

INTRODUCTION

ICNS is a communication engineering company that develops innovative products for the life-safety industry and BMS (Building Management Systems).

ICNS products are designed to support a diverse range of protocols with a modular interface structure allowing for the rapid introduction of new protocols and emerging technologies.

A standardized ICNS protocol introduces a common data format for combining all customer equipment protocols into a single consolidated view for local and remote presentation.

This application note covers the following hosting scenarios:

- Locally hosted event repository and notification system
- Cloud hosted event repository and notification system
- Redundant and locally hosted notification via SMS
- IRIS100/200 Interface Topologies

ADVANTAGES

- Remotely access the status of an installation prior to visiting the site
- Generate weekly/monthly/yearly reports detailing system performance
- Review maintenance requirements prior to visiting the site
- Live remote monitoring of weekly Fire System Bell Tests
- Remotely identify unstable FAP networks
- Remotely view detailed information about the activation of a loop device
- Receive Fire Alarm Panel (FAP) event notifications via secure email or SMS
- Receive FAP event notifications via smartphone App
- Remotely monitor FAP power supply and battery failures
- High gain external WiFi

PRODUCTS

- CEVIEW Application
- IRIS100/200 Site Gateway
- ICN001-B



LOCALLY HOSTED EVENT REPOSITORY AND NOTIFICATION SYSTEM

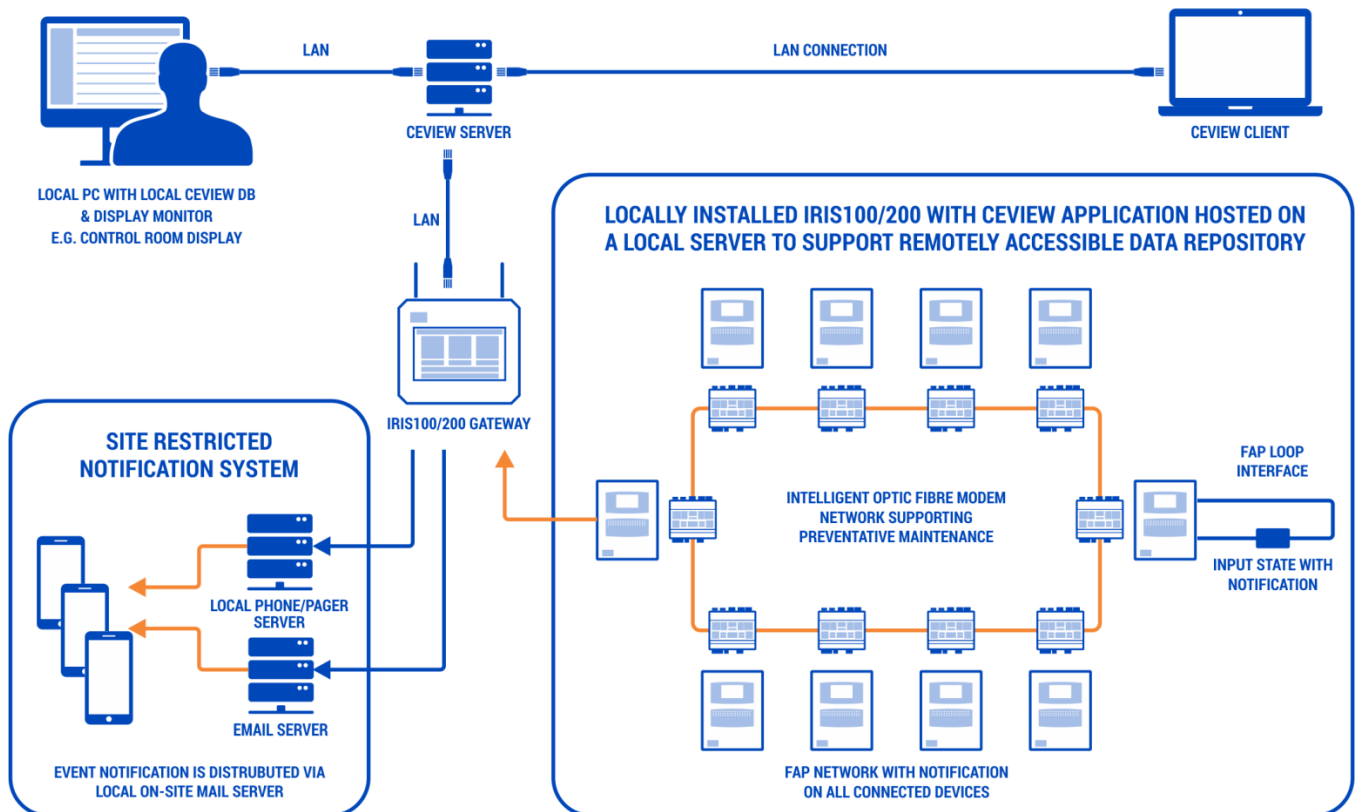


FIGURE 1: LOCALLY HOSTED EVENT REPOSITORY AND NOTIFICATION SYSTEM

CLOUD HOSTED EVENT REPOSITORY AND NOTIFICATION SYSTEM

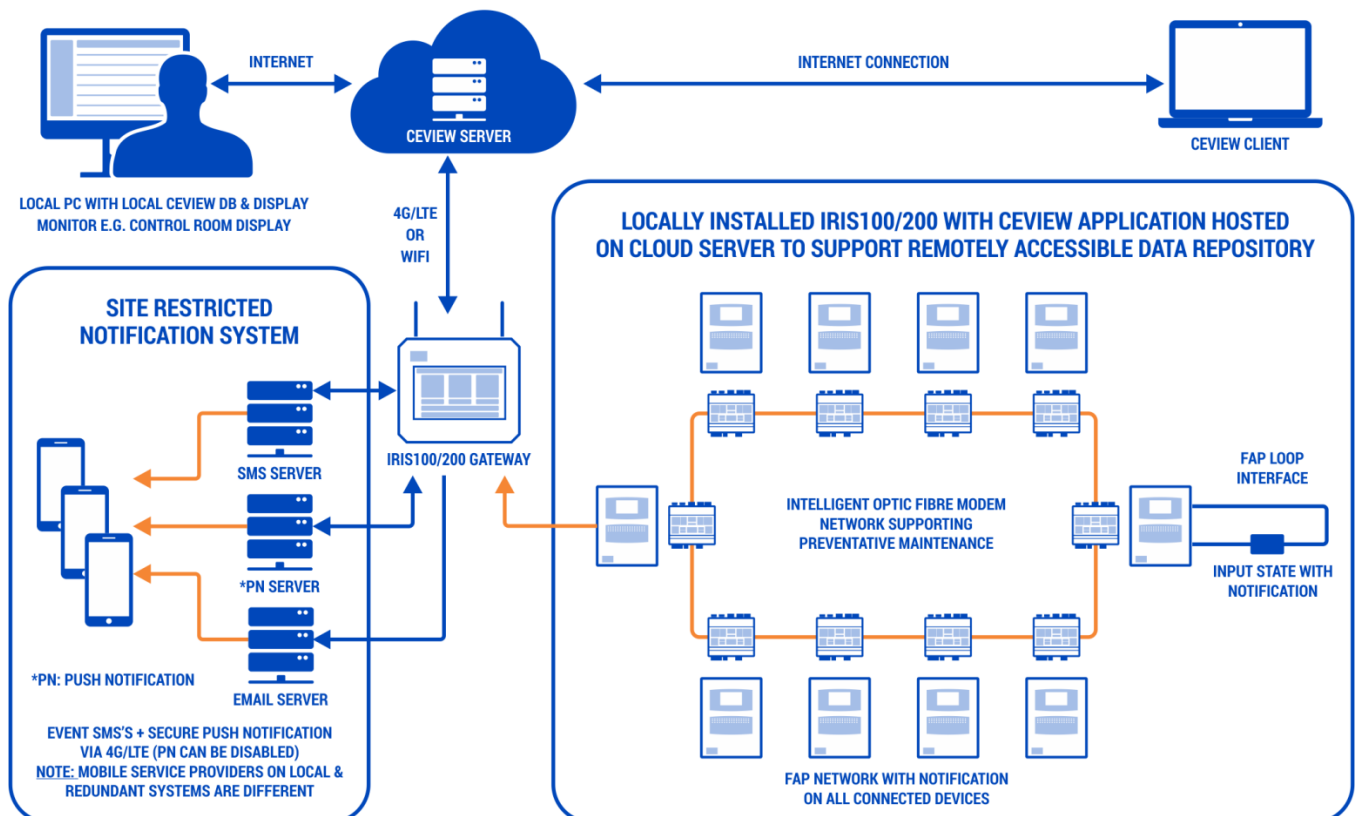


FIGURE 2: CLOUD HOSTED EVENT REPOSITORY AND NOTIFICATION SYSTEM

REDUNDANT AND LOCALLY HOSTED NOTIFICATION VIA SMS

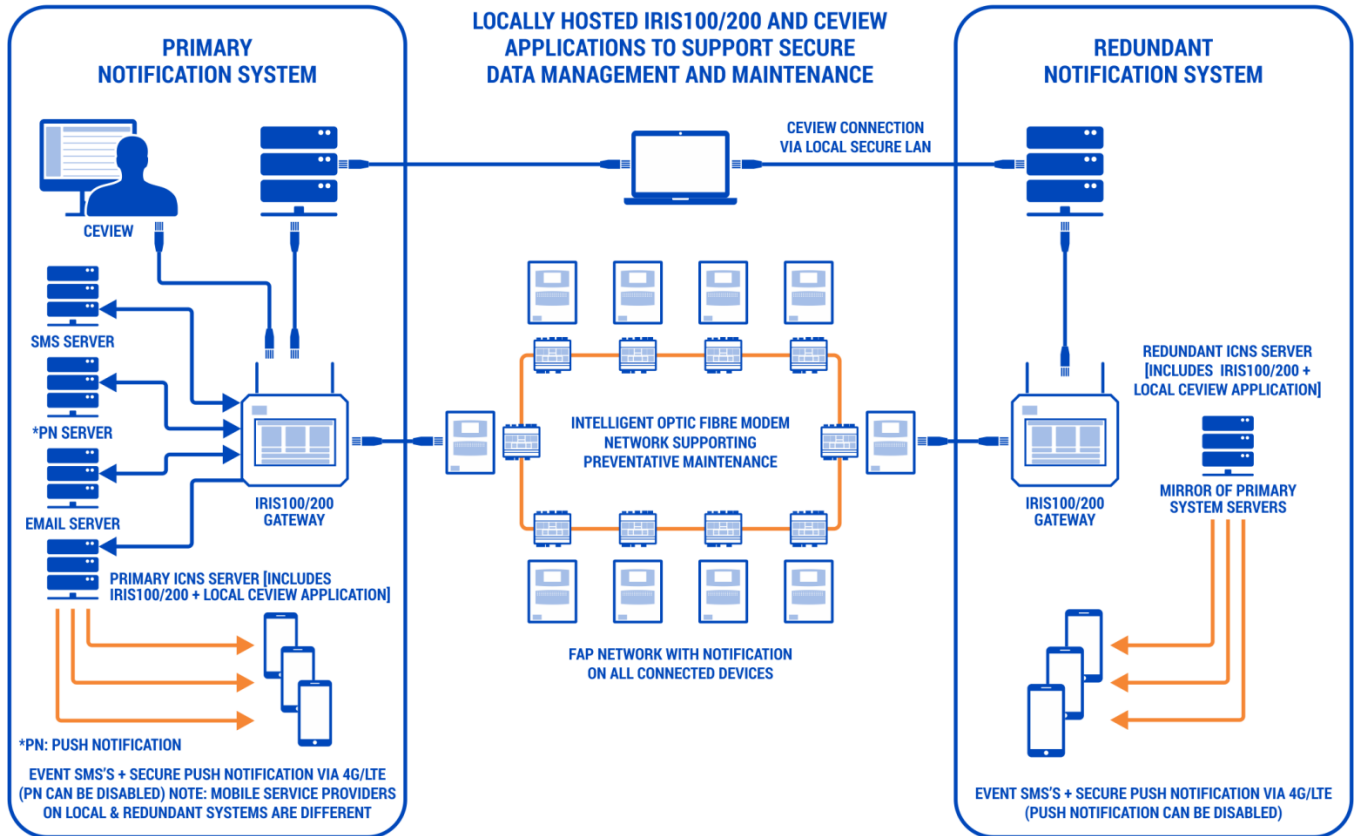


FIGURE 3: REDUNDANT AND LOCALLY HOSTED NOTIFICATION VIA SMS

IRIS100/200 INTERFACE TOPOLOGIES

LOCAL PC WITH INTERNET ACCESS TO
CEVIEW DB & DISPLAY MONITOR
E.G. CONTROL ROOM DISPLAY

