Clarissa Cassales Marquezan
Curriculum Vitae

Name	Clarissa Cassales Marquezan
Address	Saarlandstrasse 47, 44139 Dortmund, Germany
Contact	E-mail: clarissa.marquezan@web.de
	ccmarquezan@gmail.com
	Mobile: +49 (0) 178 132 1378
	Skype: clarissa.marquezan
	Web page: http://clarissamarquezan.weebly.com/
Nationality	Brazilian
Visa Status	Permanent Work and Residence Permit in Germany

Work Experience

02.2011 – 07.2014   **Research and Project Management.** Senior Researcher at Paluno – The Ruhr Institute for Software Technology. University of Duisburg-Essen (UDE), Germany.
Project Lead inside Paluno for CloudWave and FIspace FP7 projects.

08.2006 – 10.2010   **Research.** Research Associated (PhD position) at the Computer Networks Group of the Federal University of Rio Grande do Sul (UFRGS). Porto Alegre, Brazil

04.2008 – 03.2009   **Research.** PhD Internship at NEC Network Laboratories. Heidelberg, Germany

08.2007 – 12.2007   **Faculty Member.** Lecturer of the Object Orienting Programming Course, associated with the Analysis and System Development Department of the Technological University FTEC, Porto Alegre, Brazil

01.2006 – 03.2008   **Software Development and Project Management.** Member of project at the Network and Service Department from the Data Processing Center (CPD) of UFRGS. Porto Alegre, Brazil

03.2004 – 01.2006   **Research**. Research Associated (Master position) at the Parallel and Distributed Computing Group at UFRGS and member of the Clummsy project with HP Brazil. Porto Alegre, Brazil

08.2003 – 07.2004   **Software Development.** Member of the Configuration Management project (GT-Config) of the Brazilian National Educational and Research Network (RNP). Porto Alegre, Brazil

03.2001 – 08.2003   **Research.** Student Assistant at the Parallel and Distributed Computing Group of UFRGS. Porto Alegre, Brazil

Education

09.2006 – 10.2010   **PhD in Computer Science**
Federal University of Rio Grande do Sul, UFRGS, Porto Alegre, Brazil
Title: "On the investigation of the joint use of self-* properties and peer-to-peer for network management"
Main topics addressed: Network Management, Self-management, and Distributed Systems

03.2004 – 08.2006   **Master in Computer Science**
Federal University of Rio Grande do Sul, UFRGS, Porto Alegre, Brazil
Title: "Integrated Cluster Environment (ICE): Management and Access Platform for Multiple Clusters"
Main topics addressed: Cluster Management, Distributed Platform

03.1999 – 10.2003   **Bachelor in Computer Science**
Federal University of Rio Grande do Sul, UFRGS, Porto Alegre, Brazil
Title: "DECK-GM: An Implementation of the DECK Environment Using GM for Myrinet Technology"
Main topics addressed: Multi Cluster Interconnection, Network Protocol Development

Acquiring Projects

1. **CloudWave Project – Agile Service Engineering for the Future Internet**
   http://www.cloudwave-fp7.eu/

   Funding Agency: European Union FP7, Call FP7-ICT-2011-8 (Objective 1.2)
   Project Type: Integrated Project (IP)   _Duration_: 01.11.2013 – 31.10.2016 (36 Months)
   Number of partners: 10   _EU Contribution_: 6.3 Million Euros

   Role during Proposal: Participation in the core team since the beginning of the discussions for shaping the project scope and innovation. Key contribution in terms of ideas and writing text for one of the pillars from the project called _Coordinated Adaptation_ of cloud infrastructure and applications.

2. **FIspace Project – Future Internet Business Collaboration Networks in Agri-Food, Transport and Logistics**
   http://www.fispace.eu/Pages/FIspace.aspx

   Funding Agency: European Union FP7, under Future Internet Public Private Partnership (FI-PPP), Phase II
   Project Type: Integrated Project (IP)   Duration: 01.04.2013 – 31.03.2015 (24 Months)
   Number of Partners: 28   _EU Contribution_: 13.5 Million Euros

   Role during Proposal: Contribution in terms of ideas and writing text for the definition of the baseline applications to be developed and deployed in FIspace Platform.

3. **FairPay – Billing on Cognitive Wireless Backhauls based on Autonomic and Distributed Approaches**

   Funding Agency: Brazilian Agency, Universal Funding Call (MCTI/CNPq No 14/2013)
   Project Type: Small Size Project   _Duration:_ 01.11.2013 – 30.04.2015 (18 Months)
   Number of Partners: 3   _CNPq Contribution_: 30.000,00 Reais (10.000,00 Euros)

   Role during Proposal: Co-initiator of the idea, shaping the project scope and innovation. Key contribution in terms of ideas and writing text for distributed self-adapting solutions for achieving a fair billing solution.

Patent Application

Clarissa Marquezan, Giorgio Nunzi, Marcus Brunner. ***A Method for Operating at Least One Virtual Network on a Substrate Network and a Virtual Network Environment.***

Publication Number: US20110246647, EP2356781A1, WO2010066430A1

Publication Type: Application

Original Assignee: NEC Europe Ltd.

Publication Date: October 6, 2011

Referenced by other patent applications:

WO2014032882A1	IBM, "Optimizing virtual machine deployment time". Mar 6, 2014
US20120324070	IBM, "Distributed cloud placement software". Dec 20, 2012
WO2012055446A1	Nokia Siemens Networks, "Dynamic creation of virtualized network topology". May 3, 2012
WO2012055448A1	Nokia Siemens Networks, "Control mechanism for reliability and availability setting in virtual networks", May 3, 2012
WO2011116715A2	Huawei Technologies, "Method, correlative device and system for virtual network migration", Sep 29, 2011

Scientific Awards

2011   IFIP/IEEE International Symposium on Integrated Network Management (IM 2011) **Best Dissertation Award,** IEEE Communications Society

2007   IFIP/IEEE International Symposium on Integrated Network Management (IM 2007) **Student Travel Grant,** IEEE Communications Society

