**Ronald**
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**UNIVERSAL Technologies**
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## EXECUTIVE PROFILE

Highly motivated, results-driven executive with more than 30 years experience in various enterprise network computing environments including infrastructure, virtual computing, networks, systems, security architecture, data center design, deployment and management. As Chief Technology Officer (CTO) for UNIVERSAL Technologies, Inc. was lead architect and project head on numerous research and development initiatives which resulted in the creation of effective integrated enterprise solution products in the areas of enterprise server based computing and directory services. Executive level technology advisor including business plan generation, CIO level technical sales qualification, account planning and strategy.

Co-author of the Network Security Toolkit (NST) which is a Linux distribution that provides easy access to best-of-breed Open Source Network Security Applications and should run on most x86/X86_64 platforms.

## TECHNICAL SUMMARY

- Solution Architecture for enterprise systems
- Linux Security and System Administration Enterprise toolkit design
- Enterprise Virtualization Infrastructure system and desktop design
- Enterprise infrastructure, network, system, security, data center design and architecture
- Secure Wireless Access to Enterprise Data Assets
- High profile IT technical profession interview qualifier
- White paper generation on various emerging enterprise IT topics
- Project manager on large-scale IT deployments
- Research and Development techniques from design to product roll-out
- Major vendors directory services integration
- Major Vendor OS interoperability (Unix, Linux, Windows (NT, 2000-2010, .NET)
- Firewall, intrusion detection,and content filtering and enterprise server virus protection
- Network protocol analysis
- Enterprise network services design and deployment (DNS, LDAP, SMTP and DFS)
- Senior level system administration of enterprise large-scale UNIX based systems
- Design and Engineering of enterprise-wide network communication infrastructures
- Developed high precision distributive network time synchronization software
- Management of long term large-scale data collection networks
- Design and development in both hardware and software of data collection controllers
- Analysis of large data bases related to lightning research projects
- Multiple computer technologies, including operating systems, tools, compilers, database, CAD, micro-electronic repair and design, user interfaces and graphics

## TECHNICAL SKILLS

### *Network Computing*

| OS(s): | Sun enterprise servers (Solaris), HP UNIX, Linux, Windows (2000 - 2010, .NET), Mac OS X, Cisco IOS |
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| Languages: | Unix scripting, FORTRAN, Forth, BASIC, Assembler, C, C++, C#, Shell Scripting, Java |
| Security: | Cisco PIX, ISS RealSecure, CheckPoint FireWall1, IP Tables |
| Backup: | Veritas NetBackup, Legato NetWorker |
| Directory Services | Sun ONE Directory Server, Novell NDS, Microsoft Active Directory, Open LDAP |
| Messaging | Sun ONE Messaging Server and Exchange 2000/2003 |
| PKI | Sun ONE Certificate Server, Windows 2000, 2003 Certificate Service and PGP |
| Wireless | Enterprise BlackBerry Server, UnPlugin Knowledge Access Server |

### *Diagnostic Toolset*

| Communications: | Digilog 320 and 900 protocol analyzers, Network General Sniffer LAN analyzers, Ethereal, Wireshark, Packetyzer |
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| Network Management: | SunNet Manager, Sun Enterprise Management, Optivity, HP OpenView, 3COM Transcend, CiscoView |
| Electronics: | Tektronix 2440 Digital Oscilloscope, Tektronix 3002 Mainframe Logic Analyzer |

## EDUCATION

- M.S., Atmospheric Science, State University of New York at Albany, 1982
  - Master's Thesis: "The Spectroscopy of Triggered Lightning in the Visible and Near-Infrared Regions."
- B.S., Atmospheric Science, State University of New York at Albany, 1980

## PATENTS

- US Patent (5036334): "Lightning Direction Finder Controller"

## PROFESSIONAL EXPERIENCE

| UNIVERSAL Technologies, LLC | Oct 2003 - Present |
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| *Chief Technology Officer Engineering Manager / Systems Engineering Co-Manager* | |

