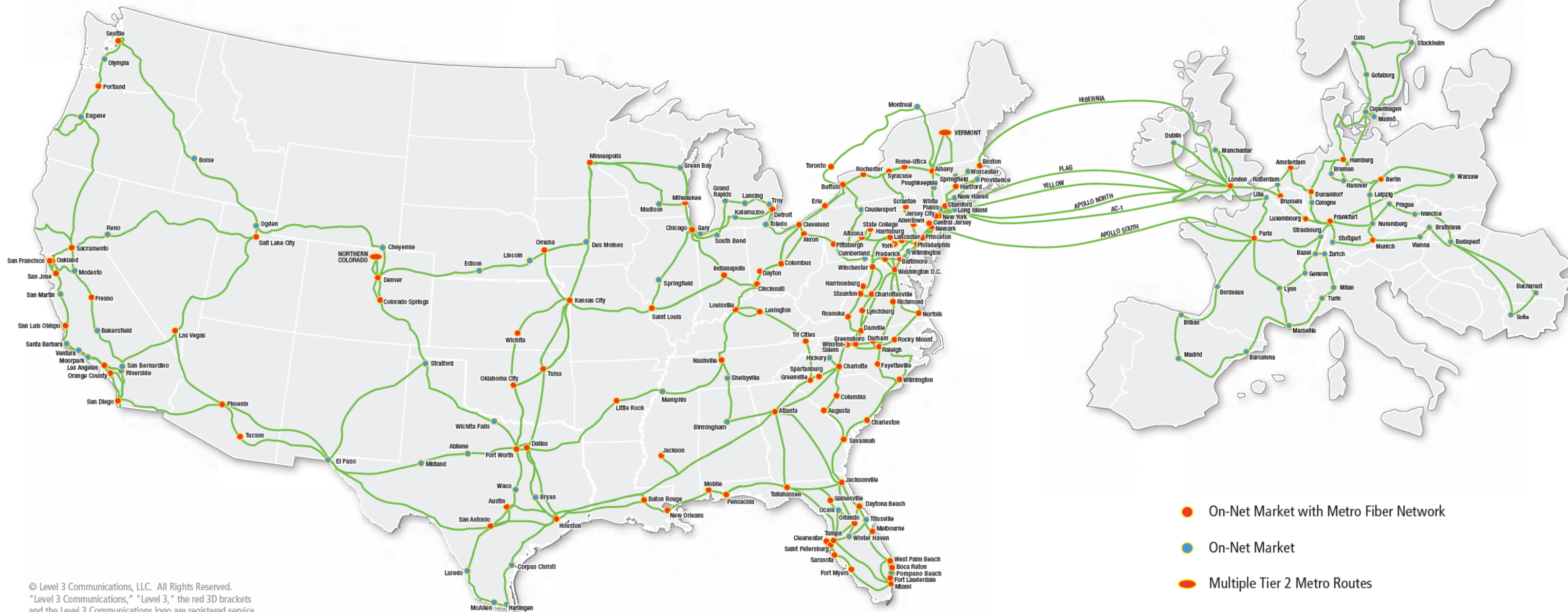


# The Level 3 Network



- On-Net Market with Metro Fiber Network
- On-Net Market
- ⌋ Multiple Tier 2 Metro Routes
- Longhaul Network  
European network includes wavelength capacity.



## Press Releases

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### Open Range Teams With Level 3 to Deliver Wireless Broadband to Rural America

**BROOMFIELD, Colo., April 01, 2009**

*Level 3 Expands Network Access Across North America to Close the Digital Divide*

BROOMFIELD, Colo., April 1 /PRNewswire-FirstCall/ -- Level 3 Communications, Inc. today announced an agreement with Open Range Communications to deliver wireless broadband to rural communities. Open Range will leverage Level 3's extended on-net services to offer high-speed Internet and voice services to millions of previously un-served or underserved communities across North America.

Extended on-net services provide access to the Level 3 network in rural locations along the 42,000 route miles that span North America. Direct access to the network outside of major metropolitan markets enables Level 3 to pick-up or deliver traffic at more locations, providing local carriers, cable operators and wireless companies with additional on-ramps to the Level 3 network.

"The Level 3 network travels through many of the rural communities that we want to connect to the world with wireless broadband," said Bill Beans, Jr., chief executive officer and founder of Open Range. "Level 3's expansive network footprint and direct network access provide the foundation to enable Internet communications for more and more Americans."

Under the terms of the agreement, Level 3 will provide the network infrastructure for Open Range to offer wireless broadband through 4G WiMAX networks in more than 500 communities in 17 states. Traffic will then be routed over the Level 3 network to enable quality online communications for as many as six million Americans.

"Level 3 is pleased to partner with Open Range in this vital initiative to bring wireless broadband to rural America," said Peter Neill, senior vice president for Level 3's Wholesale Markets Group. "Access to broadband communications is an important economic tool at an important time in our nation's history. Level 3 is well positioned to partner with communications companies across the country to break down barriers to broadband access and close the digital divide."

Extended on-net services offer direct access to the Level 3 network and services across North America. Expanded access provides customers with greater routing flexibility, efficient network expansion, improved connectivity and reduced costs.

### **About Open Range**

Open Range is a broadband wireless provider using WiMAX technology to deliver wireless broadband to un-served and underserved rural American communities. Open Range plans to deliver portable and eventually mobile voice and Internet services to customers within its robust WiMAX footprint. In January 2009, Open Range announced a \$100 million investment by One Equity Partners, the private equity arm of JPMorgan Chase and the closing of a Broadband Access Loan previously approved by the United States Department of Agriculture's Rural Development Utilities Program (RDUP) for \$267 million. The combined funding will allow Open Range to build 4G WiMAX networks in 546 communities in 17 states where the Company will offer high speed Internet and voice services to approximately six million people. For more information, visit [www.openrangecomm.com](http://www.openrangecomm.com).

### **About Level 3 Communications**

Level 3 Communications, Inc. is a leading international provider of fiber-based communications services. Enterprise, content, wholesale and government customers rely on Level 3 to deliver services with an industry-leading combination of scalability and value over an end-to-end fiber network. Level 3 offers a portfolio of metro and long-haul services, including transport, data, Internet, content delivery and voice. For more



information, visit [www.Level3.com](http://www.Level3.com).

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### ***Forward-Looking Statement***

*Some of the statements made in this press release are forward looking in nature. These statements are based on management's current expectations or beliefs. These forward looking statements are not a guarantee of performance and are subject to a number of uncertainties and other factors, many of which are outside Level 3's control, which could cause actual events to differ materially from those expressed or implied by the statements. The most important factors that could prevent Level 3 from achieving its stated goals include, but are not limited to the company's ability to: successfully integrate acquisitions; increase the volume of traffic on the network; defend intellectual property and proprietary rights; develop new products and services that meet customer demands and generate acceptable margins; successfully complete commercial testing of new technology and information systems to support new products and services; attract and retain qualified management and other personnel; and meet all of the terms and conditions of debt obligations. Additional information concerning these and other important factors can be found within Level 3's filings with the Securities and Exchange Commission. Statements in this press release should be evaluated in light of these important factors. Level 3 is under no obligation to, and expressly disclaims any such obligation to, update or alter its forward-looking statements, whether as a result of new information, future events, or otherwise.*

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SOURCE: Level 3 Communications, Inc.

Web site: <http://www.Level3.com/>

## Level 3<sup>®</sup> Professional Services

### Solutions for Every Stage of Network Growth

Today's evolving business climate presents both challenges and opportunities. Your network is a key factor in your ability to adapt to change and pursue opportunity effectively. Level 3 Communications<sup>®</sup> provides custom solutions that your business can use to address every stage of network growth, with our Level 3 Professional Services offering. We can help you plan, deploy, optimize, manage, and run your network infrastructure either as standalone services or as part of a comprehensive, end-to-end managed network service. Our expertise and business-centric approach will help you maximize the value of your Level 3 Network services, as well as help you reduce costs, accelerate time to market, manage complexity and boost your competitive edge.

The Level 3 Professional Services offering includes:

- **Consulting and Implementation (C&I) Services** – C&I services provide customized solutions that can support customers throughout all phases of the network lifecycle and are an effective tool for enabling customers to grow their networks by filling customer resource gaps.



- **Program/Project Management (PM)** – A key responsibility for obtaining successful project results is through the use of dedicated Project Management professionals. Our team has extensive experience in managing large, complex networking projects through comprehensive project plans and schedules while managing timely resolution to project issues and risks.
- **Network Architecture and Engineering Services** – We develop end-to-end network design plans across all major technologies and vendors to address your specific network objectives. We deliver a baseline network design recommendation and documentation to fully support the network architecture.

- **Network Migration and Implementation Services** – Leverage our project management techniques from simple cutovers to major network migrations, conversions, and implementation solutions. We can plan and execute an entire deployment strategy from start to finish, including staging, implementation, testing and turn up.
- **Network Monitoring and Management (NMM) Services** – NMM services provide an underlying network support function that is offered as an outsourced service to Level 3 customers who share common network architecture and technologies. By focusing our services on the core – and already existing – technologies supported by Level 3, our customers can realize that the success of their network operations is tightly linked to the success of our own network operations.
  - Network Monitoring provides 24 x 7 proactive monitoring and management of customer networks via our Dedicated Network Operations Center (DNOC). Our shared environment is designed to insure the most cost-effective services possible.
  - Lifecycle Engineering provides technical engineering support for customer network changes or expansions, including capacity planning and hardware and software upgrades.
- **Field Tech Services** – Take advantage of our responsive, on-demand network support, including “smart-hands” maintenance of customer assets across the entire Level 3 Network footprint.
  - Basic Field Tech Services – For service affecting “on-demand” maintenance and scheduled services, including preventative maintenance and basic moves, adds and changes.
  - Enhanced Field Tech Services – Value-added services, including customer asset management, parts logistics, critical spares management, and non-standard SLAs.
- **Total Network Solution** – Our complete network service management offering includes architectural design, engineering, staging, implementation and ongoing operations of the customer network solution. A proven Project Management and governance structure is designed to help ensure that your network solution is implemented and managed to meet the requirements of the project and your overall business objectives.

