ANTHONY J. WASILEWSKI

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SUMMARY

Network product development professional who has thrived as both a project/team leader and individual contributor. Experienced in innovative system design and development, secure development lifecycles, cryptographic systems, digital television systems, standards development and IPR protection.

- Network system design
- Requirements gathering
- Security Policy
- Patent analysis
- Secure network analysis
- Customer liaison
- Digital video and audio transmission
- Secure development lifecycle
- Contract negotiation
- Research
- Inventing
- Standards development

PROFESSIONAL EXPERIENCE

LONELY MOUNTAIN SECURITY, LLC, Johns Creek, GA **2016 – present**

Technology Consultant
Expert advice and consulting services in support of secure development lifecycles, network security and secure operations policies. Security audits of existing systems. Protecting IPR benefits through expert analysis guided by industry-relevant experience

- Served as subject matter expert in support of the plaintiff for Andrews Kurth Kenyon, LLP (now Hunton Andrews Kurth LLP) in patent litigation case involving digital TV set tops. Performed source code review, non-infringing alternatives analysis, claim chart construction and contributed to final expert report. The matter was settled without going to trial and the client was pleased with the outcome
- Advised Nagra regarding IPR value of specific patent portfolio. Analysis focused on identifying novelty over prior art and known industry implementations. This work was done in relation to patent disputes between Nagra and a major network operator

CISCO SYSTEMS, INC, Lawrenceville, GA **2010 – 2016**
Service Provider Video Software Solutions

Distinguished Engineer
Executive level leadership position with responsibilities ranging from architecting the strategic direction for the Cisco Engineering community to participating in decision making which impacts the direction of the company as a whole

- Worked across entire Service Provider Video Software business unit as Lead Security Advocate for Cisco Secure Development Lifecycle (CSDL) resulting in major increases in compliance with Product Security Baseline and other CSDL elements
- Performed security review on design for modernization of Public Key Infrastructure (PKI) devices and servers enabling on-time delivery of system with improved security, performance and maintainability

Roku Exhibit 1004
Roku v. Videolabs

- Handled secure document distribution, developer security briefings, advised operational team on PKI security and authored secure procedures for PKI personnel changes which achieved perfect operational security record over 20-year system lifetime
- Technical Lead for security relationship with Verizon; adoption of Cisco Secure Design Lifecycle (CSDL) for Verizon products. Worked with Verizon Chief Network Security Officer and team resulting in 100% compliance with customer security policies for Scientific-Atlanta/Cisco and third-party control plane servers/devices
- Represented Cisco's interests in the Digital Entertainment Content Ecosystem (DECE) including briefing executives, architects and development teams on relevance to product lines which resulting in significant cost savings by avoiding unnecessary development activities
- Led Standards Governance Team and created, published and maintained Standards Development Organization (SDO) Inventory detailing SP Video business unit participation. Led team in SDO engagement level review which focused on strategic goals and benefit to Cisco providing the basis for the most efficient use of resources via rational spending decisions for SDO participation
- Co-chair of Alliance for Telecommunications Industry Solutions (ATIS) IPTV Interoperability Forum (IIF) DRM and IPTV Security Solutions (ISS) Task Force (TF): Specifications published under my leadership:
  - ATIS-0800023: Managing The Trust Hierarchy
  - ATIS-0800024: Security Robustness Rules
  - ATIS-0800033: ATIS Point of Deployment Separable Security (trial use)
  - ATIS-0800034: Secure Time
  - ATIS-0800037: IPTV Device Identity and Device and Subscriber Authentication
  - ATIS-0800039: DRM Server-side APIs
  - ATIS-0800054: DRM Client-side APIs
- Directed IIF Plenary meetings and overall activities of the Forum as ATIS IIF Vice Chair completing committee work plans on-time
- Contributed to ATIS Point of Deployment Separable Security specification and chaired the technical work bringing diverse industry interests together to complete the technical specifications
- Protected Cisco interests by monitoring activity of new IEEE 1912 PAR on device security and contributing to review of initial requirements specification
- Active member of Cisco Video Patent Review Committee performing assessment of ideas submitted for patent filing. This supported appropriate growth and coverage of Cisco patent portfolio and controlled legal costs by avoiding expenses for filing low-impact disclosures

SCIENTIFIC-ATLANTA, **A CISCO COMPANY**, Lawrenceville, GA **2005 – 2010**
Service Provider Video Technology Group

Chief Scientist
Technical thought leader with responsibilities to largest business unit in company

- Performed following tasks as Security Officer for public-key-based content protection system:
  - secure document distribution
  - developer security briefings
  - wrote SOW for external reviewer of secure microprocessor code/porting activities.
  - Supervised PKI management and security
- Designed and implemented Business Continuity plan (PKI disaster recovery plan) including remote facility setup establishing protection against major outages
- Facilitated both internal and external operational and security audit of conditional access/content protection system and PKI resulting in secure customer-revenue-generating platform
- Co-chair of Alliance for Telecommunications Industry Solutions (ATIS) IPTV Interoperability Forum (IIF) DRM and IPTV Security Solutions (ISS) Task Force (TF). Specifications published under my leadership:
  - ATIS-0800006: IIF Default Scrambling Algorithm
  - ATIS-0800014: Secure Download and Messaging
  - ATIS-0800015: Certificate Trust Hierarchy
  - ATIS-0800016: Standard PKI Certificate Format

