May 1

Grid Protection Alliance, Inc.

Who is GPA

GPA is a not-for-profit corporation established in 2010

- Specialize in software and services for the electric utility industry
- Most software is open-source, published under the permissive MIT license
- Focus on a robust, reliable and resilient grid
- Focus on collecting, managing, augmenting, and storing high fidelity power system data

Introduction Key GPA Staff

Grid Protection Alliance, Inc. specializes in the development and support of **innovative software solutions** for the **electric industry**.

GPA has a track record of innovation and **has led major software development projects** with client utilities and the United States Federal Government.

In addition to **custom application development**, GPA offers services for installation, setup, integration, and ongoing **maintenance of its open-source software**.

GPA key personnel have a combined experience of over 120 years in the synchrophasor space and continue to be involved **in industry-wide efforts** including developing of new standards like **IEEE 2664** and **IEEE C37.118-2024**.

Dr. Christoph Lackner
Operating Officer & Lead Engineer

ROLE: Operational & Engineering Leadership

- Establishes new software development projects and ensures the successful completion of established projects.
- Provides engineering oversight of GPA analytic applications.
- 15+ years' experience with synchrophasor data analytics and use of synchrophasor data in various applications such as state estimation, predictive maintenance, and system parameter estimation.
- Specializes in the development of real-time and offline data analytics for power systems.

Stephen Wills
Senior Systems Analyst

ROLE: Lead Software Development

- Major contributor to GPA software solutions and provides system support and integration services to utilities.
- 15 years' experience in developing .NET solutions, much of that time contributing significantly to GPA's core code base – the Grid Solutions Framework.
- Specializes in the management of data from substation devices – PMUs, DFRs, power quality meters, and relays.
- Prior to joining GPA, extensive experience at the Tennessee Valley Authority in development of synchrophasor data software.

Russell Robertson
VP of Grid Solutions

ROLE: Strategic Studies

- Establishes collaborations within the utility industry to support the development and maintenance of open-source software.
- Founded GPA's open-source software and consulting service business.
- Expertise in grid operations, IT/OT architecture, information management, and control systems.

Ritchie Carroll
Senior Solutions Architect

ROLE: Systems Architect & Lead Developer

- Oversees GPA software development and provides software system design and development services to utilities.
- 25+ years' expertise in high-performance software system design, development, and delivery. Has led numerous large software development projects.
- 10 years at the Tennessee Valley Authority leading synchrophasor software development among other operational systems.
- Active participant in NASPI and other industry efforts to improve synchrophasor data systems.

GPA Flagship Synchrophasor Products

openPDC
Phasor Data Concentrator

- The most widely used Phasor Data Concentrator
- Supports 10,000+ PMUs
- Support for 15+ common (and uncommon) data protocols
- Designed for data and IT security
- Most performant data augmentation in the industry
- Support for synchrophasor, point on wave, and SCADA data

openHistorian 2
High-Performance Measurement Archive

- Historian for high fidelity timeseries data
- Most performant read and write database for synchrophasor data in the industry
- Designed for data and IT security
- Support for 15+ common (and uncommon) data protocols
- Support for 15,000+ PMUs

GPA Flagship Synchrophasor Products

New in 2025

openPDC EE Enterprise Edition

- Significant performance upgrades
- Modern security features including SSO support
- Support for modern data encryption
- Modern web-based user interfaces
- Simplified configuration
- Event-based alarming

