

**Cristiano Di Carlo**  
Pescara, 29-03-1974



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**Profile:**

consolidated experience of over 18 years (since 2004) in the management and development of hardware, software and network infrastructure projects of small and medium-sized enterprises both in the IT and OT fields (ie SCADA, Telecontrol, RTU and ICS in general) basing on ITIL, Pordue model and guideline. The experience comes aboveall from years spent within a B.U. of the International Group SUEZ.

So I managed technicians, suppliers, projects, migrations, revamping as well as IT/OT, compliance model following budget (Capex and Opex), budget forecasting and group business models in general. Furthermore, I covered the function of ICSRO (industrial Chief Risk Officer) and contact person for CISO. I managed Group audits, Executive Reports, KPIs, Assessment activities (VA and VAPT), Training & Awareness plan, BCM and DR plan and so on.

I have an approach to processes within the organization with the use of Workflow, RACI tables, Gantt and collaborative software. I am familiar with finding suppliers, technical personnel, solutions, services, building and managing project teams.

So I can say that my experience is all-round since I started from the basics of programming, passing through systems analyst, project management



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**Timeline experience in companies:**



**areas of expertise**

○ **Managing investments in IT-OT/IT:**

Responsible (in SUEZ) for the budget plan and investments: new version, mid version, forecast checks and last one version before the end of the year; breakdown of the budget into opex, capex and WSs according to strategic design and guideline of the Group;  
Regarding projects and assessment I'm responsible for writing the tender specifications, subdivision into work breakdown structure and work packages; Otherwise I'm the progress control supervisor;  
Regarding infrastructure and operations: I'm Responsible for the maintenance plan, IT agreement, ICSRO supply chain, contracts and KPI.

○ **Management Systems (ref. ISO 9001, ISO 27001, ITIL):**

From 2004 to 2008 I covered also the role of Quality System Manager. So I have a predisposition for the management of procedures, policies, service agreement and Standard Operating Procedure (SOP) according to ISO 9001 guideline, ISO 27001 guideline and ITIL v2 model for the standardization of IT services' lifecycle within a business.

○ **Implementation and management of BCM and DR paths:**

According to BIA (Business Impact Analysis) deliverables I managed and evaluated backup and disaster recovery plans (ref. to RTO/RPO ratings) both for IT and OT Areas. For the last one I developed a project for DR Plan of the SCADA and RTUs regarding ICSRO (industrial Chief Risk Officer) guideline.

○ **Cybersecurity:**

According to NIST Framework I promote and manage projects and assessment regarding the cybersecurity (both worlds, IT and OT): data gathering, asset inventory and observability, segregation of network (regarding OT world, using PERA model), ICS Sentinel, SCADA Master and Slave, ICS map, DCS Gateway, CVE reduction (Nozomi networks), hardening (Extreme Networks), VA and VAPT (white, gray and black box) activities. I supervise SAL meetings with the SOC team; and with their collaboration I overview executive reports (SOC, CTI and IR), the data classification and the security awareness (incident simulation activities, training and awareness campaign, phishing campaign).

○ **Project Management:**

experience in scouting technologies, solutions, suppliers, products and services with the collaboration of the Operation Center (OC) and Security Operation Center (SOC). I promote the agreement about POC and POV activities. So I design requirements, adoption and improvement by projects divided in work packages and with the adoption of a RACI model.

-> **some examples of IT projects:** Scouting, development and tuning of solutions for the integrations of ERP for B2B Billing System; Revamping of Kerio Connect perimeter firewalls in HA config. dedicated to the OT world according to PERA OT Model; collaboration for the new edge DC in Degremont; Ransomware Resilience and Backup Assessment; Playbook for BCM and DR Program; Tuning of Nozomi Networks on OT Industrial Sites in PERA Model; PaperLess FAX Server; Migration of Primary Domain Controller (MS W2003 SBS vs. new version) and implementation of a Backup Domain Controller or Domain Controller Read Only (BDC); Contact Center based on IVR with objects programming language and TTS/ASR tech. Based on Eloquendo and Tempest tech.; integration of ERP (CRM, CMS, mod. AS400, on call portal ect.) using API REST and ETL/ELT Data Ingestion; Virtualization (Hyper-V e VMWare), update Backup and DR procedures; automation of warehouse; migration of ERP; Log360 SIEM; "SAP by group" via Citrix; implementation of a CMDB using CMDBuild Ready2Use and so on.

