EOS
COSTA RICA

Infrastructure Report
July 2018

This correspondence is our monthly update of the servers being operated in Costa Rica and our roadmap for future expansion of EOS infrastructure in Latin America. We look forward an open discussion with the community and we encourage any EOS user suggestions. Let us know how we can better leverage resources in our region to support EOS. We want your feedback!

Executive Summary

The first weeks of the EOS mainnet were jam packed with events, including multiple software updates, and the release of eosio v1.1.0. As for hardware, both our full nodes received memory upgrades, we improved security measures, and investigated future datacenter locations in Panama. Our technical team worked hard optimizing server configurations, monitoring security, perfecting our backup procedures and setting up alerts and notifications to make sure we continue to provide the EOS network with high levels of uptime and validated compliance.

Current Endpoints

EOS Costa Rica is currently exposing these endpoints to be remotely accessible.

API Endpoint:
https://api.eosio.cr

EOS Costa RIca provides a single, load balanced HTTPS endpoint. The active-active load balancing ensures high availability, and can be easily scaled to include additional servers as traffic requirements increase. We have decided to only expose an HTTPS service as we strongly believe HTTPS has many security benefits over HTTP and have not yet identified a good reason to serve the API without SSL.

P2P Endpoints:
p2p.eosio.cr:1976
p2p.eosio.cr:5418

We made available two independent P2P endpoints running on non-standard ports that are not being used by any other block producer. This is part of our ongoing effort to further diversify the technical possibilities available to the network.

BNET Endpoints:
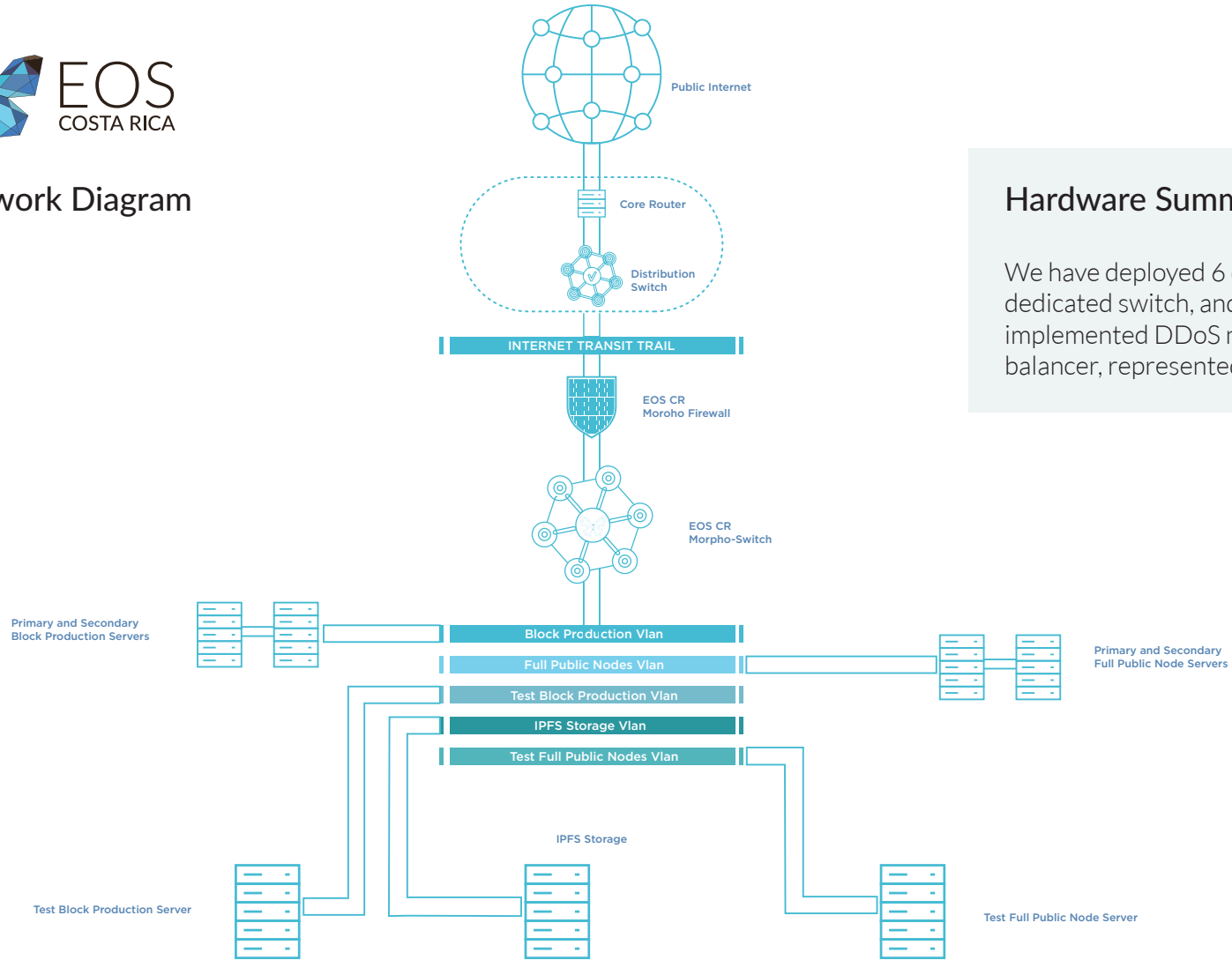p2p.eosio.cr:23881
p2p.eosio.cr:20747

