JUNIPER NETWORKS | Engineering Simplicity

SIMPLIFIED: AI-DRIVEN SECURE SD-WAN

Meet Ben.
Ben's university is expanding and he needs to safely connect new locations to the rest of his computer network.

Some locations are where people do research...

some are industrial, mobile, or remote...

some are home offices where people work...

and some locations are libraries.

What's Ben to do? Each site has its own Local Area Network (LAN) that connects all the devices in that location.

Then these LANs are connected to one another using a Wide Area Network (WAN).

The more WAN connections, the harder everything is to manage... and the university plans to grow fast.

Ben asks for advice from people
who have connected growing networks before.
They tell him, “Software-Defined WAN
(SD-WAN) makes it easier to work with sites
that have different kinds of WAN connections.”

SD-WAN

Dynamic traffic distribution over links based on centralized routing policies

Hybrid link types: IP VPN, broadband, internet, LTE, etc.

Easy, centralized management: ZTP, policies, SLAs, etc.

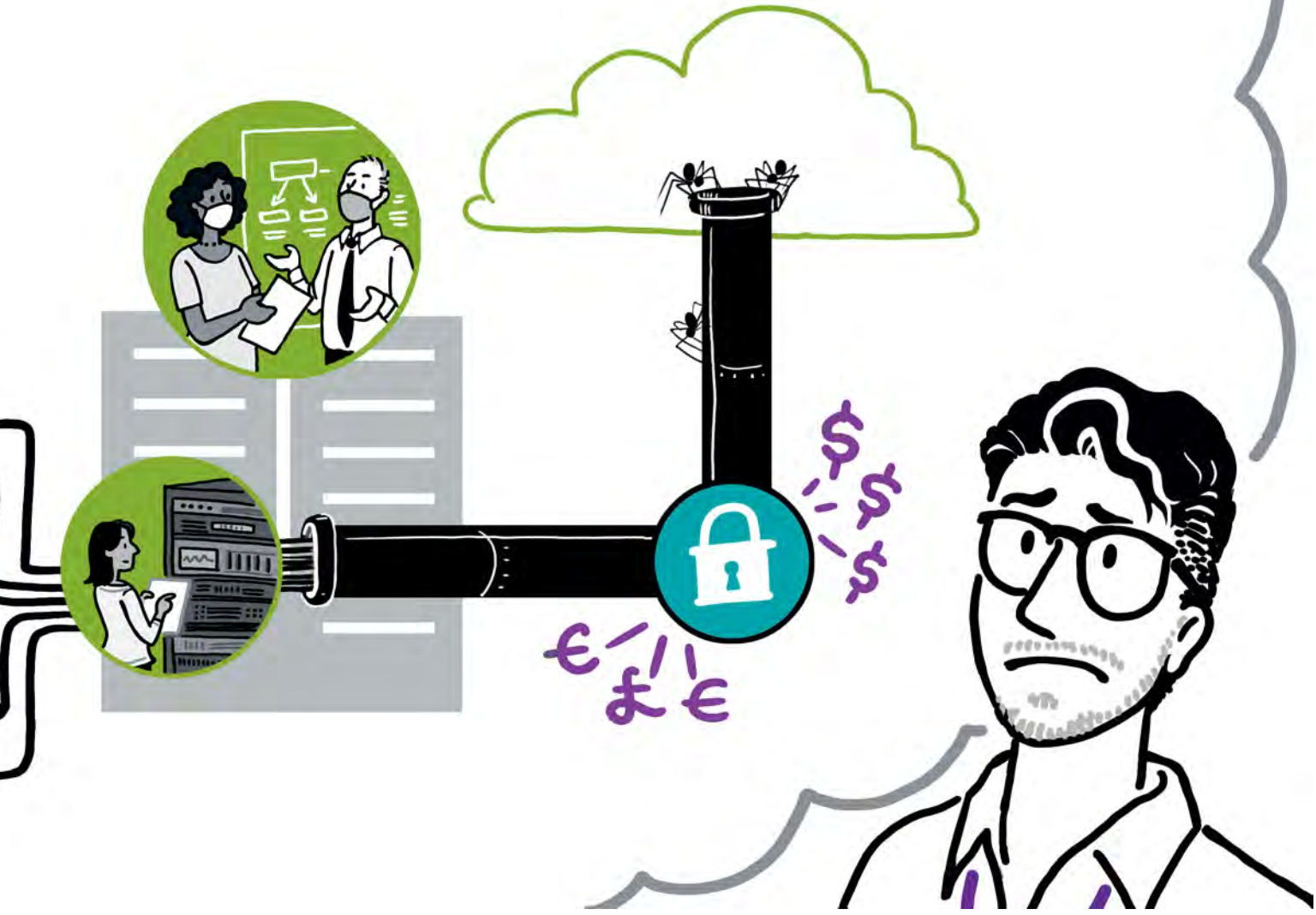
Basic Layer 1-4 Security

But Ben is concerned about potential problems with SD-WAN: weak security.

