Networks of New York:

An Internet Infrastructure Field Guide

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2015 edition

Introduction

How do you see the internet?

Maybe that's not a clear question. Okay. When you think about or use the internet, what do you see?

For a lot of people, the answer is that they see screens–browsers, software, laptops, phones. Maybe they see some hardware in the form of a wifi router. The internet is a network, but individual users mostly just get a glimpse of it, usually by peering into black mirrors. The most popular stock photography of internet infrastructure–data centers full of servers and cables–tends to make the physical internet feel clinical, distant, opaque.

When I think about the internet, I think about scale. Computers used to be the size of entire rooms. While the hardware has gotten a lot smaller, the room has actually gotten bigger–we're surrounded by sensors, cables, cameras, all the stuff of networks, and the number of networked objects around us is only going to increase. These fragments and nodes of networks are at times hard, but not impossible, to see–if you know what you're looking for and how to look. And once you start looking, it's hard to stop noticing all the pieces of networks that are around us all the time.

This field guide is meant to help you see some of New York's networks in everyday places.

Networks Underground

For a city renowned for its verticality, New York has a lot going on underground. It's home to most of the city's circulatory systems, moving people, sewage, gas, water, electricity, and yes, data. In general, assume that every street you walk is atop a piece of this labyrinth.

Underground internet cables in Manhattan live in utility ducts, which are owned and maintained by two companies, Empire City Subway and Consolidated Edison Company of New York . There are also ducts for fiber within the MTA subway system. Different companies own cables (copper, coaxial or fiber) that run through these ducts. To run cables in the ducts, companies need to acquire a franchise from the city's Department of Information Technology and Telecommunications (DoITT). The agreements stipulate that the companies pay the city a percentage of their revenues in New York, and that the company has to provide an amount of dedicated fiber to the city.

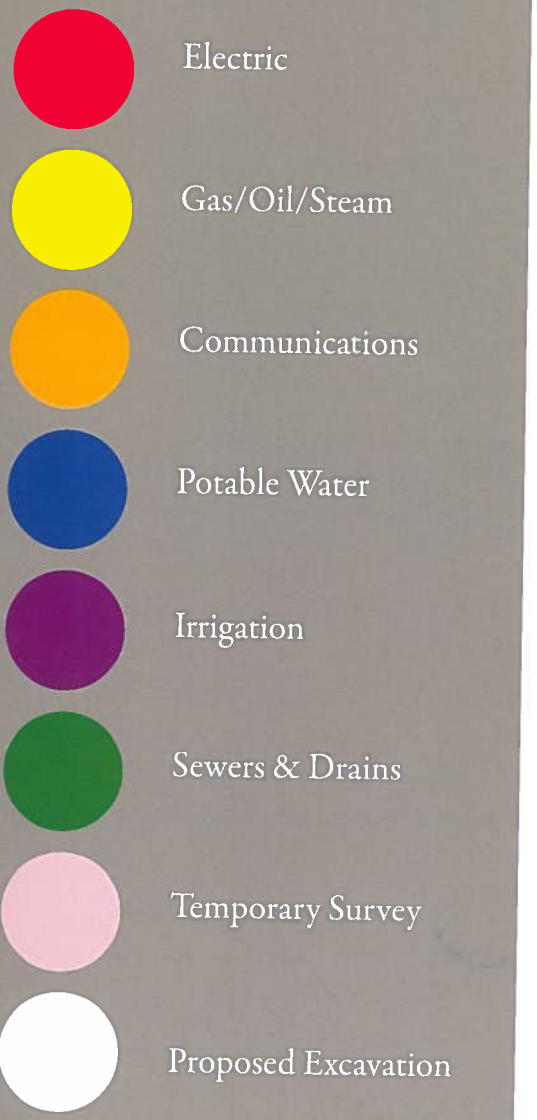
The locations of these ducts and the cables in them are mostly confidential due to their proprietary nature, but there are some signs on the street level that you can use to identify if not whose cables are underground, then what kinds of cables are underground.

Sidewalk Markings

Sometimes while walking in a city, you'll notice colorful markings on the street–neon arrows and labels, usually barely legible. The markings extend throughout the street, sometimes in zigzagging directions. This urban markdown language isn't really meant to be read by people on the street. Whenever a contractor or construction company plans to do street excavation, utility companies will mark out the location of their underground cables so that the contractor knows to watch out for them.

There's a standardized color code for street markings recommended by the American Public Works Association and used by many cities, including New York (see left). Orange refers to the broad catch-all of "Communications, alarm, signal lines, cables and conduit." This means that orange lines can be internet cables, television cables, telephone lines, or other kinds of conduits.

The markings are sometimes really sloppy, and often in fragments. Sometimes you'll see several different labels in the same place. A lot of these cables are bundled up together running through ducts under the city.



AT&T

AT&T has been a presence in New York City since the first cable ducts were organized under Consolidated Telegraph & Electrical Subway Co. Formed as a corporation under the Bell Telephone Company to build a nationwide long-distance network, AT&T's first network connected Chicago and New York in 1892.

