

IS/GIS in the City of Hudson

2002-2013

STAFFING

2002 GIS Coordinator Hired

2004 IS Manager Hired

2008 IS-GIS Specialist Hired

NETWORK

2002 No Cohesive Network

- Combination of DSL, Point to Point Wireless
- **No Fiber**
- 4 domains

2012 Everything Connected

- 90% of City Department is connected by fiber with the exception of the Water Plant (Point to Point) and Cemetery (DSL)
- 1 consolidated domain

2013 and Beyond

- WIFI upgrade for Water Plant
- Cloud Computing
- VOIP Phones, teleconference
- Fiber Mgt.
- Voice recognition
- 3D technology

DEVICES

2002 Pre-Smart Phone Age

- 75 PCs
- 5 Laptops
- 5 Servers
- 1 firewall
- 7 unmanaged switches
- 1 GPS Receiver

2012 Always Connected

- 170 PCs
- 50 Laptops and Tablets
- 14 Servers (8 physical / 7 virtual)
- 18 iPads
- 40-50 smart phones
- 2 firewalls
- 20 managed switches
- 15 wireless access points
- 3 GPS Receivers

2013 In the Cloud

- 150 + IP phones
- New SAN for VM,HA,DR
- New GPS Receivers
- Windows 8 Tablets
- IP Cameras
 - (Schools)
 - (Barlow)
 - (Ellsworth)

SOFTWARE

2002 Unmanaged

- SQL Server – 1 database
- 0 Web servers
- 0 Web applications
- Exchange – 75 email accounts
- No email archiving
- VMWare – 0 Virtual Servers
- No Backup Software
- No Web/SPAM Filtering Software
- Cartegraph Work Order Management system
- Paper-based time tracking
- Paper-based purchasing system
- 1 ArcView ESRI GIS License
- 1 Stand-alone CAD License
- No Police CAD (Computer Aided Dispatch)

2012 Managed

- 2 SQL Servers – 42 databases
- 3 Web servers
- 32 web applications
- Exchange – 200+ email accounts
- Offsite email archiving (Cloud)
- 7 Physical Servers
- VMWare – 7 Virtual Servers
- Full Tape Backup system
- Web/SPAM Filtering Software
- Cityworks & Cartegraph Work Order Management system
- DOVICO time tracking software
- Paperless Online purchasing system
- ESRI ELA w/ unlimited Licenses
- 3 Server based CAD licenses
- Fully faceted Police CAD system including MDT (mobile data terminals)