The internet is not a safe place, which is why companies now use information security products with advanced security including AI.

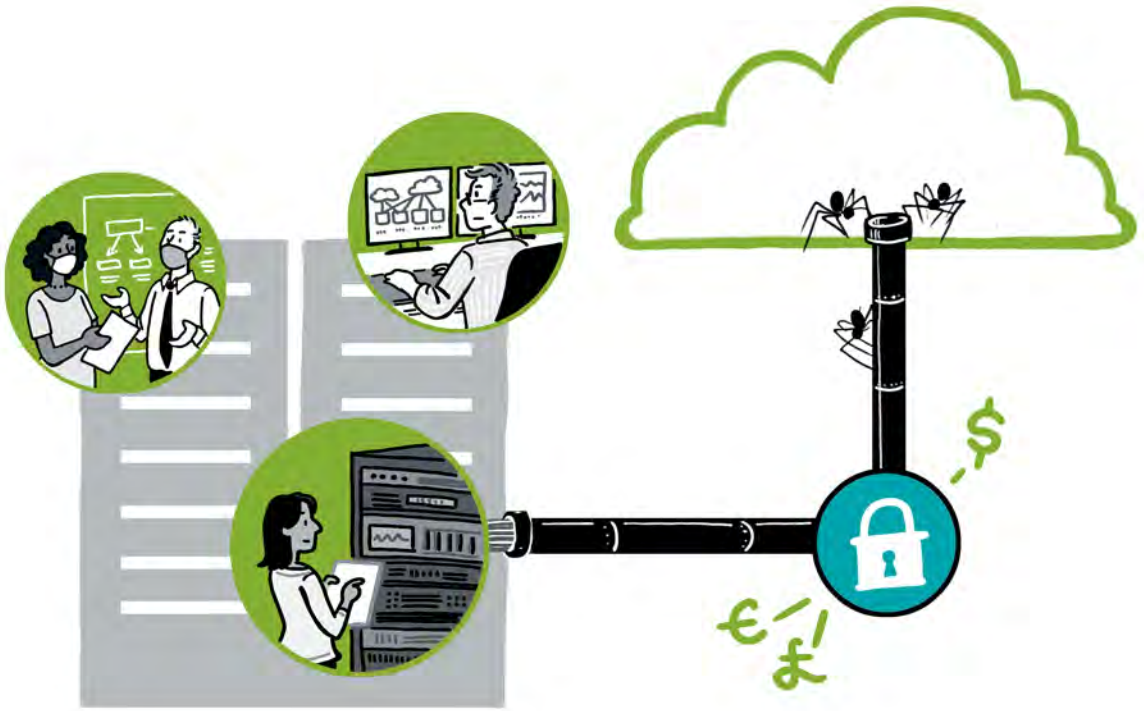
If Ben's university wanted to secure all internet access for all the new locations using their current technology…

…then all that traffic would have to be sent over a VPN to the main district office so that it could be analyzed. That would cost money.



Ben has an idea.