EOS Costa Rica has also decided to provide the network with BNET endpoints. Few other BPs are currently providing BNET, we were compelled to help make more BNET services available to our peers.

Testnet API:
https://jungle.eosio.cr

Our team has been actively engaging with the testnet community providing a widely used public HTTPS endpoint on the Jungle testnet available for anyone in the community to put to use.

Network Diagram

EOS COSTA RICA

Public Internet

Core Router

Distribution Switch

INTERNET TRANSIT TRAIL

EOS CR Moroho Firewall

EOS CR Morpho-Switch

Primary and Secondary Block Production Servers

Block Production Vlan

Full Public Nodes Vlan

Primary and Secondary Full Public Node Servers

Test Block Production Vlan

IPFS Storage Vlan

Test Full Public Nodes Vlan

IPFS Storage

Test Block Production Server

Test Full Public Node Server

Hardware Summary

We have deployed 6 dedicated servers, a dedicated switch, and a firewall device. We also implemented DDoS mitigation and a load balancer, represented in the following diagram.

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Hardware Specs

The current hardware characteristics for our block producer compartment in Costa Rica are:

Primary Block Producer

- ☐ **CPU :** 4 x CPU (24 cores) @ 1.87GHz
- ☐ **RAM :** 256 GB
- ☐ **HDD :** 8TB SSD Storage

Full Nodes (2x)

- ☐ **CPU :** Dual Xeon @ 2.67Ghz (8Cores)
- ☐ **RAM :** 132GB
- ☐ **HDD :** 1TB RAID 5 (8x146GB)

Testnet Block Producer

- ☐ **CPU :** Dual Xeon @ 2.33Ghz (8Cores)
- ☐ **RAM :** 32GB
- ☐ **HDD :** 1TB

Secondary Block Producer / Seed Node

- ☐ **CPU :** Dual Xeon @ 2.33GHz (8Cores)
- ☐ **RAM :** 64GB
- ☐ **HDD :** 1TB

Testnet Primary Full Node

- ☐ **CPU :** Dual Xeon @ 2.33Ghz (8Cores)
- ☐ **RAM :** 32GB
- ☐ **HDD :** 1TB

Scaling Plan

We are focused on constantly improving our hardware to provide EOS users with more computational resources, especially RAM. We plan on allocating block rewards towards the acquisition and deployment of multiple dedicated servers with the following specifications:

- HP DL360 Gen 10 server.
- 2 x CPU 28 cores (total 56 Cores and 112 threads) @ 2.50 GHz
- 1.5TB DDR4–2666mhz RAM Memory
- 8TB in Raid 6 configuration
- 10GB/25GB PCI fibre network card
- 1GBs uplink

IPFS Storage

Our technical team is excited about the future release of EOS.IO Storage, which is why we have begun to work on the implementation of InterPlanetary File System (IPFS) in order to provide this service for everyone who holds tokens on a blockchain running EOS.IO software. Storage services make it vital for applications to get the information they need without having to run and maintain their own scalable hosting services. EOS Costa Rica is committed to being on the forefront of providing this service by soon deploying an IPFS node in Costa Rica.

Regional Expansion

We believe that any block producer in Latin America requires having a regional presence, not just at the community level but at the infrastructure level as well. We have begun to investigate the optimal path for deploying EOS.IO nodes throughout the Central and South American regions. Members of our technical team have already visited data centers in Panama and will continue to evaluate options for expansion south in Colombia as well.

EOS Costa Rica is a Block Producer Candidate

Website
Twitter
Github
Meetup
Youtube
Telegram
Discord

API Endpoint : https://api.eosio.cr

twork conditions and add redundancy as needed.

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Block.one Response

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Telegram: https://t.me/eoscostarica

Github:https://github.com/eoscostarica

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