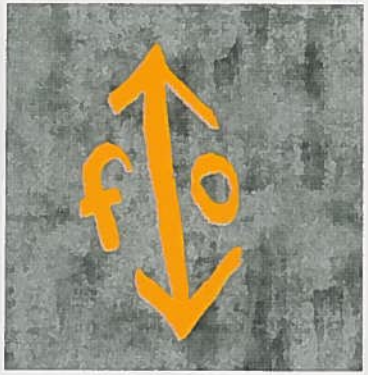
While this field guide might not be the place for AT&T and the Bell System's voluminous history, traces of that history are all over New York City in buildings like the Long Lines building at 33 Thomas Street, a switching center at 811 Tenth Avenue, and its former Long Lines building at 32 Avenue of the Americas, now a major convergence and colocation center for networks (see **32 Avenue of the Americas** in Suggested Locations).

CABLE TELEVISION

This means pretty much what you think it means: a cable for television, usually coaxial.

EMPIRE CITY SUBWAY

These are Empire City Subway ducts (see the entry for Empire City Subway in Manhole Covers for more information about ECS), which could hold cables belonging to a variety of different companies for a variety of different uses (telephone, television, internet). See also **FO**.



FIBER OPTIC CABLE

"Fiber optic" doesn't necessarily mean what we think of as internet–private companies maintain their own networks, as do city agencies, and a variety of data types (VoIP, television, internet) can run over a fiber optic cable.

LEVEL 3 COMMUNICATIONS

See Level 3's entry in **Manhole Covers** for more detailed information about the Tier 1 provider.

Dark Fiber

There are a lot of companies whose names aren't abbreviated on the sidewalk, but who also provide fiber in the city. Companies that receive a DoITT franchise can sell or lease their fiber (usually known as dark fiber) to other businesses. A lot of this fiber was installed during the first dot-com bubble, when there were hundreds of ISPs. The telecommunications companies that survived acquired a lot of those small, financially struggling ISPs (or, in the case of Level 3 acquiring Global Crossing, large and financially struggling ISPs).

MCI

While MCI as a company technically no longer exists (it was acquired by Verizon in 2006), its name has apparently not been completely phased out of use in network maps in New York.

POINT OF ENTRY

It means what it sounds like it means. Usually seen at the edge of a building, not on the road itself.

Types of Cable

COPPER: Copper wiring is among the oldest material in the city's ducts, originally for telephone communications. Much of this aging infrastructure was severely damaged during Hurricane Sandy, but has yet to be removed from the ducts by ECS.

COAXIAL: A coax cable still has a copper conductor, but is more insulated and more efficient than older copper wires. Once state-of-the-art, coax is still common in some last-mile connections.

FIBER: Optical fibers are transparent strands of glass that transmit data as pulses of light. For more on fiber, see **Dark Fiber**.

NEXTG/CROWN CASTLE

In 2008, NextG Networks received a city franchise agreement to install wireless infrastructure on city street poles for their distributed antenna system (DAS–see Distributed Antenna System in Cell Towers). The agreement also permits the company to install fiber below ground "for purposes of connecting Base Stations installed on Street Poles to one another or to a supporting telecommunications system." These fiber markings are often near street poles or emerging from street poles. In 2011, NextG was acquired by mobile infrastructure company Crown Castle International.

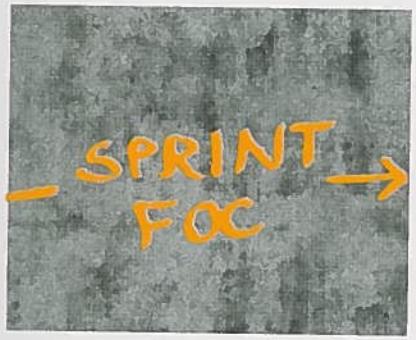
RCN

RCN is an internet service provider and a television cable provider. They're the 10th-largest ISP in the country. It's unclear if a cable marked "RCN" is actually a cable that belongs to RCN because of some mergers & acquisitions dark magic that happened over the last few years.

In 2001, Con Edison announced that they were creating their own fiber optic network, managed by the holding company Con Edison Communications. In 2006, RCN acquired Con Edison Communications for $32 million. RCN was acquired by private equity firm Abry Partners in 2010, which repackaged and rebranded its metro area operations (which managed the former Con Ed fiber network) as Sidera Networks. Sidera merged with Lightower Networks in 2013, after both companies were acquired by Berkshire Partners in 2012. Given how often dated names show up in sidewalk markings, RCN could refer to the existing RCN or Lightower.

SHALLOW CABLE

This means basically what it sounds like–the cable underground isn't very deep below the pavement, and this marking is a warning to anyone doing street excavation work that they might hit the cable.