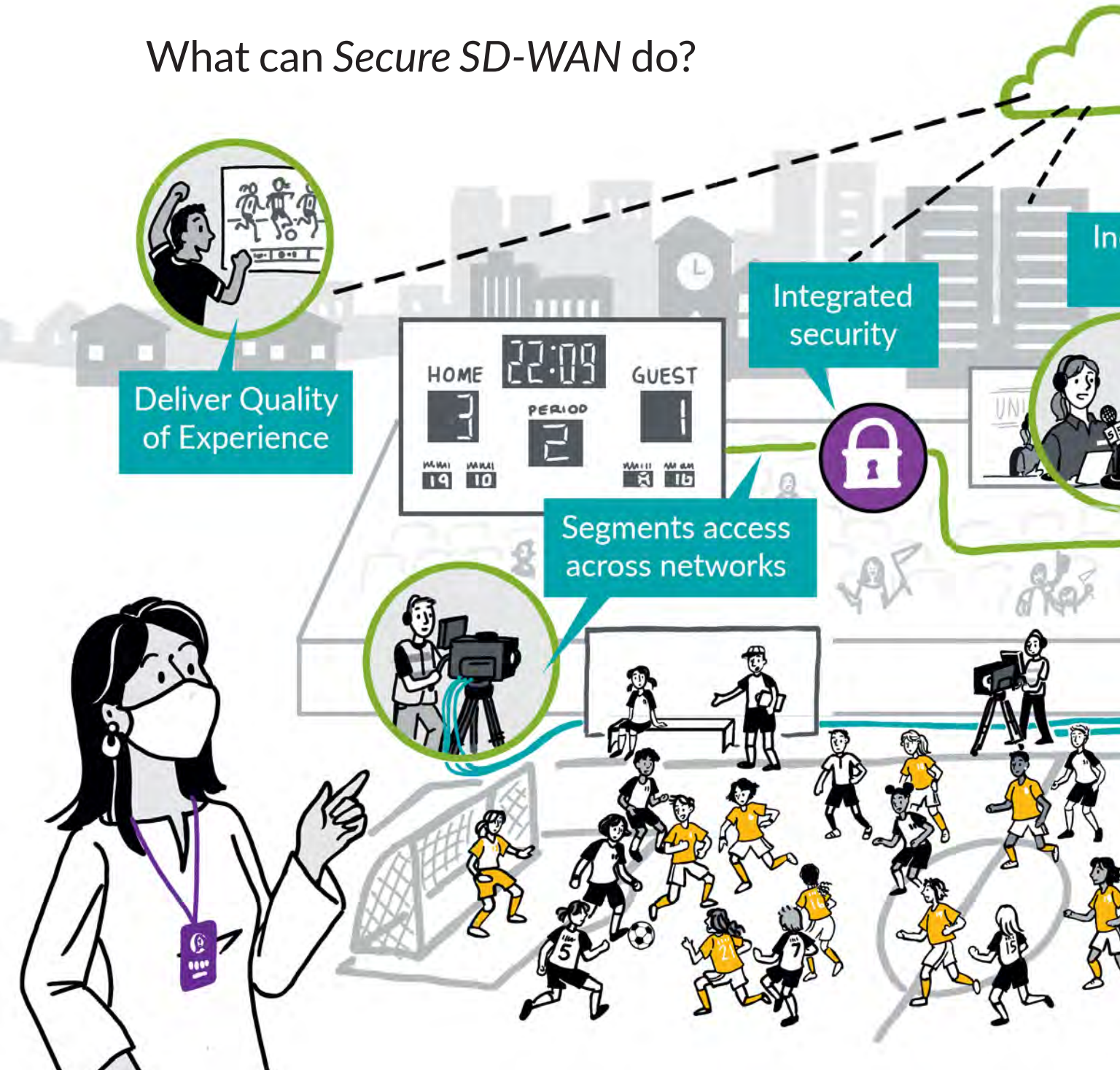
Most traffic sent over WANs is going to the internet, not to the university's network. So Ben could save money by *only* sending traffic destined for the university's network over the WAN. Everything else could just use the internet.

