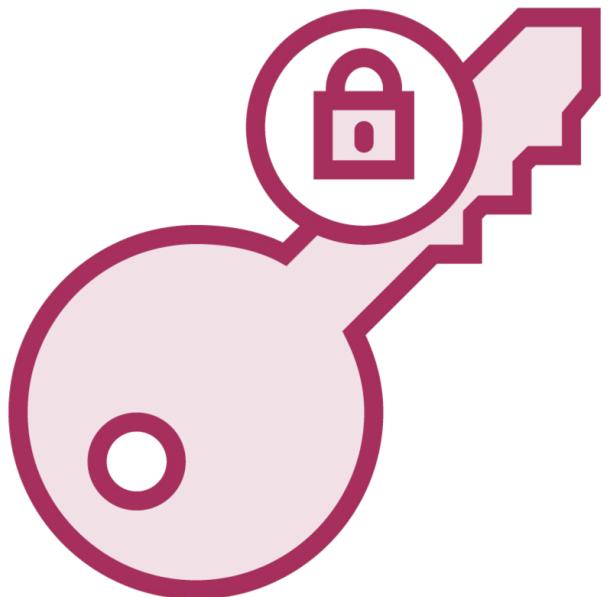
Asymmetric Key Pair



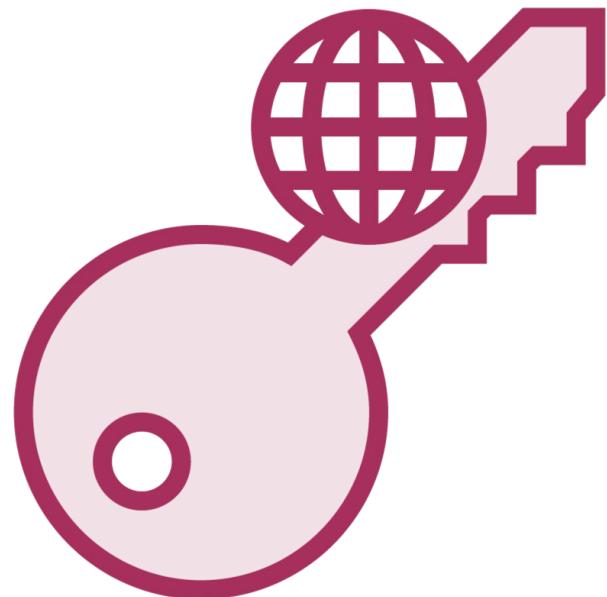
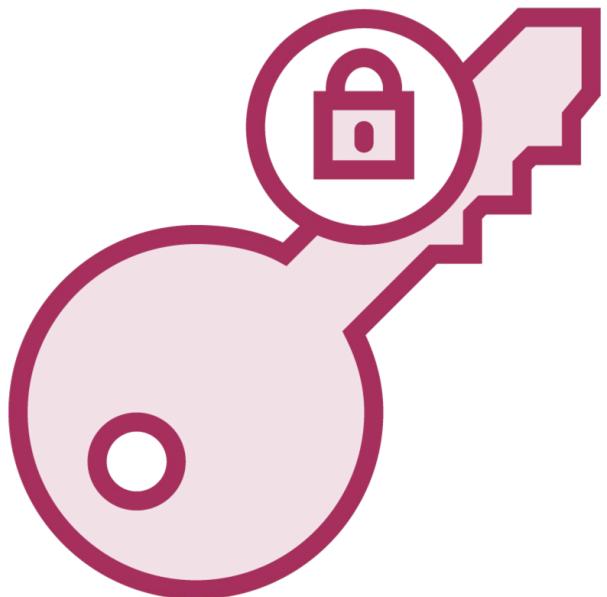
Asymmetric Key Pair