SPRINT

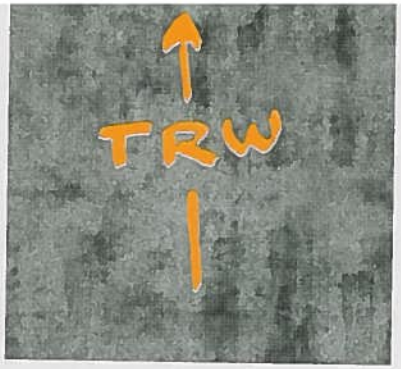
Sprint was perhaps one of the more forward-thinking of telecommunications companies, having built out the first nationwide fiber-optic cable network in 1986.

TELEPHONE LINES

Unclear if this refers to VoIP communications or traditional telephony; given the volume of existing copper wires still in underground ducts, the latter seems likely.

TELEVISION MARKING

This cable is more commonly seen in boroughs other than Manhattan. Although the labeling indicates a television cable, it bears repeating that most consumer ISPs in New York operate as "bundlers" selling TV, phone, and internet connections, many of which are serviced by the same fibers. (See also **FO**)



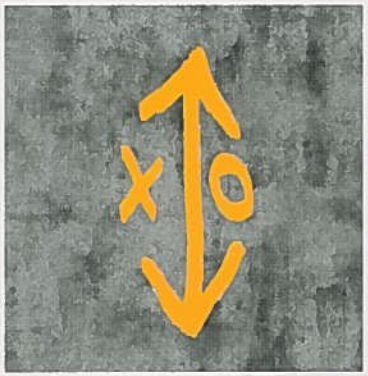
TRANSIT WIRELESS

Transit Wireless is the contractor building out a fiber-optic network for the MTA's subway platforms. See more in **Subway Wireless Networks**.

WINDSTREAM COMMUNICATIONS

Windstream, a smaller telecommunications company based in Little Rock, AK, spun off its copper and fiber network into a real estate investment trust (REIT) in the summer of 2014. The REIT is a canny business choice: by placing their infrastructure assets into a tax-exempt entity, Windstream saves around

$650 million in transactions. This move took advantage of 2014 rule changes proposed by the IRS and the Treasury that expanded "eligible assets" for REITS to include cables, transmission devices, and pipelines. Presumably Windstream markings in lower Manhattan technically belong to this REIT.



XO COMMUNICATIONS

Like many network providers that built fiber-optic networks in the mid-1990s, XO entered bankruptcy in 2002. It emerged from bankruptcy in 2003 with well-known activist shareholder Carl Icahn as its majority shareholder and board chairman. Icahn orchestrated a massive 2008 refinancing of XO's debt (90% of which Icahn owns) and took the company private in 2011. XO's minority shareholders have accused Icahn of using XO's financial losses as tax benefits for other companies Icahn owns. A lawsuit brought in 2009 by these shareholders is ongoing.

Of Fiber and Finance:
AN ASIDE ON HIGH-FREQUENCY TRADING

The Financial District is a great place to look for fiber markings–they are everywhere. Finance has played a major role in shaping New York in many ways, including its communication networks, and it shows on the street.

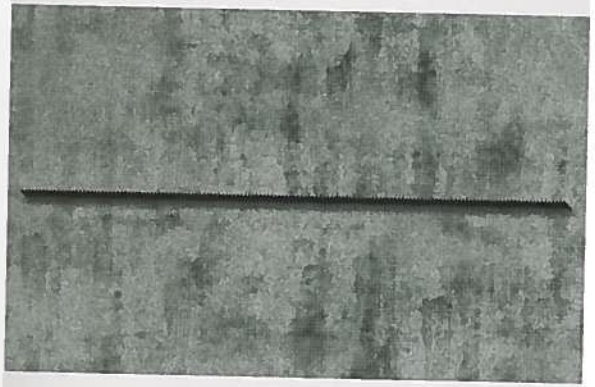
One major technical change to trading that rose to prominence around 2005 was **high frequency trading** (HFT). Broadly speaking, HFT uses complex algorithms to automate huge quantities of trades over very short periods of time, taking advantage of small differences in price across markets or between bidding and selling prices. These differences might be fractions of pennies, but by performing millions of trades at fractions of seconds HFT firms were able to make huge profits. In 2009, HFT accounted for 60% of all trades in U.S. stocks.

The pursuit of microsecond advantage led to a lot of excitement on Wall Street for *low latency*, a term used to describe length of delay in the network. Lower latency means less delay and faster trades. Beyond complex algorithms, traders turned to physical proximity for lower latency. Data centers that housed stock exchanges offered colocation services, placing trading firm's servers closer to the exchange servers to improve latency. Network companies promoted ultra low-latency networks, leasing private fiber lines that offered slightly more efficient routes to banks. One company, Spread Networks, built an

entirely new fiber-optic network from Chicago to New York to be able to achieve (and charge hundreds of thousands for) a 3-millisecond advantage.

