

Product Catalog



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We are Astound Business Solutions

A top-tier, national network solutions provider

We are a national telecommunications company that delivers advanced solutions over a diverse, carrier-grade network that provides high-speed, reliable, and secure connectivity for mission-critical applications.

We are the 6th largest cable provider in the U.S.

In 2021, Astound was purchased for \$8.1 Billion dollars by Stonepeak, an investment firm specializing in infrastructure assets.



The Astound Fiber Network

Powering businesses across the U.S.

While we provide coast-to-coast connectivity to over 1 million customers, we maintain a local, customer-centric approach, with dedicated industry experts on-hand, around-the-clock, to help stay on top of today's evolving IT technology.

- In 12 states and 8 of the top 10 metro areas in the U.S.
- More than 42,000 route miles
- More than 19,600 on-net buildings
- More than 75,000 business customers
- Connected to more than 100 data centers and 2,000 cell sites

We Deliver Solutions Over the Most Reliable Network:

- Connectivity
- Internet
- Voice/Unified Communications
- Cloud Networking
- Custom Solutions/Advanced Services

NATIONWIDE COVERAGE
— U.S.-BASED SUPPORT —



LEGEND

- Robust metro fiber footprint and/or data center presence
- High-capacity backbone links
- - - Coastal submarine cable access—transpacific and transatlantic routes

Astound is the Business Choice



Astound has been recognized by PCMag's Business Choice readers as the **top Business Internet Service Provider (ISP) in the nation, ranking #1 in Overall Satisfaction** and 10 other categories, including:

- Installation / Setup
- Speed
- Reliability
- Ease of Use
- Value
- Management
- Customer Service
- Tech Support
- Repairs
- Likelihood to Recommend





Connectivity

With our connectivity solutions, we provide reliable, state-of-the-art transport technologies over our 100% fiber optic network. And with guaranteed performance and responsive, local service, we help businesses be ready for anything.

Why do you need connectivity?

- Growing bandwidth demands
- Connectivity is the infrastructure of networks; foundational to online presence
- Scalability

CONNECTIVITY SOLUTIONS AT A GLANCE



Ethernet

Dedicated point-to-point or multi-point connectivity backed by carrier-grade fiber to meet the demands of high-bandwidth applications.



Wavelength

Secure end-to-end connectivity up to 400 Gbps.



Dark Fiber

Secure, scalable bandwidth on your own private network. Manage control and security with no equipment or protocol restrictions.

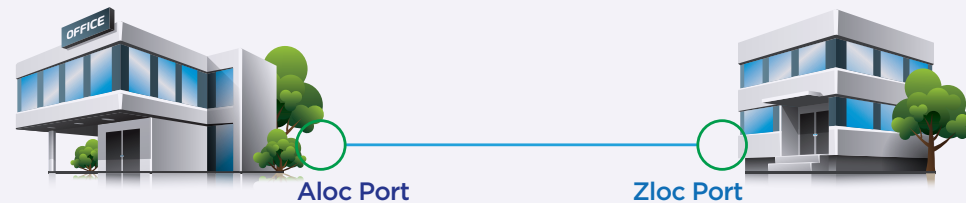
Ethernet Private Line (EPL)

Get the most flexible point-to-point configurations backed by reliable, carrier-class fiber. Our EPL service meets the demands of high-bandwidth applications over Ethernet, so you can expand to new locations, connect new offices and data centers, and run bandwidth-intensive applications with confidence. We stand behind our solutions with an end-to-end, industry-leading Service Level Agreement (SLA) that extends across our backbone, metro core, and last-mile network for fiber-based services.

Ethernet Private Line

Point-to-Point Ethernet Connectivity:

- Powers high-bandwidth applications, so you can expand to new locations, connect new offices and data centers, and run any application with confidence
- Dedicated connectivity between two locations across our Ethernet network
- Ideal for companies that need a secure, private connection between two locations; transparent plug and play



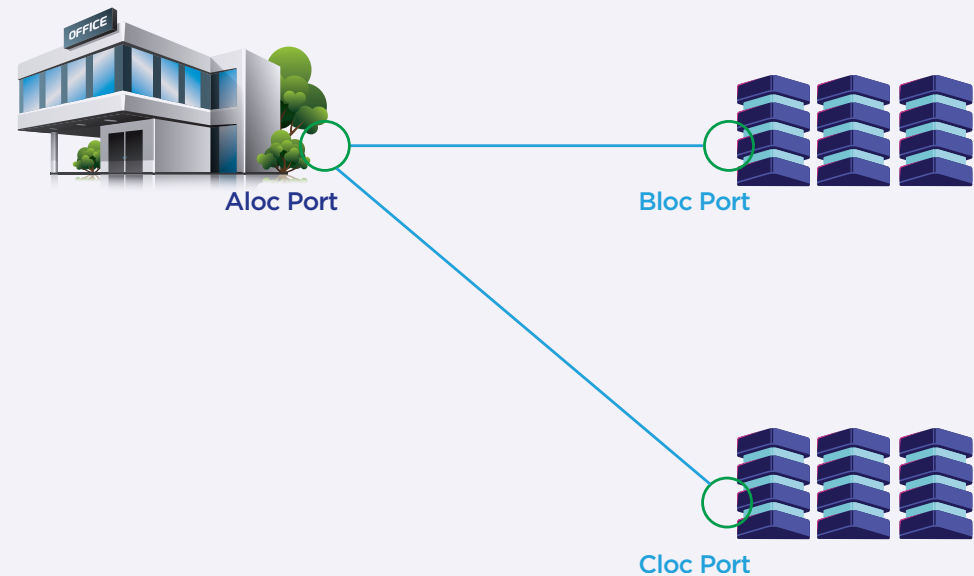
Ethernet Virtual Private Line (EVPL)

Connect multiple sites to a single hub with a dedicated high-speed private network for transferring data, voice, and video communications. EVPL streamlines your network management across multiple locations, with configuration options to support your offices anywhere.

