

High Performance Cloud Auditing And Applications

This three-volume set LNCS 12452, 12453, and 12454 constitutes the proceedings of the 20th International Conference on Algorithms and Architectures for Parallel Processing, ICA3PP 2020, in New York City, NY, USA, in October 2020. The total of 142 full papers and 5 short papers included in this proceedings volumes was carefully reviewed and selected from 495 submissions. ICA3PP is covering the many dimensions of parallel algorithms and architectures, encompassing fundamental theoretical approaches, practical experimental projects, and commercial components and systems. As applications of computing systems have permeated in every aspects of daily life, the power of computing system has become increasingly critical. This conference provides a forum for academics and practitioners from countries around the world to exchange ideas for improving the efficiency, performance, reliability, security and interoperability of computing systems and applications. ICA3PP 2020 focus on two broad areas of parallel and distributed computing, i.e. architectures, algorithms and networks, and systems and applications.

In a unique and systematic way, this book discusses the security and privacy aspects of the cloud, and the relevant cloud forensics. Cloud computing is an emerging yet revolutionary technology that has been changing the way people live and work. However, with the continuous growth of cloud computing and related services, security and privacy has become a critical issue. Written by some of the top experts in the field, this book specifically discusses security and privacy of the cloud, as well as the digital forensics of cloud data, applications, and services. The first half of the book enables readers to have a comprehensive understanding and background of cloud security, which will help them through the digital investigation guidance and recommendations found in the second half of the book. Part One of Security, Privacy and Digital Forensics in the Cloud covers cloud infrastructure security; confidentiality of data; access control in cloud IaaS; cloud security and privacy management; hacking and countermeasures; risk management and disaster recovery; auditing and compliance; and security as a service (SaaS). Part Two addresses cloud forensics – model, challenges, and approaches; cyberterrorism in the cloud; digital forensic process and model in the cloud; data acquisition; digital evidence management, presentation, and court preparation; analysis of digital evidence; and forensics as a service (FaaS). Thoroughly covers both security and privacy of cloud and digital forensics Contributions by top researchers from the U.S., the European and other countries, and professionals active in the field of information and network security, digital and computer forensics, and cloud and big data Of interest to those focused upon security and implementation, and incident management Logical, well-structured, and organized to facilitate comprehension Security, Privacy and Digital Forensics in the Cloud is an ideal book for advanced undergraduate and master's-level students in information systems, information technology, computer and network forensics, as well as computer science. It can also serve as a good reference book for security professionals, digital forensics practitioners and cloud service providers.

This book constitutes the post-conference proceedings of the 14th International Conference on Information Security and Cryptology, Inscrypt 2018, held in Fuzhou, China, in December 2018. The 31 full papers presented together with 5 short papers and 1 invited paper were carefully reviewed and selected from 93 submissions. The papers cover topics in the field of blockchain and crypto currency; lattice-based cryptology; symmetric cryptology; applied cryptography;

information security; asymmetric encryption; and foundations.

This book discusses and summarizes current research issues, identifies challenges, and outlines future directions for proactive and dynamic network defense. This book also presents the latest fundamental research results toward understanding proactive and dynamic network defense by top researchers in related areas. It includes research results that offer formal frameworks to define proactive and dynamic network defense, and develop novel models to analyze and evaluate proactive designs and strategies in computer systems, network systems, cyber-physical systems and wireless networks. A wide variety of scientific techniques have been highlighted to study these problems in the fundamental domain. As the convergence of our physical and digital worlds grows fast pace, protecting information systems from being tampered or unauthorized access is becoming one of the most importance issues. The traditional mechanisms of network defense are built upon a static, passive, and reactive nature, which has insufficient to defend against today's attackers that attempt to persistently analyze, probe, circumvent or fool such mechanisms. It has not yet been fully investigated to address the early stage of "cyber kill chain" when adversaries carry out sophisticated reconnaissance to plan attacks against a defense system. Recently, proactive and dynamic network defense has been proposed as an important alternative towards comprehensive network defense. Two representative types of such defense are moving target defense (MTD) and deception-based techniques. These emerging approaches show great promise to proactively disrupt the cyber-attack kill chain and are increasingly gaining interest within both academia and industry. However, these approaches are still in their preliminary design stage. Despite the promising potential, there are research issues yet to be solved regarding the effectiveness, efficiency, costs and usability of such approaches. In addition, it is also necessary to identify future research directions and challenges, which is an essential step towards fully embracing proactive and dynamic network defense. This book will serve as a great introduction for advanced-level computer science and engineering students who would like to start R&D efforts in the field of proactive and dynamic network defense. Researchers and professionals who work in this related field will also find this book useful as a reference.