## Relying On Our Experience

Our team of professionals includes the same architects, engineers, and technicians who planned, built, and maintain our own award-winning, next-generation fiber-optic network. Your business benefits from our first-hand experience and depth of networking expertise that enables us to provide best-in-class network solutions at the optical, transport, and switched network layers.

## Leveraging Shared Resources for Cost Efficiencies

Maximize the value of your network services, and take advantage of the cost savings of our shared resources, such as engineering lab services, maintenance and monitoring resources, third-party vendor relationships, and our own expert networking specialists.

For more information, contact us at: 1.877.2LEVEL3, email us at: [info@level3.com](mailto:info@level3.com), or visit: [www.level3.com](http://www.level3.com).



## Level 3<sup>®</sup> Local Inbound Service

### New Voice Possibilities Demand the Right Partner

The possibilities for using Voice-over Internet Protocol (VoIP) technology to deliver new voice services are huge – as is the potential for building revenue and customer relationships. But relying on and paying a third-party provider for a technology that can be central to your business takes careful consideration. Level 3 Communications<sup>®</sup> can help. The Level 3 Local Inbound solution transports Public Switched Telephone Network (PSTN)-originated local calls and terminates them to your IP endpoints. The solution leverages PSTN capabilities, while giving you the control you need to create new products and services through Voice over IP (VoIP).

### Saving costs with a powerful, efficient network

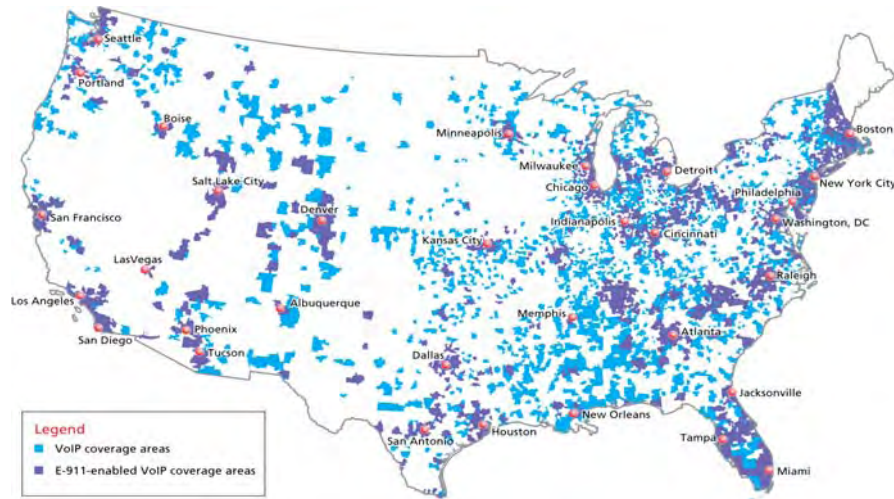
Because of the efficiency of Level 3's Softswitch and 38,000-mile North American intercity broadband fiber-optic network designed specifically for IP, you can reduce communications costs by 20 percent or more over comparable traditional services. You can create and deliver applications faster without large capital and network expenses that are associated with traditional solutions. You can potentially reduce maintenance costs as well. Application servers can be deployed and maintained at a single location, thereby reducing the time and money spent dedicated to servicing. Customers will see a much better return on their investment with an IP-based network versus a TDM-based network.

### Gaining quality from a streamlined service

The streamlined call flows of the Level 3 Local Inbound solution enable efficient call routing and streamlined back-end signaling. At the heart of Level 3's call process technology is our Softswitch technology, which supports the conversion of analog or traditional digital calls into data packets. Upon conversion, calls are transmitted using Level 3's powerful IP network.

www.level3.com





## Why Level 3?

We believe operational and process challenges comprise 80 percent of the work of building and scaling true Softswitch services. Level 3 operates a production termination service that runs on a Softswitch platform, and is relied on by InterExchange Carriers (IXCs), Regional Bell Operating Companies (RBOCs), and Multi-system Operations (MSOs).

### Growing with an expansive network

The Level 3 Local Inbound service enables you to deal with a single provider with end-to-end services nationwide. We offer our service in 304 U.S. markets, making local dialing over the platform available to 80 percent of the U.S. population. To the end user, it's just another local call, but you can cost-effectively terminate it to any IP endpoint in the world. Areas that can dial into the platform using a local phone number are highlighted in blue and purple in the map above.

### Rely on a VoIP leader

Level 3 owns and operates an MPLS-based IP backbone that enables the delivery of carrier-grade-quality voice services. And as a CLEC in the United States, we have interconnection agreements that allow us to own and operate an extensive local trunking plant. We have proven our VoIP leadership and expertise since 1999, when we introduced the industry's first PSTN-quality VoIP service that requires no special dialing by the end user. Our patented, proprietary Softswitch is now processing more minutes per month than many traditional long-distance and local carriers and has successfully processed more than 300 billion minutes in calls to date.

For more information, contact us at: 1.877.2LEVEL3, email us at: [info@level3.com](mailto:info@level3.com), or visit: [www.level3.com](http://www.level3.com).



## Level 3<sup>®</sup> Managed Modem Service

### Connecting You to 90 Percent of U.S. Households

Providing reliable, nationwide dial-up Internet service over your own infrastructure is a challenge. As a leader in managed modem services, Level 3 enables you to provide dial-up connections to 93 percent of U.S. households without the costs and difficulties associated with building and maintaining your own nationwide infrastructure.

In building your own dial network, you face real obstacles:

- Capital costs of both hardware and software
- Traffic growth – both in terms of network capacity and hardware upgrades
- Network costs associated with ensuring comprehensive local access coverage
- Trunking capacity build-outs and telephone number procurement from the LEC
- Staffing costs required for 24 x 7 network operation

Level 3 works to eliminate these obstacles by offering a fully outsourced dial network platform. Level 3 is a market leader in managed modem service. In fact, our network processes more than 14 billion minutes per month. The Level 3 Managed Modem solution is the perfect choice for your dial-up Internet infrastructure.

### Improve your cost position

Outsourcing the management of your dial network helps you save the capital and operating expense associated with building the network yourself. Additionally, outsourcing your ports means you can have variable costs, similar to what you'd experience with your own network.

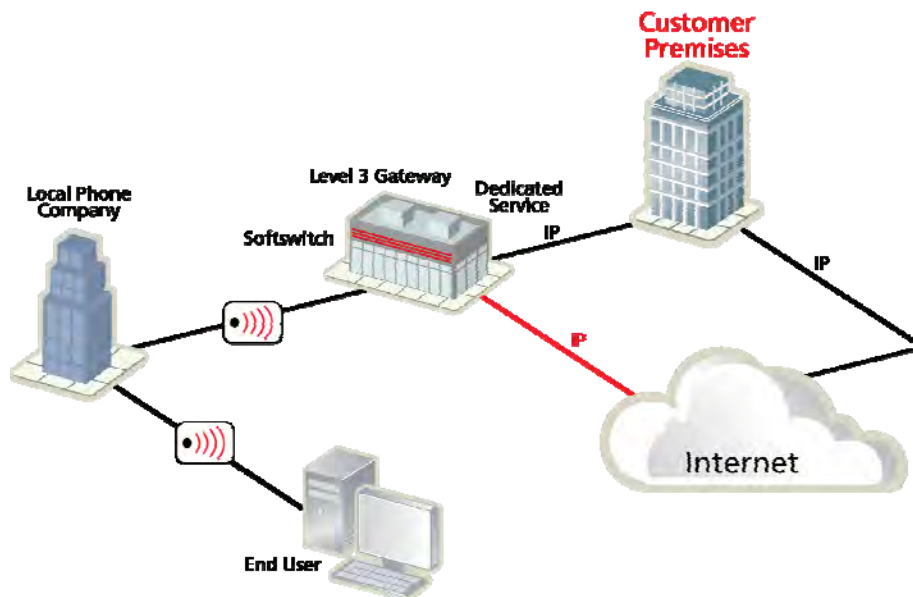
### Improve network quality

Level 3 is one of the world's largest ISPs. Outsourcing your network to Level 3 provides your end users with one of the highest-quality Internet experiences available in the dial-up industry.

### Control your network as if you owned it

A suite of network and customer management tools and services lets you manage our network as if it were your own. You will enjoy flexible billing options, near-real-time installations, comprehensive network and operations tools, rapid response to issues, and quick repair.

www.level3.com



### Using the Level 3 Managed Modem service

End users dial into the Internet via a personal computer and a standard modem connection. The call is routed through the local phone company into the Level 3 Gateway, where your equipment is colocated. Using Level 3's patented\* Softswitch technology to convert the transmission, Level 3 routes the call via the Level 3 broadband network to the public.

## Why Level 3?

Level 3 differentiates itself from other providers by offering:

- Extensive local coverage in LATAs with significant user demand
- Multiple local dial-in telephone numbers per region for redundancy
- High network quality and reliability
- Significant savings over building a private dial-up network
- Competitive pricing.

With the Level 3 Managed Modem service, you'll get the highest availability offered, expert 24 x 7 operations, state-of-the-art Level 3® Colocation facilities for your equipment, and industry-leading coverage – with local telephone numbers providing dial-up access to more than 93 percent of U.S. households. And when all of this is offered at a very competitive price, you have the end-to-end managed solution you need to address your private dial-up network needs.

