SOVEREIGN
STACK

SOVEREIGN STACK

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Presenting sovereign-stack.org to Miami Bitcoin Developers
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farscapian.com/
/qualifications
/contact

Sovereign Stack: infrastructure for creating Bitcoin-only Value4Value websites.

`sovereign-stack.org`

What is Sovereign Stack?

- Software (bash) & Website (sovereign-stack.org)
- SS enables you to **create** and **self-host** one or more Bitcoin-native Value4Value websites.
  - sovereign-stack.org/tag/example-sites
- Sovereign Stack relies on BTCPay Server (with Core Lightning) for all Bitcoin/Lightning interactions.
- Deploys Ghost, Nextcloud, Gitea, Nostr Relay, Clams Wallet, + more planned.
- SS scripts automates infrastructure deployments and upgrades – i.e., Infrastructure as code (IaC)

Example site:

- Old City Bitcoiners is a Bitcoin-only meetup in St. Augustine, FL.
- I wanted to create a Value4Value meetup website based on Ghost & BTCPay Server.
- The website features an event calendar created with Nextcloud, a monthly crowdfund BTCPay widget, and donation buttons.
- The site is Bitcoin-only! No shitcoins!

satoshi-spirits.dev

- Satoshi Spirits is a demo website for a bar, brewery, or restaurant wanting to accept Bitcoin.
- Features a standard item cart + Bitcoin checkout + tipping.

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- Sovereign-stack.org – an example Value4Value website for monetizing an open source project.
- Uses monthly crowdfund and PoS app for donation workflows.
- Uses Gitea to host the software.

Features

- Create and self-host one or more Bitcoin-integrated websites.
- >1 websites on a residential Internet connection
- Create public website or intranet sites.
- SS performs backups and restorations of all user data.
- SS capable of migrating websites/node infrastructure between physical hosts.
- Performs infrastructure upgrades of virtual data center components

Other Features

- All websites within a Deployment utilize the SAME BTCPay Server
- Each website MAY have a NOSTR relay deploy (whitelisted for a specific pubkey)
- Deploy Clams Lightning wallet on any domain; by default your PRIMARY_DOMAIN.

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Requirements

- For public websites, AT LEAST ONE public IP address (no CG-NAT).
- Internet Modem is in Bridge Mode
- Modern firewall, preferably one based on PfSense
- VLAN-capable managed switch
- Management machine capable of Type-1 VMs.
- One or more cluster hosts/remotes (x64) to deploy SS workloads to (full VMs)