2005   **One of the 6 best papers** of the Brazilian Computer Networks Symposium (SBRC). Title: "Integração do Gerenciamento de Clusters de Alto Desempenho com o Gerenciamento de Redes através de Solução baseada em SNMP" (Integration of High Performance Cluster Management and Network Management through an SNMP-based Solution)

Research Interests

1.   Cloud Computing
2.   Self-adaptive and Self-managed Systems
3.   Network and Services Management
4.   Engineering Service Oriented Systems and Cloud Applications

Contacts for Reference

Prof. Dr. Lisandro Zambenedetti Granville
Associate Professor,
Federal University of Rio Grande do Sul (UFRGS),
Porto Alegre, Brazil
Head of the CTIC / RNP Research Center
Brasilia, Brazil
Email: granville@inf.ufrgs.br

Dr. Yaron Wolfsthal
Associate Director,
IBM Cyber Security Center of Excellence
Ben-Gurion University,
Beer Sheva, Israel
Email: wolfsthal@il.ibm.com

Prof. Dr. Klaus Pohl
Full Professor,
University of Duisburg-Essen,
Essen, Germany
Email: klaus.pohl@paluno.uni-due.de

Dr. Marcus Brunner
Head of Standardization
Strategy and Innovation Department, Swisscom
Bern, Switzerland
Email: marcus.brunner@swisscom.com

Dr. Andreas Metzger
Academic Senior Councilor,
University of Duisburg-Essen
Essen, Germany
Email: andreas.metzger@paluno.uni-due.de

Dr. Sharon Keidar-Barner
First Line Manager
IBM Research Lab Haifa,
Haifa, Israel
Email: sharon@il.ibm.com

Prof. Dr. Filip De Turck
Department of Information Technology (INTEC)
Ghent University Future Internet Department - iMinds
Gent, Belgium
Email: filip.deturck@intec.ugent.be

Dr. Michael Stollberg
Senior Project Manager, SAP AG
Dresden, Germany
Email: michael.stollberg@sap.com

Prof. Dr. J. Rod Franklin, P.E.
Managing Director Executive Education
Adjunct Professor of Logistics
The Kuehne Logistics University
Hamburg, Germany
Email: rod.franklin@the-klu.org

Dr. Fabiana Fournier
Research Staff Member,
IBM Haifa Research Lab,
Haifa, Israel
Email: fabiana@il.ibm.com

Languages

Portuguese   Native speaker
English   Fluent (Written and Spoken – Toefl Certificate from 2008)
German   Intermediate level (B1 Certificate According to TELC Language Test from 2013)

Technical Skills

Project Management

Solid Experience	Experienced	Acquainted
Spiral Methodology	SCRUM Methodology	RUP Methodology
Agile Project Management	Critical Chain Scheduling	Waterfall Methodology
Eisenhower Method for time Management (4 Quadrants)	Excel Programming (Intermediary Level)	PMBOK Methodology
RACI Chart Tool	Gantt Charts	Critical Chain Path
OneNote Tool, Wikis, SVN, Latex		

Networking and Systems Management

Solid Experience	Experienced	Acquainted
SNMP-based Management	Network Services (DHCP, NAT, DNS, DDNS)	Ceilometer
PBNM-based Management	OpenStack Nova, Openstack HEAT	Standards for Cloud Computing (OCCI; TOSCA)
Linux Administration (Ubuntu and Debian)	Administration of MySQL and PostgreSQL Servers	APIs from Amazon Web Services (EC2, CloudWatch)
OSI Model and TCP-IP Architecture	Administration of Tomcat Servers	WiMAX Technology
Protocol Design and Implementation	Monitoring Frameworks and Tools(Nagios, Wireshark, tcpdump)	RDN (Radio Defined Network)
Omnet++ Simulator	Peer-to-Peer JXTA Technology	SDN (Software Defined Networking)
Bash Script		ESTI Network Functions Virtualization (NFV)
Design of MIBs		IETF Service Function Chaining (SFC)

Software Engineering

Solid Experience	Experienced	Acquainted
Requirements Elicitation Techniques (e.g., Twin-Peaks)	Design of Information Systems (SQL and non-SQL)	PHP, JavaScript, ESPER
System Abstraction and Refinement	DevOps Methodology	MDB (Model Driven Development)
Modeling with UMLv2	Java J2EE, Java SE, C/C++	WS-Agreement
Modeling with TAM	SOAP and RESTful Web services	Linked-USDL (non-SQL)
Architectural Design of Distributed Systems	Multithreading programming (PThreads)	Models for Cloud Applications (CloudML, PCIM4Cloud)
Linux Programming	NetBeans, Eclipse	Spring Framework, Maven
Object Oriented Programming	Parallel and Distributed Libraries (MPI and Openmp)	Business Process based on Artifact Centric Approach
Design and Implementation of Parallel and Concurrent Systems	Event-based Programming and Complex Event Processing	BPEL and BPNM
SOA Architecture		

Soft Skills

1. Can-do attitude, self-motivated, leadership, initiative, and pro-active behavior
2. Ability to learn fast and correlate new topics from different areas and domains
3. Capacity of acting as bridge between different domains, such as Network Management and Software Engineering, Transport and Logistics and IT Systems
4. Able to establish collaborations with different groups and cultures resulting in joint outputs
5. Skills for mediating conflicts and flexibility to adjust and react to changing conditions

Contacts in Industry[1]

IBM Research Haifa, Israel

IBM Research Brazil

Intel, Ireland

Swisscom, Switzerland

Kuhne & Nagel, Germany

SAP AG, Germany

ATOS, Spain

Cloudmore, Sweden

KOC Systems, Turkey

Datacom, Brazil

Contacts in Research Centers and Academia[1]

