CABLE DE RED
CONTROL DE ACCESO
OSDP
PROTECCION DE BIENES

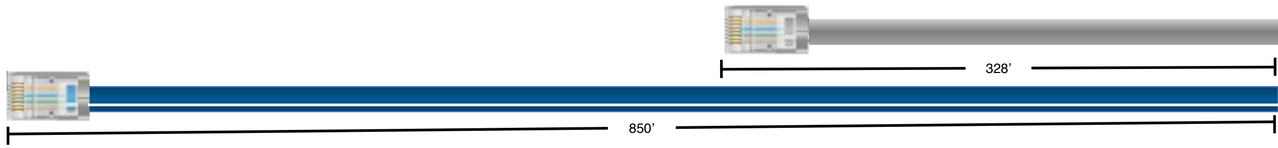
Cables para mayor alcance

Historial Cable de Red

Ancho de Banda ?

- Cat 3….. 10Mbs ……..…100m
- Cat 4 …. 16 Mbps…….…. 100m
- Cat 5……100 Mbps……..100m
- Cat 5e …. 1 Gbps…….……100m
- Cat 6……..1 Gbps……100m
- **GameChanger 2.5 Gbs ……..200m**

GameChanger alcansa 2.5x la distancia de los cable típicos de RED



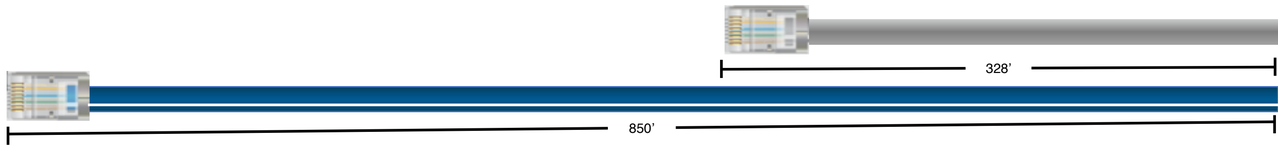
El Problema

El Problema Típico

Dispositivos IP a más de 100 metros requiere equipo adicional (e innecesaria)

- Tiempo
  - Dispositivos
  - Terminaciones
  - Mas Puntos de Contacto
- Dinero
  - Trabajadores de diferentes profesiones
  - Extensores
  - IDFs
- Molestia-Interrupción
  - Puntos de Falla
  - Riesgo
  - Mano de Obra

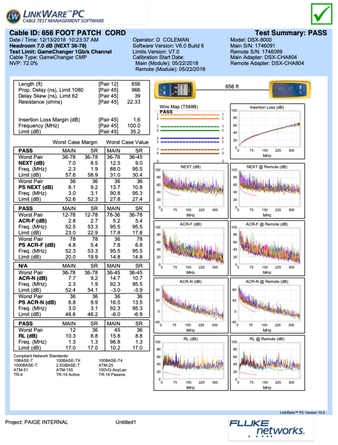
GameChanger alcansa 2.5x la distancia de los cable típicos de RED



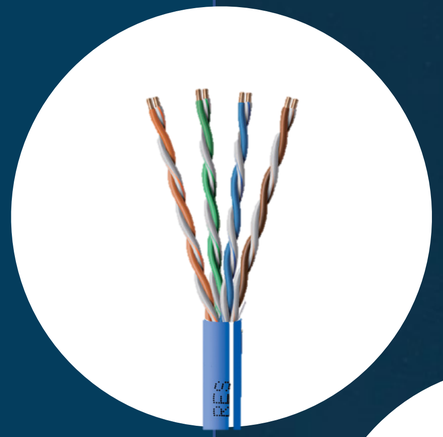
1 Gb/s y PoE+ mas que 656’/200m ?

- Suporta Ethernet y PoE+
  - 2.5Gbps o 1 Gbps hasta 656 pies (200m)
  - 10 Mbps hasta 850 pies (259m)

- Certificación en campo con Equipos:
  - AEM
  - Fluke
  - Ideal
  - Netscout
  - Softing
  - Viavi



Esta Solución
Cambia el Juego



Riser

Plenum

Outside Plant (LSZH)

Outside Plant Shielded (LSZH)

Hazardous Locations (Class I, Division 1)

PREMIADO

La Solución Ganadora para Sus Clientes

- Recuperarse de un presupuesto desperdiciado
- Encuentra dinero para los equipos especiales que quieren
- Responda a una licitación con una solución más rápida y menos costosa

GameChanger ha sido premiado

ANÁLISIS DE TERCEROS

- Abril 2018
- 860,000 ft.^{2} estacionamiento
- 106 cámaras
- Cableado mas largo 850 ft.
- Stream más alto de cámara:20Mb/s

OPCIÓN A: GAMECHANGER

Required Hardware	MSRP Unit Price	Quantity	Extended Cost (No Labor)
GameChanger CMR	$0.40	38,000	$15,010.00
24-Port Surge Suppressor	$1,1216.00	5	$6,080.00
24-Port Patch Panel	$243.00	5	$1,215.00
Total			**$22,305**

OPCIÓN B: CAT 6 + PoE EXTENDERS

Required Hardware	MSRP Unit Price	Quantity	Extended Cost (No Labor)
Cat 6 CMR	$0.14	38,000	$5,320.00
24-Port Surge Suppressor	$1,1216.00	5	$6,080.00
24-Port Patch Panel	$243.00	5	$1,215.00
PoE Extender at Camera	$385.00	106	$40,810.00
16-Port PoE Extender at IDF	$7,3000	7	$51,100.00
Total			**$104,525.00**

