Thank you for joining us today with the beautiful backdrop of the Memorial Tournament. I would like to talk to you today about how Dublink, Dublin's 125 mile fiber network, is bringing together a number of exciting initiatives here in Dublin that benefit our entire central Ohio region.

Before I begin, I'd like to welcome on behalf of the City of Dublin: members of the City Council, the City Manager, staff and our business partners. Thank you for being our guests, as it demonstrates your interest in the technology infrastructure of the Columbus region.

I'd especially like to acknowledge Angelo Mazzocco, the Chief Information Officer (CIO) Forum, Columbus 2020, members of the economic development community and Ben Blanquera of the Columbus Collaborative.
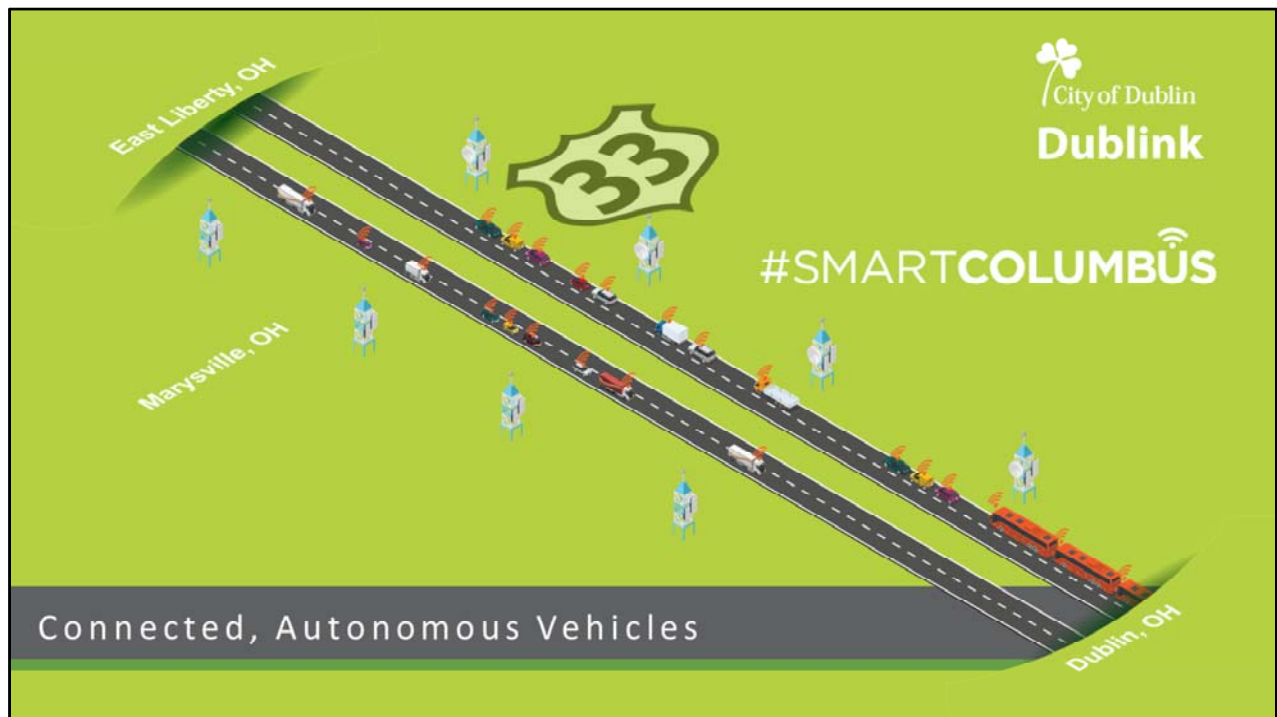
Our story begins with broadband. We started our investment in Dublink, in what is now the City of Dublin's 125+ miles of 96-count fiber optic broadband, back in the nineties. This nearly 100% underground conduit is shown here in orange. You'll see that we have fiber extending throughout the Columbus area – because that's where Dublin businesses needed us to be to support their regional operations. This extensive network now connects to 10+ data centers.

