



Secure OT Summit **2023**

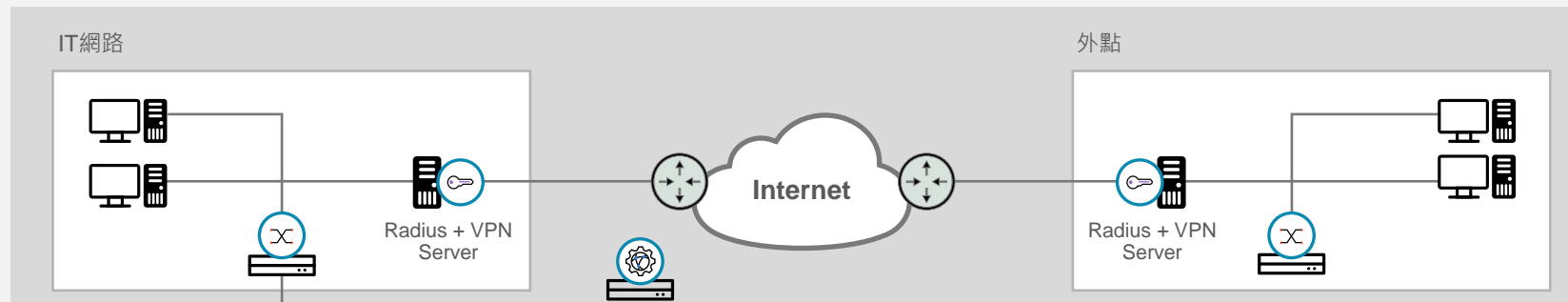
保衛工控 即刻守護

快速打造工控營運 的資安防禦堡壘

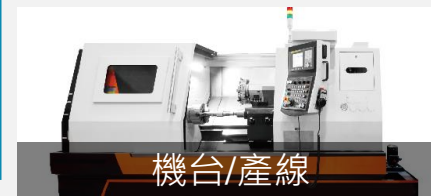
Degas / 曹仁賢
Security Consultant

按部就班做資安

Information
Technology (IT)

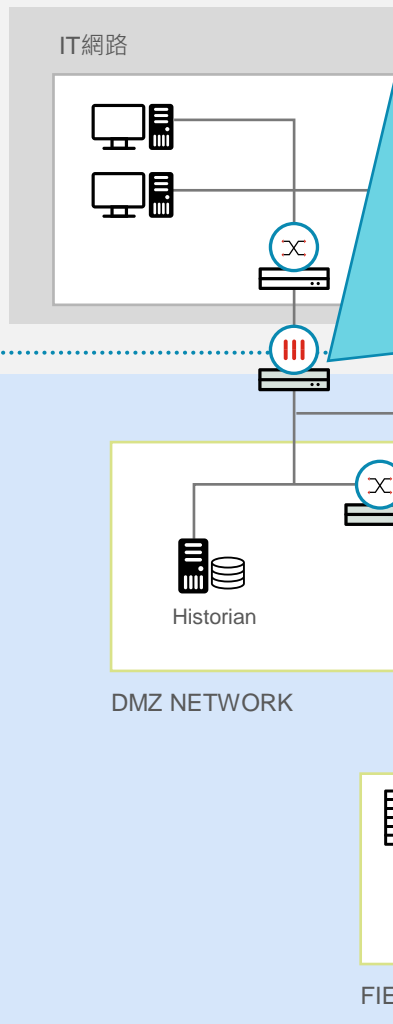


Operational
Technology (OT)



按部就班做資安

Information
Technology (IT)

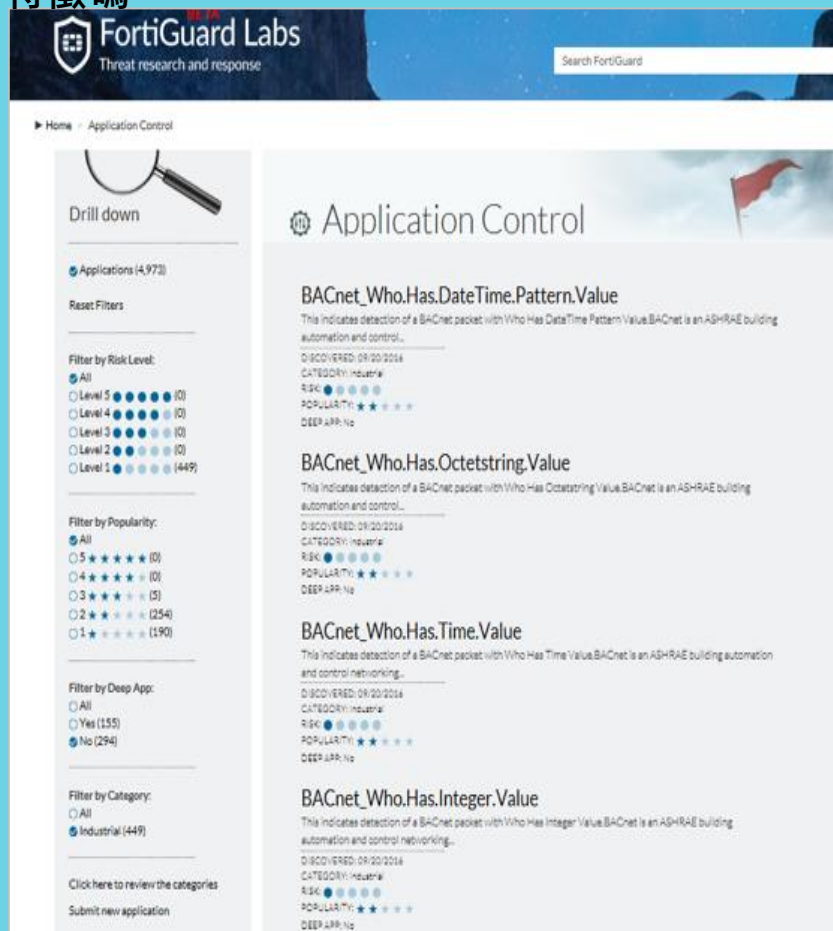


Operational
Technology (OT)

安檢/IPS/虛擬補丁

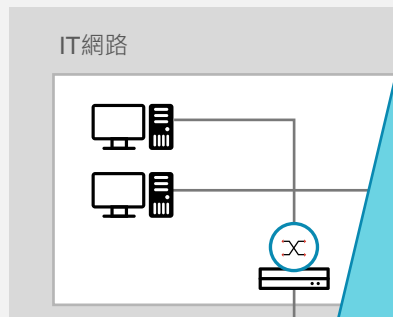
接近**2000**個工業應用特徵碼
為工業應用保駕護航

- BACnet
- DNP3
- Elcom
- EtherCAT
- EtherNet/IP
- IEC 60870-6 (TASE 2) /ICCP
- IEC 60870-5-104
- IEC 61850
- HART
- LONTalk
- MMS
- Modbus
- OPC
- Profinet
- S7
- SafetyNET
- Synchrophasor

