

# Dr TOMMO RETI DSc, MSc

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Doctor of Science (Tech.), PhD in Media Technology and Interaction Design, MSc in Product IT and Usability

Currently, Global Head of Digital Architecture and Transformation for a leading Fintech company in London, UK (16M customers in 11 countries, £811M IYR in 2019).

Open for Permanent or Contract positions (min. 12 mo.) in EU, available after 3 mo. notice time (negotiable)

Professional Profile: see page 4

Dear Sir/Madam,

Please, find enclosed my CV for your consideration (page 4). I believe my knowledge, experience and versatile skills in leadership, business, technology and design make me the perfect candidate to accept a for the role.

In August 2019, I have finished my 12-month sprint of major Digital Fintech Transformation at a leading London-based insurance company with over 16M customers in 11 countries and £811M IYR in 2019. As global Head of Digital Architecture in the Group, I continue spearheading the biggest transformation in the organisation aimed at digitising a major portion of the Call Centre business while migrating the complex legacy digital platform to Cloud and transforming working methodology from Waterfall to Agile in building digital capabilities – all at once.

I give a short summary of the areas I recognised needing transformation and improvements when I audited the state of the Digital Estate in the beginning of my ongoing assignment. The potential for measurable improvements was already significant in the first year – and projected gains in the future even greater – as I list here with my means to achieve them:

- **Setup cost savings up to -90%**, when moving from custom-coding common IT systems to the server-based data centre environment of expensive maintenance and hardware costs to buying COTS SaaS products in cloud only for immediate need, yet with unlimited growth capacity
- **Operational cost savings almost -80%**, when moving away from license, hosting, upgrade, operational support, in-house personnel and data centre costs with much idle overhead to a commercial SaaS subscription model and scalable cloud platforms
- **SLA cost savings up to -90%**, or even -100% when the same level of support is included in SaaS products, when moving away from separate SLA contracts offered even by a separate company that does not have permissions to change the system
- **Delivery time savings up to -80%** when moving away from wasting the majority of the release cycle time to manual testing, steering group sign-offs, re-work due to QA problems, unplanned work due to lack of Change Management, delays due to unclear ownership and responsibilities, and troubleshooting without documentation, traceability or logging – transformation to Agile working with self-managing DevOps-oriented teams building tested high quality visible full-stack increments within short iterations deployed using automated CI/CD code promotion pipelines and exposed via APIs
- **Time for problem solving, feature refinements and decision-making cut down by -75%** when moving from role-dictated decision-making, big rigid project plans and change management committees, to active team involvement and cooperation where everybody is constantly empowered to make suggestions around a task-board and decisions can be made instantly in a team when the key stakeholders are present with clear responsibility areas

- Yet, **the biggest gains come from the improved technical delivery capability** to implement and deploy much more business capabilities from the backlog with business profit potential worth many times more than the listed cost savings together – enough for making positive returns on investment in the first year

To achieve these impressive results, I made improvements in several key areas from waterfall thinking, processes, skills and technology to improved modern alternatives:

- **Digital transformation paradigm shift** roadmap from concentrating in managing servers, content, and legacy user journeys to managing strategic Digital-enabled omnichannel Customer Relationships – supported by TOGAF requirements analysis in Business, Data, Application and Technology/Infrastructure domains – with the focus in new business capabilities such as
  - Recorded Customer communication history and handover Customer sessions over non-digital and digital sales channels,
  - Enhanced mobile CX in acquiring new Customers and retaining existing ones,
  - New Single View of Customer across all channels for Call Centre Agents and self-managing Customers,
  - Improved cross-selling, upselling, and Customer advocacy and referrals in Digital,
  - Increased campaign response rates and margins via Personalisation and advanced Data Analytics
- **Audit and analysis of current Digital Estate and transformation** from Data Centre and complex expensive on-premises server environment – with decentralised unclear responsibilities and accountability between in-house teams and subcontractors – to SLA supported SaaS-driven API-first codified version-controlled cloud solution with most suitable cloud products and partners for each integrated logical area selected with requirements-driven RFPs
- **New unified secure IAM and Data Model** from product-driven Call Centre-centric quasi-identifier data model to Unified Enterprise Identity and Access Management and customer identification in non-digital and digital cross-channel environment as pre-requisite to digital omnichannel self-managing consumer-centric business
- **DevOps and Testing Automation** transformation from manual testing environments with DNS, access, versioning and test data integrity challenges to configurable Infrastructure-as-Code cloud testing accounts with automated configuration management, contract-based micro-services testing with automatically generated test data, while moving testing to smaller units closer to developers according to mutually agreed QA practises in Agile Sprints
- **Information Security hardening** from decentralised DNS and public attack surface management, publicly open APIs, outdated IP whitelisting, forgotten campaign websites, HTTP basic authentication and spoofing opportunities with unknown server configuration states to a proper Authentication, Authorisation and Accounting (AAA) model supported with unified tokenised encrypted end-to-end Identity and Access Management across channels and systems all the way to data, with centralised DNS, IP, URL and website management and naming strategy, enforcing security design patterns in system-to-system data transfer (PKI, tokens, data encryption, obscurity to hide system information, etc.)
- **End-to-end Release Management Process and key skills mapping and transformation** from months-long Waterfall Model, numerous manual sign-offs by steering groups, unclear roles and accountability, the lack of technical leadership, and non-existent Subcontractor Quality

