Secure, Reliable SAP HANA Cloud Networking, From Anywhere

1 SAP Hana Enterprise Cloud Customer Statement

 "…Customer has recently gone through a series of mergers and acquisitions both domestically and internationally. Over time, each of the companies has used competing ERP solutions. The customer decided on a SAP HEC managed service for the consolidation of the disparate ERP systems. Customer approached NetFoundry Inc, for zero trust, agile network connectivity that would enable them to use the SAP Hana Enterprise Cloud Data Centers from anywhere in the world.

2 Overview of NetFoundry Networking

NetFoundry's cloud native networking enables secure, high performance application connections. Any app. Any device. Any cloud. No telco, hardware or MPLS dependencies.

NetFoundry Fabric Network is *fast*. NetFoundry's industry leading, global Fabric, and QoE optimization algorithms (built by the NetFoundry founders who hold over 20 network optimization patents) result in more than 200% performance improvement for most apps compared to MPLS, SD-WAN and VPN.

NetFoundry is *secure*. NetFoundry implements a Zero Trust networking model with SASE edges. A Zero Trust model states that all access to all apps is least privileged access with secure identification, authentication and authorization. Sessions are not trusted just because they are on a certain network – each session needs to prove its credentials.

NetFoundry Networking is *agile*. 100% software and cloud orchestrated, organizations get networking which matches the agility and automation of their cloud-based applications. Rather than provide bespoke networks, NetFoundry gives IT a platform by which to spin up zero trust, high performance networks to meet any need.
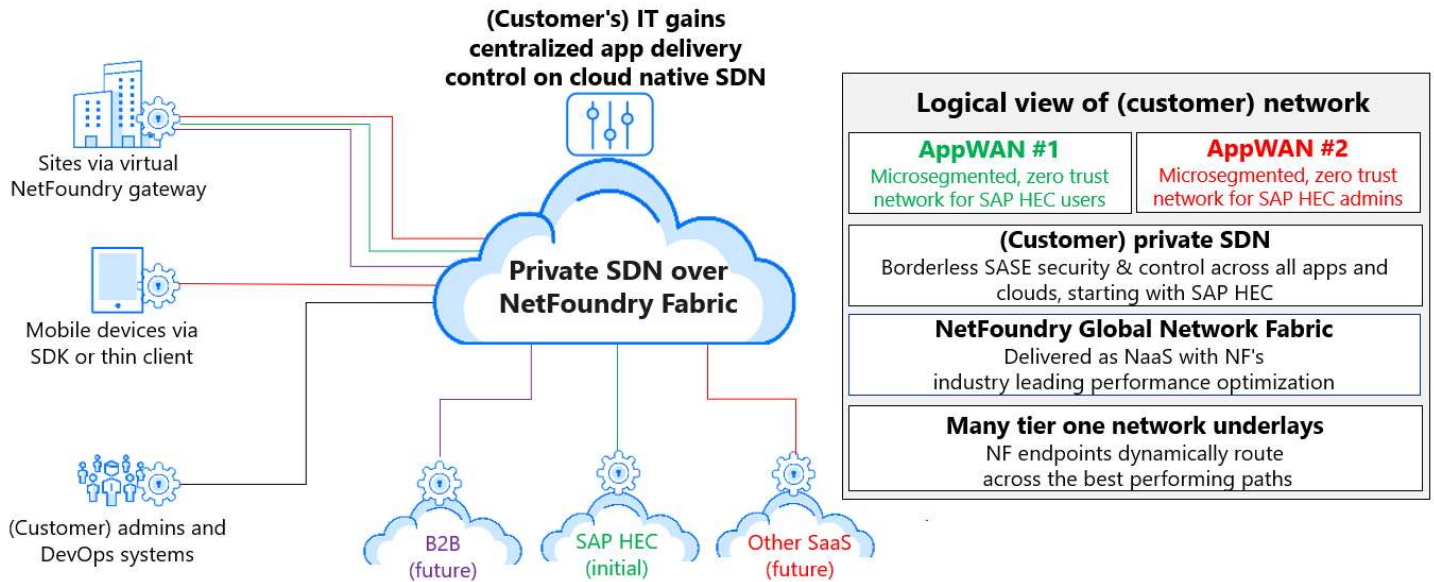
3 Network Requirements

SAP HEC standard implementation requires private networking such as MPLS or VPN. Custom will use NetFoundry's private networking to connect to Equinix data centers, and then connect from Equinix to SAP HEC. As NetFoundry's private networking only requires an Internet connection, the company's distributed locations get zero trust, high performance connectivity to Equinix, without needing to procure MPLS circuits, or deal with the security and performance problems of VPNS. .