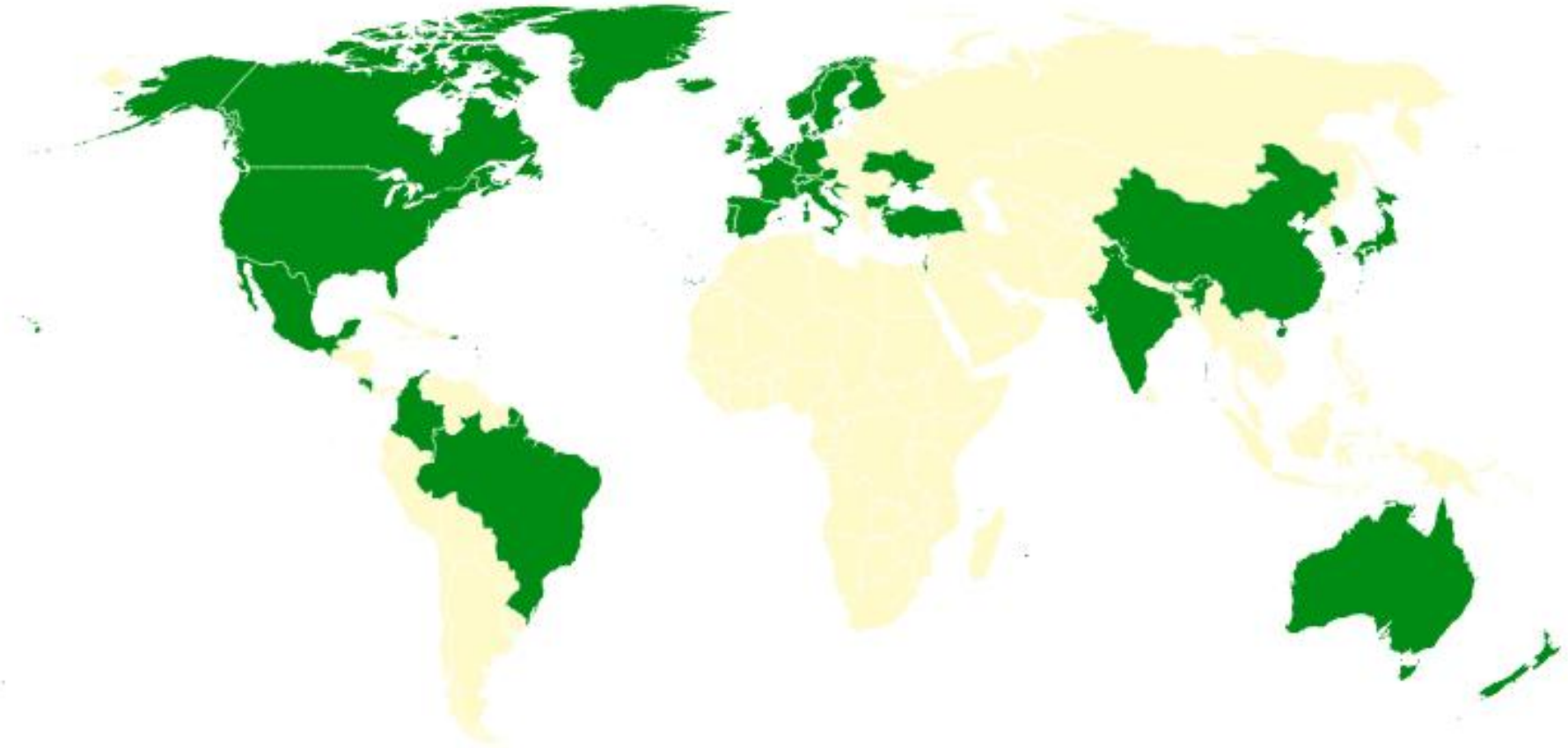
openHistorian EE Enterprise Edition

- Significant performance upgrades
- Modern security features including SSO support
- Support for modern data encryption
- Modern web-based user interfaces
- Read speeds increased by over 30%
- Customizable data retention policies

