# Technical leadership & team management (CTO)

[teadership] cto | start-up| | scale-up| | medias | e-commerce | mobility | tech | finnovation | Building of skilled experts team, transformation management, skills development

Team implementation support and mentoring (hands-on expertise and mentoring) Stakeholder advisory, training, reporting & talks, technology evangelism

# Tech architecture & pragmatic change management

Architecture | Microservices | API | Containers | Automation | Definition of infrastructure guidelines and urbanization Architecture and solutions design, tech management, deployment,

operations

Microservices and RESTful API patterns, containers (Docker), API-First architectures

## Technical expertise

[GitOps] [CI/CD] [Cloud] [Kubernetes] [IoT] [ESP32] [BLE] [RubyOnRails] [MQTT] [RabbitMQ] [Hardware] Software factory CI/CD, GitOops, moveto-cloud. Kubernetes

High-traffic hosting platforms (VoD, e-commerce, information medias) IoT engineering smart home, embedded systems, smart home, electronics

# WORK EXPERIENCE

# vanbox.io

### Founder & CEO

2023 European market 

# Principal Engineer / Head of architecture

Scale-up | Kubernetes | Gitops | Micro-services | NodeJS | CI/CD | Management | Mobility | Principal Engineer - tech expertise and leadership

2021 · 1 year Leading software transformation to microservices (split the NodeJS monolith) Full remote (Paris) Define and build target cloud architecture (AWS, Kubernetes, CI/CD, GitOps)

Training around 12-factor principles, DevOps advocate, best practices

Mobility Framework team manager (6 senior engineers)

Team created from scratch to handle the change management

Senior skilled engineers - software architecture (dev), cloud architecture (ops), change and projects support

Cross-teams coordination, tech stack evolutions, support



2020 · 4 months

Paris (France)

# Lead Architect

[e-commerce] API first | Micro-services | Health Care | PHP/Symfony | Defined the next e-commerce subscription platform

Led microservices architecture as foundations for business ambitions Contributed to an innovative IoT project (hygiene area)



2017 · 2.5 years

Paris (France)

## Solutions Architect - Digital BU

Change management | Micro-services | CI/CD | PHP | MariaDB | NodeJS | MongoDB | Docker

Supervised and guided development teams (30 devs)

Monitoring tech-lead developers with weekly workshops

Organized and presented several internal talks - projects feedback, RabbitMQ messaging...

Managing project architecture definition for day-to-day projects

Defined the target micro-services architecture

Defined and executed the migration to REST and micro-services patterns

Raised management and teams awareness of state-of-the-art patterns

Handled tech choices, data modeling, and execution along with teams

Set up continuous integration and deployment (CI/CD) using Docker

Ensuring containerization with Docker and automated pipelines for projects

Provided guidance and skills development for Q/A and production teams

Bootstrapped and led reference teams on NodeJS/MongoDB (lean management)

Introduced the first NodeJS and MongoDB stack company-wide

Implementing full automation of the development process (build, test, deploy)

Ensuring full involvement of developers, testers, business experts and quality teams



### 2016 · 1 vear Paris (France)

# Replatforming to microservices architect

E-commerce Replatforming Micro-services CI/CD PHP Docker Refined the transformation trajectory of the IT department, led the movement

Sensibilisation de la Direction par la cartographie et l'illustration des principes d'architecture

Mentorat des tech-leads et évengélisation permantente (ateliers hebdomadaires)

Diverses présentations effectuées (retours d'expérience, messaging temps-réel sur RabbitMQ, ...)

Automated and implemented CI/CD practices (on containers and private cloud)

Conversion des équipes à la production d'imges Docker pour la production

Backend-for-frontend pour les fronts - agrégation de services et séparation data/vue

Developed technical models for the new architecture

Développement de micro-services modèles pour l'exemple (Ruby, Sinatra, MongoDB)

Intégration des concepts dans les développements existants pour obtenir une démonstration concrète



# Bruno Medici

CTO / VP Eng Web architect Entrepreneur

<u> cvweb2@bmconseil.com</u>

**\** +33 611 647 608

**♀** Lille-Centre | Paris 13

in brunomedici

github.com/bmedici

bmconseil.com

#### **EDUCATION**

MSc Engineering (IMT Lille-Douai, ex ENIC)

