

PRODUCED BY THE ENERGY DELIVERY & UTILIZATION DIVISION (DELIVERY PROGRAM) EPRI

THE UCA™ PRODUCT *G a z e t t e*

What is UCA™?

The Utility Communications Architecture (UCA™) is a suite of open communication protocols tailored to achieve seamless data transfer throughout utilities. It is the most complete set of non-proprietary protocols available to meet enterprise-wide utility communication requirements. Data communication products conforming to many UCA™ protocols are widely available.

The benefits of using UCA™ protocols are:

- Better business and operating decisions based on current data. Without UCA™, current data will not be available due to the excessive cost and time to interface incompatible systems. Decisions will be made on estimated data or, worse, no data at all.
- Different LAN and WAN media can be interconnected with minimal effort, supporting new needs for business data on a quick reaction basis.
- System implementation time and cost are reduced because of standardized interfaces and models for utility devices.
- Redundant data storage can be eliminated, assuring correct, up-to-date data for all uses.

This UCA™ Product Gazette Lists products and services offered by firms that have been or are under EPRI contract to support projects demonstrating the functions and benefits of UCA™ compliant systems.

A sampling of available products and services that comply with the Utility Communications Architecture (UCA™), presented by EPRI



**Dist/Tran/Gen Relays
(2000R Platform)
Prototype in test at TVA
(adding GOMSFE Models)**

ABB Power T&D
Stephen Beckwith
Ph: 610-395-7333
Stephen.D.Beckwith@ustra.mail.abb.com

ALSTOM ESCA Provides UCA™- Compliant Solutions

ALSTOM ESCA Corporation develops and integrates its Energy Management Platform (EMP™) compliant with open system standards. Specifically, ALSTOM ESCA's **OpenAccess™ Gateway** product designed especially for direct information sharing among the diverse systems of geographically dispersed sites is based on industry standard protocols, such as TASE2 (ICCP), to guarantee interoperability with other customers. For more information please contact Brent Brobak at the number below or via e-mail on brent.brobak@alstom.esca.com. Or, visit ALSTOM ESCA's Web site www.alstom.esca.com



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11120 NE 33rd Place • Bellevue, Washington • Ph: (425) 822-6800 • Fax (425) 889-1700



Contact:
Greg Kovich
Ph: 219-322-4694
Fax: 219-322-5298
greg.kovich@ind.alcatel.com

- OmniSwitch - 3, 5 or 9 slot network switch chassis – featuring integrated firewall; simultaneous ethernet, Token Ring, ATM and Frame Relay support; multicast and broadcast containment; routing.
- OmniSwitch/Router – same as above plus high speed IP routing.
- OmniStack – 24 port to 32 port stackable ethernet switch family – same features as OmniSwitch.



Contact: OpenAccess Sales
408-473-0200
Sales@atinet.com
<http://www.atinet.com>

OpenAccess™ ODBC SDK

- Do you need a UCA/DAIS gateway to your SCADA or historian database?
- Using OpenAccess ODBC SDK, you can have a solution ready for distribution in weeks!
- OpenAccess can help create an ODBC, JDBC, and OLE-DB access solution to any type of proprietary or non-SQL database.



Alligator Communications, Inc.
Smart Point-to-Multipoint "Maintenance-Free" Radios
A new MAS radio is available with Automatic Global Frequency Calibration, Automatic Deviation Control, and Automatic Level Control!