OPCIÓN C: HYBRID FIBER+POWER

Required Hardware	MSRP Unit Price	Quantity	Extended Cost (No Labor)
Powered Fiber & Accessories			$31,311.60
PoE Extender Modules	$1,195.31	53	63,351.56
Fiber Connectivity in IDF			$7,319.25
Power Supply in IDF			$5,015.00
Fiber/Copper SFPs	$93.75	106	$9,937.50
Chassis in IDF	$656.00	6	$3,936.00
Media Converter in IDF	$50.00	106	$5,300.00
Total			**$126,570.91**

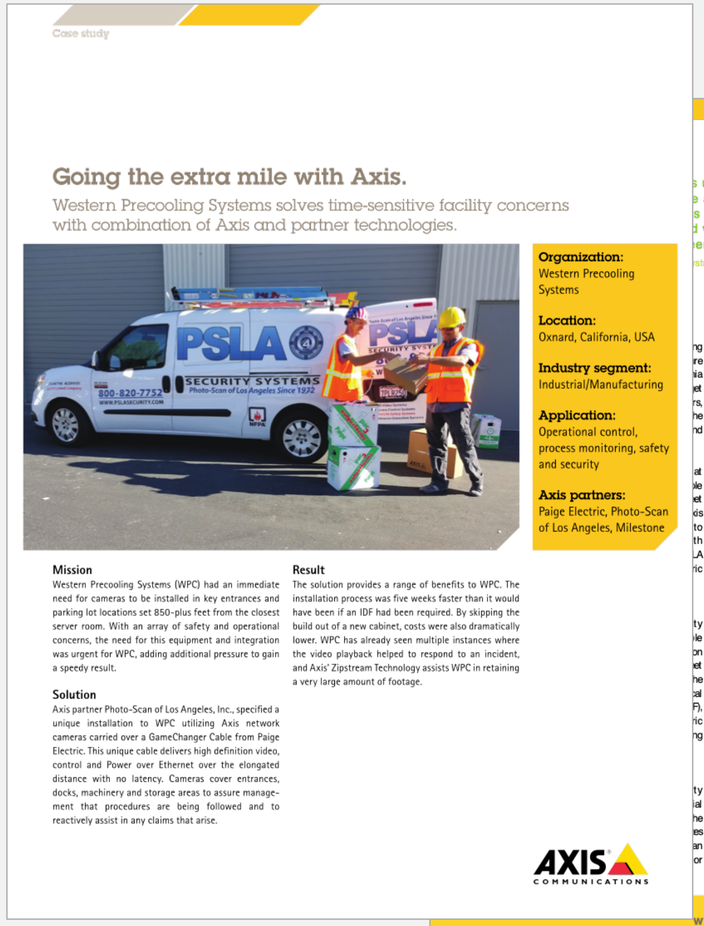
Pricing Analysis provided by:
Mark S. Bennett, CPP, CSC

MSB Security Consulting

¡GRANDES AHORROS TAMBIÉN EN PEQUEÑOS PROYECTOS!

- Noviembre 2017
- Solamente **3 cámaras** nuevas
- Cableado mas largo 850 ft.
- Elimina un IDF y alimentación externa.
- **Ahorró 4-6 semanas**

"Esta solución nos ahorró más de $30,000 dólares", concluyó Canning. "Necesitábamos esto de inmediato y estamos muy contentos con él. Hace exactamente lo que esperábamos y realmente funcionó para nosotros".



Case study

Going the extra mile with Axis.

Western Precooling Systems solves time-sensitive facility concerns with combination of Axis and partner technologies.

Organization: Western Precooling Systems

Location: Oxnard, California, USA

Industry segment: Industrial/Manufacturing

Application: Operational control, process monitoring, safety and security

Axis partners: Paige Electric, Photo-Scan of Los Angeles, Milestone

Mission

Western Precooling Systems (WPC) had an immediate need for cameras to be installed in key entrances and parking lot locations set 850-plus feet from the closest server room. With an array of safety and operational concerns, the need for this equipment and integration was urgent for WPC, adding additional pressure to gain a speedy result.

Solution

Axis partner Photo-Scan of Los Angeles, Inc., specified a unique installation to WPC utilizing Axis network cameras carried over a GameChanger Cable from Paige Electric. This unique cable delivers high definition video, control and Power over Ethernet over the elongated distance with no latency. Cameras cover entrances, docks, machinery and storage areas to assure management that procedures are being followed and to reactively assist in any claims that arise.

Result

The solution provides a range of benefits to WPC. The installation process was five weeks faster than it would have been if an IDF had been required. By skipping the build out of a new cabinet, costs were also dramatically lower. WPC has already seen multiple instances where the video playback helped to respond to an incident, and Axis' Zipstream Technology assists WPC in retaining a very large amount of footage.

AXIS COMMUNICATIONS

With people, forklifts ... ving in these areas, WPC can keep t... d operationally use the 20x zoom on ... E to verify bar codes on pallets for ... rmation. Arctic Temperature Control ... s cameras also keeps the technology ru... atures that drop below freezing and rise ... grees Fahrenheit.

Additionally, WPC takes ... Axis' Zipstream Technology with both A... E and P3225-LVE Network Cameras to sav... "The system is so clear and we have plenty ... that gives us time to figure out what ha... d go back to it," remarked Van Canning, I... t Western Precooling Systems. "The storag... ved is amazing. The cameras have plenty of s... able and we haven't yet had to even record ba... ny footage."

Plug- and- plays succe...