We read about other cities that plan to do this or that. We're unique: we are already doing it, and <u>have</u> been for more than two decades.

Our investment in broadband has helped us be named a Smart21 community four times and twice be named a Top7 Intelligent Community in the world by the Intelligent Communities Forum (see http://www.intelligentcommunity.org). In 2015, Columbus was named <u>the</u> most Intelligent Community. Columbus and Dublin have received this recognition based on six characteristics: 1) broadband, 2) knowledge workforce, 3) innovation, 4) digital equality, 5) environmental sustainability and 6), advocacy.

Broadband was our beginning. Our end game is to establish intelligent communities throughout Ohio. We are excited to announce we have established the Global Institute for the Study of the Intelligent Community to capture best practices and lessons learned with Dublink. This will ensure knowledge capture and knowledge transfer to others around the globe. This raises our Dublin brand and profile, and helps Ohio become more intelligent, too. This positions us and our state to grow.

Dublink also plays a role in the exciting initiatives coming out of the United States Department of Transportation. We are strong supporters of the City of Columbus' Smart Columbus grant application for the $50 million USDOT's Smart Cities grant. (See https://www.transportation.gov/smartcity.) Winning that grant will allow Columbus to test autonomous and connected vehicle technology in the Easton area.

Let's stop a minute and support the #smartcolumbus effort. Tweet your support right now! (#smartcolumbus, #smartcities, #USDOTsmartcities.)

At the same time, we are partnering with OSU Center for Automotive Research, Battelle, Union County, Corporate Headquarters of Honda North America, Honda R&D of the Americas, and the Transportation Research Center to pursue other USDOT grants and testing opportunities of Connected Vehicles research in the US 33 corridor. To make that possible, we will be extending the Dublink 100 gigabit network in the US 33 corridor between Dublin and East Liberty, which as you know has a vast automotive cluster. We will also install 70+ micro-cell devices that make Connected Vehicle research testing possible.

This fiber network and wireless signal communications will also be accessible by business customers, carriers throughout the automotive cluster and any other vehicle traveling on US 33.
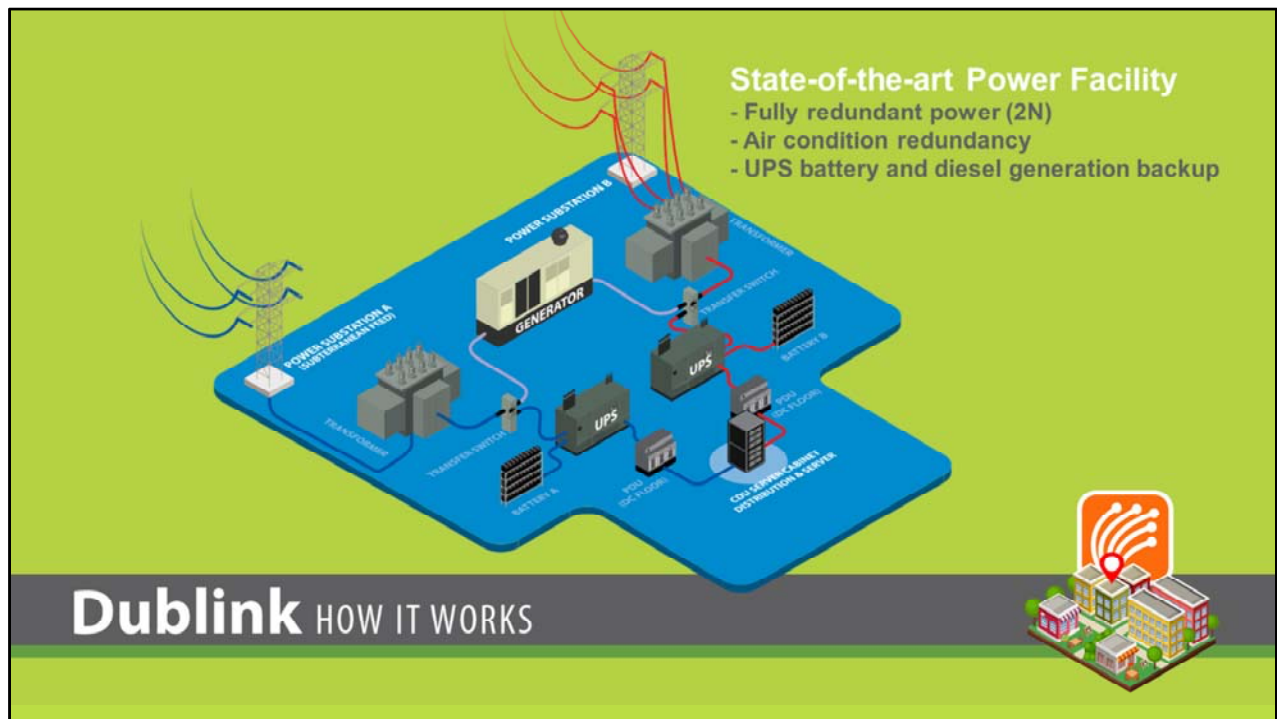
These investments are game changes and will attract even more high tech companies to the region. This is an exciting time for Dublin and its Central Ohio partners. I'd like to give a special thank you to Joanna Pinkerton and Carla Bailo, with OSU Center for Automotive Research; Bennett Pierce and Eric Plapper with Battelle; MORPC; the Transportation Research Center; Greg Dunn from Ice Miller; and Ohio Department of Transportation.

