DRYAD

Stop Wildfires Before They Spread with Ultra-Early Detection

www.dryad.net

We Protect The Pulse Of The Forest.

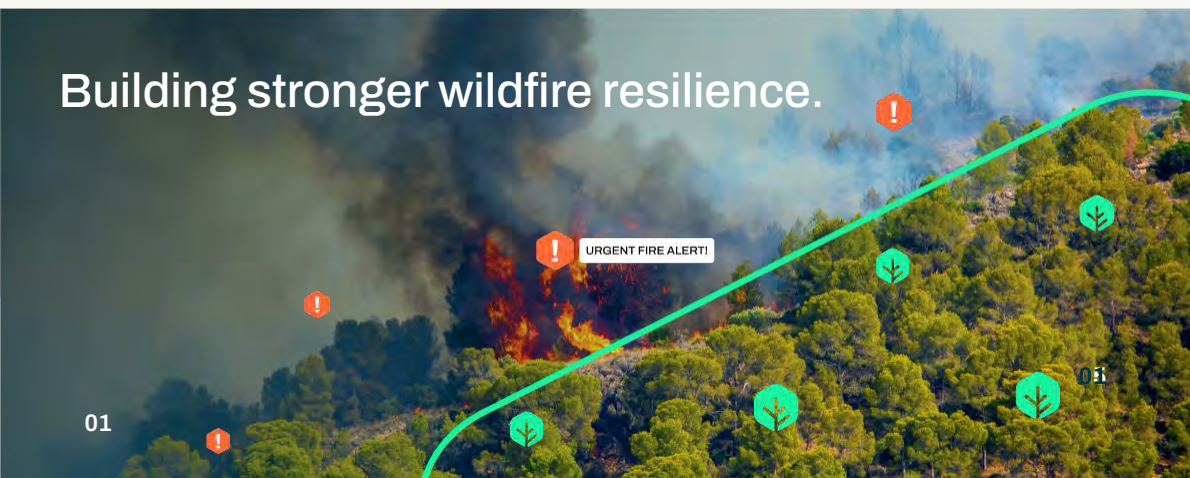
INTRODUCTION

Wildfires are growing more extreme—spreading with greater speed, burning with higher intensity, and leaving unprecedented devastation in their wake. Every year, millions of hectares of forest disappear, communities are shattered, and the economic toll reaches into the billions.

But what if we could stop wildfires before they spread?

> Silvanet offers a groundbreaking solution for wildfire prevention, detecting fires in their earliest moments—while they are still smoldering. This ultra-early warning system gives first responders vital lead time to intervene, protecting forests, infrastructure, and entire communities.

Equipped with advanced gas sensors, AI-powered analytics, and a self-sustaining mesh network, Silvanet is trusted by top corporations and government agencies worldwide.



WHO BENEFITS FROM SILVANET?

- **Public Sector** (Government agencies, municipalities, fire departments, forestry services)

Strengthen wildfire prevention and drive down the cost of emergency response.

- **Utilities & Critical Infrastructure** (Power grid operators, rail networks, telecom operators, pipeline owners)

Safeguard vital infrastructure—from energy networks to transport corridors—against the threat of wildfire.

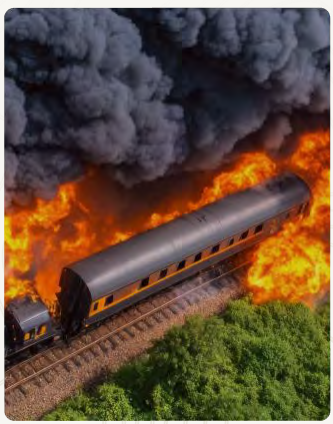
- **Private Forestry & Commercial Enterprises** – (Including pulp and paper, timber, landowners, insurance providers, and operators of industrial assets)

Protect high-value forests and assets by mitigating wildfire risks and promoting sustainability.

- **OEMs & Resellers** (System integrators, IoT solution providers)

Seamlessly integrate advanced wildfire detection into your current products and services.

Silvanet prevents wildfires from spreading, creating measurable results: protecting forests, conserving ecosystems, and saving lives.


Dryad's Silvanet Suite: The Forest Guardian You Can Count On

Silvanet is a solar-powered, AI-driven wildfire detection network designed to identify fires at the smoldering stage—long before they escalate out of control.

