

Mosaic NetworX

Network Services Overview

About Mosaic NetworX

Founded in 2007, Mosaic NetworX is a privately held global Managed Services Provider. We believe complexity is the enemy of innovation and execution. When you remove layers of complexity—simplicity and agility emerge. Mosaic removes layers of complexity by streamlining and simplifying the design and management of secure, global networks. Mosaic transforms WAN infrastructure from a complicated, build-your-own model, to a simplified, fully managed service model.

A single point of contact, Mosaic provides network services, reliably delivering business-critical applications—anywhere. We enable additional simplicity by being a single-source for multi-carrier network services and connection deployments, supporting network infrastructure through our global NOC.

There are many different mediums for deploying networking technology, including TDM or Ethernet Private Line, MPLS, VPLS, Dark Fiber, broadband Internet and Wireless. We understand network infrastructure can be complex and challenging to deploy, manage and monitor. However, these challenges have become opportunities for Mosaic. We developed our business to deliver the reliability, consistency, and agility that organizations demand.



Mosaic Network Services

Ethernet

Mosaic carrier-class Ethernet is available with bandwidth from 100 Mbps to 10 Gbps, with options for route protection. Ethernet's various topologies can be used together to link LANs from across metro and intercity locations, including four major European markets.

Ethernet Product Portfolio

- Point-to-Point and Point-to-Multipoint configurations
- Multipoint-to-Multipoint configurations
- Ethernet private dedicated network

High-Bandwidth Connectivity

- Bandwidth options from 100 Mbps to 10 Gbps
- Private, dedicated and shared/switched solutions
- Deep metro fiber and extensive intercity fiber
- Over 6.2 million On-net buildings globally
- Fiber network extension service availability

Flexibility on a Standard Protocol

- Delivered with fiber directly to your office or data center
- Add locations and scale bandwidth quickly—over the same interface
- Support multiple services from one interface—data, VoIP and video
- Protection and low latency options available

Internet

IT professionals are chartered with ensuring their operations maintain maximum efficiencies over their technology infrastructure. Achieving this goal involves extensive carrier market research, analysis of service level agreements, and contract negotiations. Mosaic has streamlined the setup process and is uniquely positioned to eliminate any challenges on a regional, national, and global level.

We provide:

- Flat rate, usage-based and aggregate billing options
- Multiple access options from DS1-OC48 to Ethernet, FastE, GigE, 10 GigE connectivity
- IP port only service within data centers
- Carrier redundancy / diversity options
- 24 x 7 network monitoring, management and technical support
- BGP support
- Global coverage
- Service Level Agreements (SLA's)

MPLS & VPLS

Mosaic delivers high performance, secure, scalable, fully-meshed connectivity for all local and global communications needs. Including:

- MPLS (Multi-Protocol Label Switching)
- VPLS (Virtual Private LAN Service)
- Simplified network planning and implementation
- Any-to-any connectivity
- Quality of Service (QoS) options
- Cloud Integration
- Service level uptime agreements

Dark Fiber

Mosaic Dark Fiber service allows you to take control of your bandwidth capacity and create the most efficient path to deliver applications and data. By owning your own Dark Fiber, you gain complete management control over the scalability and capacity of your network.

Mosaic provides Dark and Lit Fiber across the West Coast, including but not limited to:

- Mountain View
- SF Bay Area
- Los Angeles
- Seattle
- Portland



Improve overall network performance within high-capacity end-points:

- Predictable fixed costs
- Unlimited scalability
- Comprehensive service control
- Custom network designs
- Routes over major metropolitan areas
- Infrastructure resilience and performance planning



Private Line

Mosaic private line solutions are secure, dedicated services with the flexibility, scalability and reliability your organization requires. Private Line service benefits include:

- **Global Connectivity and Metro Depth** – Over 6.2 million On-net buildings worldwide. A global footprint provides support for worldwide implementations, while our metro imprint delivers broad localization capabilities
- **Security** – Private line services offer dedicated bandwidth for high-priority business applications, such as voice and video traffic, using trusted SONET and SDH architectures for outstanding performance
- **Reliability** – Private line architecture provides fully diverse paths for transport, and options for immediate restoration in case of outages
- **Flexibility** – Private line services are protocol independent and can carry IP, voice, data and video over Layer 1 or Layer 2

Private Line Service Details:

- Speeds (availability varies by location): E-1, E-3, T-1, DS-1, DS-3, OC-3, OC-12, OC-48, STM-1, STM-4, STM-16, 10 Mbps, 50 Mbps, 100 Mbps, Sub-rate 1000 Mbps, GigE, 10 GigE
- Multiple configurations, including Point-to-Point or hub and end link designs
- Private dedicated rings
- Diversity, latency and custom routing options

Wireless Business Continuity

Mosaic Wireless Business Continuity solutions provide:

- **Connection Redundancy** – Mosaic can deploy a wireless network as a secondary connection to work as a fail-safe in the event of an interruption from your primary connection.
- **Security** – From custom data encryption to network monitoring, Mosaic provides holistic security services for remote connectivity management. Whether deploying a VPN for remote access or a Wireless Business Continuity solution to simplify connectivity in a specific location, Mosaic ensures your data stays safe and secure at all times.
- **Accessibility** – Your organization can't afford to suffer an interruption if a landline fails. Mosaic's team of technicians uses a custom toolset to ensure that your connections aren't compromised by performance degradation or interruptions.
- **Integration** – With different tools interacting with each other in different ways, you need a plan to coordinate them all securely. Mosaic offers comprehensive integration and deployment consulting to help your organization get the most out of its VPNs.
- **Management** – Mosaic managed services offers support and management for devices and transmission solutions, wherever they are located. This ensures the highest uptime and availability possible, without sacrificing security or compliance.

Managed Services

Mosaic offers holistic management, monitoring, and support that reduces complexity and cost, while increasing performance and capacity. Mosaic NetworkX managed services include:



Network Monitoring

From attempted hacks and intra-company messaging, to connectivity issues and service interruptions, our custom toolset monitors the performance and security of the network twenty-four hours a day.



Customer Portal Access

Mosaic offers a full access customer portal that gives your team visibility on how your network is performing and how Mosaic NetworkX is helping power your business into the future.



Engineering Support

From simple deployments and network infrastructure redesigns, to software and hardware refresh cycle planning, the Mosaic team has the experience and organization to translate your engineering needs into successful project completion and deployment.



Performance Testing

From trends in optimization to areas of possible improvement, Mosaic NetworkX monitors trends, surges, spikes, and roadblocks in performance across the entire network to turn your IT infrastructure into a high-performance environment.



Alerting

With text messages, emails, and on-call service and support, custom alerts and notifications from Mosaic NetworkX ensure that your entire IT infrastructure is always performing at an optimal level.



Escalation

The Mosaic support team has a clear escalation path for mission-critical and business-critical issues so that a complete restoration of service is never far away.



Incident Management

Mosaic NetworkX provides IT incident management services that restore your organization's technical capabilities quickly and completely so that your reputation and ability to conduct business remain intact.