Ethernet Virtual Private Line

Point-to-Multipoint Connectivity:

- Dedicated connectivity between more than two locations, with a “hub-and-spoke” topology
- Ideal for multi-location companies that want to maximize network control at one primary location, or that have a designated HQ and branch office structure; reduces number of network ports required



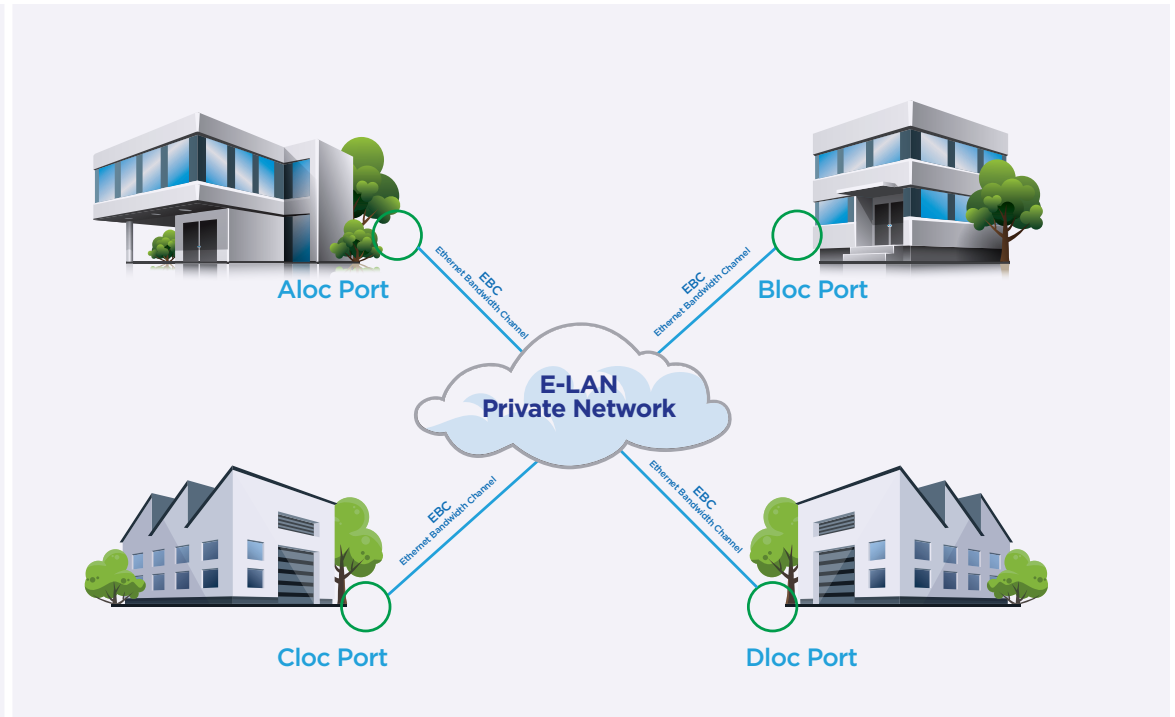
Ethernet Local Area Network (E-LAN)

Use E-LAN service to allow multiple locations to communicate directly with each other across your private network through a seamless extension of each site's LAN environment. Our self-healing fiber ring protects your critical data and provides superior network availability and resiliency.

Ethernet Local Area Network

Anywhere-to-Anywhere:

- Dedicated connectivity between more than 2 sites in an “any-to-any” topology
- A seamless extension of each connected site's LAN environment to other connected sites
- Ideal for distributed organizations. A virtual switch in the cloud. Lowest cost; outsources switching to the Astound network



Benefits of Astound Business Solutions Ethernet Products

Unlimited Scalability - Speeds that support any size application from regional to global scale, with the ability to grow your public domain

Flexibility - Increase bandwidth dynamically

Consistency - Supports features designed to guarantee predictable levels of network performance

Comprehensive SLA - You can run your business with confidence, knowing that your Internet service is monitored and assured

Strong Support - You have peace of mind with a local, responsive team, and we monitor our networks through our Commercial Network Operations Center to provide complete customer service 24/7/365

Resiliency - Most reliable infrastructure; drastically reduces downtime

Quality of Service - Full redundancy ensures improved reliability and disaster recovery ability

Cost-Effective - Networks are less complicated and easier to maintain than traditional networks

Symmetrical - Upload speeds match download speeds

STANDARD OFFERINGS

50 Mbps, 100 Mbps	2 Gbps	20 Gbps
200 Mbps, 300 Mbps	3 Gbps	30 Gbps
500 Mbps	5 Gbps	50 Gbps
1 Gbps	10 Gbps	100 Gbps
1 GB Port	10 GB Port	100 GB Port

A partially meshed, intra-region, high-performance network that produces unsurpassed connectivity with elegant simplicity. The technology of choice for transporting large amounts of data between sites. Facilities-based network delivering proven optical performance that links high-traffic locations with key data centers and fiber-fed access points for seamless connections. Priced per endpoint (no standard price).

Standard Symmetrical Offerings

10 Gbps | 100 Gbps | 400 Gbps

Wavelengths have fewer points of failure and provide better security compared to switched/routed IP services

- **Service level agreements**
- **Predictable performance**
- **No variance in latency or jitter**
- **Dedicated capacity that assures application performance**
- **Protected routes are available**
- **DWDM - Dense Wavelength Division Multiplexing**
- **Simple point-to-point pipe**

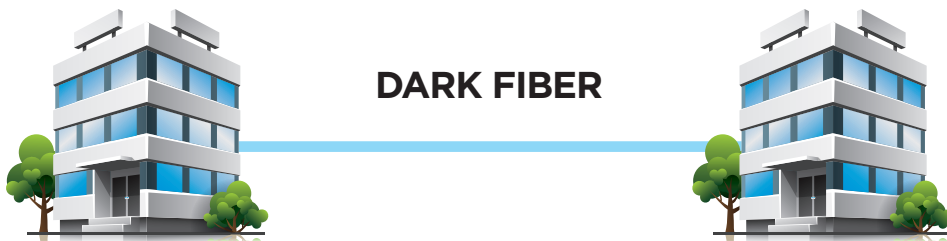


Dark Fiber is a dedicated strand of fiber optic cable that connects your locations within the same metro areas, and it allows you to increase connectivity, network efficiency, and speed for your customers.

You have end-to-end control, unlimited bandwidth, and the flexibility to run unique protocols and use your own equipment. A Dark Fiber network offers maximum security, since you are not running through someone else's network.

Typical bandwidth plans often do not address the increasing demand for bandwidth or account for secure Internet capabilities to transmit large files and sensitive data. They also do not consider the need for scalable, end-to-end network control that requires instant response times for point-to-point communications.

Workloads and operational demands continue to increase while budgets decline. This drives you to improve efficiencies and cut costs. However, leasing more line capacity on existing networks or purchasing more bandwidth presents economic challenges when faced with return on investment pressures.



