So much more than orchestration

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Other SD-WAN companies have an Orchestrator. They like to make a song and dance about it. They've worked hard to create shiny but complex graphical systems that you have to install centrally somewhere and rely on to control your entire SD-WAN.

Only a few of them are now realising they should probably make them cloud based, rather than rely on static single points of customer controlled failure.

But none of them think big enough. None of them think about what you truly need in a Software-Defined world, and none of them started out in the UK, with the particular connectivity issues that presents.

We haven't just written an orchestrator, we've developed an entire ecosystem of platforms and systems that all work together to solve vastly more problems than any simple orchestrator.

No one else's product includes telemetry collection nodes, a modem configurator, a diagnostics & optimisation system, an AI decision engine, an intelligent datacentre redistribution system, a DSL sync level maintainer, a DSL platform switching system or a Directed Action Queue System (DAQS).

So let's talk about why we built them, and why you need them.

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Monitoring and telemetry collection

When we first started in 2008, before all the SD-WAN companies were even thinking about trading, we pioneered connectivity solutions that would one day be described as Software-Defined. Resilient, aggregated, multi-line connectivity with a software overlay over a private network.

We quickly realised the power of such a connectivity configuration, and so continued to develop software solutions to improve the quality of business connectivity in the UK.

This was the start of our ecosystem, and its foundation is network monitoring.

We didn't want customers ringing up with faults, or to find out the status of their connection. We wanted to be proactive, and to be transparent. eView Live was born.

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Monitoring is the foundation of our ecosystem

Now in its 4th major iteration, eView Live is our customer facing portal and monitoring platform. Initially just reporting line status and uptime, it quickly grew to display live throughput graphs, DSL healthcheck data and historical usage patterns.

Now our monitoring platform is split into several key functions. If monitoring is the foundation of our ecosystem, then its life blood is telemetry.

- Constant feeds of metadata and metrics from every node in our network flow to central repositories to be analysed and acted upon.

- We don't just mean monitoring our core network, we mean every CPE. And unlike other SD-WAN providers, who can only control their edge appliance, we are integrated into the transport layer as well, with full orchestration, provisioning and diagnostic control of our DSL modems and leased line NTE.
- This constant stream of data delivers everything from health stats and appliance load to network connectivity metrics and live QoS data.
- We then have diagnostics and analysis systems that crunch this data, and display it as necessary through customer portals like eView Live, and to our NOC for our network and support engineers.

Automation and self-healing

Another of our founding principles was identifying and fixing problems as early as possible, sometimes even before they happen.

Our aim was to make UK connectivity what it always should have been. Reliable and stable. So, once we had a constant stream of telemetry, we designed the systems to act on that data.

Initially just basic event-driven alerting, sending messages to engineer consoles to then act on and remotely control and reconfigure or reboot a device, we've taken the next great leap of automation, creating a system that does all that for us.

This Directed Action Queue System, or DAQS, is programmed with a series of automated commands and workflows, remotely making changes to any node in our network, whether it's a modem, a Network Virtualisation Appliance (what we call an EVX) or a core router.

> Identifying and fixing problems as early as possible, sometimes even before they happen

AI

Now we constantly train our AI engine to recognise events and act on them, pulling together information from across our customer estate and interpreting accordingly.

So while other SD-WAN software is intelligent at the edge, making routing calculations and decisions on the fly based on the circuits that are plugged in, this power allows us to use the combined intelligence of all of our edge network nodes.

It allows us to quickly route around issues that one customer might not be even facing yet, but based on what is happening with another customer's network.

Network-sourced diagnostics – the ultimate in IoT driven network continuity.

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No modem hassle

We saw early on what happens if you just let people loose with a software overlay.

Rather than reaping the rewards of network abstraction, those users found that if they just put cheap, unmanaged UK connectivity, whether broadband or leased line underneath the network fabric, they suffered from poor, unreliable service. Exactly what they had hoped to avoid.

Our products are fully managed (sold "as a service"), meaning you don't have the complexity of sourcing underlying circuits, or the strain of managing each set of edge appliances.

Our modem configurator creates and applies config to each modem we provide, straight from information received via API integration with our various network partners.

If we change the DSL platform or regrade and change broadband type during the life of that circuit, then the modem configurator will remotely change the config, without needing interaction.

Constant growth

Our ecosystem will never be finished. There will always be something to improve.

While traditional SD-WAN vendors concentrate on basic, centralised orchestrators and the illusion of zero-touch appliances, Evolving Networks is continually adding services to our software-defined ecosystem to simply make connectivity better.

By delivering our product as a service, we take away the customer hassles of learning complex systems, and trying to interpret and gauge the risk of any change yourself.

We are the UK's only SD-WAN vendor, and the only one who started on this journey with the mindset to shake up connectivity in ways that legacy networking companies just can't fathom.

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