



# Harsh Agarwal

*Vice President – GST System Architecture*

**Mobile:** 9871813156

**Email:** agrharsh@gmail.com

**LinkedIn:** [www.linkedin.com/in/agrharsh](http://www.linkedin.com/in/agrharsh)

**Website:** <https://www.agrharsh.com>

**23+ years of Technology Leadership – Citizen Scale System Architecture, eGovernance Platform Transformation, Global Program Delivery Ownership**

## **Roles Performed**

- Enterprise Architect
- Program Delivery Leader
- Product SME
- People Mentor

## **Technical Skills**

- Microservices architecture
- J2EE, Spring, Kafka, Storm, Python
- Apache, JBoss, MySQL, Hbase
- Gitlab, Git Flow

## **Major Business Domain Areas**

- Indirect Tax – GST
- e-Governance Transformation
- Telecom O/BSS

## **Key Certifications**

- Certified SAFe Agilist (#126719-6430)
- PSM-I (#546963)
- PMP (#1655887)
- ITIL v3 Foundation (2010)

## **Employment History**

**Goods & Services Tax Network**

*Vice President – Architecture | Feb-23*

**To The New (TTN)**

*Asst. Vice President | Apr-22 - Jan-23*

**Goods & Services Tax Network**

*Assoc. Vice President | Aug-16 – Apr-22*

**Aricent Technologies**

*Sr. Project Manager | Jan-12 to Jun-16*

**HCL Technologies**

*Assoc Project Manager | Jun-10 to Jan-12*

**Tata Consultancy Services**

*IT Analyst | Sep-03 to Jun-10*

**SOWSIA India**

*Developer | Dec-02 to Sep-03*

**Oasis Software**

*Developer | Jan-02 to Dec-02*

## **Education**

**B.E (Computer Technology)**

*Nagpur University, 2002*

Successfully led & delivered large eGov initiatives – GST System and Passport Seva Application in India; Taxation automation in US States; Business Transformation for Victorian Curriculum and Assessment Authority, Ministry of Education in Australia

Currently serving as Vice President of Architecture at Goods & Services Tax Network (GSTN), leading world's largest open-source stack indirect tax platform, catering to 1.4 crore taxpayers at current concurrency of 300k, monthly tax collection of ~Rs. 2L Cr.

The key achievements during the 18 years of technology leadership role includes:

- **PLATFORM LEADERSHIP:** Architected GST System & created a robust API ecosystem; digitized B2B invoice reporting ecosystem (e-invoice); GST Appellate Tribunal (GSTAT); Citizen scale B2C Invoice Reporting System (in feasibility stage); Aadhar based Face-authentication; Passport Seva System – one of the first modern day eGov contry wide platform transformation
- **TECHNICAL EXCELLENCE:** on-prem & cloud-based enterprise system & infra architecture using modern day open source technologies; data governance – archival; scaled GST System from 60k in 2017 to the current 300k concurrency; built GST API Ecosystem – 250+ govt., banks, RBI & industry integrations including Aadhar, CBIC, NPCI, MCA; design of multi-cloud B2C Platform; Migration design for customs on-boarding; invoice validation & tax refund integration between GST System, NSDL & Customs; data lake with aggregation of GST data, eWayBill, elnvoice, Fastag, Income Tax for Business Intelligence & Fraud Analytics; cloud-based performance testing; device integration with Passport Seva Application, e.g: turnstile & bar code scanner with token management system.
- **GOVERNMENT DOMAIN:** Proven track record in closely working with Government stakeholders within GSTN (CEO & EVP) and external like DoR, State & Central tax administrations, agencies like PFMS, NIC, regulatory bodies like CAG, STQC; led QCBS based RFP process for GST System, SDA, GSP, consultants, etc.; MSP Negotiations; Contract budgeting; industry consultations.
- **TEAM & DELIVERY:** Led teams from GSTN, MSP, OEM, SDA and various integrating agencies for successful bespoke development of the GST System in Agile T&M model; coaching & mentoring team members; Build Vs Buy decisions; leading Passport Seva UAT done by STQC; led Telecom solution delivery program worth \$4.5M+ ACV; Change management;