STANDARD OFFERINGS

STRAND

PAIR

Unlimited Bandwidth - Ensures the necessary bandwidth, with optimal connectivity

Secure - Your sites are directly connected and avoid any outside network traffic

Scalability and Flexibility - Increase bandwidth as you grow or reduce when necessary

Control - Create a network strategy and structure for your needs

Reliability - Full redundancy ensures improved reliability and disaster recovery

Why Choose Dark Fiber from Astound?

Our extensive fiber footprint, assets, routes, and secure rights-of-way provide your network infrastructure with the reliability, scalability, and flexibility to support mission-critical applications. It also enables you to support different configurations, services, and applications that standard bandwidth plans cannot handle. Dark Fiber is an affordable strategy to ensure your business maintains complete control over your network infrastructure.



Internet

Internet is the lifeblood of every business. Having sufficient bandwidth that delivers a consistent, positive employee/customer experience is vital in order to meet your growing online needs. We offer a range of Internet options, giving organizations a breadth of choice and a variety of opportunities to ensure they have the right bandwidth at the right price.

INTERNET PRODUCT FAMILY AT A GLANCE



High Speed Internet (HSI)

Asymmetrical high-speed Internet options with speeds up to 2 Gbps, where available. Most basic service.



Business Class Internet (BCI)

Symmetrical bandwidth at high speeds to serve the needs of your business. More features available than HSI.



Dedicated Internet Access (DIA)

Premium service with performance guarantees up to 100 Gbps built for mission-critical applications. Premium, feature-rich service.

High Speed Internet (HSI)

The ever-increasing data needs of businesses means offices require fast, reliable Internet. We offer a range of fast, economical, asymmetrical business Internet options to meet your company's demands and those of your employees.

HIGH SPEED INTERNET (HSI)							
55 Mbps	110 Mbps	250 Mbps	500 Mbps	1 Gbps	1.5 Gbps	2 Gbps	5 Gbps
Less than 10 users or devices	Up to 10 users or devices	10 to 25 users or devices	25 to 50 users or devices	50 to 100 users or devices	100 to 150 users or devices	150+ users or devices	300+ users or devices
Basic Web Browsing and Email	Heavy Web Browsing	Advanced Internet Needs	eCommerce and Hosted Servers	Multiple Server Hosting	Multiple Server Hosting	Possibilities Are Endless	Possibilities Are Endless
Point-of-Sale Systems	Online Backups and File Sharing	Regular Online Backups and File Sharing	Heavy Internet Usage	VoIP / UCaaS Applications	Constant Cloud-Based Computing	Supersonic Operating Speed with Near-Zero Interruptions	Supersonic Operating Speed with Near-Zero Interruptions
		Video and Web Conferences	Cloud Applications Connectivity	Cloud-Based Computing	Additional Customer Connections		

BENEFITS OF HSI

- Low cost, low hassle, low complexity, quick install
- HSI cable insulation reduces interference for audio and video

ADD-ONS

- Astound Wi-Fi Pro
- Hosted Voice
- Business TV
- Static IPs

Business Class Internet (BCI)

A more powerful solution offering high-capacity, **symmetrical** speeds. Ideal for cloud-based applications requiring higher upload speeds.

STANDARD SYMMETRICAL OFFERINGS

50-100 Mbps	200, 300 & 500 Mbps	1 Gbps (1,000 Mbps)
Large-file downloading, basic Wi-Fi, Video streaming, frequent file sharing, numerous POS transactions Number of connected devices: 1 to 10	Multiple-server hosting, constant cloud-based computing, heavy online backups Number of connected devices: 20 to 30	Multiple-server hosting, constant cloud-based computing, heavy online backups Number of connected devices: 30+

BENEFITS OF BCI

Symmetrical Bandwidth - Improves connectivity to cloud-based applications and services with the same speed and file transfer speed

Scalable - Easily upgrade bandwidth or migrate to other services like DIA, Ethernet, or Wavelength

Future Proof - Additional Internet address options to meet the needs of your growing business

Commercial Support - We monitor our networks through our Call Center and provide responsive customer service 24/7

ADD-ONS

- Astound Wi-Fi Pro
- Phone & Hosted Voice
- Video Solutions
- Static IP (IPv4)

Dedicated Internet Access (DIA)

Speed. Reliability. Guaranteed. Dedicated to your Success.

With DIA, you're guaranteed to receive the exact bandwidth you purchased, 100% of the time. It's a great fit for businesses that:

- Use or host cloud-based applications
- Require dedicated bandwidth
- Need high-bandwidth upload and/or download capability

Fast, Secure Connections

Astound's DIA enables mission-critical business activities via:

- Dedicated, reserved, symmetrical high-bandwidth Internet speed
- Secure connections with guaranteed up-time and always-on connectivity
- Scalable solutions

Non-shared, direct connection to our fiber network

- Symmetrical upload and download
- Reliability backed by Astound's 99.99% Service Level Agreement
- Speeds up to 100 Gbps
- IPv4 blocks up to /24 w/ IPv6 support
- DDoS Mitigation
- 24/7/365 expert support

STANDARD SYMMETRICAL OFFERINGS

50 Mbps, 100 Mbps	2 Gbps	20 Gbps
200 Mbps, 300 Mbps	3 Gbps	30 Gbps
500 Mbps	5 Gbps	50 Gbps
1 Gbps	10 Gbps	100 Gbps

Key Attributes:

- Redundancy
- Dedicated Symmetrical Connectivity
- Private Network
- Service Level Agreement

ADD-ONS

- SD-WAN
- Static IP & Subnets
- Business Router, Managed Router
- Business Wi-Fi
- Bursting
- Border Gateway Protocol (BGP)
- Wireless Internet Backup



Voice and Unified Communications

Powerful, cost-effective communications for your business

Astound has multiple options for voice solutions, which are all delivered over our fiber-rich network and can be customized to fit your organization's specific needs.

UCaaS OPTIONS AT A GLANCE



UCaaS/Hosted Voice

Cloud-Based Unified Communication Tools which include unlimited local, regional and long-distance calling.



Trunks

PRI/SIP high-capacity connectivity that supports legacy and IP PBXs with multiple interfaces.



Business Voice

Reliable telephone lines for voice, fax, and more.