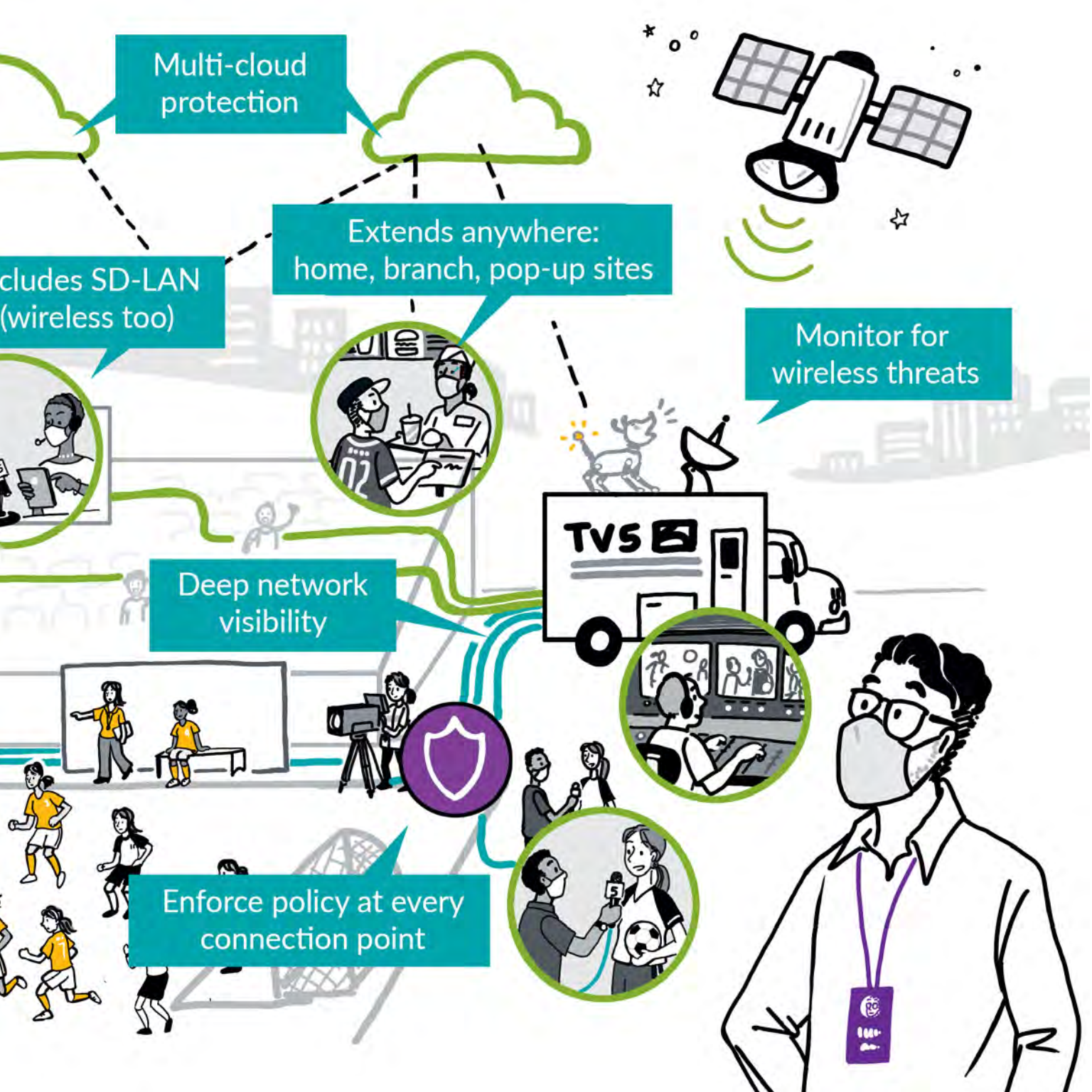


It seems like a good plan…but wait, people accessing internet resources outside the main district office are *not* secure!

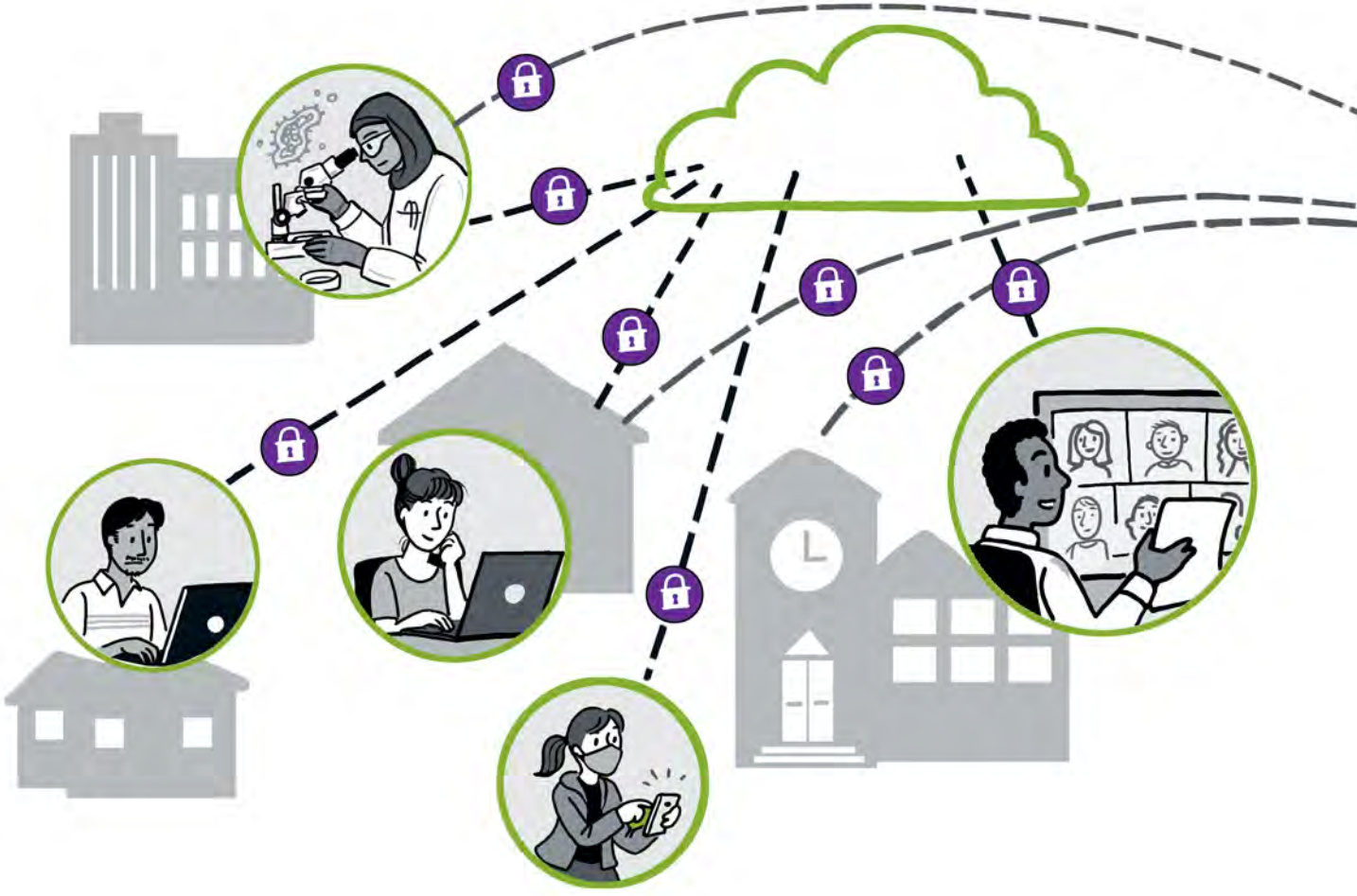
“Have no fear,” says Jasmine,
Ben’s colleague, “*Secure SD-WAN* is here!”