Just like its trades, HFT has changed rapidly over a short period of time—there have been retreats into private "dark pools" run by banks, and the efficiency of algorithms has reduced the very volatility those algorithms gamed. At the same time, low-latency fiber is being rejected in favor of wireless microwave networks (even slightly less than the speed of light in an FO cable isn't quite fast enough).

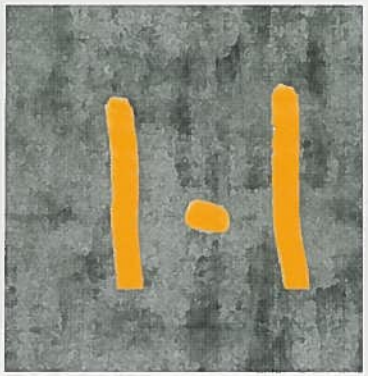
As the black boxes of finance become increasingly opaque, it's weirdly reassuring to be able to identify its limited physical traces.



MICROTRENCHING

Microtrenching is a technique for installing conduits into narrow "slot-cut" trenches in the ground. Currently the only fiber lines installed with microtrenching in New York are owned by Verizon, who received a franchise for a microtrenching pilot program in 2013.

Microtrenching involves less overhead and work to install than going deep into underground ducts, but it is less protected from the elements and only allows for adding a limited number of fiber strands. Signs of microtrenching on the street are basically scars: places where what look like narrow cuts have been made, and then repaired, on the street.



DUCT WIDTH MARKINGS

These markings, which might look like cave painting interpretations of tie fighters in *Star Wars*, are standard markings approved by the APWA for marking the width of below-ground ducts.

Manhole Covers

Manhole covers are a very literal point of entry into the city's underground world, and their designs indicate what part of that world they connect to. Here are some manhole covers that might help you identify pieces of the internet.

Empire City Subway

Empire City Subway was formed in 1891 to construct and maintain tubes for telegraph and telephone cables ("subway" referring to anything under the ground, not just transportation networks). ECS now leases space in those conduits to telecommunications companies. They own approximately 11,000 manholes and 58 million feet of conduit. The New York Telephone Company (also known as Bell Atlantic New York) was ECS' original primary shareholder, and the hexagonal pattern on ECS manhole covers can be seen in other cities with the Bell logo in the center rather than "ECS." Through the dark alchemy of mergers and acquisitions in the telecommunications industry, ECS is now a wholly owned subsidiary of Verizon.

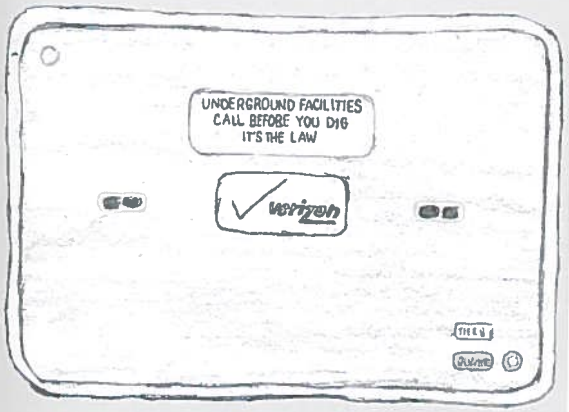
Level 3 Communications

Level 3 Communications began trading on NASDAQ in 1998 and received its franchise to build a fiber optic network in New York City in 1999. They are a major Tier 1 network, which means that their network has a direct connection to every other network online without paying fees to do so. In 2012, Level 3 received a $411 million contract from the Department of Defense's Defense Information Systems Agency (DISA) to provide fiber cable and maintenance support to DoD networks. This is not necessarily a unique thing (Tier 1 networks do contracts with governments all the time), it is just something that is interesting to know.

In 2010, an audit from the city comptroller office determined that Level 3 had underreported its revenue to the city for a number of years. The report called on the company to pay back $543,000 in fees and interest. In 2012, Level 3 board member Rahul Merchant was named commissioner of DoITT and the city's first Citywide Chief Information and Innovation Officer. It is unclear how or if the Level 3 fees issue was resolved at this time, although Merchant is no longer on the Level 3 board.

Time Warner Cable

Time Warner Cable as the internet/television/ phone services company we know it began its existence in 1992. They launched one of the first high speed cable internet services in 1996 before separating from its parent company, Time Warner, in 2009. Time Warner Cable's franchise agreement with the city of New York dates back to 1997, so presumably these manhole covers appeared sometime between 1997 and now.



Handholes

Handholes are structures set below ground that protect telecommunications cables, providing convenient access for splicing or pulling cable. While it's not easy to tell just by looking at these boxes if a particular handhole, or pull box is exclusively dedicated to internet connectivity, since a lot of telecommunications infrastructure ends up bundled together, one might be able to assume *some* of its application is internet-related.