Control to DevOps-driven team building and recruiting for the new Agile Scrum processes, end-to-end Release and QA Management, cloud-first, co-location with complementing tech partners, and technical upskilling of people involved with software engineering processes

- **Analysis of existing content, application code promotion and infrastructure change deployment pipelines and transformation** from manually deployed out-of-support systems and application updates without documented known-state to well-defined automated pipelines (Terraform, Jenkins, Ansible,...) with integrated testing and version-control tools to achieve predictable, automated, reversible and fully audited deployments

Now, when a majority of new transformation components – technology, automation, security, Agile methodology, key in-house roles and selected technology partners – are all in place in my current assignment, it is up to the organisation how fast it wants to run and take more components into use from the ready-made plans.

Instead of waiting for the transformation to happen in coming months or years, I acknowledge my experience and skills can be in better service in another organisation that is only starting similar transformation or considers building new digital products and services utilising top-shelf practises for its business – ideally using the newest innovative IT and digital technologies for competitive edge, which I would find rewarding and fun for a change.

I look forward to take my valuable experiences and to lead digital-enabled business in next company. Preferably, my next role comes with enough budget and decision-making responsibility to make quick independent business and technology results, to further improve results in these critical areas, and to make even greater positive impact in a senior leadership position.

I am available for permanent or contract positions (min. 12 mo.) preferably in London, UK, but also elsewhere in Europe. Dictated by my current permanent employment contract, my notice time is 3 months from signing a new contract, but it is likely negotiable down to 1 month.

Thank you for your time and consideration. I look forward to meeting with you to discuss my application further.

Yours sincerely,



Dr TOMMO RETI, DSc, MSc

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## Professional Profile: Dr Tommo Reti, DSc, MSc

DSc (Tech.), PhD in Media Technology and Interaction Design, MSc in Product IT and Usability

Managing Director, CTO, Digital Enterprise Architect, Head of Product Portfolio and Design, award-winning software engineering Project Manager, and UC Berkeley and CERN Scientist with over two decades of work experience, innovative product portfolio, personal expertise in People Management and Business Leadership, Strategic and Product Planning, PhD and MSc Recruiting, RFPs and subcontractor Quality Control, Agile DevOps Cloud Technology Transformation and SaaS Business, KPI-driven eCommerce, Fintech, Cybersecurity, and Creative Omnichannel CX Design.

### Objective for the Next Career Step

With enough budget and decision-making responsibility to make a significant positive impact, seeking further opportunities to supervise technology development and product management, and to build new digital products and services utilising top-shelf practises for business – ideally using the newest innovative IT and digital technologies for competitive edge, which I would find rewarding and fun.