Unified Communications as a Service (UCaaS)

Unified Communications (UC) consolidates the ways employees, partners, and customers communicate to reduce costs and make businesses much more efficient. UC services are built on the foundation of VoIP calling to integrate multiple communication methods, including telephone calls, video conferencing, instant messaging, voicemail, and email.

Highly scalable solution that delivers:

- A feature-rich product at a competitive price-point
- Video conferencing and collaboration
- Astound phone app for desktop and mobile
- Management portals
- Flexible and scalable



UCaaS/Hosted Voice Seat Types

Powerful, Cost-effective Communications for Your Business

UCaaS/Hosted Voice seats can easily be managed from anywhere.

ESSENTIAL (Phones Only)	EXPRESS (Phone, Messaging)	PREMIUM (Phone, Messaging)
<p>Essential seats are for front-line staff or common areas typically not associated with a person but do require a handset.</p> <ul style="list-style-type: none">• Common Areas, Conference Rooms, Warehouses, Lobbies• Standard Handset Required (Add-On)	<p>Express seats offer a core set of unified communications tools empowering knowledge workers to stay connected. Includes Voicemail, Astound Phone, SMS, Portal Access.</p> <ul style="list-style-type: none">• Price-conscious businesses• Office, Mobile, or Hybrid Workers• Use handset or mobile application• Standard Handset (Add-On)• Standard Handset Required (Add-On)	<p>Premium seats allow users to expand on UCaaS features. Includes Voicemail, Astound Phone, SMS, Portal Access, Voicemail Transcription.</p> <ul style="list-style-type: none">• Supervisors, Managers, Executives• Office, Mobile or Hybrid Worker• No Handset Required with Seat• Standard or Premium Handset (Add-On)

In addition to the three seat choices, a Basic Business Line is available exclusively for use with UC services.

A Basic Business Line (analog line) is used specifically with a UC sale to support other devices requiring dial-tone only. Typically not a handset. *For example: fax machines, postage machines, etc.*

UCaaS/Hosted Voice Applications

Success in today's fast-paced business world relies on effective communications. Connect with customers or co-workers from anywhere with a network that offers **scalability, reliability,** and allows you to easily **manage features.**



Astound Phone (for Desktop)

Access and control of your UC services from your computer

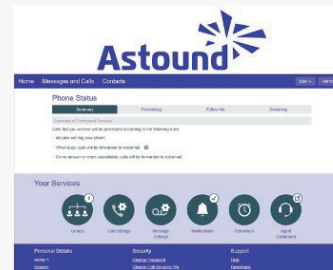


Astound Phone (for Mobile)

Access and control of your UC services from your cell phone

APPLICATION FEATURES

Web-based management UC services is at your fingertips.
Easy to use and administrate online.



Astound Phone Manager for Users

Easily manage individual feature options:

- Web-based access from anywhere
- Review call history
- Manage voicemail
- Configure call handling
- Manage contacts



Astound Phone Manager for Admins

- Used for management of the business group
- Auto attendant
- Multi-Line Hunt Groups (MLHG)
- Manage all user lines & phones
- Music on hold
- Extension Management
- Extensive Call Reporting

Available Phone Models

Next Gen IP Desk Phones



Poly Edge E100

- Standard 2-line phone | 8 lines paginated
- Power over Ethernet
- 2-port 10/100 Mbps Ethernet switch
- 2.8" color LCD display
- Wall mount included



Poly Edge E220

- Standard 4-line phone | 16 lines paginated
- Power over Ethernet
- 2-port gigabit Ethernet switch
- 2.8" color LCD display
- Bluetooth 5
- 1 USB C
- Microban protection



Poly Edge E350

- Standard 8-line phone | 32 lines paginated
- Power over Ethernet
- 2-port gigabit Ethernet switch
- 3.5" color LCD display
- Integrated Wi-Fi (AC)
- Bluetooth 5
- 1 USB C
- Microban protection



Poly Edge E450

- Standard 8-line phone | 32 + 12 lines paginated
- Power over Ethernet
- 2-port gigabit Ethernet switch
- 3.5" and 2.4" color LCD display
- Integrated Wi-Fi (AC)
- Bluetooth 5
- 1 USB C
- Microban protection



Poly CCX 505

- Premium 24-line gigabit phone with HD Voice
- 5" 9:16 color LCD
- 2-port gigabit Ethernet switch
- Touchscreen
- Integrated Bluetooth 4.2
- One USB Type-A port 2.0 | One USB Type-C port 2.0



Poly CCX 600

- Premium 54-line gigabit Phone with HD Voice
- 7" 16:9 color LCD
- 2-port gigabit Ethernet switch
- Touchscreen
- Integrated Bluetooth 4.2
- One USB Type-A port 2.0 | One USB Type-C port 2.0



Available Phone Models & Accessories

Additional Phone Options and Phone Accessories



Poly C60

- Standard large conference room phone
- Room coverage 20 ft
- 2-port 10/100/1000
- 5" color LCD touchscreen



Poly Rove 30 Handset & Rove B2 Base

- Standard wireless phone solution
- Microban antimicrobial technology
- B2 Base range up to 165 ft (depending on environment)
- Ruggedized IP65 rated handset
- Up to 18 hrs talk time / 300 hrs standby time
- Handset and base are sold as individual units



Poly C60 Expansion Microphones

- Works with Poly C60



Poly Edge E Expansion Module (EM)

- 22 lines | 66 paginated
- For use with the Edge E450
- Maximum of 2 expansion modules per phone
- 5" 480x800 color LCD display

Empower Agents with Cloud-Based Omnichannel Capability — Anytime, Anywhere

Cloud Contact Center from Astound delivers a flexible, seamless, all-access Customer Experience (CX) for today’s multi-site contact centers. Through the convenience of full-featured, built-in omnichannel availability — around the world and around the clock — let customers decide when, where, and how to conduct business with your team.

The Value of Versatility

Through versatile tools that optimize your workforce and more flexible inbound and outbound channels, engage with customers wherever and whenever they happen to be ready — at home, work, or play.



EQUIP. EMPOWER. ENGAGE.

Boost efficiency, agent productivity, and contact center performance across sales, service, and support. With Cloud Contact Center from Astound.

Omnichannel Communication	Enhanced Experiences	Standard Offerings
Voice	Advanced Interactive Voice Recognition (IVR)	Gold
Web-Chat		Gold Plus
Email	Skills-Based Routing	Platinum
SMS		Quality Assurance Call Monitoring
Social Media		AI-Driven Interaction Analytics

KEY BENEFITS AND RESULTS

Dynamic Notifications – Curate more effective campaigns, from simple-scheduled touches to sophisticated multi-touch marketing.