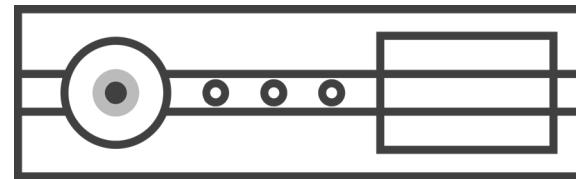
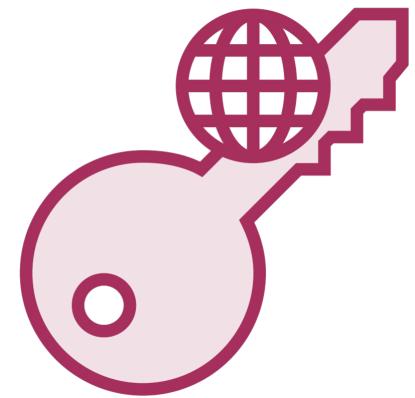
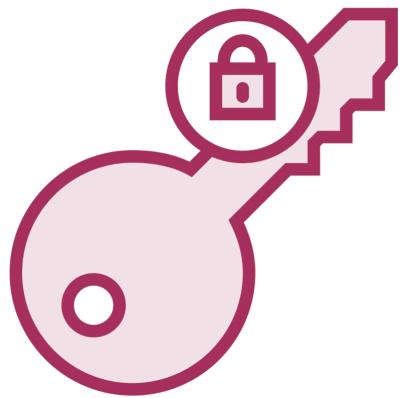
Asymmetric Key Pair



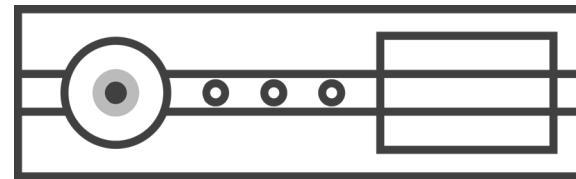
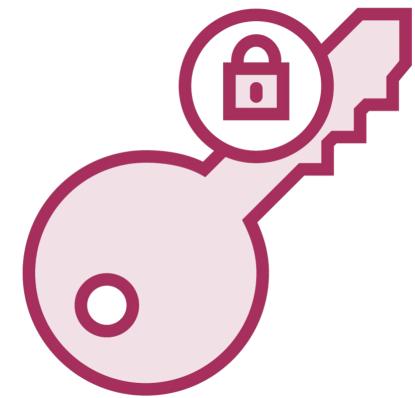
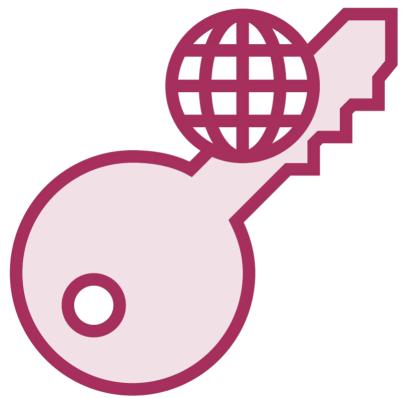
Asymmetric Key Pair