And it's also very exciting right here at Dublin's Metro Office District. The City of Dublin has established the Dublink Transport network to subsidize the transport layer of up to 100 gigabits per second of bandwidth to tenants in one of our City's Legacy Office Parks. The Metro Office District has approximately 7 million square feet of commercial office space that was built in the 1980s and 1990s. By offering companies located here access to Dublink for free, these aging buildings can compete with newer buildings throughout Dublin and the region.
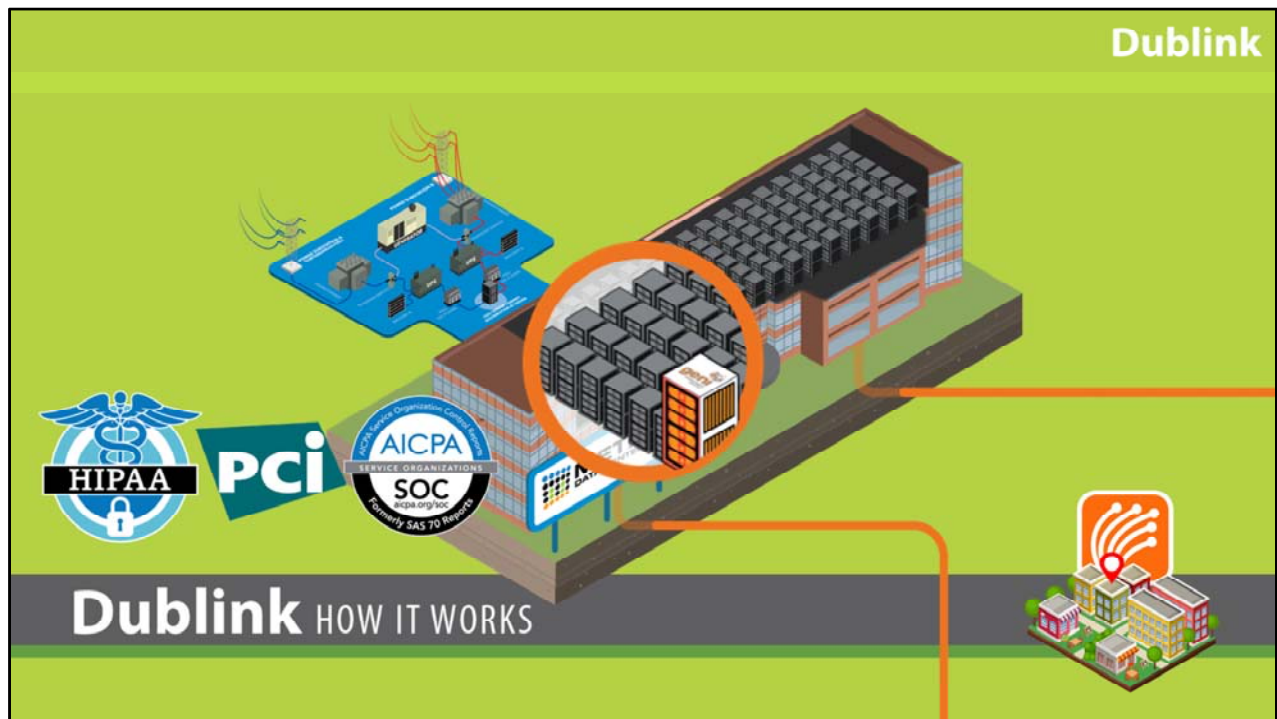
The City of Dublin built the fiber pipeline from each building to the Metro Data Center, located in the Metro Office District, and deployed carrier grade network gear from Juniper Networks. Companies have access to 13 internet carriers without having to pay for the transport infrastructure. These options give companies negotiating power to get the most competitive price for the highest quality internet, billed monthly by the carrier.