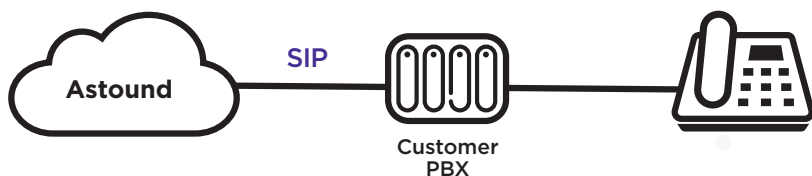
Custom Integrations – Seamlessly merge contact center functions with CRM, workforce management, and on-demand data dips.

Schedule Manager & Evaluator Dashboard – Maximize resources for appropriate coverage, while monitoring interactions with a real-time dashboard.

PRI and SIP Trunking

Connect your phone system with unlimited Local Calling. Regional, Toll-Free, and Long-Distance Minutes of Use Plans (MOU) available.

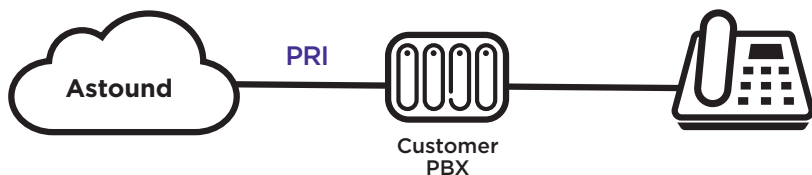
24/7 Commercial Support. Scalable and Reliable.



Session Initiation Protocol (SIP)

Enables scalability and unlimited business growth, supporting:

- Networking multiple IP-PBXs to expand voice to different sites
- Remote capabilities
- IP phone capable
- IP-PBX can provide call flow automation



Primary Rate Interface (PRI)

Offers T1-based voice channels, supports:

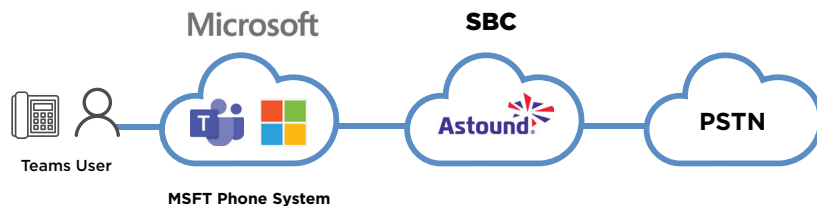
- Better utilization of each trunk
- Networking of multiple PBXs to centralize voice communications
- Older and new phone systems
- System functionality
- Basic calling features



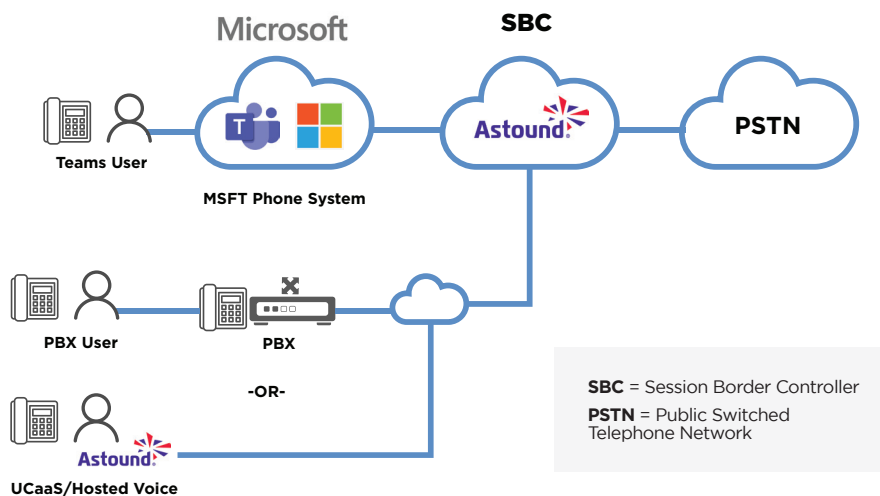
Direct Routing for Microsoft Teams

Direct Routing for Microsoft Teams allows customers to use Astound as their telephone provider to deliver voice calling capabilities for Teams users. It is a more reliable and less expensive alternative for Teams clients compared to Microsoft Calling Plans. Direct Routing is sold in a similar manner as SIP is today. The initial Direct Routing Service includes 10 sessions and requires a bucket of minutes (MOU). Additional sessions may be added.

STANDALONE



HYBRID



SBC = Session Border Controller
PSTN = Public Switched Telephone Network

DIRECT ROUTING SERVICE

Direct Routing Service
 (10 Sessions Included)

Direct Routing Sessions
 (Additional Sessions)

MOU
 (Minutes of Use)

Standalone

- Direct Routing for Teams Only

Hybrid

- Direct Routing Service and Astound SIP or PRI
- Direct Routing Service and Astound UCaaS

Note:

Calling Features for Teams clients are provided via Microsoft. Customer is responsible for configuring their MSFT 365 and Teams service. This includes having all required licensing for their users.

Keeping Your Organization Connected

Reliable phone services are critical to ensuring that your employees, customers, and vendors can stay in touch. Our local and long-distance services can provide you the means for customer care and technical support straight through to vendor management and sales enablement.

Business Basic Phone

Analog line for fax machines
and basic call functions

VS.

Business Phone with Call Manager

Feature-rich analog phone line
with management portal

With Astound Business Voice with Call Manager, you get:

- 30 productivity-enhancing tools
- Web-based portal
- Stay connected
- Unlimited local, regional, and long-distance calling
- Competitive international rates





Cloud Networking

Secure, reliable connections to enable your business operations

Experience advanced connectivity solutions with our Cloud Networking services. Gain access to a global network of over 100 data centers, and leverage premier connectivity options that are optimized to support cloud-based applications. Our high-performance routes are engineered to accommodate any configuration, ensuring that your network runs smoothly and efficiently.

CLOUD NETWORKING AT A GLANCE



Data Center Access

Bypass the public Internet by using our network to create a private, dedicated connection with one of our Cloud technology partners.



Interconnection

Use Virtual Cross Connect (VXC) as a private, transparent, and cost-effective method for point-to-point connectivity between our designated data centers.

