

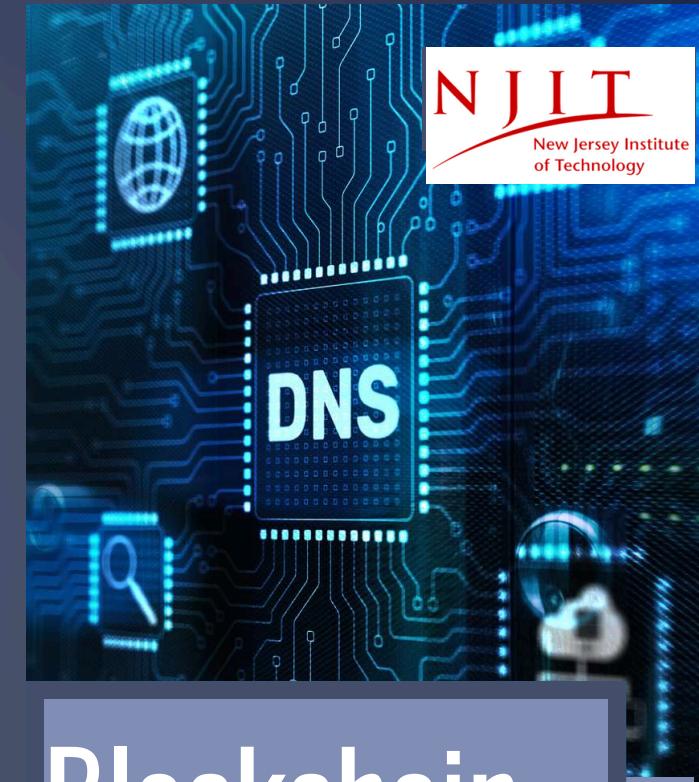
About Us



Blockchain-secured DNS is a pioneering initiative by a team of dedicated NJIT students. Our objective for this capstone is to enhance DNS security using Cisco Packet Tracer and simulation-based security layers.

Team

Tirth Patel
Filip Mangoski
Sheila Maita



Blockchain Secured DNS

A simulated approach to DNS protection using blockchain validation.



Key Features

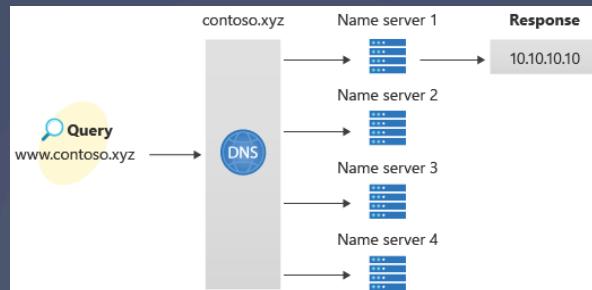
The Problem

Traditional DNS services are susceptible to cache poisoning and spoofing attacks, which can redirect users to malicious websites. Many educational and simulated environments lack effective tools to visualize these attacks or their prevention techniques, especially without automation.

Project Focus

Our project, Blockchain-Secured DNS Infrastructure, focuses on strengthening DNS services by integrating blockchain-like validation layers. Though true blockchain cannot be implemented in Packet Tracer, we simulate ledger verification through email communication, and web page interaction.

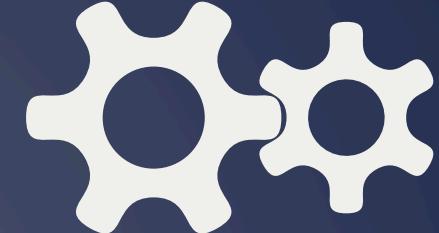
- DNS Deployment



- Intruder Blocking



- Ledger Validation



Product

This project was developed over the course of four sprints, taking approximately one month in total. We encountered several challenges, particularly in demonstrating how blockchain-secured DNS infrastructure functions, given the lack of support for such technology in Cisco Packet Tracer.

To rise to the challenge, we developed a simulation using the email service to effectively illustrate communication within the system.