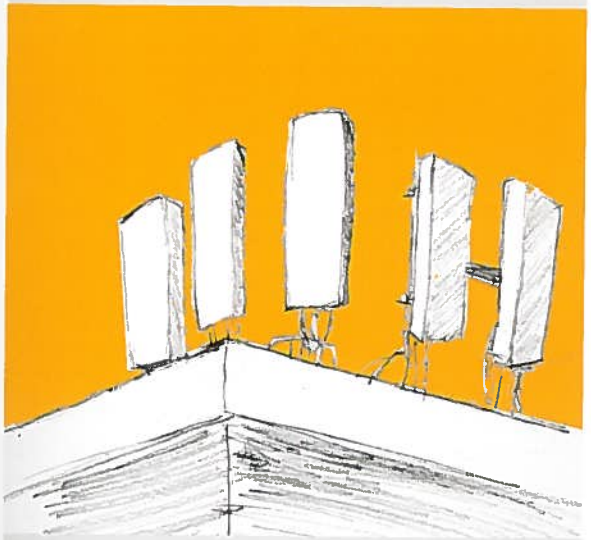
Onward and Upward:
Things on the Street

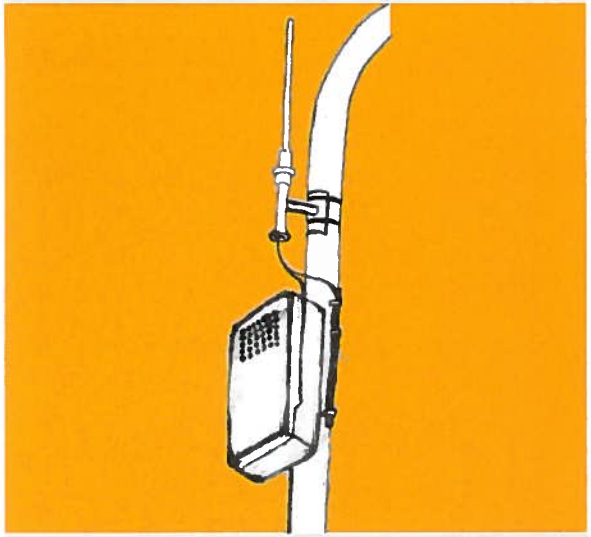
Tracking things on the ground can sometimes be tricky–markings and manhole covers get worn down and faded, they're sometimes in the middle of the road, and it's easy to bump into things when looking down all the time. Here are some other objects that indicate pieces of the network that usually don't lead to walking into poles.

Cell Towers

Increasingly when out and about in the world, people connect to the internet through wireless networks. Seeing the internet while on the street, for many, just means using a smartphone.

Those phones connect to networks via cell towers. Generally, these are pretty hard to see from the street–they're mostly on tops of buildings. They're also often disguised, although their New York disguises (bricks on buildings) are pretty simple compared to cell tower disguises in other places (trees, church crosses, cacti).





Distributed Antenna Systems

A Distributed Antenna System (DAS) is basically a way to expand a cell network's reach, adding capacity in under-covered areas. They're a little easier to find on the street because they're not on top of buildings–they're attached to street poles and linked to underground fiber-optic networks. If you ever see an orange cable marking going into a street pole, look up. You'll probably see a DAS. There are 7 companies with franchise agreements to maintain Distributed Antenna Systems in New York; however, 3 of those companies appear to belong to one company (Crown Castle) and 2 appear to be subsidiaries of the same company (ExteNet Systems).

Traffic Signal Controllers

When they were first introduced in the 1950s, traffic signals operated electromechanically, using simple timers that changed traffic lights at fixed intervals. Over time, these systems became computerized and networked. The dark green signal control boxes attached to traffic signal posts in New York are just one piece of a massive system of networked objects in the city's traffic signal system. The system, designed by the North Carolina-bases company TransCore, combines data collected by real-time traffic cameras, RFID scanners, and other field sensors to create traffic signal times that adapt to the immediate conditions of traffic. Each signal control box contains wireless routing equipment and

traffic controllers that connect back to a fiber hub. The little green dome on top of the signal control is actually a powerful wireless router used for communicating with the other sensors in the traffic network and the city's Traffic Management Center in Long Island City.

This system relies heavily on NYCWiN, the city-wide broadband wireless network project initially created for emergency first responders. Construction of the network began in 2006 under a $500 million contract with defense contractor Northrop Grumman ($20 million of which came from a DHS grant). The network became operational in 2009. Many regarded the project as a failure given its limited use (primarily by the Department of Transportation and the Department of Environmental Protection rather than law enforcement) and exorbitant cost (around $40 million annually just to maintain). The city tried to sell the network back to Northrop Grumman in 2011, but the contractor didn't want it. Despite NYCWin's shortcomings supporting law enforcement, their use in the city's traffic systems has made it fantastically easy to share traffic data with law enforcement rapidly and seamlessly.

In March 2015, the city of New York issued a request for proposals from companies to buy the network and sell services back to the city. The proposal specifically sought recommendations or proposals for using the network to expand high-speed internet access to New York residents. It's unclear how this sale of the network will affect traffic control systems.