- Corporate-level technology advisor.
- Secure wireless access to enterprise data assets initiatives.
- CIO-level presentations on enterprise security and infrastructure throughout the customer-installed base.
- Virtual computing enterprise infrastructure design and implementation.
- Network Security Toolkit architecture and development.
- Display over Internet Protocol (DoIP) enterprise design and implementation.
- Manage in-house technical interviews and evaluations for systems engineers and application developers.
- In-house technical training curriculum and training path preparation for consultants.
- Manage the periodic recruiters training regarding technologies (legacy, modern, and conversions) and how to best interpret clients' scopes of work.

- Application / Systems infrastructure management.

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| **Cognicase U.S.A., Inc. (formerly UNIFIED Technologies)** | **May 1995 – Apr 2003** |
| ***Vice President and Chief Technology Officer*** (9/01-4/03) | |

- Corporate-level technology advisor.
- Secure Wireless Access to Enterprise Data Assets initiatives.
- CIO level presentations on enterprise security and infrastructure throughout the customer-installed base.

***Chief Technology Officer*** (5/97-9/01)
- Corporate leadership in research and development projects.
- Enterprise server-base computing initiatives.
- Provided direction and vision for new technologies may become UNIFIED's future competencies.
- Technology advisor for the Solutions Integration division.
- Executive-level Technology Visionary.
- Technical Business plan generation.
- CIO level technical sales qualification.
- Account planning and strategy.

***Director of Engineering*** (5/95-5/97)
- Responsible for all engineering initiatives, projects and deployments at UNIFIED.
- Engineering management and leadership.
- Designed large scale enterprise-wide network communication infrastructure, including cable plant and network topology engineering.
- Managed and engineered the deployment of integrating over 1000 networked PCs for central administration management.
- Perform audits on large Sun server environments for performance tuning, system profiling, and network design improvements.
- Develop and foster corporate level relationships for strategic partner accounts.

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| **Lightnet, Inc.** | **May 1989 – May 1995** |
| ***Co-founder/Vice President*** (5/91-5/95) | |

- On the design time to develop the next generation National Lightning Detection Network control center using Sun SPARC servers and PCs.
- Developed multiple interprocess TCP/IP network programs for Sun servers.
- Engineered and Installed a larger LAN using Ethernet, FDDI and token-ring for a chip tester complex at IBM Corporation.

***Co-founder/President*** (5/89-5/91)
- On the design team to develop a control center using Sun SPARC servers and PCs for data collection and archival of a network used to monitor Geomagnetic Induced Currents (GIC).
- Developed time synchronization programs for Sun SPARC servers in the control center to interface with GPS or WWVB synchronized clocks.

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| **State University of New York at Albany** | **Jul 1982 – May 1995** |
| ***Research Associate*** (10/89-5/95) | |

- Designed and Engineered a state-of-the-art network communications infrastructure for the Center for Environmental Sciences and Technology Management (CESTM).
- Provide system administration on multiple large Sun server based systems for the Departments of Earth and Atmospheric Science (DEAS) and the Atmospheric Science Research Center (ASRC).

- Maintain operations of the backup control center for the National Lightning Detection Network (NLDN).
- Designed multiple networked based programs using Sun SPARC servers.
- Designed and Developed a Lightning Direction Finder Controller used at each of the direction finder sites within the NLDN.
- Responsible for the design and development of new features associated with the "THUNDER" (real-time lightning display software for the NLDN) display program.

***Research Assistant*** (7/82-10/89)
- One of the initial key personnel that provided the infrastructure of the NLDN as it exists today.
- Designed many hardware communication and timing printed circuit boards used for the operations of the lightning network.
- Maintained and trained faculty and students on a "Man- computer Interactive Data Access System" (McIDAS) satellite image processing computer.
- Participated in numerous research programs that used the integration of lightning data.

