Zero Trust Networks

Evan Gilman, Doug Barth
About Us

@dougbarth
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pagerduty
pagerduty
Zero Trust: Building Systems in Untrusted Networks
Zero Trust: Building Systems in Untrusted Networks

DC-A

DC-B

DC-C

C*
Zero Trust: Building Systems in Untrusted Networks

DC-A

DC-B

DC-C

C*

C*

C*
iptables
# Cookbook: pd-web

# Recipe: webservice

```ruby
pd_iptables 'allow lb' do
  role 'lb'
  proto 'tcp'
  port 80
end
```
# Cookbook: pd-web
# Recipe: webservice

```
pd_iptables 'allow lb' do
  role 'lb'
  proto 'tcp'
  port 80
end
```
IPsec VPN
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DC-A

VPN

VPN

VPN

DC-B

DC-C

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Emergent Properties

All Flows Authenticated and Encrypted

All Flows Asserted as Authorized

No Inherent Value in IP Address
Emergent Properties

No Centralized Firewalls

No Network Gateways

No Private Network
BeyondCorp
BeyondCorp
BeyondCorp
BeyondCorp
Zero Trust Philosophy:

Zero Trust Networks
BUILDING TRUSTED SYSTEMS IN UNTRUSTED NETWORKS
Evan Gilman & Doug Barth
Zero Trust Philosophy:
No Trust In Network
Zero Trust Philosophy:

No Trust In Network
Zero Trust Philosophy:

Every Flow Is Expected
Zero Trust Philosophy:
Symbolic Policy
Zero Trust Philosophy:
Symbolic Policy
Zero Trust Philosophy: Network Agent
Zero Trust Philosophy:

Network Agent
Zero Trust Philosophy:

Automate!
Zero Trust Philosophy:

Automate!
Visibility
Start Early
Start Early
Current State
Current State
Current State
Just The Facts

Industry Moving Towards Deep Authn/Authz

Industry Converging on Zero Trust Model

More Secure, More Operable

Keep an Eye Out!
Just The Facts

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