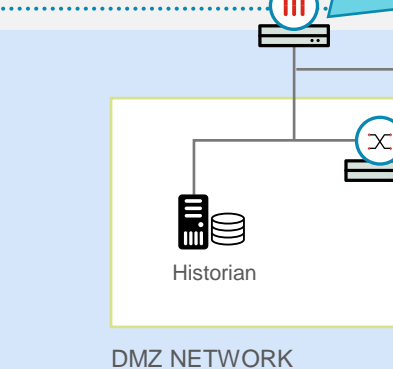


按部就班做資安

Information
Technology (IT)



Operational
Technology (OT)



安檢/IPS/虛擬補丁

資料蒐集

交叉掃描

內容分析

自動學習

資料蒐集 – 全球

- 超過 60 個以上樣本來源
- 平均一天 750,000 樣本

交叉掃描 – 完整覆蓋

- 內部 Virus Total
- 掃描 CPRL 特徵碼

大數據分析 – 內部

- Wrapper / 反譯, 程式組塊分析
- 自動生成 CPRL 特徵碼

機器學習/人工智慧分析

- 持續學習及訓練
- CPRL 系統簽名準確性的驗證

控制中心

關鍵基礎建設

石化

智慧製造

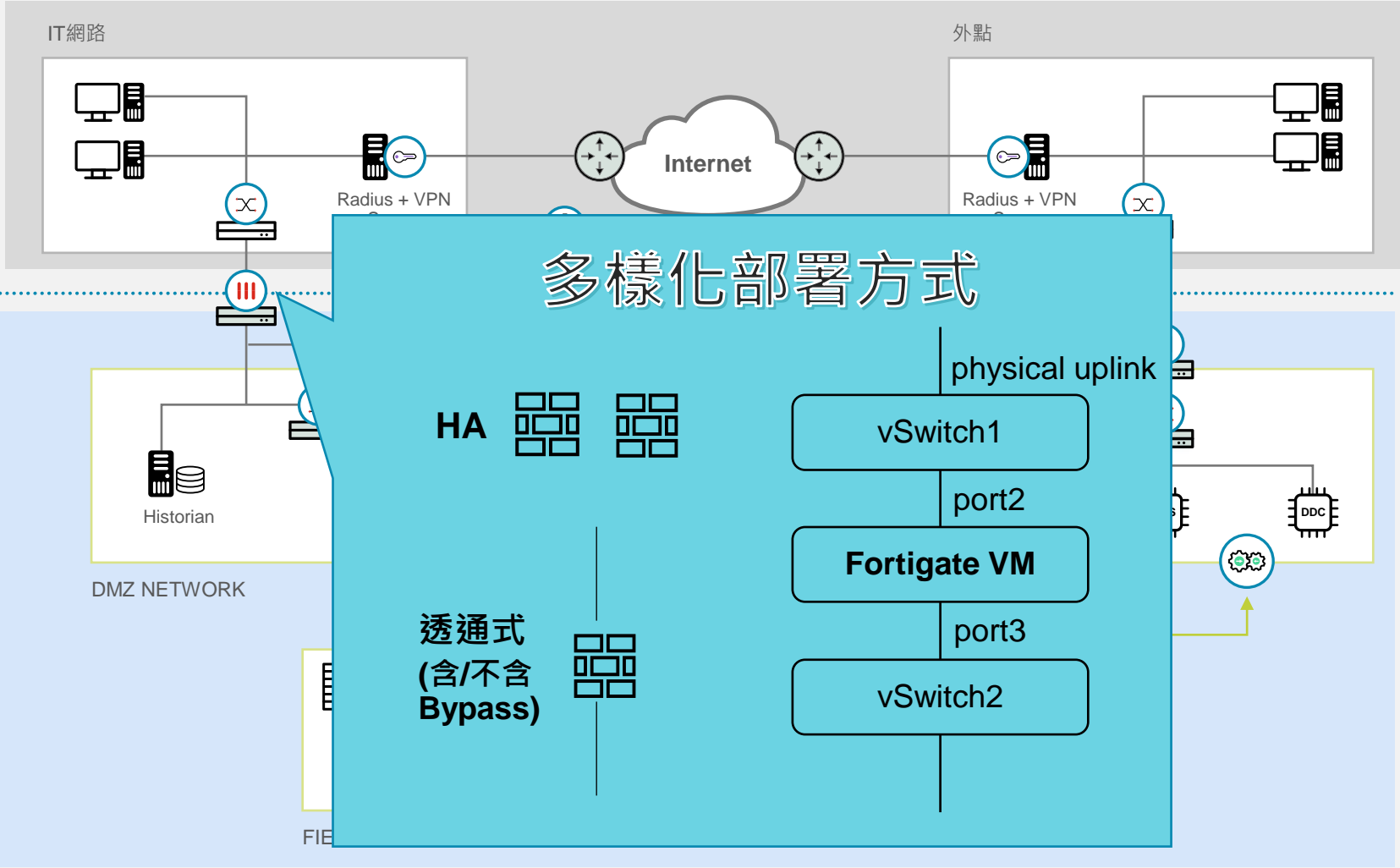
機台/產線



按部就班做資安

Information Technology (IT)

Operational Technology (OT)



