

# MAGNUM SWITCHES SELECTED FOR MINNEAPOLIS SCOOT TRAFFIC MANAGEMENT SYSTEM

## A Transportation Application

### ABOUT THE MN SCOOT TRAFFIC MANAGEMENT SYSTEM

As traffic delays in urban areas are increasing, and the money necessary for new and expanded roads not always immediately available, local governments are seeking out additional ways to better manage traffic flow. Oftentimes, these local governments turn to advanced traffic control systems and IP networking products to make travel safer and more efficient.

SCOOT (Split Cycle Offset Optimization Technique) is a tool for managing and controlling traffic signals in urban areas. It is an adaptive system that responds automatically to fluctuations in traffic flow through the use of on-street detectors embedded in the road. The City of Minneapolis is one city that recently selected this system as part of an upgrade to their traffic management system.

### THE CHALLENGE

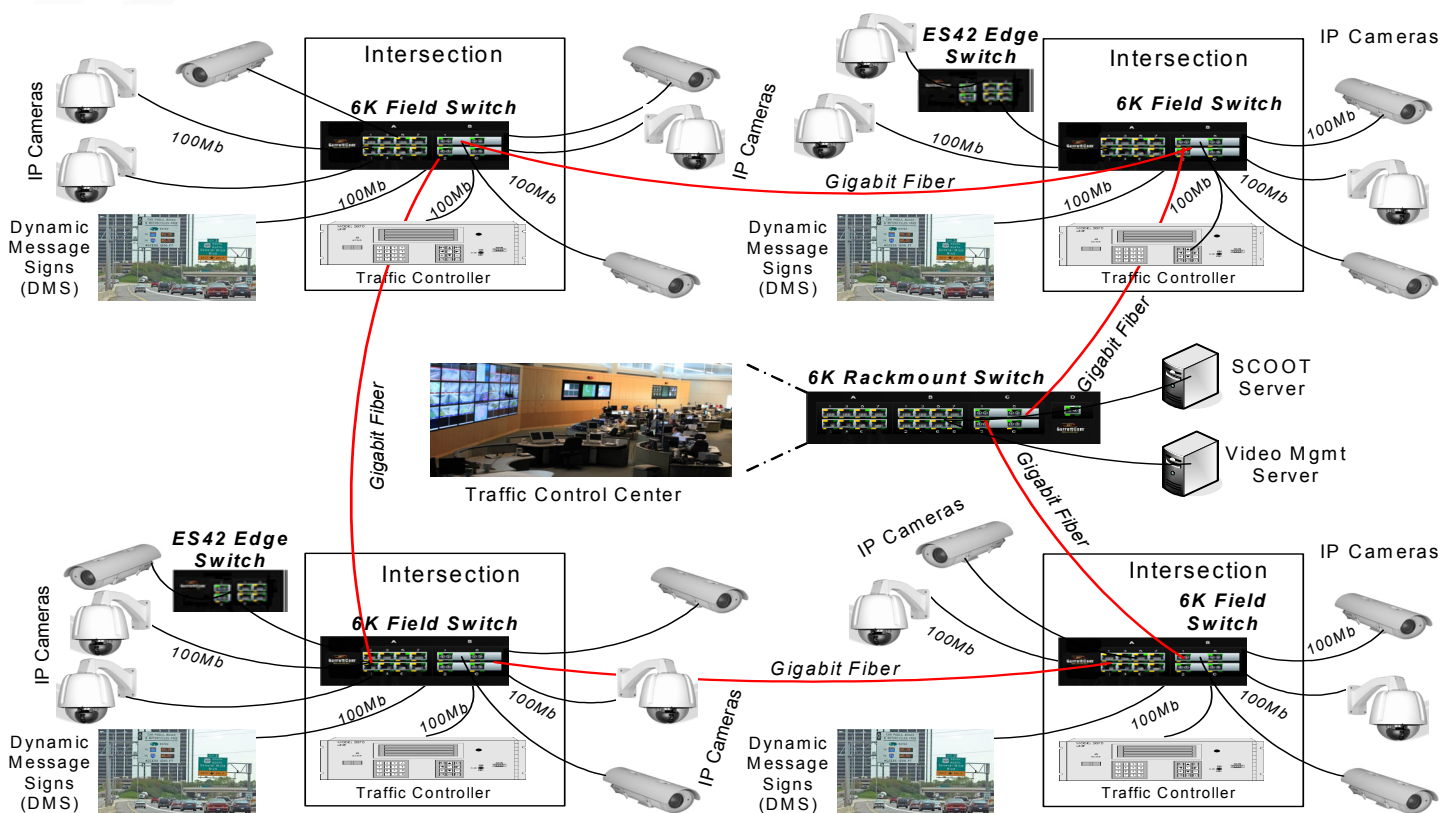
Perhaps, the main driver for the new traffic management system was the Interstate 35W highway bridge collapse that killed 13 and injured 145 people. The university corridor