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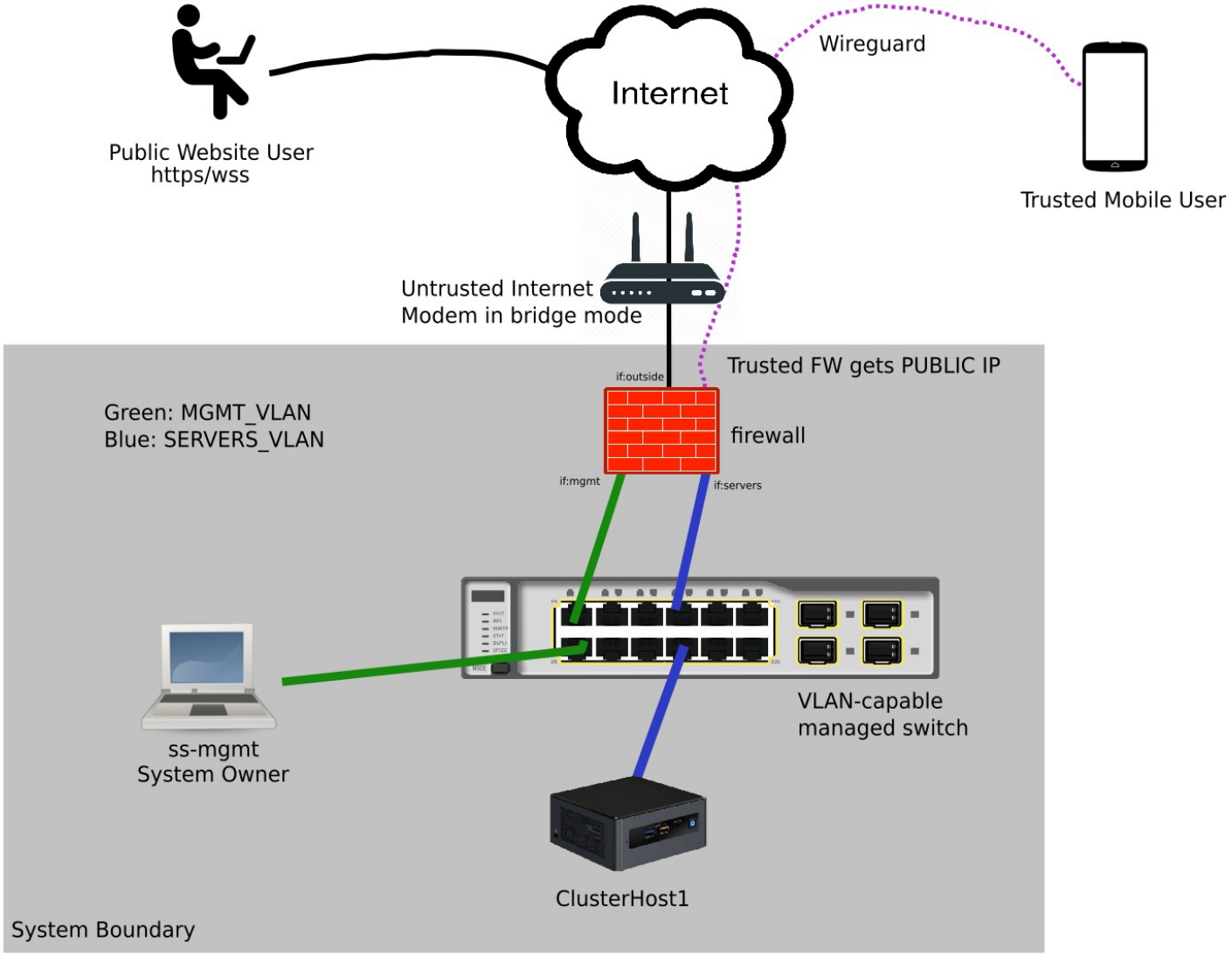
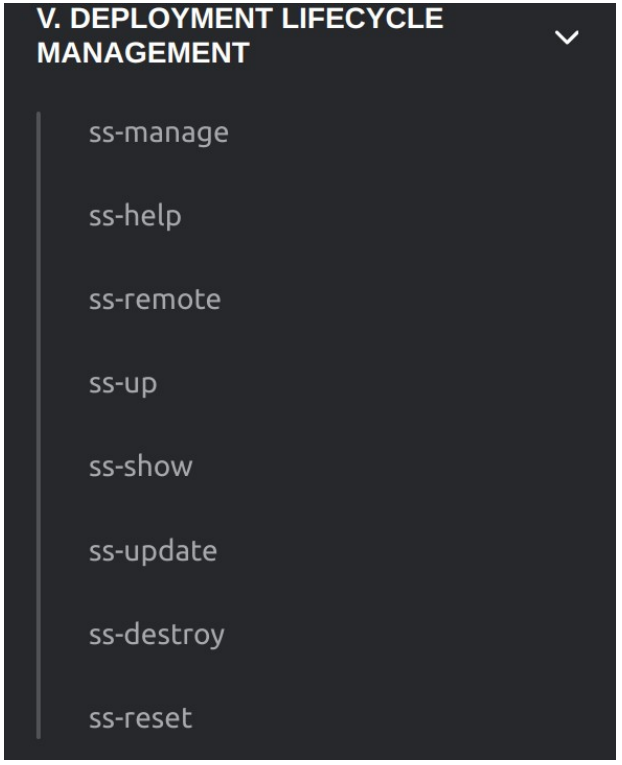