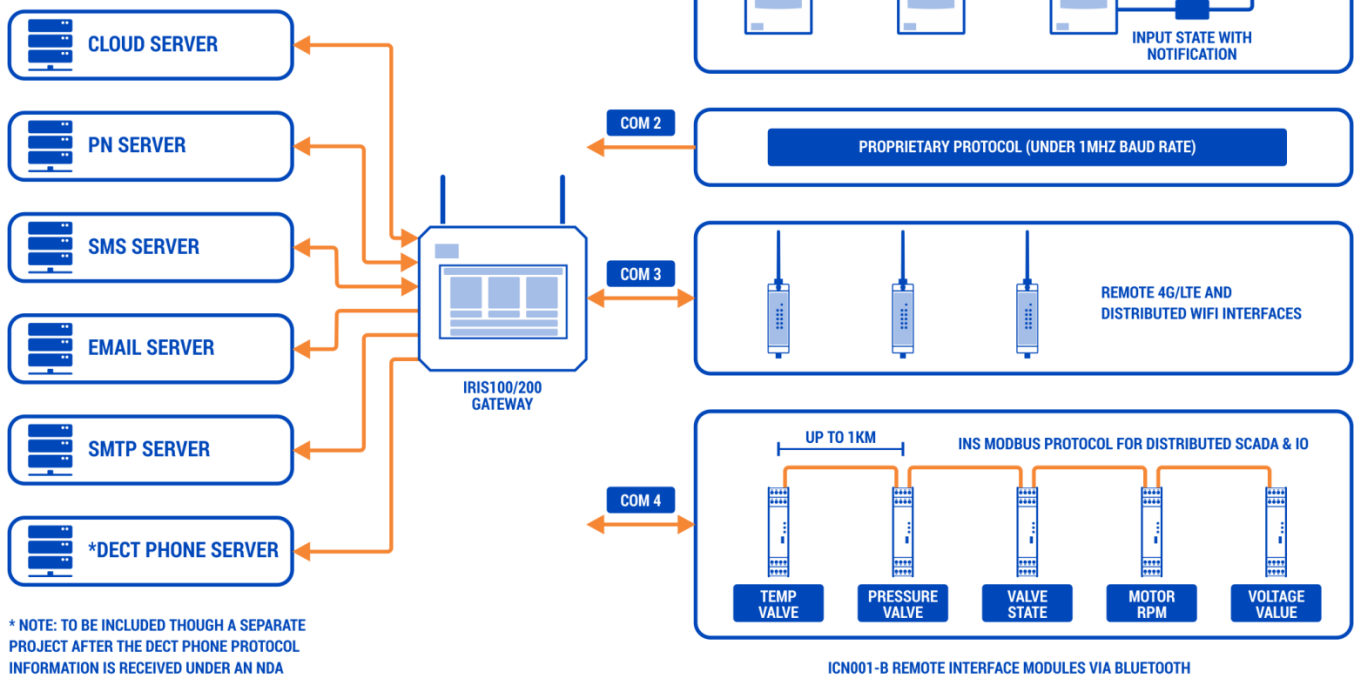


FIGURE 4: IRIS100/200 INTERFACE TOPOLOGIES

SPECIFICATIONS

IRIS200

SYSTEM		
Processor	Intel Atom® x5-E3930 Processor, Dual Core, 2M Cache, 1.3GHz (1.8GHz), 6W	
Memory	2GB/4GB/8GB Memory Down, Dual Channel LPDDR4 2400MHz	
BIOS	Inside SPI 128Mbit (supports UEFI boot only)	
GRAPHICS		
Controller	Intel® HD Graphics	
Feature	OpenGL 4.2, Direct X 11.1, OpenCL 1.2, OGL ES 3.0 HW Decode: H.264, MPEG2, VC1, VP8, H.265, MPEG4, MVC, VP9, WMV9, JPEG/MJPEG HW Encode: H.264, MPEG4, VP8, H.265, MVC	
Display	1 x VGA/DVI-D 2 x Mini-DP/Micro-HDMI	VGA: resolution up to 1920x1200 @ 60Hz DVI-D: resolution up to 1920x1200 @ 60Hz Mini-DP: resolution up to 4096x2160 @ 60Hz Micro-HDMI: resolution up to 3840x2160 @ 30Hz
Triple Displays	VGA + 2 Micro-HDMI	DVI-D + 2 Mini-DP
EXPANSION		
Interface	1 x Full-size Mini PCIe (PCIe/USB/SATA) 1 x M.2 (2242 B Key) (PCIe/USB/SATA) 1 x M.2 (2230 E Key) (PCIe/USB)	
AUDIO		
Audio Codec	Realtek ALC262	
ETHERNET		
Controller	2 x Intel® I210AT PCIe (10/100/1000Mbps)	