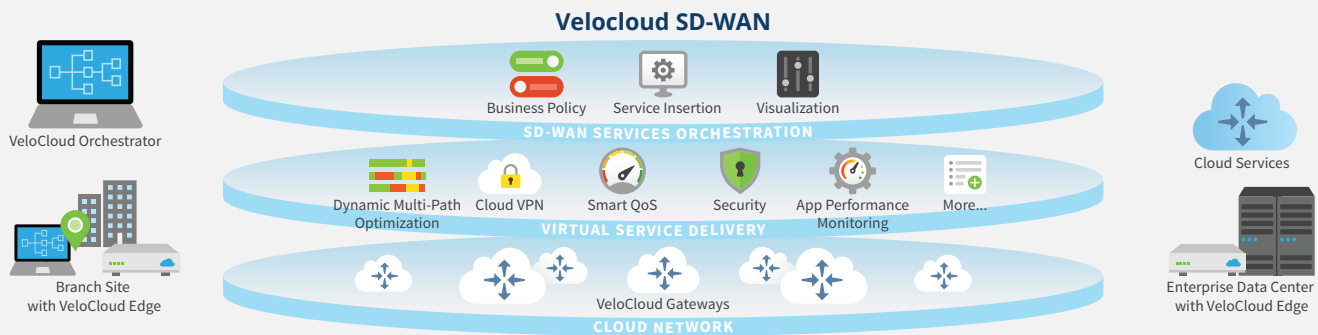
Software Update

Managed network services from Mosaic NetworkX means having comprehensive patch management running behind the scenes at all times. From trunk systems to fiber connectivity, we will automate, initiate, and track all required software updates for your network.

SD-WAN

Mosaic SOFTWARE™ SD-WAN as-a-Service includes SD-WAN technology and cloud-based network, plus our negotiated wholesale contracts with over 300 carriers worldwide. This enables us to provide the best connections based on proximity, price, deployment time, and service quality. Mosaic provides all SD-WAN technology, transports, and other data and voice services, within a single invoice and one point of contact.

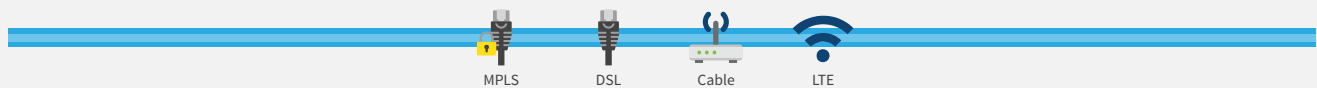
Because Mosaic is a full-service integrator, we can build custom solutions on top of SD-WAN services, including hosted VoIP (CloudPhone), 24/7 global NOC support, QoS programming/configuring, private-line provisioning, fiber construction to buildings, datacenter placement, and much more.



OTT Business Connectivity Services

- Hosted VoIP
- Data Center Placement
- 24/7 Global NOC Support
- Private-line Provisioning
- QoS Programming/Configuration
- Fiber Construction to Buildings
- SMS Messaging & Voice Solutions

Wholesale Contracts with 300+ Carriers Worldwide



Mosaic Custom Services

- Hosted VoIP (CloudPhone)
- 24/7 global NOC support
- QoS programming/configuration
- SMS messaging and voice solutions
- Private-line provisioning
- Fiber construction to buildings
- Data center placement

Single-source network integrator brings additional simplicity

- Cloud-driven application delivery infrastructure
- Multi-carrier MSA contracts bundled in one contract, and one invoice
- Procuring multiple and diverse connections throughout the world
- Global NOC proactively monitors, manages, and

supports the entire WAN infrastructure—24/7/365

- Data intelligence on 4 million buildings, streamlines the search for competitive circuit pricing

Seasoned team of skilled telecom and networking industry veterans

- Specialized skills, and deep understanding of hardware, software, networking, and diverse carrier infrastructure
- Consultative approach eases IT challenges, and helps achieve advantageous network infrastructure to match business needs

Carrier Neutral

- Best connections based on proximity, price, deployment time, and service quality
- Negotiated wholesale contracts with over 300 carriers worldwide
- Multiple carriers under one contract and invoice
- Industry-leading SLA's



