EATON EAS
Grid Automation System Solution

Substation Automation System

Maricelly Rivera / Alejandro Guzman

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Grid Automation System Solution   *Substation Automation System*

INTEROPERABILIDAD

CIBERSEGURIDAD

CONFIABILIDAD

NERC CIP

EAT·N

ROBUSTEZ

C max

C min

AMBIENTE ELÉCTRICO

CERTIFICADO

SCADA

Yukon Visual T&D

MySQL.

Servidor SCADA

SMP Gateway - Automation Platform

SMP Digital Series

Concentrador /Gateway

RTU/ **Controlador**

Adquisición de Datos

Eaton Cybersecurity Services

People · Process · Technology

Indicadores de Fallas

GridAdvisor Series II smart sensor

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Soluciones EATON EAS

- **Sistema SCADA Centralizado** (Cumplimiento regulación local)

- **Sistema SCADA Local** (Cumplimiento regulación local)

- **Sistema de concentración de Datos (Gateway/RTU)** (Cumplimiento regulación local)

- **Control y supervisión de Servicios Auxiliares**

- Sistema de Control y Protección (Ingeniería secundaria, PES)

- Sistema de Medida (Creg 025 / Creg 038)

- Sistema de Servicios Auxiliares

- Montaje de cableado de BT de Control y Fuerza

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Sistema de Automatización SCADA EATON - Substation Power
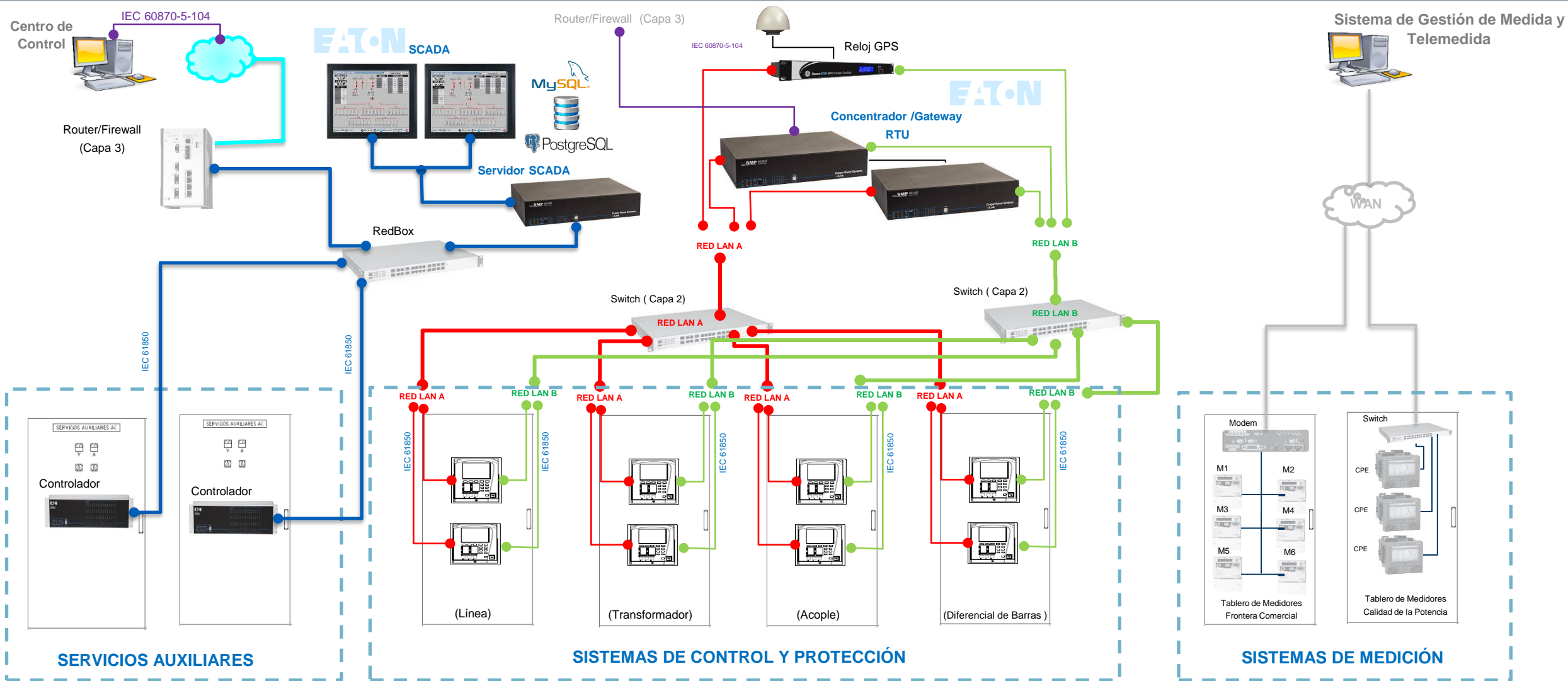
Sistema SCADA DE OPERACIÓN CENTRALIZADO – EATON (OPERACIÓN)
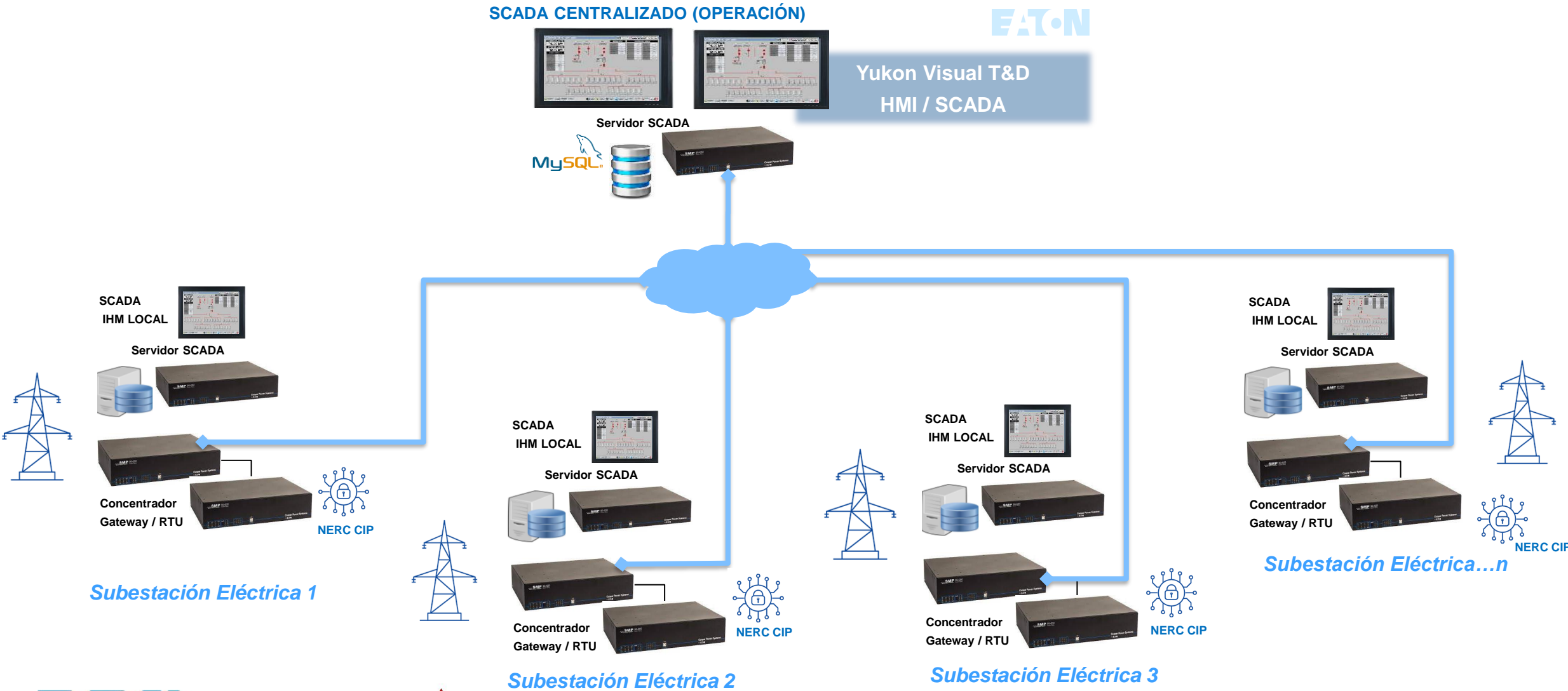
Getting even more from the SMP Gateway Automation Platform

The **SMP Gateway - Automation Platform**

SMP = **S**ubstation **M**odernization **P**latform

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Eaton's SMP Gateway   *Main Functions*