Asymmetric Key Pair



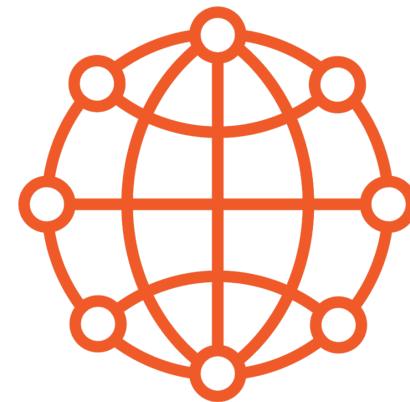
Asymmetric Key Pair



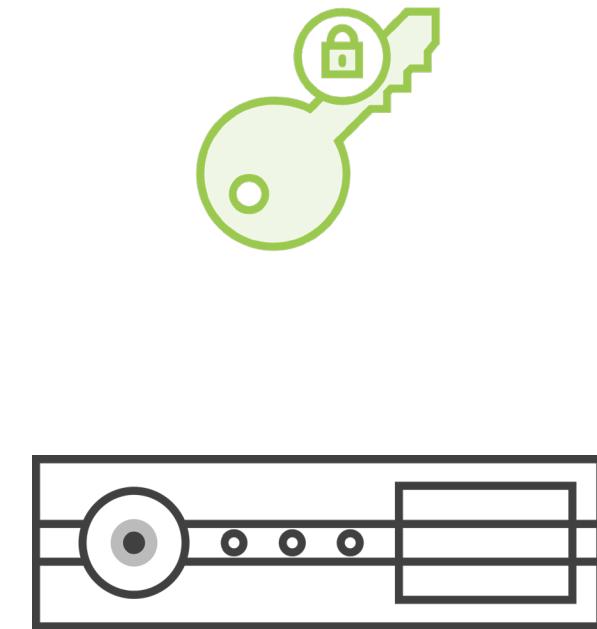
Identical Symmetric Keys



Master