adjacent to the area where the bridge collapsed was experiencing a surge in traffic, and the city wanted a system to better manage traffic flow using less manpower. The City of Minneapolis Public Works chose Brown Traffic Products to develop their new management system. To accommodate the increased networking and bandwidth demands of both the SCOOT system and implementation of new video cameras, Brown Traffic began the work of developing a more robust traffic control network.

### THE SOLUTION

As part of the new network, existing conduit runs were used to install a new fiber backbone system. The SCOOT system has a one second poll for each device on the network being managed which leads to very frequent two way communication across the network. Fiber was chosen as the medium because of the need for a reliable high availability network infrastructure. In addition to the SCOOT system, 22 pan tilt zoom cameras for video surveillance were also added along the intersections.

**Magnum Switches Network Minneapolis SCOOT Traffic Management System**



# MAGNUM SWITCHES SELECTED FOR MINNEAPOLIS SCOOT TRAFFIC MANAGEMENT SYSTEM

## THE SOLUTION (CONT.)

Brown Traffic selected the GarrettCom Magnum 6KQ Managed Field Switches for these intersections. Brown has installed many 6KQ Switches and is confident in their reliability and hardiness for outdoor locations. The 6KQ was also selected for its fiber configurability and easy fit into a traffic control box. For edge applications requiring hardened switches, Magnum ES42 Edge Switches were chosen. These 6K field switches and ES42 Edge Switches network both the SCOOT system as well as the new PTZ cameras and dynamic message signs at the Minneapolis intersections and roadside locations. Larger rackmount 6K Managed Switches Managed Switches were chosen for the Control Center.