Given the overall solution ... has already generated multiple successful use ... of the cameras on Milestone XProtect® Profe... al. "Having this system in place so quickly was a ... win for WPC," Canning added. "When we unex... edly received a false slip-and-fall complaint, it ... quickly dismissed given the indisputable video ev... ce, another example of how the speed of deployme... saved WPC real money."

Overall, PSLA was able to sa... fy the requests from WPC and the outcome has been p... sitive across the board.

"This solution saved us over $30,000 dollars," Canning concluded. "We needed this right away and we're extremely happy with it. It does exactly what we were expecting and really came through for us."

gamechanger@paigeelectric.com
www.paigeelectric.com/gamechanger

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AXIS COMMUNICATIONS

Western Precooling

Paige

PSLA SECURITY SYSTEMS

milestone The open platform company

CUÁL ES LA DISTANCIA MÁXIMA QUE SE PUEDE CABLEAR CON GAMECHANGER?

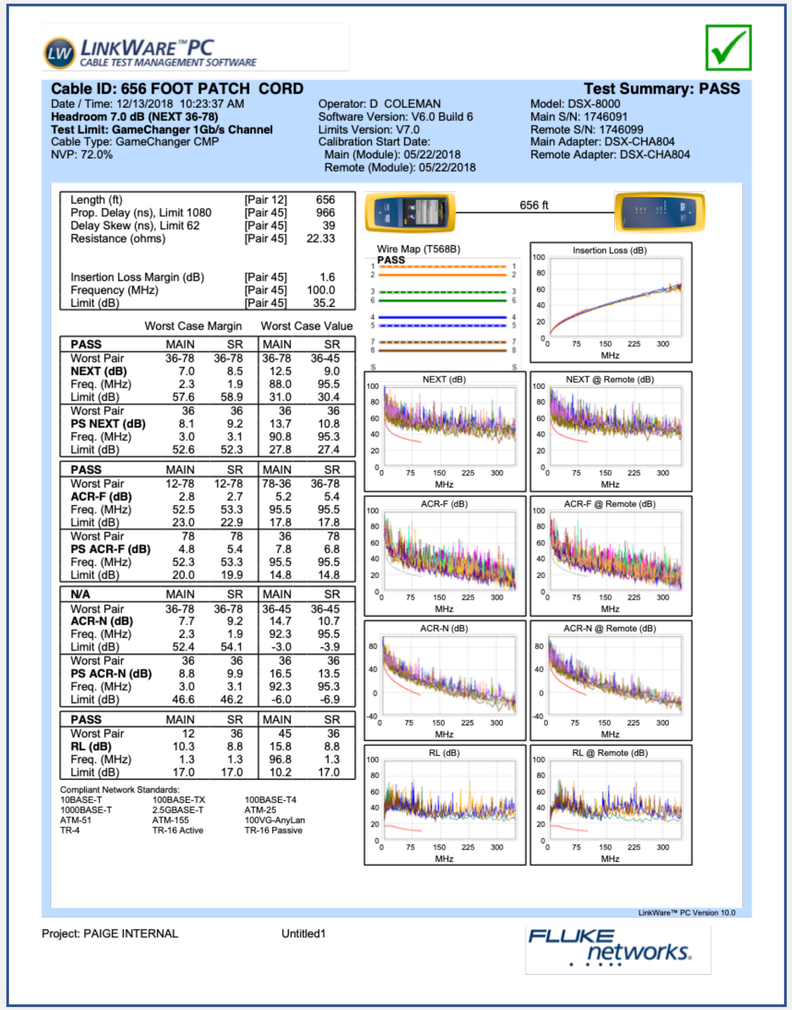
…y otras preguntas frecuentes

2.5 Gbps o 1 Gbps hasta 656 pies (200m)

10 Mbps hasta 850 pies (259m)

CONSEJO PARA CABLEADOS 656 – 850’:

Configura el puerto del switch en 10 Mb/s para evitar la negociación automática forzará una conexión confiable.



LINKWARE™ PC
CABLE TEST MANAGEMENT SOFTWARE

Cable ID: 656 FOOT PATCH CORD — **Test Summary: PASS**

Date / Time: 12/13/2018 10:23:37 AM
Headroom 7.0 dB (NEXT 36-78)
Test Limit: GameChanger 1Gb/s Channel
Cable Type: GameChanger CMP
NVP: 72.0%

Operator: D COLEMAN
Software Version: V6.0 Build 6
Limits Version: V7.0
Calibration Start Date:
Main (Module): 05/22/2018
Remote (Module): 05/22/2018

Model: DSX-8000
Main S/N: 1746091
Remote S/N: 1746099
Main Adapter: DSX-CHA804
Remote Adapter: DSX-CHA804

Length (ft)	[Pair 12]	656
Prop. Delay (ns), Limit 1080	[Pair 45]	966
Delay Skew (ns), Limit 62	[Pair 45]	39
Resistance (ohms)	[Pair 45]	22.33
Insertion Loss Margin (dB)	[Pair 45]	1.6
Frequency (MHz)	[Pair 45]	100.0
Limit (dB)	[Pair 45]	35.2