Let me tell you a little more about the Metro Data Center and how Dublink Transport works.
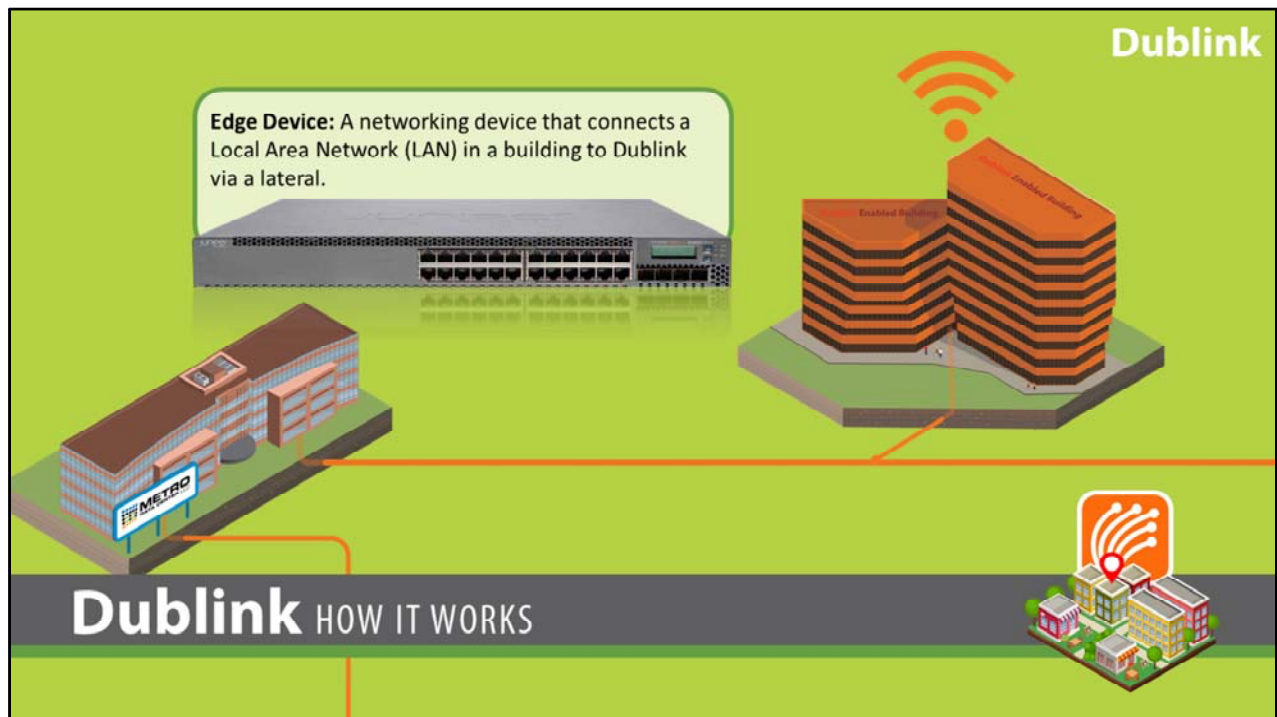
The Metro Data Center is a state-of-the-art data center with electric and air conditioning redundancy and multiple back-ups.