For more information, contact us at: 1.877.2LEVEL3, email us at: [info@level3.com](mailto:info@level3.com), or visit: [www.level3.com](http://www.level3.com).

\*The Level 3 Managed Modem service is covered under U.S. patent number 6,442,169, as well as certain pending U.S. patent applications and foreign equivalents.



## Level 3<sup>®</sup> E-911 Direct Service

### E-911 Service Designed From the Ground Up for VoIP

At Level 3, we offer interconnected Voice over IP (VoIP) providers the coverage, experience, reliability and flexibility necessary to deploy network connectivity for Enhanced 911 (E-911) solutions. Whether your customers have a Terminal Adapter, IP Phone, a SoftClient, or are using a Wi-Fi dual-mode phone, their VoIP service is nomadic, and their E-911 solution should be too. The E-911 Direct service was designed from the ground up with VoIP in mind. Some benefits of the service include:

- **Nomadic use** – Subscribers can take their VoIP-enabled phones with them.
- **Geographic independence** – A telephone number can be assigned to a subscriber outside of its native area without impacting the ability to deliver an E-911 call.
- **Real-time address provisioning and updates** – Because enhanced information is delivered to the PSAP at the time of call, lead times for an address to be registered (through a VPC of your choosing) are measured in minutes, not days.

### FCC Compliance – With Confidence

The Level 3 E-911 Direct service connects you with an FCC-compliant E-911 routing solution. Our service, simply put, is the most direct way to connect your VoIP service to the nation's native E-911 infrastructure.

### Connect with industry-leading coverage

The Level 3 E-911 Direct service delivers one of the greatest coverage areas available from a single network provider. We have network connectivity to Public Service Answering Points (PSAPs) reaching more than 70 percent of all U.S. households.

### Build on our experience

Level 3 has established connections to hundreds of E-911 selective routers and thousands of PSAPs nationwide. Today, we are a key supplier of E-911 services to a wide range of cable companies, Internet Service Providers (ISPs), carriers, and other VoIP access providers.

www.level3.com



Moreover, Level 3 provides experience in building and managing a reliable nationwide E-911 network. In fact, the Level 3 E-911 Direct solution was cited by the FCC as a good example of a model for E-911.

### **Rely on a world-class network**

Level 3 delivers service availability over and above National Emergency Number Association (NENA) standards. Our world-class, experienced Network Operations Center (NOC) is equipped to respond to and troubleshoot network issues. We work proactively to ensure reliability with constant auditing, augmenting and diversifying of the network.

Level 3 has established direct trunking to over 300 selective routers, and prioritize provisioning and restoration for E-911 trunks. And our Session Initiation Protocol (SIP) interconnection is not restricted by Primary Rate Interface (PRI) limitations.

### **Choose from our VPC options**

The Level 3 E-911 Direct service offers VoIP providers the flexibility of working with a choice of Voice Positioning Centers (VPCs). Because we have joint operating agreements with top VPCs, you can carefully select the database routing vendor that best meets your requirements.

### **Trust the E-911 Technology Leader**

Level 3 is a member of the NENA Technical Roundtable and the E-911 Institute. Through these organizations, we're working to ensure that technology and consumer safety go hand-in-hand.

*For more information, contact us at: 1.877.2LEVEL3, email us at: [info@level3.com](mailto:info@level3.com), or visit: [www.level3.com](http://www.level3.com).*

## Ethernet and the Level 3 Service Portfolio

### Flexible Connections. Right Locations.

Gain enhanced control of your applications with Level 3 Ethernet technology. As an industry leader, Level 3 deliberately developed Ethernet solutions that support flexible connections for local, metro, national, and international networks.

Our broad Ethernet portfolio is designed for your growth with global network reach and metro depth. Whether you require public, private, switched, metro, intercity, point-to-point, or multi-point-to-multi-point, your business will find us in the right locations.

### Connecting Our Customers

Level 3 provides Ethernet connectivity in 22 countries and 190 major markets, and we continue to aggressively expand our Ethernet capabilities and reach. We provide a Tier 1 network with the national reach of a large IXC combined with the metro reach of a local service provider.




### Technology Going to Work for You

Level 3 helps you enhance control of your applications. With Level 3 Ethernet technology, you have access to a wide range of speeds, with extensive bandwidth configurations (1 Mbps to 10 Gbps). For those needing more granular bandwidth options, we have VPN services supporting 10/100 Mbps and 1 GigE. We have connections with 37 fractional speeds and four class-of-service (CoS) queues. Our Ethernet Private Line services support 10/100 Mbps and 1 GigE connections available in more than 15 fractional speeds.

### Expertise and Innovation

We've purpose built our network to connect locations and technology that can give your business the ability to grow and change as needed. In addition to delivering Ethernet, the Level 3 portfolio includes High Speed IP (HSIP), Dedicated Internet Access (DIA), VoIP, Content Delivery Network (CDN), and managed services.

#### OPTIONS FOR YOUR APPLICATIONS

	IP Network
	Level 3 <sup>®</sup> High Speed IP Level 3 <sup>®</sup> Dedicated Internet Access
	MPLS Network
	Level 3 <sup>®</sup> IP VPN Level 3 <sup>®</sup> VPLS Level 3 <sup>®</sup> EVPL
	Transport Network
	Ethernet Private Line Wavelengths

## Ethernet Service Options

Level 3 Ethernet capabilities include extensive bandwidth and configuration options, and a portfolio of services with a range of technology choices and access to higher-level services.

### Ethernet over DWDM Wavelengths

Available at either 1 GigE or 10 GigE rates, an excellent solution for network backbones for content and service providers as well as enterprises.

### Ethernet over Private Line (EPL)

Provides fully protected, fully transparent, dedicated bandwidth with both full-rate or fractional-rate Ethernet speeds to support the most vital communications applications.

### Level 3® EVPL

Similar to EPL but delivered from Level 3's MPLS network, our Ethernet Virtual Private Line offering supports options like point-to-multipoint, flat-rate or usage-based billing and Class of Service (CoS) enforcement.

### Level 3® VPLS

MPLS-based, fully meshed, any-to-any connectivity, flat-rate or usage-based billing, and static or dynamic CoS. The Virtual Private LAN Service provides flexibility to support some of the most demanding applications.

### Level 3® IP VPN

Provides the same flexibility as the VPLS service at the IP layer with both Ethernet and TDM interfaces and supports the creation of large IP VPNs.

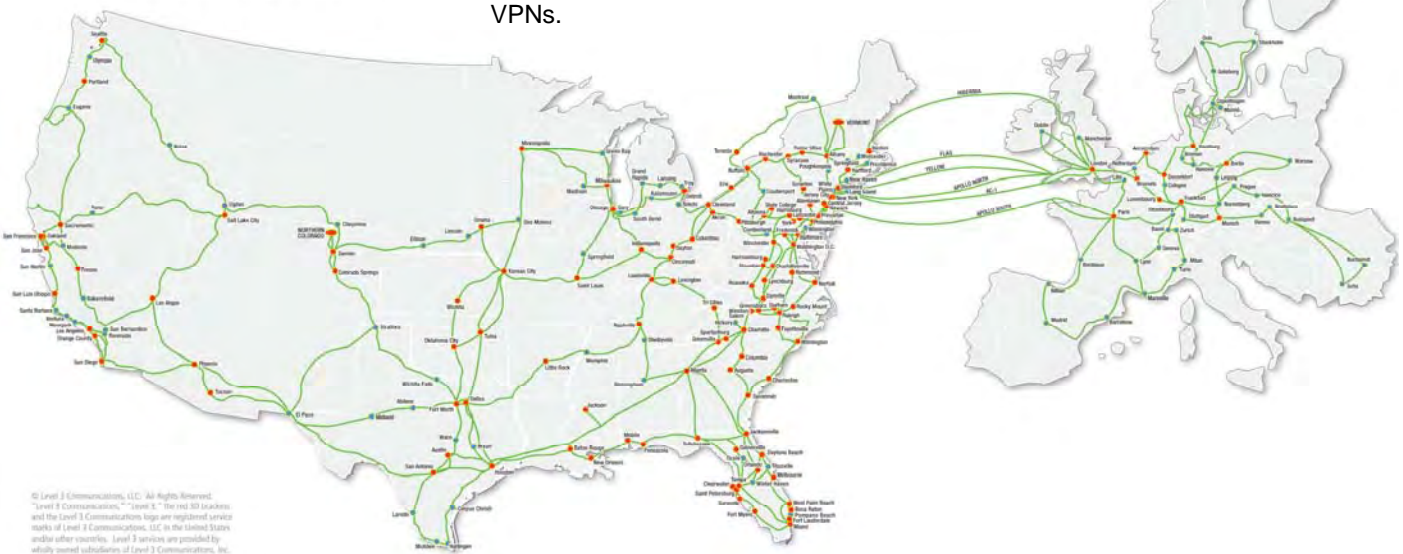
### Level 3® Dedicated Internet Access

The DIA service offers a reliable, dedicated connection in a variety of speeds to one of the world's largest and most connected Internet backbones across North America and Europe.

### Level 3® High Speed IP

Our HSIP service delivers the bandwidth-intensive content demanded by broadband users such as video, gaming, e-commerce, music, and voice applications across the Level 3 IP backbone.

## The Level 3 Network



For more information, contact us at: 1.877.2LEVEL3, email us at: [info@level3.com](mailto:info@level3.com), or visit: [www.level3.com](http://www.level3.com).