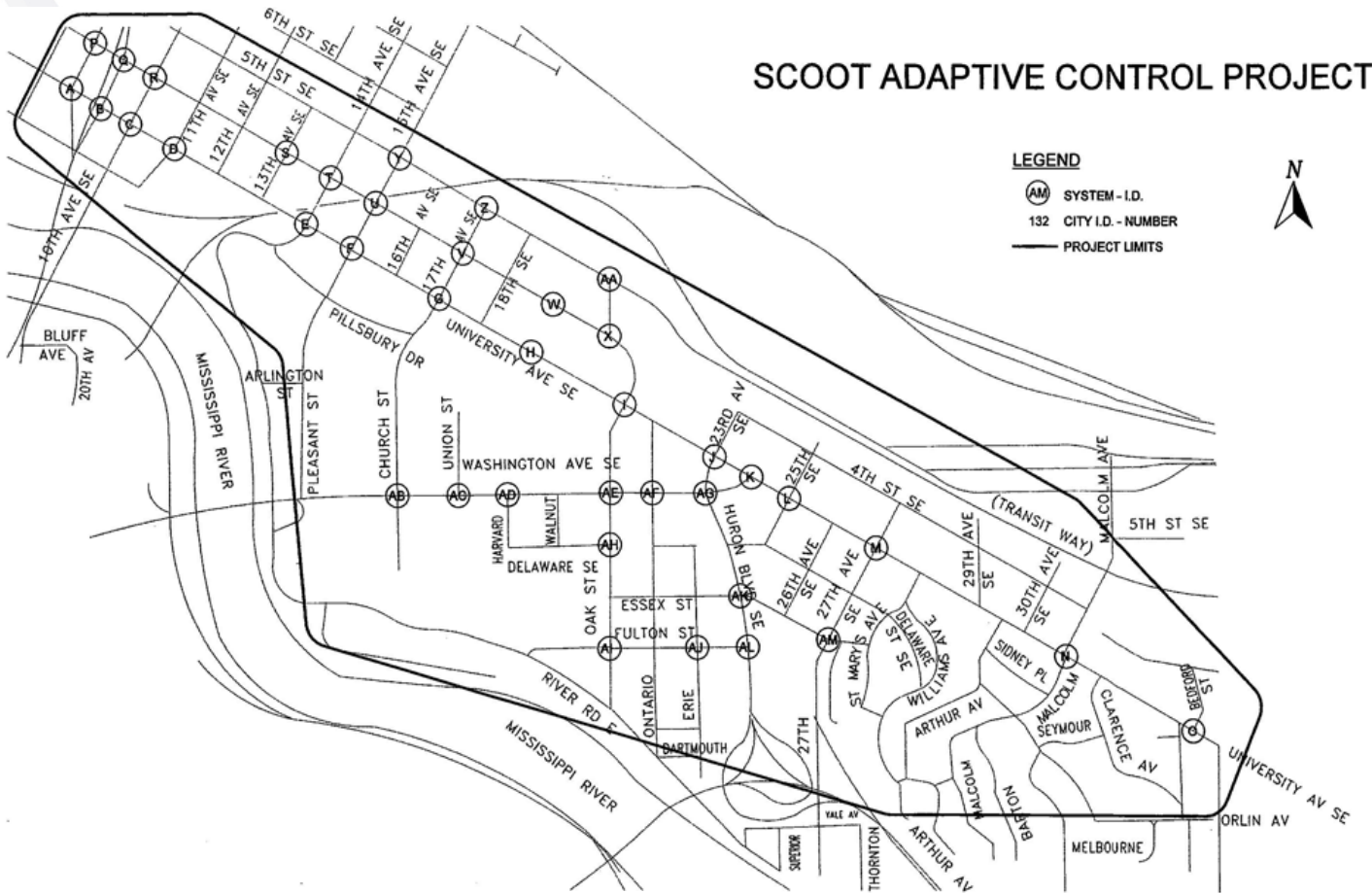
## ABOUT MAGNUM 6K SWITCHES

Magnum 6K Managed Ethernet Switches are highly configurable switches, providing modular slots for user selection of 100Mb, 10Mb, or Gigabit Ethernet fiber or

copper ports, and are hardened for use in harsh environments such as outdoor traffic control boxes. Power input choices include AC, 125VDC, -48VDC, and 24VDC as well as dual power supply options. Magnum 6K switches have all of the necessary agency approvals and compliance including NEMA TS-2 and TEES for traffic control equipment.

## ABOUT GARRETTCOM

GarrettCom, Inc. is the leading manufacturer of industrial networking products. GarrettCom offers a comprehensive line of hardened industrial Ethernet switches, routers, converters, and serial products for use in traffic control, video surveillance, industrial, and automation environments. The company's management software supports redundant rings and secure web-based access to local and remote networks. GarrettCom markets its products through a network of resellers, OEMs, system integrators, and distributors worldwide. For more information on GarrettCom and its products, visit [www.GarrettCom.com](http://www.GarrettCom.com).



## SCOOT ADAPTIVE CONTROL PROJECT

### LEGEND

- AM SYSTEM - I.D.
- 132 CITY I.D. - NUMBER
- PROJECT LIMITS



**GarrettCom**

A BELDEN BRAND

47823 Westinghouse Dr. • Fremont, CA 94539 • PH: (510)

438-9071 • FAX: (510) 438-9072

Email: [gcmktg@garrettcom.com](mailto:gcmktg@garrettcom.com) • Web: [www.GarrettCom.com](http://www.GarrettCom.com)