June/July 2020

Basic PTP Via DNP3
TIA - Portal
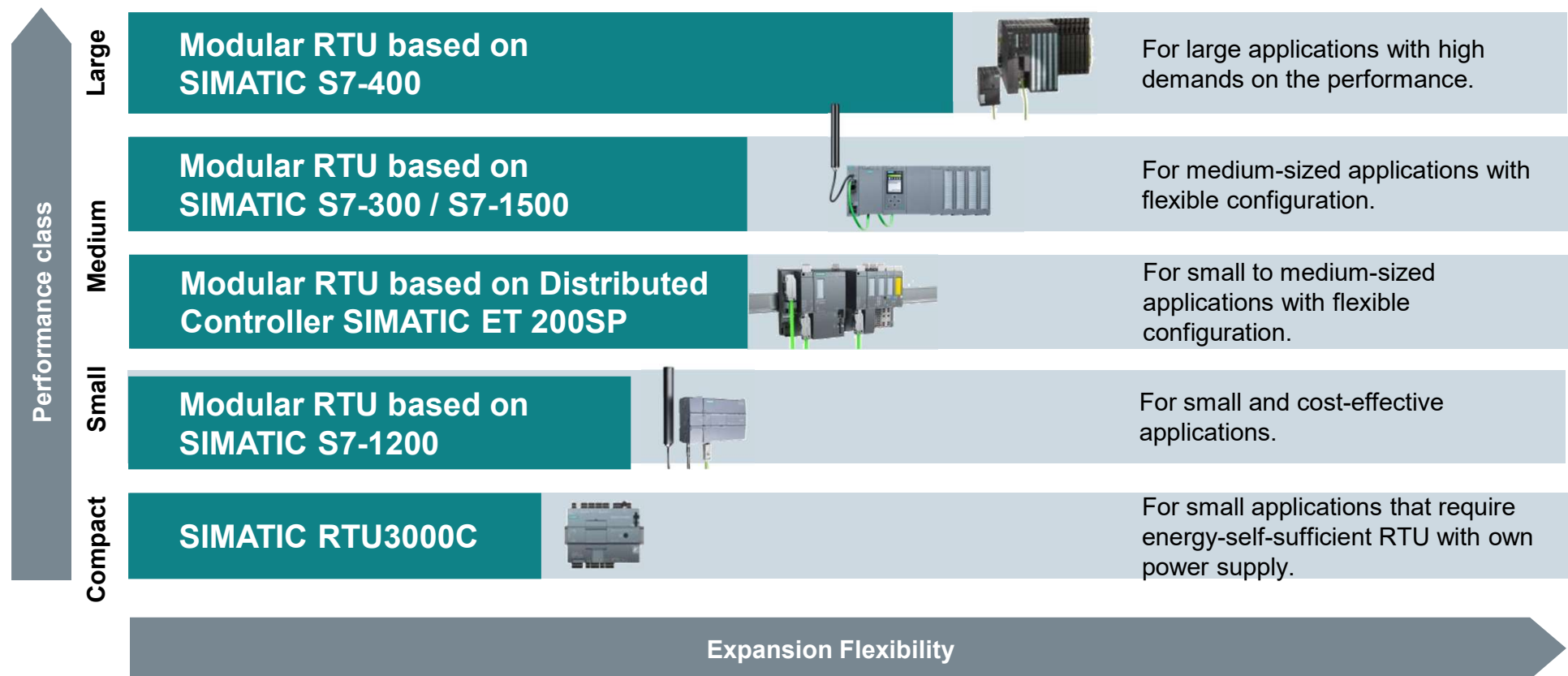
siemens.com/telecontrol