### MOST RECENT POSITIONS AND RESPONSIBILITIES

#### Global Head of Digital Architecture, Domestic & General, London, UK, 2018–

Domestic & General is 100 yo insurance company with almost 3000 colleagues, specialising to appliance breakdown and warranty protection, serving over 16 million customers in 11 countries (revenue £811M in 2019)

- Spearheading Fintech Transformation of digital capabilities from slow Waterfall Model, Manual Testing and Release Management, the outdated tech platform and the physical Data and Call Centres to self-managing omni-channel Digital Customer with Smart Devices
- Using key role recruitment, RFP rounds, strategic tech partners, Cloud platforms, SaaS products, ‘buy, don’t build’ strategy, Agile projects, Automated DevOps and Testing processes, API-first Micro-services – Setup cost savings up to -90%, Operational cost savings almost -80%, SLA cost savings up to -90%, Delivery time savings up to -80% and significant quality increase
- Responsible for the digital enterprise architecture in the international group, IT strategy and project design for the Digital Business Unit working closely with the business leadership, other IT leadership, and aligned business partners
- Delivering roadmaps and strategies that define the direction, target vision and delivery mechanisms for the business ensuring the overall technical integrity and security with select opportunities and technologies that measurably improve business KPIs

- Managing the day to day tasks of solution architects and technical experts working on programmes within the business unit encouraging open change of information, seeking new working relationships to help break down barriers and empowering the Agile team to achieve a high standard of performance

#### Managing Director, CTO, Fibion Inc., UK, Sweden and Finland, 2014–2018

- Responsible for overseeing of business development of products from idea, concept and design until completion and impact, focusing on the business efficiency of the production process, and the internal product portfolio synergies and strategy
- In a customer facing role and interfacing with sales teams, leading project and product managers, subject matter specialists (PhD-level physiological biologists and signal specialists), software engineer team and QA testers, UX team and market analysts, and responsible for subcontractor Quality Control and recruitment of the needed personnel, in three countries, the UK, Finland and Sweden
- Managing innovation, conception, production, and delivery by making idea storming, design sprints, project plans, schedules, and delivery milestones, using Agile and Lean Software Development methodologies with solid requirements analysis, financial budgeting and KPI reporting
- Ensuring applicability and protection of the IP with regulations and cybersecurity, using compliance management, patents and trade marks (successfully applied via EUIPO, WIPO incl. US, Japan, China, Russia), and the best practices of network security
- Delivering the finished product with analysis-driven Go-to-market, Pricing, Sales Channel, Customer Feedback and Support Strategy, and the roadmap for future features and development
- In charge of DevOps environment and tools, the company IT infrastructure for development and operations, the cloud strategy and production services, esp. on Amazon AWS and IBM Cloud

### WORK EXPERIENCE SUMMARY BEFORE 2014

- Large-scale enterprise experience from Nokia Group, working for corporate-wide IT in charge of web technologies, c. 12,000 registered internal users, guiding business unit team leaders with 200 sub-webs, Web Specialist member in the Nokia Group strategic Think Tank reporting to the CEO and the Board
- International serial entrepreneur: founded 7 companies in Finland, California, and the State of Washington, founded offices for sales and development in USA, UK, Sweden, Finland and China, in charge of local facilities, IT infrastructure, recruiting, outsourcing, and physical and cyber security

- Raised \$23M in venture capital, pitching innovations, technologies, business opportunities to varying audiences from the science community to C-level executives as customers and funders
- Assistant Attaché and int'l business expert at the Los Angeles office of the National Technology Agency of Finland, and Business Advisor for the University of Jyväskylä, screening commercialising, sales and funding opportunities for organisation customers
- PhD-level International Research Scientist and Leader conducting research for Doctor of Science (Tech.), a higher PhD-level degree, at four leading research institutions in four countries: University of California, Berkeley, USA; CERN, Switzerland; Aalto University in Helsinki; and KTH Royal Institute of Technology in Stockholm
- As Scientist, research funding applications exceeded €30M in pan-European research projects, with a personal research team size peaking over 30 specialists producing multiple prototypes, personally guided over 20 MSc degrees, authored a score of scientific publications and reports
- Designed, planned and delivered the technical architecture to the EU funded project P2P-FUSION that offered a solution to the difficulties in the legal creative re-use of audio and video media in the Internet environment, creating an open, accessible, legal and economically efficient environment for creative audio-visual cultural activities that can also be based on the work of others and materials from cultural institutions, through built-in, easy-to-use support for suitable licensing schemes (**4 yrs**)
- At CERN, designed and planned the Secure Inter-cloud Exchange, a Vendor-Independent Secure Cloud Storage acting as a Data-as-a-Service platform for multi-cloud computing applications aiming to minimize the business risks experienced by cloud customers, such as vendor and data lock-in (**2 yrs**)
- Designed, planned and delivered Ahlstrom Corporation corporate website (www.ahlstrom.com) to become the first publicly listed company in Finland to publish their annual report on paper and on the web at the same time in 1994 (**1 yr**)
- In charge of innovating, designing, UX, planning, architecture, delivery and cloud implementation, led the work to create data processing and reporting product for Fibion, the most accurate everyday activity tracker in the world and the first professional analysis tool focusing on improving people's everyday sitting habits to fight against weight gain, type 2 diabetes, and cardiovascular diseases; after years-long scientific research, it took 4 years to develop and commercialise the original scientific idea (**4 yrs**)