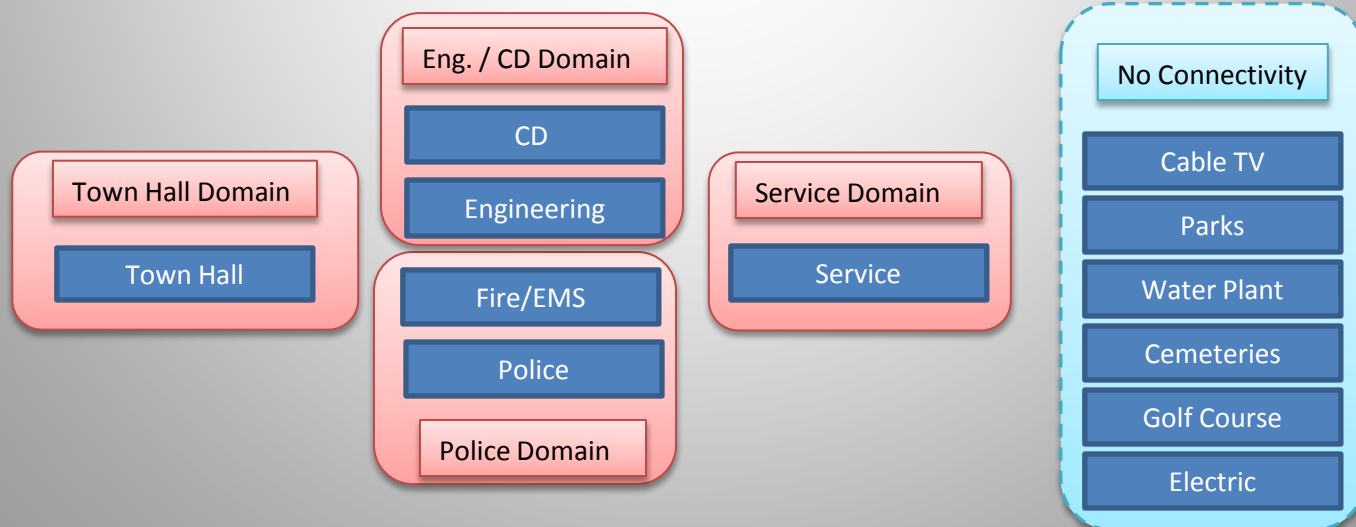
2013 and beyond

- SQL Upgrades to 2008R2/2012
- Microsoft Lync
- SharePoint 2010
- Exchange 2010 – 200+ email accounts
- Windows 8
- VMWare – 90% of servers will be virtual
- Full Digital Backup system
- Cityworks city-wide integration
- SSI Online Payroll
- HTML5 / Mobile application migration
- HR Software

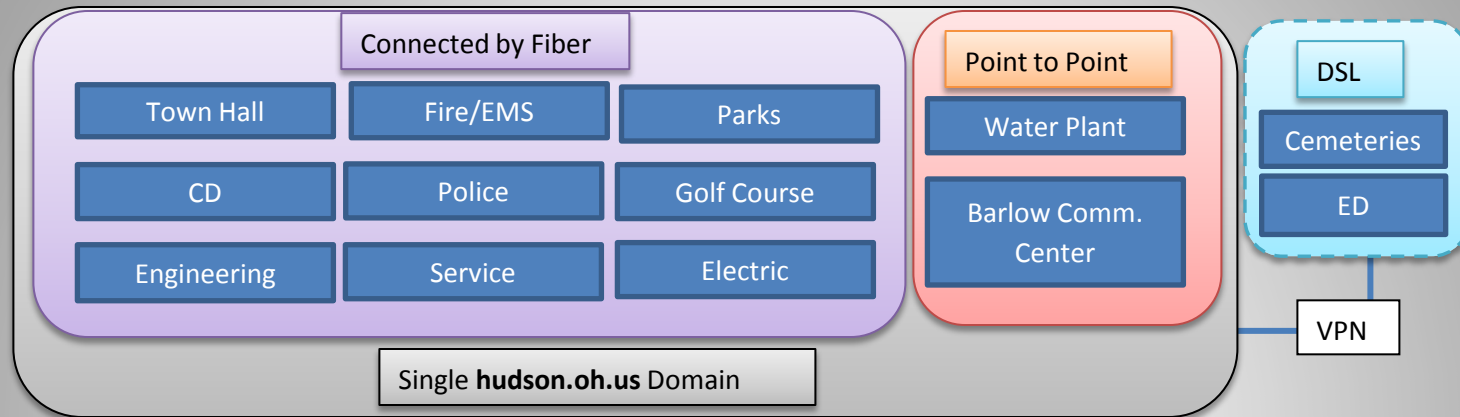
Network

During the course of the last 10 years, the City's computer network has continued to evolve into a network that provides a stable, reliable backbone to support the City's staff and operations. With the number of users and devices gradually expanding over the last 10 years, the network needed to be modified and adjusted to accommodate these changes. This section describes how the City's network has changed over the years and some of the changes we plan to implement in the near-future.