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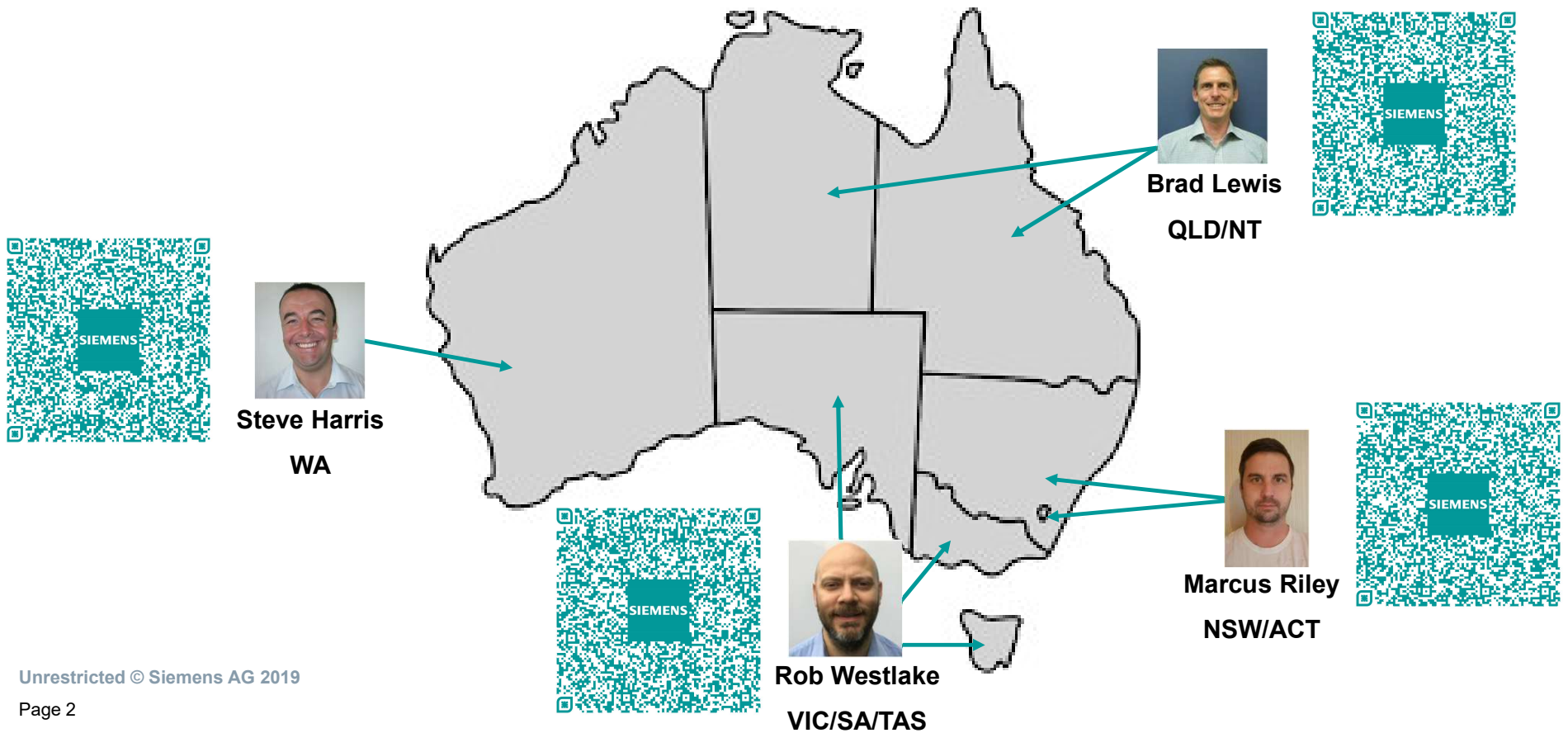
Positioning within Telecontrol RTU Portfolio

Performance class (vertical axis, top to bottom: Large, Medium, Small, Compact)

Performance class	Product	Description
Large	Modular RTU based on SIMATIC S7-400	For large applications with high demands on the performance.
Medium	Modular RTU based on SIMATIC S7-300 / S7-1500	For medium-sized applications with flexible configuration.
Medium	Modular RTU based on Distributed Controller SIMATIC ET 200SP	For small to medium-sized applications with flexible configuration.
Small	Modular RTU based on SIMATIC S7-1200	For small and cost-effective applications.
Compact	SIMATIC RTU3000C	For small applications that require energy-self-sufficient RTU with own power supply.