-> **alcuni esempi di progetti OT:** project for digitalization and optimization of the pipe network using smartmeters based on NB-IoT and LORA protocols, data lake, ELT/ETL Ingestion, digital twin and so on (*ongoing project with PNRR*); SSDLC (Secure Software Development Life Cycle) assessment; OT Plant Security Assessment; VAPT on some OT Strategic Water Plant (S.Rosa Botte Sibille); Revamping of SCADA and RTU Architecture with the adoption of Sentinel RTU Technology for the DR Plan; revamping of RTU and SCADA from old system based on polling connecting system to new system based on IPSEC VPN and new standard of visual alarms (video: <https://youtu.be/TS6GkJ636Lc>); segmentation of OT sites (ref. PERA arch. based on Pordue model); improvement of BCM and DR for SCADA and RTU (SCADA Master/Slave and RTU Sentinel based on JSON files); integration of OT assets vs. CMDB by API Rest; Revamping of GIS system with the integration in the SCADA and using GIS3W web based layer over QGIS.

**Time Value KPI:**

IT ●●●● OT ●●●●

IT ●●●● OT ●●●●

IT ●●●● OT ●●●●

IT ●●●● OT ●●●●

and IT and OT Systems Manager.

### Some elements of personal competence:



Creative Thinking



Communic. Skills



Problem Solver



Driving License type B



Comprehensive ICT Technologies

### Personal Keywords:

Enthusiastic, humor, curiosity, caring, passionate & driven, understanding person, problem solver

### Some elements of competence from technical user experience and from projects:

- academy programming languages: Pascal, Lisp, ProLog, Matlab, C++, html, LabView from NIDAQ, batch, WSH, Vbs, WIT Grapheur (for RTU WIT) and Tempest Object programming for IVR Contact Center Eloquendo.
- Virtualization, from the origin: MS Virtual PC 2007, Virtual Box, Hyper-V and VMWare, Windows Sandbox
- Data Bases: Paradox, RDS Velocis, Oracle 11g, Toad, SQL Server, PostegreSQL
- Some tools useful: [Cisco Packet Tracer](#), drawio, Paessler PRTG Network Monitor, baretail Pro, ErdCommander, SolarWinds, [AutoIT](#), Rufus, Kali Linux, Hiren'sCD, tweakui, root drive for windows, CutePDF, NAPS, Terminal Works TSScan, USBRedirector, PDF-XChange, SoftPerfect NetScan, PSTools, Macrium, Windows SandBox, [Reverse Proxy](#) (for the the use of SCADA slave), [SonarSource](#) (for the SecDevOps of the Revamping of SCADA Master and RTU) ect.
- Primary Domain Control and Mail Server: Windows Exchange Server from SBS 2003 on, O365, Azure etc.
- Data Security Platform and tools: [Kiwi SysLog Server](#), [SIEM Log360](#), Nagios, SIEM QRadar, IVANTI, Resilient, Varonis, ProofPoint, [Gophish](#), Extreme networks, Nozomi Networks, TxOne, TippingPoint, Darktrace, Dynatrace, [CMDBuild Ready2Use](#)
- BCM and DR plans: [Hyperoo backup](#) (on iSCSI tech. for the Hyper-V Hosts), Parallel, Paragon backup and restore, Cohesity, FortKnox
- MS Office, Open Office, O365, SharePoint
- Optical-digital reading system LT-Server.NET [ISIDATA](#)
- RightFax, FaxUtil, [Kerio Operator](#) (VOIP SIP), Kerio Phone used with Kerio Operator appliance and Patton and Snom hardware
- Firewall: Fortinet, [Kerio Control Firewall](#), Cisco FirePower NGFW, Paloalto
- VPN: [Kerio Connect](#), VPN IPsec by Teltonika, OpenVPN, Nordvpn, Paloalto GlobalProtect
- Network: HP, Cisco (Vlan and VRF), Kerio for HUB and Spoke, InHand and Teltonika Router/Firewall for industrial site
- EDR and XDR: Kaspersky, [Sophos](#), [F-Secure](#), CrowdStrike, Trend Micro
- ERP: AS400, [Net@Suite](#), SAP dal gruppo via [Citrix](#), Qualiware, Tango QRP, ArcGIS, [GIS3W](#) and [QGis](#) (with a layer of GIS3W customization of the CRM using ETL data injection.  
ECM [SIAV Archiflow](#), servizio SDO Edispatcher, Workflow Designer, Interactive Dashboard, ACCA Primus, Zucchetti GPRES, ESRI ArcGIS, QGis
- Telecontrol RTU, PLC and SCADA/MES Systems: LabView RealTime NIDAQ I/O, general I/O, WIT Pilote, MOXA, ClipTool, Westermo, ABB, OMRON PLC, Sophrel, Siemens S7, WIT EasyPilot, EasyPro, Redy, Aveva Wonderware
- OT Protocols: RS232, RS485, TRSII, WOP, profibus, modbus, LacBus, OPC UA/DA, 104, NB-IoT, LoraWAN, ZigBee
- Software collaborativi: XMind Pro (Mind Mapping Software), Wrike, [SamePage](#), Doodle, Draw.IO, Murals, Doodle, Calendly
- Google Suite and Tools: Analytics, Docs, Forms, Authenticator etc.
- Program Portable e WebApp addicted