2002 No COHESIVE NETWORK

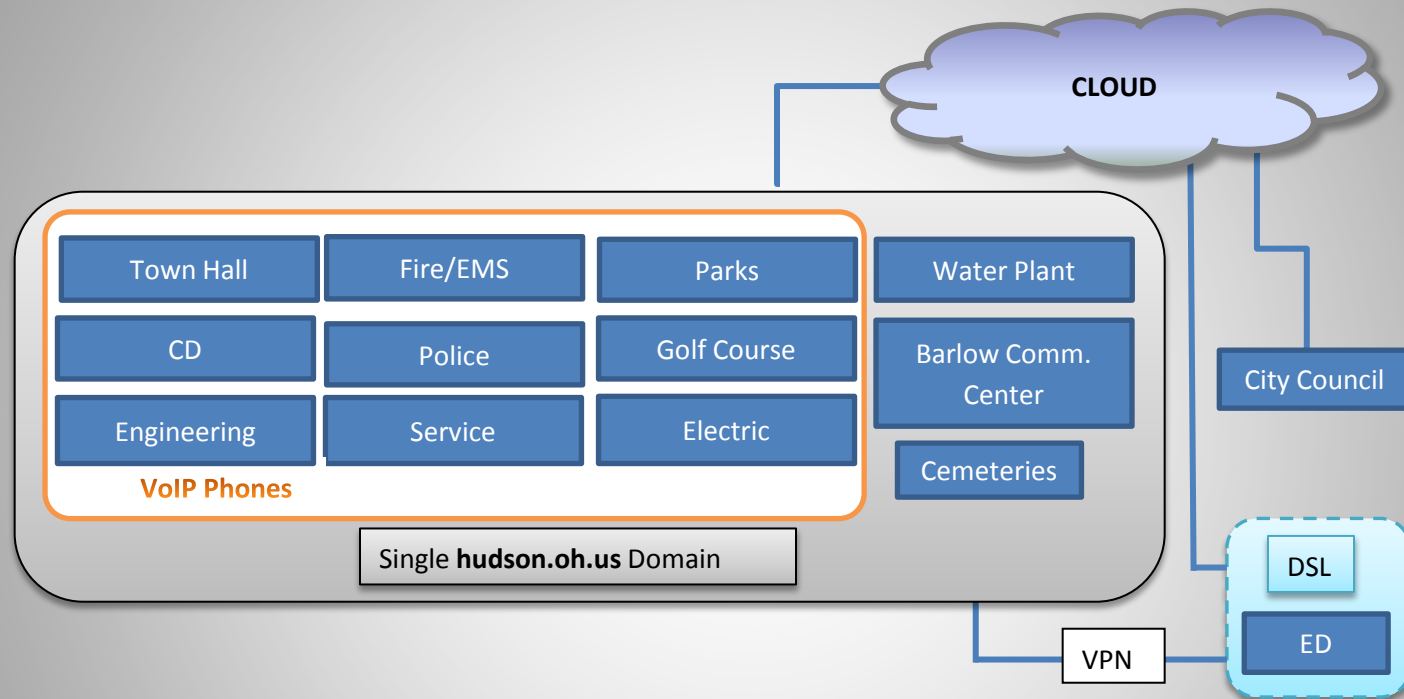


2012 Everything Connected



In 2012, the City's network is consolidated into a single domain allowing 95% of the City's users to be physically connected to the same Active Directory network. All network security, email and access is centrally managed and all major City departments are physically connected by fiber optic cable—providing users with the highest network connection speeds possible

