NANO GCC SERIES · POINT OF VIEW

The Engineering Nano GCC

A small R&D team creates value only when it owns part of the product. Four gates decide whether it gets there: who owns the invention, which tools engineers can reach, what can cross the border, and how the team plugs into headquarters.

Vertara Global · Point of View · October 2026

AT A GLANCE

- Engineering Nano GCCs rarely fail because they cannot hire engineers. They fail when their work never safely becomes part of the company's global product-development system.
- The best are built to increase engineering throughput, not to cut engineering cost, and they create value only when they own a product capability.
- Four gates decide the outcome: **Ownership** (IP), **Access** (toolchain), **Transfer** (export controls) and **Integration** (the mandate). Each belongs in the launch plan, not a later compliance review.

01 Why engineering is different

Engineering Nano GCCs rarely fail because they cannot hire engineers. They fail because the work they do never safely becomes part of the company's global product-development system.

> *Four questions decide the outcome: who owns the invention, which tools the team can legally and practically reach, what technology is allowed to cross the border, and how a 30-person team in Pune or Bengaluru becomes part of a product roadmap set 10,000 km away.*

Engineering is now the centre of gravity of India's GCC market. The latest Nasscom-Zinnov landscape report estimates India's GCC revenue at $98.4 billion in FY26 across 2,117 centres[1], and Zinnov reports that the vast majority of GCCs established since FY21 launched with product, engineering or R&D-oriented mandates[2]. Yet the playbooks most mid-market firms inherit were written for 500-person centres with a legal department, a licence desk and an export-compliance officer down the corridor. A Nano GCC (20 to 200 people) has none of that support.

An IT or operations centre moves processes; an engineering centre creates assets. When a finance team reconciles accounts, nothing new is invented. When a firmware team designs a power-management routine, it may be producing a patentable invention, a trade secret, export-controlled technical data and a component of a regulated product, all in the same sprint. Size does not reduce that exposure. A 25-engineer team working on a core platform can hold more of the company's future value than a 500-person shared-services centre.

1 Nasscom-Zinnov, India GCC Landscape Report FY26, as reported in "The big boom: How India's GCC story hits 2030 target 4 years early" (Business Today, May 2026). www.businesstoday.in/technology/news/story/the-big-boom-how-indias-gcc-story-hits-2030-target-4-years-early-530265-2026-05-07

2 Zinnov, as reported in "India's GCCs move from cost centres to global innovation hubs" (Business Today, August 2026). www.businesstoday.in/technology/news/story/indias-gccs-move-from-cost-centres-to-global-innovation-hubs-zinnov-550459-2026-08-20

EXHIBIT 1 · FOUR DESIGN QUESTIONS, TWO KINDS OF GCC

Design question	Typical IT or operations GCC	Engineering Nano GCC
Who owns the output?	Work product, covered by standard employment terms	Inventions, code and know-how that need deliberate capture, assignment and filing strategy
What does the team need to work?	Enterprise SaaS and a laptop	CAD, CAE, PLM, EDA, simulation clusters, test rigs, licence servers, source repositories
What can cross the border?	Data, governed by privacy rules	Technical data and source code that may be export-controlled in both directions
How does it connect to HQ?	Service levels and process handoffs	Shared roadmaps, design reviews, code ownership and release gates

Vertara Global analysis.

02 The real objective: product ownership

The most successful engineering Nano GCCs are not set up to reduce engineering cost. They are set up to increase engineering throughput: shorter release cycles, development that continues across time zones, and access to specialist skills that are scarce at headquarters. Lower cost is welcome, but it is a by-product.

That throughput appears only when the centre owns something. A Nano GCC that executes tickets adds capacity. One that owns a product capability adds speed, judgement and continuity, and that is where its value to the business lies.

Four gates decide whether a centre reaches ownership. Leave any one of them unmanaged and the team stays at ticket execution, however talented it is.

EXHIBIT 2 · THE FOUR GATES OF AN ENGINEERING NANO GCC

GATE 1 · IP	GATE 2 · TOOLCHAIN	GATE 3 · EXPORT	GATE 4 · MANDATE
Ownership	**Access**	**Transfer**	**Integration**
Can the company own what the team invents?	Can engineers reach the tools, code and environments?	Can technical data legally cross borders?	Does the team own a piece of the roadmap?

→ **Product ownership, and the engineering throughput that comes with it**

Each gate is taken in turn below. The last, Integration, is where the centre climbs from contributing to owning. Vertara Global framework.