	Worst Case Margin		Worst Case Value	
PASS	MAIN	SR	MAIN	SR
Worst Pair	36-78	36-78	36-78	36-45
NEXT (dB)	7.0	8.5	12.5	9.0
Freq. (MHz)	2.3	1.9	88.0	95.5
Limit (dB)	57.6	58.9	31.0	30.4
Worst Pair	36	36	36	36
PS NEXT (dB)	8.1	9.2	13.7	10.8
Freq. (MHz)	3.0	3.1	90.8	95.3
Limit (dB)	52.6	52.3	27.8	27.4
PASS	MAIN	SR	MAIN	SR
Worst Pair	12-78	12-78	78-36	36-78
ACR-F (dB)	2.8	2.7	5.2	5.4
Freq. (MHz)	52.5	53.3	95.5	95.5
Limit (dB)	23.0	22.9	17.8	17.8
Worst Pair	78	78	36	78
PS ACR-F (dB)	4.8	5.4	7.8	6.8
Freq. (MHz)	52.3	53.3	95.5	95.5
Limit (dB)	20.0	19.9	14.8	14.8
N/A	MAIN	SR	MAIN	SR
Worst Pair	36-78	36-78	36-45	36-45
ACR-N (dB)	7.7	9.2	14.7	10.7
Freq. (MHz)	2.3	1.9	92.3	95.5
Limit (dB)	52.4	54.1	-3.0	-3.9
Worst Pair	36	36	36	36
PS ACR-N (dB)	8.8	9.9	16.5	13.5
Freq. (MHz)	3.0	3.1	92.3	95.3
Limit (dB)	46.6	46.2	-6.0	-6.9
PASS	MAIN	SR	MAIN	SR
Worst Pair	12	36	45	36
RL (dB)	10.3	8.8	15.8	8.8
Freq. (MHz)	1.3	1.3	96.8	1.3
Limit (dB)	17.0	17.0	10.2	17.0

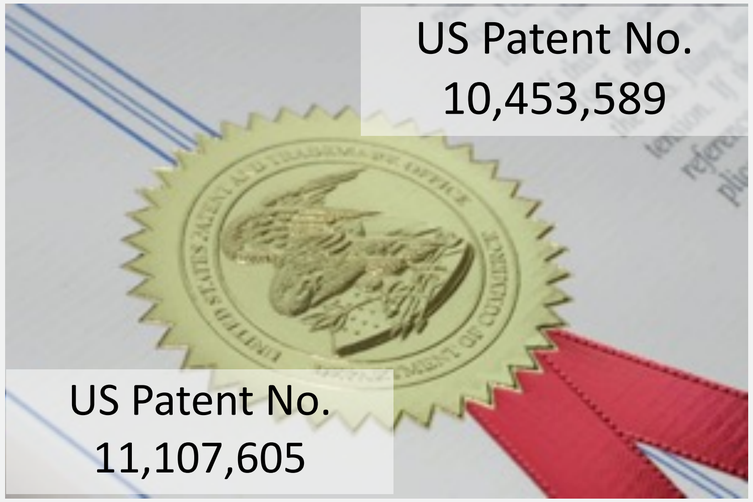
Compliant Network Standards:
10BASE-T, 100BASE-TX, 100BASE-T4, 1000BASE-T, 2.5GBASE-T, ATM-25, ATM-51, ATM-155, 100VG-AnyLan, TR-4, TR-16 Active, TR-16 Passive

Project: PAIGE INTERNAL Untitled1

FLUKE networks

VÍDEO
VOZ
DATOS
ACCESO
VOIP
SEÑALIZACIÓN DIGITAL
PARLANTES IP

LA DIFERENCIA



Se Aumentó el calibre del cable a

22 AWG

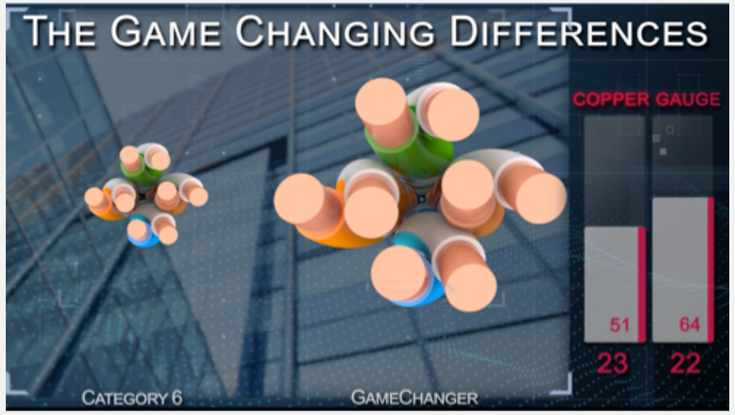
(**30% más que Cat 6)**

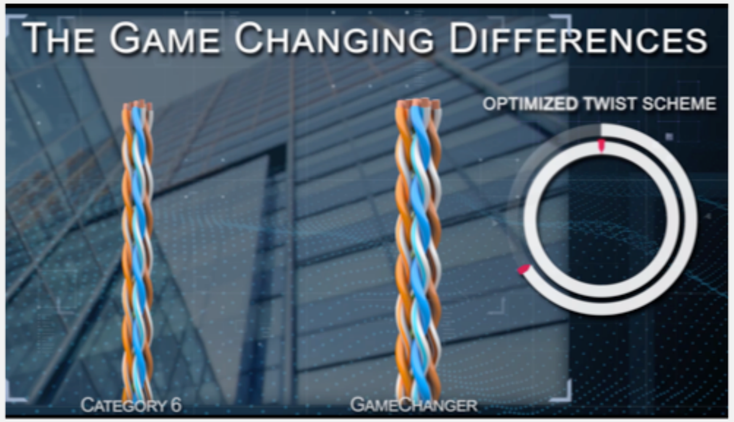
El trenzado es diferente

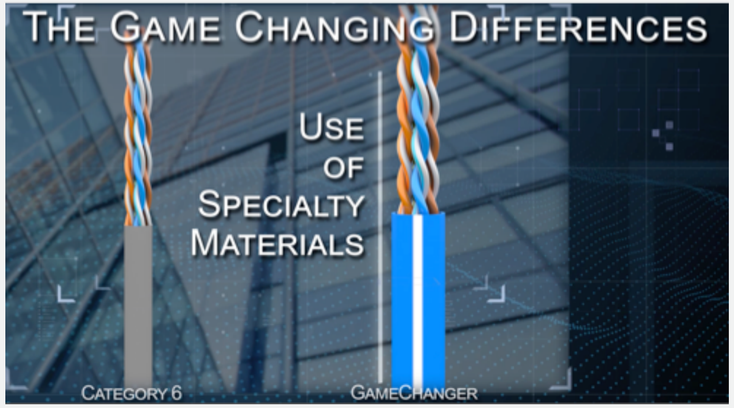
Optimiza transmisión a largas distancias.