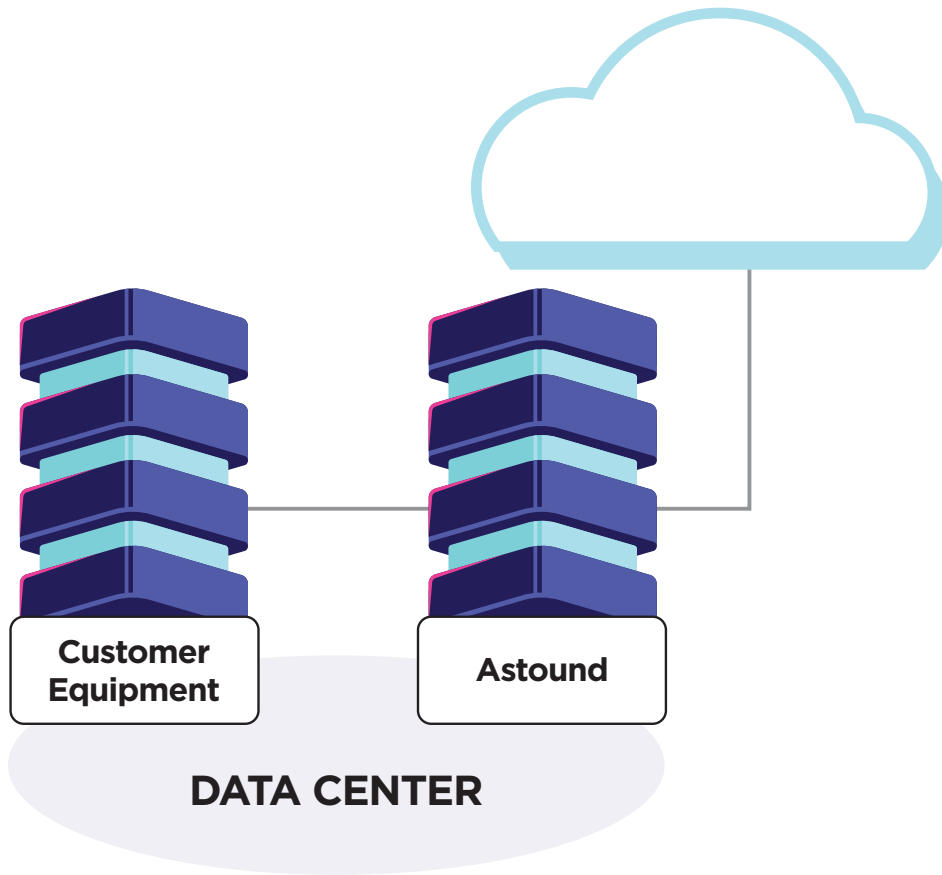


IP Transit

Maximize connectivity with our IP Transit, linking data centers to the Internet via shortest routes with stable round-trip times.

Data Center Internet Access (DC-IA)

For customers that have a presence in a data center location and require Internet service to a cage, cabinet, or suite.



STANDARD SYMMETRICAL OFFERINGS

500 Mbps

1 Gbps

5 Gbps

10 Gbps

Key Differentiators vs DIA:

- Powerful Internet access without a remote access tail
- Must be co-located in the same data center

Data Center	City
Equinix-DC2	Ashburn, VA
CoreSite-NY1	New York, NY
Markley-1 Summer	Boston, MA
Equinix-CH2	Chicago, IL
Equinix-DA2	Dallas, TX
Equinix-SEA10	Seattle, WA
Equinix-SV5	San Jose, CA
EdgeConneX	Hillsboro, OR

Azure ExpressRoute

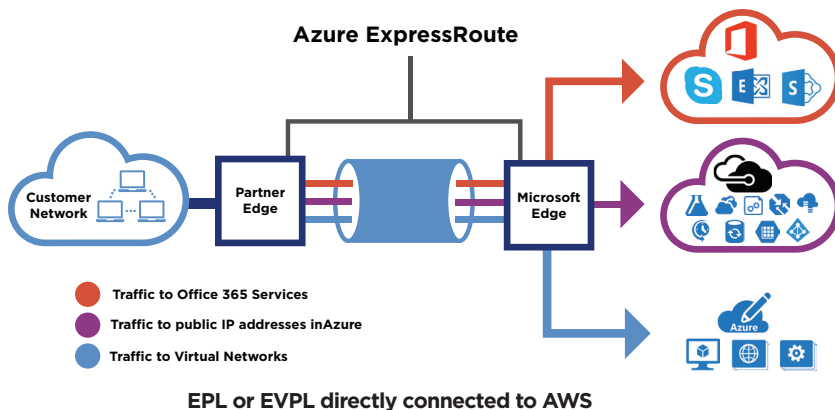
Your private fast lane to Azure, for quick, reliable uploads and downloads with increased agility.

A Astound enables your office locations and data centers to connect directly to Microsoft Azure ExpressRoute and other public and private cloud platforms. With bandwidth options up to 100 Gbps over dedicated fiber, our data center access solutions bypass the public Internet, ensuring data privacy and guaranteeing enhanced scalable throughput speeds through optimized connectivity.

Benefits

Get a more consistent network experience than Internet-based connections.

- **Lower Cost of Ownership** - Experience cost savings when compared to standard Internet access charges into Microsoft Azure ExpressRoute.
- **Better Resiliency** - Our fiber ring topology helps protect critical data with superior network availability.
- **Enhanced Security** - Data is routed across the Astound network and isolated from the public Internet.



STANDARD SYMMETRICAL OFFERINGS

ExpressRoute	ExpressRoute Direct
Mbps: 100, 200, 300, 500 Gbps: 1, 2, 5	Gbps: 10, 40, 100

With Microsoft Azure ExpressRoute from Astound, you'll benefit from:

- Increased security
- Predictive network latency
- Low jitter/packet loss
- A more consistent connection experience than over the public Internet
- Symmetrical bandwidth options up to 100 Gbps
- Backed by our SLA

City	Site Name
Ashburn, VA	Equinix - DC2 & DC11
Dallas, TX	Equinix - DA2
San Jose, CA	Equinix - SV5
Seattle, WA	Equinix - SEA10

AWS Direct Connect

Pair our powerful Cloud Networking with AWS Direct Connect and hosted connections to maintain network resiliency



Through AWS Direct Connect, we can establish a dedicated private network between your office, data center, or co-location environment to AWS and its more than 175 services.