Built for reliability, scalability, and seamless integration, the Silvanet Suite comprises four key components, each working in harmony to deliver unmatched wildfire prevention and forest health monitoring.

Wildfire Sensor

PURPOSE

Detects fires at their earliest stage using highly sensitive gas sensors and integrated AI

KEY FEATURES

- Solar-powered with supercapacitors for sustainable operation
- Ultra-low power consumption for years of maintenance-free use
- Rugged, weatherproof design for deployment in extreme conditions
- NFC-enabled for easy local debugging and configuration

Mesh Gateway

PURPOSE

Connects wildfire sensors to the network using long-range, self-healing mesh technology.

KEY FEATURES

- LoRaWAN-based networking for large-area coverage
- Supports ~100 sensors per gateway for cost-effective scaling
- Firmware Updates Over-the-Air (FUOTA) for remote maintenance
- Self-healing mesh connectivity ensures uninterrupted communication

*North America and Europe

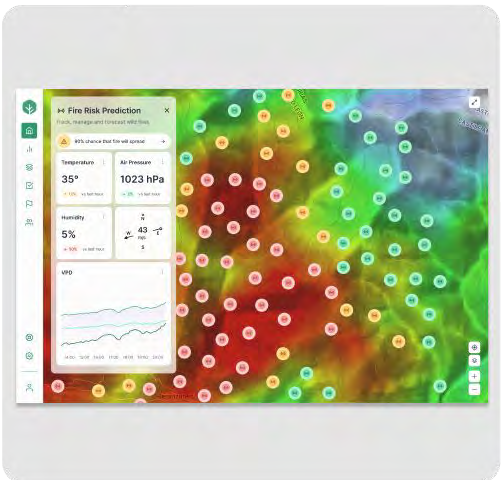
Border Gateway

PURPOSE

Transfers real-time fire alerts and sensor data to the cloud for continuous wildfire detection and forest health monitoring.

KEY FEATURES

- Reliable multi-network connectivity (4G/5G, Ethernet, Satellite*)
- Ensures reliable communication even in remote, off-grid areas.
- Real-time data streaming for instant alerts and insights
- Scalable coverage when combined with the Mesh Gateway



Cloud Platform

PURPOSE

The central intelligence hub for wildfire detection, risk modeling, and actionable insights.

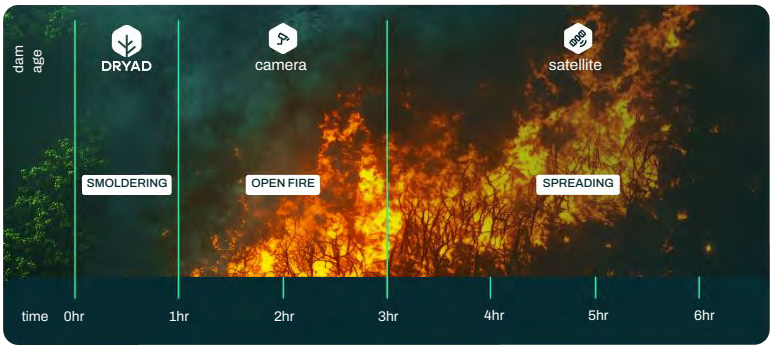
KEY FEATURES

- Real-time fire detection with precise location tracking
- Custom dashboards for monitoring forest health and fire risk levels
- Planning tools for optimized deployments, ensuring maximum coverage and efficiency
- Open APIs for seamless integration with third-party systems
- Multi-channel alerts (SMS, email, app notifications) for instant response

Silvanet combines solar-powered sensors, AI-driven risk analysis, and a scalable IoT network to provide the most advanced wildfire detection system on the market

HOW IT WORKS

Wildfires Move Fast. Silvanet Moves Faster



Every wildfire starts small. A single spark can smolder unnoticed for hours before erupting into a full-scale blaze. Traditional detection methods rely on flames, heat, or smoke—and by then, it's often too late.

Silvanet changes the game. Our ultra-early detection system senses wildfires at their very first stage, giving firefighters the critical lead time they need to act before disaster strikes.