Expansion Flexibility

CP1243-1 DNP3 / CP 1243-1 IEC Highlights

Flexible choice of remote networks through industrial router e.g. Internet (DSL) or 2-/4-wire solutions with SHDSL **+**

Data point configuration with STEP 7 in TIA Portal **+**

Secure and fast connection for remote diagnostics **+**

Gapless recording of all data and time stamping **+**

Configurable SMS and E-mail alarm **+**

Enhanced integration in the overall system through standard communication of S7-1200 **+**

IEC standard 60870-5-104 with CP 1243-1 IEC: **+**
- Communication with control center, e.g., PCS 7, WinCC, or other control center system available on the market, is based on the IEC telecontrol protocol

Support of **DNP3** protocol with CP 1243-1 DNP3: **+**
- Communication to control center is based on the established standard of the DNP3 specification 2 (2007/2009)
- Secure data transmission over long-distance networks thanks to security mechanisms, which have already been defined in the DNP3 standard (DNP3 Secure)
- Up to **500** Data points

Communication processor CP 1542SP-1 IRC
Distributed Controller SIMATIC ET 200SP as RTU in telecontrol applications

CP 1542SP-1 IRC
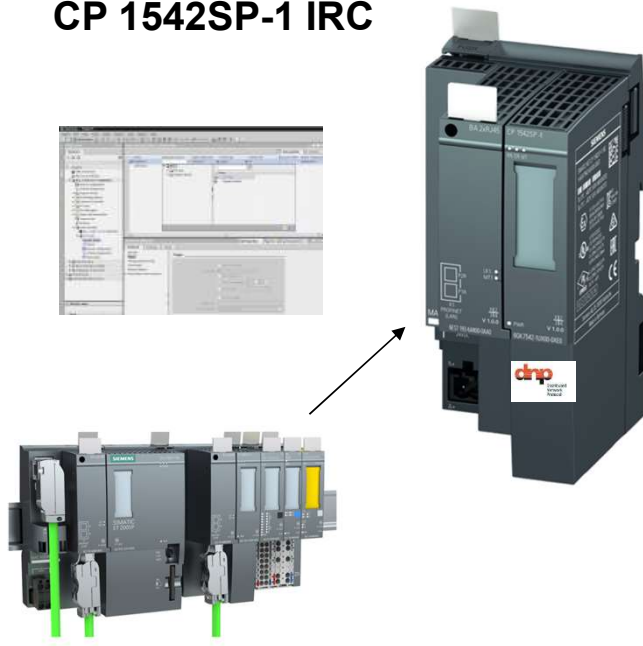
Feature/ Function	Benefit
• The CP 1542SP-1 IRC allows the use of Distributed Controller SIMATIC ET 200SP as Remote Terminal Unit (RTU) in telecontrol applications with both standardized protocols DNP3 and IEC 60870-5-104 and TeleControl Basic protocol	• Connection of Distributed Controller SIMATIC ET 200SP to control center according DNP3 or IEC 60870-5-104. • Connection of substations (RTUs) based on SIMATIC ET 200SP for simple remote control systems with TeleControl Server Basic.
• Data buffering and automated time stamping and support of **1500** data points	• Gapless and comprehensible data recording.
• Data point configuration in STEP 7	• Easy commissioning without programming.

SIMATIC TIM 1531 IRC
Benefits

TIM 1531 IRC

Feature / Function		Benefits
Use in telecontrol solutions as a station module for SIMATIC S7-1500 or as a node/control center	▶	Extension of existing telecontrol systems with S7-1500 stations
Data buffering of telegrams/data points including timestamps	▶	Reliable storage of the data to be transmitted, even in the case of disconnections
Remote configuration and FW update of TIM 1531 IRC, diagnostics and monitoring over WAN	▶	Saving of travel expenses
Path redundancy	▶	Media redundancy provides a higher availability, even if the primary connection fails
Engineering with TIA Portal V16	▶	Centralized and convenient engineering of the telecontrol network saves time and money

Telecontrol in TIA Portal
DNP3 configuration in portal

SIEMENS

Telecontrol network view

Editor telecontrol connections

Display of configured telecontrol connections

Display of connection details for the selected telecontrol connection

Thank you for your attention! → LIVE DEMO

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