One Box Multiple Functions

✓ *Data Concentrator*

✓ *Protocol Translator*

✓ *Data Distributor*

✓ *Local / Remote HMI*

✓ *Automation Processor*

✓ *Port Switch*

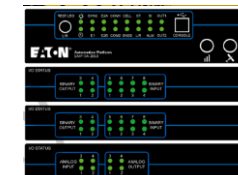✓ *Cybersecurity Appliance*

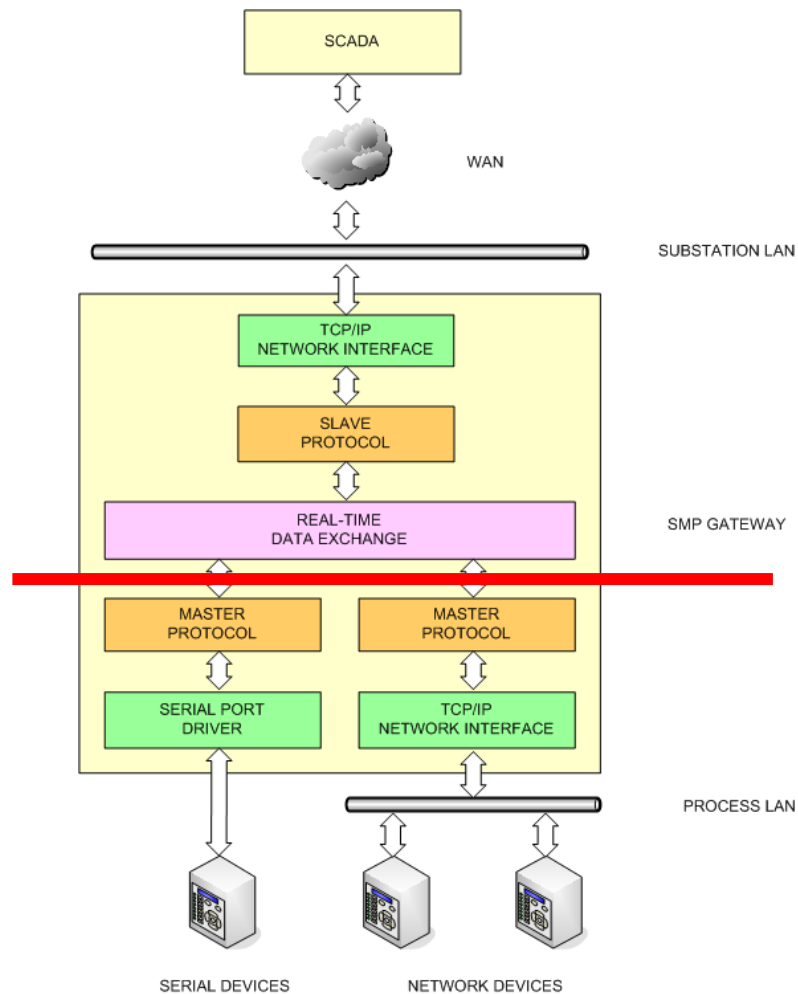✓ *Passthrough Device*

✓ ***And More*……..**

SMP SG-4260

SMP 4/DP

SMP DA- 3050

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SMP Gateway
Software Architecture

- SMP Gateway procesa todos los datos intercambiados entre dispositivos y SCADA, y aísla las redes.

- Los múltiples adaptadores de red proporcionan segmentación de red.

- No se enrutan paquetes TCP/IP entre redes.

- Se ha agregando soporte VLAN para proporcionar capacidades de segmentación adicionales.

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SG-4260 : The *Most Robust Platform in the Market*

Wurldtech Achilles Level 1 Compliant	•**The Achilles** Test Platform is the only communications robustness test platform that can monitor both network and operational parameters, allowing vulnerabilities to be discovered, faults to be reproduced, isolated, identified and resolved before products are introduced to the market.
NESSUS Compliance	**Nessus, by Tenable**, is trusted by more than 30,000 organizations worldwide as one of the most widely deployed security technologies on the planet - and the gold standard for vulnerability assessment.
IEEE 1613 class 2	•**is the IEEE standard** detailing environmental and testing requirements for communications networking devices in electric power substations. The standard is sponsored by the IEEE Power & Energy Society.
IEC 61850-3	•**IEC 61850-3 is** an electrical substation standard by IEC. It defines the communication between intelligent electronic devices in the substation.
IEC 60950:2005 - CB Scheme Electrical Security Report	•**IEC 60950:2005** Applies to information technology equipment intended to be installed in an OUTDOOR LOCATION. The requirements for OUTDOOR EQUIPMENT also apply, where relevant, to empty OUTDOOR ENCLOSURES
CE Marking for Low Voltage Electrical Equipment	•**CE Marked** Electrical equipment that is being sold in the UK and Europe is required to be CE Marked under the Low Voltage Directive (typically shortened to 'LVD').
New Datalight Reliance Nitro file system :	•Robust transactional system designed to prevent memory corruption during power loss •High level of performance regardless of the number of files
Rescue operating system to allow for more reliable remote firmware update	•Is an open source secure bootloader for all microcontrollers, designed to support remote firmware updates in embedded systems