控制中心



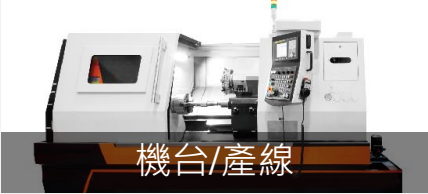
關鍵基礎建設



石化



智慧製造

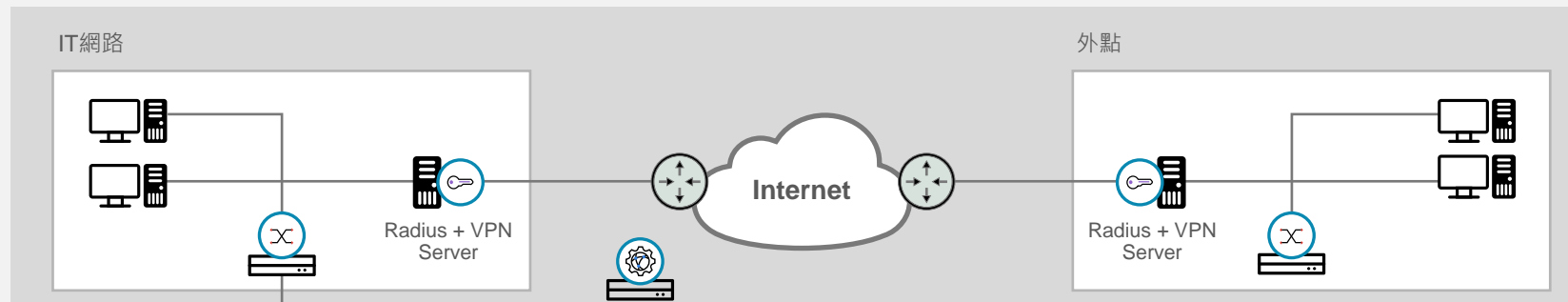


機台/產線

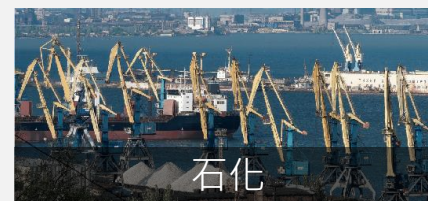
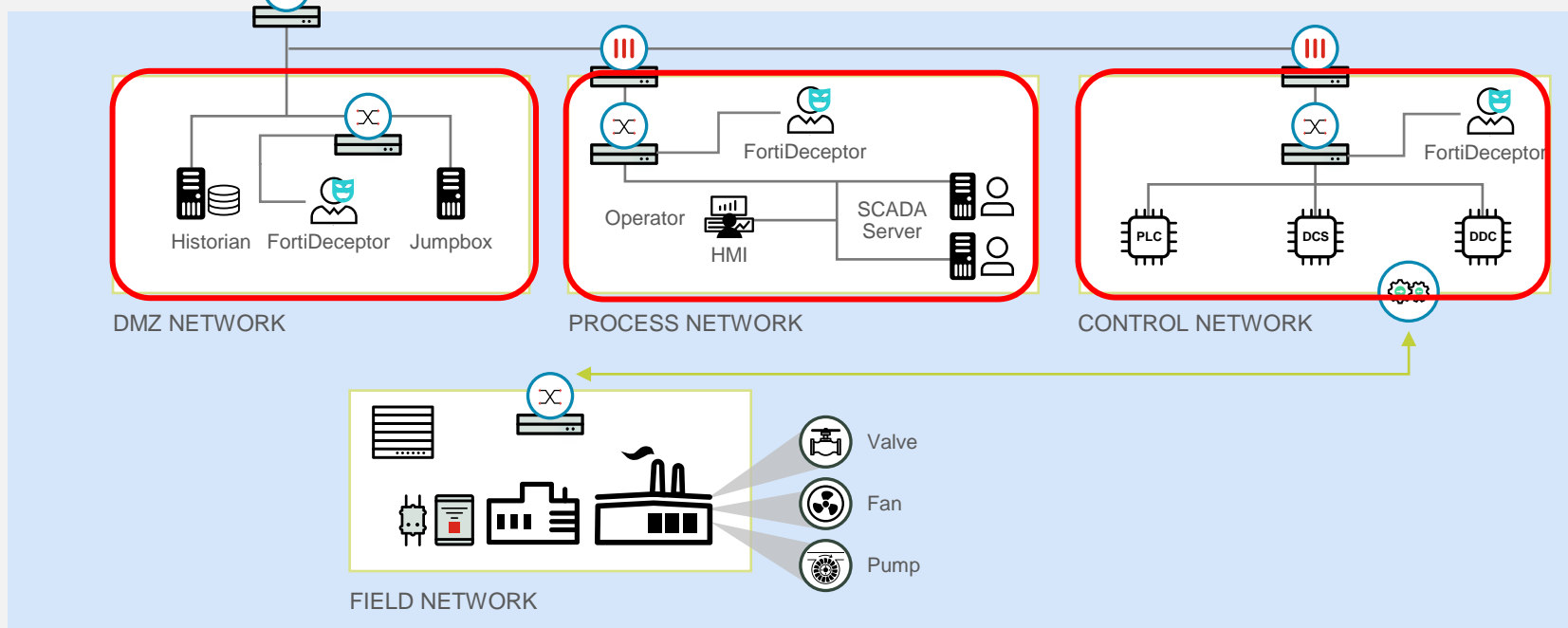


按部就班做資安

Information
Technology (IT)

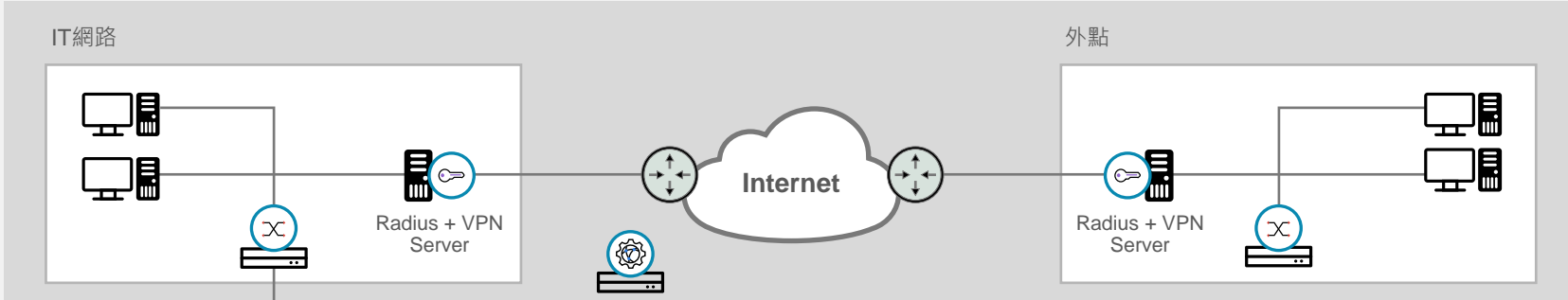


Operational
Technology (OT)

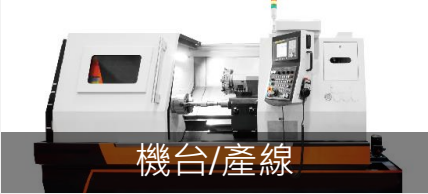
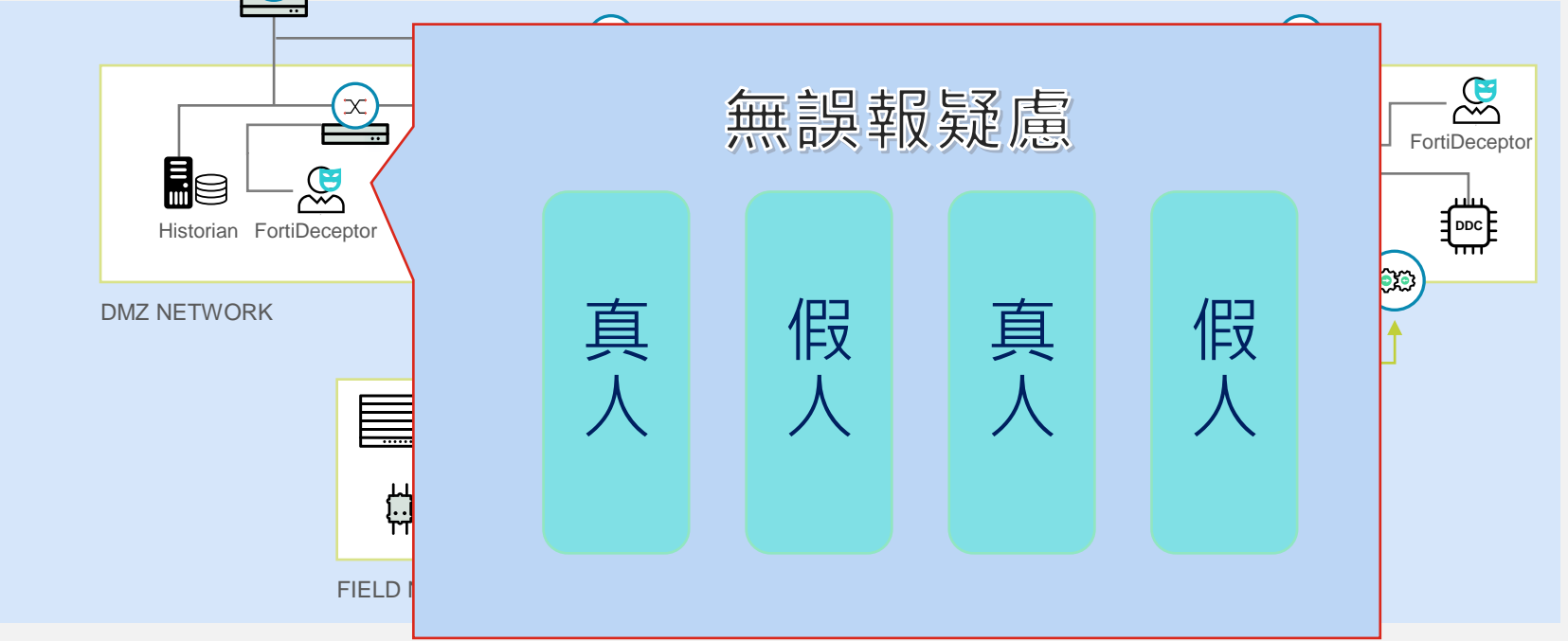


