NETFOUNDRY™

AGILE, RELIABLE IIoT & EDGE CONNECTIVITY

TOGETHER NETFOUNDRY & NODEWEAVER ENABLE INSTANT, ZERO TRUST, SOFTWARE-ONLY MESH NETWORKS BETWEEN EDGE NODES FOR UNMATCHED IIoT AGILITY

The Industrial Internet of Things (IIoT) is quickly expanding the use cases and requirements of edge infrastructure. IIoT solution stacks are evolving rapidly from the simple sensors of today, to advanced systems that analyze sensor data, make AI-driven decisions, and take action in real time. To meet these growing expectations, the edge must be more powerful, intelligent, available, and enabled.

NodeWeaver delivers linear and predictable scale-out without large up-front investments by offering zero-management edge cloud fabric, integrating storage, networking and virtualization in a software-only full-featured hyper-converged infrastructure (HCI) solution, optimized for the edge and built to deliver full data center capabilities on virtually any x86-based hardware. It has an easy to use interface and a management system that automates most tasks and simplifies activities that would otherwise require manual intervention by skilled personnel. NodeWeaver's lightweight design allows it run efficiently on smaller edge gateway hardware and even SoC-based systems, so you can start small and expand your infrastructure as you need, one node at a time.

NODEWEAVER & NETFOUNDRY COMBINE FORCES

NodeWeaver has extended their zero-management approach to the network by enlisting NetFoundry. NodeWeaver and NetFoundry make it easy to spin up software-only, zero trust, micro-segmented networks called AppWANs directly from NodeWeaver cloud fabric environments over existing Internet connections without sacrificing security or speed.

Each AppWAN is routed across the NetFoundry network fabric, a secure, global Internet overlay orchestrated by a cloud-native, instance-specific network controller which integrates with business and application systems such as IAM, IoT identity, and cloud policies, while securing traffic across multiple layers and adaptively optimizing performance and throughput.

Key Benefits

- Seamless integration with NodeWeaver automation tools

- Zero trust network architecture with secure network isolation and micro-segmentation in a least privilege access model

- Multi-dimensional, encrypted data in motion protection

- Dynamic performance optimization with 3-5x performance gains over traditional VPN

- Hardware and service provider agnostic

- Developer friendly network deployment using popular DevOps tools

- Networks driven by the identities, contexts, & needs of each app and set of IAM policies

- Faster configuration changes and updates

- Part of the NodeWeaver Marketplace, enabling simple full-stack solutions

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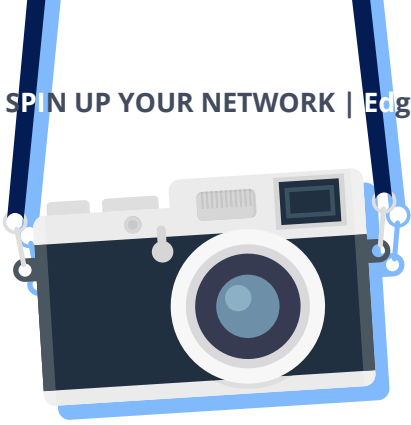
PARTNER SNAPSHOT

NODEWEAVER

NodeWeaver is an Italian company with global reach who offers zero-management edge cloud fabric, integrating storage, networking and virtualization in a software-only full-featured hyper-converged infrastructure (HCI) solution, optimized for the edge and built to deliver full data center capabilities on virtually any x86-based hardware. NodeWeaver's lightweight design allows it run efficiently on smaller edge gateway hardware and even SoC-based systems, so customers can start small and expand their infrastructure as needed, one node at a time.

NodeWeaver must provide their customers with simple, easy to use connectivity between their distributed nodes with built-in automation, multi-dimensional security, and infinite scalability. By partnering with NetFoundry, NodeWeaver achieves this by harnessing pre-integrated, global, connectivity-as-code to meet the demands of explosive growth in IIoT and the accompanying secure and intelligent edge computing it requires.

CHALLENGE ACCEPTED

NodeWeaver is able to instantly deploy NetFoundry mesh networks between edge nodes, which are driving IIoT. This enables NodeWeaver customers to instantly spin up secure, software-only AppWANs directly between their environments over existing Internet connections without sacrificing security or speed. This helps IIoT customers to solve 3 challenges:

Protect Critical Systems From Outside Threats

Highly distributed endpoints require automation-based Zero Trust with no reliance on humans. NetFoundry provides a private network with Zero Trust from edge-to-cloud by:

• Limiting access to apps with micro-segmented, least privilege access AppWANs integrated into IAM

• Abstracting critical systems away from the Internet using bi-directional and outbound-only dark networks

• Harnessing multi-dimensional security architectures for data-in-motion protection

Heterogeneous Ownership & Services

Heterogeneous ownership and/or management requires securely isolated connections from different domains to common endpoints. Identity-bound NetFoundry AppWANs can be used for micro-segmented services across any clouds to achieve heterogeneous access, micro-segmentation of application services, which are isolated from each other and use least privilege access, and to achieve easy-to-manage native multi-cloud connectivity.

Example Multi-Cloud Topology Using NodeWeaver and NetFoundry Micro-Segmented AppWANs

Complexity & Scale of Distributed IIoT

Complex local edge compute (low latency, data compliance, & efficiency) combined with a cloud or multi-cloud back-end is the norm, not the exception with distributed IIoT. NodeWeaver and NetFoundry offer agile, simple, and performant mesh networks connecting edge and cloud for optimal workload processing. Management is simplified using a single pane of glass, efficiency and error-resistance is maximized with zero-touch deployment, and orchestration and change control is simplified through APIs and integration with common DevOps tools.

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