Applications and Techniques in Information Security

Multisensor Data Fusion

Emerging Applications

Cloud, Grid and High Performance Computing: Emerging Applications

Cloud Native Security

This book discusses business architecture as a basis for aligning efforts with outcomes. It views BA as complementary to enterprise architecture, where the focus of technological initiatives and inventories is to understand and improve business organization, business direction, and business decision-making. This book provides a practical, long-term view on BA. Based on the authors' consulting experience and industrial research, the material in this book is a valuable addition to the thought processes around BA and EA. The lead author has direct and practical experience with large clients in applying APQC capability framework for undertaking multiple enterprise-wide capability assessments.

Sustainability and mobile computing embraces a wide range of Information and Communication Technologies [ICT] in recent times. This book focuses more on the recent research and development works in almost all the facets of sustainable,

ubiquitous computing and communication paradigm. The recent research efforts on this evolving paradigm help to advance the technologies for next-generation, where socio-economic growth and sustainability poses significant challenges to the computing and communication infrastructures. The main purpose of this book is to promote the technical advances and impacts of sustainability and mobile computing to the informatics research. The key strands of this book include green computing, predictive models, mobility, data analytics, mobile computing, optimization, Quality of Service [QoS], new communicating and computing frameworks, human computer interaction, Artificial Intelligence [AI], communication networks, risk management, Ubiquitous computing, robotics, smart city and applications. The book has also addressed myriad of sustainability challenges in various computing and information processing infrastructures.

Innovations in cloud and service-oriented architectures continue to attract attention by offering interesting opportunities for research in scientific communities. Although advancements such as computational power, storage, networking, and infrastructure have aided in making major progress in the implementation and realization of cloud-based systems, there are still significant concerns that need to be taken into account. Principles, Methodologies, and Service-Oriented Approaches for Cloud Computing aims to present insight into Cloud principles, examine associated methods and technologies, and investigate the use of service-oriented computing technologies. In addressing supporting infrastructure of the Cloud, including associated challenges and pressing issues, this reference source aims to present researchers, engineers, and IT professionals with various approaches in Cloud computing.

This volume constitutes the refereed proceedings of the following 9 international workshops: OTM Academy, OTM Industry Case Studies Program, Cloud and Trusted Computing, C&TC, Enterprise Integration, Interoperability, and Networking, EI2N, Industrial and Business Applications of Semantic Web Technologies, INBAST, Information Systems, om Distributed Environment, ISDE, Methods, Evaluation, Tools and Applications for the Creation and Consumption of Structured Data for the e-Society, META4eS, Mobile and Social Computing for collaborative interactions, MSC, and Ontology Content, OnToContent 2014. These workshops were held as associated events at OTM 2014, the federated conferences "On The Move Towards Meaningful Internet Systems and Ubiquitous Computing", in Amantea, Italy, in October 2014. The 56 full papers presented together with 8 short papers, 6 posters and 5 keynotes were carefully reviewed and selected from a total of 96 submissions. The focus of the workshops were on the following subjects models for interoperable infrastructures, applications, privacy and access control, reliability and performance, cloud and configuration management, interoperability in (System-of-)Systems, distributed information systems applications, architecture and process in distributed information system, distributed information system development and operational environment, ontology is use for eSociety, knowledge management and applications for eSociety, social networks and social services, social and mobile intelligence, and multimodal interaction and collaboration.

ICCSM2013-Proceedings of the International Conference on Cloud Security Management

First International Conference, CloudCom 2009, Beijing, China, December 1-4, 2009,

Proceedings

Cloud Technology: Concepts, Methodologies, Tools, and Applications

Integrating Architecture with Cloud Deployment

Security, Privacy, and Digital Forensics in the Cloud

Proceedings of ICISS 2022

The implementation of wireless sensor networks has wide-ranging applications for monitoring various physical and environmental settings. However, certain limitations with these technologies must be addressed in order to effectively utilize them. The Handbook of Research on Advanced Wireless Sensor Network Applications, Protocols, and Architectures is a pivotal reference source for the latest research on recent innovations and developments in the field of wireless sensors. Examining the advantages and challenges presented by the application of these networks in various areas, this book is ideally designed for academics, researchers, students, and IT developers.