Materiales especiales

Permiten el alto rendimiento







Te has ganado una ventaja...

Registrar Proyectos Estratégicos

- Reembolso del 5%

Custom AP

Protección de Activos

El Problema

Protección de Activos al Aire Libre

Sujetas a mayores pérdidas

Proteger estos activos es problemático

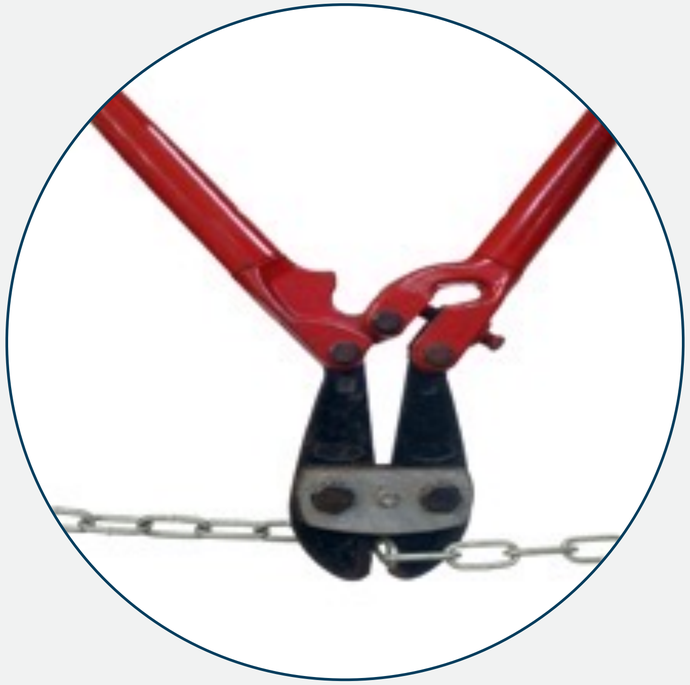
- No es parte del sistema de seguridad
  - Encadenado
  - Se mueve entre interior/exterior

- Asegurado pero parte del problema
  - Caro / Complicado
  - Falsas Alarmas
  - Zonas Anulados

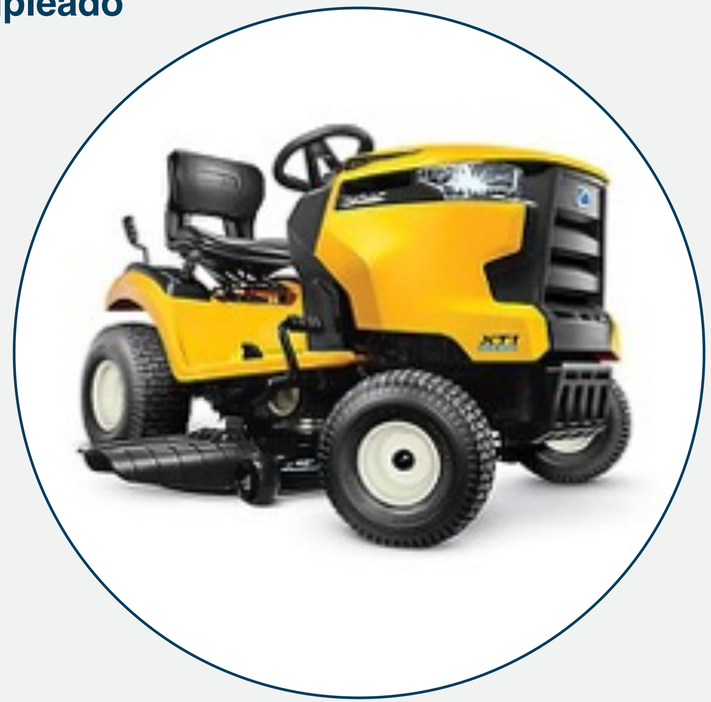
SEGURIDAD=AHORROS

- Calculado en 2016
- Basado en 1,500 sucursales.