Subway Wireless Networks

In 2007, the Metropolitan Transit Authority (MTA) began working with contractor Transit Wireless on building out a fiber-optic network to support wireless and wifi access on subway platforms. The system works similarly to a DAS–signals from wireless carrier base stations are converted by Transit Wireless into optical signals, which are sent to radio frequency (RF) nodes in individual stations. The RF node then distributes that signal to antennae in the station. The pilot program began trials in 2011. As of summer 2014, 47 of the city's 278 stations had wifi access.

MTA Networks and Security

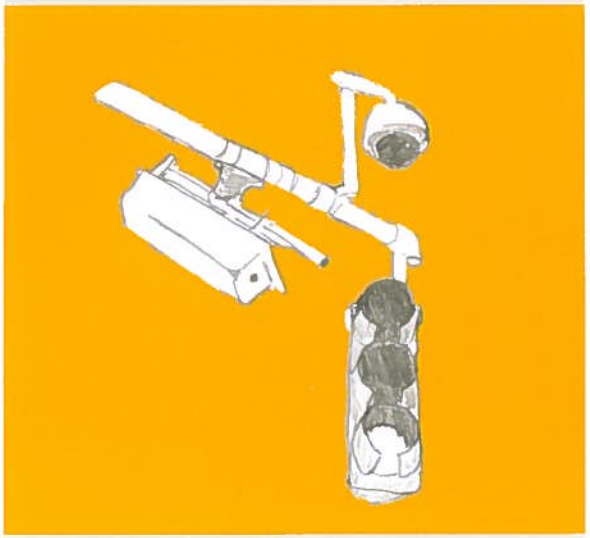
Following 9/11, security became a major priority for city agencies, and the MTA was no exception. Its 2000-2004 budget allocated $591 million for security projects, and in 2005 the agency issued a $212 million contract to defense company Lockheed Martin to provide a state-of-the-art security system for the agency. The system was to include 3,000 networked cameras and a network of sensors to identify suspicious packages or objects.

However, some of Lockheed's high-tech promises proved to be vaporware, and the contractor found working within the bureaucracies of the MTA so onerous that they sued in 2009 to get out of their contract with the city. The MTA filed a countersuit shortly thereafter.

The MTA-Lockheed lawsuit couldn't have come at a worse time in the agency's history–by 2010, the MTA's finances were in such disarray that the agency ultimately had to cut service and institute its now-biannual fare increases. A 2010 article about the lawsuit noted that the $3.6 million the MTA had already spent in litigation was equivalent to the cost of 10 of the bus lines the agency planned to cut. The lawsuit remains in litigation as of this writing. New contractors continue to work on the electronic surveillance network, but it currently remains unfinished.

Cameras

Admittedly, much of this guide has focused on seeing internet-connected networks in the field–networks that, for the most part, the reader has access to. But the city is also full of networked objects that, while often serving a public interest, aren't connected to public networks. These sensors vary from monitoring vehicular traffic to recording water usage. Surveillance cameras are perhaps one of the more noticeable–and contested–forms of networked objects in public space. The public "connects" to surveillance networks all the time, albeit involuntarily, and this section offers a view into who controls some of the ubiquitous networks.



Traffic Cameras

Many intersections in New York City have a horizontally polarized panel antenna (the device on the left in the illustration above). These devices broadcast and receive radio signals. In this context, they're used to read radio frequency identification (RFID) devices embedded in EZ-Pass devices. Technically EZ-Pass is used for toll collection, but these and other sensor devices collect data from RFIDs for traffic monitoring purposes.

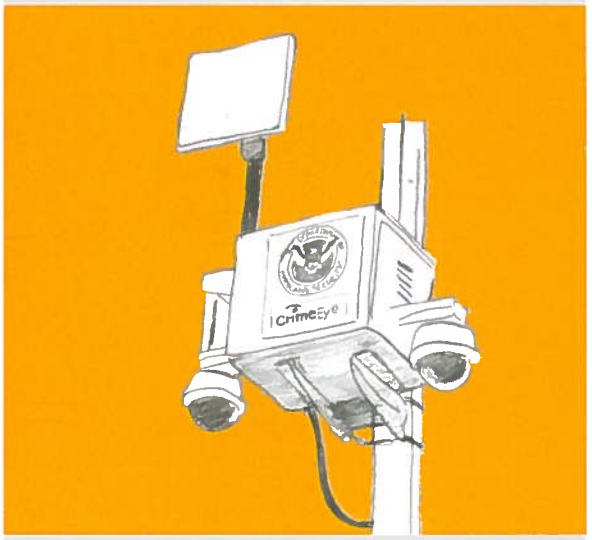
The city Department of Transportation (DOT) and the Metropolitan Transit Authority (MTA) operate traffic cameras at, respectively, 723 intersections and 20 bridge and tunnel entrances. The DOT cameras have video streams that can be viewed at nyctmc.org.

