Communicating Systems With Uml 2 Modeling And Analysis Of Network Protocols

CARLIE AVILA

System Analysis and Modeling: Theory and Practice John Wiley & Sons
This book contains all refereed papers that were accepted to the sixth edition of the « Complex Systems Design & Management Paris » (CSD&M Paris 2015) international conference which took place in Paris (France) on November 23-25, 2015.These proceedings cover the most recent trends in the emerging field of complex systems sciences & practices from an industrial and academic perspective, including the main industrial domains (aeronautics & aerospace, defense & security, electronics & robotics, energy & environment, health & welfare, software & e-services, transportation), scientific & technical topics (systems fundamentals, systems architecture & engineering, systems metrics & quality, systems modeling tools) and systems types (artificial ecosystems, embedded systems, software & information systems, systems of systems, transportation systems).The CSD&M Paris 2015 conference is organized under the guidance of the CESAMES non-profit organization, address: CESAMES, 8 rue de Hanovre, 75002 Paris, France.
Aeronautical Air-Ground Data Link Communications John Wiley & Sons
Communicating Systems with UML 2John Wiley & Sons
LTE Standards John Wiley & Sons
From queues to telecoms. Queues are, of course, omnipresent in our world, at the bank, the supermarket, the shops, on the road... and yes, they also exist in the domain of telecoms. Queues Applied to Telecoms studies the theoretical aspect of these queues, from Poisson processes, Markov chains and queueing systems to queueing networks. The study of the use of their resources is addressed by the theory of teletraffic. This book also outlines the basic ideas in the theory of teletraffic, presenting the teletraffic of loss systems and waiting systems. However, some applications and explanations are more oriented towards the field of telecommunications, and this book contains lectures and more than sixty corrected exercises to cover these topics. On your marks...
Future Communication, Computing, Control and Management John Wiley & Sons
Nowadays, the Internet has become an irreplaceable tool, feeding us information about new innovations and the evolution of the markets relating to all human activities. What the Internet lacks, though, is a guiding narrative thread, which is crucial to understand the evolution from old technologies into the technologies available today, and to benefit from the commentary which could elucidate that process of evolution. In spite of its inherent richness, no encyclopedia can constitute the one and only referential information source. The actors involved also have the right to be heard: all those who have devoted their working lives to the collective effort of edifying networks can, of course, present their personal views about the evolution of the world of telecommunications, and thus provide invaluable testimony to companies in this area who can make use of it. It is that approach which is adopted in this book. Whilst the primary objective of this book is to encourage SMEs to use digital technologies, and help them to organize with that goal in mind, it has proved necessary to describe the transformations currently under way in the field of networks, and to outline the efforts to obtain a competitive edge in terms of clerical applications, compare the various techniques that are available for high data rate communications, and touch upon the advent of the "Internet of Things", cloud computing and various new multimedia technologies. All in all, this book should help companies – particularly SMEs – to garner

overall information about the current movement in the area of networking, and assist them in putting in place and managing their own communications systems.

Digital Communications 1 John Wiley & Sons

The communication chain is constituted by a source and a recipient, separated by a transmission channel which may represent a portion of cable, an optical fiber, a radio channel, or a satellite link. Whatever the channel, the processing blocks implemented in the communication chain have the same foundation. This book aims to itemize. In this first volume, after having presented the base of the information theory, we will study the source coding techniques with and without loss. Then we analyze the correcting codes for block errors, convutional and concatenated used in current systems.

LTE and LTE Advanced Communicating Systems with UML 2

Vehicular networks were first developed to ensure safe driving and to extend the Internet to the road. However, we can now see that the ability of vehicles to engage in cyber-activity may result in tracking and privacy violations through the interception of messages, which are frequently exchanged on road. This book serves as a guide for students, developers and researchers who are interested in vehicular networks and the associated security and privacy issues. It facilitates the understanding of the technologies used and their various types, highlighting the importance of privacy and security issues and the direct impact they have on the safety of their users. It also explains various solutions and proposals to protect location and identity privacy, including two anonymous authentication methods that preserve identity privacy and a total of five schemes that preserve location privacy in the vehicular ad hoc networks and the cloud-enabled internet of vehicles, respectively. This book also presents a new privacy-aware blockchain-based pseudonym management framework.Vehicular networks were first developed to ensure safe driving and to extend the Internet to the road. However, we can now see that the ability of vehicles to engage in cyber-activity may result in tracking and privacy violations through the interception of messages, which are frequently exchanged on road. This book serves as a guide for students, developers and researchers who are interested in vehicular networks and the associated security and privacy issues. It facilitates the understanding of the technologies used and their various types, highlighting the importance of privacy and security issues and the direct impact they have on the safety of their users. It also explains various solutions and proposals to protect location and identity privacy, including two anonymous authentication methods that preserve identity privacy and a total of five schemes that preserve location privacy in the vehicular ad hoc networks and the cloud-enabled internet of vehicles, respectively. This book also presents a new privacy-aware blockchain-based pseudonym management framework. Leila