There are 2 different power substations that feed into the data center and also connect the 125+ miles of Dublink 100 gigabit fiber throughout Central Ohio. This provides redundant power feeds. There are also dual UPS subsystems with 10 hours of battery backup and a diesel generator capable of 36 hours of sustained power.

The Metro Data Center provides cold row containments cabinets to house the Dublink network racks. This highly secured data center provides customers with full hand scan biometric security, recorded surveillance, 24/7 client access and fire suppression.
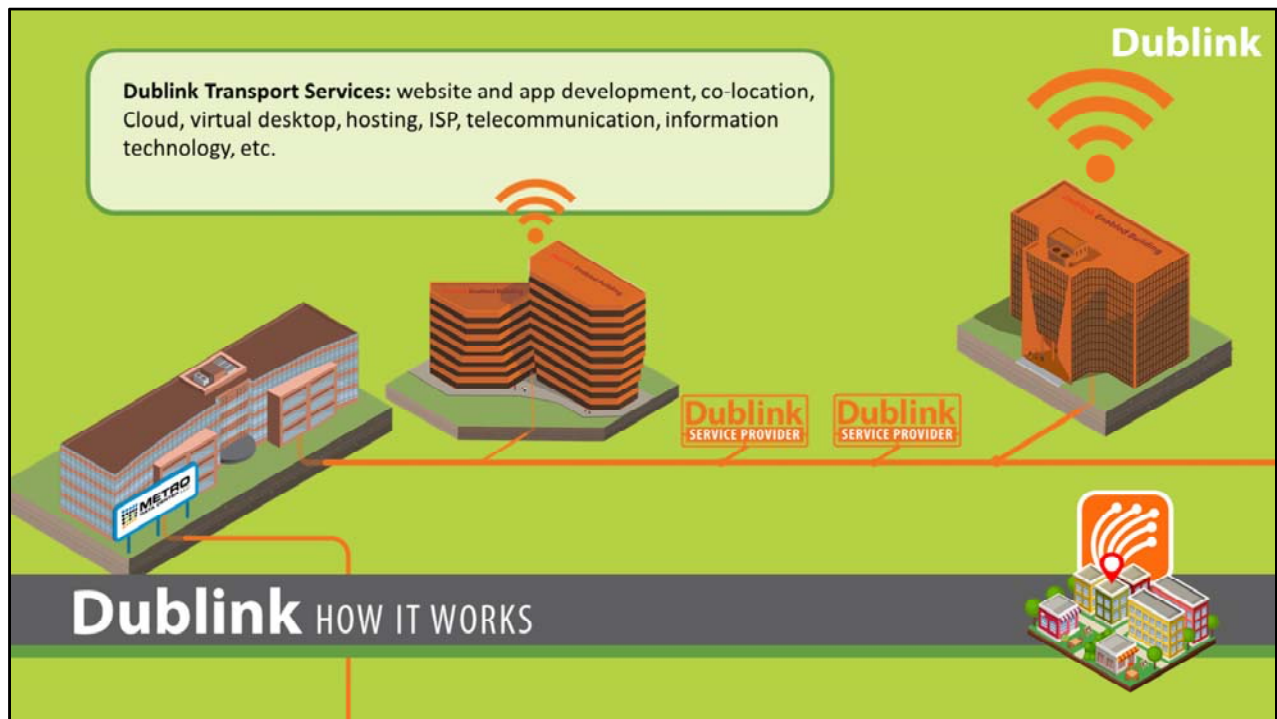
Additionally, <CLICK> Metro Data Center has a GENI (pronounced "Genie") rack which enables access to Internet2.