## PUBLICATIONS

"Global Distribution of Midnight Lightning -- September through November 1977", R.W. Henderson, R.E. Orville, EOS (Trans. Amer. Geophys. Union), 61, 975, (1980).

"Lightning Spectral Irradiance Measurement from 400 to 750 nm" R.E. Orville, R.W. Henderson, EOS (Trans. Amer.Geophys. Union), 61, 978, (1980).

"An Unusual Lightning Ground Strike" V.P. Idone, R.W. Henderson, Weatherwise, 35, (1982, 223-224).

"Global Distribution of Midnight Lightning from September 1977 to August 1978" R.E.Orville, R.W.Henderson, EOS (Trans. Amer. Geophys. Union), 63, 889, (1982).

"Absolute Spectral Irradiance Measurements of Lightning Return Strokes from 375 nm to 880 nm" R.W. Henderson, R.E. Orville, EOS (Trans. Amer. Geophys. Union), 63, 890, (1982).

"An East Coast Lightning Detection Network" R.E. Orville, R.W.Henderson, Bull. Amer. Meteor. Soc., 64, (1983, 1029-1037).

"Electrical Activity in Severe Storms", R.E. Orville, R.W. Henderson, 13th Conference on Severe Local Storms, Tulsa, OK. (1983).

"Ground Truth: A Positive Cloud-to-Ground Lightning Flash" V.P. Idone, R.E. Orville, R.W. Henderson, J. Appl. Meteor., 23, 7, (1984).

"Absolute Spectral Irradiance Measurements of Lightning from 375 to 880 nm" R.E. Orville, R.W.Henderson, J. Atmos. Sci., 41, (1984, 3180 - 3187).

"Global Distribution of Midnight Lightning from September 1977 to August 1978", R.E. Orville, R.W. Henderson, Monthly Weather Review, 114, 12, (1986).

"Lightning Flash Characteristics" R.E. Orville, R.W. Henderson, R.B. Pyle, EPRI, EL-4729,2431-1 Interim Report, (1986).

"Cloud-to-ground Lightning Flash Characteristics from June 1984 through May 1985", R.E. Orville, R.A. Weisman, R.B. Pyle, R.W. Henderson, J. Geophys. Res., 92, (1987 5640- 5644).

"Bipole Patterns Revealed by Lightning Locations in Mesoscale Storm Systems" R.E. Orville, R.W. Henderson, L.F. Bosart, J. Geophys. Res. Lett. 15, 2, (1988 129-132).

"Lightning Flash Characteristics: 1986" R.E. Orville, R.W. Henderson, R.B. Pyle, EPRI, EL-5667,2431-1 Interim Report, (1988).

"Positive Lightning Strokes to Ground" M. Brook, R.W. Henderson, R.B. Pyle, J. Geophys. Res., 94, (1989 13,295-13,303).

"Lightning Flash Characteristics: 1987" R.E. Orville, R.W. Henderson, R.B. Pyle, EPRI, EL-6413,2431-1 Interim Report, (1989).

"Unusual Effects of a Lightning Ground Strike" H.H. Jonsson, C. Breslawski-Skubis, R. Lopez-Torrijos, R.W. Henderson, C. Shelhamer, Weather, 44, 9, (1989, 366-369).

"Display Technology for the National Lightning Detection Network", R.E. Orville, R.W. Henderson, R.B. Pyle, V.J. Longo, Advanced Computer Technology for the Power Industry Conference, Tucson, AZ. (1989).

"The National Lightning Detection Experiment -- 1987 to 1990" R.E. Orville, R.W. Henderson R.B. Pyle, Sixth International Conference on Interactive Information and Processing Systems, (1990).

"A Reexamination of the Peak Current Calibration of the National Lightning Detection Network" Vincent P. Idone, Arsalan B. Saljoughy, Ronald W. Henderson, Paul K. Moore and Richard B. Pyle, J. Geophys. Res. Vol. 98, NO. D10, PAGES 18,323, Oct. 20, 1993.