Tiempo de Empleado



PERDIDA



DESCUENTOS POR DAÑO

La Solucion

Vamos a proteger los activos

Con Cable
Conectado a la alarma

o

control de acceso

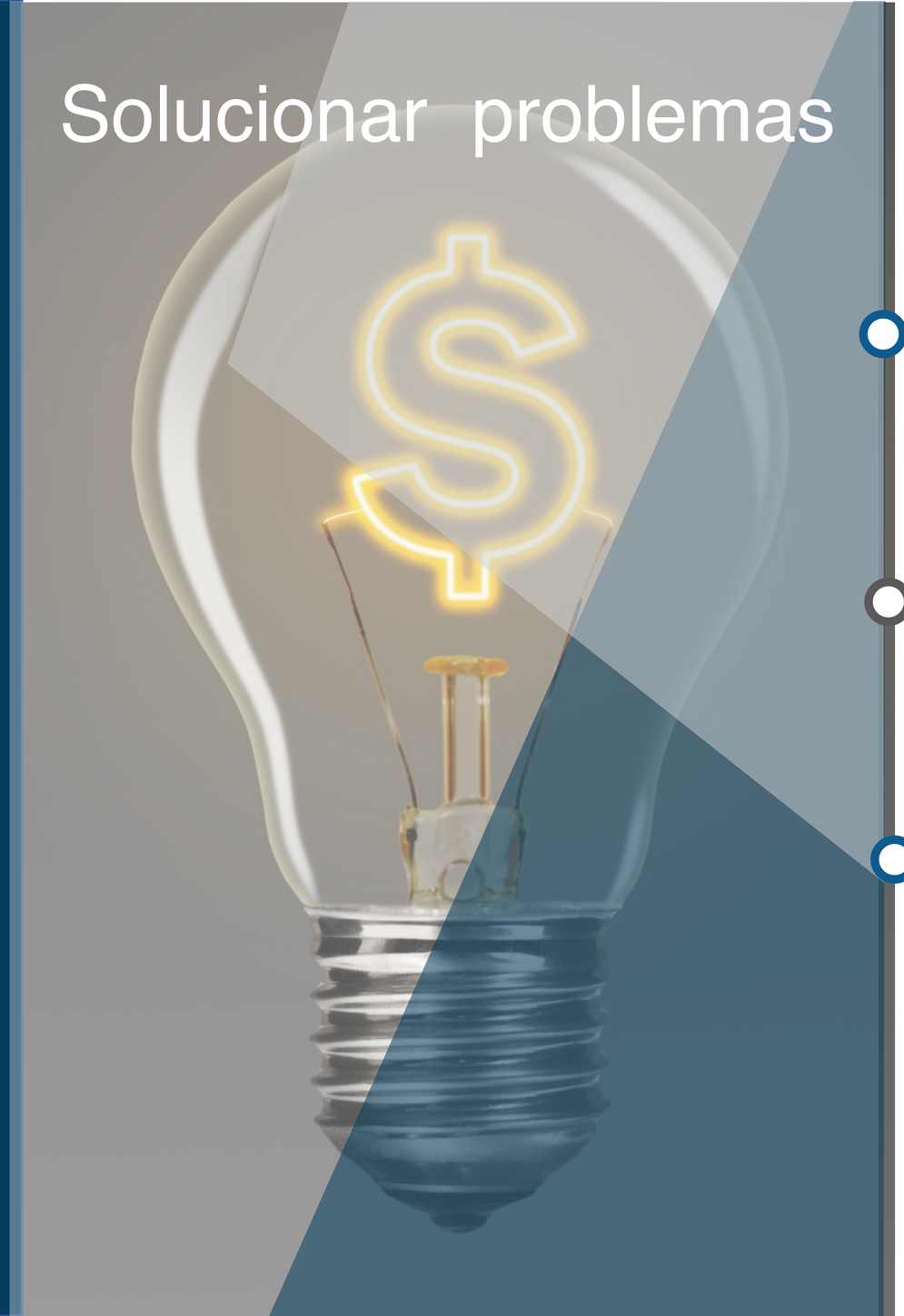
Para un sistema monitoreado

CABLE MODULAR

16/15’

Inalambrico

Porton

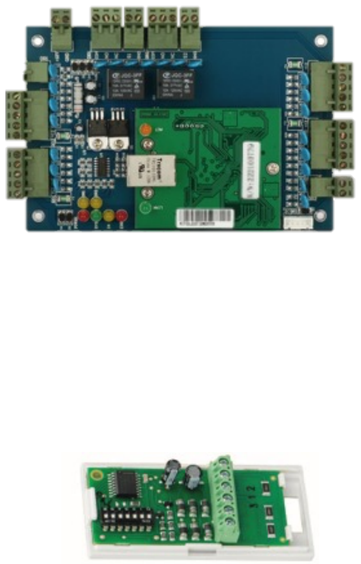


VISUALIZAR

- Resolver problemas previamente ignorado
- Reducir llamadas de Servicio
- Solucionar problemas fuera del paradigma

US Patent # 10,608,396
US Patent # 9,595,176
US Patent # 9,640,051

COMO SE INSTALA **CABLES PERIMAGUARD**?



PANEL DE CONTROL

UN EMPALME DE 22/4 AL PERIMAGUARD

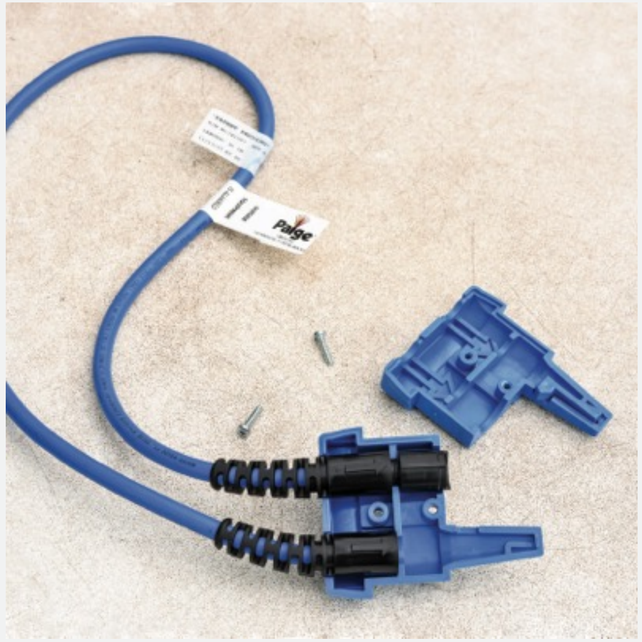
Cableado DAISY CHAINED pasando por todos los activos

UN EMPALME A UN FIN DE LINEA RESISTENCIA

Proteccion de Portones?