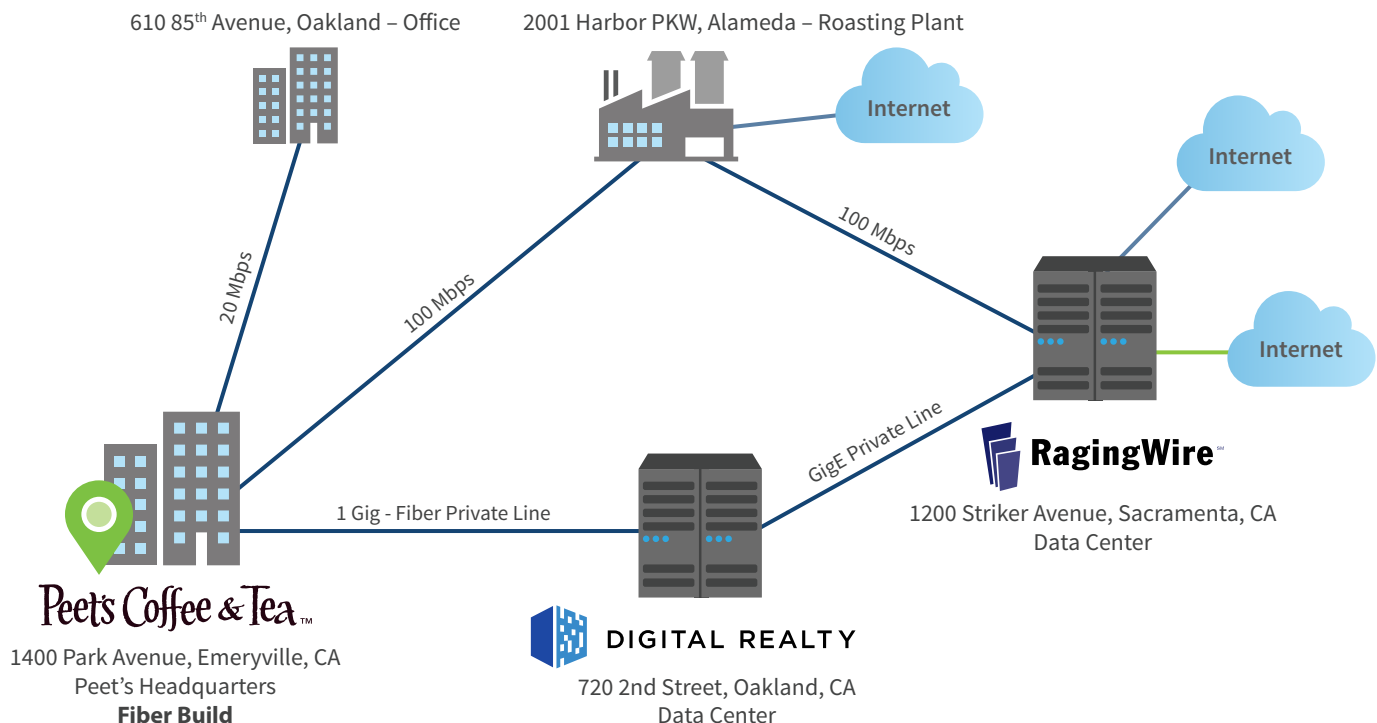
Customer Projects

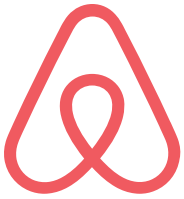


Peet's Coffee & Tea

Peet's Coffee & Tea needed to bring fiber service into their HQ site to send large volumes of data to regional business offices, their roasting plant, retail stores, and to their two off-site data centers. Network media types included, one GigE private line, one Gbps over private line, two 100 Mbps circuits, and multiple broadband Internet links.