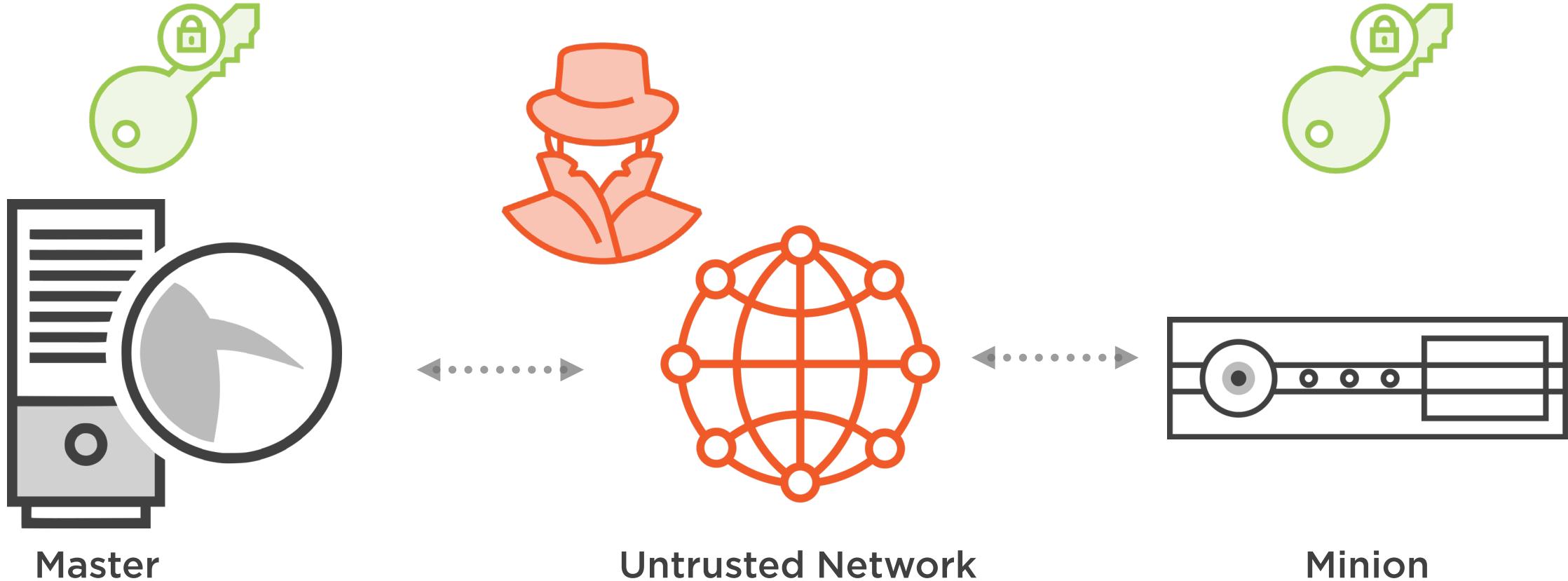
Untrusted Network



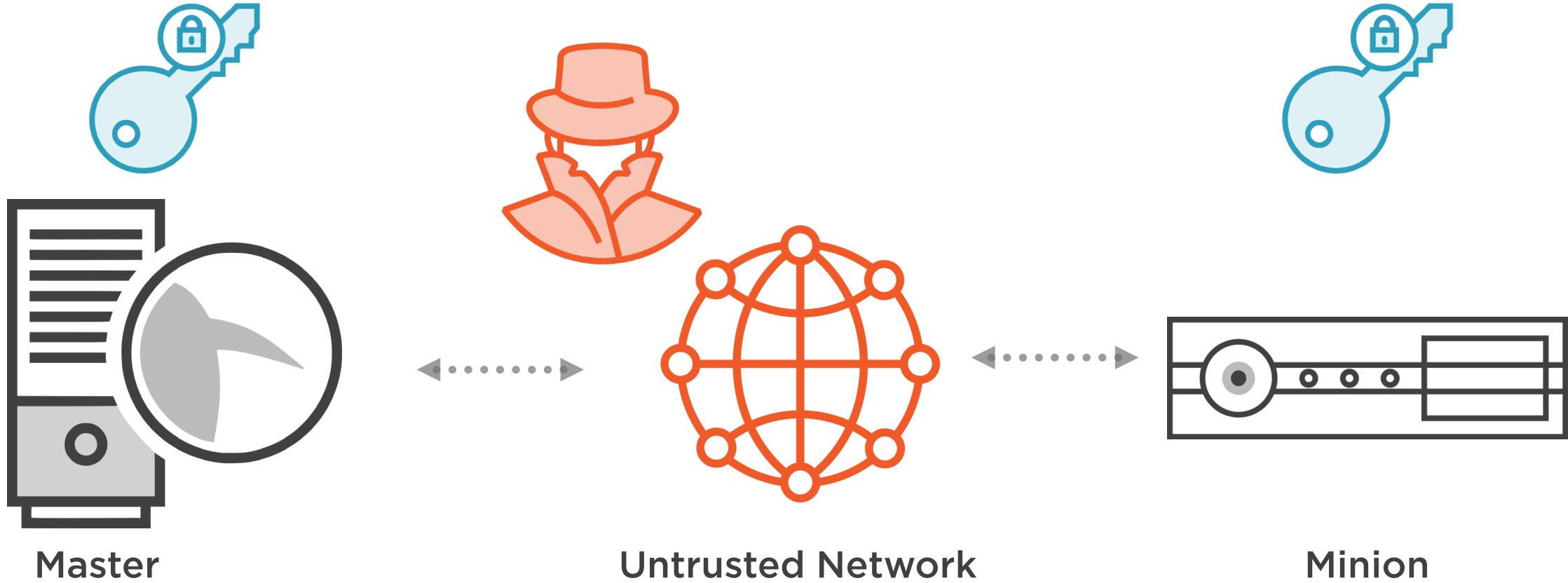
Minion

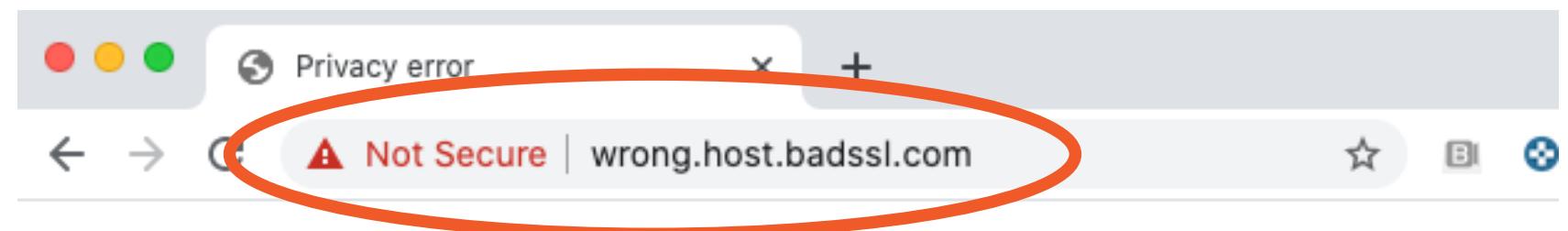
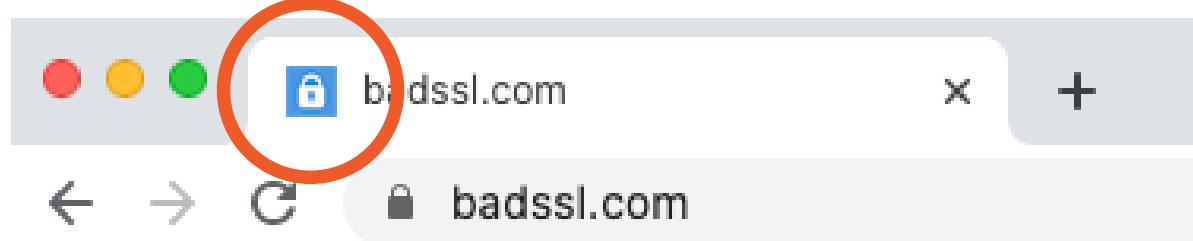