MTA Cameras

It's unclear exactly when the MTA began installing closed-circuit television cameras on some subway platforms, but their efforts to expand that camera network ramped up dramatically after September 11, 2001. The MTA has 4,313 cameras operating throughout the transit system, with 1,576 cameras on city buses. Data collected by cameras apparently feeds back to MTA Rail Control Center, located on 54th Street between 8th and 9th Avenue in Manhattan. (For more on the MTA and its networks, see **MTA Networks and Security**.)

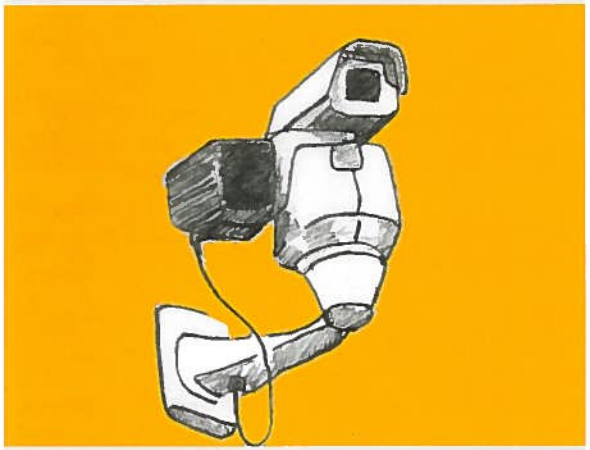
NYPD Cameras

The New York City Police Department has a few thousand labeled surveillance cameras in their Argus program. I don't have an exact number. They wouldn't tell me when I filed a Freedom of Information request because having a list of all the camera locations would encourage crime. As this is not a field guide to the labyrinth of insanity that is NYPD's FOIL policies, perhaps we should not discuss the matter further. The cameras themselves appear to be networked to each other via wireless bridges. Most of them have identification numbers printed on them, but some don't.



CrimeEye Cameras

These are visible mainly around lower Manhattan, and pretty much only around federal buildings. They appear to belong to the Department of Homeland Security, and are manufactured by a company named Total Recall Corporation. (Not even joking.) Total Recall lists features of Crime Eye on its website, including their use of ethernet bridges, integrated thermal imaging, and something called "passive infrared detection."



Private Cameras

Most private cameras connect to a larger network for a single building's security system. Some (at least 2,000) feed into the NYPD's Domain Awareness System (see aside on the DAS). It's hard to tell just by seeing a camera in or on a building.

The Domain Awareness System

Not to be confused with Distributed Antenna Systems, the Domain Awareness System (DAS) is the city's massive counterterrorism apparatus built in 2012 in collaboration with Microsoft. The DAS allows police to connect content from camera feeds with arrest records, 911 calls and license plate recognition technology. Under the terms arranged with Microsoft, New York receives a 30% cut of any sales Microsoft makes of DAS software to other cities.

The DAS began as the Lower Manhattan Security Initiative, a post-9/11 effort to secure the Financial District with a massive network of high-tech cameras, similar to London's "Ring of Steel." Initially funded with $10 million from the Department of Homeland Security and $15 million from the city, the LMSI expanded to Midtown in 2009 (with costs cited somewhere around $201 million, of which approximately 90% came from DHS). Estimates for the costs of the Microsoft partnership, built in 2012, range between $30 and $40 million. A number of the system's cameras belong to private "stakeholders" including the Federal Reserve, Goldman Sachs, and Pfizer Corp, who have access to the DAS headquarters at 55 Broadway.

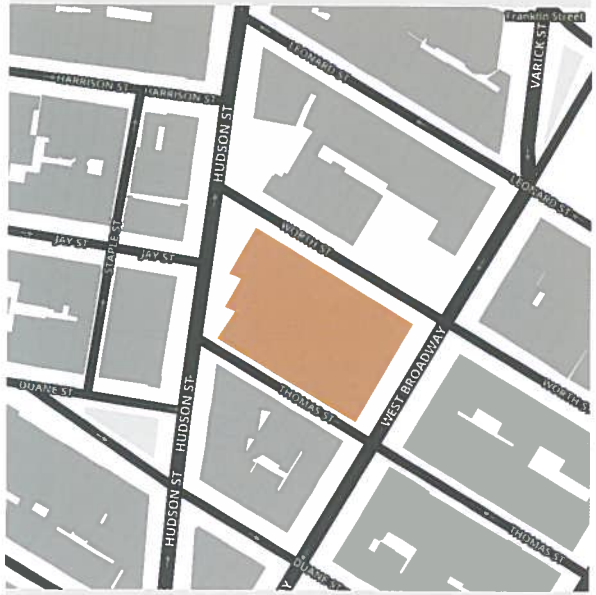
More publicly identified as One Exchange Place, the DAS' location isn't especially a secret–it's appeared in news reports, there's documentation of the Planning Commission vote to approve renting the space in 2008, and there's an NYPD camera installed on the building, under which an officer stands most of the time. At the front desk of the building, there's a note taped next to the phones noting that "LMSI" is on the 28th floor and has two phone numbers that frankly, you probably don't actually want to call.