International conferences

#### Training and workshops

**DUT Networks & Telecoms** 

Science baccalaureate

## INTERNATIONAL

#### Mobility

French

English

Italian

## **INTERESTS**

Scuba diving

Private aviation



2014 · 4 years Paris (France)

Architect - VoD platform re-engineering

Medias Replatforming Micro-services VoD Push messaging High traffic CDN delivery

Led the design of the new replay platform, all the contents, 18-months project, several experts

Defined a new REST-API and micro-services-based architecture, orchestrated by our in-house scheduler Studied and rationalized VoD business workflows, defined APIs, coached development teams(PHP/Svmfonv2)

Agile iterating on all project aspects from specifications to development towards continuous deployment

Successful production since Q2 2015, fully operational 300+ programs per day Wrote the "rest-ftp-daemon" open source micro-service project

Initiated the global messaging system for realtime notifications (AMQP)

Connecting each platform of the Group (Pluzz, CultureBox, FranceTV Info/Sports/Education...)

Interacted with commercial partners (Molotov.tv, Orange...)

Led strategic collaboration on several projects across the Group

Defining the architecture workframe for Zoom (on-demand recommendation of content)

Managed architecture for the cross-products tagging system

Connected TV services upgrades, overhaul of the platform for channels websites

SOCIETE GENERALE 2013 · 6 months

Paris (France)

Hosting specialist - change management

 $\fbox{Banking \ | \ Project \ coordination \ | \ Platform \ access \ security \ | \ DenyAll \ rWeb \ | \ ActivNetwork} }$ 

Re-integrated the Crédit du Nord branch activity (integration and maintenance scopes L2/L3)

Studied convergence of Crédit du Nord and Société Générale solutions and technologies

Acquired leadership for ongoing integration projects, helped takeover for L2 and L3 support teams

Successfully built a seemless ecosystem between legacy and new teams

Transferred knowledge and documentation to each team on Société Générale side

SAFRAN

Réau (France)

# Consulting architect - network and security

Defence security 50k+ users Cisco Bluecoat 2012 · 3 months

Ownership handover of network security skills from SNECMA branch to headquarters

Explored scope, methods and potential risks

Reverse engineering and back-documentation of main topics

Consolidation de diverses plateformes multi-sites

Brought internet expertise (email, DNS, network security and web filtering)

2011 · 1.5 years

Paris (France)

# Architect - Video/VoD platform re-engineering

Media & broadcast Architecture Business workflows R&D Transcoding Storage Delivery

Urbanized multiple video-on-demand platforms for the Group, defined the target architecture

Proposed architecture rationalization for offers such as CanalSat, Canal+, CanalPlay Infinity and replaytv (encoders, media provisioning)

Describing and modelling business processes for the entire VoD production stack, wrote technical

Introduced micro-services and APIs (ingest, transcoding, file provisioning, monitoring)

Led the call for tenders for the workflow engine function

Coordinated RFI and RFP with 12 international media providers (English documents)

Organized proofs-of-concept for the top5, project in close cooperation with CTOs and top management

Managed the storage restructuring project within Diffusion branch (above 1 PB of data)

Technical advisory for transcoding storage, distribution and long-term archives

Leading the project team, defining specifications and horizontal/vertical scalability

## Crédit du Nord 🛧

## Internet and security architect

2010 · 1 year Lille (France) Banking | Platform architecture | High traffic | IP networking | Technical architecture and evolution of Customer Internet platform

Working with several several firewalls, reverse proxies, load balancers, IPS, Redhat/OpenBSD

HTTP expertise, caching, filtering, L7 routing through Apache mod\_rewrite

Introduced methods and tools for configuration versionning and deployment

Defined hosting architecture for Mobile Internet services (customers of 7 branches/banks)

Implemented mobile-specific caching, protocols and compression

Revived staging platform to allow better testing and team work (same as production)



# Architectire of onboard platform for TGV trains

2009 · 6 months Paris (France)

Audit Architecture Embedded service portal Rail industry Ruby on rails PHP Defined and built a service platform providing internet access onboard TGV-Est trains