This book constitutes the thoroughly refereed post-conference proceedings of the 5th International Conference on Security, Privacy and Trust in a Digital World, e-Democracy 2013, held in Athens, Greece, December 2013. The 20 revised full papers presented were carefully selected from numerous submissions. The papers are organized in topical sections on security, privacy; e-governance; e-government applications, virtualizations; politics, legislation: European initiatives.

This book features research papers presented at the 5th International Conference on Intelligent Sustainable Systems (ICISS 2022), held at SCAD College of Engineering and Technology, Tirunelveli, Tamil Nadu, India, during February 17-18, 2022. The book discusses latest research works that discusses the tools, methodologies, practices, and applications of sustainable systems and computational intelligence methodologies. The book is beneficial for readers from both academia and industry.

Distributed systems intertwine with our everyday lives. The benefits and current shortcomings of the underpinning technologies are experienced by a wide range of people and their smart devices. With the rise of large-scale IoT and similar distributed systems, cloud bursting technologies, and partial outsourcing solutions, private entities are encouraged to increase their efficiency and offer unparalleled availability and reliability to their users.

The Research Anthology on Architectures, Frameworks, and Integration Strategies for Distributed and Cloud Computing is a vital reference source that provides valuable insight into current and emergent research occurring within the field of distributed computing. It also presents architectures and service frameworks to achieve highly integrated distributed systems and solutions to integration and efficient management challenges faced by current and future distributed systems. Highlighting a range of topics such as data sharing, wireless sensor networks, and scalability, this multi-volume book is ideally designed for system administrators, integrators, designers, developers, researchers, academicians, and students.

Cloud Computing

Intelligent Sustainable Systems

Architecture, Data Storage, Implementation, and Security

Research Anthology on Architectures, Frameworks, and

Integration Strategies for Distributed and Cloud Computing

Principles, Methodologies, and Service-Oriented Approaches for Cloud Computing

Proceedings of the 3rd International Conference on Communications and Cyber Physical Engineering

This book mainly focuses on cloud security and high performance computing for cloud auditing. The book discusses emerging challenges and techniques developed for high performance semantic cloud auditing, and presents the state of the art in cloud auditing, computing and security techniques with focus on technical aspects and feasibility of auditing issues in federated cloud computing environments. In summer 2011, the United States Air Force Research Laboratory (AFRL) CyberBAT Cloud Security and Auditing Team initiated the exploration of the cloud security challenges and future cloud auditing research directions that are covered in this book. This work was supported by the United States government funds from the Air Force Office of Scientific Research (AFOSR), the AFOSR Summer Faculty Fellowship Program (SFFP), the Air Force Research Laboratory (AFRL) Visiting Faculty Research Program (VFRP), the National Science Foundation (NSF) and the National Institute of Health (NIH). All chapters were partially supported by the AFOSR Information Operations and Security Program extramural and intramural funds (AFOSR/RSL Program Manager: Dr. Robert Herklotz). Key Features: · Contains surveys of cyber threats and security issues in cloud computing and presents secure cloud architectures · Presents in-depth cloud auditing techniques, federated cloud security architectures, cloud access control models, and access assured information sharing technologies · Outlines a wide range of challenges and provides solutions to manage and control very large and complex data sets

This book presents the proceedings of the International Conference on Computing Networks, Big Data and IoT [ICCB I 2019], held on December 19-20, 2019 at the Vaigai College of Engineering, Madurai, India. Recent years have witnessed the intertwining development of the Internet of Things and big data, which are increasingly deployed in computer network architecture. As society becomes smarter, it is critical to replace the traditional technologies with modern ICT architectures. In this context, the Internet of Things connects smart objects

through the Internet and as a result generates big data. This has led to new computing facilities being developed to derive intelligent decisions in the big data environment. The book covers a variety of topics, including information management, mobile computing and applications, emerging IoT applications, distributed communication networks, cloud computing, and healthcare big data. It also discusses security and privacy issues, network intrusion detection, cryptography, 5G/6G networks, social network analysis, artificial intelligence, human-machine interaction, smart home and smart city applications.