In Andrew Blum's *Tubes*, the author goes along on a job to install an underground cable into 55 Broadway, connecting "a single customer with (it seemed) heavy-duty data needs" to Lightower's network. It's of course entirely possible that the fiber was for fellow 55 Broadway tenants like news organization ProPublica or the Cancer Research Institute, but it seems pretty likely that a command center for a massive, city-wide surveillance network has its fair share of fiber needs.

Sightseeing Suggestions

There are a few well-known locations that people tend to go to when they want to "see the internet" in New York. Of course, there are plenty of not-so-famous buildings in Manhattan that store lots of data and connect networks to each other. Identifying these buildings when looking on the street is not always easy, but aside from identifying street markings entering a building another telltale sign is to look for signs of ventilation and cooling systems. Alternatively, look for windows, or more accurately, the absence of them. (Note: on much larger buildings, in particular skyscrapers, vents also could just be a sign of a mechanical floor, the centralized space dedicated to maintaining utility needs for the entire building.)

New infrastructures have a tendency to inherit the homes of past infrastructures, and the internet is no exception. Many of the major internet exchanges and data centers of Manhattan are in buildings that used to be telegraph switches, telephone company headquarters, and other industrial spaces. While this is by no means an exhaustive list, these are a few interesting starting points from which you can start looking for cable markings, cameras, or other signs of internet infrastructure.



60 Hudson

From its inception, 60 Hudson has been a central point for connecting New York City to the rest of the world. Built in 1930 to be the headquarters for telegraph company Western Union (designed by architect Ralph Walker of the firm of Voorhees, Gmelin and Walker), the Deco building was home to some 70 million feet of cable (it has even more now). It has the largest concentration of connections to transatlantic cables on the East Coast.

For more on 60 Hudson and its place among carrier hotels, check out the short film *Bundled, Buried, and Behind Closed Doors* by Ben Mendelsohn and Alex Cholas-Wood at vimeo.com/30642376

111 Eighth Avenue

Built in 1932 to be a Port Authority warehouse/transport center and later Port Authority offices, 111 Eighth Avenue became a carrier hotel in 1998 when it was purchased by Taconic Investment Partners. In 2010, Google purchased the building for nearly $2 billion. While Google uses a majority of the building for its own office space, the carrier hotel remains, along with a number of ISPs, startups, and ground-level retail.

It is useful to know that Google's neighborhood footprint extends to the west, with office space in the nearby Chelsea Market (also home to the NYPD Intelligence Division) and 85 Tenth Avenue (home to the FBI's Joint Terrorism Task Force and a Level 3 Communications colocation center).

32 Avenue of the Americas

Similar to 60 Hudson and 111 Eighth Avenue, 32 Avenue of the Americas is yet another building whose old infrastructure has been appropriated by internet infrastructure. Built in 1932, 32 Avenue of the Americas was originally the AT&T Long Distance Building. In 1999 Rudin Management, a major New York real estate firm, purchased the building and turned into a carrier hotel. Designed by the same architecture firm that created 60 Hudson (Voorhees, Gmelin and Walker), 32 Avenue of the Americas is a similarly impressive Deco building. Highly recommend the mural in the lobby dedicated to the magic of telephony.

375 Pearl Street

Relatively younger and decidedly less Deco than other major connection points in Manhattan, 375 Pearl was build in 1975 as a switching station by the New York Telephone Company. Taconic Investment Partners (the same company that turned 111 Eighth Avenue into a carrier hotel) purchased the building in 2007, with grandiose plans to transform its much-derided windowless exterior and add new office space and condominiums. The economic collapse of 2008 pretty much killed that plan and 275 Pearl ended up being sold at a massive loss to Sabey Data Center Properties in 2011 (Verizon still uses some floors of the building). Sabey rechristened

the building Intergate Manhattan, describing it in publicity materials as "the world's tallest data center."

Like 111 Eighth Avenue, 375 Pearl is made more remarkable in part by what's around it, or more specifically what surrounds it: as its next-door neighbor is NYPD headquarters 1 Police Plaza, the building has police checkpoints on pretty much every side. For a more detailed history and context of 375 Pearl, check out Lance Wakeling's film *Views of a Former Verizon Building* online at privatecirculation.com.

Acknowledgments

Thanks to the following for their research insights, enthusiasm, and general support:

Andrew Blum
Allison Burtch
James Bridle
Kate Crawford
Clarisa Diaz
Robin Edgeton
Neil Freeman
Zak Greene
Sha Hwang
Erin Kissane
Sam Kronick
Kate Losse
Charlie Loyd
Jen Lowe
Tim Maly
Joanne McNeil
Robinson Meyer
Jonathan Minard
Mayo Nissen
Julian Oliver
Dave Riordan
Peter Richardson
Allen Tan

Conceived, written, and produced with the generous support of Eyebeam Art and Technology Center and Data and Society Research Institute. Printed by Oddi.

For more on this guide and network infrastructure in general, visit **seeingnetworks.in/nyc**.