03 Gate 1 · Ownership: protect the invention before the first commit

The first gate asks whether the company can own what the team invents. IP leakage in a small engineering centre is rarely theft. It is usually a gap in paperwork, process or law that nobody owned.

India's foreign filing rule. Section 39 of the Patents Act, 1970 generally requires a person resident in India to obtain a foreign filing licence, or to file in India at least six weeks earlier, before filing or causing a patent application to be filed abroad. There is a carve-out where a non-resident first files abroad, but it turns on who made or caused the filing, not on who the inventors are[3]. So a parent's habit of filing a US provisional first, with India-based engineers named as inventors, needs a deliberate Section 39 check.

From 1 June 2026, the Jan Vishwas (Amendment of Provisions) Act, 2026 removed criminal punishment for a Section 39 breach where the Central Government finds the invention had no defence or atomic-energy relevance[4]. The licence requirement itself is unchanged, and a breach can still lead to the Indian application being treated as abandoned or a

3 Intepat, "Foreign Filing Licence Violations After the Jan Vishwas Amendments" (August 2026). www.intepat.com/blog/foreign-filing-penalty-eased-india-section-118-patents-act

4 Gazette of India, Notification S.O. 2846(E), commencement of Patents Act provisions of the Jan Vishwas (Amendment of Provisions) Act, 2026 (1 June 2026). egazette.gov.in/WriteReadData/2026/273147.pdf

granted patent being revoked[5]. The fix is simple if planned: an invention-disclosure process that flags India-resident inventors and builds the foreign filing licence into the filing calendar.

Trade secrets without a statute. For many engineering firms, much of the most valuable know-how is never patented: source code, design rules and manufacturing processes are often better kept as trade secrets, and some cannot be patented at all. That makes India's legal gap a commercial issue. India still has no standalone trade secrets law, and the Protection of Trade Secrets Bill drafted by the 22nd Law Commission in March 2024 had not been enacted as of mid-2026[6]. Protection rests on contracts, breach-of-confidence principles and evidence that the company treated the information as secret. Post-employment non-competes are generally unenforceable under Section 27 of the Indian Contract Act, so the real defences are confidentiality obligations, access control and audit trails.

Ownership flowing to the right entity. An Indian subsidiary employs the engineers, but the parent usually needs to own the IP. That takes three linked documents: employment contracts with present-tense assignment of inventions and copyright, an intercompany R&D services or cost-sharing agreement that vests IP in the parent, and transfer-pricing documentation that supports it. Where a partner or Employer of Record holds the employment contracts in the early phase, the assignment chain has to run through them too.

What good looks like

- Invention disclosure and patent-review cadence set up in the first quarter, with Section 39 checks built in
- Present-tense IP assignment in every employment and contractor agreement, including EOR and partner staff
- An intercompany agreement that names the IP owner before any engineering work starts
- Information classified by sensitivity, with repository and PLM access granted by role, not by seniority
- Exit protocols: access revocation on the last day, device return and a documented confidentiality reminder

04 Gate 2 · Access: the toolchain is the hidden critical path

The second gate asks whether engineers can reach the tools, code and environments they need. The most common reason an engineering Nano GCC is slow in its first six months is not hiring. It is engineers waiting for tools.

Engineering software is licensed very differently from enterprise SaaS. CAD, CAE, PLM and EDA agreements often tie seats to a named site, region or licence server, and some restrict use outside the countries named in the contract. Extending them to a new Indian entity can mean a contract amendment, a new reseller relationship or a separate local purchase, each with its own lead time. Simulation and verification workloads add compute questions: run on HQ clusters over the WAN, burst to cloud, or build local capacity.

EXHIBIT 3 · THREE WAYS TO GIVE AN INDIA TEAM ITS TOOLS

Choice	Works well when	Watch out for
HQ-hosted tools via VDI or remote workstation	Design data must stay at HQ; team is small; licences are hard to move	Latency on heavy 3D and simulation work; dependence on HQ IT response times
Cloud engineering environments	Workloads are bursty; team is distributed; HQ already runs cloud PLM or CI	Export-control rules on where controlled data is stored and who administers it
Local installs and India-based servers	Team needs high-performance graphics, labs or hardware-in-the-loop rigs	Licence transfer terms, local data security, duplication of environments

Most engineering Nano GCCs end up hybrid: source code, PLM and requirements stay central, while heavy compute and lab work sit close to the engineers. Vertara Global analysis.

