

# TIM KEHRES

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## EXECUTIVE MANAGER – INTERNET INFRASTRUCTURE

Over thirty year track record of success in cutting edge Internet systems and applications, including applied research and development for the US Government and working with innovative new technology companies. Expert ability to combine market / financial research with knowledge of technology, trends to develop, and implementation of sound and profitable business and technology strategies.

Accomplished manager with international experience spanning the USA, Hong Kong, China, Japan and the Philippines. Strong leadership, communication, and organizational skills.

- ♦ Corporate Management
- ♦ Business Development
- ♦ Technology Startups
- ♦ Market Research / Analysis
- ♦ Strategic Planning
- ♦ Team Building & Leadership
- ♦ Technical Writing
- ♦ Product Management, Planning and Development
- ♦ Enterprise Network Design
- ♦ Network & Host Security
- ♦ Network Automation

## CAREER ACCOMPLISHMENTS

*JADE CONNECTIONS LIMITED*  
Managing Director / CEO

*Hong Kong, January, 2004 – Present*

Established Jade Connections as an Internet consulting and services company delivering Internet system and network solutions. Jade's focus is with the design, implementation, deployment, management and outsourcing of enterprise networks with security and operational reliability and efficiencies being the top priorities. Responsible for all datacenter operations including hardware/software upgrades and configuration. Current projects are in the area of enterprise security and involve the integration of routers, firewalls, IPS, SIEM and network management systems into the Jade Security Framework. Past projects include:

- Designed, coded, tested and deployed the first version of the Jade Security Framework, a thin extendable security layer providing easy to use hooks for applications and security components to control network security settings. The first version includes tools for the manipulation of firewall IP block rules (timed and static) by any machine on the network as well as command line tools used to run and maintain the Jade DNSBL spam defense.
- Designed and fielded the first network management infrastructure (Zabbix 2 based). The system was redesigned and extended in early 2018 with Zabbix 3.4.7. The new system adds problem response automation to many of the triggers increasing overall system uptime and reliability.
- Designed, coded and deployed the Jade Spamproc Tools. These tools provide automated spam mail header analysis, ARF based abuse reporting, notification to the applicable service provider and insertion into the Jade DNSBL. Several years of manual analysis time has already been saved.
- Design, implementation, and deployment of the Jade distributed application framework for web based applications. This distributed and highly scalable framework allows for the integration of web and messaging applications into a unified service offering.
- Built the first Jade collaborative / purpose driven web community. Integrated tools and practices from a range of disciplines including social networking, publishing (document workflow), project management, collaborative team building and management, and Internet communications. The first alpha release went online in early 2009.

*MACAU NETWORK INFORMATION CENTER (MONIC)*  
Consultant / Enterprise Architect

*Macau, September, 2010 – February 2017*

Operation for MONIC, the Internet domain name registry for Macau (www.monic.mo) was transferred to HNET in March 2011. Organized the initial team from Hong Kong and Macau who put together the winning government proposal. Built and deployed the initial systems:

- September 2010: Team establishment with HN Group (Macau), dotAsia Organization (Hong Kong) and other Hong Kong Internet leaders.
- November 2010: Submission of winning government bid for the redesign and build of the .mo ccTLD. Primary technical areas of contribution were in network and server architecture.
- February 2011: Was wholly responsible for the building and configuration of all servers, networks, and cabling across two datacenters for the new MONIC. This included design and implementation of the following services: distributed electronic mail (failover across 3 networks), web, VoIP (Asterisk – SIP/IAX2/SCCP), CRM, CMS, DNS, and office services (SMB and DHCP).

- June 2011: Design and implementation of internal information portal based on the Drupal CMS.
- September 2011: Ongoing enhancement of services, documentation, and training of new staff.
- September 2013: Designed and implemented a remote network monitor solution which continually monitored and reported problems for HTTP, DNS, SMTP, and IMAP protocols.

*INTERNATIONAL MESSAGING ASSOCIATES*

*Hong Kong, May, '94 - December, '03*

Managing Director / CEO

Director for the IMA group of companies. IMA customers included Fortune 500 and large government organizations worldwide. Key areas of responsibilities included market research, product development, and daily operations. Established the first Hong Kong office, in May 1994, providing core product development, technical support, sales, and production.