Audited the technical architecture proposed by the consortium Orange, Cap Gemini, Alstom, Eutelsat

Recommendations for updates and improvements leading to new commercial opportunities

Participated in the founding of the joint venture between Bollore-SNCF, a key French public area project

Defined technical functionnal architecture for onboard and ground-train link

Directed development of embedded-specific interfaces



2008 · 1 month

Paris (France)

## Audit and content-delivery providers selection

Media & broadcast | High traffic plarform | CDN delivery | Akamai | Drupal | Audited dependencies between businesscritical systems and CDN providers

hosting architecture optimization recommendations (Special Technical specs)

#### Smart Home & IoT

### RubyOnRails

#### LilleSansFil



2008 · 3 months Reims (France)

Information system architect

| Healthcare | Personal data security | National respositoy | Ruby on Rails | PKI

Setting up a system federating data for several hospitals, carrying out case studies and providing recommendation for technical architecture, security expertise, and workflow

Assisting the project office, calls for tender, facilitating developments

2007 · 6 months Paris (France)

Web and medias strategy consultant Media & broadcast | Project management | CDN delivery | Video streaming | Opensource

Lead the 2007 coverage of the French presidential election on the web

Leading the dedicated team - (moderators, translators, 20 international bloggers) Media convergence trials (broadcaster, internet and television audience)

Live video streaming, realtime voting results, internet visitors reactions, text-number allowing audience

interaction, 5 webcams in the newsrooms (98k+ visitors for both ballots)

Provided strategic support for the IT department

Strengthening the global image of France24 and in the blogosphere

Built the team and the methods around the required technical skills

Implemented various projects thereafter, within the channel's teams (Cannes Festival, general elections)

Conducted and wrote the request for proposal for the new web infrastructure

itool systems

 $2001 \cdot 5$  years Lille (France)

Co-founder and CTO of Itool Systems

[Co-founder] Finance & accounting | Pure-player | Innovation | Business award | Management | Associate and co-founder, board member

Itool Systems creates and sells online business solutions for SMC and Professional Accounants

Launched portal itool.net (Prof accountants) and itool.com (SME market)

Innovation Reward achieved at the Accountants Annual Congress in 2001, IntraBlog Award in 2007.

Integrated and then absorbed Atomis Architect and production executive

Designed billing infrastructure and online registration processes.

Deployed a robustness-oriented hosting cluster (20 servers over 4 sites) certified by IBM's SPC lab.

Reached great service availability avg 99,96% ranked n1 by ip-label in May 2005

Development team manager (5)

Team leader for the creation of Itool Compta, Itool Facto, Itool Scan, Itool GED, APG Facto, press routing solutions, data-exchange hub with partners.

Provided technological intelligence, ergonomics of applications, development methodology.

**@tomis** 

2000 · 2 years Lille (France)

Team leader, development of Itool Compta

[asp/saas] [php/mysql] [framework] [haute-dispo] [métier] [sécurité] Designed an online software suite targetting accountants

Built the Itool line of products - accounting, invoicing, digital documents management

# PROJECTS & OPENSOURCE

<u>Vanbox</u> Disruptive home automation solution for recreational converted vehicles and yachts

Start-up French tech Incubator Innovation IoT ESP32 Electronics Founder Entrepreneur

Photofactory

web platform for artists and photo enthusiasts

RubyOnRails MongoDB MinIO Redis Docker Social auth

technical workflow manager to orchestrate RESTful microservices

Ruby Micro-service Opensource Workflow management PoC

rest-ftp-daemon

industrial-grade file transfer with a RESTful JSON API

Ruby | Micro-service | Opensource | File transfer | Production-grade | Manages heavy files transfers on FTP, sFTP, FTPs S3, (media files) In production at France Télécisions since 2016 - transferring 300+

video files 2TB+ daily

**pushyd** real-time events propagation service from internal broker to partners

[Ruby] [Micro-service] Opensource] [AMQP] [Push messaging] In production at France Télévisions to propagate program events and metadata to VoD partners

**service-graph** micro-service dependencies and graphs from Gitab repositories

Ruby Micro-service Opensource Service map PoC