- Mosaic facilitated a fiber build at Peet's HQ site located in Emeryville, CA, connecting it to an off-site DRT Data Center located in Oakland, CA, which served as the local POP
- Mosaic extended service to the RagingWire Data Center located in Sacramento, CA
- Mosaic added connectivity to their official site with an additional connection to the WAN
- Mosaic implemented diverse Internet connections to provide an additional layer of network diversity
- Mosaic facilitated another fiber build at Peet's roasting plant enabling the company to connect over fiber to their HQ site and the RagingWire data center to complete a "Ring". This created a bi-direction solution that enabled all sites to communicate, if one of the three sites lost service
- Mosaic assisted Peet's Coffee & Tea with their data center selection, and completed a 250-location hosted VoIP deployment





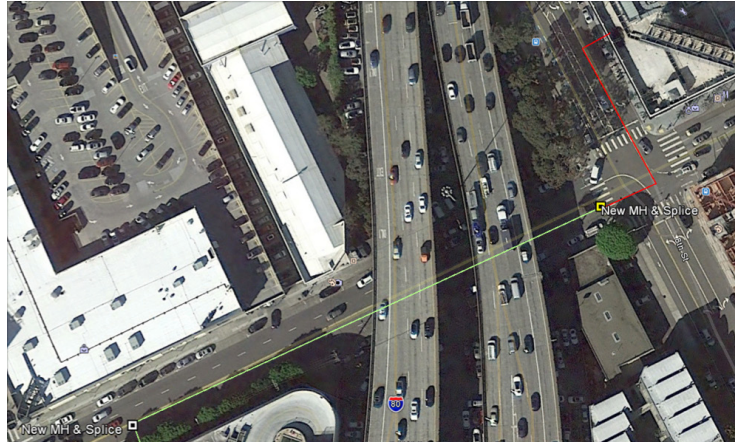
Airbnb

Airbnb needed new network connectivity for three Airbnb San Francisco locations; their HQ, located at 888 Brannan, and two remote sites, located at 99 Rhode Island, which was a multi-block Fiber build between 888 Brannan and 99 RI, and a new building located at 999 Brannan.

- Mosaic accomplished what no other carriers could, with the build between 888 and RI, by permitting and trenching a new path, while leveraging existing conduit along various portions of the route.
- Mosaic built a diverse entrance into 888 Brannan for the connection to 999 Brannan. This required extensive work with the City of San Francisco and CalTrans, as the path went under a freeway over pass.



1. Fiber Build 888 Brannan to 99 Rhode Island



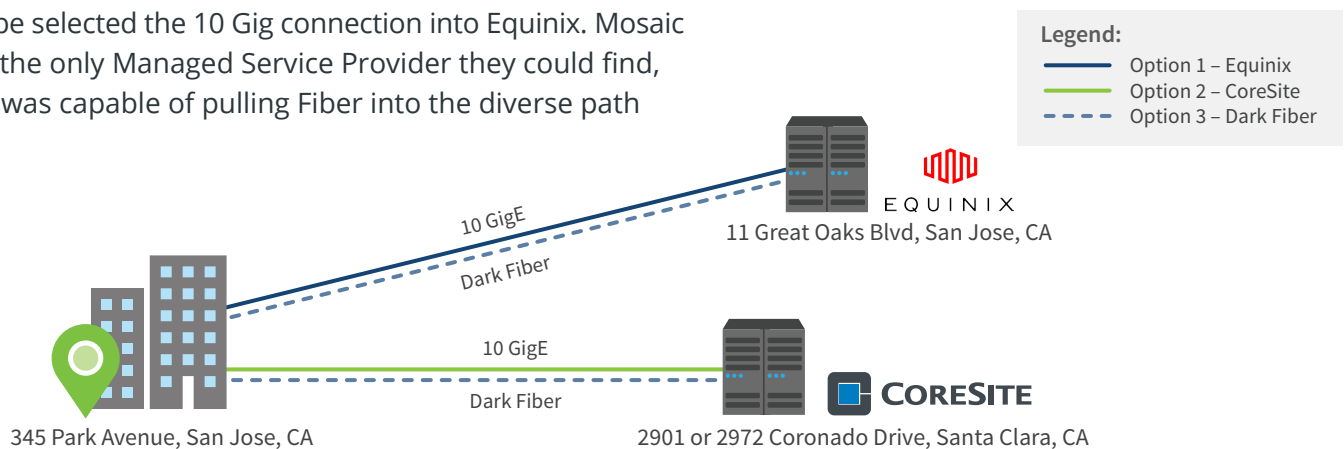
2. Diverse Fiber Build 888 Brannan to 99 Rhode Island



Adobe

Mosaic provided Adobe with two options to pull fiber into 345 Park Ave. in San Jose, CA. This gave the company options for either a 10 Gig connection or Dark Fiber, to allow the company to connect into one of two data centers (Equinix or CoreSite).