Testing of Communicating Systems IOS Press

We present queueing-based algorithms to calculate the bandwidth required for a video stream so that the three main Quality of Service constraints, i.e., end-to-end delay, jitter and packet loss, are ensured. Conversational and streaming video-based applications are becoming a major part of the everyday Internet usage. The quality of these applications (QoS), as experienced by the user, depends on three main metrics of the underlying network, namely, end-to-end delay, jitter and packet loss. These metrics are, in turn, directly related to the capacity of the links that the video traffic traverses from its source to destination. The main problem that this book addresses is how much bandwidth we should allocate on the path from source to destination of a video traffic flow such that the end-to-end delay, jitter and packet loss of the video packets are within some expected required bounds.

Transitions from Digital Communications to Quantum Communications Springer

This volume contains revised and extended research articles written by prominent researchers participating in the ICF4C 2011 conference. 2011 International Conference on Future Communication, Computing, Control and Management (ICF4C 2011) has been held on December 16-17, 2011, Phuket, Thailand. Topics covered include intelligent computing, network management, wireless networks, telecommunication, power engineering, control engineering, Signal and Image Processing, Machine Learning, Control Systems and Applications, The book will offer the states of arts of tremendous advances in Computing, Communication, Control, and Management and also serve as an excellent reference work for researchers and graduate students working on Computing, Communication, Control, and Management Research.

VoLTE and ViLTE John Wiley & Sons

This book presents the architecture of two networks that make up the backbone of the telephone service VoLTE and video service ViLTE. The 4G mobile network makes it possible to construct bearers through which IP packets, containing either telephone signals (SIP, SDP) or voice or video media (RTP stream), are transported. The IMS network performs the processing of the telephone signal to provide VoLTE and ViLTE services, including call routing and the provision of additional services. Different procedures are described: the set-up and termination of a session, interconnection with third-party networks, roaming and intra-system handover. The inter-system handover PS-CS is a special case that occurs when the mobile loses 4G network coverage over the course of a session. The e-SRVCC mechanism enables continuity of the service during the switch of the telephone communication to the 2G or 3G networks. The SMS service for short messages, which is a special telephone service in itself, is provided by two structures, one relying on the IMS network, and a second on the CSFB functionality.

Communication Networks Economy John Wiley & Sons

Die Softwaretechnik bildet einen Grundpfeiler der Informatik. Jede Softwareentwicklung basiert auf Prinzipien, Methoden und Werkzeugen. Mit Basiskonzepten kann die Statik, Dynamik und Logik von Softwaresystemen beschrieben und modelliert werden. Die Anforderungen an ein neues Softwareprodukt zu ermitteln, zu spezifizieren, zu analysieren, zu validieren und daraus eine fachliche Lösung abzuleiten bzw. ein Produktmodell zu entwickeln, gehört mit zu den anspruchsvollsten Aufgaben innerhalb der Softwaretechnik. Dieser Band des dreiteiligen Lehrbuchs der Softwaretechnik vermittelt in systematischer und klassifizierender Art und Weise die Basistechniken und die Basiskonzepte der Softwareentwicklung und beschreibt die Aktivitäten, Artefakte und Methoden des Requirements Engineering. Das Buch besteht aus 4 Teilen und 27 Kapiteln. Das Buch kann zur Vorlesungsbegleitung, zum Selbststudium und zum Nachschlagen verwendet werden.

Radio Frequency Identification and Sensors Springer-Verlag

This book deals with air-ground aeronautical communications. The main goal is to give the reader a survey of the currently deployed, emerging and future communications systems dedicated to digital data communications between the aircraft and the ground, namely the data link. Those communication systems show specific properties relatively to those commonly used for terrestrial communications. In this book, the system architectures are more specifically considered from the access to the application layers as radio and physical functionalities have already been addressed in detail in others books. The first part is an introduction to aeronautical communications, their specific concepts, properties, requirements and terminology. The second part presents the currently used systems for air ground communications in continental and oceanic area. The third part enlightens the reader on the emerging and future communication systems and some leading research projects focused on this scope. Finally, before the conclusion, the fourth part gives several main challenges and research directions currently under investigation.

New Telecom Networks John Wiley & Sons

This volume contains the proceedings of the 17th IFIP TC6/WG6.1 International Conference on Testing of Communicating Systems (TestCom 2005). The conference was held at Concordia University, Montreal, Canada, from May 31 to June 2, 2005. TestCom 2005 was organized by Concordia University and was sponsored by IFIP.