- Grew annual revenue from zero to almost US\$ 2M in the first two years of operation, without external funding.
- Guided the company through a successful private funding placement in 1999 (US\$ 2M).
- Chief architect for the *Internet Exchange Messaging Server*, a high-end email server.
- Managed over 15 software product releases, including sales collateral and web updates.

*Manila, Philippines, December, '97 - February, '03*

Established IMA Philippines to provide English language technical support and technical writing capabilities. The scope of the office was later expanded to include software development, web site design, and marketing / sales functions. Key accomplishments:

- Established SEC registered company - grew from zero to over 50 staff within two years.
- Total management responsibility, including operations (network and office), staffing, administrative (including accounting), technical (support, development, sales, and technical writing staff), and legal.
- Established international call center facility in March 1998 to directly serve North American customers.

*San Francisco, California, USA, January '93 - May '94*

Founded International Messaging Associates (IMA), a new Internet software company specializing in electronic messaging solutions. The IMA gateway products for cc:Mail became the de-facto corporate standard solution in their market.

- Chief architect for the *Internet Exchange for cc:Mail* product, the first Windows based MIME compliant gateway for Lotus cc:Mail.
- Involved with the IETF working group responsible for developing the MIME Internet standard, now the basis for all structured messages used in Internet electronic mail and the World Wide Web.

*SIREN SOFTWARE CORPORATION*

*Menlo Park, California, March '93 - February '94*

Consultant

Chief architect for Siren Mail, a MIME-compatible email client for UNIX workstations.

*AT&T*

*Sunnyvale, California, January '91 - July '91*

Consultant

Worked with the local AT&T staff and researchers at Bell Laboratories in the development of a fax based personnel data submission system. This allowed personnel managers at AT&T facilities to be able to submit standard forms via fax. Once received, the systems would automatically extract the pertinent information from the received image, integrating this with a back-end database system.

*WORLD TALK COMMUNICATIONS*

*Campbell, California, July '90 - February '93*

Consultant

Worldtalk (formerly Touch Communications) was a leading OSI messaging server company.

- Provided Internet email training and assistance for the Technical Support group.
- Quality Assurance and testing for the Touch SMTP gateway.
- Wrote the Touch SMTP gateway manual and related documents.
- SMTP gateway and related modules program development and testing.

## Consultant - Control Data Corporation

The Technology Information Systems Program at LLNL provided technology support for the US Air Force Logistics Command, among others. Was employed by CDC as a consultant to the TIS program.

- Design and implementation of enhancements to the TIS Electronic Mail system, a mail client widely used within the U.S. Government.
- One of the principal architects for the Livermore Advanced Network Computing Environment (LANCE), an OS independent environment for the creation of distributed applications.
- Program committee member: IFIP WG 6.5 International Conference on Message Handling Systems and Distributed Applications. Chaired the IFIP WG 6.5 Task Group on Gateways.
- Actively involved with the National Institutes of Standards and Technology Workshops for OSI, MHS Special Interest Group.
- Design and implementation of a CDCMail gateway (Control Data project)

From February 1989 through June 1989, managed the ETA Systems on-site technical staff at the Tokyo Institute of Technology. Responsible for working with the customer in resolving technical issues related to their supercomputer installation.

## THE WOLLONGONG GROUP

Palo Alto, California, November '83 - March '86

## Software Engineer

The Wollongong Group (TWG) was the first company to commercialize the TCP/IP protocols and applications used within the research and government networking communities (ARPANET). This network foundation was later to become the basis for most modern local area networks and the Internet.

- Portation of BSD TCP/IP stack for the IBM 370 series computers running UNIX System V.
- TCP/IP network stack and application porting to XENIX (Microsoft UNIX for the Intel 286), Plexus (Z8000 based), and AT&T 3B5 minicomputers.
- XENIX kernel serial I/O driver enhancements for Systech serial expansion boards.
- Established and maintained corporate electronic mail gateway.