This handbook offers a comprehensive overview of cloud computing security technology and implementation, while exploring practical solutions to a wide range of cloud computing security issues. With more organizations using cloud computing and cloud providers for data operations, proper security in these and other potentially vulnerable areas have become a priority for organizations of all sizes across the globe. Research efforts from both academia and industry in all security aspects related to cloud computing are gathered within one reference guide.

Multisensor Data Fusion: From Algorithms and Architectural Design to Applications covers the contemporary theory and practice of multisensor data fusion, from fundamental concepts to cutting-edge techniques drawn from a broad array of disciplines. Featuring contributions from the world's leading data fusion researchers and academicians, this authoritative book: Presents state-of-the-art advances in the design of multisensor data fusion algorithms, addressing issues related to the nature, location, and computational ability of the sensors Describes new materials and achievements in optimal fusion and multisensor filters Discusses the advantages and challenges associated with multisensor data fusion, from extended spatial and temporal coverage to imperfection and diversity in sensor technologies Explores the topology, communication structure, computational resources, fusion level, goals, and optimization of multisensor data fusion system architectures Showcases applications of multisensor data fusion in fields such as medicine, transportation's traffic, defense, and navigation Multisensor Data Fusion: From Algorithms and Architectural Design to Applications is a robust collection of modern multisensor data fusion methodologies. The book instills a deeper understanding of the basics of multisensor data fusion as well as a practical knowledge of the problems that can be faced during its execution.

14th International Conference, Inscrypt 2018, Fuzhou, China, December 14-17, 2018, Revised Selected Papers

Proceeding of the International Conference on Computer Networks, Big Data and IoT (ICCB - 2019)

Privacy and Security for Cloud Computing

A Cloud Computing Framework For Sharing Of Cloud Resources And Attacks Information Amongst Cloud Networks

Recent Advances in Computational Intelligence

20th International Conference, ICA3PP 2020, New York City, NY, USA, October 2-4, 2020, Proceedings, Part II

CLOUD COMPUTING SOLUTIONS The main purpose of this book is to include all the cloud-related technologies in a single platform, so that researchers, academicians, postgraduate students, and those in the industry can easily understand the cloud-based ecosystems. This book discusses the evolution of cloud computing through grid computing and cluster computing. It will help researchers and practitioners to understand grid and distributed computing cloud infrastructure, virtual machines, virtualization, live migration, scheduling techniques, auditing

concept, security and privacy, business models, and case studies through the state-of-the-art cloud computing countermeasures. This book covers the spectrum of cloud computing-related technologies and the wide-ranging contents will differentiate this book from others. The topics treated in the book include: The evolution of cloud computing from grid computing, cluster computing, and distributed systems; Covers cloud computing and virtualization environments; Discusses live migration, database, auditing, and applications as part of the materials related to cloud computing; Provides concepts of cloud storage, cloud strategy planning, and management, cloud security, and privacy issues; Explains complex concepts clearly and covers information for advanced users and beginners. Audience The primary audience for the book includes IT, computer science specialists, researchers, graduate students, designers, experts, and engineers who are occupied with research.

High Performance Cloud Auditing and Applications Springer Science & Business Media

This book constitutes the reviewed proceedings of the first International Conference on Cloud Computing, CloudCom 2009, held in Beijing, China, December 1-4, 2009. The 42 full papers presented together with four invited papers were carefully selected from 200 submissions. This book includes but are not limited to deal with topics like cloud /grid architecture, load balancing, optimal deploy configuration, consistency models, virtualization technologies, middleware frameworks, software as a Service (SaaS), hardware as a Service (HaaS), data grid & semantic web, web services, security and Risk, fault tolerance and reliability, auditing, monitoring and scheduling, utility computing, high-performance computing and peer to peer computing.