Testing of Communicating Systems John Wiley & Sons

This book constitutes the refereed proceedings of the 5th International Workshop on System Analysis and Modelling, SAM 2006, held in Kaiserslautern, Germany in May/June 2006. The 14 revised full papers cover language profiles, evolution of development languages, model-driven development, and language implementation.

Quantum Communications in New Telecommunications Systems John Wiley & Sons

Wireless networks represent an inexpensive and convenient way to connect to the Internet. However, despite their applications across several technologies, one challenge still remains: to understand the behavior of wireless sensor networks and assess their performance in large-scale scenarios. When a large number of network nodes need to interact, developing suitable analytical models is essential to ensure the appropriate coverage and throughput of these networks and to enhance user mobility. This is intrinsically difficult due to the size and number of different network nodes and users. This book highlights some examples which show how this problem can be overcome with the use of different techniques. An intensive parameter analysis shows the reader how to the exploit analytical models for an effective development and management of different types of wireless networks.

Communicating Process Architectures 2017 & 2018 John Wiley & Sons

Nowadays, the Internet is becoming more and more complex due to an everincreasing number of network devices, various multimedia services and a prevalence of encrypted traffic. Therefore, in this context, this book presents a novel efficient multi modular troubleshooting architecture to overcome limitations related to encrypted traffic and high time complexity. This architecture contains five main modules: data collection, anomaly detection, temporary remediation, root cause analysis and definitive remediation. In data collection, there are two sub modules: parameter measurement and traffic classification. This architecture is implemented and validated in a software-defined networking (SDN) environment.

Connections Management Strategies in Satellite Cellular Networks Springer

This book deals with the field of identification and sensors, more precisely the possibility of collecting information remotely with RF waves (RFID). The book introduces the technology of chipless RFID starting from classical RFID and barcode, and explores the field of identification and sensors without wire, without batteries, without chip, and with tags that can even be printed on paper. A technique for automatic design of UHF RFID tags is presented , aiming at making the tags as insensitive as possible to the environment (with the ability to increase the reading range reliability), or, conversely, making them sensitive in order to produce sensors, meanwhile keeping their unique ID. The RFID advantages are discussed, along with its numerous features, and comparisons with the barcode technology are presented. After that, the new chipless RFID technology is introduced on the basis of the previous conclusions. Original technological approaches are introduced and discussed in order to demonstrate the practical and economic potential of the chipless technology.

Digital Communication Techniques John Wiley & Sons

This book presents the state of the art in the field of mobile and wireless networks, and anticipates the arrival of new standards and architectures. It focuses on wireless networks, starting with small personal area networks and progressing onto the very large cells of wireless regional area networks, via local area networks dominated by WiFi technology, and finally metropolitan networks. After a description of the existing 2G and 3G standards, with LTE being the latest release, LTE-A is addressed, which is the first 4G release, and a first indication of 5G is provided as seen through the standardizing bodies. 4G technology is described in detail along with the different LTE extensions related to the massive arrival of femtocells, the increase to a 1 Gbps capacity, and relay techniques. 5G is also discussed in order to show what can be expected in the near future. The Internet of Things is explained in a specific chapter due to its omnipresence in the literature, ad hoc and mesh networks form another important chapter as they have made a comeback after a long period of near hibernation, and the final chapter discusses a particularly recent topic: Mobile-Edge Computing (MEC) servers.

UML 2 For Dummies John Wiley & Sons

This second volume covers the following blocks in the chain of communication: the modulation baseband and transposed band, synchronization and channel estimation as well as detection. Variants of these blocks, the multicarrier modulation and coded modulations are used in current systems or future.

Wi-Fi Integration to the 4G Mobile Network John Wiley & Sons

Cyber threats are ever increasing. Adversaries are getting more sophisticated and cyber criminals are infiltrating companies in a variety of sectors. In today’s landscape, organizations need to acquire and develop effective security tools and mechanisms – not only to keep up with cyber criminals, but also to stay one step ahead. Cyber-Vigilance and Digital Trust develops cyber security disciplines that serve this double objective, dealing with cyber security threats in a unique way. Specifically, the book reviews recent advances in cyber threat intelligence, trust management and risk analysis, and gives a formal and technical approach based on a data tainting mechanism to avoid data leakage in Android systems

Security in Vehicular Networks John Wiley & Sons

This book constitutes the proceedings of the 18th International GI/ITG Conference on Measurement, Modelling and Evaluation of Computing Systems and Dependability and Fault Tolerance, MMB & DFT 2016, held in Münster, Germany, in April 2016. The 12 full papers and 3 short papers included in this volume were carefully reviewed and selected from 23 submissions. The papers deal with the fields of performance evaluation, dependability, and fault-tolerance of computer and communication systems. A relatively new topic of smart grids is also covered.

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