

# Next Generation DNS



## Leveraging Thunder DNS to out-innovate the competition



JTL operates in some of the world's most challenging and dynamic markets. Within these markets, they rely on their customer focus and constant technical innovation to compete with larger, incumbent providers.

JTL saw how DNS was becoming increasingly relevant in the evolving Internet. They explored how they could leverage next generation DNS to optimize network operations, offer cyber security, and decrease malicious bandwidth usage. They spent over a year testing multiple solutions, but none could meet their pricing and technical requirements.

However, after months of searching, they came across Thunder DNS and immediately knew it would enable them to continue disrupting their market.

**Company Name:** Jamii Telecom Limited (JTL)  
**Industry:** Telecommunications Service Provider  
**Service Offerings:** Fixed line, Satellite, & Mobile  
**Subscribers:** 100,000+  
**Location:** Kenya, Uganda, Tanzania, Sudan, & Somalia

At JTL, we constantly look for new technologies that we can deploy to deliver value. Thunder NSI has been a fantastic partner to us; they bring innovation and ensure that we succeed in improving the quality of our internet offering.

- Zackaria Koech  
Innovation Lead at JTL

Thunder DNS's local hosting and modular design is a perfect fit for growth focused service providers offering value-add services.

Millions of

Threats Blocked

Billions of

Queries Investigated

100+ Thousand

Clients Serviced Daily



## The Challenge

JTL came to Thunder NSI wanting to upgrade their network from a legacy bind DNS implementation. Their current DNS was great at Domain to IP translation, but it was also 30 year old technology with significant untapped potential. They wanted an optimized DNS solution that could provide additional value. Next Gen DNS requirements included:

- Protect their Network - Prevent their IP's from being blacklisted and defend against DNS-based DDos attacks
- Shield Businesses, Residential Customers, & IoT Devices - Protect customers from common online threats (phishing, malware, etc.)
- Prevent Bandwidth Theft - Stop hackers from using network bandwidth for illegal and nefarious activities
- Enable Parental Controls - Allow users to block access to content they consider offensive and potentially harmful
- Local Compliance - Enable network wide blacklisting of specific domains or content as required by regulators
- Create a Searchable Big Data Database - Collect valuable data which can be used for support or network optimization machine learning



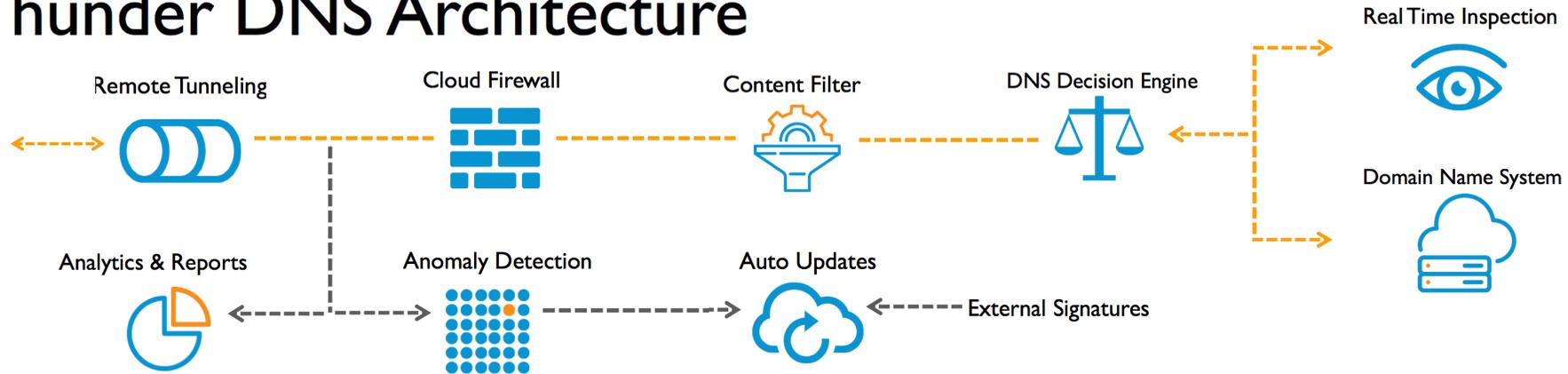
## The Trial

JTL started a 10,000 user trial using Thunder DNS within a few days of becoming aware of Thunder DNS's solution.

The trial itself was quick to setup because Thunder DNS is a virtual appliance and can be deployed on any server in the data center, NOC, or cloud. Once setup, JTL pointed DNS traffic to the Thunder DNS servers and Thunder DNS started protecting those subscribers.

Over a two week POC, Thunder DNS security blocked hundreds of thousands of security threats, decreased support calls, and decreased bandwidth usage. Shortly after the trial, JTL deployed Thunder DNS network-wide.

# Thunder DNS Architecture



## The Difference

Alternative solutions offer some of the features JTL required; however, their focus is selling direct to business customers via cloud offerings. This approach adds network latency and creates pricing challenges at scale.

In contrast, Thunder DNS's local hosting and modular design is a perfect fit for growth focused service providers offering value-add services. Existing hardware can be re-used and local resolution allows for additional services without compromising network performance.

Our goal is to empower innovative operators like JTL with cutting edge technology so they can continue to challenge the status quo.

- Ryan Rowley  
Co-Founder Thunder NSI

## The Future

Thunder & JTL are working to improve network operations by leveraging JTL's database with machine learning intelligence. Also, they are working to improve network uptime and critical application availability through integrated DNS, SD-WAN, and SD-Video technologies.

Thunder and Jamii are bringing next generation Networking, Security, and Intelligence technologies to East Africa. We create synergy by combining Silicon Valley engineering talent with local technical expertise. Our team includes world class engineering talent with experience from high growth telecommunications, security, and enterprise class product companies including Microsoft, Ubiquiti, Ericsson, Verisign, E-Bay, Telstra, and Syniverse. Our business approach is to empower Service Providers and Solution Integration partners with innovative technologies.



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