### Language Skills:

Certified from <https://app.tracktest.eu> (2016)



ITALIAN  
mother tongue



ENGLISH  
75%





**Publiacqua S.p.A.**  
O.U. Architecture, Risk & Security  
Information Technology

**Acque Toscane S.p.A.**  
CIO and ICSRO

**SUEZ Italia Headquarter for all  
B.U. in Italy – Milan, Italy**

**Università Gabriele D'Annunzio**

**ARTA Abruzzo  
Pescara – Italy**

**Freelance Engineer  
Pescara – Italy**

**GEICO - GEICOLENDER  
Pescara – Italy**  
The company (now CBRE) managed HoneyWell automation and remote control as well as the maintenance of thermal power plants, large air treatment plants and measures aimed at managing and monitoring controlled contamination environments such as cleanrooms

#### Working experience time line:

**(actual) From January 2020 in the "Architecture, Security & Risk" (ASR) staff within the Information Technology of Publiacqua:**

The department's goal is to support the CIO for the selection and negotiation of a technology product or service. Furthermore, for the management of the various sectors (SOC, SIEM, CTI, etc.) and the investigation and verification of risks.

#### IT & OT Manager:

CIO for IT and OT world. In charge for the role of ICSRO (Industrial Control System Risk Officer) and reference person in RACI model for DPO (Data Protection Officer) and CISO (Chief Information Security Officer).

#### some assignments in the Suez Group:

**# Project leader for the implementation of the NIS guideline:** according to the Group's guidelines, I managed the activity of making the B.U. to the NIS Directive and support audits to measure the CMMI maturity level in terms of security according to the national framework (ref. NIST)

#### # Industrial Control System Risk Officer (ICSRO):

Responsible for the implementation and management of the risk and security assessment system of ICS (Industrial Control Systems), Telecontrol and SCADA in the industrial sector (OT world) to prevent attacks and design of HA System (Master – Slave)

#### # IT Responsible and Consultant for SUEZ Headquarter in Milan – Italy:

- ° assessment of the IT infrastructure of the holding projected for expansion
- ° Development of asset management, workflow models and policies
- ° Introduction and implementation of virtualization technologies and terminal servers to improve and redundant systems with a view to business continuity and policy strengthening.

#### # OT systems manager:

- ° Reengineering of the remote control and SCADA system in order to optimize availability and reduce costs.
- ° Responsible for field OT systems (where they have an IT relevance) and for the Telecontrol and SCADA system.
- ° The activity continued through future revamping projects and adaptation to safety protocols as well as system optimization and updates.

#### # Responsible for the "technical committees" for SCADA and Telecontrol fro B.U.

#### New Waters S.p.A. and Acque Toscane S.p.A. from Italy:

- ° Organization of Technical Committees in Italy, Tuscany
- ° Development of analysis documents and discussion of ICT projects on group tables

#### # IT and Quality System Manager:

- ° Implementation of the ISO 9001:2000 Quality System, ISO 27001, ITIL v3, NIST Fram.
- ° Achievement of certification and maintenance in subsequent years up to 2008 for the Acque Toscane S.p.A. branch.
- ° IT Administrator and management of IT systems

#### IT Fundamentals teacher – radiologist technicians in ITAB:

Organization of the course, teaching, material for students and exams.

