

# Agricultural Technology Company in Brazil Reduces Wildfire Loss by 90%



“There is no doubt that Cambium Networks has the best cost-for-benefit product. It is a robust and reliable platform. We consider Cambium Networks to be the best radio communications solution on the market.”

OSMAR ROSSETTO BAMBINI FILHO,  
CHIEF INNOVATION OFFICER, SINTECSYS



Sintecsys' Chief Engineer, Co-Founder & COO, Adriano Bosque (back), and Electrical Engineer, Marcos Stradioto (front), with Cambium equipment.

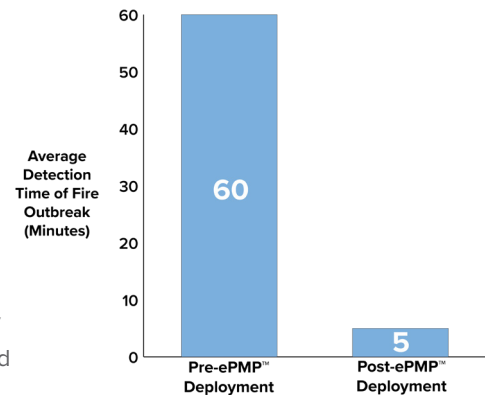
## The Challenge

**MILLIONS OF ACRES OF FORESTS AND PLANTATIONS** have been destroyed by aggressive wildfires over the last few years. In response, Sintecsys came up with a solution to monitor forests and crops in real time to quickly detect fire outbreaks. High-resolution cameras installed on towers, in addition to their algorithm, reveal the location of a fire outbreak within 15 kilometers. This solution simplifies the process for fire brigades, forestry operations and agricultural operations.

Sintecsys still needed to set up towers in backcountry areas with no access to energy or internet connection. Without proper connectivity, their system would not have operated. As an added challenge, some of their towers were settled 80 kilometers deep in dense, forested areas. The agricultural technology company needed a technology partner to provide a robust and reliable solution that would complement their “boots on the ground” approach.

## The Solution

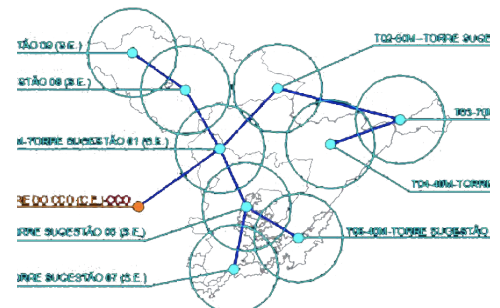
**SINTECSYS DECIDED** to use Cambium Networks' ePMP™ 1000 wireless broadband radios at their operational stations to stream anywhere up to 15 Mbps of high-resolution video. Video-streaming activity is active in 50 towers across six Brazilian states, covering more than 3,290,000 hectares of land and supporting 12 agriculture and forestry businesses. Each tower is set up within one day by Sintecsys' Cambium Networks-trained and certified team, and they connect PTP long-distance links.



## BEST PRACTICES

“Build a good technical and infrastructure team. They must work together. And be a certified Cambium Networks Solution Provider. Don't skip the certifications and trainings provided by the Cambium technical team.”

Osmar Rossetto Bambini Filho,  
Chief Innovation Officer, Sintecsys



On average, each tower covers anywhere from 20,000 to 70,000 hectares.

“The Amazon Rain Forest is located in the north of Brazil, while our company is in the southeast part of the country. The consequences of damage spread far away from the origin, but not the fire itself. Around 3PM BRT on August 19<sup>th</sup>, dark clouds took over the sky in São Paulo city, turning day into night. That happened because of a cold front arriving and the smoke that was released from the Amazon Rain Forest fire. So far, the forest fire increased 82% compared to 2018, surpassing 2016, the year with most registered fire outbreaks. At Sintecsys, we work every day to turn around that situation. Our daily effort is to extinguish this fire outbreak that has occurred so intensely in our forests.”

*Fernando Salgado Camorani, Sintecsys*

## The Results

**NOW, SINTECSYS ACHIEVES** five to 15 Mbps links per tower to assist planted forests, agriculture and natural reserves. The entire network is used solely by Sintecsys, allowing their clients to occupy the network in a way that does not compromise field monitoring.

There has been a 50% reduction in cost related to fire brigades, an elimination of environmental fines related to wildfires and payback was reached within three months for the system. Other significant results include:



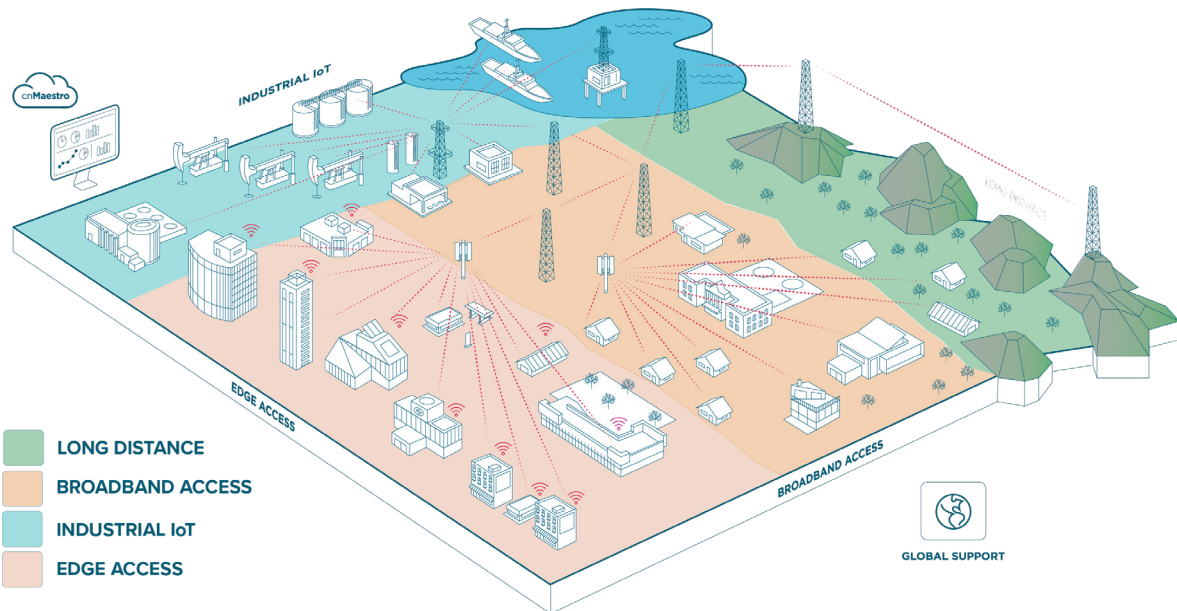
**\$600,000 USD**  
saved per season,  
per client



**90% loss reduction**  
from wildfires



**Detection time**  
decreased from one  
hour to five minutes



*Cambium Networks' Wireless Fabric of technology solutions enables network operators to tailor connectivity solutions to meet exact requirements and grow as needs evolve.*

## Next Steps

**SINTECSYS BELIEVES** that low-orbit satellites will be the new deal for networking communications on the future. They are also joining forces with important non-governmental organizations from Brazil in order to tackle the key issue of wildfires and avoid the same problem in the future. As Sintecsys fuels their solution with Cambium Networks, their continued monitoring of crops and forests throughout Brazil will save their clients the difficulties associated with experiencing wildfires.