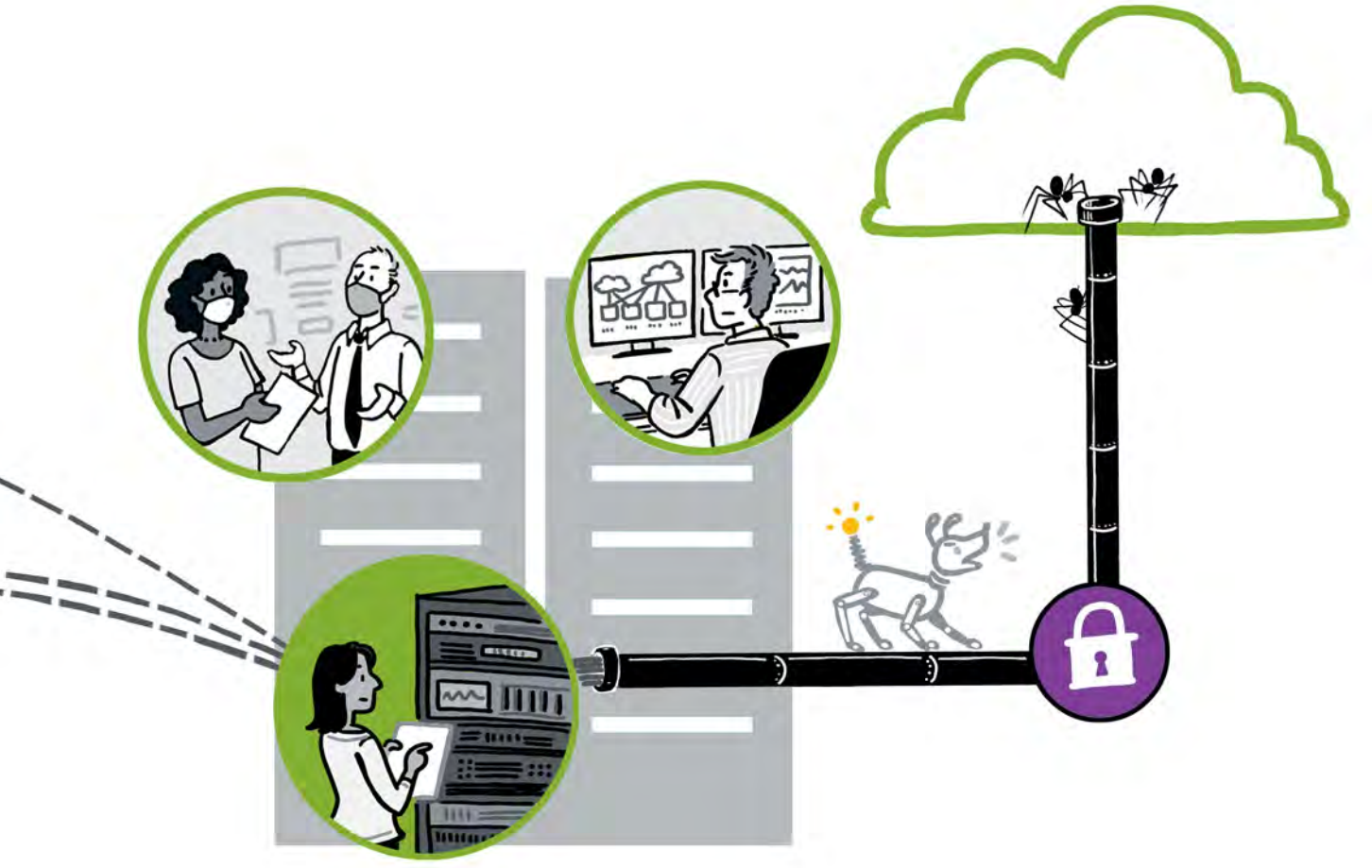
What can *Secure SD-WAN* do?