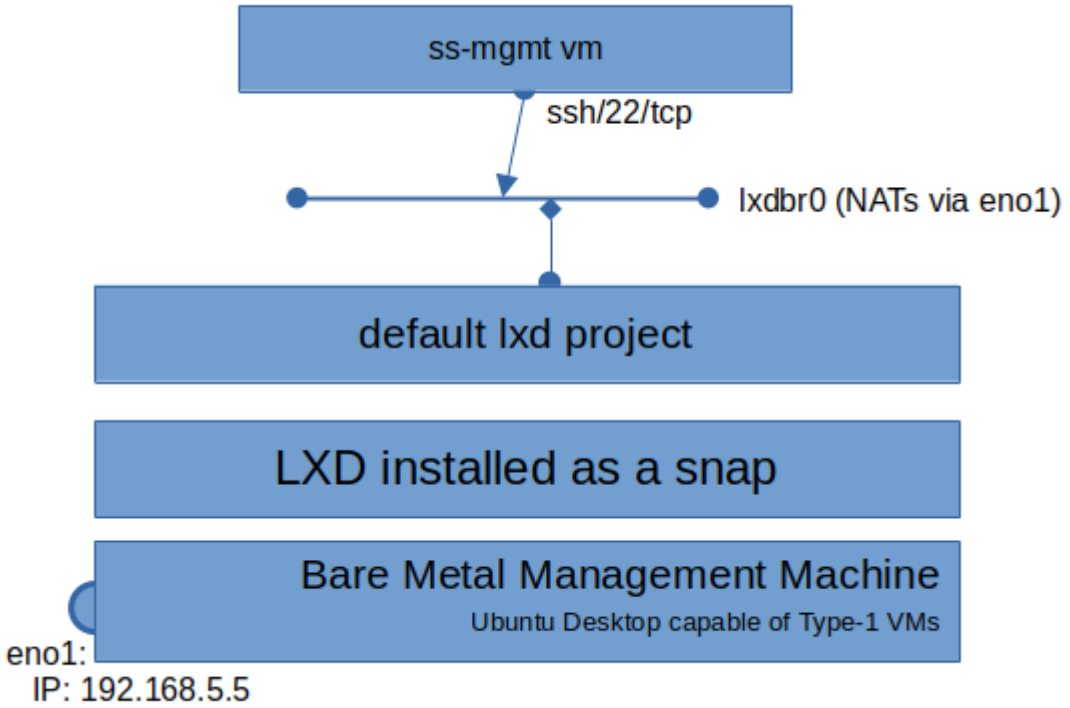
Command Line Interface



Sovereign Stack Management Environment (SSME)

- SSME is a VM running on the management machine.
- Contains everything needed to centrally control one or more remote cluster hosts.

SSME


ss-mgmt vm
ssh/22/tcp
lxdbr0 (NATs via eno1)
default lxd project
LXD installed as a snap
Bare Metal Management Machine
Ubuntu Desktop capable of Type-1 VMs
eno1:
IP: 192.168.5.5

Technologies + APIs used

- SSH for remote administration of physical hosts and virtual machines.
- LXD and client API for spinning up VMs and managing storage, and system-level networking.
- Docker API for running various docker containers: nginx, ghost, nextcloud, nostr relay, etc.
- Cloud-init for base image and instance provisioning.

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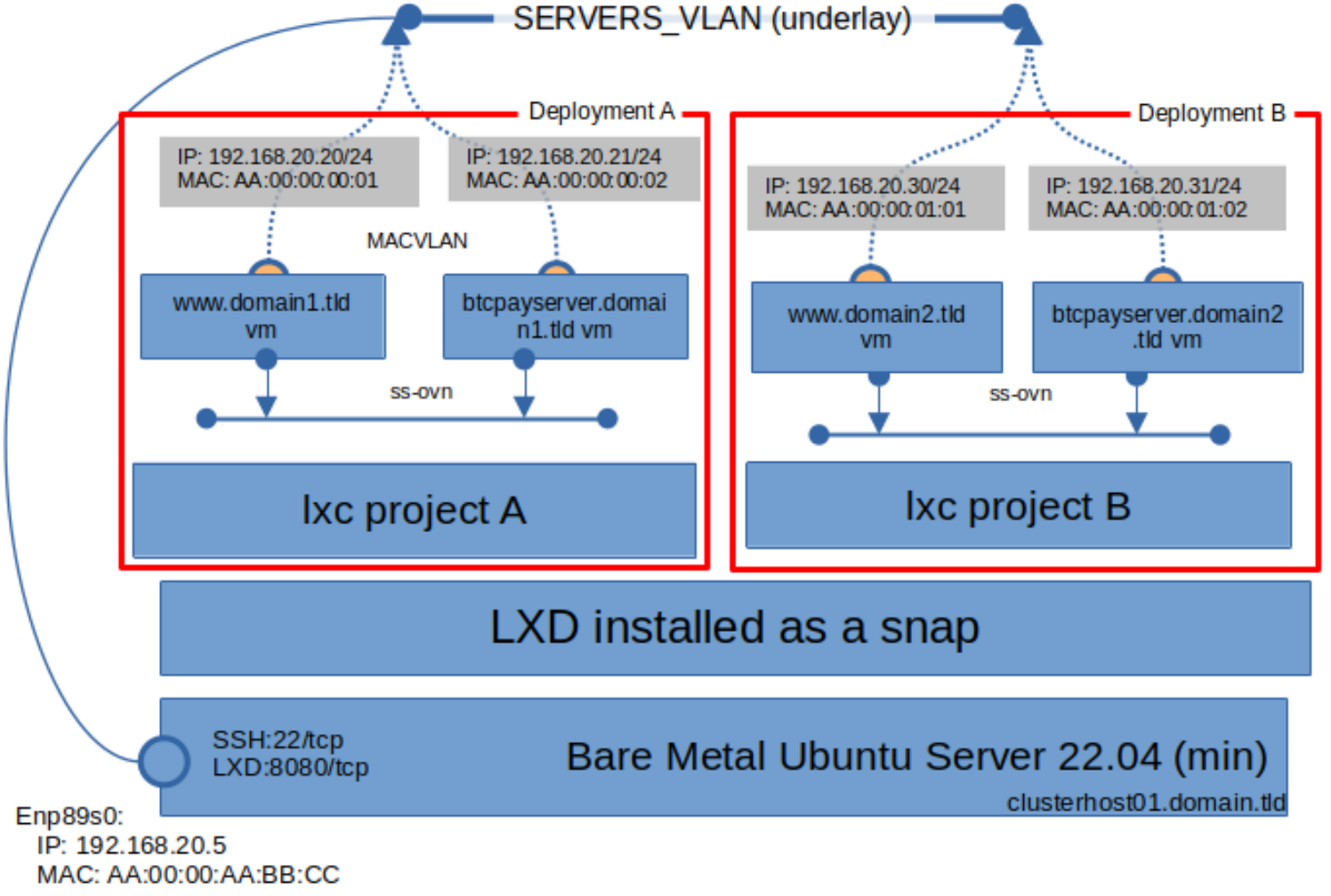