Federal University of Rio Grande do Sul (UFRGS), Brazil

Federal University of Rio de Janeiro (UFRJ), Brazil

Brazilian National Educational and Research Network (RNP), Brazil

IAAS Institute from University of Stuttgart, Germany

University of Twente, Netherlands

Ghent University, Belgium

University of Seville, Spain

University of Messina, Italy

Technion – Israeli Institute of Technology, Israel

Research Experience

1. **Technical Program Committees**
   - IM 2015 (IFIP/IEEE International Symposium on Integrated Network Management)
   - Dissertation Papers Track of IM 2015 (IFIP/IEEE International Symposium on Integrated Network Management)
   - CNSM 2014 (IFIP IEEE 10th International Conference on Network and Service Management)
   - ManSDN/NFV (1st International Workshop on Management of SDN and NFV Systems, 2014 – co-located with IFIP IEEE 10th International Conference on Network and Service Management)
   - NOMS 2014 (IFIP IEEE Network Operations and Management Symposium)
   - DaMNet 2014 (Fourth IEEE ICDM Workshop on Data Mining in Networks – co-located with 2014 IEEE International Conference on Data Mining – ICDM 2014)
   - EnCASE 2014 (First Workshop on Engineering Cloud Applications & Services in conjunction with The Enterprise Computing Conference – EDOC 2014)
   - PESOS 2014 @ ICSE (6th International Workshop on Principles of Engineering Service-Oriented and Cloud System, Workshop of the 36th International Conference on Software Engineering)
   - CCA 2014 (International Symposium on Cloud Computing: Architecture, Applications, and approaches – co-located with 2014 International Conference on Advances in Computing, Communications and Informatics – ICACCI 2014)
   - WCI 2014 (Second International Symposium on Women in Computing and Informatics – co-located with 2014 International Conference on Advances in Computing, Communications and Informatics – ICACCI 2014)

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[1] Specific names upon request

- PhD Workshop at AIMS 2014 (8th International Conference on Autonomous Infrastructure, Management and Security)
- Simposio Latinoamericano de Infraestructura, Hardware y Software (in conjunction with XL Conferencia Latinoamericana en Informática - CLEI 2014)
- IM 2013 (IFIP/IEEE International Symposium on Integrated Network Management)
- CSB 2013 @ ICSOC 2013 (1st International Workshop on Cloud Service Brokerage, Workshop of the 11th International Conference on Service Oriented Computing)
- DaMNet 2013 @ ICDM 2013 (3rd IEEE ICDM Workshop on Data Mining in Networks, Workshop of IEEE International Conference on Data Mining)
- SOAC 2013 @ ICACCI 2013 (2nd International Workshop on Service Oriented Architecture and Cloud, Workshop of 2013 International Conference on Advances in Computing, Communications and Informatics)
- CloudNet 2012 (2012 IEEE 1st International Conference on Cloud Networking)
- INM 2008 @ ICNP 2008 (Internet Network Management Workshop, co-located with the 16th IEEE International Conference on Network Protocols)
- ERRC 2013- 2010, ERRC 2008, ERRC 2007, ERRC 2005 (Brazilian Regional School on Computer Networks)

2. **Reviewer of Journals and Magazines**

- IEEE Transactions on Network and Service Management (2014)
- IEEE Transactions on Networking (2013 - 2014)
- IEEE Communications Letters (2012 - 2014)
- Springer Journal of Network and Systems Management (2012 - 2014)
- IEEE Communications Magazine – Network Management Series (2011 - 2013)
- Wiley International Journal of Network Management (2009)
- Brazilian Journal on Theoretic and Applied Informatics - RITA (2008 - 2009)

3. **Reviewer of Conferences, Symposiums, and Workshops**

- RCIS 2014 (IEEE 8th International Conference on Research Challenges in Information Science)
- CAiSE 2014 (26th International Conference on Advanced Information Systems Engineering)
- WAS4FI 2012 @ESOCC 2013 (3rd International Workshop on Adaptive Services for the Future Internet, co-located with The European Conference on Service-Oriented and Cloud Computing)
- NOMS 2012 (IFIP IEEE Network Operations and Management Symposium)
- ISCC 201-2012 (IEEE Symposium on Computers and Communication)
- SEAA 2011 (37th EUROMICRO Conference on Software Engineering and Advanced Applications)
- LATINCOM 2010 (IEEE Latin-American Conference on Communications)
- IM 2009 and IM 2005 (IFIP/IEEE International Symposium on Integrated Network Management)
- IPOM 2009 (9th IEEE International Workshop on IP Operations and Management)
- APNOMS 2006-2008 (Asia-Pacific Network Operations and Management Symposium)

4. **Organizing Committees**

- Co-Chair of Poster Session at IFIP/IEEE International Symposium on Integrated Network Management (IM 2015)
- International Liaison for Europe at the IFIP IEEE 10th International Conference on Network and Service Management (CNSM 2014)
- Session on "Dynamically Adaptive FI-Application: Beyond Adaptive Services" during the Future Internet Assemble Budapest 2011 (FIA 2011), Hungary
- Conference of the Brazilian Computer Society (CSBC 2009)
- Latin American Network Operation and Management Symposium (LANOMS 2005)
- Brazilian Symposium on Computer Networks and Distributed Systems (SBRC2004)

5. **Chairing Sessions at Conferences and Symposiums**

- Mini-conference Session on Cloud and Virtualization. IFIP/IEEE Network Operations and Management Symposium (NOMS 2014), Krakow, Poland
- Mini-conference Session on Virtualized Infrastructure Management II. IFIP/IEEE International Symposium on Integrated Network Management (IM 2013), Ghent, Belgium