Cloud computing has emerged as a new paradigm for hosting and delivering computing resources over the Internet. This research proposed a cross-cloud communication framework (C3F) for enabling communication among clouds with minimal management burden. Further, it enabled the borrowing and lending of resources among clouds whenever required to fulfil the client requests. It also facilitated to share the information of attacks and intruding entities to cater with same attacks on different clouds. The framework was deployed using web-based prototype development to test and validate the cross-cloud communication. The prototype was developed using open source technologies. Moreover, algorithms were developed using low level description technique for the processes of resource borrowing and lending and, sharing of attacks information. The algorithms were analyzed to test their asymptotic running time

complexity, and programmed in accordance with prototype of the study for testing and validation. The results showed high success rate of 94.4% for sharing of resources among clouds with mean allocation time of 12 microseconds. It was observed that 94.4% of the time clients' requests were fulfilled successfully after borrowing the resources from cloud network. An average of 100% results were collected for protecting multiple clouds from same attack by sharing the attacks and intruders information among clouds in different situations. It is therefore concluded that cross-cloud communication framework can benefit for sharing of resources and attacks information among clouds for efficient resource management and allocation and, protection against same attacks at different clouds.

Cloud Computing and Security

Algorithms and Architectures for Parallel Processing

Handbook of Research on Advanced Wireless Sensor Network

Applications, Protocols, and Architectures

Fundamentals Of Cloud Computing

E-Democracy, Security, Privacy and Trust in a Digital World

Fog and Fogonomics

This book describes the uses of different mathematical modeling and soft computing techniques used in epidemiology for experiential research in projects such as how infectious diseases progress to show the likely outcome of an epidemic, and to contribute to public health interventions. This book covers mathematical modeling and soft computing techniques used to study the spread of diseases, predict the future course of an outbreak, and evaluate epidemic control strategies. This book explores the applications covering numerical and analytical solutions, presents basic and advanced concepts for beginners and industry professionals, and incorporates the latest methodologies and challenges using mathematical modeling and soft computing techniques in epidemiology. Primary users of this book include researchers, academicians, postgraduate students, and specialists.

ICT technologies have contributed to the advances in wireless systems, which provide seamless connectivity for worldwide communication. The growth of interconnected devices and the need to store, manage, and process the data from them has led to increased research on the intersection of the internet of things and cloud computing. The Handbook of Research on the IoT, Cloud Computing, and Wireless Network Optimization is a pivotal reference source that provides the latest research findings and solutions for the design and augmentation of wireless systems and cloud computing. The content within this publication examines data mining, machine learning, and software engineering, and is designed for IT specialists, software engineers, researchers, academicians, industry professionals, and students.

This book is a collection of research papers and articles presented at the 3rd International Conference on Communications and Cyber-Physical Engineering (ICCCE 2020), held on 1-2 February 2020 at CMR Engineering College, Hyderabad, Telangana, India. Discussing the latest developments in voice and data communication engineering, cyber-physical systems, network science, communication software, image and multimedia processing research and applications, as well as communication technologies and other related technologies, it includes contributions from both academia and industry. This book is a valuable resource for scientists,

research scholars and PG students working to formulate their research ideas and find the future directions in these areas. Further, it may serve as a reference work to understand the latest engineering and technologies used by practicing engineers in the field of communication engineering.

Cloud computing has become integrated into all sectors, from business to quotidian life. Since it has revolutionized modern computing, there is a need for updated research related to the architecture and frameworks necessary to maintain its efficiency. The Handbook of Research on End-to-End Cloud Computing Architecture Design provides architectural design and implementation studies on cloud computing from an end-to-end approach, including the latest industrial works and extensive research studies of cloud computing. This handbook enumerates deep dive and systemic studies of cloud computing from architecture to implementation. This book is a comprehensive publication ideal for programmers, IT professionals, students, researchers, and engineers.

Accelerating Modernization with Agile Integration

Synergizing Strategies and Intelligence with Architecture

Handbook of Research on High Performance and Cloud Computing in Scientific Research and Education

Information Security and Cryptology

On the Move to Meaningful Internet Systems: OTM 2014 Workshops

Securing Your Cloud: IBM Security for LinuxONE

This book constitutes the refereed proceedings of the 10th International Conference on Applications and Techniques in Information Security, ATIS 2019, held in Tamil Nadul, India, in November 2019. The 22 full papers and 2 short papers presented in the volume were carefully reviewed and selected from 50 submissions. The papers are organized in the following topical sections: information security; network security; intrusion detection system; authentication and key management system; security centric applications.