Contact Information:
Henerey Wu, Director of Sales
Ph: 408-327-0800; Fax: 408-327-0808
E-Mail: gator@alligatorcom.com
<http://www.alligatorcom.com>

Digital Load Tap Changer Control for LTC transformers and regulators features:

- Universal application through interchangeable panels
- Access through communication to all setpoints, configuration and metering values
- RS-232 serial communications port with UCA-compliant, 3-layer (MMS, ADLC) protocol

BECKWITH ELECTRIC

Beckwith Electric Company
Marketing Dept.
Ph: 727-544-2326; Fax: 727-546-0127
marketing@beckwithelectric.com
www.beckwithelectric.com



- UCA2 Compliant
- Sub-cycle measurements and communication speeds
- Ideal for LANs and WANs
- Utility-grade



Bitronics, Inc.
261 Brodhead Rd
Lehigh Valley, PA 18002-2290
Phone: (610) 865-2444
Fax: (610) 865-0340
Email: sales@bitronics.com



DAVID SPLAWN AND ASSOCIATES

- UCAP 600 – Front-end Processor for existing RTUs and IEDs
- UCAP 620 – UCA RTU expandable from 8 Status, 8 Analogs
- UCAP 800 – 8 channel UCA gateway for legacy RTUs
- UCAP 1000 – UCA RTU Test Set – Supports GOMSFE
- MMS Clock – UCA server providing net time and IRIG B

Tel: (408) 973-7236 • E-Mail: sales@dsacom.com • Website: www.dsacom.com



CAE Electronics Ltd.

CAE supplies SCADA, EMS and DMS systems around the world incorporating open system standards such as ICCP, MMS, SQL, etc.

Contact: Marketing Dept., Tel: 514-341-6780
Fax: 514-734-5617, <http://www.cae.ca/>

Electrotek Concepts®

- UCA-related system integration, design, and consulting
- Wide Area Network feasibility studies, and design
- Custom MMI software development with Web-based interfaces
- Power monitoring system design, implementation, consulting and integration
- Power system measurement, analysis and simulation
- Distributed generation consulting, planning, and simulation

Contact: Erich W. Gunther
erich@electrotek.com
Ph: 865-470-9222 ext. 114
Fax: 865-470-9223



Real Time, Two-Way Meter Reading & Energy Communication/Control Solution

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Contact:
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ajlutz@comverge-tech.com
<http://www.comverge-tech.com>

WinMon- Powerful User Interface Software

- Modular, UCA™-complaint open architecture. The system can also gateway to typical SCADA protocols.
- Works with Cycle Software's LiveData Server
- Provides full access to data commonly found in DA equipment

EnergyLine Systems
Steve Isaacson
510-864-9300
stevei@elsi.com
<http://www.energyline.com>



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Universal Relay Series (UR) - The Engine for Substation Automation

As stand-alone units or integral components of a complete substation, the UR product family offers:

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- FlexLogic™ Programmable Control
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- Peer to Peer Communications
- Flash Memory
- Flexible oscillography
- URPC Software

An end to stranded relay investments



The leading manufacturer of power and power quality monitoring instruments in the electric power industry. UCA products:

- **5502 InfoNode** – protocol gateway, data storage and analysis platform, providing a Web-based user interface to UCA devices, using GPS-based network time source and Internet NTP time protocols.
- **5530 DataNode** – Revenue accurate energy, power, and power quality monitoring device using UCA as its communication protocol. Implements all proposed UCA GOMSFE metering object models plus extensions. Oscillography available in COMTRADE and PQDIF formats.

Jerry Olechiv • jolechiv@dranetz-bmi.com • Ph: 800-372-6832 or 732-287-3680 • Fax: 732-248-1834

G&W Electric Company, UCA™ Switch Controller

- Provides local and remote control of polemount overhead loadbreak switchgear to 38KV.
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- Fault detection and auto sectionalizing.
- Communicates via fiber optics, radio or land line.
- Company can supply switchgear and control packages.

Contact: Larry Arends, Marketing Manager, Blue Island, IL
Phone: 708-388-5010; Fax: 708-338-0755
<http://www.gwelec.com>



Expert Consulting & Integration Support is available from the following providers that have supported EPRI's UCA™ projects

Company Name	Contact Name	Telephone Number
Arthur D. Little	John Day	(617) 498-5632
Black & Veatch	Carla Stallard	(913) 458-7714
ESRI	Linda Hecht	(909) 793-2853
Harlow Consulting	James Harlow	(727) 593-5183
Hypertek, Inc.	Dr. Martin J. Burns	(301) 216-9836
InStep Software, LLC	Anthony C. Maurer	(312) 269-STEP