- Member of ATIS IIF Digital Rights Management DRM Task Force (TF): Made significant contributions to end-to-end DRM requirements which guided the remainder of the work of the TF

- Made deposition for patent litigation case involving digital video set-tops, MPEG Transport and conditional access

SCIENTIFIC-ATLANTA, Lawrenceville, GA

Chief Scientist **1994 – 2005**

Established system architecture and assessed technologies (operating systems, network management systems, cryptography, etc.) for hybrid analog/digital transmission networks.

- Performed technical direction and system architecture for digital and advanced analog CATV product lines which resulted in the successful launch of the Explorer™ line of digital communications terminals
- Participant and author in CableLabs Open Cable standards process
- Advised Chief Strategic Officer on long-term technical issues helping to steer overall product development directions
- Extensive interaction with customers resulting in long-term positive relationships.
- Worked with technology partners including E-commerce collaboration with IBM resulting in well-received product demos at trade shows
- Led technical negotiations for Open Cable "Harmony" agreement with General Instrument (now Arris) leading to the first working dual content protection/conditional access architecture in the CATV industry
- Contributor to MPEG-2 Systems Committee specification (ISO/IEC 13818-1) including three patents judged to be essential for the MPEG-2 Licensing Authority (MPEG LA) intellectual property program
- Directed development of UNIX-based Connection Management Controller (SRM in DSM-CC) for deployment in multimedia trials of U.S. West (Omaha), Pacific-Bell (SFO-area), Bell South (Atlanta-area)
- Reviewed internal patent applications for filing

ADDITIONAL RELEVANT EXPERIENCE

Principal Engineer, SCIENTIFIC-ATLANTA, Norcross, GA

Technical innovation leader with emphasis on systems development.

EDUCATION/TRAINING

PhD, Astronomy

Case Western Reserve University, Cleveland, Ohio

Bachelor of Arts, Physics

Gettysburg College, Gettysburg, Pennsylvania

PROFESSIONAL DEVELOPMENT

- Received Engineering Emmy Award for "Pioneering work in digital video" at 48th Emmy Awards of the Academy of Television Arts and Sciences
- Invited participant in 3rd Annual Frontiers of Engineering Forum sponsored by the National Academy of Engineering

PATENTS (sampling from over 50 issued patents)

Encryption and utilization of hard drive content

United States 8,208,630 - Issued June 26, 2012

Examples of a system, method, and apparatus for encrypting and recording content are presented. When content is recorded to storage media, the content is encrypted with a content instance key. This content instance key is encrypted with the public key of a first set-top box and a duplicate of the content instance key is encrypted with the public key of other than said first set-top box.

Conditional access overlay partial encryption using MPEG transport continuity counter

United States 7,490,236 - Issued February 10, 2009

A conditional access overlay system utilizing partial encryption without requiring additional program identifiers. The conditional access overlay system generates duplicate critical packets for separate encryption that are sent using the same packet identifier. The rest of the content stream is sent in the clear. However, these duplicated packets are sent without incrementing a continuity counter.

Retrieval and transfer of encrypted hard drive content from DVR set-top boxes

United States 7,630,490 - Issued December 8, 2009

A system and method for retrieval and transfer of encrypted content from a failed set-top box. When content is recorded to the storage device of a set-top box, the content is encrypted with a content instance key. This content instance key is encrypted with the public key of the set-top box and a duplicate of the content instance key is encrypted by another public key.

Interactive information services system and associated method for facilitating purchasing transactions

United States 7,181,431 - Issued February 20, 2007

A method and system are provided to permit a network operator to capture transaction data relating to transactions between a subscriber and a service provider that are conducted via a communications network established by the network operator, such as a cable television network.

Conditional access system

United States 6,510,519 - Issued January 21, 2003

A cable television system provides conditional access to services. The cable television system includes a headend from which service "instances", or programs, are broadcast and a plurality of step top units for receiving the instances and selectively decrypting the instances for display to system subscribers.

Logical and composite channel mapping in an MPEG network

United States 6,215,530 - Issued April 10, 2001

Two additional structures for addition to the Digital Video Broadcasters (DVB) Service Information (SI) for implementation of the MPEG-2 Systems Standard (ISO/IEC 13818-1) are provided: the Logical Channel Table (LCT) and the Composite Channel Table (CCT). The LCT provides the mapping between a Logical Channel Number (LCN) representing a service and the transport stream(TSID)/program number (PN).

Method for indicating packet errors in a packet-based multi-hop communications system

United States 5,457,701 - Issued October 10, 1995

A method is disclosed for providing packet error indication in a multi-hop communications system in which packets of data are transmitted from a transmission site to a reception site via a plurality of successive physical links.

COMMUNITY INVOLVEMENT

Instructor

Xtreme Measures Driving School

Instructed new drivers in car control, accident avoidance and safety measures.