Multi-cloud protection
cludes SD-LAN (wireless too)
Extends anywhere: home, branch, pop-up sites
Monitor for wireless threats
TVS
Deep network visibility
Enforce policy at every connection point

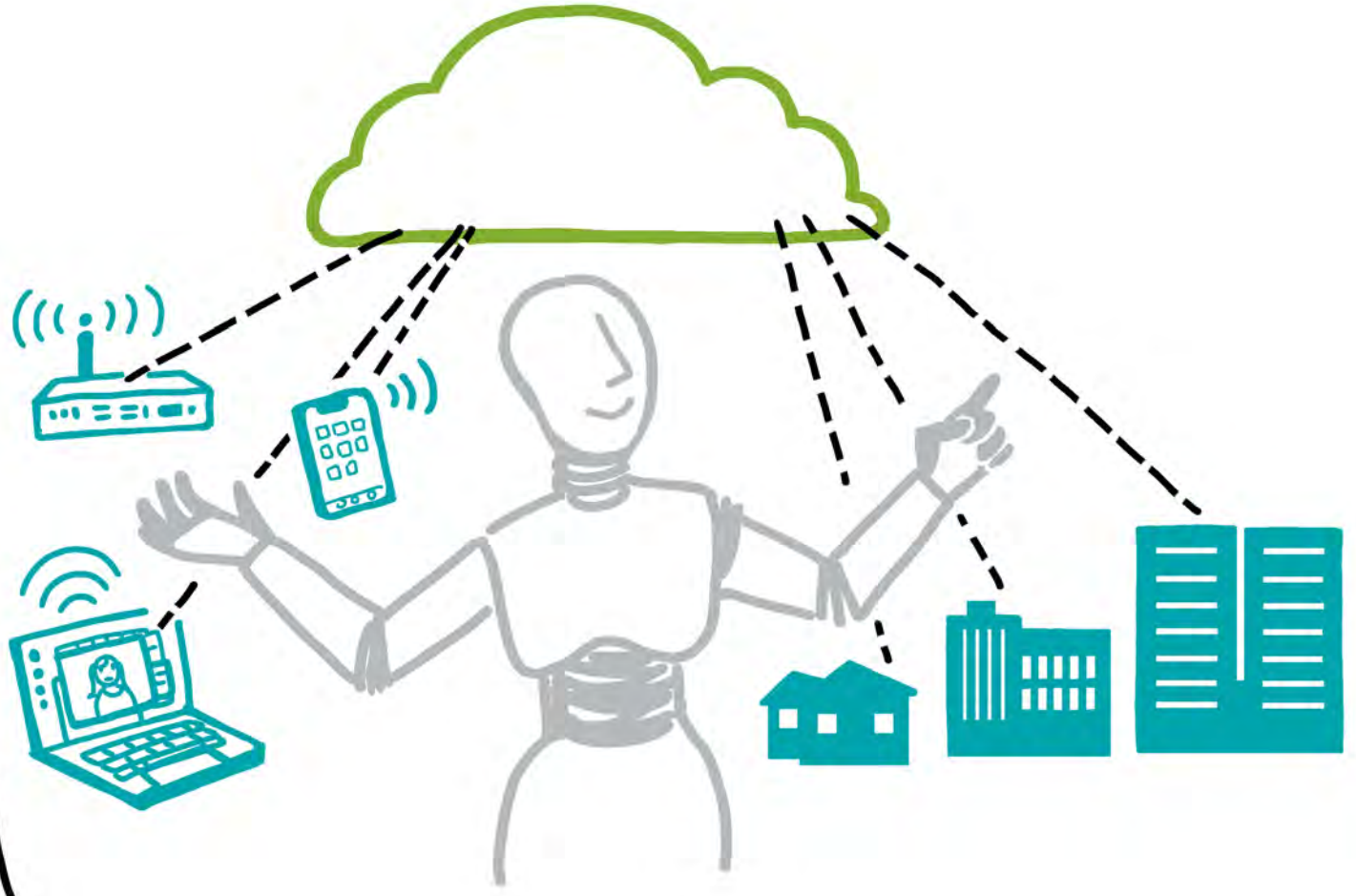
Secure SD-WAN lets Ben secure internet traffic at branch schools and connections from teachers' home sites without sending traffic back over the VPN to headquarters.