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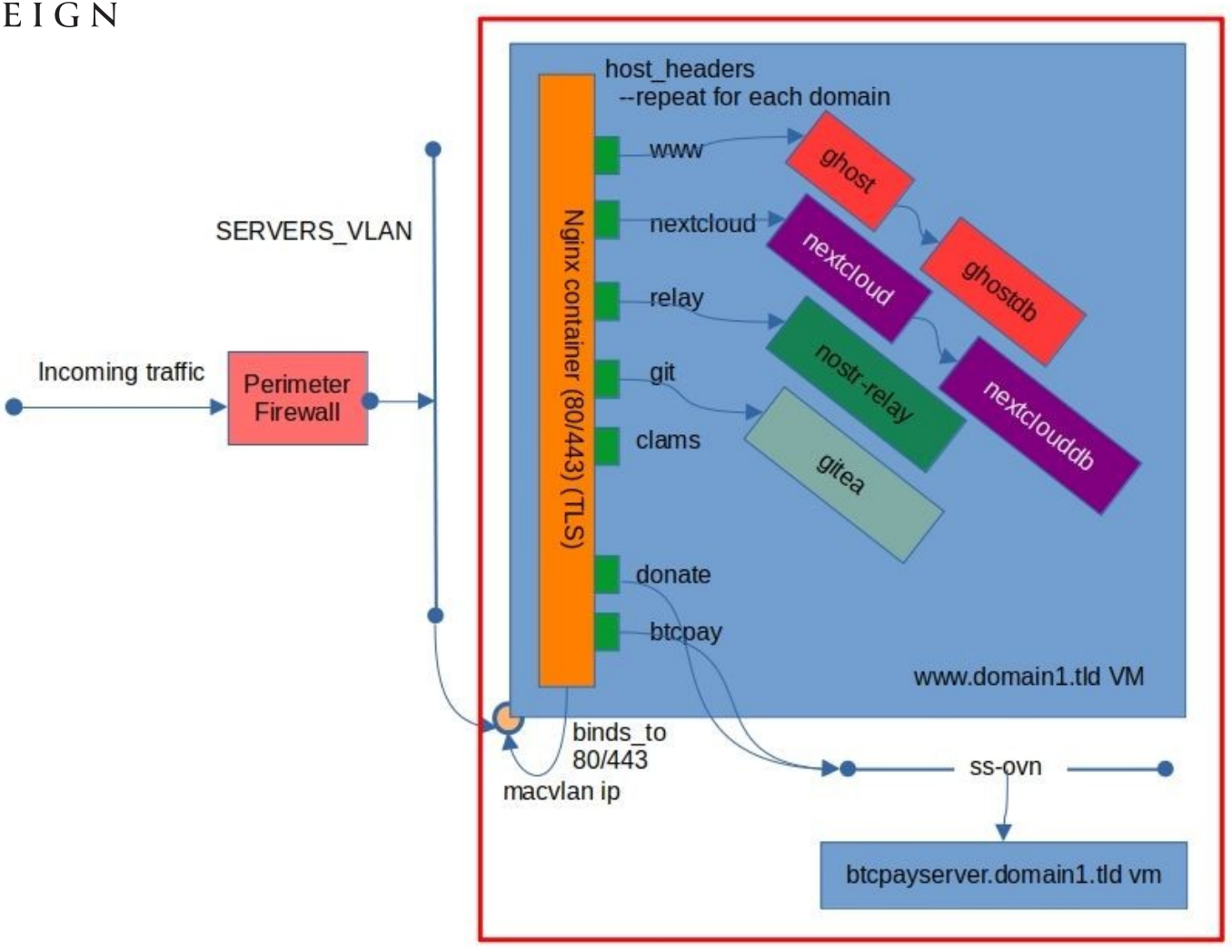

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