## Level 3<sup>®</sup> Intercity Wavelength Service

### Building and Managing Large Backbone Solutions

The Level 3 Intercity Wavelength solution is designed to deliver the network transparency you need to control your management and protection scheme. Our high-speed, dedicated, point-to-point, unprotected wavelength service is available at 2.5 Gbps, 10 Gbps, 40 Gbps, GigE and 10 GigE LAN PHY speeds.

Our DWDM services provide an alternative for transporting large amounts of data — without additional layers networking technologies. DWDM service is delivered directly from the fiber network, to help you benefit from the cost-optimization opportunities that come with the elimination of technology layers between your data and the transport network.

### Rely on proven, feature-rich technology

Deployed in the core networks of major carriers and used for enterprises' critical big-pipe needs, DWDM has a proven track record of supporting mission-critical applications. DWDM services offer the features, such as full 1:1 protection, customer-specified routes and fully diverse routing, that you have come to expect from a carrier-class service. We've minimized network spurs and collapsed intercity rings to support redundancy requirements, and our network is designed with diverse laterals and physical, electrical, and dual-gateway diversity options.

### Get as much — or little — as you need

Not every intercity network need is met by dark fiber and private line services. Dark fiber solutions can require a large up-front capital investment and can result in an oversupply of bandwidth and significant network operations expenses. Private line solutions, on the other hand, may come with unnecessary protection — and its associated costs. Level 3 offers speeds as low as GigE directly serviced by the optical network, without the extra layers of SONET or statistical multiplexing.

### Connect with an industry-leading service

Knowing that a package will arrive is good; knowing *when* it will arrive is even better. Level 3 can provide a guaranteed round-trip delivery time if you need to know when your data will reach its destination.

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## FEATURES

- Speeds from 1 Gbps to 40 Gbps
- Protected and Unprotected point-to-point configurations
- Market-leading services like 10 GigE LAN PHY and 40 Gbps waves
- Fully mirrored, 24 x 7 Network Operations Centers (NOCs) and a fully staffed Field Operations group in each market

## BENEFITS

- Tap into the expertise of our dedicated team of network architects
- Ongoing investments to scale our network make us a network provider that can support your growth
- Level 3 owns and operates a facilities-based network, so we have direct control over performance and quality
- We connect to 85 percent of all undersea cable system capacity

## Investing to scale with your business

Ongoing investments to scale our network make Level 3 a network provider that can support your growth. Because we offer speeds from 1 Gbps to 40 Gbps and have technology deployments that have enabled new, market-leading services like 10 GigE LAN PHY and 40 Gbps waves, we can support your unique bandwidth requirements between locations and support traffic growth effectively. Level 3 has more than 48,000 unique intercity route miles available to customers. And we connect to 85 percent of the undersea cable system capacity that can connect you to the rest of the world.

## Delivering proven experience and leadership in backbone solutions

Many of our customers choose Level 3 for our expertise and commitment to collaborative network design. The same dedicated team of network architects who works with you is the team responsible for designing the Level 3 Network. We also have proven experience in building, managing, and maintaining customer backbone solutions.

## Ensuring quality with direct operational control

Level 3 owns and operates a facilities-based network, so we have direct control over performance and quality. We have fully mirrored, 24 x 7 Network Operations Centers (NOCs) and a fully staffed Field Operations group in each market, as well as an in-house cable protection bureau that prevents risky digs.

## Comprehensive Solutions from a Single Provider

Level 3 delivers the power and agility that your business requires in an intercity wavelength provider. When you look to Level 3 for your intercity solutions, you tap into the expertise of our dedicated team of network architects, who will collaborate to design the best solution for your business. Our comprehensive solutions include construction, project management, ongoing maintenance, upgrades, and end-to-end lifecycle process management to help ensure the highest level of service and support.

For more information, contact us at: 1.877.2LEVEL3, email us at: [info@level3.com](mailto:info@level3.com), or visit: [www.level3.com](http://www.level3.com).



## Level 3<sup>®</sup> Ethernet Private Line Service

With sophisticated networks and growing bandwidth needs, you need a trusted network provider, not just a vendor. Level 3 Communications<sup>®</sup> can help you design and build a comprehensive, scalable, end-to-end solution that meets your specific connectivity issues, timelines, and demands for growth. Our solutions are designed to meet your transport, resale, or carrier infrastructure requirements, leveraging the power and flexibility you've come to expect from Level 3.

The Level 3 Ethernet Private Line solution is an Ethernet over SONET (EoS) service that combines the privacy, security, diversity and dedicated bandwidth of private line service with the simplicity and affordability of an Ethernet interface. Backed by 24 x 7 network management and monitoring, our physically diverse, fully protected intercity services use the Level 3-owned, facilities-based network to provide exceptional service and network reliability end-to-end. Unlike shared infrastructure services, our Ethernet Private Line solution has dedicated point-to-point connectivity, while preserving high performance and throughput using a ring design for your mission-critical or latency-sensitive applications. Level 3's fully redundant metro and intercity SONET-based network delivers a large service footprint and network availability.

### Extensive network reach

Our expansive metro footprint, combined with our long-haul reach, enables you to extend your network regionally and locally using a single provider. Level 3 currently has over 7,600 aggregation points and on-net buildings across North America and Europe and over 48,000 long-haul route miles and over 26,000 Metro route miles. Our continuously growing network interconnections include key high-bandwidth sites, Central Offices, major peering and traffic exchange sites, and cable landing and teleport sites, as well as locations for cable, wireless, federal, voice and Internet service providers.

### Value and reliability

Our Ethernet Private Line solution will allow you to reduce your need for expensive legacy SONET and TDM interfaces, while keeping the inherent self-healing and secure protection mechanisms of the technology through a fully protected, fiber-optic infrastructure. Essentially, both our Metro and Intercity Ethernet Private Line offerings can help you reduce capital cost while you continue to see the quality and inherent protection you have come to expect — without sacrificing exceptional service and network reliability.

www.level3.com

## Scaling your business with power and agility

With the Level 3 Ethernet Private Line solution, you can purchase the appropriate amount of required capacity from 3 Mbps to 1000 Mbps for Metro Ethernet Private Line service and from 50 Mbps to 1000 Mbps for Intercity Ethernet Private Line service. The Level 3 solution treats all connected local area networks (LANs), metro area networks (MANs), and wide area networks (WANs) as one large network, whether across a city or multiple metropolitan market locations.

### FEATURES

- 14 metro speeds from 3 Mbps to 1 Gbps
- Dedicated Ethernet over SONET (EoS) service
- Ring protected (unprotected customer handoff)
- Diverse outside plant
- Fully mirrored, 24 x 7 Network Operations Centers (NOCs) and a fully staffed Field Operations group in each market
- Supports point-to-point configurations

### BENEFITS

- Tap into the expertise of our dedicated team of network architects
- Ongoing investments to scale our network makes Level 3 a network provider that can support your growth
- Level 3 owns and operates a facilities-based network, so we have direct control over performance and quality
- We treat all connected local area networks (LANs), metro area networks (MANs), and wide area networks (WANs) as one large network
- Use Ethernet Private Line services to access Level 3's full suite of services nationwide, including VPN and Internet Services

## Why Level 3?

### Comprehensive Solutions from a Single Provider

Level 3 delivers the power and agility that your business requires in an Ethernet solutions provider. When you look to Level 3 for your Ethernet solutions, you tap into the expertise of our dedicated team of network architects, who will collaborate to design the best solution for your business. Our solutions cover construction, project management, ongoing maintenance, upgrades, and end-to-end lifecycle process management to help ensure the highest level of service and support. We also offer installation level and service level agreements for our comprehensive portfolio of Ethernet services.

For more information, contact us at: 1.877.2LEVEL3, email us at: [info@level3.com](mailto:info@level3.com), or visit: [www.level3.com](http://www.level3.com).