The book compiles technologies for enhancing and provisioning security, privacy and trust in cloud systems based on Quality of Service requirements. It is a timely contribution to a field that is gaining considerable research interest, momentum, and provides a comprehensive coverage of technologies related to cloud security, privacy and trust. In particular, the book includes - Cloud security fundamentals and related technologies to-date, with a comprehensive coverage of evolution, current landscape, and future roadmap. - A smooth organization with introductory, advanced and specialist content, i.e. from basics of security, privacy and trust in cloud systems, to advanced cartographic techniques, case studies covering both social and technological aspects, and advanced platforms. - Case studies written by professionals and/or industrial researchers. - Inclusion of a section on Cloud security and eGovernance tutorial that can be used for knowledge transfer and teaching purpose. - Identification of open research issues to help practitioners and researchers. The book is a timely topic for readers, including practicing engineers and academics, in the domains related to the engineering, science, and art of building networks and networked applications. Specifically, upon reading this book, audiences will perceive the following benefits: 1. Learn the state-of-the-art in research and development on cloud security, privacy and trust. 2. Obtain a future roadmap by learning open research issues. 3. Gather the background knowledge to tackle key problems, whose solutions will enhance the evolution of next-generation secure cloud systems.

THE ONE-STOP RESOURCE FOR ANY INDIVIDUAL OR ORGANIZATION CONSIDERING FOG COMPUTING Fog and Fogonomics is a comprehensive and technology-centric resource that highlights the system model, architectures, building blocks, and IEEE standards for fog computing platforms and solutions. The "fog" is defined as the multiple interconnected layers of computing along the continuum from cloud to endpoints such as user devices and things including racks or microcells in server closets, residential gateways, factory control systems, and more. The authors—noted experts on the topic—review business models and metrics that allow for the economic assessment of fog-based information communication technology (ICT) resources, especially mobile resources. The book contains a wide range of templates and formulas for calculating quality-of-service values.

Comprehensive in scope, it covers topics including fog computing technologies and reference architecture, fog-related standards and markets, fog-enabled applications and services, fog economics (fogonomics), and strategy. This important resource: Offers a comprehensive text on fog computing Discusses pricing, service level agreements, service delivery, and consumption of fog computing Examines how fog has the potential to change the information and communication technology industry in the next decade Describes how fog enables new business models, strategies, and competitive differentiation, as with ecosystems of connected and smart digital products and services Includes case studies featuring integration of fog computing, communication, and networking systems Written for product and systems engineers and designers, as well as for faculty and students, Fog and Fogonomics is an essential book that explores the technological and economic issues associated with fog computing.

Explore the latest and most comprehensive guide to securing your Cloud Native technology stack Cloud Native Security delivers a detailed study into minimizing the attack surfaces found on today's Cloud Native infrastructure. Throughout the work hands-on examples walk through mitigating threats and the areas of concern that need to be addressed. The book contains the information that professionals need in order to build a diverse mix of the niche knowledge required to harden Cloud Native estates. The book begins with more accessible content about understanding Linux containers and container runtime protection before moving on to more advanced subject matter like advanced attacks on Kubernetes. You'll also learn about: Installing and configuring multiple types of DevSecOps tooling in CI/CD pipelines Building a forensic logging system that can provide exceptional levels of detail, suited to busy containerized estates Securing the most popular container orchestrator, Kubernetes Hardening cloud platforms and automating security enforcement in the cloud using sophisticated policies Perfect for DevOps engineers, platform engineers, security professionals and students, Cloud Native Security will earn a place in the libraries of all professionals who wish to improve their understanding of modern security challenges.

Challenges and Practices of Fog Computing, Communication, Networking, Strategy, and Economics

Cloud Computing Solutions

Concepts, Methodologies, Tools, and Applications

Security, Privacy and Trust in Cloud Systems

ICCSM 2013

High Performance Cloud Auditing and Applications

"This book offers new and established perspectives on architectures, services and the resulting impact of emerging computing technologies, including investigation of practical and theoretical

issues in the related fields of grid, cloud, and high performance computing"--Provided by publisher.