- **LiveData ICCP Server** -ICCP front-end processor; tie-in to any EMS, SCADA.
 - **LiveData Server** -1000 device-client connections; link MMS to non-MMS systems, including Databases, Web, E-Mail, HMIs.
 - **LiveData MMS Client** - Browser view of real-time data from MMS Ethernet networks. MMS/DEE into Windows applications.
 - **LiveData MMS ActiveX Control** - Build custom MMS client applications in VB, Visual C++, Web Active Server Pages, more ...
- All LiveData PC products support OSI and TCP/IP simultaneously.

Contact: Mike Zola Ph: 617-576-6900
mdz@livedata.com www.livedata.com



ROCHESTER INSTRUMENT SYSTEMS



- **Smarter Power Quality Analyzers**
- **Alarm Management Systems**
- **TR-2000 MFR Transient Recorders**

World Headquarters
255 North Union Street
Rochester, New York 14605
Tel: (716) 263-7700
Fax: (716) 262-4777
E-mail: sbleier@rochester.com

Asia Pacific Headquarters
Balmoral Plaza
271 Bukit Timah Road #03-09
Singapore 259708
Tel: (65) 732-8675



Robert Gilbert, Sales Manager
7000 A Hollister
Huston, TX 77040
Ph: 713-939-9399
Fax: 713-939-7424
bob.gilbert@sage.nelesautomation.com

UCA™ Compatible
SCADAMaster Stations
Automatic Generation Control
Production Planning
Production Network Analysis
ICCP
Poletop RTUs
Substation RTUs
Power Quality Monitoring

Modicon TSX Quantum NOE 5X1 MMS Ethernet

First Hardware/Software product for EPRI UCA™/Substation Automation Project.

- Current UCA™ 2.0 protocols for Substation Automation
- PLC and device data to engineering desktops with MMS over Ethernet
- Name access to devices and data points
- Ideal for substations and other utility environments
- Twisted pair or Fiber Optic options both shipping today

Contact: Bernard Lecours, Marketing Manager
Ph: 919-266-8859; Fax: 919-266-8293
Email: bernard.lecours@modicon.com
Web: substationautomation.com



Contact: Karlheinz Schwarz
Ph: +49 721 68 48 44
Karlheinz.Schwarz@nettedautomation.com

UCA In-a-LINUX-box

- Sub-Credit size PC.
- Embedded LINUX, Web, ftp, telnet server.
- Embedded UCA using OSI, TCP/IP or ADLC.



Siemens Power Transmission & Distribution, Inc.

- **Protocols:**UCA™(UCA™ V2, ICCP), legacy, IED, & enterprise protocols.
- **Data Access:**Via published APIs, ActiveX or standard RDBMS methods.
- **Open:**Standard PC hardware & O.S. (WinNT4.0) allow the PCC to be the platform for a variety of applications limited only by your imagination.
- **Human Machine Interface:** Full-featured HMI is available
- **High Performance:** Proven to handle thousands of value changes/seconds.

Contact:
Douglas Proudfoot
7000 Siemens Rd.
Wendell, NC 27591
Ph: 919-365-2034; Fax: 919-365-1432
douglas.proudfoot@ptd.siemens.com

Remote Monitoring & Control Products

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Quindar Products Ltd. has a complete line of SCADA master stations and RTU's, as well as Distribution Automation products for electrical utilities. RTU's have been tested and qualified to the UCA2 standard.

Contact: Benjamin Perez
Phone: 905.826.7237 Ext. 220
Fax: 905.826.7144

E-mail: bperez@quindar.com
URL: http://www.quindar.com

UCA and ICCP for Users and OEMs

SISCO provides UCA and ICCP-TASE.2 products that enable OEMs and users to utilize UCA and ICCP-TASE.2 efficiently and cost effectively. SISCO provides UCA and ICCP-TASE.2 software products for embedded systems, IEDs to large UNIX based host systems. SISCO also provides plug-in access to UCA and ICCP-TASE.2 for popular Windows based applications.