### Question 50 - Assumptions for 5-Year Pro-Forma

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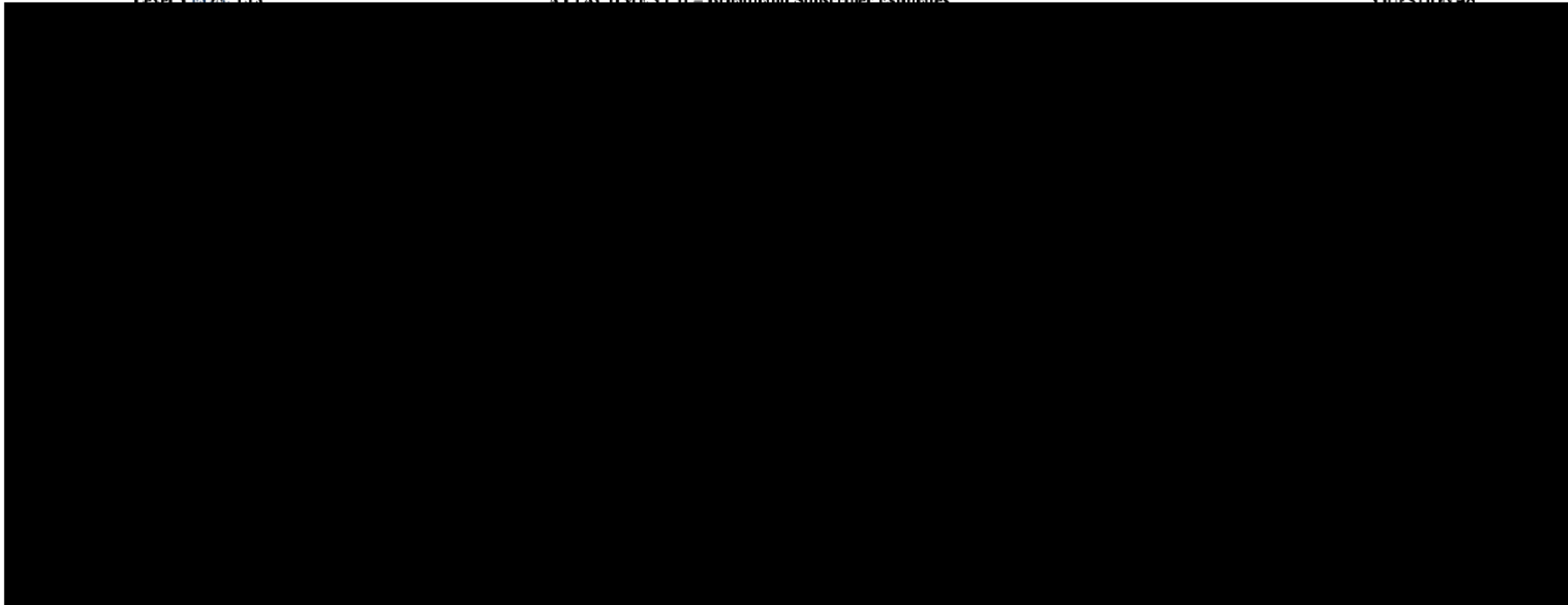
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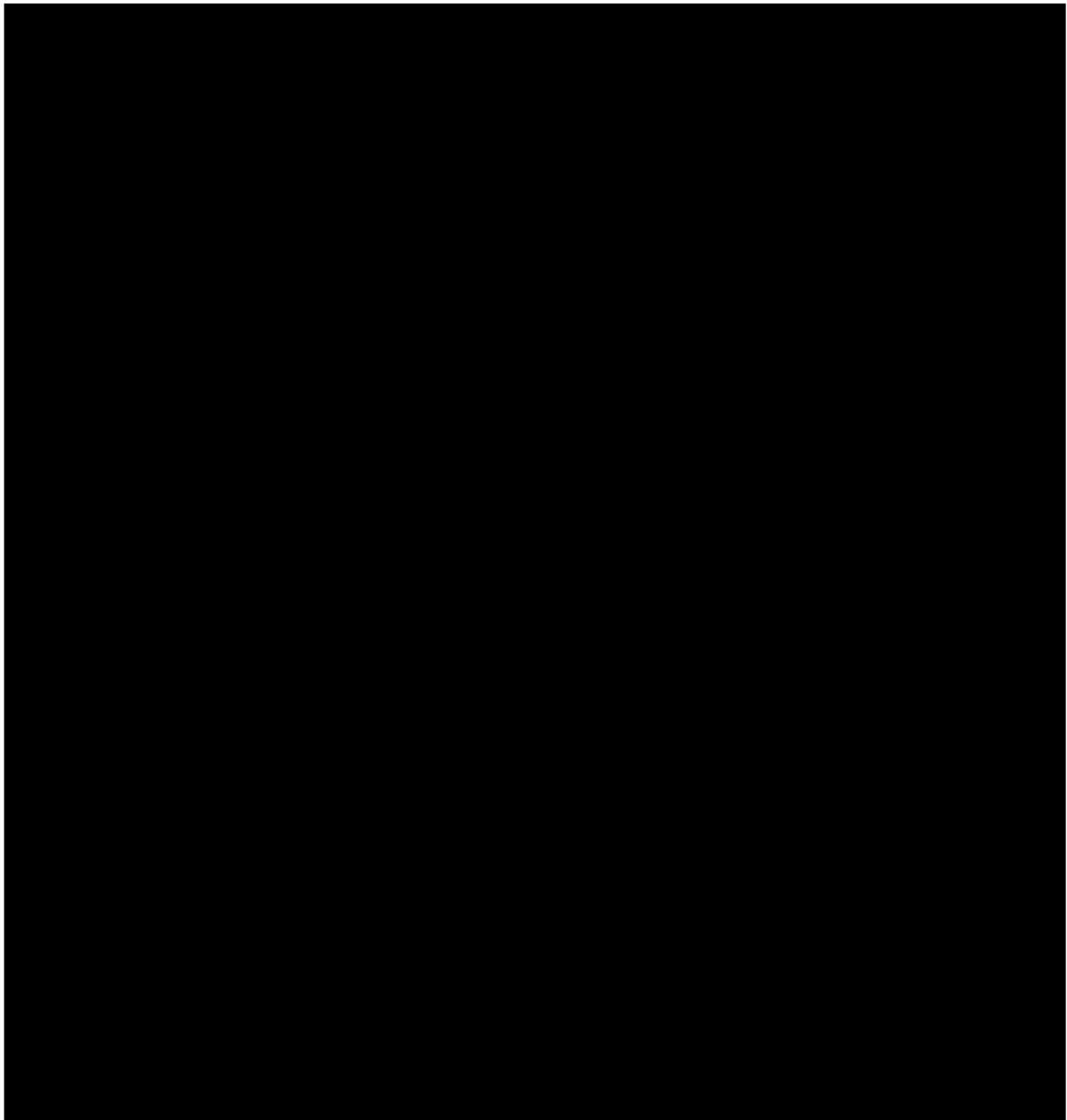


**General Overall Budget For Joint Applications Only:** Please complete the following table only if you are submitting a joint BIP/BTOP Application. Please use the grid on Project Budget Tab in the online system for the BIP budget and then complete the table below for BTOP.