## Key Roles & Engagements

---

### Chief Solution Architect – GST System | GSTN

<b>Objective</b>	GST System is largest indirect tax transformation in India, biggest open source technology stack program in government space. It is world's most complex taxation implementation in terms of volume and capabilities like API integration with ecosystem for transactions/data exchange.
<b>Contribution</b>	<ul style="list-style-type: none"><li>• Robust architecture for API Platform to integrate with 250+ external systems including govt. agencies and private entities</li><li>• Architecture for unified back end platform used by tax officers across 29 states for processing of applications and performing various statutory functions</li><li>• Defined post go-live application maintenance SLAs for the MSP</li><li>• Interfacing with business stakeholder – internal and government officers, for optimization of business processes</li></ul>
<b>Technology</b>	Spring, Hibernate, Kafka, Spark, Strom, Hadoop, Hbase, MySQL

### Program Manager – Telecom OSS/BSS Solution | Aricent

<b>Objective</b>	To develop, enhance/transform/migrate & maintain integrated BSS & analytics solution for the customer
<b>Contribution</b>	<ul style="list-style-type: none"><li>• Led solution delivery for complete program having \$ 4.5M ACV with 47 membered cross-shore team</li><li>• Transformed project execution to SCRUM based continuous delivery model</li><li>• Recognized for containing churn by implementing innovative "Skill Seeding" program towards people growth</li><li>• Achieved 5/5 CSAT, from 3/5, within 18 months in 2016</li><li>• Productization of custom application for launch in newer geographies</li><li>• Added USD 1.3M to business vertical as new business in 2014-15</li></ul>
<b>Technology</b>	J2EE, Weblogic & JBoss AS, ESB, Oracle BRM, Salesforce, JConsole, JMeter, SOAPUI

### Solution Architect & Lead Engineer – Passport Seva | TCS

<b>Objective</b>	Build an integrated Passport application, processing and dispatch system.
<b>Contribution</b>	<ul style="list-style-type: none"><li>• Requirement analysis, PoC &amp; proposal during conception phase</li><li>• Key role in finalization of solution with govt. stakeholders and vendors</li><li>• Planning DC/DRC setup &amp; its execution with multiple teams</li><li>• Design of interoperable API Gateway framework for integrating multiple agencies with Passport Seva platform</li><li>• Performance tuning – thread/heap monitoring, analysis &amp; app tuning</li><li>• Closely worked with STQC for certification of solution design of application</li><li>• Participated in ITIL based service desk setup process</li><li>• Server &amp; Application monitoring &amp; managing post production support at NOC</li><li>• Team size – 36 engineers</li></ul>
<b>Technology</b>	J2EE, WebSphere Portal, Application Server & Process Server, DB2 9.1/9.5, AIX/LINUX, CAS, SVN, ANT, JConsole, VisualVM, Bugzilla, MS Project

## Technical Architect – Process Re-engineering of Assessment Processing System, Melbourne | TCS

<b>Objective</b>	To re-engineer existing assessment system to optimize the business processes and revamp technology
<b>Contribution</b>	<ul style="list-style-type: none"><li>• Due diligence &amp; estimation for re-engineering legacy application</li><li>• Focused workshops with customer, defining scope statement &amp; detailed user stories. Prototyping and PoC for early feedback</li><li>• Led business process re-engineering &amp; data structure optimization</li><li>• Built new reporting framework to integrate multiple data sources, provide student centric view at various stakeholder levels</li><li>• Working with different government vendors of key system for integration with, or migration to, new system</li><li>• Offsite coordination – ensure communication compliance, work distribution &amp; issue resolution</li><li>• Quality Assurance &amp; Process Compliance</li></ul>
<b>Technology</b>	Java Spring, Hibernate, SAS 9i, Oracle 10g