

## MAIN SKILLS

### Technical leadership & innovation projects (CTO)

Medias & TV, web, e-commerce, mobility, start-up & scale-up (tech, business, challenges)  
Architecture and solutions design, management of techs, deployment, operations  
Experts team build-up and mentoring, transformation management, skills development  
Stakeholder support, reporting, technology evangelism

### Web architecture & pragmatic change management

Definition of infrastructure guidelines and urbanization  
Support to implementing teams (hands-on expertise and mentoring)  
Microservices and RESTful API patterns, containers (Docker), API-First architectures  
Virtualization and cloud migration

### Technical expertise

Software factory automation (CI/CD), DevOps process with Kubernetes and GitOps  
High-traffic hosting platforms (VoD, e-commerce, information medias)  
IoT ecosystem, smart home, embedded dev (ESP32, Arduino, MQTT...)  
Network architecture L2-L7, VLAN 802.1q, load balancing  
HTML/CSS, Git, RubyOnRails, Debian, MariaDB, MongoDB, Apache/Nginx, RabbitMQ

## WORK EXPERIENCE



2021 · 1 year  
Full remote (Paris)

### Principal Engineer / Head of architecture

Scale-up | Kubernetes | Gitops | Micro-services | NodeJS | CI/CD | Management | Mobility

#### Principal Engineer - tech expertise and leadership

- Leading software transformation to microservices (split the NodeJS monolith)
- 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 Software 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

Digital transformation | Micro-services | CI/CD | PHP | MariaDB | NodeJS | MongoDB | Docker

#### Supervised and guided development teams

- 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
- Raising 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 year  
Paris (France)

### Replatforming to microservices architect

E-commerce | Replatforming | Micro-services | CI/CD | PHP | Docker

#### Refined the transformation trajectory of the IT department and led the movement

- Sensibilisation de la Direction par la cartographie et l'illustration des principes d'architecture
- Mentorat des tech-leads et évangelisation permanente (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'images 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  
Co-founder  
Web architect

Freelancing | permanent

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🌐 [bmconseil.com](https://bmconseil.com)

## EDUCATION

MSc Engineering (IMT Lille-Douai, ex ENIC)

Mobile communications  
Marketing of technology

### International conferences

Elixir Conf 2021 Warsaw  
Rails Conf 2010 Baltimore  
Rails Conf 2009 Las Vegas  
Rails Conf 2007 Berlin  
Paris On Rails 2007 Paris  
PHP Conf 2004 Amsterdam  
PHP Conf 2002 Munich

### Training and workshops

GCP Fundamentals & Architecting  
Cisco PIX Firewall Advanced  
PSC1 civil emergency prevention

### DUT Networks & Telecoms

IUT Sophia-Antipolis (2000)

### Science baccalaureate

## INTERNATIONAL

### Mobility

France, English-speaking countries,  
rest of world

### French

Mother tongue

### English

Fluent (TOEIC 920)

### Italian

Basic

## INTERESTS

### Scuba diving

N2 PA40/PE60

TDI Deep-diver, Nitrox



2014 · 4 years  
Paris (France)

## Architect - VoD platform re-engineering

Media & broadcast | Replatforming | Micro-services | VoD | Push messaging | High traffic | CDN delivery

Built the new replay platform handling 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/Symfony2)
- Agile iterating on all project aspects from specifications to development towards continuous deployment
- Successful production since Q2 2015, fully operational 300+ programs per day
- Initiated and built 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



2013 · 6 months  
Paris (France)

## Hosting specialist - change management

Banking | Project coordination | Platform access security | DenyAll rWeb | ActivNetwork

Re-integrated the Crédit du Nord branch activity (integration and maintenance perimeters 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 cooperating ecosystem between legacy teams and new teams
- Transferred knowledge and documentation to each team on Société Générale side



2012 · 3 months  
Réau (France)

## Consulting architect - network and security

Defence security | 50K+ users | Cisco | Bluecoat

Skills takeover and network security transfer from SNECMA branch to headquarters

- Exploreint 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 replay-tv (encoders, media provisioning)
- Describing and modelling business processes for the entire VoD production stack, wrote technical foundations
- 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 recommendations for transcoding storage, distribution and long-term archives
- Leading the project team, defining specifications and horizontal/vertical scalability



2010 · 1 year  
Lille (France)

## Internet and security architect

Banking | Platform architecture | High traffic | IP networking

Technical architecture and evolution of Customers Internet platform

- Worked with several several firewalls, reverse proxies, load balancers, IPS, Redhat/OpenBSD
- Used 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)



2009 · 6 months  
Paris (France)

## Architectire of onboard platform for TGV trains

Audit | Architecture | Embedded service portal | Rail industry | Ruby on rails | PHP

Defined and built a service platform with 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 Bolloré-SNCF, key public project
- Defined technical fonctionnal 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 platform | CDN delivery | Akamai | Drupal

Audited coupling between business-critical systems and content-delivery providers  
hosting architecture optimization recommendations (Special Technical specs)



2008 · 3 months  
Reims (France)

## Information system architect

Healthcare | Personal data security | National respository | 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

## Private aviation

Ultra-light 3-axis pilot (BB), Private pilot license ongoing (LAPL/PPL)

## Smart Home & IoT

Automation, connected objects  
based on Arduino/ESP8266/ESP32

## RubyOnRails

Development, R&D, several hosted services

## LilleSansFil

Non-profit, president (2005)  
Open metropolitan network (wifi),  
press and institutions relations  
Embedded systems, mesh radio  
networking

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2007 · 6 months  
Paris (France)

## Web and medias strategy consultant

Media & broadcast Project management CDN delivery Video streaming Opensource

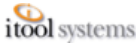
### Lead the 2007 coverage of the French presidential election on the web

- 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, SMS-number offering interaction to the audience, 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



2001 · 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 Accountants
- 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.



2000 · 2 years  
Lille (France)

## Team leader, development of Itool Compta

asp/saas php/mysql framework haute-dispo métier sécurité

### Designed an online software offer

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



## PROJECTS & OPENSOURCE

### photofactory.io web platform for artists and photo enthusiasts

RubyOnRails MongoDB MiniO Redis Docker Social auth

### vancomfort embedded box for vehicles (thermostat, telemetry, location tracking)

IoT C++ Arduino ESP32 PID I2C/SPI

### rbpm 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 Télévisions since 2016 - transferring 300+ video files 2TB+ daily

### pushhyd 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