#### Consultant for electromagnetic measurements and monitoring:

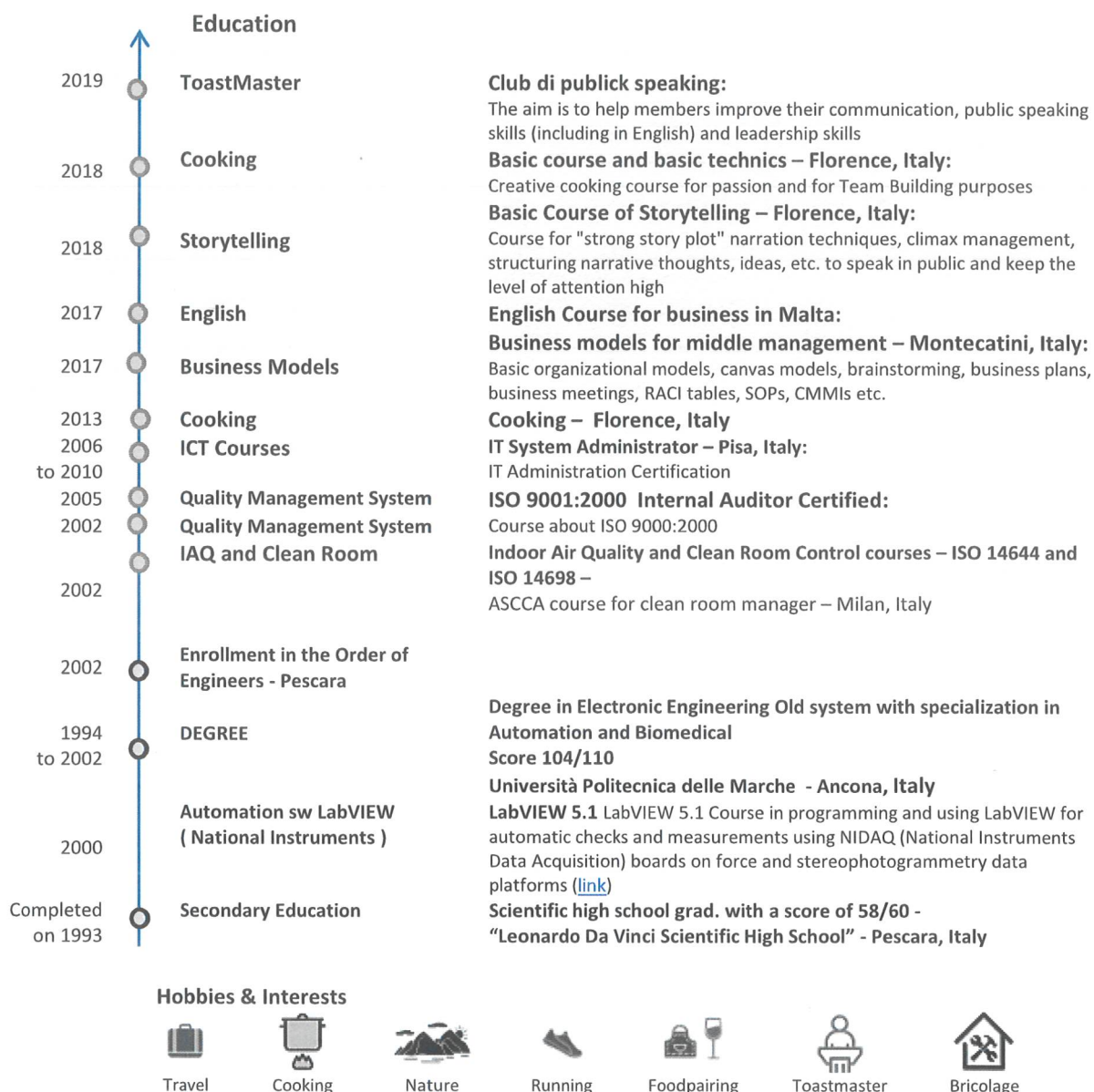
Organization of a virtual laboratory for learning and managing the monitoring of low and high frequency electromagnetic fields. The activity was carried out with PMM meters with low (50Hz) and high frequency probes and through the use of oscilloscopes with the possibility of interfacing with LabView NIDAQ (National Instruments Data Acquisition) software.

#### Freelance Engineer:

Some customers: Messaggerie Srl, Proger Spa, Studio Ingegneria Del Barone Andrea and some public structures: ARTA and CCRF (Radio Frequency Emissions Control Center)

#### Quality System Manager and IAQ (Indoor Air Quality) Engineer for clean room control:

- ° Responsible for the Quality System and for maintaining the certification
- ° Environmental controls engineer
- ° Member of the IT staff for controls and drafting of projects.
- ° Member of the Telecontrol and SCADA staf with responsibility for measurements and data monitors
- ° Reference for some customers: Dompè Menarini Spa, Assut Spa; SAES Ghetter S.p.A.; Pierangeli



Autorizzo il trattamento dei miei dati personali presenti nel cv ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali" e del GDPR (Regolamento UE 2016/679).

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