This book analyzes the latest advances in privacy, security and risk technologies within cloud environments. With contributions from leading experts, the text presents both a solid overview of the field and novel, cutting-edge research. A Glossary is also included at the end of the book. Topics and features: considers the various forensic challenges for legal access to data in a cloud computing environment; discusses privacy impact assessments for the cloud, and examines the use of cloud audits to attenuate cloud security problems; reviews conceptual issues, basic requirements and practical suggestions for provisioning dynamically configured access control services in the cloud; proposes scoped invariants as a primitive for analyzing a cloud server for its integrity properties; investigates the applicability of existing controls for mitigating information security risks to cloud computing environments; describes risk management for cloud computing from an enterprise perspective.

This six volume set LNCS 11063 – 11068 constitutes the thoroughly refereed conference proceedings of the 4th International Conference on Cloud Computing and Security, ICCCS 2018, held in Haikou, China, in June 2018. The 386 full papers of these six volumes were carefully reviewed and selected from 1743 submissions. The papers cover ideas and achievements in the theory and practice of all areas of inventive systems which includes control, artificial intelligence, automation systems, computing systems, electrical and informative systems. The six volumes are arranged according to the subject areas as follows: cloud computing, cloud security, encryption, information hiding, IoT security, multimedia forensics.

In recent times, Cloud Computing has emerged as an important topic in the realm of Information Technology. Cloud Computing has gained eminence due to the growing usage of the Internet among people. This book is especially intended for readers who have no prior knowledge of the subject. Some topics in this book are unique and based on published information that is current and timely and is helpful for research scholars as well as specialists working in areas related to cloud computing. This book is suitable as an introductory text for one semester course in Cloud Computing for undergraduate and postgraduate science courses in Computer Science and Information Technology.

**Handbook of Research on End-to-End Cloud Computing Architecture Design
Cloud Computing Security**

Mathematical Modeling and Soft Computing in Epidemiology

**10th International Conference, ATIS 2019, Thanjavur, India, November 22–24, 2019, Proceedings
Proactive and Dynamic Network Defense**

**5th International Conference, E-Democracy 2013, Athens, Greece, December 5-6, 2013, Revised
Selected Papers**

Gain the practical knowledge you need to plan, design, deploy, and manage mixed cloud and on-premises IT management systems. Drawing on his experience as senior principal software architect at CA Technologies, Marvin Waschke lays out the nuts and bolts of the IT Infrastructure Library (ITIL)—the 5-volume bible of standard IT service management practices that is the single most important tool for aligning IT services with business needs. Many enterprise IT management applications, and the ways they are integrated, come directly from ITIL service management requirements. Types of integration include integrated reporting and dashboards, event-driven integration, device integration, and application data integration. Enterprise integration depends critically on high performance, scalability, and flexibility. Failure to integrate applications to service management requirements results in such wryly anticipated spectacles as the annual crash of the websites of Super Bowl advertisers such as Coca-Cola and Acura. Waschke weighs in on the debate between those who advocate integrating "best-of-breed" applications and those who favor a pre-integrated set of applications from a single vendor. He also rates the strengths and weaknesses of the major architectural patterns—central

relational databases, service-oriented architecture (SOA), and enterprise data buses—for IT integration of service management applications. He examines the modifications to traditional service management that are required by virtualized systems of datacenter management and application design. Clouds present special problems for integration. How Clouds Hold IT Together details solutions for integration problems in private, community, and public clouds—especially problems with multi-tenant SaaS applications. Most enterprises are migrating to the cloud gradually rather than at one go. The transitional phase of mixed cloud and on-premises applications presents thorny problems for IT management. Waschke shows the reader how to normalize the performance and capacity measurements of concurrent traditional and cloud resources.

Cyber security has become a topic of concern over the past decade as private industry, public administration, commerce, and communication have gained a greater online presence. As many individual and organizational activities continue to evolve in the digital sphere, new vulnerabilities arise. Cyber Security and Threats: Concepts, Methodologies, Tools, and Applications contains a compendium of the latest academic material on new methodologies and applications in the areas of digital security and threats. Including innovative studies on cloud security, online threat protection, and cryptography, this multi-volume book is an ideal source for IT specialists, administrators, researchers, and students interested in uncovering new ways to thwart cyber breaches and protect sensitive digital information.