6. **Talks**

- "WP4 – Coordinated Adaptation", during Kickoff meeting of CloudWave Project, 04th November, 2013, Haifa, Israel
- "Task 4.1 – Coordinated Infrastructure/Applications Adaptation and Adaptation Models", during Kickoff meeting of CloudWave Project, 05th November, 2013, Haifa, Israel
- "Interaction among WP200, WP300 and WP400 – Story Line based on Greenhouse Management Trial – Advice Request Scenario" during the 2nd General Meeting of FIspace Project in the role of WP200 Lead deputy, September 2013, Istanbul, Turkey
- Leading the demonstration session during the Final Review Meeting of FInest project about "Demo Story – Fish Use Case", June 2013, Brussels, Belgium
- "Work Package 8 – Logistics Contract Establishment and Management", Interim Project Review Month 06, Finest Project, 27th October, 2011, Poznan, Poland
- "Future Internet Apps: The Next Wave of Adaptive Service-Oriented Systems?", during the 4th European Conference on ServiceWave 2011, October 26-28, 2011, Poznan, Poland
- "Transport & Logistics Scenario for Future Internet Applications", Session on "Dynamically Adaptive FI-Application: Beyond Adaptive Services", Future Internet Assemble Budapest, 2011 (FIA 2011), Budapest, Hungary
- "On the Investigation of the Joint Use of Self-* Properties and Peer-To-Peer for Network Management", during the Dissertation Digest of 12th IFIP/IEEE International Symposium on Integrated Network Management (IM 2011) - Work received Best Dissertation Award, 23-27 May 2011, Dublin, Ireland
- "Maintenance of Monitoring Systems throughout Self-Healing Mechanisms", during the 19th IFIP/IEEE International Workshop on Distributed Systems: Operations and Management (DSOM 2008), September 22-26, 2008, Samos Island, Greece
- "An Evaluation of Service Composition Technologies Applied to Network Management", during the 10th IFIP/IEEE Symposium on Integrated Management (IM 2007), May 21-25, 2007, Munich, Germany
- "Self-managed services over a P2P-based Network Management Overlay", during the 2nd Latin American Autonomic Computing Symposium (LAACS 2007), September 12-13, 2007, Petrópolis, Brazil.
- "Evaluating the Performance of SNMP and Web Services Notifications", during the 10th IEEE/IFIP International Symposium on Network Operations and Management (NOMS 2006), 6th April 2006, Vancouver, Canada
- Short course on Web Services for High Performance Computing during Workshop on High Performance Computing Systems (VII Workshop em Sistemas Computacionais de Alto Desempenho, WSCAD 2006), October 17-20, 2006, Ouro Preto, MG, Brazil
- Tutorial on High Performance Cluster Management and Configuration at the Brazilian Regional School on Computer Networks (ERRC 2006), September 2006, Passo Fundo, Brazil
- "High Performance Cluster Management Based on SNMP: Experiences on Integration Between Network Patterns and Cluster Management Concepts", during the 11th International Conference on Telecommunications (ICT2004), August 1-6, 2004, Fortaleza, Brazil
- Tutorial on Programming Web Services for Network Management at the Brazilian Regional School on Computer Networks, ERRC2005, August 2005, Santa Cruz do Sul, Brazil
- Tutorial on QoS Support on FreeBSD Routers at the Brazilian Regional School on Computer Networks (ERRC2003), September 2003, Porto Alegre, Brazil

- "Uma Implementação do Ambiente DECK Para Myrinet (An Implementation of the DECK Environment for Myrinet Technology)", during the IV Workshop em Sistemas Computacionais de Alto Desempenho (WSCAD 2003) (Workshop on High Performance Computing Systems), November 10-12, 2003, São Paulo, Brazil

7. Teaching and Tutoring

- Tutor of Seminar entitled "Verhandlungen auf Service Level Agreements" (Negotiation of Service Level Agreements) at Paluno - Duisburg-Essen University in Summer Semester /2014 (In German)
- Tutor of Seminar entitled "Review on Monitoring Metrics and Management API in Web Servers and Web Application Servers" at Paluno - Duisburg-Essen University in Summer Semester /2014
- Tutor of Seminar entitled "Monitored Information in Clouds: Review and Analysis" at Paluno - Duisburg-Essen University in Summer Semester /2014
- Tutor of two students on the process of learning the basics of computer programming and Java language, from August to December 2012
- Tutor of PhD students for the preparation for the "Lehrstuhl Workshop" at the Software Systems Engineering chair at Paluno – University of Duisburg-Essen, in October 2012
- Coordinator of the Brow Bag Seminar for PhD Students at the Software Systems Engineering chair at Paluno – University of Duisburg-Essen, since February 2012.
- Lecturer for one semester of the Object Oriented Programming course at the Analysis and System Development Department of the Technological University FTEC Brasil, Porto Alegre, Brazil
- Tutor of the 4th Edition of the Cluster Configuration and Installation course offered by the Institute of Informatics at the Federal University of Rio Grande do Sul, Porto Alegre, Brazil, in 2003.
- Tutor of the 3rd Edition of the Cluster Configuration and Installation course offered by the Institute of Informatics at the Federal University of Rio Grande do Sul, Porto Alegre, Brazil, in 2002.

8. Supervisions

- 1 PhD Student. Topic: SLA Management in Non-Computational Domain (05.2013 – 05.2014)
- 1 Graduate Student – Wissenschaftliche Hilfskräfte, WHK (02.2013 – 06.2014)
- 2 Undergraduate Students – Studentische Hilfskräfte, SHKs (06.2012 – 07.2014)

Project Participation Experience

11.2013 – 07.2014   *European FP7 – CloudWave*
Description: Development of new cloud stack supporting DevOps, coordinated adaptation and analytics.
Role: Project Lead in the scope of UDE and Task Lead in the scope of the project (Three project partners are involved in the task execution). Responsible for the research and development of solutions for managing in a coordinate fashion cloud infrastructure and applications.

04.2013 – 07.2014   *European FP7 – FI PPP Phase II – FIspace*
Description: Development of novel cloud-based business collaboration platform.
Role: Project Lead in the scope of UDE and Task Lead in the scope of the project (Seven project partners are involved in the task execution). Responsible for leading the teams developing the initial set of applications to be deployed in the FIspace platform.

07.2011 – 03.2013   *European FP7 – FI PPP Phase I – Use Case Project:* **FInest**
Description: Development of novel paradigms for network management for the Future Internet.
Role: WP Lead (Seven project partners were involved in the Work Package). Design and specification of business SLA management solutions for Transport & Logistics domain.

02.2011 – 06.2011   *European FP7 – S-CUBE*
Description: Network of Excellence for the advancing software and services solutions.
Role: Member. Responsible for supporting management activities and identification of research roadmaps in Adaptive Service Oriented Applications.