LED		
Indicators	1 x Power LED 1 x HDD LED	
FRONT I/O		
Ethernet	2 x GbE (RJ-45)	
Serial	1 x RS-232/422/485 (DB-9)	
USB	2 x USB 3.0 (type A) 2 x USB 2.0 (type A)	
Audio	1 x Mic-in	
Buttons	1 x Power Button	
Switch	1 x Power Switch (2-pin)	
REAR I/O		
Serial	1x DB9 RS-232/422/485 (default), or change to 8-bit DIO by jumper select	
Display	1 x VGA/DVI-D 2 x Mini-DP/Micro-HDMI	
Audio	1 x Line-out	
Wi-Fi Antenna	2 x Wi-Fi Module Antenna Hole	
WATCHDOG TIMER		
Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
POWER		
Type	Wide Range 9~36V	
Connector	DC Jack	
OS SUPPORT (UEFI ONLY)		
	Windows 10 IoT (64-bit) Linux	Linux Yocto Project (64-bit)
MECHANISM		
Construction	Aluminum	
Mounting	Wall/VESA/DIN Rail Mount (available upon request)	
Dimensions (W x H x D)	161mm x 35.1mm x 108.2mm	
Weight	700g	
ENVIRONMENT		
Operating Temperature	N4200: -20 to 60°C (standard) E3940, E3930: -20 to 60°C (standard), -40 to 70°C (wide-temp) With 0.4m/s Air Flow	
Storage Temperature	-40 to 85°C	