按部就班做資安

Information Technology (IT)



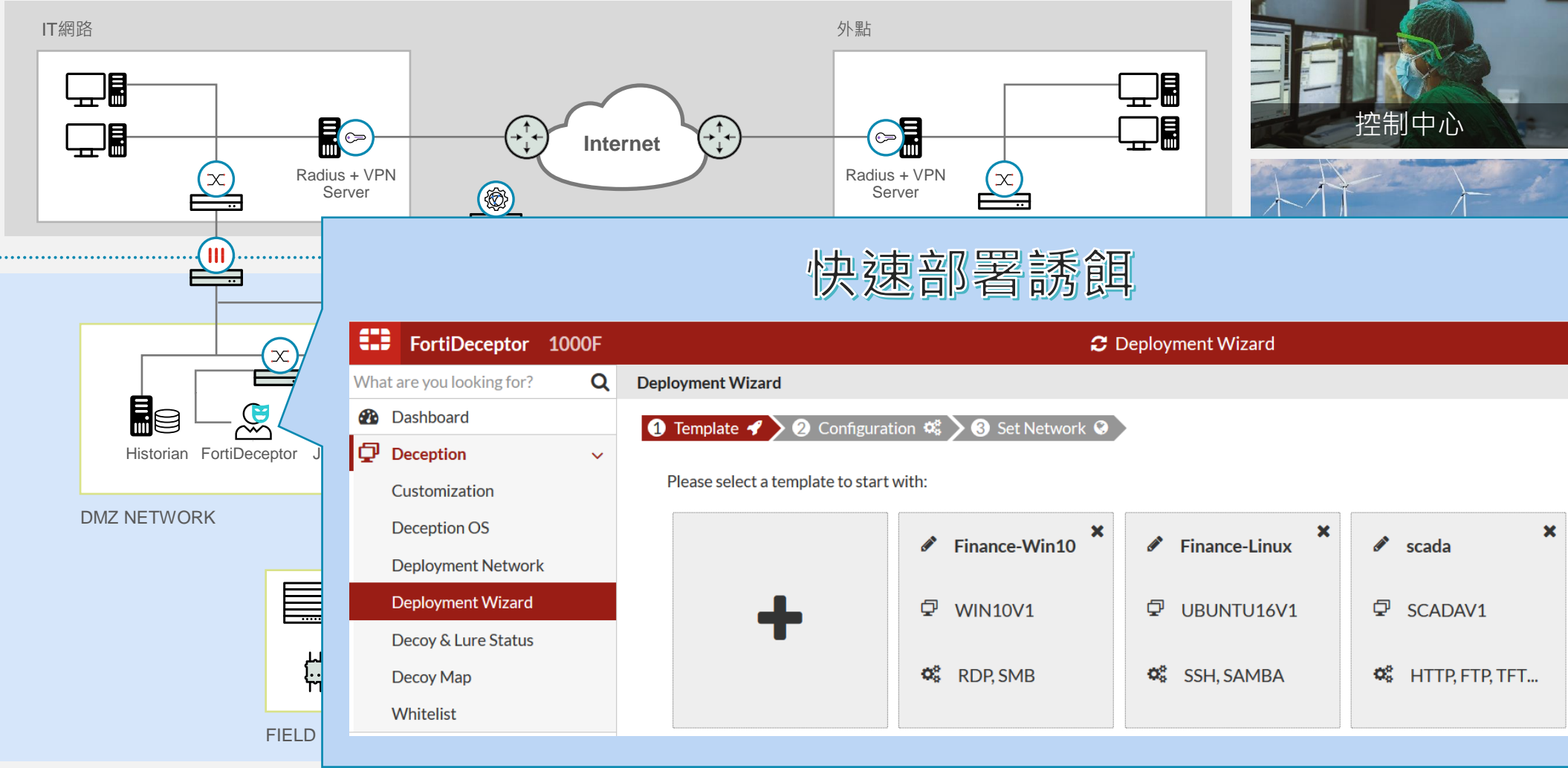
Operational Technology (OT)



按部就班做資安

Information Technology (IT)

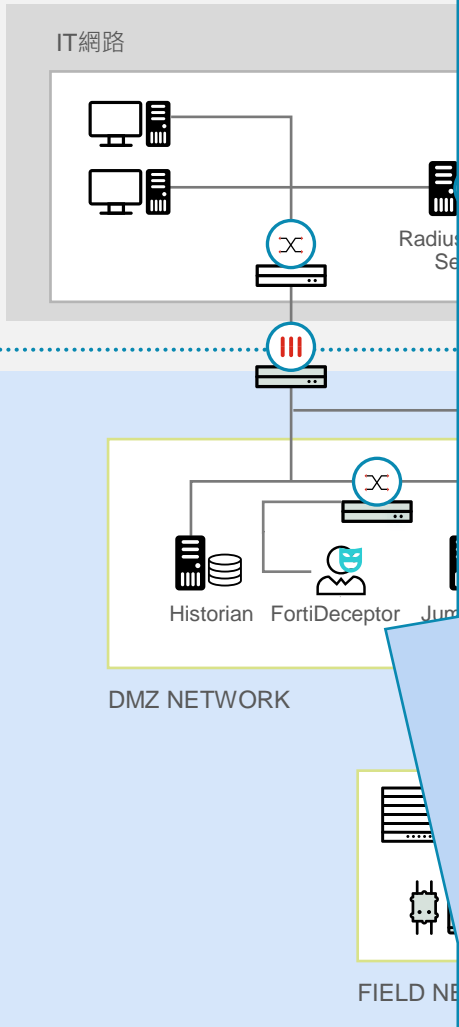
Operational Technology (OT)