04.2008 - 03.2009   *European FP7 – 4WARD*

Description: Development of novel paradigms for network management for the Future Internet.
Role: Contributor. Responsible for the research and development of distributed self-organizing algorithms for virtual networks.

01.2006 - 03.2008   *Brazilian Funding - DHCP & Cia and Data Center Network and Service Management*

Description: Definition and development of a Network Access Control (NAC) system in order to manage the use of the university's computer network, as well as definition and implantation of a network and service management infrastructure
Role: Member. Responsible for the analysis and definition of the NAC system requirements, analysis and deployment of network and service solution, and project management.

01.2005 - 03.2007   *Brazilian Funding (RNP) - GigaManP2P*

Description: Design, implementation, and evaluation of a novel Peer-to-Peer management architecture for optical network devices focused initially on the RNP (Brazilian National Educational and Research Network) Giga backbone.
Role: Member. Responsible for the project management, research solutions, and development.

07.2004 – 12.2005   *Brazilian Funding - Clumssy HP Brazil*

Description: Development of an independent, extensible, transparent cluster access and management infrastructure based on Web services technology. Project involving HP Brazil and Federal University of Rio Grande do Sul (UFRGS)
Role: Member. Responsible for the analysis and implementation of the management platform.

08.2003 – 07.2004   *Brazilian Funding (RNP) - GT-Config*

Description: Development of a policy-based network management prototype with support for QoS deployment to be used at the Brazil RNP backbone.
Role: Member. Responsible for the analysis, definition, and implementation of the policy-based network management prototype.

Software and Systems Engineering Experience

CloudWave Cloud Stack Framework
Year: 11.2013 – 07.2014   *Scope:* CloudWave Project
Role: Contributor System Architect
Technology used on development: UML2 for modeling; Java; YAML; Bash script; CEP (Esper and Apache Camelo under consideration); OpenStack Nova; OpenStack Ceilometer; OpenStack HEAT; OpenStack Controller; Linux Platform; Nagios Monitoring Framework; Advanced Message Queuing Protocol Frameworks (RabittMQ); RESTful Web Services

Infrastructure and Application Coordinated Adaptation Engine Prototype
Year: 11.2013 – 07.2014   *Scope:* CloudWave Project
Role: Leading System Architect
Technology used on development: UML2 for modeling; Java; YAML; Bash script; CEP (Esper and Apache Camelo under consideration); OpenStack Nova Compute; OpenStack Nova Scheduler; OpenStack HEAT; OpenStack Controller and Scheduler; Linux Platform; Advanced Message Queuing Protocol Frameworks; Web Servers (Tomcat, Jetty, Apache Web Server); Databases (MySQL server); BPEL Process Engines (ODE, OpenESB); Multithreading; Linux Shared Libraries; RESTful Web Services

FIspace Platform Prototype
Year: 04.2013 – 07.2014   *Scope:* FIspace Project
Role: Contributor System Architect
Technology used on development: SAP TAM and UML2 for modeling; Java; ESB (IBM prototype); CEP (IBM prototype); Bitbucket; OpenStack for Cloud Environment; Adapted version of ACSI engine for Artifact Centric Business Process Management; RESTful Web Services

Business SLA Management App Prototype
Year: 04.2013 – 07.2014   *Scope:* FIspace Project
Role: Contributor System and Software Architect
Technology used on development: SAP TAM and UML2 for modeling; Java; ESB (IBM prototype); Linked-USDL; HTML5; Mongo DB; RDF

FInest Platform Prototype
Year: 07.2011 – 03.2013   *Scope:* FInest Project
Role: Contributor System Architect
Technology used on development: Linked-USDL; Java; JavaScript, SAP TAM for modeling; Adapted version of ACSI engine for Artifact Centric Business Process Management

ECM (E-Contracting Manager) Prototype
Year: 07.2011 – 03.2013   *Scope:* FInest Project
Role: Leading System, Software, and Information Architect
Technology used on development: Linked-USDL; Java; JavaScript, SAP TAM for modeling; RESTful Web Services

Simulator for Network Virtualization
Year: 08.2008 – 03.2009   *Scope:* Internship at NEC Heidelberg and PhD Dissertation
Role: Leading System Architect and Developer
Technology used on development: C++; Netbeans; Linux Platform; Omnet++ Simulator

NAC (Network Access Control) System for CPD at UFRGS
Year: 01.2006 – 03.2008   *Scope:* DHCP & Cia Project
Role: Leading Requirements Engineer, Information and System Architect
Technology used on development: RegNet System; Nagios; DHCP; DNS; OpenMNP; MySQL; Perl; Bash Script

ManP2P (Management Platform based on P2P)
Year: 01.2005 – 03.2007   *Scope:* GigaManP2P Project and PhD Dissertation
Role: Leading System Architect and Contributor Developer
Technology used on development: Java; JXTA; Linux Platform; SOAP Web Services

ICE (Integrated Cluster Environment)
Year: 2004 – 2006   *Scope:* Clumssy Project
Role: Leading System Architect and Developer
Technology used on development: JSP; Tomcat; Cluster Job Schedulers (OpenPBS, SGE, OAR); Parallel and Distributed Libraries (MPI and DECK); Linux Platform; SOAP Web Services

Router Policies Configuration at QAME (QoS Aware Management Environment)
Year: 2003 – 2004   Scope: GT-Config Project
Role: Leading System Architect and Contributor Developer
Technology used on development: PHP; HTML; SOAP Web Services; Policy Based Management (PBM); SNMP; LDAP Server

Message Passing Protocol for Myrinet Technology (DECK-GM)
Year: 2002 – 2003   *Scope:* Student Assistant and Bachelor
Role: Leading Protocol Designer, System Architect, and Developer
Technology used on development: C/C++; POSIX Thread (pthread); GM library for Myrinet Technology, DECK library (message passing library); Linux Platform

Publications

Books and Book Chapters

1. <u>Clarissa Cassales Marquezan</u>, Lisandro Zambenedetti Granville. *Self-* and P2P for Network Management - Design Principles and Case Studies*, **Springer Briefs in Computer Science 2012,** Spring London, pp 105