Dublink Transport is the lateral pipe that runs from the street into the building. This is paid for by The City of Dublin. It carries the high-speed data to and from Metro Data Center at no cost to the business owner. Inside the building, the City also provides connectivity through a free "Edge Device" router. Direct Connection in addition to WIFI is possible.

Metro Data Center provides businesses access to 13 internet carriers.

The business owner still has to pay monthly internet fees to a private carrier, but because all those carriers are competing for the business, the business owner has a lot more affordable options.

Throughout the network there are many service providers offering Dublink-connected businesses with support for everything from co-location & Cloud access to brand development and marketing.

Buildings throughout the Metro Business District are being "Lit" daily. Many other Dublin districts are slated to receive Dublink connectivity soon.

Here are the participating networks and carriers businesses have access to via Dublink Transport in the Metro Office District.
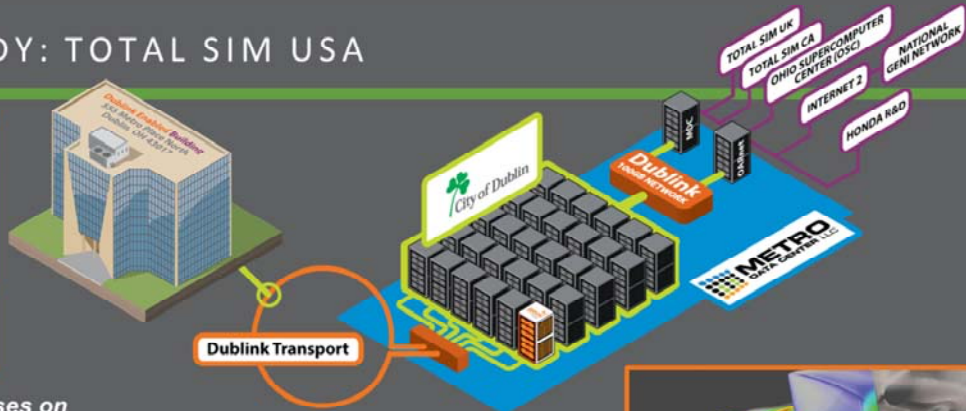
I'd like to thank our many partners who have made this possible.

One high-bandwidth tech company is already taking advantage of Dublink Transport.

TOTAL SIM USA is a Computational Fluid Dynamics design team that takes innovative design ideas from initial concept to high-performance reality. The company uses both Dublink Transport and Metro Data Center Rack Space. It accesses OARnet and the data center's GENI rack for its high data consumption modeling and prototyping work. The City of Dublin investment saves Ray's company about $17,000 a year! This is a key reason why TOTAL SIM USA chose to locate in Dublin over locations in North Carolina, Indiana or Michigan.

Most companies today use an average of ½ to 1 gigabit of internet speed to operate. With access to 100 gigabits, TOTAL SIM will be able to grow their use of data for years to come.

INTELLIGENT. INNOVATIVE. CONNECTED.

We've turned our Dublink initial investment more than 20 years ago into:
- Becoming recognized as an Intelligent Community and establishing the Global Institute for the Study of the Intelligent Community.
- Being a real contender for federal funds for #smartcolumbus and conducting connected and driverless vehicle research in the US 33 corridor.
- Giving away Dublink Transport to give high tech businesses in our office legacy parks access to 100gigabits of data transmission – for real economic development returns for our City.

Dublink has played a role in all of this.

Thank you again for joining us for golf and gigabits.