Secure SD-WAN leaves more throughput for the main campus to use the VPN, lowers costs, and improves the quality of experience for everyone!

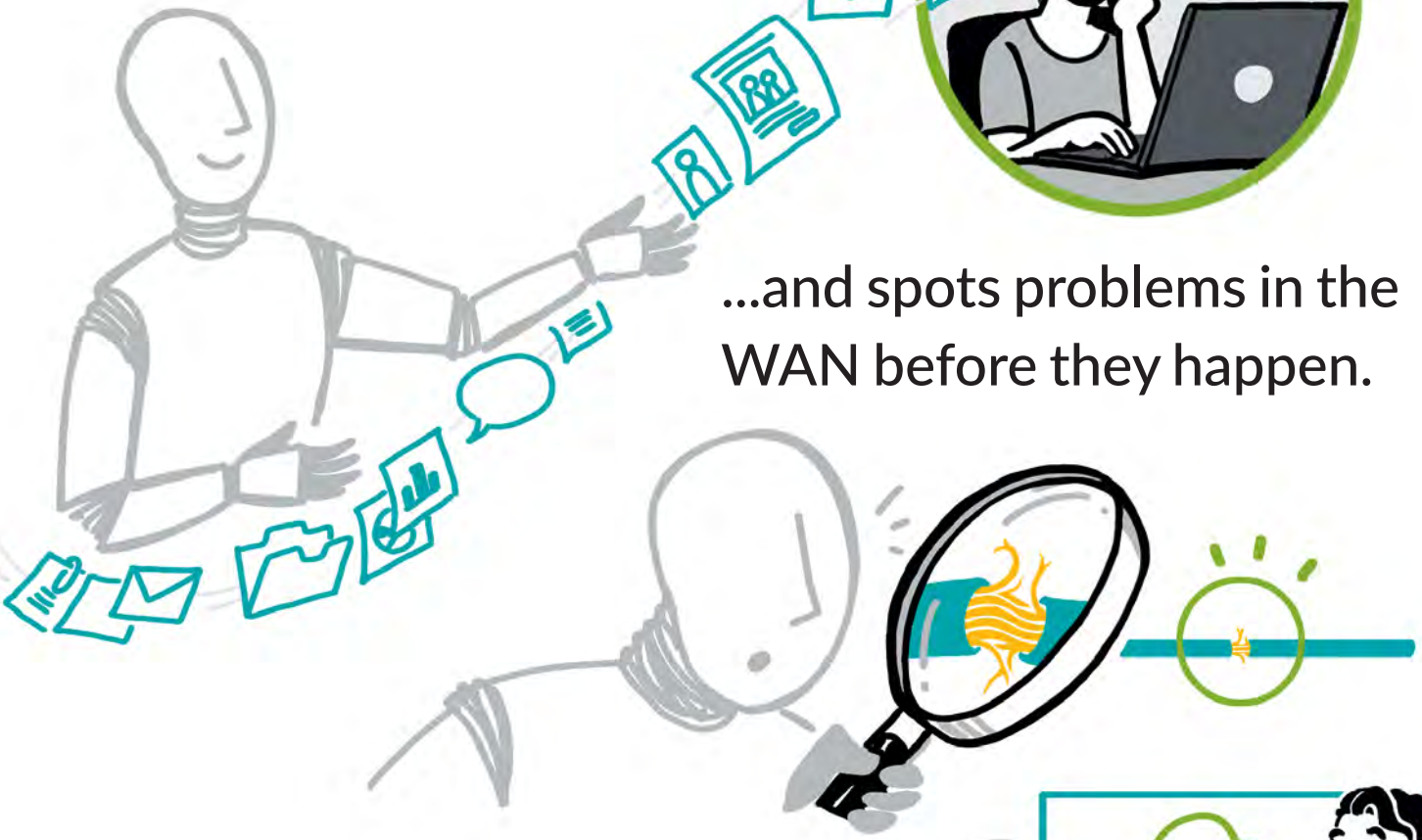
Jasmine has another suggestion for Ben: “What if the new Secure SD-WAN network also used artificial intelligence?”