2. <u>Clarissa Cassales Marquezan</u>, Andreas Metzger, Klaus Pohl, Vegard Engen, Michael Boniface, Stephen C. Phillips, Zlatko Zlatev. *Adaptive Future Internet Applications: Opportunities and Challenges for Adaptive Web Services Technology*, **In Adaptive Web Services for Modular and Reusable Software Development: Tactics and Solution** (Guadalupe Ortiz, Javier Cubo, eds.), IGI Global, 2012

Journals

3. Cristiano Bonato Both, <u>Clarissa Cassales Marquezan</u>, Rafael Kunst, Lisandro Zambenedetti Granville, and Juergen Rochol. 2012. *A self-adapting connection admission control solution for mobile WiMAX: Enabling dynamic switching of admission control algorithms based on predominant network usage profiles*. **Journal of Network and Computer Applications**, 35, 5 (September 2012), 1392-1401

Conference Papers

4. Márcio Carvalho, Rafael Esteves, Guilherme Rodrigues, <u>Clarissa Cassales Marquezan</u>, Lisandro Zambenedetti Granville, Liane Margarida Rockenbach Tarouco. *Efficient Configuration of Monitoring Slices for Cloud Platform Administrators*. **In Proceedings of 19th IEEE Symposium on Computers and Communications (ISCC 2014)**, 23-26 June 2014, Madeira, Portugal (to appear)

5. Dario Bruneo, Thomas Fritz, Sharon Keidar-Barner, Philipp Leitner, Francesco Longo, <u>Clarissa Marquezan</u>, Andreas Metzger, Klaus Pohl,Antonio Puliafito, Danny Raz, Andreas Roth, Eliot Salant, Itai Segall, Massimo Villari, Yaron Wolfsthal, Chris Woods. *CloudWave: where Adaptive Cloud Management Meets DevOps*. **In Proceedings of Workshop on Management of Cloud Systems (MoCS 2014) in association with IEEE Symposium on Computers and Communications (ISCC 2014)**, 23-26 June 2014, Madeira, Portugal (to appear)

6. <u>Clarissa Cassales Marquezan</u>, Florian Wessling, Andreas Metzger, Klaus Pohl, Chris Woods, Karl Wallbom. *Towards Exploiting the Full Adaptation Potential of Cloud Applications*. **In Proceedings of 6th International Workshop on Principles of Engineering Service-Oriented and Cloud System (PESOS 2014) in conjunction with ICSE 2014**. IEEE and ACM, 2014. (to appear)

7. Santiago Gómez Sáez, Vasilios Andrikopoulos, Florian Wessling and <u>Clarissa Cassales Marquezan</u>. *Cloud Adaptation & Application (Re-)Distribution: Bridging the two Perspectives.* **In Proceedings of First International Workshop on Engineering Cloud Applications & Services (EnCASE 2014) in conjunction with EDOC 2014**. (to appear)

8. Antonio Manuel Gutierrez, <u>Clarissa Cassales Marquezan</u>, Manuel Resinas, Andreas Metzger, Antonio Ruiz-Cortés, Klaus Pohl. *Extending WS-Agreement to Support Automated Conformity Check on Transport & Logistics Service Agreements*, **In Proceedings of the 11th International Conference on Service Oriented Computing (ICSOC 2013)**, Springer Berlin Heidelberg, Lecture Notes in Computer Science, 2013 (Short Paper)

9. Annapaola Marconi, Antonio Bucchiarone, Konstantinos Bratanis, Antonio Brogi, Javier Cámara, Dimitris Dranidis, Holger Giese, Raman Kazhamiakin, Rogério de Lemos, <u>Clarissa Cassles Marquezan</u>, Andreas Metzger. *Research challenges on multi-layer and mixed-initiative monitoring and adaptation for service-based systems*, **In Proceedings of the ICSE 2012 Workshop on European Software Services and Systems Research -- Results and Challenges (S-Cube)**, IEEE, 2012

10. Rod Franklin, Yagil Engel, Marianne Hagaseth, Asmund Tjora, Fabiana Fournier, René Fleischhauer, <u>Clarissa Marquezan</u>, Andreas Metzger, Michael Stollberg, Silvio Tschapke. *Cloud Based Collaboration Platform for Transport & Logistics Business Networks*, **In Proceedings of the 6th International Scientific Symposium on Logistics**, Bundesvereinigung Logistik (BVL), 2012

11. Rod Franklin, Andreas Metzger, Michael Stollberg, Yagil Engel, Kay Fjørtoft, René Fleischhauer, <u>Clarissa Cassales Marquezan</u>, Lone Sletbakk Ramstad. *Future Internet Technology for the Future of Transport and Logistics*, **In Proceedings of the 4th European Conference on ServiceWave 2011, Future Internet PPP Track** (Poznan, Poland, October 26-28, 2011) (Andrea Zisman, Ignacio Llorente, Mike Surridge, Witold Abramowicz, Julien Vayssière, eds.), Springer, LNCS, volume 6994, 2011

12. Andreas Metzger, <u>Clarissa Cassales Marquezan</u>. *Future Internet Apps: The Next Wave of Adaptive Service-Oriented Systems?*, **In Proceedings of the 4th European Conference on ServiceWave 2011, Research Track** (Poznan, Poland, October 26-28, 2011) (Andrea Zisman, Ignacio Llorente, Mike Surridge, Witold Abramowicz, Julien Vayssière, eds.), Springer, LNCS, volume 6994, 2011

13. <u>Clarissa Cassales Marquezan</u>, Lisandro Zambenedetti Granville. *On the Investigation of the Joint Use of Self-* Properties and Peer-To-Peer for Network Management, **Dissertation Digest of 12th IFIP/IEEE International Symposium on Integrated Network Management (IM 2011) – Best Dissertation Award***, 23-27 May 2011, Dublin

14. <u>Clarissa Cassales Marquezan</u>, Giorgio Nunzi, Marcus Brunner, Lisandro Zambenedetti Granville. *Distributed Autonomic Resource Management for Network Virtualization,* **In Proceedings of the 12th IEEE/IFIP Network Operations and Management Symposium (NOMS 2010)**, April 19-23, 2010, Osaka, Japan, pp. 463-470.