Open PDC and Open Historian Usage

openPDC
Phasor Data Concentrator

openHistorian 2
High-Performance Measurement Archive



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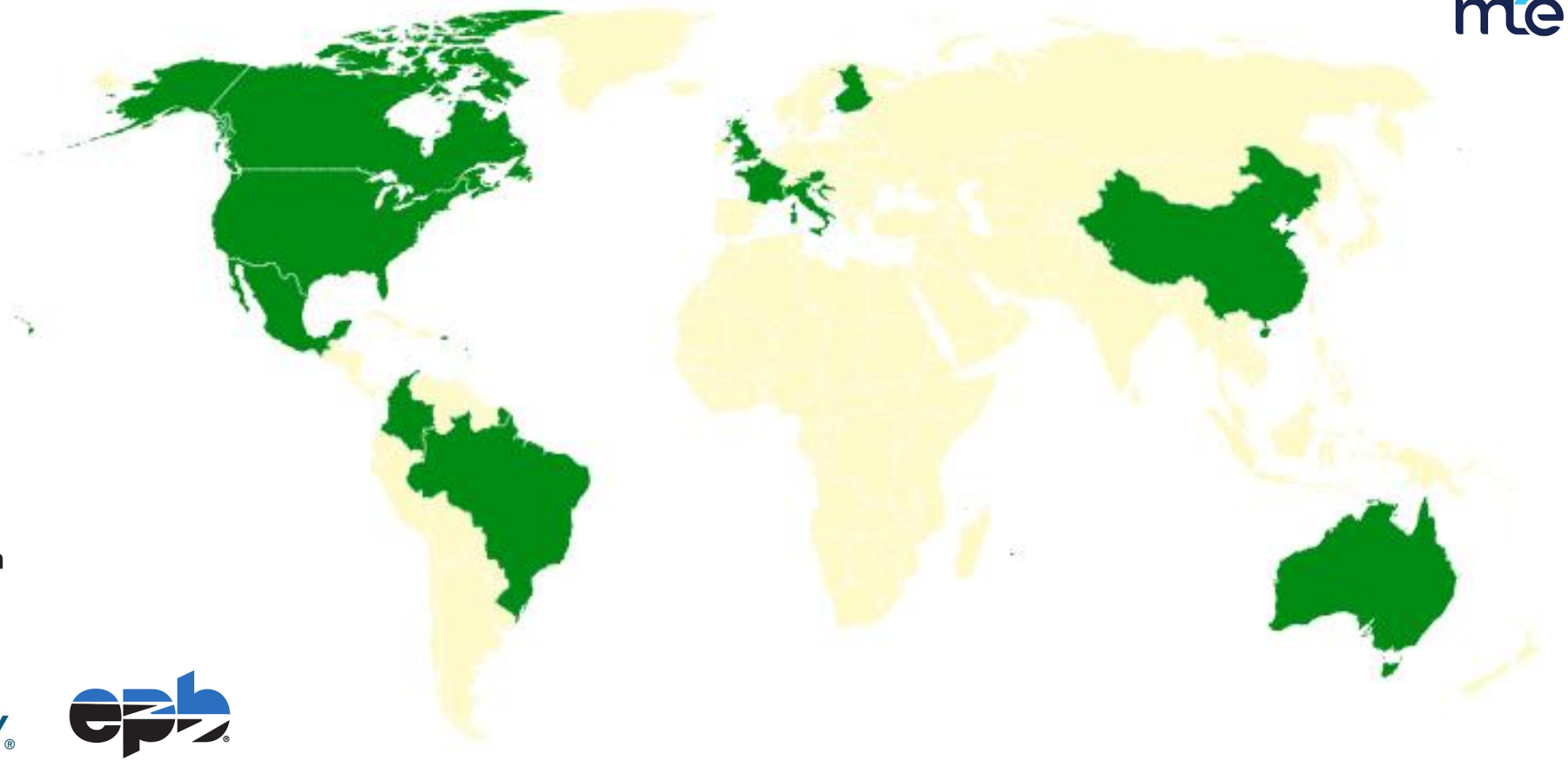
* Based on GPA contracts, GPA forum engagement, and Github Repository Statistics

GRID PROTECTION ALLIANCE

GPA Consulting and Support and Maintenance Clients



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