## CONVERGENT TECHNOLOGIES

Santa Clara, California, April '85 - March '86

## Consultant to AT&amp;T UNIX PC (3B1) Project

Designed and implemented a software development environment integrating configuration management / change control with build / installation automation for the AT&T UNIX PC release. This system allowed simple integration of software changes while at the same time ensuring build integrity and the ability to track module versions in released software.

## FORWARD TECHNOLOGY

Santa Clara, California, March '83 - November '83

## Software Engineer

Software / System engineer for a pioneer startup UNIX microcomputer company. Projects supporting the FTI 3000 and 500 UNIX computers included:

- SMD disk formatter design and implementation.
- Demonstration software for a new graphics system.
- Assisted with solving problems related to the manufacturing of the FTI computers.

## CHRISTIAN ROVSING CORPORATION

Thousand Oaks, California, March, '82 - March '83

## Software Engineer

Designed software for the graphical presentation of telemetry data for a project transferring telemetry data between Air Force bases. Performed cost / performance trade-off analysis of various graphics terminals used on the project.

## BUNKER RAMO CORPORATION

Westlake Village, California, January '81 - March '82

## Digital Design Engineer - Ocean Surveillance Group

- Software design for MTR signal processing studies
- Design and implementation (hardware and software) of the ERAPS Command Generator (a microcomputer controlled radio transmitter)
- Maintenance and modification of the ERAPS Avionics chassis.

## TECHNICAL AREAS OF EXPERTISE

**Technologies / Applications:** TCP/IP stack, RSS, OpenLDAP, Sugar CRM, Spamassassin, Postfix, Sendmail, Mailman, Kannel, Apache, SquirrelMail, phpBB, GroupOffice, osCommerce, Samba, Ipchains / Iptables (Firewall), tc (traffic control), teql (line equalization), X, transparent proxies, SSL, VPN, Squid, AltiWare (AltiGen), TeleVantage (Artisoft), Asterisk, Jabber (XMPP), Drupal (5 - 7), Wordpress, RoundCube Mail, BIND (through version 9.11.2), jQuery, Zabbix

**Languages / Environments:** C / C++, PHP, Python, SQL, Unix Shell (sh, csh), Perl, Javascript, HTML 5, CSS 3, Pascal, Fortran, APL, awk, lex, various assembly

**Standards:** All Internet email related, most SNMP related, routing (BGP, EGP, etc), DNS, X.400, X.500, ASN.1, SMS, LDAP, HTML5, CSS3, DHTML, XHTML, XML, DOM, Voice over IP (SIP/IAX2/SCCP), XMPP

**Operating Systems:** Most major Unix releases over the past 35+ years, including many common current Linux distributions (Ubuntu, Fedora, RHEL, OpenSUSE, CentOS, Mint, Raspbian). Microsoft (DOS through Windows 7), Citrix Metaframe 1.8

**Office Tools:** Microsoft Office, LibreOffice, FrameMaker, Acrobat, PhotoShop, CorelDraw, GnuCash

## EDUCATION

Purdue University, West Lafayette, Indiana, USA  
Bachelor of Science in Electrical Engineering  
Date of Graduation: December 1980

## PUBLICATIONS

Web: Jade Connections Corporate Site (<http://jade.net> - 2018), SZTeachers Prototype (<http://p.szteachers.com> - 2017)

All technical manuals and release notes for IMA Internet Exchange Messaging Server and gateway products (1995 - 2003) and IMA Web Site content. Archive site with documents can be found at <http://ima.jade-networks.com>.

T. Kehres, **Message Handling Systems Interoperability Problems Between 1984 and 1988 X.400**, *Message Handling Systems and Distributed Applications*, pp 553-561, North Holland (1989)

T. Kehres, M. Westbrook, **MHS Gateway Working Group Report**, *Message Handling Systems and Distributed Applications*, pp 551-552, North Holland (1989)

## WRITING SAMPLES

A comprehensive collection of writing samples can be found at <http://tim.kehres.com/consult/writing> in the Sample Documents section and also at <http://jade.net/writing/>