按部就班做資安

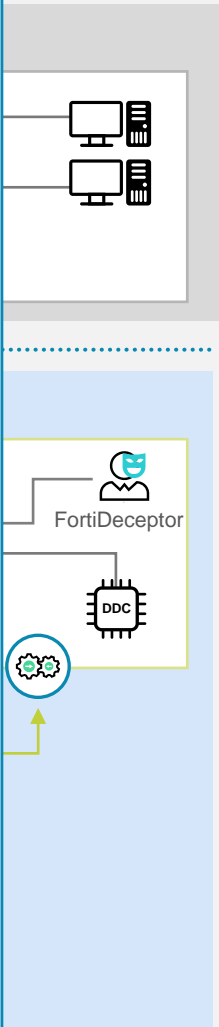
Information Technology (IT)

Operational Technology (OT)



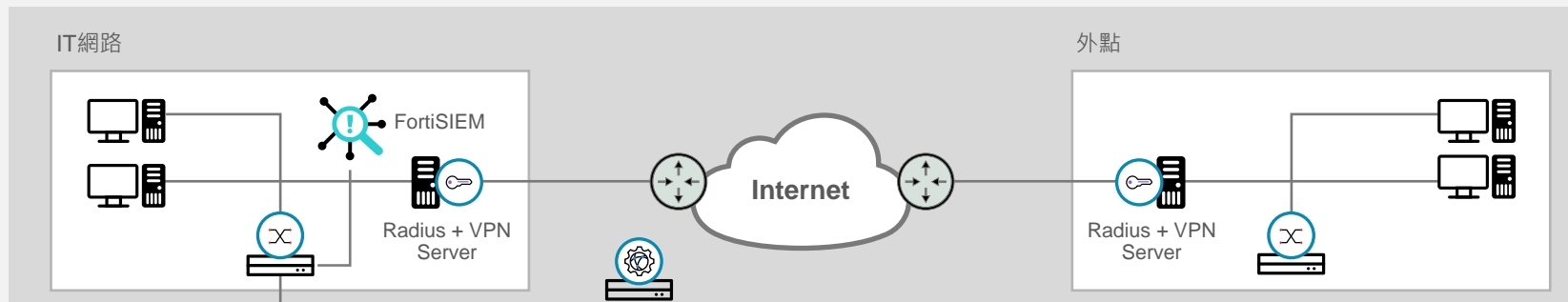
完整足跡

Timeline	Table	Refresh
+	Sep 05 2018 12:05:37	
	Attacker User: aa	
	Attacker IP: 10.90.2.155	
	Victim IP: 10.90.2.168	
	Event Count: 14	
-	Sep 05 2018 12:07:33	
	Attacker User: aa	
	Attacker IP: 10.90.2.168	
	Victim IP: 10.90.2.167	
	Event Count: 6	
⌚	Sep 05 2018 12:07:33	
➡	Logon via Remote Desktop: RDP Logon	
⚙️	Sep 05 2018 12:07:36	
⚙️	Launch process: C:\Windows\explorer.exe	
⚙️	Sep 05 2018 12:08:26	
⚙️	Launch process: C:\Windows\System32\cmd.exe	
⚙️	Sep 05 2018 12:08:32	
⚙️	Stop process: C:\Windows\System32\cmd.exe	
⚙️	Sep 05 2018 12:08:34	
⚙️	Stop process: C:\Windows\explorer.exe	
⌚	Sep 05 2018 12:08:36	
➡	Logoff via Remote Desktop: RDP Logoff	
+	Sep 05 2018 12:12:48	
	Attacker User: aa	
	Attacker IP: 10.90.2.155	
	Victim IP: 10.90.2.168	
	Event Count: 12	

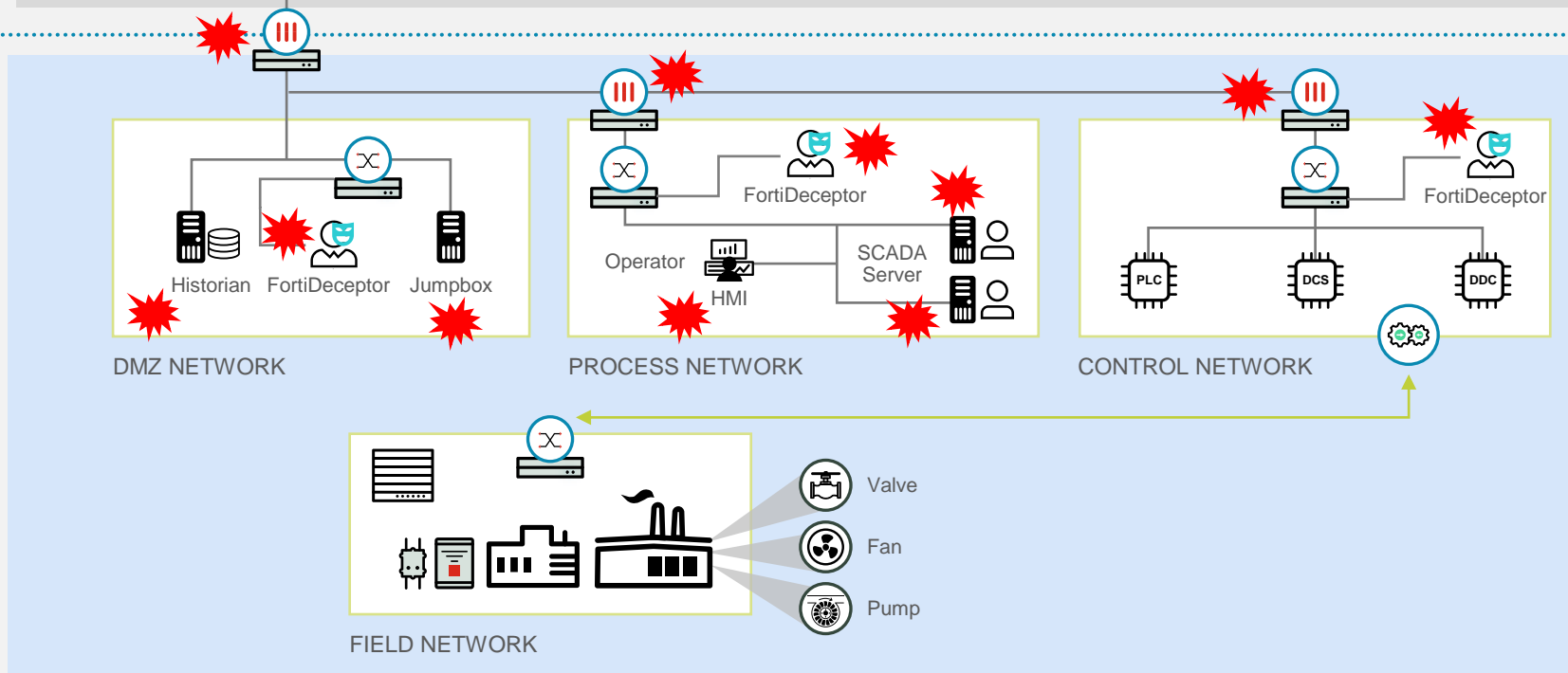


按部就班做資安

Information
Technology (IT)