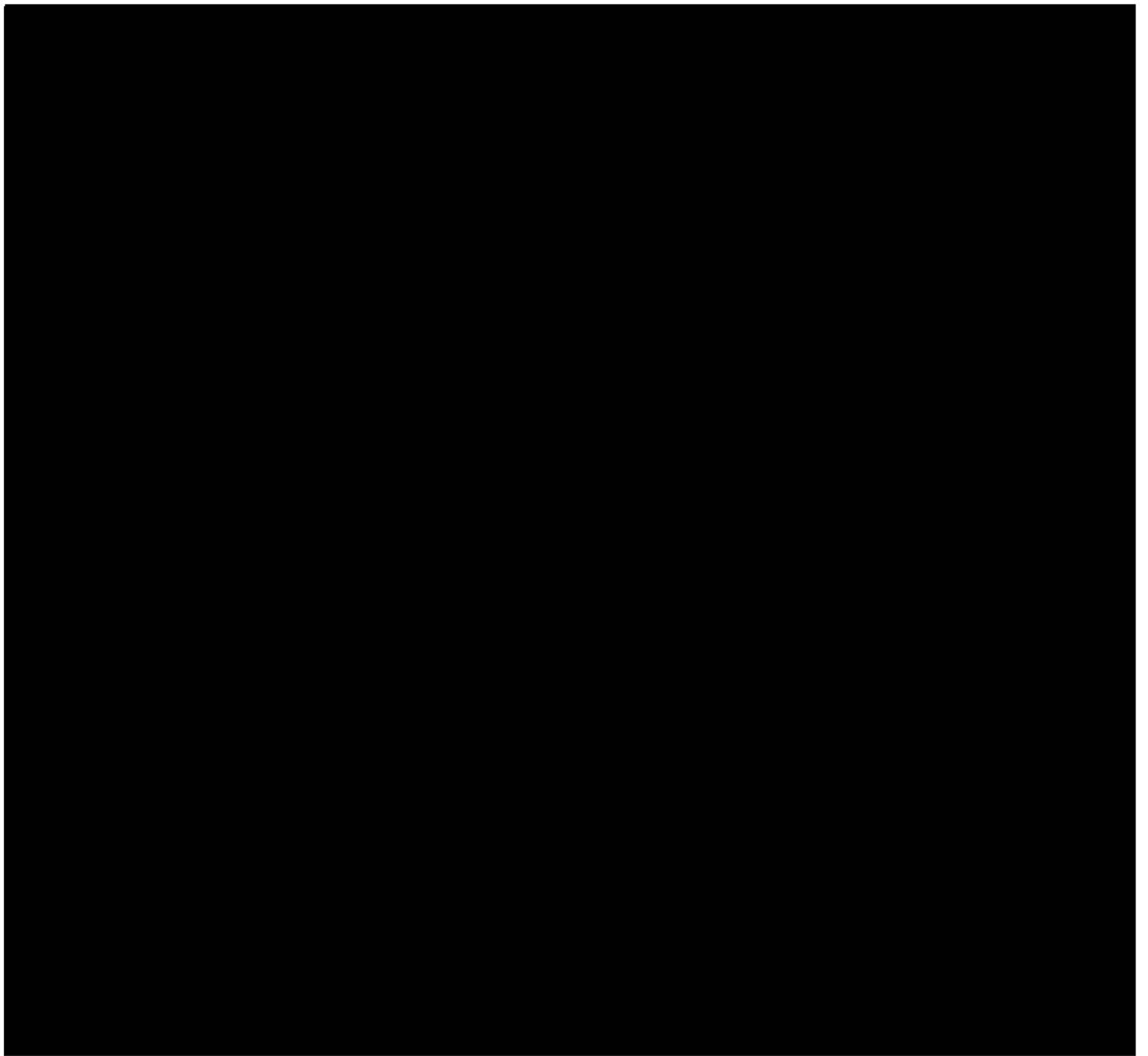
Equipment Category	Grant					



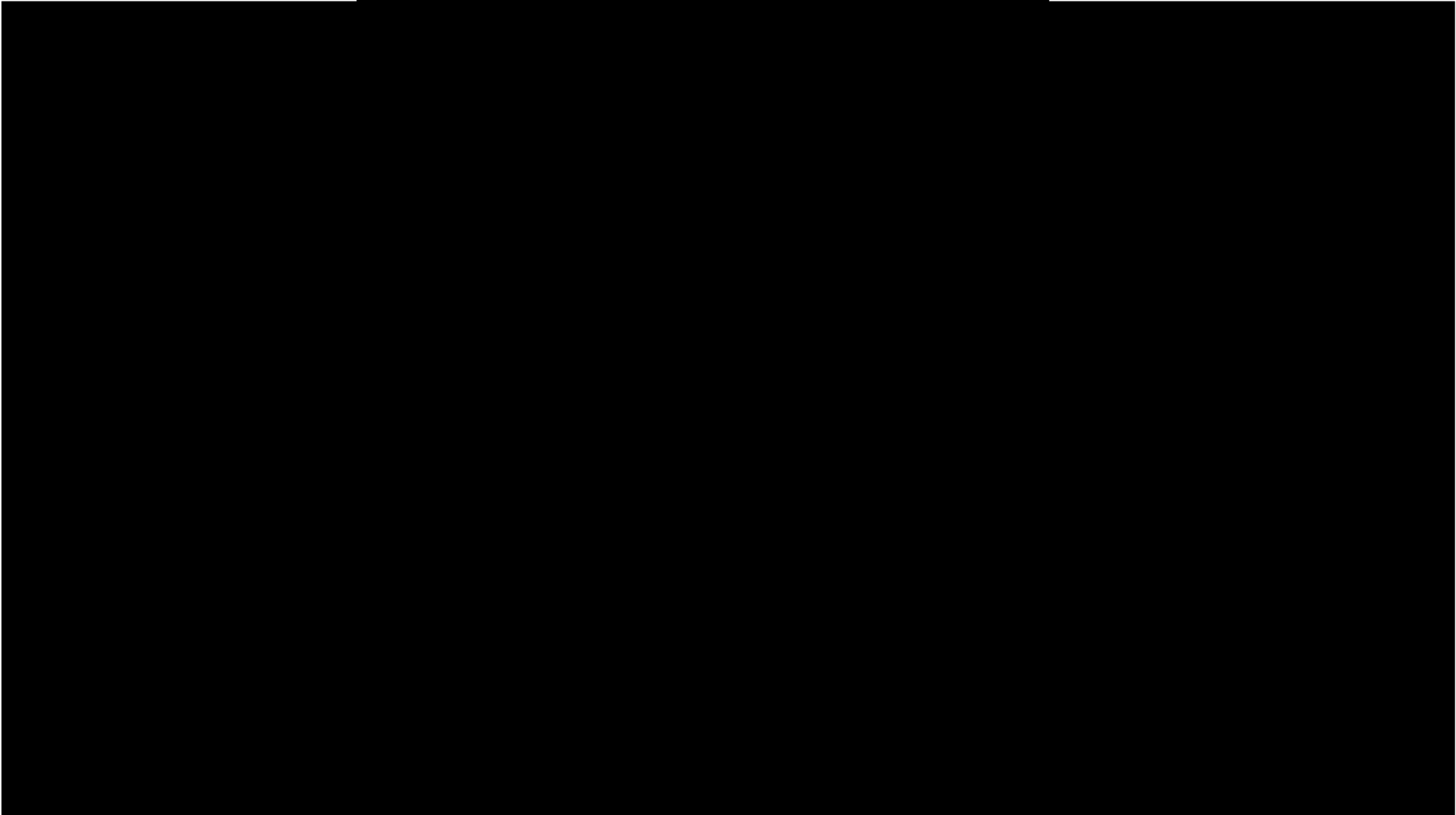




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Corporate Structure

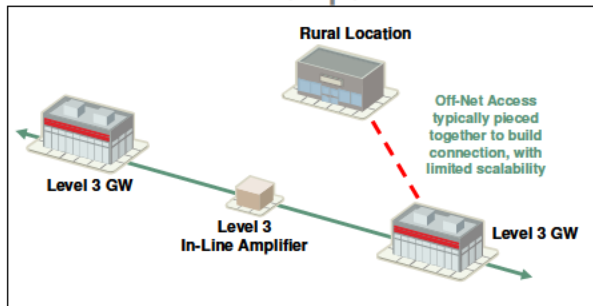


### Summary of Past Projects

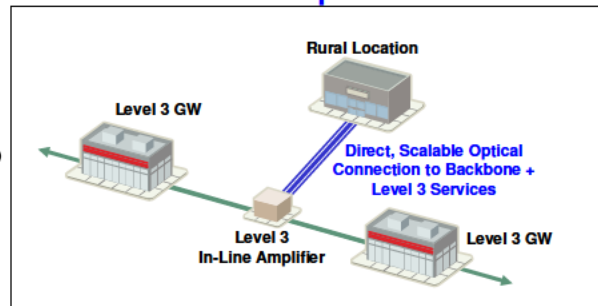
Level 3 EON will be able to tap into Level 3 Communications' broad fiber optic network and previous expertise to quickly implement the proposed Broadband Infrastructure programs. Level 3 has provided similar fiber optic and high bandwidth connectivity via its in-line amplifiers (ILAs) for cable, regional carrier, and wireless last-mile providers in Arkansas, Kansas, Alabama, Kentucky, Texas, and California. The customer example described below illustrates the exciting potential of this application. Level 3 EON can commence this project as soon as funds are made available and can comfortably complete this and other projects within the program's required time frame.

An Independent Cable Operator (ICO) sought to increase the bandwidth it was providing to its customers, but needed a lower cost backhaul solution in order to do so. The ICO approached Level 3 with a request to connect to the ILAs on Level 3's network which were much closer than the nearest main gateway nodes on the network. Level 3 provided the ICO with connections to its backbone enabling for add/drop capabilities five ILA sites in Kansas, Missouri, Oklahoma, and Texas. These connections were part of Level 3's intercity network connecting Dallas, Tulsa, and Kansas City.

**Current Option**



**Level 3 EON Proposal for BTOP**





**Jack Waters, President, Global Network Services**  
**Chief Technology Officer**

***Relevant Skills***

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**Directed the Design of the Level 3 Network:** Upon joining Level 3 Mr. Waters directed the architecture, design, development and implementation of the world's first continuously upgradeable, IP optimized fiber optic infrastructure. This project was \$10 billion dollars in total scope and was completed in less than 3 years.

**Leverage Cutting Edge Technology:** The Level 3 network offers significant cost advantages over traditional networks and leverages many technology advancements including: the first Softswitch Network, the first transcontinental MPLS Network, the first converged IP network to carry Voice, Internet, Data Services and Management traffic and the first long haul Dense Wave Division Multiplexing Network—all developed under Mr. Waters direction and technical management.

***Professional Experience***

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LEVEL 3 COMMUNICATIONS, INC.

Broomfield, CO

**1997– Present**

**Currently: President of Global Network Services and  
Chief Technology Officer**

Mr. Waters is President of Global Network Services and Chief Technology Officer for Level 3 with responsibility for global network architecture, engineering, and operations. His operations responsibilities also include service activation and management, planning and deployment, access management, as well as field operations across the company. Under his leadership, Level 3 has achieved numerous milestones in Internet Protocol (IP) communications, including Softswitch networking, Multi-Protocol Label Switching (MPLS), and advanced optical networking.

**Relevant Project Experience:**

In a leadership role with MCI he was one of the original team members that started internetMCI from a concept. In just 3 years, internetMCI had become a \$300 million business and was nearly doubling in revenue year over year. Eventually, MCI was forced to divest internetMCI for \$2 billion during the Worldcom acquisition. His responsibilities included business plan development, acquiring the first significant internetMCI customer, CoREN, leading the development of the architecture and design of the network and managing the implementation of the network and the engineering team.

As the Director of Engineering and Operations he developed the Southeastern University Research and Academic Network (SURAnet), one of the originally funded National Science Foundation regional networks. This was the nation's largest regional network and interconnected 13 states' academic and research communities to the entire Internet.

***Education***

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**WEST VIRGINIA UNIVERSITY, Morgantown, WVA**

- **Bachelor of Science, Electrical Engineering, 1987**

**JOHNS HOPKINS UNIVERSITY, Baltimore, MD**

- **Master of Science, Electrical Engineering, 1990**

**Paul Savill, Senior Vice President****Senior Vice President Transport and Infrastructure Services****Relevant Skills**

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**Strategy Leadership:** In his role as Senior VP for Transport and Infrastructure Services, Mr. Savill sets the strategy and leads the product management of Level 3's optical networking, private line, Ethernet private line, colocation, dark fiber, and professional services. He also leads a team of highly experienced network engineers who design customized, complex optical solutions for Level 3 customers.

**Technology Leadership:** Mr. Savill has hands-on expertise on all aspects of implementation of services of similar size and scope to this grant application. As both a technical professional and a leader within Level 3's Executive Team, he adds deep knowledge and experience to the leadership of the project team.

**Professional Experience**

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LEVEL 3 COMMUNICATIONS, INC.

Broomfield, CO

**2006 – Present    Senior Vice President, Transport and Infrastructure Services**

Paul Savill leads product management and manages a highly skilled team of engineers who design complex customer network solutions to support transport and infrastructure products. Mr. Savill has 20 years of experience in the telecommunications industry, over which he spent the first half in a variety of technical roles in network planning, engineering, operations, and service delivery. He came to Level 3 in 2006 with the WilTel acquisition where he managed their data, transport and customer portal services.

**Relevant Project Experience**

As a Systems engineer early in his career, Mr. Savill designed, engineered and managed the implementation of optical telecommunication systems. He was responsible for materials acquisition, the engineering design, creating the work plans for the field coordinate, project managing the implementation process including acquisition and shipping of equipment, and the overall project schedule as well as the test and turn-up of the service in the in the field.