Using a self-sustaining, solar-powered sensor network, Silvanet continuously monitors fire-prone areas and delivers real-time alerts for early intervention when it matters most.

A VIGILANT FIRE DEFENSE NETWORK GUARDING FORESTS 24/7

wildfire sensor | mesh gateway | border gateway | network server | cloud platform

WHY IT WORKS BETTER

- **Ultra-Early Detection**: Catches fires at the smoldering stage, before flames spread.
- **Precise Fire Geolocation**: A dense sensor network enables pinpoint accuracy in detecting and locating fire origins, reducing response time.
- **Off-Grid Connectivity**: Works in remote locations with no cellular coverage.
- **Scalable and Cost-Effective**: Mesh networking allows flexible expansion across large areas.
- **Integrated Planning Tools**: Optimizes deployment for maximum efficiency, ensuring comprehensive coverage where it's needed most.

With Silvanet, wildfires are detected faster, responded to sooner, and pinpointed with high precision—giving first responders the upper hand.

REAL-WORLD DEPLOYMENTS

Silvanet is already making an impact worldwide:

- **Government and Public Safety**: Municipalities and state agencies are deploying Silvanet to enhance wildfire prevention efforts in high-risk zones.
- **Critical Infrastructure Protection**: Leading utilities, telecom operators, and rail companies are using Silvanet to reduce wildfire-related disruptions.
- **Private Forestry and Industry**: Commercial forest owners, pulp and paper producers, and land managers are integrating Silvanet into their risk management strategies to protect their high-value assets.

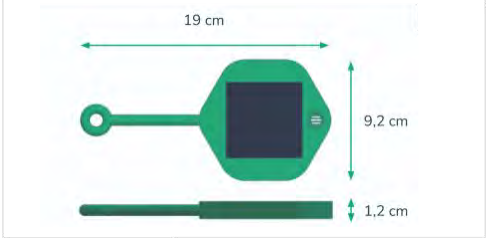
With Silvanet's data-driven approach, organizations can move from reactive firefighting to proactive wildfire prevention—safeguarding forests, infrastructure, and lives.

Silvanet Wildfire Sensor

Solar-Powered Sensor for Ultra-Early Wildfire Detection

Mechanical Specifications	
Size	19 x 9.2 x 1.2 cm
Weight	136 g
Solar Panel	6 x 6 cm
Operational Temperature	-40°C to +85°C
Operational Humidity	0% to 100% Condensing
Ingress Protection	IP67
Material	Plastic (Weather & UV-proof)

Dimensions



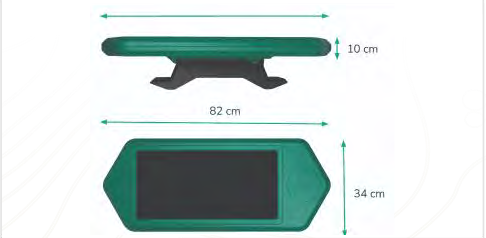
General Characteristics	
Maintenance	Maintenance-free (10 Years)
Distance between Sensors	100m radius for 60-min detection of 2x2 meter fire
Wildfire Sensor to Mesh Gateway (ratio)	Typically 100 Wildfire Sensors per Mesh Gateway
Power Source	Solar powered
Energy Storage	Supercapacitors, battery-free
Installation	Tree- or pole-mounted
Provisioning	NFC for local debugging and configuration

Silvanet Mesh Gateway

Distributed LoRaWAN® Gateway for Large-Scale Outdoor Networks

Mechanical Specifications	
Size	82 x 34 x 10 cm
Weight	6.8 kg
Solar Panel	50 x 25 cm
Operational Temperature	-40°C to +85°C
Operational Humidity	0% to 100% Condensing
Ingress Protection	IP67
Material	Plastic (Weather & UV-proof)

Dimensions



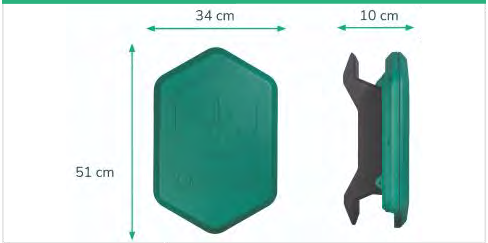
General Characteristics	
Maintenance	Maintenance-free (10 years)
Mesh Gateway to Border Gateway (ratio)	Typically 20 Mesh Gateways per 1 Border Gateway
Mesh Gateway to Wildfire Sensor (ratio)	Typically 100 Wildfire Sensors per Mesh Gateway
Maximum Distance Between Mesh Gateways	2 -10 km, depending on topology and placement
Power Source	Solar powered
Energy Storage	Supercapacitors, battery-free
Installation	Tree- or pole-mounted
Provisioning	NFC for local debugging and configuration