NetFoundry software gateways are strategically placed at larger offices and NetFoundry clients will be distributed to small offices and/or remote employees. NetFoundry's app level microsegmentation enable software enforced permissions models to separate between users and admins.

4 Architecture

Logical diagram:

(Customer's) IT gains centralized app delivery control on cloud native SDN

Private SDN over NetFoundry Fabric

- Sites via virtual NetFoundry gateway
- Mobile devices via SDK or thin client
- (Customer) admins and DevOps systems

- B2B (future)
- SAP HEC (initial)
- Other SaaS (future)

Logical view of (customer) network	
AppWAN #1 Microsegmented, zero trust network for SAP HEC users	**AppWAN #2** Microsegmented, zero trust network for SAP HEC admins
(Customer) private SDN Borderless SASE security & control across all apps and clouds, starting with SAP HEC	
NetFoundry Global Network Fabric Delivered as NaaS with NF's industry leading performance optimization	
Many tier one network underlays NF endpoints dynamically route across the best performing paths	

High level diagram:

Customer's global offices and distributed workforce connect to NetFoundry software gateways at Equinix data centers, leveraging SAP's Cloud Peering service from there:
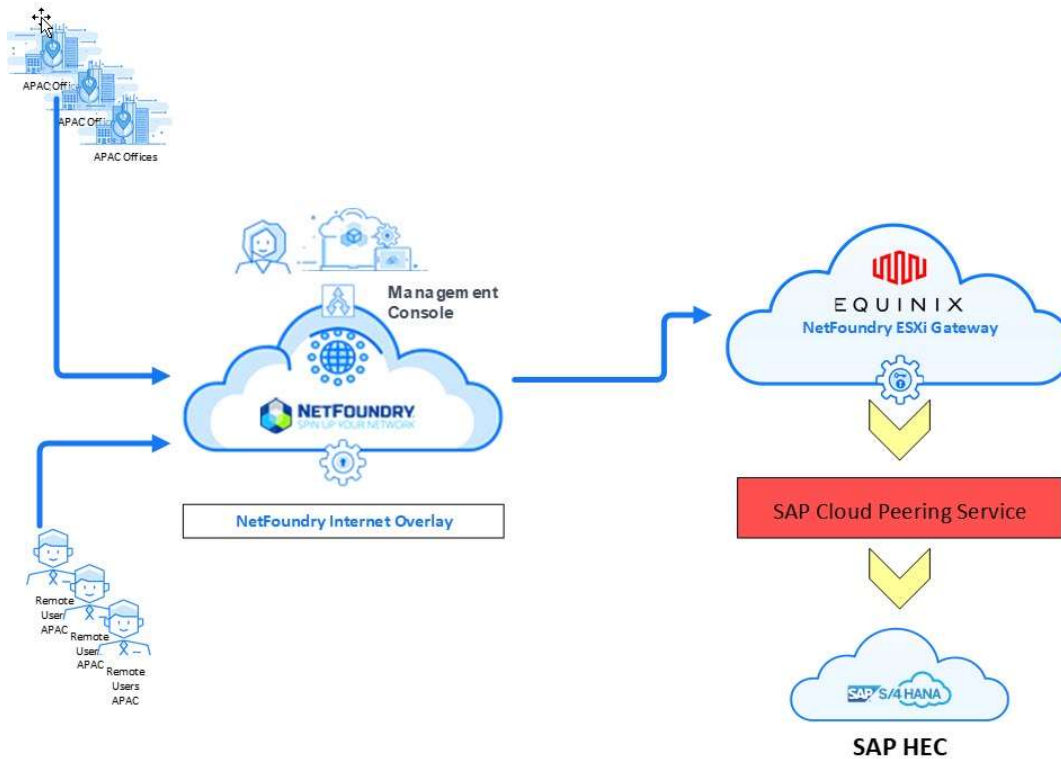
5 Summary

Once the SAP HEC solution was put in place and the corresponding Equinix interconnection was completed, the teams spun up the NetFoundry global networking connectivity. The initial (Customer) Private Overlay network was created with 2 Gateways and 2 Clients for testing. Within 2 hours, secure connectivity was established to the SAP HEC Data Center!

Customer found value in the ease of administration and speed at which their private networks could be connected. We then spun up the rest of the sites, including clients and administrator AppWANs. What could have taken days or weeks with MPLS or VPN, was done in hours, and (Customer) can now instantly connect any other sites.

NetFoundry network performed as much as 3x better than VPN and was a fraction of the cost of MPLS. Customer was able to sync entire database in a morning over a 100Mbp/s Internet connection via NetFoundry Network. Overall the solution is entirely supported for SAP HANA HEC solutions and required no special vetting by SAP engineering to implement.