2013 More Connectivity

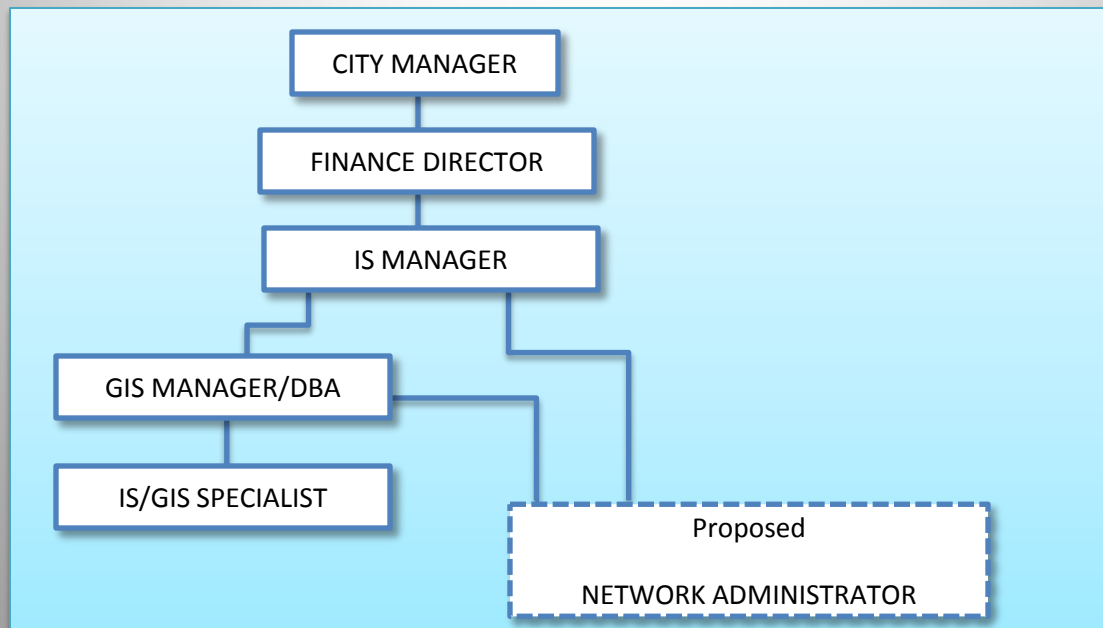


Although all City departments are physically connected, network demands continue to grow with the shift of a more mobile work-place. City staff now utilize devices such as smart phones, iPads and laptops in addition to their PCs. This adds considerable complexity to the City's network by vastly increasing the number of devices/nodes on the network. Mobile devices also bring the cloud into the equation, providing users a scenario when they can always be connected, regardless of their location.

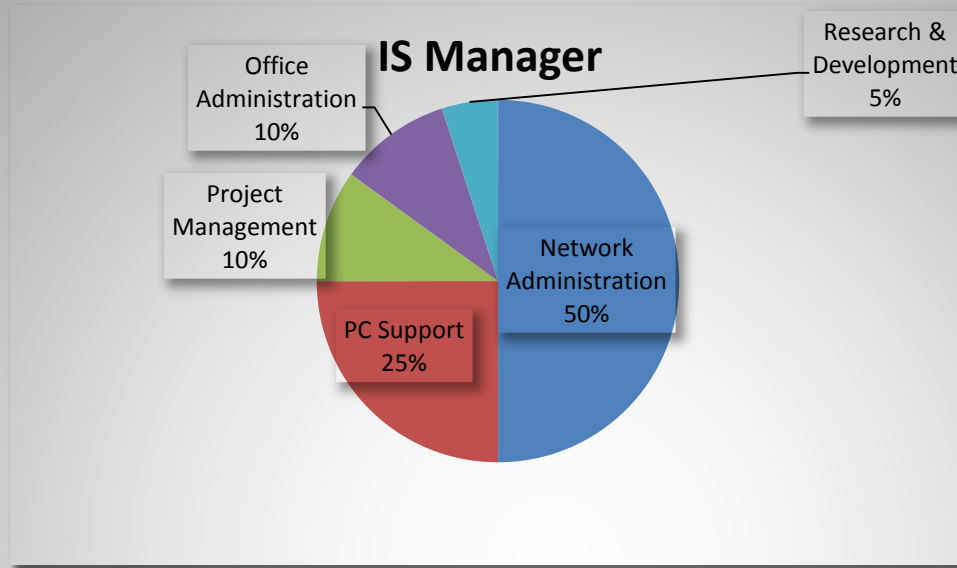
Staffing

The IS/GIS Department began officially as a Department in 2004 with the hiring of the IS Manager (Bill Hilbish). At this time, the existing GIS Coordinator (Paul Leedham) teamed with the IS Manager to form this department. The department was situated as a subsidiary department beneath the Finance department.

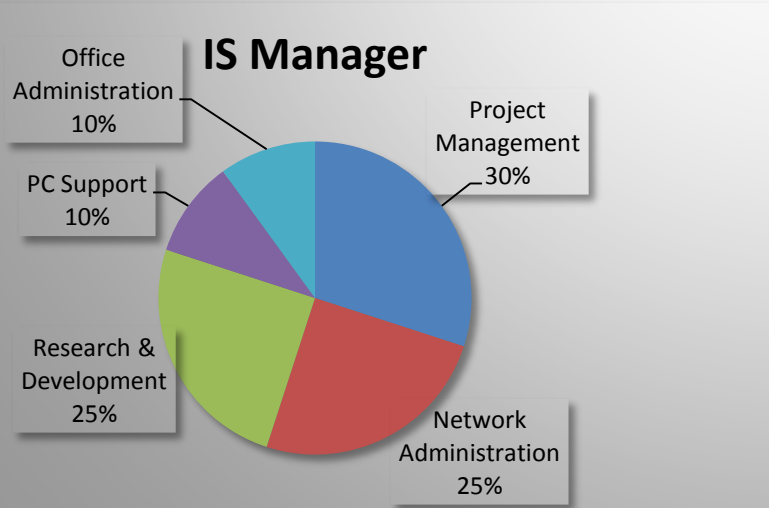
Moore's Law: Technology doubles every 18 to 24 months.



Proposed: Network Administrator



Why does Hudson need a Network Administrator



Network Administrator