Relative Humidity	10 to 90% RH (non-condensing)	
STANDARDS AND CERTIFICATIONS		
Shock	Operating: 3G, 11ms Non-Operating: 5G, 11ms	

Vibration	Operating: Random 5~500Hz, IEC68-2-64 (3G) Non-Operating: Sine 10~500Hz, IEC68-2-6 (3G)
Certification	CE, FCC Class B, RoHS, UL

ICN001-B

DIMENSIONS	
Dimensions	99.1 X 111.9 X 22.5 mm
Weight	200g
Mounting	DIN Rail
POWER	
Operating voltage	18 to 36V (24V DC nominal)
Current Rating	150mA (at 24V)
INTERFACES	
RS-485	Port A - 1: Earth, 2: Shield, 3: Data+, 4: Data- with Fixed Termination (120Ω)
	Port B - 1: Earth, 2: Shield, 3: Data+, 4: Data- with Fixed Termination (120Ω)
RS-232	Port C - 1: Shield, 2: Rx (IN), 3: Tx (OUT), 4: Earth with Standard RS-232 interface
PSU	Port D - 1: +12V TO 36V DC, 2: 0V, 3: No Connect, 4: Earth
	Baud Rate - 9600 to 115200 (selectable / configurable)
USB	USB Micro-B connection (Device / Slave Mode)
TEMPERATURE	
Operating	-10 to 50°C
Storage	-40 to 70°C
AGENCY APPROVALS AND STANDARDS	
Agencies	CE, UKCA, RoHS, WEEE compliant
EMC	EN 61000-6-2
EMC	EN 61000-6-4
Safety	EN 60950