SISCO, Inc., 6605 191/2 Mile Road
Sterling Heights, MI 48314-1408 USA
Tel: 810-254-0020
Fax: 810-254-0053
http://www.sisconet.com, info@sisconet.com



Expert Consulting and Integration Support Contractor's List Continued

Company Name

Contact Name

Telephone Number

KC Associates
Power System Engineering
Sargent & Lundy Corp.
Telecommunications Networking and Technologies Research
Utility Consulting International

John T. (Jack) Robinson
Tom Labakken
Mark W. Conroy
August Nevolo, P.E.
Frances Cleveland

(408) 265-5369
(319) 351-4490
(312) 269-2087
(415) 776-8140
(408) 366-8700

SQUARE D New POWERLOGIC® Ethernet Gateway

- Monitor and control your electrical distribution network over:
 - your existing local and wide area networks
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- Allows multiple users, at multiple locations, to have unlimited access to a facility's power system information from anywhere.
- Ethernet Gateway, combined with POWERLOGIC® System Manager™ 3000 power monitoring software, makes it easy to manage power in multiple sites as a comprehensive system.
- No need to install and maintain a separate proprietary network.

Contact: John Straughn, Square D Company

Phone: 615-287-3409
E-mail: straughn@squared.com



www.tasnet.com

SCADA and IED Communication Specialists

Complete protocol solutions including integration of MMS and non-MMS data.

Yesterday – Today – Tomorrow!



SEL-2071 Ethernet Protocol Card
Plug-in card will add Ethernet connectivity to the field proven technology and future relays

Contact:
Tim Tibbals
509-332-1890
timti@selinc.com

The SEL-2030 is the powerful Communications Processor that acts as a substation network controller and supports plug-in protocol cards such as the SEL-2701 Ethernet Protocol Card. The modular card design and multiple card slots allows for redundant communication interfaces or support of multiple protocols.

Contact:
Dean Klas
509-332-1890
deankl@selinc.com

UCA™ 2.0 System Integration & Migration Solutions

MMS communication over Ethernet, RS-485/UART links, and radio using GOMSFE device models.

- IED integration
- Legacy system and device integration
- Multipoint communication gateways
- Distributed, networked RTUs
- ICCP, utility applications

Contact: Randy Ehlers
randy.ehlers@us.telegyr.com
at 408-452-5268



Tamarack Consulting

“UCA™ for Small Devices”

Tamarack Consulting, Inc.
1900 W. Stadium Blvd., Suite D
Ann Arbor, MI 48103
Ph: (734) 761-8369
Fax: (734) 761-8383
products@tamarack.com
<http://www.tamarack.com>



Contact: George Shimmel
gs@tamarack.com



Trillium Digital Systems, Inc.
Communications Software-ISDN
LAPB and PAPD

Supports LAPB and LAPD link level protocols.
May act as user and/or network side.
Supports TEI management procedures, ITU-T, ISO and other variants.

Contact:
Marketing Dept.
Kim Billingsley
310-442-9222
marketing@trillium.com
<http://www.trillium.com>

Utilities Involved in Testing and Implementing UCA™

U.S. Utilities

- Ameren
- American Electric Power
- Arizona Electric Power
- Baltimore Gas & Electric
- Bonneville Power Authority
- Boston Edison
- Cinergy
- City Public Service of San Antonio
- Commonwealth Edison
- Consolidated Edison
- Duke
- Duquesne Electric

- Florida Power Corp.
- GPU Energy
- Indianapolis Power & Light
- Kansas City Power & Light
- Northern States Power
- Potomac Electric Power
- Pennsylvania Power & Light
- Public Service Electric & Gas
- Southern California Edison
- Tampa Electric
- Tennessee Valley Authority (TVA)
- Texas Utilities
- United Power Association

Foreign Utilities

- ENEL
- National Grid
- NUON/TB
- Ontarion Hydro
- VEW

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