## **PRODUCT AND SOLUTION DESIGN PORTFOLIO (22 PROJECT YEARS EXPERIENCE)**

- Directed and finished in 12 mo. the Fintech Digital Transformation to cloud for Domestic & General (revenue £811M in 2019), including the digital enterprise architecture, RFP and recruiting for the largest-ever programme in the organisation (**1 yr**)
- Designed, planned and delivered Nokia's (www.nokia.com) corporate-wide intranet including technical architecture and design guidelines, and the corporate-wide training system of 9 roles, 13 services, 10.000 users, 70,000 requests/day (**2 yrs**)
- Proven Project Manager skills: the four-year long Next Generation Media project at KTH was awarded as the most professionally managed R&D project among over 60 projects in the related Swedish governmental science program in 2008-2012, funded and organised by Vinnova, Sweden's innovation agency (**4 yrs**)
- Doctoral research embodied to the award winning Digital Content Distribution Management System DiMaS that introduced a novel way of distributing legally licensed digital resources, i.e., content, services and sensor data, on peer-to-peer and service-oriented networks, DiMaS won the title "The Best e-Business Application in Finland" at MindTrek 2004, the biggest IT competition in northern Europe, and was nominated to represent Finland in the World Summit Award 2005 among the best of 164 countries (**4 yrs**)

## **BUSINESS, LEADERSHIP AND MARKETING SKILLS**

Skills from planning and delivering corporate-wide enterprise digital solutions with business unit roll-outs, pitching, starting, scaling up and funding companies in multiple countries, coordinating simultaneously several over 4M€ EU-wide R&D projects.

### **Leadership, Venture Mgmt and Business Scale-up**

- Scale-up experience with sound business strategy and thinking, analysis and planning, before the exit from self-founded companies, directed 62 employees on two continents
- Experience in People, Specialist (PhD/Professor-level), Engineer, Programme, Development, Change and Budget Management, Coaching and tutoring PhD/Master's degree level work and teams
- Expert in funding start-ups and R&D projects, repeated experience in large EU research funding application coordination

### **Product Development and Mgmt, IP, Procurement**

- With MSc degree in Product IT, experience in Product Life Cycle Management from idea and concept until completion and impact (product innovation, design, planning, development, delivery, operation),

Bid and Supply Management for raw materials and outsourcing with continuous after-sales monitoring and support

- Degree educated expert in Agile and Lean Software Development, Kanban and Waterfall Methodology, familiar with CMMI, ITIL, TOGAF, PRINCE2, Lean Six Sigma, PMP, Scrum; ready for any certification, if needed
- Managed long-term Request for Proposal projects at D&G with Legal IP and Procurement departments

#### **Market Analysis and Go-to-market Strategy**

- Degree educated analyst in Market and Trend Analysis, Risk Analysis, demand estimations, and Target Group Strategy, using market report cross-analysis, surveys, Behaviour Modelling, User Research, Profiling/Predictive modelling, data visualization
- Online marketing and analytics, Google Webmaster Tools, click-through patterns, heat maps, social media tracking, influencer network analysis, content scoring, SEO, Marketing ROI planning

#### **Accounting, Budgeting, Financial Reporting and Risk Analysis**

- Project/Programme/Unit/Company Budgeting, Accounting and Financial Management, incl. designing of HR benefit and bonus programs
- Twenty years of experience in accounting, venture funding and financial reporting, incl. Financial Risk Analysis of the Venture, Cost/Goal/Risk alignment