For software-led firms, the secure development environment matters as much as engineering licences, and often more than patents. Customers will expect the India team to work inside the same controls as headquarters: protected source

5 Conventus Law, "A welcome reform under the Jan Vishwas Act 2026: relief for non-compliance with foreign filing licence provisions" (2026). conventuslaw.com/report/india-a-welcome-reform-under-the-jan-vishwas-act-2026-relief-to-inventors-and-applicants-for-non-compliance-with-foreign-filing-licence-provisions/

6 Intepat, "Trade Secret Protection in India: Law, Remedies and Practical Steps" (June 2026); Chambers, Trade Secrets 2026: India (April 2026). practiceguides.chambers.com/practice-guides/trade-secrets-2026/india

repositories, privileged access management, segregation of customer code and data, and the controls behind certifications such as SOC 2 and ISO 27001. Extending the existing controls to the new entity, rather than building a parallel set, keeps audits simple and avoids a second-class environment.

What good looks like

- A tool inventory, with licence terms checked for territory and entity restrictions, completed before the entity is incorporated
- Toolchain provisioning treated as a launch milestone with its own owner, not an IT ticket
- Role-based access to repositories, PLM and design data, mirrored from the IP classification
- A day-one-productive test: every new engineer builds, runs and commits in their first week

05 Gate 3 · Transfer: classify before you share

The third gate asks whether technical data can legally cross borders. Depending on how the technology is classified, granting an India team repository access or sharing design files with it may constitute an export. Mid-market firms that have never needed an export-compliance function often discover this only when a customer, auditor or acquirer asks.

From the parent's side (US example). Under the US Export Administration Regulations (EAR), technology and source code are controlled, not just hardware. The US Bureau of Industry and Security treats releasing controlled technology to a foreign person, even inside the US, as an export to that person's country of nationality[7]. So both the India team's repository access and an Indian engineer's visit to the HQ lab can need review. India sits in Country Group A:5 under the EAR[8], which opens License Exception STA for many controlled items. STA helps but is not automatic: it excludes some items and carries notification and consignee-statement conditions[9]. Defence-related technical data under ITAR follows a separate, stricter regime and generally needs specific authorisation before any foreign person sees it.

From India's side. India's own control list, SCOMET, covers software and technology as well as goods, and treats transfers by email, cloud storage, video call or remote access as exports[10]. A 2025 amendment added a category for emerging technologies, so more engineering work now falls in scope. Code or know-how developed in India and sent to the parent or a sister entity may need authorisation. The DGFT's Global Authorisation for Intra-Company Transfers (GAICT), a three-year group authorisation, simplifies qualifying flows such as design, R&D and testing services, with quarterly reporting[11].

Two practical traps. First, the India team may include engineers who are not Indian nationals; controls follow the person's nationality, not the office's location. Second, cloud environments can quietly move controlled data into regions or administrator groups the compliance plan did not anticipate.

What good looks like

- Classify the technology the India team will touch, by product line, before scoping its mandate
- Decide which work packages are in scope and which stay at HQ, and document why
- Establish nationality and export-control screening procedures where controlled technologies are involved
- Configure repositories and PLM so access follows the classification, with logs an auditor can read
- Name one accountable export-compliance owner, even if the role is part-time or outsourced

Export-control outcomes depend on the specific technology, classification and people involved. Firms should take qualified trade-compliance advice before transferring technology.

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7 US Bureau of Industry and Security, "What is a deemed export?", describing EAR §734.13(b). www.bis.gov/learn-support/deemed-exports/what-deemed-export

8 US Bureau of Industry and Security, Interactive Country Groups (Supplement No. 1 to EAR Part 740). media.bis.gov/regulations/ear/interactive-country-groups

9 15 CFR §740.20, License Exception Strategic Trade Authorization (eCFR, current). www.ecfr.gov/current/title-15/subtitle-B/chapter-VII/subchapter-C/part-740/section-740.20

10 Dhruva Advisors, "India's SCOMET Regulations" (January 2026). www.dhruvaadvisors.com/wp-content/uploads/2026/01/Dhruva-Scomet-Booklet-2026.pdf

11 Dhruva Advisors, see note 10.

06 Gate 4 · Integration: the mandate journey

The fourth gate is where the value is realised. A small R&D team becomes valuable when it owns something HQ depends on. Until then, it is a pool of capacity that gets the work nobody else wants, and its best engineers leave. The pattern that works is a deliberate climb in mandate, with clear gates between stages.