This book comprehensively addresses computational intelligence, including the theories, methodologies and techniques underlying this evolving field, as well as its potential uses in various domains across the entire spectrum of the sciences (the natural sciences, health sciences, engineering, social sciences, and humanities) and in various types of business. Computational intelligence is rapidly spreading into all kinds of products and services. This calls for the adaptation of existing theories, methodologies and techniques – and the development of wholly new ones – to ensure the successful implementation of new intelligent products and services in various domains related to public organizations, businesses and everyday life. This book gathers contributions from various experts working on different aspects and implementations of computational intelligence, which address new developments in theory, analytical and numerical simulation and modeling, experimentation, deployment and case studies, results of laboratory or field operational tests, and ongoing advances in computational intelligence. It is intended for a broad audience, including researchers, engineers, policymakers, industry experts, and students, offering these readers essential information on and new inspirations regarding the potential of computational intelligence.

As information systems used for research and educational purposes have become more complex, there has been an increase in the need for new computing architecture. High performance and cloud computing provide reliable and cost-effective information technology infrastructure that enhances research and educational processes. Handbook of Research on High Performance and Cloud Computing in Scientific Research and Education presents the applications of cloud computing in various settings, such as scientific research, education, e-learning, ubiquitous learning, and social computing. Providing various examples, practical solutions, and applications of high performance and cloud computing; this book is a useful reference for professionals and researchers discovering the applications of information and communication technologies in science and education, as well as scholars seeking insight on how modern technologies support scientific research.

How Clouds Hold IT Together

Outcome-Driven Business Architecture

Handbook of Research on the IoT, Cloud Computing, and Wireless Network Optimization

International Conference on Mobile Computing and Sustainable Informatics

Foundations and Challenges

From Algorithms and Architectural Design to Applications

As the Web grows and expands into ever more remote parts of the world, the availability of resources over the Internet increases exponentially. Making use of this widely prevalent tool, organizations and individuals can share and store knowledge like never before. Cloud Technology: Concepts, Methodologies, Tools, and Applications investigates the latest research in the ubiquitous Web, exploring the use of applications and software that make use of the Internet's anytime, anywhere availability. By bringing together research and ideas from across the globe, this publication will be of use to computer engineers, software developers, and end users in business, education, medicine, and more.

As workloads are being offloaded to IBM® LinuxONE based cloud environments, it is important to ensure that these workloads and environments are secure. This IBM Redbooks® publication describes the necessary steps to secure your environment from the hardware level through all of the components that are involved in a LinuxONE cloud infrastructure that use Linux and IBM z/VM®. The audience for this book is IT architects, IT Specialists, and those users who plan to use LinuxONE for their cloud environments.

The organization pursuing digital transformation must embrace new ways to use and deploy integration technologies, so they can move quickly in a manner appropriate to the goals of multicloud, decentralization, and microservices. The integration layer must transform to allow organizations to move boldly in building new customer experiences, rather than forcing models for architecture and development that pull away from maximizing the organization's productivity. Many organizations have started embracing agile application techniques, such as microservice architecture, and are now seeing the benefits of that shift. This approach complements and accelerates an enterprise's API strategy. Businesses should also seek to use this approach to modernize their existing integration and messaging infrastructure to achieve more effective ways to manage and operate their integration services in their private or public cloud. This IBM® Redbooks® publication explores the merits of what we refer to as agile integration; a container-based, decentralized, and microservice-aligned approach for integration solutions that meets the demands of agility, scalability, and resilience required by digital transformation. It also discusses how the IBM Cloud Pak for Integration marks a significant leap forward in integration technology by embracing both a cloud-native approach and container technology to achieve the goals of agile integration. The target audiences for this book are cloud integration architects, IT specialists, and application developers. Confederated International Workshops: OTM Academy, OTM Industry Case Studies Program, C&TC, EI2N, INBAST, ISDE,

META4eS, MSC and OnToContent 2014, Amantea, Italy, October 27-31, 2014. Proceedings

ICCCE 2020

4th International Conference, ICCCS 2018, Haikou, China, June 8-10, 2018, Revised Selected Papers, Part III

Cyber Security and Threats: Concepts, Methodologies, Tools, and Applications

ICMCSI 2020