### **DIGITAL SOLUTION & ECOMMERCE ARCHITECT SKILLS**

#### **Digital, Interaction and Cloud Architect**

- PhD degree in Media Technology and Interaction Design with experience in digital platform strategy, design concepts and delivery methodologies for mobile and web, and SOA and integration platform design for B2B and B2C with high availability and resilience, using IT/business aligned roadmaps to deliver it
- Skills to analyse business requirements, to make business requirements documentation, and to create detailed system design and technical specifications based on the analysis
- Digital architecture design and auditing (service availability, performance, governance, redundancy, usability, security, risk management, privacy/GDPR, maintainability, DevOps costs)
- Cloud adoption, application design, migration, and strategy
- PhD-level network system architect in SOA, web services, interaction design, see DSc dissertation ISBN 978-91-7501-013-7

#### **eCommerce Architect**

- Experience in data and order warehousing, automated fulfilment services, and automatic after-sales

marketing, integrated with CRM, helpdesk, marketing analytics

- Hands-on experience in WooCommerce, Shopify, Ecwid, Magento CE, OpenCart, coding custom eCommerce platforms, and in setting up and running several eCommerce sites, networked API-based SOA, IoT and Cloud services
- Familiar with Conversational UI, Machine-learning, Script Bots, IBM Watson, API integrations, container web services, REST API

#### **Cybersecurity Architect**

- Hands-on Intrusion Detection, DDOS Attack Prevention, Risk Evaluation, Attack Surface Assessment, Identity and Access Mgmt, Workstation hardening and hardware-based Access Control
- Familiar with CISSP, CISM; ready for a certification, if needed

### **CX DESIGN, USER RESEARCH & TRANSMEDIA SKILLS**

#### **Transmedia CX, UX Design, User Research**

- Usability MSc degree in User Research and UI/UX Testing, incl. A/B Testing, Cognitive Walkthroughs, Heuristic Evaluation, Multi-armed Bandit Algorithms, User Journeys, customer surveys
- Skills in Transmedia CX using UX interface design, dynamic customer engagement with user data profiling and click-through tracking, omni-channel design and embedded market analytics
- Expert in User-centric Co-creative IT System and Customer Service Design, MVP-first Thinking, Rapid Prototyping, Service Blueprinting, leading design sprints, iterative Agile design process

#### **Background as Front-end Developer**

- HTML, CSS, Javascript, React, PHP and SQL coding; Gulp, Sass, LESS, Git, Subversion and many other productivity tools; Wordpress customisation, caching, CDN, security hardening

### **VOLUNTEER WORK**

#### **Enterprise Architect Advisor, Natural History Museum, London, UK, 2018–**

- Uniting varied Technology (IT, Data and Digital) stakeholders across common goals, policies, procedures and outlooks supporting the Museum's strategies by creating and implementing a business vision and a multi-year plan
- Bringing coherency to addressing the 76+ business systems that support the Museums myriad operations by creating business architecture models that reflect the Museum's strategies and goals



- Locating ways to extract the best value from strategic platforms and to reduce costs by improving business architecture and systems processes
- Identifying ways to increase employee knowledge and skills to support future growth

## EDUCATION

- PhD degree (DSc Tech.) in Media Technology and Interaction Design, KTH Royal Institute of Technology, Stockholm. Awarded with the “Emerging Talent” title in the faculty as “the best new PhD” with the doctoral thesis “Digital Content Networks: The Past, the Present, and Decentralizing” (ISBN 978-91-7501-013-7)
- MSc degree in Product IT and Usability, Aalto University, Helsinki
- Worked as a Visiting Scholar at the University of California, Berkeley, USA, and the European Organization for Nuclear Research, CERN, Switzerland, 2 years at each centres for scientific research

## LANGUAGE SKILLS

- English (fluent)
- Finnish (native language)
- Swedish (basic knowledge)
- French (basic knowledge)
- German (basic knowledge)
- Willing to advance skills in any language required

## RELOCATION

- EU citizen, flexible for relocation anywhere in the world
- Done business on 6 continents
- Travelled to 60+ countries
- Currently, living in London, UK, and Sweden