Identical Symmetric Keys



Identical Symmetric Keys





Your connection is not private

Attackers might be trying to steal your information from wrong.host.badssl.com (passwords, messages, or credit cards). [Learn more](#)

NET::ERR_CERT_COMMON_NAME_INVALID





Demo



IT infrastructure maintenance tasks

- Servers, network gear

Network overload

- More traffic is on the way

Just duplicating the server won't scale

Prepare to move to the Cloud

Salt Open





Summary



Salt feature overview

Master – Minion architecture

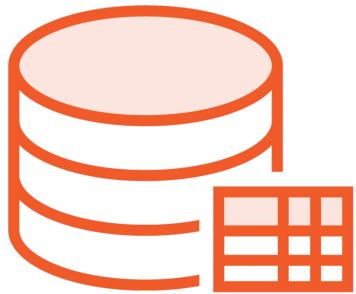
- Don't get lost in a sea of machines

You control the Master directly

Coming up next: install the Master



Some Salt Modules



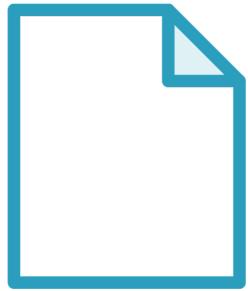
Databases



System Monitoring



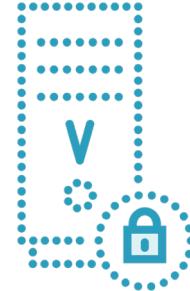
User Management



Filesystems and Files



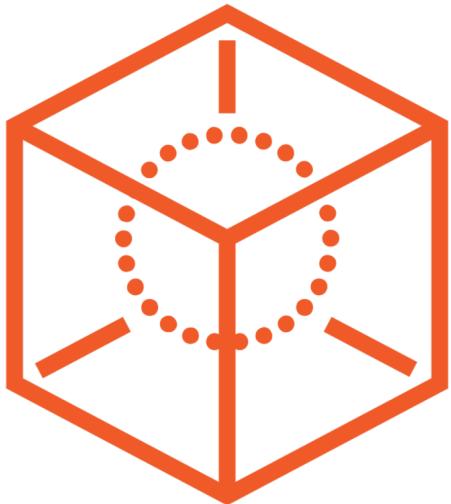
Cron Jobs



Virtualization

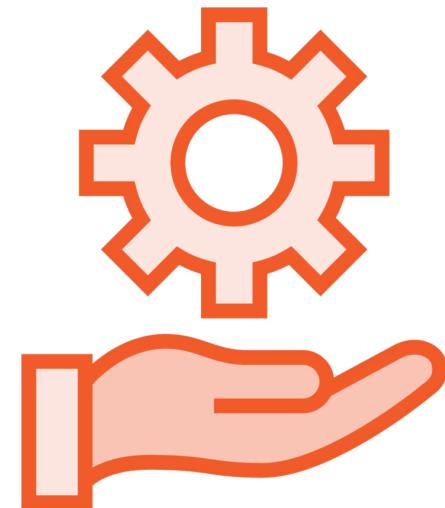


Virtual Modules



Package Module

Manages software installation,
removal, updates



Service Module

Enables, disables, starts,
and stops services