As a field installer he traveled to the sites for the turn-up of fiber optic transmission systems of similar size and scope to this application. His hands-on experience included bolting equipment to the floor of the POP and/or ILAs, installing the power connections, wiring and testing the telemetry, powering up equipment, performance testing and, finally turning the operation over to the network operations center (NOC.) He also designed telemetry systems that collect alarms and report them into the NOC. In his network planning roles he managed optical transport network planning, design, and architecture for his company's nationwide optical network.

**Education**

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UNIVERSITY OF TULSA, Tulsa, OK

- B.S. Electrical Engineering, 1989

UNIVERSITY OF TULSA, Tulsa, OK

- Master of Business Administration Degree, 1991

**COMMUNITY AND CIVIC ACTIVITIES**

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Mr. Savill volunteers at the Denver Rescue Mission providing job skills training and computer classes.

**Monisha M. Merchant, Program Manager**

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Ms. Merchant provides comprehensive coordination of all product lifecycle activities, from research to market, for >\$200M fiber optic and Ethernet transport portfolio. Ms. Merchant manages cross-functional teams to work closely with sales, engineering, network planning, operations, and service management to ensure revenue growth and customer satisfaction goals are met. She successfully launched four new product features and received written commendation from multiple telecommunications analysts. Ms. Merchant manages the Extended On-Net (EON) product, which allows customers to connect to Level 3's backbone via the in-line amplifiers on the network, providing a more cost-effective backhaul solution.

Ms. Merchant brings government contracting and construction management experience to the Level 3 team. She was an Associate at Booz Allen Hamilton, where she managed strategic planning projects for NASA, National Science Foundation, Department of Homeland Security, and the National Institutes of Health, as well as wrote proposals in response to government RFPs. Prior to Level 3, Ms. Merchant was a project manager and proposal writer for urban and village water construction projects in Indonesia where she followed FAR and FIDIC contracting requirements. At Lucent Technologies, she managed test and certification lab for DWDM optical amplifier equipment.

**YALE SCHOOL OF MANAGEMENT; MBA, Public and Nonprofit Management, 2004**  
**MASSACHUSETTS INSTITUTE OF TECHNOLOGY, B.S., Electrical Science & Engineering, minor-Political Science, 1999**

**Eric Mortensen, Senior Vice President, Controller**

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After spin-off transaction with Peter Kiewit Sons', Inc. in April 1998 Mr. Mortensen led the development and implementation of internal accounting operational systems (Oracle) and functions, internal reporting systems and functions and external reporting functions with the SEC for Level 3 that supported the growth for a business that grew from communications revenue of less than \$100 million in 1998 to over \$4 billion in 2008. Mr. Mortensen's operating and reporting responsibilities included project accounting systems and processes for the construction of intercity and metro communication networks with total costs in excess of \$10 billion.

Mr. Mortensen has experience with all aspects of finance and accounting. Early in his career he was the Director of SEC Reporting for multi-billion dollar construction and diversified business. He was promoted to Assistant Controller and Controller positions with increased responsibility for internal accounting operation functions and reporting in addition to continued external reporting responsibilities with the SEC. The internal accounting operation functions included significant project accounting and cost management for the construction business.

In addition, he held positions in a private consulting firm as a CPA and auditor of both public and private company clients and was the Senior Manager in the Audit Practice.

**UNIVERSITY OF NEBRASKA - KEARNEY; Bachelor of Science in Business Administration, 1981**

**Dwight Steiner, Vice President, Legal**

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Mr. Steiner is responsible for federal and state governmental contracts, federal program security and supports the Business Markets Group with over 17,000 customers. He is an expert in contracting, subcontracting and commercial telecommunications contract matters. In addition, he provides advice to senior management on government and commercial contract matters, negotiation and drafting of prime and subcontract agreements. Mr. Steiner also reviews RFPs and proposal submissions, teaming agreements, litigation management, reporting and compliance for security clearances and classified contracts. Mr. Steiner's group also supports the small business subcontracting program and advises on procurement integrity and ethics issues. Additionally, Mr. Steiner's administrative duties include the management of attorneys and contracts managers, and establishing internal processes and reporting. He also performs a wide range of corporate legal activities including M&A due diligence and integration.

Since beginning his career in Law, Mr. Steiner has specialized in telecommunications legal matters including construction and telecommunications. While working with a private law firm, he was responsible for documenting and negotiating billions of dollars in purchase, sale, construction, engineering and architectural agreements for the telecommunications network (terrestrial and submarine) of Level 3 in and between U.S., Canada, U.K., France, Germany, Belgium, Amsterdam, Hong Kong, Korea, and Japan. He has extensive experience negotiating and documenting technology, equipment, and the supply purchase, sale, lease and licensing agreements, dispute resolution, bankruptcy matters, including claims and adversary actions, rights of way negotiation and drafting, managerial responsibilities for lawyer and non-lawyer staff. Mr. Steiner has provided legal counsel and participated in multiple first chair bench trials, jury trials and appeals in construction, contractual disputes, and various commercial matters.

**CREIGHTON UNIVERSITY; Bachelor of Science in Business Administration, 1987**  
**CREIGHTON UNIVERSITY SCHOOL OF LAW; Juris Doctorate, 1989**

**Jennifer Artley, Vice President, Offer Management**

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As Vice President of Offer Management for Level 3 Communications, Ms. Artley is responsible for the carrier and wireless market segments, comprised of national and international customers buying network services in North America. In this role, she oversees the development of segment-specific strategies, complex commercial offers and segment initiatives. Ms. Artley has held a number of key positions in departments such as Corporate Strategy, Product Management of Wholesale VoIP Services, Post-Acquisition Integration Planning and Offer Management for International Carriers. Ms. Artley is responsible for P&L for the Wholesale Carrier business, including supporting complex sales, managing top line revenue and driving the variable gross margin profile of the business. She manages an offer management team to develop segment-specific strategies to ensure appropriate targeting and positioning for each unique customer set.

**WHARTON SCHOOL; THE UNIVERSITY OF PENNSYLVANIA; Master of Business Administration, 1998**  
**HOBART AND WILLIAM SMITH COLLEGES, Geneva, NY; Bachelor of Arts in Russian Area Studies, 1992**

### **Andrew Dugan, Senior Vice President, Architecture and Engineering**

Mr. Dugan leads the division that is responsible for developing long term strategy, technology evaluation and selection for the equipment used in Level 3's transport, data, voice, and video networks. Andrew has 20 years of experience in building telecommunications networks, switching platforms and services platforms. Prior to joining Level 3, Andrew worked for MCIWorldcom designing and building network, voice services platforms and architecting next generation switching networks. Prior to MCIWorldcom, Andrew worked on building switching systems for Lucent Technologies.

Mr. Dugan manages many of the industry's most notable network architects and developers, responsible for innovations in many of the most important areas of IP-based communications. He also worked with the team that helped to develop MPLS and deploy the first large scale network and deployed the first DWDM network based upon Photonic Integrated Circuits. Due in part to Mr. Dugan's leadership, Level 3 stands as an acknowledged leader in the communications industry and was inducted into the Government's permanent collection as a Computerworld Government Laureate for leadership in the information revolution: "The world's first upgradable international fiber-optic network to be completely optimized for internet protocol technology is helping to stimulate the biggest change in communications technology in 100 years."

**UNIVERSITY OF MICHIGAN; Master of Science, Computer Engineering, 1990**  
**UNIVERSITY OF COLORADO; Bachelor of Science, Computer Science/Electrical Engineering, 1988**

### **Howard Susskind, Senior Director, Chief Design Engineer**

Mr. Susskind manages a technical team of 10 Solution Engineers who design highly customized, industry-leading, complex transport network solutions for Level 3's customers. Mr. Susskind and his team have designed and deployed more than 400 large network arrangements worth over \$1.25B. He works very closely with the end customer to understand its network design needs and how best to leverage Level 3's existing assets to provide the customer a reliable and redundant large-scale network solution. Mr. Susskind has designed networks for:

2 of the largest Direct Broadcast Television Providers	4 of the largest US cable companies
2 of the largest US ISPs	4 of the largest Global Banks
2 of the largest Independent US Telcos	3 of the largest Search Companies
2 of the largest Social Networking Companies	2 of the largest Data Storage Companies
4 of the largest US-Based System Integrators	6 of the largest Asian Operators
3 of the largest Global Digital Content Distribution Networks	
2 of the largest US Research & Education Networking Consortia	
4 of the largest Facilities-Based Global Network Operators	

**CORNELL UNIVERSITY; MBA, Finance and Operations, 1992; Master of Science, Engineering and Applied Math, 1990**  
**PRINCETON UNIVERSITY; Bachelor of Science, Physics, 1987**



**Bryan Garland; Solutions Engineer**

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Mr. Garland works closely with the sales team and key customers to design strategic transport solutions. In this role, he maximizes customers' use of the Level 3 network by optimized use of all acquired and integrated network assets and capabilities and the use of third Party Assets when needed. These custom solutions of holistic network designs require specified route diversity of fiber and circuits through gateways and network elements. In addition they include Scalability Planning and Survivability Analysis. Mr. Garland also assembles relevant costs for custom solutions and collaborates with Product Leads on the profitability of these complex offers. Mr. Garland is well versed in all of the Level 3 deployment processes and procedures.

In various roles while with Level 3, Mr. Garland has been a design engineer, and implemented a variety of work packages for day-1 system deployments and system augmentations for all Metro equipment. Previously, he managed a group of 5 Transport engineers ensuring the delivery of engineering work packages and deliverables. He also supported the verification and approval of non-standard network architecture and contributed to developing standard deployment and implementation processes. Throughout Mr. Garland's career at Level 3 he has supported Account Directors and Sales Engineers on their customer offers and designs. He has planned, sized, and managed the building of the majority of Level 3's Metro networks resulting in a very intimate knowledge of 95% of Level 3's North America Metro presence. And he managed equipment vendor availability and delivery times.