- Adobe selected the 10 Gig connection into Equinix. Mosaic was the only Managed Service Provider they could find, that was capable of pulling Fiber into the diverse path

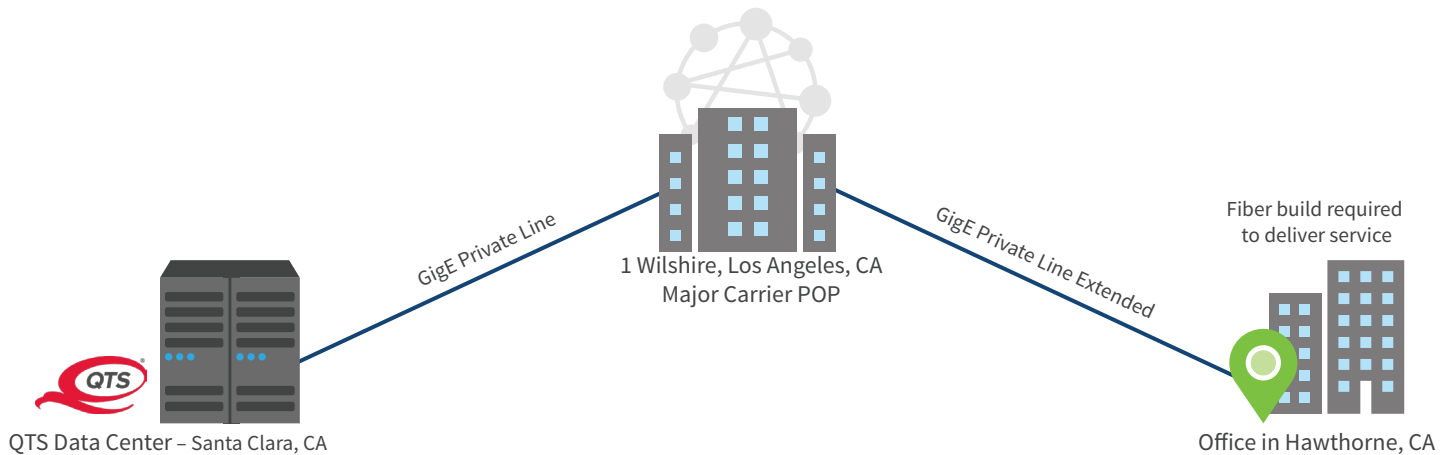




Tesla

Tesla engaged Mosaic to work on multiple projects, one of which was to connect their QTS data center, located in Santa Clara, to their office in Hawthorne, CA. Tesla bid out this service to multiple service providers. AT&T was one of the only carriers at the time who would support the project end-to-end.

Mosaic built-out local fiber in the Southern California area, and connected it back to a local carrier POP. We ordered a cross-connect to a major carrier backbone, and we provided end-to-end service at one third of the cost of AT&T. This solution demonstrates the advantages of working with a carrier neutral MSP to provide cost-effective and efficient end-to-end network connectivity solutions.



Hewlett Packard

HP needed diverse routes for dual 10 Gig waves (2x10 Gig) for each route. This represented a total of forty 10 Gig circuits.

- HP wanted two diverse paths between their Sacramento, CA and Las Vegas, NV data centers
- Mosaic built a multi-carrier and multi-path solution

— short path ~12ms RTD
— long path ~19.5ms RTD

