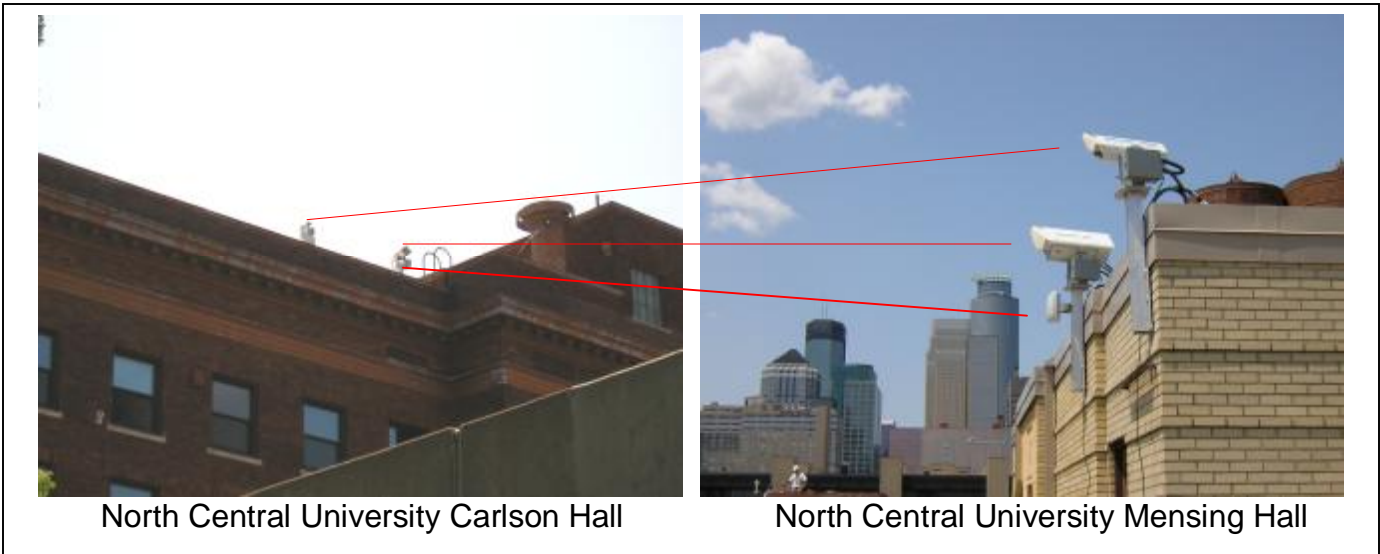




MRV Communications Dual FastE FSO Links for LAN Extension **CASE STUDY**



North Central University Carlson Hall

North Central University Mensing Hall

The Problem

- With the increased student enrollments North Central University in downtown Minneapolis needed to renovate and deploy additional student housing.
- High bandwidth connectivity was required for phones, data, Internet access, and security cameras.
- Telco rates were out of the question, and the only fiber path was blocked by the large HCMC medical building

The Solution

- System Support Solutions, Inc. of Orono, MN installed three links:
 - An MRV Communications TS3000 100Mbps 3-beam FSO link for data and voice (a pair of RAD T1 IP-Multiplexers were used to generate a T1 circuit for the PBX)
 - A Proxim 9Mbps 5.8GHz unlicensed RF backup link with failover on MRV OptiSwitch400's utilizing their special *lightning-fast* "un-balanced Etherchannel" to manage failover to RF
 - An MRV Communications TS1000X 100Mbps FSO link for the security camera requirement
- With the very short 400m distance between the sites and designed redundancy, performance will exceed that of Telco service with a payback of only several months, and free thereafter. Plus, the solution is secure, expandable (easy path to GigE when needed), and simple to manage (just looks like fiber runs to the network).

Application

Location: Downtown Minneapolis, MN	
Protocol: Fast Ethernet	Data Rate: 100 Mbps full duplex x two links (+9Mbps RF)
Distance: 400 meters	Mounting: Outside sidewall, masonry structures