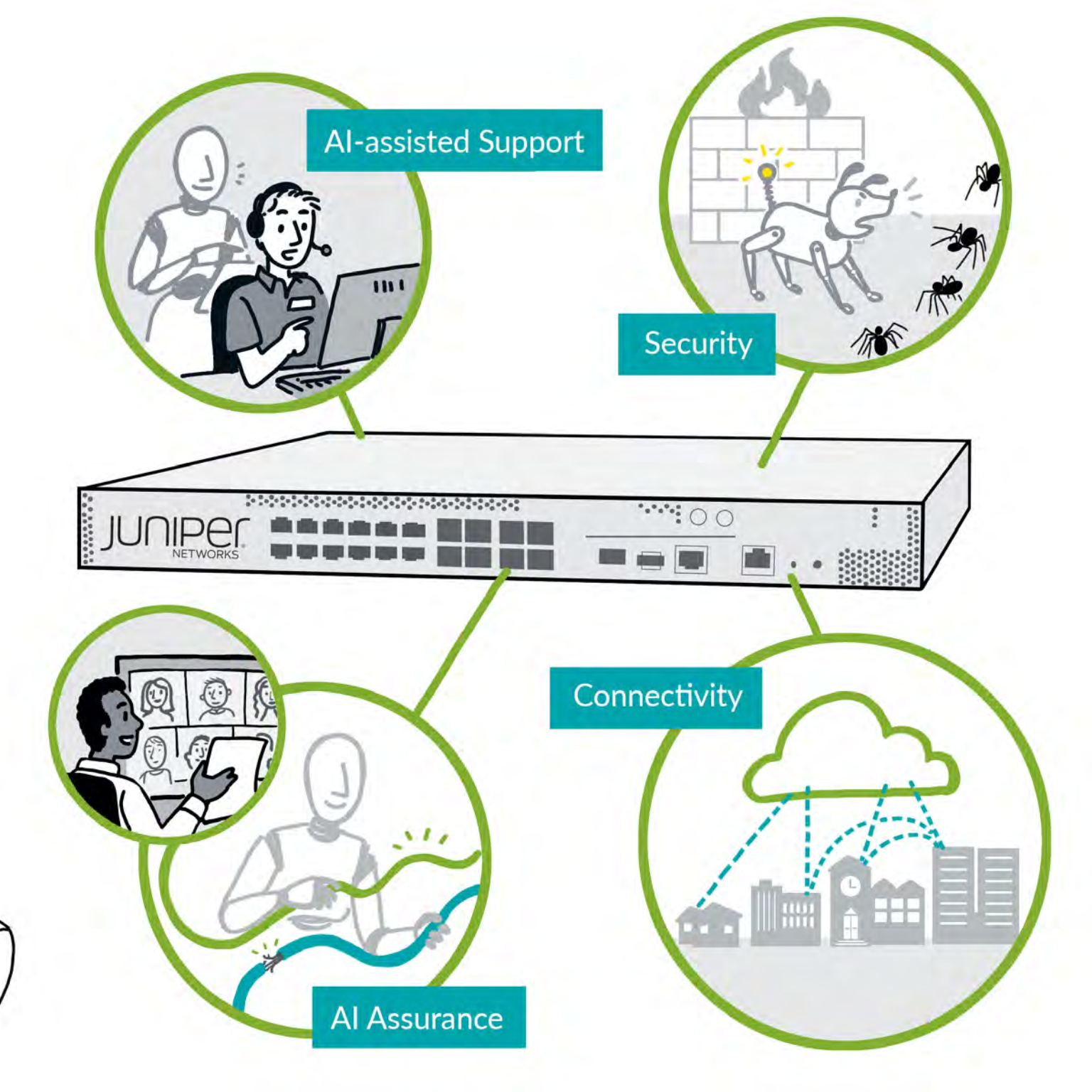
AI learns about the user and application traffic in the wireless and wired LAN, and it can also quickly learn about traffic in the WAN.

AI assures that data gets to users on time...

...and spots problems in the WAN before they happen.



AI can even show Ben how to make the WAN traffic move better and safer.


AI-assisted Support
Security
JUNIPER NETWORKS
Connectivity
AI Assurance

The internet was a scary place but Secure SD-WAN with AI lets Ben's university grow...

...and still be able to adapt to any network and security challenges Ben might face.

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