Silvanet Border Gateway

Distributed LoRaWAN® Gateway Connecting the Silvanet Cloud Platform

Mechanical Specifications	
Size	51 x 34 x 10 cm
Weight	4 kg
Solar Panel	2 external 40W, 67 x 36 cm
Operational Temperature	-40°C to +85°C
Operational Humidity	0% to 100% Condensing
Ingress Protection	IP67
Material	Plastic (Weather & UV-proof)

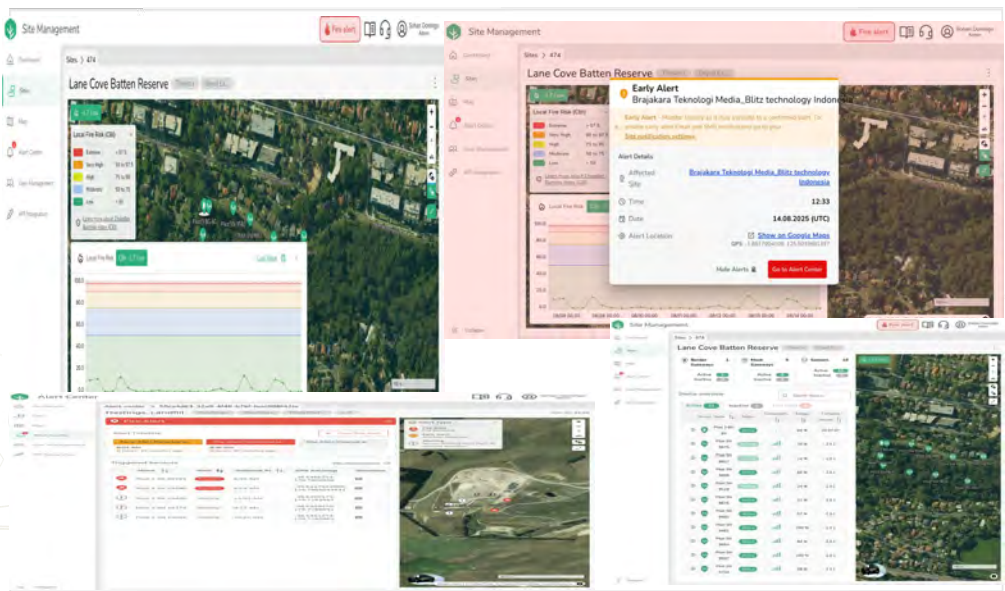
Dimensions



General Characteristics	
Maintenance	Maintenance-free (10 years)
Mesh Gateway to Border Gateway (ratio)	Typically 20 Mesh Gateways per 1 Border Gateway
Power Source	Mains powered (PoE) or solar panel
Energy Storage	Supercapacitors, battery-free
Installation	Tree- or pole-mounted
Provisioning	NFC for local debugging and configuration

Silvanet Cloud Platform

Monitoring Platform for Deployment, Device Management, Monitoring, and Alerting



Together, protecting forests,
infrastructure, and
ecosystems—before disaster strikes

TRUSTED BY INDUSTRY LEADERS, PROVEN IN THE FIELD

Trusted globally, Silvanet helps organizations—from government agencies to utilities and private forestry companies—prevent wildfires and safeguard forests, infrastructure, and ecosystems through ultra-early detection.

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Be Part of the Solution.

Stop Wildfires Before They Spread.

Wildfires are growing more destructive each year, putting forests, communities, and critical infrastructure at risk. The era of reactive firefighting is over. Silvanet empowers you to detect wildfires at their earliest stage, providing the vital lead time needed to prevent catastrophe.

Silvanet is the most advanced wildfire detection system on the market, offering ultra-early alerts, precise fire geolocation, and scalable deployment for forests, infrastructure, and private landowners.

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