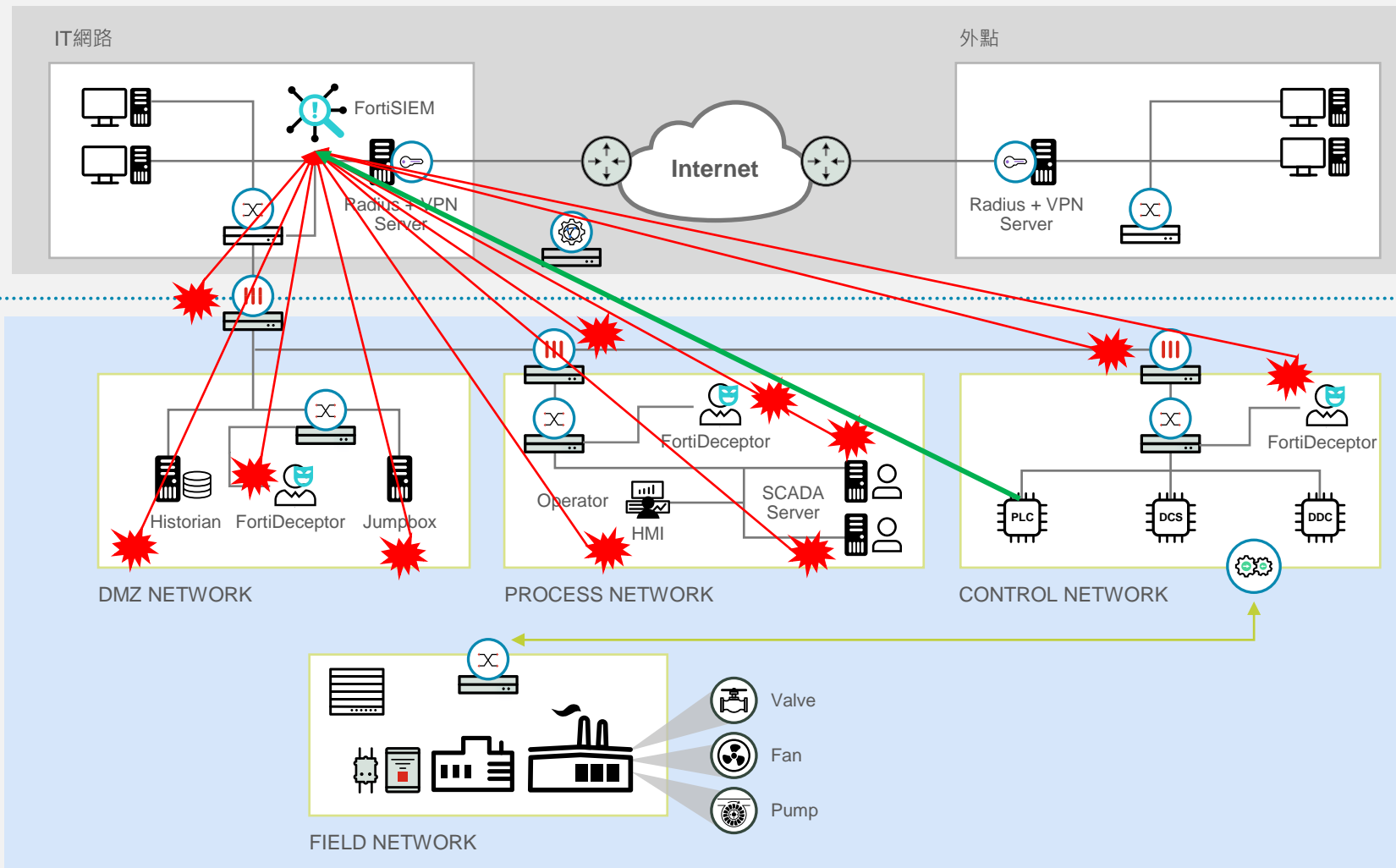
Operational
Technology (OT)



按部就班做資安

Information
Technology (IT)

Operational
Technology (OT)



按部就班做資安

Information Technology (IT)

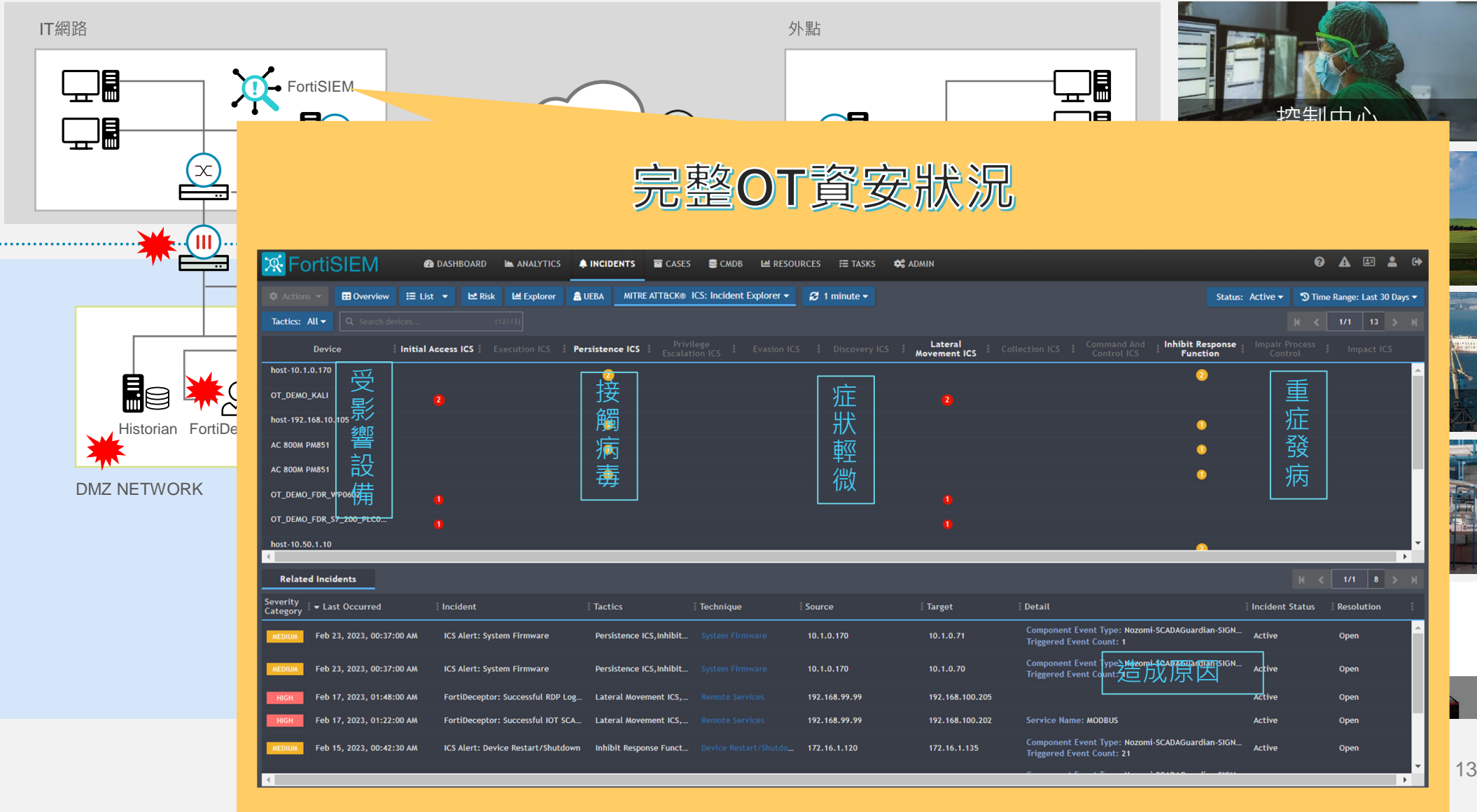
Operational Technology (OT)