EXHIBIT 4 · THE MANDATE JOURNEY

STAGE 1 · MONTHS 0 TO 6	STAGE 2 · MONTHS 6 TO 18	STAGE 3 · 18 MONTHS ONWARD
Contribute →	**Own a module →**	**Own an outcome**
Works inside HQ squads on defined packages: test automation, verification, sustaining engineering, features against HQ-owned designs.	Takes end-to-end ownership of a component, subsystem or service: backlog, code reviews, quality metrics, on-call.	Leads a product line, platform capability or new-product track, with a voice in architecture forums and roadmap planning.
Trust, shared tooling and a common definition of done.	*HQ sets interfaces and priorities; India decides how.*	*A seat at the table where the roadmap is set.*

Indicative timings. The gate between stages is evidence, not time: release quality, cycle time, defect escape rate and the confidence of HQ product leaders. Vertara Global framework.

Four mechanisms make the integration real in a team of 20 to 200:

- **One engineering leader on the ground with standing at HQ.** The site lead should sit in HQ engineering leadership meetings, not report through a delivery or finance channel.
- **Shared rituals across time zones.** India's overlap with US Eastern time is narrow and with Pacific time narrower still. Protect two or three overlap hours for design reviews and planning, and push everything else to written, asynchronous decision records.
- **One toolchain, one backlog.** Separate Jira projects, repositories or PLM instances for India create a two-tier organisation. Integration starts in the tools.
- **Rotation both ways.** Short assignments of India engineers to HQ, and of HQ architects to India, build the informal knowledge that design documents never capture. Factor export-control review into these visits.

The common failure mode is the opposite: a team that stays at stage one for two years because no one at HQ was asked to let go. That is a leadership decision, and it should be made at launch.

07 Designed around invention, not administration

A finance or operations centre succeeds when processes move efficiently across geographies. An engineering centre succeeds only when intellectual property, technical knowledge and product ownership move safely across them. The operating model of an engineering Nano GCC therefore has to be designed around invention, not administration, and the four gates belong in the launch plan rather than in a later compliance review.

> *The goal is not a lower-cost engineering organisation. The goal is a larger and faster innovation engine that remains fully integrated with headquarters.*

QUESTIONS FOR THE BOARD · READINESS CHECK

1. Do we know which product, module or capability this team will own within 18 months?
2. Does every contract in the chain, including partners and EOR, assign IP to the right entity?
3. Is there an invention-disclosure process with India's foreign filing rule built in?
4. Is sensitive information classified, and does access follow that classification?
5. Have licence terms been checked for territory and entity limits, with a provisioning owner and date?
6. Has the technology in scope been classified on both the parent's and India's control lists?
7. Are nationality and export-control screening procedures in place where controlled technologies are involved?
8. Does the site lead have a seat in HQ engineering leadership and roadmap forums?
9. Have we agreed the evidence that moves the team from contributing to owning?

Any 'no' is not a reason to delay the GCC. It is a work item for the first 90 days, and far cheaper to close before launch than after.

08 How Vertara Global helps

Engineering-specific GCC solutions are Vertara Global's core expertise. We start with the mandate: what the team will own, how it climbs from contribution to ownership, and the evidence that moves it forward. With our legal and entity partners, we structure employment, partner and intercompany agreements so IP lands with the right owner, and build patent and confidentiality processes that fit Indian law. We plan the toolchain and secure development environment so engineers are productive in their first week, and work with trade-compliance specialists to scope work packages, set up screening and configure access.

We help you choose the operating model that fits, whether captive, partner-enabled, hybrid or phased, rather than pushing a single template. And because many GCCs are tested in year two, we stay involved after launch: embedding the site lead in HQ forums, setting rituals across time zones and checking that the centre is climbing the mandate journey as planned.

ABOUT VERTARA global

Vertara Global is a practitioner-led GCC advisory firm. We help mid-market companies across sectors and geographies design, set up, scale and transform their Global Capability Centres, from the first business case and location choice to the operating model, entity, talent and workplace.

Our services span five pillars:

1. **GCC Consulting**
2. **Legal & Entity Support**
3. **People Advisory**
4. **Digital & AI**
5. **Engineering GCC Solutions**

Client-first and leader-led: senior practitioners run every engagement, and we stay involved after handover, because year two is where many GCCs are tested.