AWS recommends connecting via multiple locations to help you maintain network resiliency. You can set up multiple diverse circuits by connecting to any AWS node, routing anywhere on the AWS backbone.

We Offer Two Types of Connections:

Dedicated (EPL) - high bandwidth with a direct connect

Hosted (EVPL) - virtually connect to AWS

City	Site Name	Direct Connect	Hosted	Region
Ashburn, VA	Equinix DC2/DC11	✓	✓	US-East 1
Boston, MA	Markley 1 Summer	✓		US-East 1
Chicago, IL	Equinix SH2	✓	✓	US-East 2
Dallas, TX	Equinix DA2	✓		US-East 1
New York, NY	CoreSite NY1	✓	✓	US-East 1
San Jose, CA	Equinix SV5	✓	✓	US-West 1
Seattle, WA	Equinix SEA10	✓	✓	US-West 2

STANDARD SYMMETRICAL OFFERINGS

Hosted	ExpressRoute Direct
Mbps: 50, 100, 200, 300, 400, 500	Gbps: 1, 10, 100

With AWS Connect from Astound Business Solutions you get:

- Increased security
- Predictive network latency
- Low jitter/packet loss
- A more consistent connection experience than over the public Internet
- Symmetrical bandwidth options up to 100 Gbps
- Backed by our SLA and customized support

Cloud Services

Let us manage your infrastructure-as-a-service, so you can stay focused on your business.

Cloud Services provides you the flexibility & scalability to tailor resources on an individual workload basis. We will shape and right-size your environment based on actual consumption - to drive down and optimize your cloud costs including Backup and Disaster Recovery services.

Key Benefits

We build, implement, and expertly maintain a vast array of tailored network resources, supporting public, private, and hybrid cloud environments.

- **Affordability** - Avoid prohibitive upfront infrastructure costs
- **Scalability** - Ability to scale your cloud computing resources dynamically
- **Security** - Protect company, customer and employee data with built-in compliance
- **Reliability** - Manage growth and expansion to keep your business from outgrowing its resources
- **Flexibility** - Deploy customized environments and resource options best suited to your application

On Premise	Infrastructure as a Service (IaaS)	Platform as a Service (PaaS)	Software as a Service (SaaS)
Applications	Applications	Applications	Applications
Data	Data	Data	Data
Runtime	Runtime	Runtime	Runtime
Middleware	Middleware	Middleware	Middleware
OS	OS	OS	OS
Virtualization	Virtualization	Virtualization	Virtualization
Servers	Servers	Servers	Servers
Storage	Storage	Storage	Storage
Networking	Networking	Networking	Networking

Customer Managed

Vendor Managed

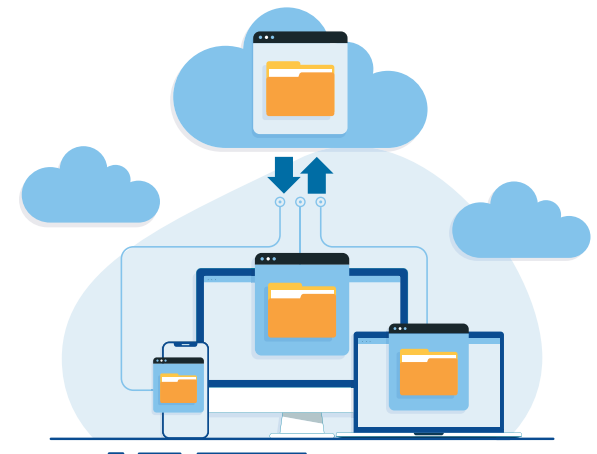
STANDARD CLOUD SERVICES

Reserved Compute Resources

- IP Block
- CPU in GHz
- RAM in GB
- Cloud Storage in GB
- Monthly Backup in GB
Optional Weekly Backup to offsite location
- Maintenance and support

ADD-ON ADVANCED SERVICES

- Backup as a Service (BaaS)
- Disaster Recovery as a Service (DRaaS)
- Private Virtual Desktop Infrastructure (VDI)





Advanced Solutions

We are ready to work with you to deliver innovative solutions tailored to your specific requirements. Whether it's securing your company's data at the network level or providing your IT teams with a simple way to manage your network connections, we'll listen to your needs, goals, and challenges, then create a reliable, customized technology solution to propel your organization's growth and success.

ADVANCED SOLUTIONS AT A GLANCE



Business TV

All you need is a power outlet and an Internet connection to get our Astound Business TV wireless streaming solution.



Video Transport

Dedicated point-to-point or multi-point connectivity backed by carrier-grade fiber to meet the demands of high-bandwidth video productions.



Advanced Services

Commercial Wireless & SD-WAN.

Business TV

Create a welcoming environment for visitors and customers. Let employees keep up with current events.



Offices, Lobbies, and Break Rooms

Relax with a crystal-clear live TV experience.



Restaurants and Bars

Enjoy the action viewing big events



Waiting Rooms

Enjoy great entertainment.

STANDARD BUSINESS TV

Public View

Private View

Key Benefits

- **Set the Mood** - Provide a welcoming space for visitors and customers.
- **Flexibility** - The right package to fit your property needs.
- **Enhanced Experience** - Keep employees and guests entertained and informed.
- **Create Regulars** - Simple, easy, and varied entertainment keeps customers coming back.



The best combo. The cable box without a cable. Simplified lineup.

- Bluetooth-enabled
- Google Assistant & TiVo Voice
- Quick-launch buttons
- Netflix, Disney+, Peacock and more*

* Refer to our website for local channel lineups and available add-ons.

Video Transport

The evolution of HD and 4K video has driven the need for resilient transport options.

Using the latest technology, Astound offers Video Transport Service (VTS) as a reliable and flexible suite of services designed to deliver connectivity to stadiums, media centers, production studios, broadcast centers, Outside Broadcast (OB) Trucks, and more.

Top Features & Benefits

- **Unlimited Scalability** - Supports a variety of media services including native uncompressed and compressed video and audio services
- **Flexibility** - Service terms that meet the unique needs of the broadcast community, including temporary services for special events
- **High Quality of Service** - Low latency and efficient use of bandwidth to support the higher demands and increasing requirements of today's video services
- **Comprehensive SLA** - You can run your video production with confidence knowing that your services are managed and monitored
- **Strong Support** - Peace of mind with a local Network Operations Center, providing complete customer service 24/7/365
- **Reliability** - Full redundancy ensures improved reliability and disaster recovery capability
- **Seamless Integration** - Secure, open-source technologies eliminate the risk of being locked into a proprietary solution and allow for seamless integration with your existing publishing and delivery workflows

*High-bandwidth Video Transport compressed or uncompressed
using SMPTE industry standards.*

ASI | SDI | HD-SDI | J2K | SRT | 1 Gbps | 10 Gbps



Extends your broadband connection with professionally-installed hotspots for your office or workplace.



