IoT Gateway

LINC NODE

Introduction

LINC Node is an Internet of Things (IoT) gateway to extract locally available information from intelligent airfield ground lighting devices and present it to our cloud solution, ALIS. It is a way of connecting your existing infrastructure and start the journey to Airfield 4.0.

Uses

LINC Node provides an interface for airports to consult AGL device information from anywhere at any time on any internet capable device (tablet, mobile phone). It can be used for the following applications:

- Insulation Resistance Monitoring and trending
- CCR Status monitoring (temperature, step, output, etc.)
- Open circuit alarms
- Power usage analysis

Having this information readily available on a portable device reduces the amount of time spent driving on site to gather the information that is already there. Getting immediate alerts on the smartphone in case of an operational problem reduces the response times to fix the issue.

Customer Benefits

- Reduced personnel movement time
- Information ready at hand anytime, anywhere
- Improved maintenance cycles
- Historical trending
- Automated work orders
- Alarm notification on mobile phone

LINC Node Technology

- LINC Node uses cellular technology to provide a secure and reliable connection to your AGL device. It has a built-in intelligence capable of formatting and packaging the data that goes to the cloud. LINC Node will use a dedicated network to ensure the operational integrity of the ALCMS network and only allows for monitoring of data to prevent any intrusive attacks.
- Cybersecurity is done through the Octave Platform which uses zero-touch security provisioning, secure boots and secure firmware upgrade, automated and unlimited key rotations over the air for edge-to-cloud authentication.
- Manufactured by Sierra Wireless

Features

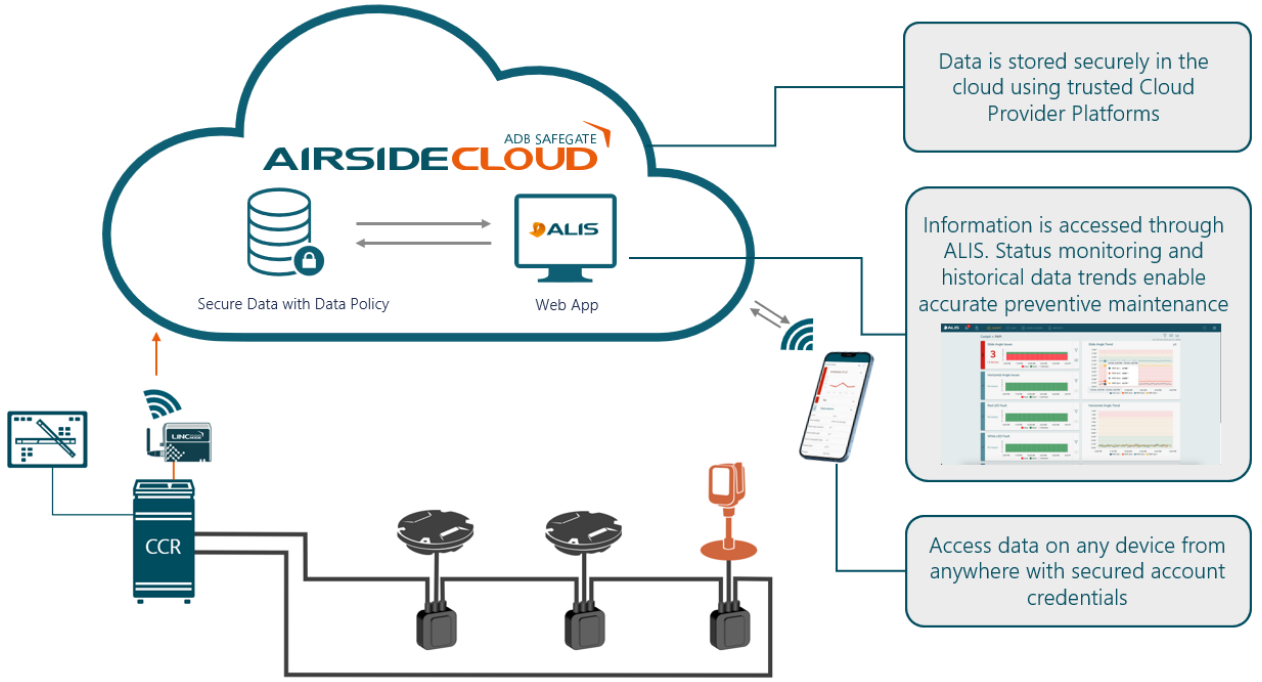
- Ethernet variant can connect up to 4 devices
- Serial variant can connect up to 16 devices
- ADB Safegate's proven ALIS platform will display LINC Node's data.

Description	Specification
Operating temperature	-30 °C to +75 °C
Operating humidity	Max. 96 %RH
Dimensions	75 x 60 x 32 mm excluding connectors;
Weight	158g
Vibration and Shock	Vibration spec: MIL-STD-810G, Method 514.6C, Category 4CWV (Composite Wheeled Vehicle); Mechanical shock spec: MIL-STD-810G, Method 516.6; Procedure I (Functional Shock)
ESD	8KV contact discharge, 15KV air discharge
Mounting Options	Bracket for screw/wall and DIN rail mounting
Input Voltage	4.75Vdc to 32Vdc
Connections	USB2.0 micro-B Ethernet variant: 10/100BASE
	Serial variant: RS-485 half-duplex Maximum baud rate: 115200 bit/s Maximum cable length: 25 meters at 115200 bit/s, 40 meters at 38400 bit/s.
Enclosure Protection Level	IP

Compliance with RF Standards

Description	Specification
Air Interface	LTE Cat-M1/NB1, EDGE/GSM/GPRS
Frequency Bands	
4G LTE	B1, B2, B3, B4, B5, B8, B12, B13, B17, B18, B19, B20, B26, B28
3G UMTS/HSPA+	-
2G EDGE/GSM/GPRS	850, 900, 1800, 1900
Regulatory Approvals	FCC/IC, CE&RoHs, REACH, RCM, Safety IEC60950 -1, UL Listed, GCF, PCTRB
Radio Module	WP7702

System Overview



(ALIS subscription needed)

Compatible Devices

Device Version	Serial Connection	Ethernet Connection
MCR3	Multiwire or Dual J-bus	-
CRE/VIS	EPS495 Multiwire or dual JBUS (min. RCB FW 1.07 required) EP00047	EPS495 needs additional Moxa serial/ethernet adaptor EP00047 (min. RCB FW 2.04 required)
LEDPAPI	2014 & 2018 model	-

*Always check with your local Sales team for your specific CCR interface compatibility, we recommend upgrading CRE/VIS to firmware v4.32/5.22.

**In case of redundant system use, one port will need to be made available for LINC Node.

***LEDPAPI may need a firmware upgrade to enable additional information upload.

Ordering Codes

Description	Part Number
LINC Node, Ethernet Port can connect up to 4 devices	LN00E1
LINC Node, Serial Port can connect up to 16 devices	LN00S1
LINC Node, connects 1 LEDPAPI	LN00P1