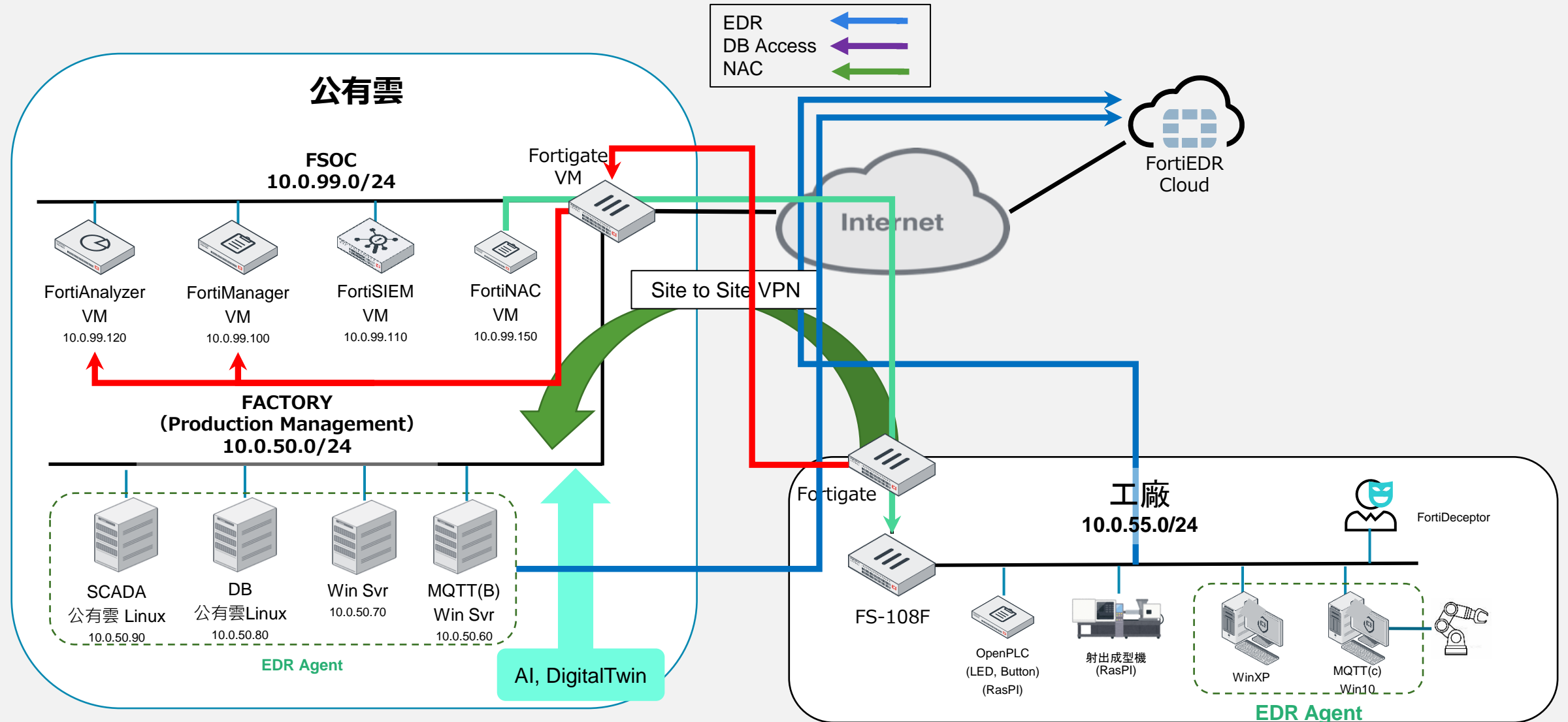
按部就班做資安

Information Technology (IT)

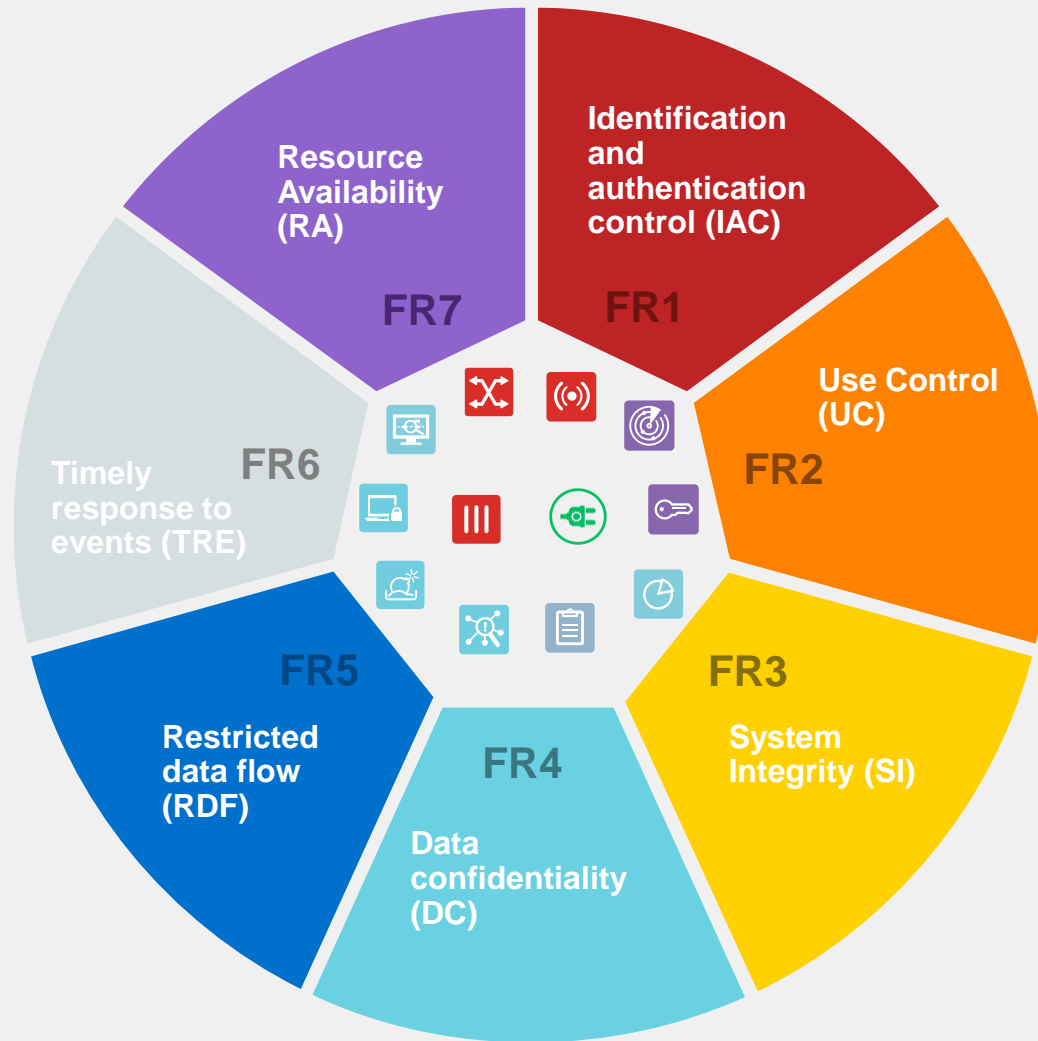
Operational Technology (OT)