ASTOUND WI-FI PRO	ENTERPRISE BUSINESS WI-FI	CUSTOM WI-FI
<p>Business Wi-Fi Solutions for HSI and BCI</p> <ul style="list-style-type: none"> • TrueMesh™ Wi-Fi network • Safe and secure • Easy guest login • Up to 4 SSIDs (networks) • Captive portal & branded guest experience • Control & analytics in your hands with mobile app 	<p>Enterprise Wi-Fi Solutions for BCI and DIA</p> <ul style="list-style-type: none"> • Extend your broadband • Superb user experience • Zone-by-zone growth • Enterprise support 24/7 • Indoor / outdoor use 	<ul style="list-style-type: none"> • Unlimited number of Access Points • High-density performance • Indoor / outdoor support • Fully-managed and supported • Enterprise-grade service • Custom landing & splash pages • Portal management

A Wireless Internet Solution Built Just For You

Custom Wi-Fi from Astound delivers a turnkey Wi-Fi platform that is designed, developed, deployed, and supported precisely to suit your business needs, today and tomorrow. From the ground up, this tailor-made wireless connectivity solution is built to operate as uniquely as you do — because no two organizations are alike, especially the customers you serve.

Powered By Astound's fiber-rich network, this enterprise-grade connectivity solution factors in every key characteristic — the specifications of your physical property, your indoor and outdoor bandwidth requirements, and your daily operational needs.



**IDEAL
CANDIDATES**

Commercial buildings, stadiums, outdoor public venues, campuses, retail centers, hotels and resorts.

KEY BENEFITS & RESULTS

- **Tailored Fit and Function:**
Extensive design customization options including unlimited Access Points (APs)
- **Hands-off Management:**
Astound handles all network setup, maintenance, and management
- **Lower Costs:**
We free up time and internal resources so you can optimize your team while decreasing costs

Tailored to Perform

Higher speeds with fewer disruptions for delivering peak performance, all with expert technical support 24/7/365.

Custom Wi-Fi from Astound. It's as custom as custom gets.

Business Router and Managed Router

Leave the management of your router to Astound. Business Router and Managed Router to provide a simple, no-hassle pairing for our BCI and DIA services.



BUSINESS ROUTER

Basic Commercial Router up to 1 Gbps

- Business-class Gateway/Router combo
- Internet gateway software supports NAT, PAT and DHCP service
- Built-in 802.11ac MIMO wireless Access Point
- Dual-WAN support with automatic failover & failback
- Astound-managed portal for centralized management
- Simple integration with wireless Internet Backup Service

MANAGED ROUTER

Enterprise-Grade Astound-Managed Router for DIA Service

- Robust, carrier-grade
- Dual-WAN support
- NAT/PAT & DHCP
- BGP
- RFC1918 space
- Static routing
- Equipment varies based on speed (1 Gbps, 5 Gbps, 20 Gbps)

Software-Defined Wide Area Networking (SD-WAN) simplifies the management of network connections between sites by separating the network hardware from its control mechanisms.

SD-WAN puts you in control and allows you to respond to change. Advanced capabilities like cloud-based security, network visualization, analytics, and automation bring out the the full potential of your network.



ADVANCED WAN

- Advanced-VPN
- Bring your own Internet
- High availability
- Business continuity
- Zero-touch provision



ADVANCED FIREWALL

- NAT
- Deep packet inspection
- Application optimization
- Layer 7 application firewall



ADVANCED CLOUD SECURITY

- IPS/IDS
- Anti-virus/malware protection
- Global threat intelligence



MANAGED SD-WAN

- Internal IGP routing
- Network isolation & planning

Why SD-WAN from Astound Business Solutions?

- Simplified pricing with single price for SD-WAN and Security
- Simplified VPN experience
- SD-WAN and Security Firewall in single device to optimize and protect your network
- Real-time updates to cloud intrusion protection
- Application optimization
- Easy troubleshooting and equipment replacement
- Centralized cloud-based portal for all your Security and SD-WAN optimization needs

Wireless Internet Backup

Critical redundancy for today's online world

Keep your business connected so that your employees are productive and customers are engaged. This cost-effective solution allows you to maintain the use of mission-critical devices. It ensures a smooth and continuous operation of your point-of-sale systems, phone lines, and online.



PRODUCT	DATA CAP	EXCESS DATA THRESHOLD
Wireless Internet Backup Bronze	20 GB	50 GB
Wireless Internet Backup Silver	50 GB	150 GB

WIRELESS INTERNET BACKUP*

Bronze

Silver

Key Features and Benefits:

- **Consistent Connection** - Automatic or “anytime” failover and fallback, so you always have the fastest available connection.
- **Business Continuity** - Dual SIM Cards provide redundancy and diversity to seamlessly keep your critical operations running.
- **Professionally Managed** - Cloud-managed portal for centralized Astound management.
- **Flexible Data Plans** - Choose a plan to fit your budget and needs. Only pay for what you use.

*Astound Internet service required

Why Astound?

Astound Business Solutions provides IT leaders with high-capacity, secure connectivity for their mission-critical applications, while increasing overall agility and responsiveness.

- **Custom, Robust Solutions**

We take a consultative approach by first understanding your distinctive needs to deliver a unique solution designed especially for you.

- **Speed to Market**

Unlike larger competitors, we focus on rapid installations and upgrades and do not rely on third parties to meet deadlines.

- **Award-Winning Customer Service**

24/7/365 local dedicated support with industry experts on-hand around-the-clock to help businesses stay on top of today's evolving IT technology and remain competitive in their markets.

- **Fiber-Rich Network**

We operate a sophisticated network with a network backbone featuring a smaller node size and robust fiber capacity. With over 42,000 route miles servicing more than 19,600 on-net buildings, we cover 12 states and more than 20 metro areas to help give you the connectivity solutions you need.

Astound is an Internet, Connectivity,
Unified Communications, Cloud Networking,
and Solutions company.

Let's talk about your needs.





astoundbusiness.com

1-833-249-2786