15. <u>Clarissa Cassales Marquezan</u>, Jéferson Nobre, Lisandro Zambenedetti Granville, Giorgio Nunzi, Dominique Dudkowski, Marcus Brunner. *Distributed Reallocation Scheme for Virtual Network Resources,* In: **Proceedings of the IEEE International Conference on Communications, 2009 (ICC 2009)**, June 14-18, 2009, Dresden, Germany, pp.1-5.

16. <u>Clarissa Cassales Marquezan</u>, André Panisson, Lisandro Zambenedetti Granville, Giorgio Nunzi, Marcus Brunner. *Maintenance of Monitoring Systems throughout Self-Healing Mechanisms,* **In Proceedings of the 19th IFIP/IEEE International Workshop on Distributed Systems: Operations and Management (DSOM 2008)**, September 22-26, 2008, Samos Island, Greece, pp. 176-188.

17. Carlos Raniery Paula dos Santos, <u>Clarissa Cassales Marquezan</u>, Ewerton Monteiro Salvador, Luis Fernando Dalla Santa, Sérgio Luis Cechin, Lisandro Zambenedetti Granville, Maria Janilce Bosquiroli Almeida, Liane Margarida Rockenbach Tarouco. *On the Design and Performance Evaluation of Notification Support for P2P-Based Network Management*, In: **Proceedings of the 23rd ACM Symposium on Applied Computing (SAC 2008)**, March 16-20, 2008, Fortaleza, Brazil, pp. 2057-2062.

18. <u>Clarissa Cassales Marquezan</u>, Carlos Raniery Paula dos Santos, Ewerton Monteiro Salvador, Maria Janilce Bosquiroli Almeida, Sérgio Luis Cechin, Lisandro Zambenedetti Granville. *Performance Evaluation of Notifications in a Web Services and P2P-Based Network Management Overlay,* **In Proceedings of the 31st Annual IEEE International Computer Software and Applications Conference (COMPSAC 2007**), July 23-27, 2007, Beijing, China. pp.241-248.

19. Ricardo Lemos Vianna, <u>Clarissa Cassales Marquezan</u>, Everton Polina, Leandro Bertholdo, Maria Janilce Bosquiroli Almeida, Liane Margarida Rockenbach Tarouco, Lisandro Zambenedetti Granville. *An Evaluation of Service Composition Technologies Applied to Network Management,* **In Proceedings of the 10th IFIP/IEEE Symposium on Integrated Management (IM 2007)**, May 21-25, 2007, Munich, Germany. pp.420 – 428.

20. Gerson Battisti, <u>Clarissa Cassales Marquezan</u>, Liane Rockenbach Tarouco, Lisandro Zambenedetti Granville. *A Management Model and Prototype Implementation for Performance Measurement Infrastructures*, **In Proceedings of the 14th International Conference On Telecommunications (ICT 2007)**, May 14-17, 2007, Penang, Malaysia, pp. 348-353.

21. <u>Clarissa Cassales Marquezan</u>, Carlos Raniery Paula dos Santos, Jéferson Campos Nobre, Maria Janilce Bosquiroli Almeida, Liane Margarida Rockenbach Tarouco, Lisandro Zambenedetti Granville. *Self-managed services over a P2P-based Network Management Overlay*, **In Proceedings of the 2nd Latin American Autonomic Computing Symposium (LAACS 2007)**, September 12-13, 2007, Petrópolis, Brazil, 7 pages.

22. <u>Clarissa Cassales Marquezan</u>, Rodrigo Rosa Righi, Lucas Schnorr, Alexandre da Silva Carissimi, Nicolas Maillard, Philippe Olivier Alexandre Navaux. *ICE: A Service Oriented Approach to Uniform the Access and Management of Cluster Environments,* **In Proceedings of the IEEE International Symposium on Cluster Computing and the Grid (CCGRID 2006) - International Workshop on Grid Testbeds**, May 16-19, 2006, Singapor, 8 pages.

23. Rodrigo Rosa Righi, Lucas Schnorr, <u>Clarissa Cassales Marquezan</u>, Alexandre da Silva Carissimi, Nicolas Maillard, Philippe Olivier Alexandre Navaux. *Portal ICE - Uso de Web Services para Atingir Extensibilidade no Gerenciamento de Múltiplos Agregados (Portal ICE – The Web Services Use in Order to Reach Extensibility on the Management of Multiple Clusters)* , **In Proceedings of the VII Workshop em Sistemas Computacionais de Alto Desempenho (WSCAD 2006) (Workshop on High Performance Computing Systems)**, October 17-20, Ouro Preto, MG, Brazil, 8 pages.

24. Rodrigo Sanger Alves,<u>Clarissa Cassales Marquezan</u>, Philippe Olivier Alexandre Navaux, Lisandro Zambenedetti Granville. *Cluster and Network Management Integration: An SNMP-based Solution*, **In Proceedings of the International Conference on e-Business and Telecommunication Networks (ICETE 2005)**, October 3-7, 2005, Reading, UK, v.1. pp.318-323. (Short paper)

25. <u>Clarissa Cassales Marquezan</u>, Lisandro Zambenedetti Granville, Ricardo Lemos Vianna, Rodrigo Sanger Alves. *QAME Support for Policy-Based Management of Country-wide Networks,* **In Proceedings of the Application Section of 9th IFIP/IEEE International Symposium on Integrated Network Management (IM 2005)**, May 15-19, 2005, Nice, France, 14 pages.

26. Rodrigo Sanger Alves, <u>Clarissa Cassales Marquezan</u>, Lisandro Zambenedetti Granville, Philippe Olivier Alexandre Navaux. *Integração do Gerenciamento de Clusters de Alto Desempenho com o Gerenciamento de Redes através de Solução baseada em SNMP (Integration of High Performance Cluster Management and Network Management through an SNMP-based Solution),* **In Proceedings of the Simpósio Brasileiro de Redes de Computadores (SBRC 2005) (Brazilian Symposium on Computer Networks and Distributed Systems)**, May 09-13, 2005, Fortaleza, Brazil. pp.3-16.

