U-ITS Intelligent Transportation (Korea Seoul Highway)

Case Introduction

In the past few years, intelligent transportation facilities have become more and more popular due to many improvements in the automated control of highway transportation devices and connectivity mechanisms. The need to adopt intelligent transportation facilities (such as highway digital display, vehicle flow counting sensor, IP cameras, roadside VoIP phone) are generally intended to provide increased highway driving safety, reduce traffic congestion and increase highway transportation efficiency through more user and environment-friendly transportation design. However, while setting up intelligent transportation devices along highway roads, there are several challenges that need to be overcome. For example, in order to offer reliable transmission, transmission links are required to be redundantly connected. Moreover, power redundancy is also essential to ensure increased reliable data transmission, especially in the environment where noise signals such as lightning strikes and ESD are abundant and temperature varies dramatically during day and night time. The Following is a list of challenges that need to be solved when setting up intelligent transportation facilities along highway roads.

Requirements and Challenges

- Reliable transmission including ring-type link redundancy and power redundancy
- Noise protection (such as lightning strike, ESD) for outdoor applications
- Withstand extreme weather changes such as cold weather in winter and scorching hot weather in summer
- High MTBF for long-term uses to reduce operational expenses
- Remote cable diagnostic detection to reduce maintenance costs

CTC Union Solutions and Benefits

SmartView™

- Centralized Device Management Platform
- Real-time visual representations and processing of alarms
- Easy and User-Friendly Operation Interface
- Long term event storage (1 year)

Industrial Serial Fiber Converter

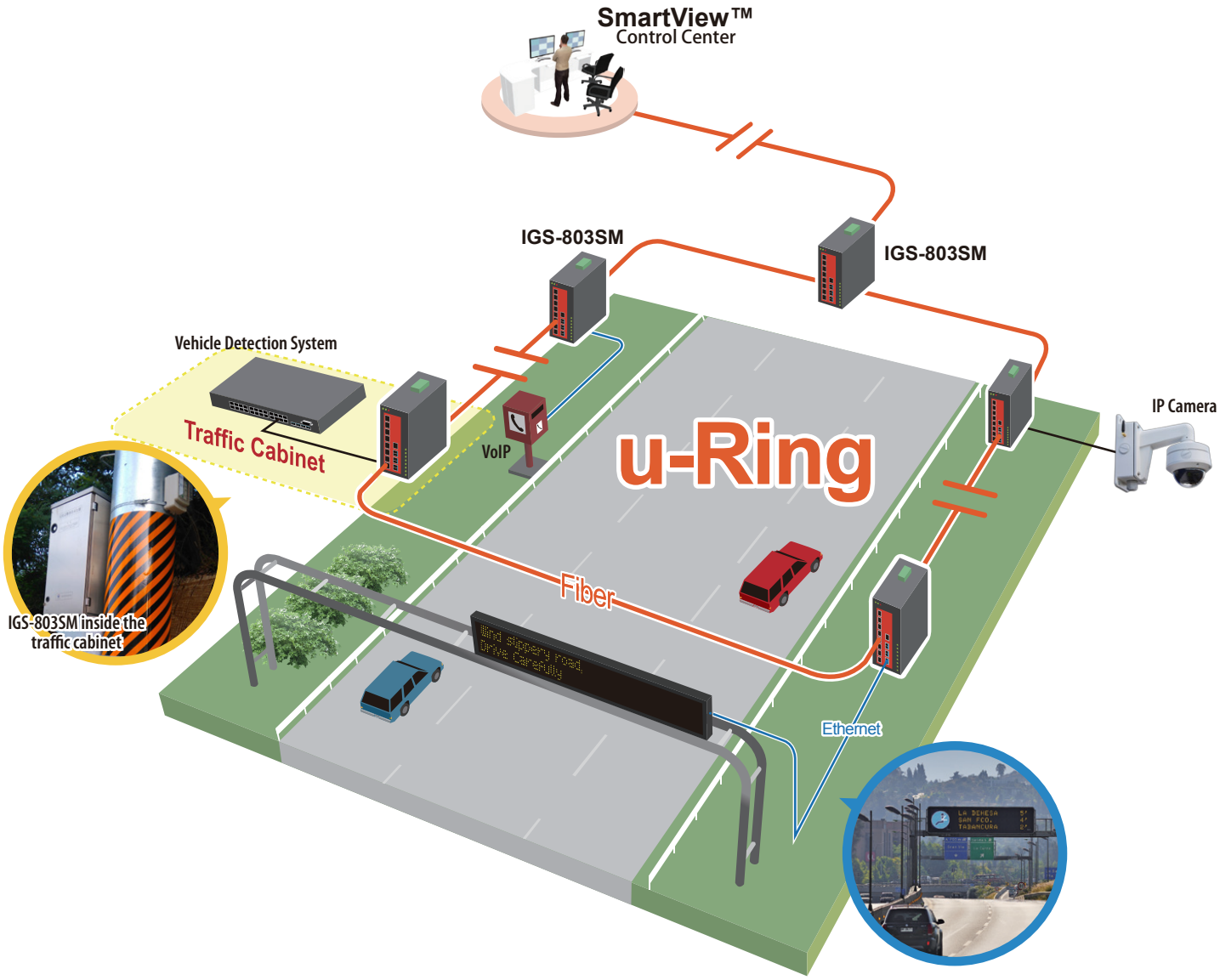
• IGS-803SM-E

- 8x 10/100Base-TX RJ-45 and 3 x 100/1000Base-X SFP Fiber
- UL60950-1, CE, FCC, Rail Traffic EN50121-4, Traffic control NEMA TS2, Industrial Grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified
- Supports SmartView for Centralized management
- u-Ring, STP, RSTP, MSTP, ITU-T G.8032 ERPS for redundant cabling
- Cable diagnostic
- Wide operating temperature -40 ~ 75°C ,suitable for outside cabinet in high temperature
- High MTBF 611,126Hours

About CTC Union

CTC Union, founded in 1993, is committed to developing, manufacturing and selling network communication products with particular focus on fiber optical technologies, Ethernet technologies and the integration of broadband access technologies. With leading-edge technology and high quality service as the driving force, CTC Union continues steady growth to become a top global equipment supplier of innovative last-mile access in the telecommunications market.

Topology



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