**PORTLAND STATE UNIVERSITY; Bachelor of Science in Electrical Engineering, 1994****Larry Paine, Sales Engineer**

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Mr. Paine brings over 20 years of professional sales and engineering experience in the communications industry providing networking and telecommunications infrastructure design, implementation, operations, maintenance and support. He has worked across all communications areas, including Optical, Digital, and Analog transmission technologies, Voice, Video and Data networking for Carrier, Enterprise and Commercial networks with a focus on Convergence, VoIP, Security, Firewall and Content Delivery networking solutions. Mr. Paine is responsible for generating \$4.2 million in new annual recurring revenue for Federal transport, voice, and content services. In this capacity he develops and presents product and process information to customers and internal personnel to increase sales and enhance the customer experience. In addition he defines, develops and delivers physical and logical network designs to meet his customers' requirements. Prior to joining Level 3 Mr. Paine worked at Cisco Systems as a Pre-Sales Channel Engineer supporting commercial reseller partner community for the design of voice, video and data solutions for local business customers. In the cable industry he supported the design of voice, video and data solutions for regional enterprise customers. Mr. Paine met with customers to determine requirements and perform site evaluations to ensure the accuracy of design solutions and that they met project requirements.

**MULTIPLE CERTIFICATIONS** including: Nortel Networks, Cisco Systems, Microsoft, ISC2, and Cabletron/Enterasys.

**Michael Kirchner, Sales Engineer**

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Mr. Kirchner provides technical engineering support to one of Level 3's top tier customer for two regional accounts. He also works with the Account Director to drive new business through targeted product presentations and customized engineering solutions that cater to the customer's specific requirements. He establishes rapport with customer teams through extensive experience and enthusiasm for solving problems.

Mr. Kirchner managed a team of engineers who were responsible for the deployment of metro optical transport electronics within the Level 3 network. The Team's responsibilities included customer solution, detailed engineering, and management of electronics installation/commissioning. As the Project Manager he was responsible for the deployment of Level 3's metropolitan optical transport network electronics. He worked closely with the Sales Account Teams and Transport Business Unit to determine customer-specific architecture, platform, and project capital cost; created detailed engineering plan, procured materials, project managed installation of optical transport electronics, performed provisioning/configuration of equipment, and performed network acceptance.

He managed the regional team that was responsible for planning capacity at new and existing Level 3 metropolitan facilities and POPs and project managing optical transport electronics installation to support network capacity requirements. Mr. Kirchner dramatically improved the team service level agreements by streamlining tracking mechanisms.

**MIAMI UNIVERSITY, Bachelor of Science, Business Administration, 1996****James Haid, Senior Director, Planning & Deployment**

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Mr. Haid brings over 15 years of experience in telecommunications. He has extensive expertise in both network planning and optimization with responsibility for more than \$300 million in network spend. A key component of these activities is driving the appropriate balance between customer-enablement and cash conservation. Mr. Haid frequently works with cross-functional teams to drive major initiatives in developing customer solutions and network capabilities. Mr. Haid leads a team of 70 Planning & Deployment engineers to manage the capacity of Level 3's transport backbone and to deploy equipment in a timely manner to support customers on Level 3's North America network. This team is responsible for planning and deploying racks, DWDM and SONET equipment to support ongoing customer activations; they plan, design and deploy the networks for all Level 3 customers. The network scope includes Infrastructure (space, power, HVAC), Waves, Private Line, IP, Voice, Vyvx, and CDN layers of the network. Process scope includes 18-month planning forecasts for purchasing and deploying equipment. Mr. Haid interacts with Sales, Customer Service Delivery, Service Management, Product, Architecture & Engineering, and Finance teams.

Mr. Haid was formerly in charge of Professional Services, and brings significant government contracting experience through Networx and WITS government contract vehicles. Because of his technical expertise he is frequently involved in upfront in complex sales activities as well as back-office Finance/IT initiatives. Mr. Haid is also experienced in managing teams of highly educated and diverse technical staff including engineers, planners, and financial analysts.

**MASSACHUSETTS INSTITUTE OF TECHNOLOGY; Bachelor of Science, Engineering, 1993**

**Todd Mikulanka, Senior Manager, Planning & Deployment**

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Mr. Mikulanka brings over 16 years of experience in designing and constructing telecommunications facilities, including Long Distance, Microwave, Wireless, Earth Station, and Colocation type facilities. He manages multiple regional-focus teams that plan, design, engineer, and deploy a high volume of projects over Level 3's large nationwide network and facility footprint. The team is structured with technical leads, production engineers, and deployment project managers to accommodate a wide variety of projects with varying scope and scale. The team develops, initiates, and completes over 1000 projects each year over a nationwide footprint of facilities. Projects include design and installation of rack and power infrastructure, customer equipment, antennas and towers, fiber optic/transmission cables, and facility construction/expansions. Mr. Mikulanka also manages over \$20M/year in capital expenditures for facility upgrades/expansions, network rack and power infrastructure, customer infrastructure, and life-cycle replacements.

**SOUTHERN METHODIST UNIVERSITY; Master of Science, Eng. Management, 1993**  
**TEXAS TECH UNIVERSITY; Bachelor of Science, Mechanical Engineering, 1992**  
**E.I.T. – STATE OF TEXAS**

**Kevin Montoya, Senior Manager, Planning & Deployment**

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Mr. Montoya manages a team five of Transport Planners, Deployment Engineers and Procurement Analysts who build capacity augments and manage the headroom of the core Level 3 private network. In this role, Mr. Montoya manages the planners and engineers who are responsible for capacity and optimization activities. His responsibilities include budgeting, managing deployment intervals, electronics procurement, vendor relationships and process improvement efforts related to core transport network planning and optimization processes.

Mr. Montoya's team's activities are based on the network consumption rate; disconnect rate, and capital situation. The team then determines the best solution to meet anticipated customer growth. The Team also determines whether capacity augments are not needed and if there is a need to optimize traffic on the Level 3 network. Mr. Montoya gathers and manages customer needs, prioritizes conflicting schedule issues to meet customer expectations and develops process enhancements to improve the overall customer experience.

Mr. Montoya has a deep working knowledge and technical understanding of Level 3's transport network, as well as Level 3's Wavelength, Private Line and Ethernet Private Line services, their requisite technologies and the platforms that provide the services. Mr. Montoya brings both hands-on field experience and project management expertise to the team.

**Fujitsu FLM and Equipment Engineering (C-611)**

**Nortel Networks Course T100/T200 – Connect DX/Optera LH**

**James Male, Senior Manager, Field Services**

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Mr. Male manages several centralized teams in support of large geographically diverse Field Operations department. In this role he addresses complex, sensitive issues in collaboration with the SVP Field Operations and other senior management officials. In addition Mr. Male is responsible for Business Process Management (BPM) systems, new Product Development, and Internal Communications program management. He has reduced overall Operating Expense budgets by 30% over two year period by rebidding and renegotiating vendor contracts.

Mr. Male represents 900 Field Operations and Supply Chain Management employees in company-wide development of new back office systems, workflow management and processes. He develops the system requirements to ensure new tools improve operational efficiencies and documents and communicates the changes. For the North American and European Field Ops team he manages internal communications. He develops a weekly Field Focus newsletter, internal websites and document repositories, and other communications tools. In addition, he was responsible for the design and implementation of a comprehensive employee training program, including new hire and product training.

**DEPAUL UNIVERSITY; Masters of Arts in Writing, 1998**

**UNIVERSITY OF MICHIGAN; Masters of Arts in English, 1994**

**Nathan Walz, Director; Customer Service Delivery**

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Mr. Walz currently manages a team of 25 tasked with facilitating enterprise-wide programs, projects, and product development initiatives to improve the end-to-end customer service delivery experience. In this role, Mr. Walz is responsible for designing, measuring, and optimizing all business practices and policies supporting customer service delivery operations from customer signature to installation to billing. Previously, Mr. Walz managed four teams of customer service managers, installation project managers, and account consultants responsible for the end-to-end customer experience for the enterprise customers. He was charged with developing more efficient means of revenue conversion, initiatives for customer retention, and service improvements for our highest revenue customers. As the manager for Major accounts he provided operational support for Level 3 Communications' largest public sector accounts and worked with all internal operations groups on service delivery and assurance escalations and customer-specific process improvements. Mr. Walz has managed large-scale (over \$1 million) programs has experience with business process optimization (LEAN/Six Sigma/TOC/Kaizen).

**Education**

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**UNIVERSITY OF DENVER; Master of Arts, International Studies, 2000**

**WESTFIELD STATE COLLEGE; Bachelor of Arts, Economics and Political Science, 1996**

**ATTACHMENT C – COMPETITOR TABLE – MIDDLE MILE**

**Existing Middle Mile Broadband Service Providers and Services Offered:** Please complete a table describing the competing middle mile providers' broadband service offerings being advertised in the last mile service areas associated with the proposed middle mile project. **For BIP**, please provide this information for each census designated community within each last mile service area. For each competitor, explain the following: a) technology; b) service tiers; c) point-to-point of the competitor's service offering; d) speed; and e) pricing. Include any other comments to explain your findings if necessary.

	Texas						
Service Area	Middle Mile Services Provider	Technology Platform	Service Tier	Point-to-Point	Minimum Peak Load Network Bandwidth Capacity	Pricing	Other Comments
Service Area 1/ Census community 1	Provider A	SONET	Entry Level Plan	Community SWC to Nearest Major LEC POP	DS-3	██████████	
		SONET	Highest Speed Plan	Community SWC to Nearest Major LEC POP	OC-3	██████████	
			Other Plans (e.g., Mid-Tier Plan)				