27. <u>Clarissa Cassales Marquezan</u>, Iara Machado, Leandro Rodrigues, Lisandro Zambenedetti Granville, Ricardo Lemos Vianna, Rodrigo Sanger Alves. *Gerenciamento Baseado em Políticas para Redes de Dimensões Nacionais (Policy Based Management for National Country-wide Networks) QAME,* **In Salão de Ferramentas do Simpósio Brasileiro de Redes de Computadores 2005 (SBRC 2005) (Tools Section of Brazilian Symposium on Computer Networks and Distributed Systems)**, May 09-13, Fortaleza, Brazil, 2005. v.2. pp.1265-1272. (Short paper)

28. Rodrigo Sanger Alves, <u>Clarissa Cassales Marquezan</u>, Lisandro Zambenedetti Granville, Philippe Olivier Alexandre Navaux. *Experiences in the Implementation of an SNMP-Based High Performance Cluster Management System,* **In Proceedings of the 9th IEEE Symposium on Computers and Communications (ISCC'2004)**, June 28 - July 01, 2004, Alexandria, Egypt, v.2. pp.1136-1141.

29. Rodrigo Sanger Alves, <u>Clarissa Cassales Marquezan</u>, Lisandro Zambenedetti Granville, Philippe Olivier Alexandre Navaux. *High Performance Cluster Management Based on SNMP: Experiences on Integration Between Network Patterns and Cluster Management Concepts*, **In Proceedings of the 11th International Conference on Telecommunications (ICT2004)**, August 1-6, 2004, Fortaleza, Brazil. **LNCS - Lecture Notes in Computer Science** . Berlin: Springer Verlag, 2004. v.1. pp.782-791.

30. <u>Clarissa Cassales Marquezan</u>, Rafael Bohrer Ávila, Philippe Olivier Alexandre Navaux. *Uma Implementação do Ambiente DECK Para Myrinet (An Implementation of the DECK Environment for Myrinet Technology),* **In Proceedings of the IV Workshop em Sistemas Computacionais de Alto Desempenho (WSCAD 2003) (Workshop on High Performance Computing Systems)**, November 10-12, 2003, São Paulo, Brazil. pp.1-8.

Deliverables in European Projects

31. **D1.1.1 – Requirements Document**
   Project: CloudWave   Role: Contributor   Delivery Date: Feb/2014

32. **D400.7 – Baseline applications 1st release**
   Project: FIspace   Role: Contributor   Delivery Date: Dez/2013

33. **D200.2 – FIspace Technical Architecture and Specification**
   http://cordis.europa.eu/fp7/ict/netinnovation/deliverables/fispace/fispace-d2002.pdf
   Project: FIspace   Role: Contributor   Delivery Date: Sept/2013

34. **D300.8 – Experimentation Environment architecture, development and scenarios execution plan**
http://cordis.europa.eu/fp7/ict/netinnovation/deliverables/fispace/fispace-d3008.pdf
Project: FIspace   Role: Contributor   Delivery Date: Sept/2013

35. **D200.1 – FIspace Design and Release Plan**
http://cordis.europa.eu/fp7/ict/netinnovation/deliverables/fispace/fispace-d2001.pdf
Project: FIspace   Role: Contributor   Delivery Date: June/2013

36. **D400.6 – Functionalities of Baseline Applications**
http://cordis.europa.eu/fp7/ict/netinnovation/deliverables/fispace/fispace-d4006.pdf
Project: FIspace   Role: Editor   Delivery Date: June/2013

37. **D3.4 – Technical Specification of the Domain-Specific Future Internet (FI) Platform for Transport and Logistics and Phase 2 Implementation Plan**
http://cordis.europa.eu/fp7/ict/netinnovation/deliverables/finest/finest-d34.pdf
Project: Finest   Role: Contributer   Delivery Date: Mar/2013

38. **D8.5 – Final Technical Specification and Phase II Implementation Plan for Logistics Contract Manager**
http://cordis.europa.eu/fp7/ict/netinnovation/deliverables/finest/finest-d85.pdf
Project: Finest   Role: Editor   Delivery Date: Mar/2013

39. **D8.4 – Prototypical Implementation of Logistics Contract Manager**
http://cordis.europa.eu/fp7/ict/netinnovation/deliverables/finest/finest-d84.pdf
Project: Finest   Role: Contributor   Delivery Date: Mar/2013

40. **D8.3 – Initial Technical Specification of Logistics Contract Manager**
http://cordis.europa.eu/fp7/ict/netinnovation/deliverables/finest/finest-d83.pdf
Project: Finest   Role: Editor   Delivery Date: Sept/2012

41. **D8.2 – Conceptual Design of Logistics Contract Manager**
http://cordis.europa.eu/fp7/ict/netinnovation/deliverables/finest/finest-d82.pdf
Project: Finest   Role: Editor   Delivery Date: Mar/2012

42. **D8.1 – Requirements Analysis and Selection of Technology Baseline for Logistics Contract Manager**
http://cordis.europa.eu/fp7/ict/netinnovation/deliverables/finest/finest-d81.pdf
Project: Finest   Role: Editor   Delivery Date: Sept/2011

Thesis and Dissertations

43. **On the investigation of the joint use of self-* properties and peer-to-peer for network management**
http://www.lume.ufrgs.br/handle/10183/26951
Level: PhD Dissertation   Date: 2010
Supervisor: Lisandro Zambenedetti Granville

44. **Integrated Cluster Environment (ICE) : plataforma de gerenciamento e de acesso a múltiplos clusters (Management and Access Platform for Multiple Clusters) – In Portuguese**
http://www.lume.ufrgs.br/handle/10183/10270
Level: Master Dissertation   Date: 2006
Supervisor(s): Philippe Olivier Alexandre Navaux, Alexandre da Silva Carissimi

Dortmund, 07nd July, 2014.

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Dr. Clarissa Cassales Marquezan