Fortinet OT 公有雲方案



IEC 62443 – 對應方案



- 1** FortiGate, FortiWiFi/FortiAP, FortiNAC, FortiAuthenticator, FortiToken, FortiClient, FortiEDR, FortiAnalyzer, FortiManager, FortiSIEM
- 2** FortiGate, FortiWiFi/FortiAP, FortiNAC, FortiAuthenticator, FortiToken, FortiClient, FortiEDR, FortiAnalyzer, FortiManager, FortiSandbox, FortiSIEM
- 3** FortiGate, FortiWiFi/FortiAP, FortiAuthenticator, FortiToken, FortiClient, FortiEDR, FortiAnalyzer, FortiManager, FortiSandbox, FortiSIEM, FortiTester, FortiResponder
- 4** FortiGate, FortiSwitch, FortiAP, FortiEDR
- 5** FortiGate, FortiSwitch, FortiNAC, FortiClient, FortiEDR, FortiAnalyzer
- 6** FortiGate, FortiClient, FortiEDR, FortiAnalyzer, FortiSIEM, FortiManager
- 7** FortiGate, FortiClient, FortiEDR, FortiAnalyzer, FortiManager, Fabric-Ready Partner Solutions





網路安全

- 網路分割
- 網路微分割
- 安全 SD-WAN / SD-Branch
- 網頁安全



零信任存取

- 網路存取控制
- 角色存取控管
- 安全遠程連接



網路維運

- 登入、監控和報告
- 網路運維中心(NOC)



安全維運

- 資安自動協作系統
- 資安運維中心(SOC)



情資與回應

- 端點偵測與回應
- 進階威脅防禦
- 工控安全情資
- 自動 IoT 設備識別



開放式生態鏈

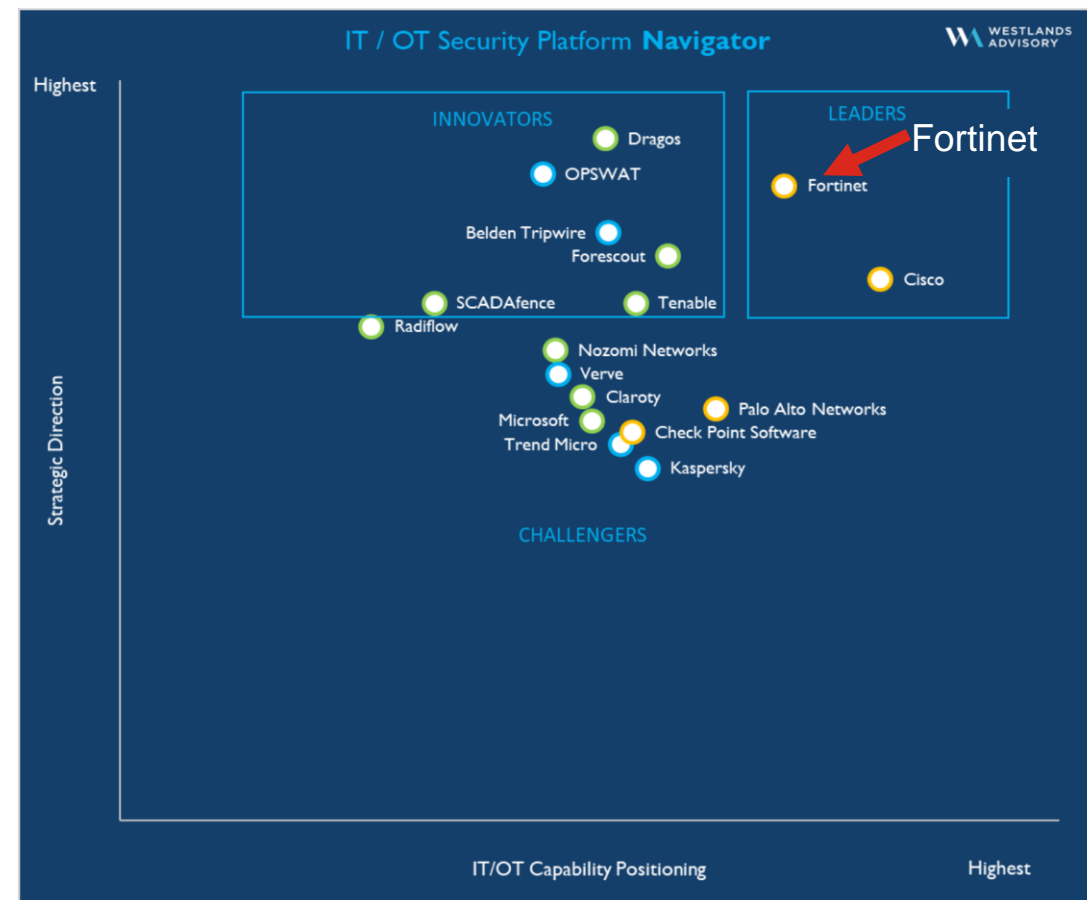
- ICS/OT 安全合作夥伴
- 安全織網合作夥伴



OT方案

- 工規級別硬體
- 虛擬機器
- 3G/4G/5G 無線設備

IT/OT Security Platform Navigator 2022





Secure OT Summit 2023
保衛工控 即刻守護