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AUTOMATIZACION
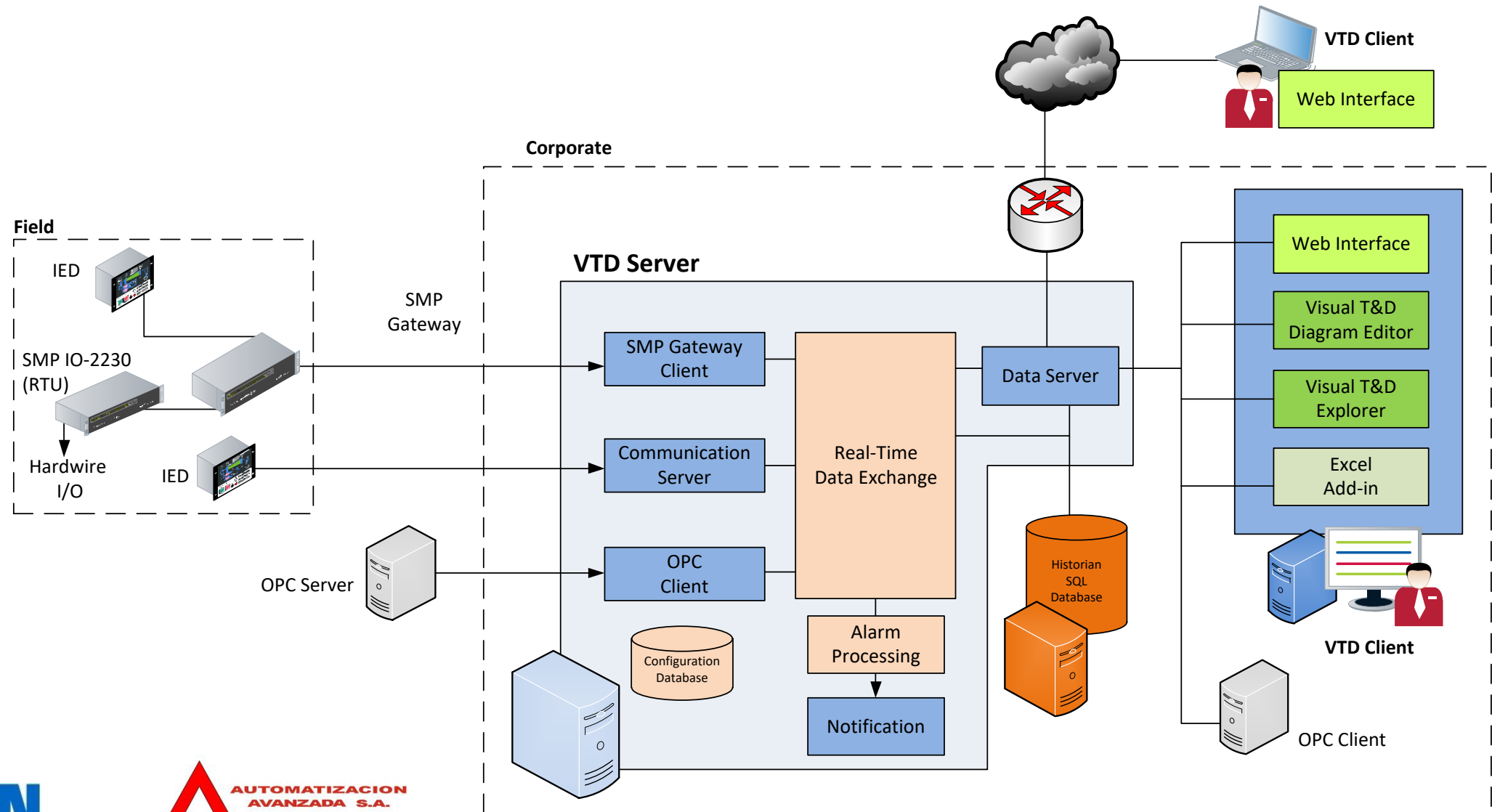AVANZADA S.A.
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Fiabilidad y robustez de la red

- Todos los modelos de SMP Gateway han obtenido la certificación Wurldtech Achilles Communications como dispositivo de red.

- La certificación de Achilles confirma que SMP Gateway puede mantener la disponibilidad incluso cuando se envía a un gran volumen de tráfico, o a un tráfico mal formado como resultado de problemas de red o intenciones maliciosas.

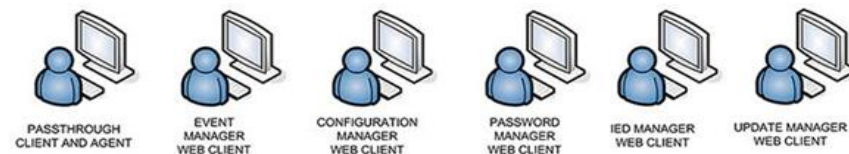- Esta certificación es un subconjunto de la certificación ISA Secure.

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Arquitectura del Visual T&D

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ARQUITECTURA DE CONTROL, COMUNICACIONES Y CIBERSEGURIDAD

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