PREGUNTAS FRECUENTES

QUE MAS SE PUEDE PROTEGER? USOS CREATIVOS DE PERIMAGUARD LOOPS.



QUIEN ES EL CLIENTELA?

MINORISTA

- Que comercializan frente a sus tiendas.
- Inventario en contenedores de almacenamiento.

COMERCIAL / INDUSTRIAL

- Los portones necesiten protección
- No solo al aire libre!

CENTROS DE DISTRIBUCIÓN

- Muelles de carga en centros de distribución y almacenes

OSDP

Cable para Control de Acceso

Vendes Seguridad o Inseguridad

Tecnologia de hace 47 años

¡Weigand es protocolo inseguro!

- Inventado en 1974
- Llego a ser el estander de SIA en 1996

- Qué tan seguros son los edificios hoy en día?
- Can tan fácil se puede hackear?

Esta es una herramienta de interceptación ESPKey Wiegand que se vende en línea por $79

HACKEADO EN 60 SEGUNDOS…

Video Example

Control de acceso OSDP

Seguro, Inteligente

- AES-128
- Bi-Direccional
- Monitoreo Continuo

- Características Avanzadas
  - Interface Avanzado (con audio/visual)
  - Mensajes de bienvenida, mensajes de texto
  - Tu sistema te habla!
- Reduce Costos
  - Reduce Complejidad, Menos cables
  - Facil Actualizar

The Security Industry Association's latest version of the standard is v2.2.1

SIA
SECURITY INDUSTRY ASSOCIATION

Open
Supervised
Device
Protocol

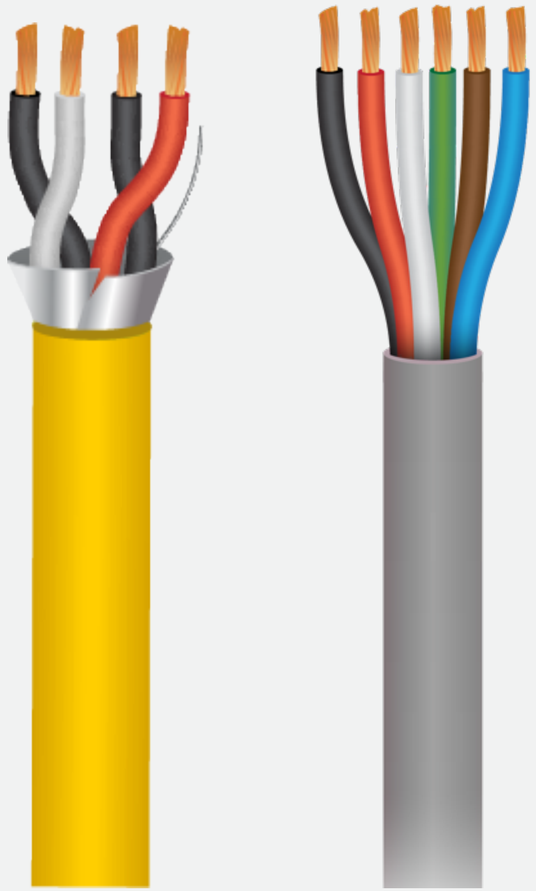
Wiegand vs. OSDP Cabling

OSDP LECTORA (AMARRILLO)

- (2) 24 AWG Low Capacitance Pairs, Shielded
  - Capacitance: 12.5 pF/Ft
  - Impedance: 100-120 Ω
- Distance Limitation: 4,000’

WIEGAND LECTORA (GRIS)

- 18-20 AWG, 6-12+ Conductors, Not always shielded
  - Capacitance: ~47 pF/Ft
  - Impedance: ~39 Ω
- Distance Limitation: 500’



Cableado Simplificado

LECTORA (NARANJADA)

- (2) 24 AWG Pares de bajo capacitance, Blindado
  - LoCap = mayor distancia (4,000’+ vs. 500’)
  - Algunos sistemas requieren únicamente un par

CONTACTOS (BLANCO)

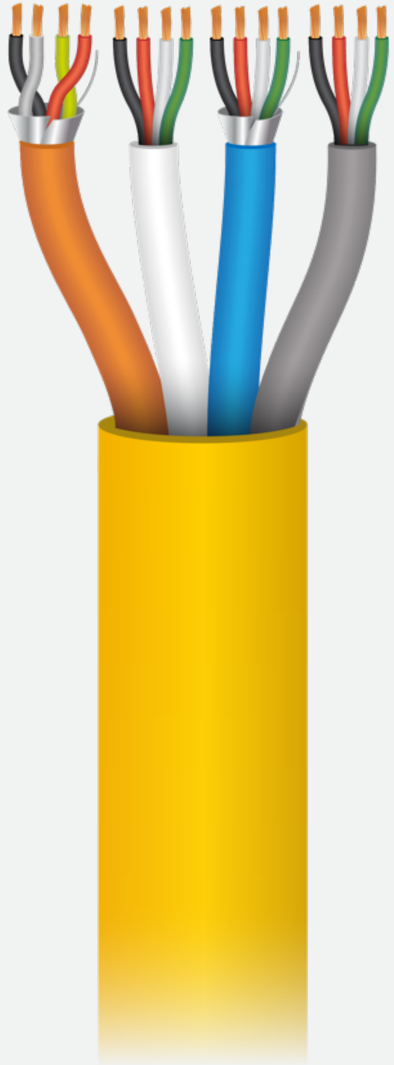
- 22/4 Stranded
  - 2 para contactos, 2 para accesorios

REX / MOTION (AZUL)

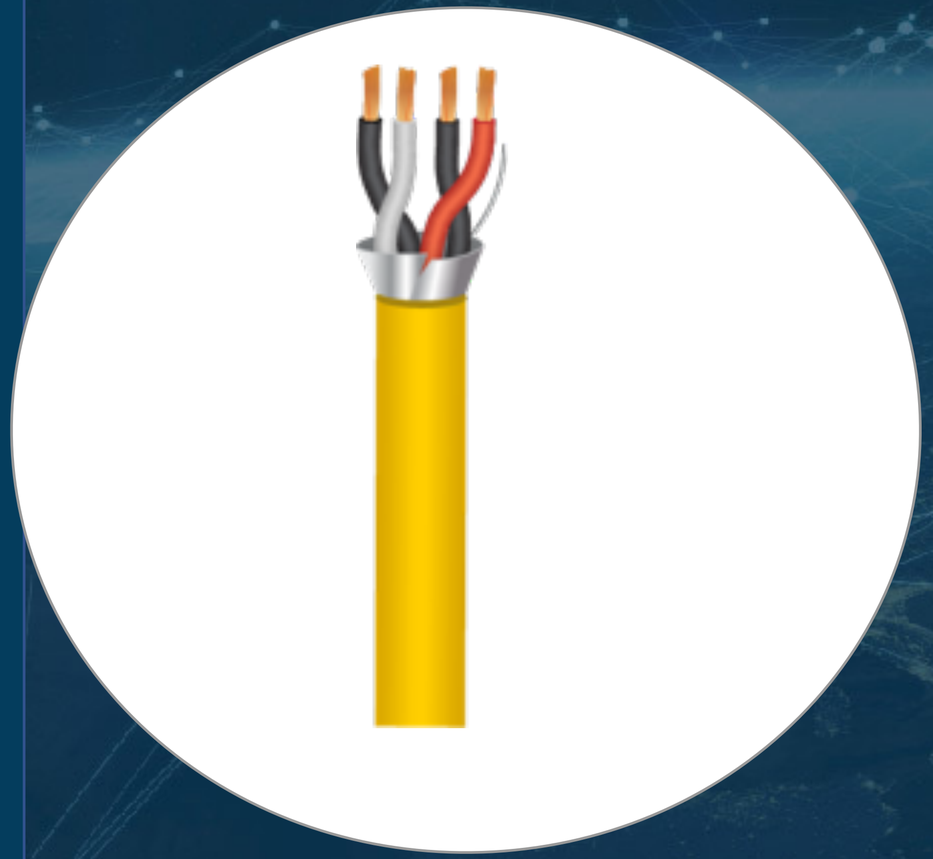
- 18/4 Multi filar, Blindado
  - Algunos no requieren blindaje

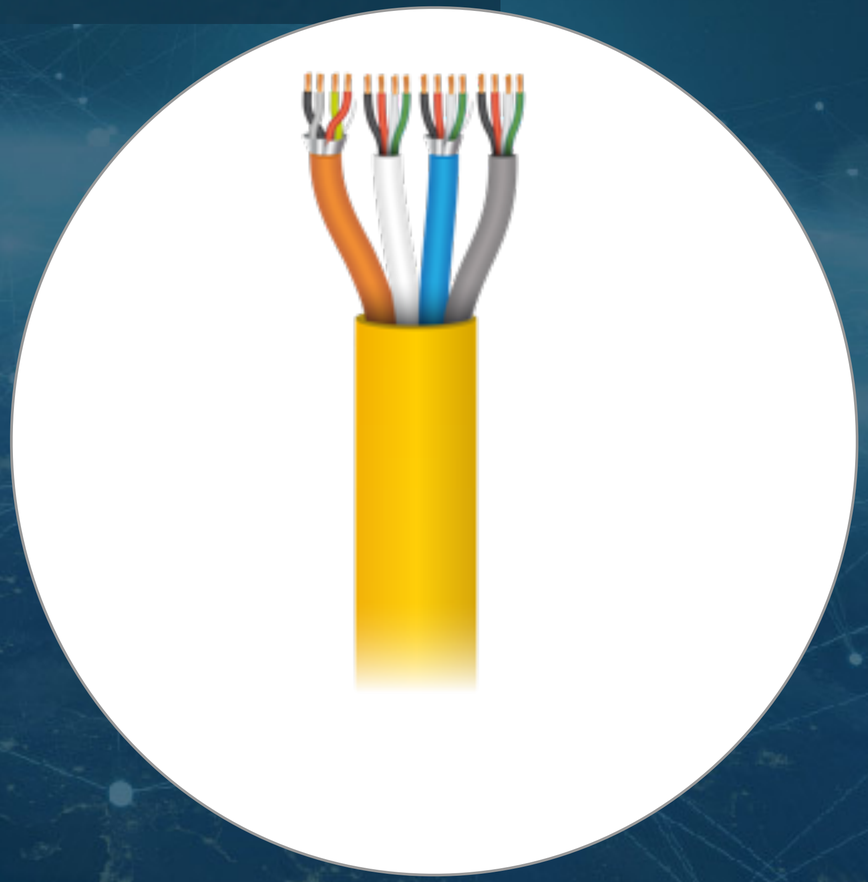
ALIMENTACION DE CHAPA (GRIS)

- 18/4 Multi filar
  - 2 para alimentación, 2 para accesorios



OSDP





www.international.net

Seguridad
Distancia
Utilidad

Cable de Red: 200 m PoE y Data
Cable para OSDP
Perimaguard Para Exterior