An intense geoeconomic rivalry; US-China Technonationalism and the dynamics of Escalation

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Introduction

The US-China technonationalist rivalry is intensifying, increasingly confrontational and perilously conflictual. In May 2026, the United States, citing national security concerns, hiked up 145% tariffs on Chinese imports, revoking export licenses for NVIDIA's H20 and H200 AI chips (themselves modified to circumvent earlier regulations) over suspected use in Chinese supercomputing (Congress, 2025; FT, 2026). The authorities also launched investigations probing alleged smuggling involving Thai intermediaries rerouting GPUs covertly (Bloomberg, 2026). Beijing also launched its retaliatory tariffs and export controls, a 'mineral weaponisation' strategy imposing export controls over twelve rare-earth elements critical to defence hardware, semiconductors and LFP batteries, upstream inputs for various industries (EUISS, 2026). A fragile truce followed as both governments partially retreated, confronted with the structural reality that complete de-coupling would devastatingly impact either economy. These developments, escalation-retaliation cycles followed by uneasy truces, reflect a cliffhung geopolitical-economic competition and intensifying race for technological supremacy but also indecision and complex interdependencies which prevent aggressive decoupling despite increasing rhetoric and competitive pressures.

Far from being a unilateral, internationalized order encoding core-capitalist hegemony, status-quo is an interregnum defined by a simmering network-centrality war and inter-imperial competition (Farell and Newman, 2019; Schindler et al., 2024). This essay first situates the emergence of technonationalism in historical and conjunctural shifts in the global political economy. This is followed by a discussion of various dimensions of technonationalism embedded in competing hegemonic projects which juggle mutually related protectionist and internationalist imperatives (as both powers vie for self-sufficiency and global expansion) testing out the very interdependencies assumed as moderating influences. This structural competition is negotiated by third states in various agentic ways. Lastly, different perspectives on techno-nationalism's conflictuality are compared and critiqued, positing how the rivalry stands at complex, uneasy impasse shaped by cumulative indirect confrontations. Without passing deterministic verdicts, the essay argues that the future trajectory is shaped by political projects of dominant social forces (great powers, capital fractions and poly-aligned third states) with interests in the existing order's reproduction as well as consolidating their respective spheres of dominance.

1. The technonationalist interregnum; historical-conjuctural shifts in the Global Political Economy

To understand contemporary US-China technonationalism, it is important to contextualise its emergence within globalized neoliberalism which consolidated core capitalist hegemony, conditioned China's competitive (if at all, counterhegemonic) rise, and increasingly becomes a mechanism of destabilising US technological prowess. Emerging from the military-industrial accumulation during the Cold War, US technological supremacy was built through a constitutive nexus of state-facilitated defence spending and corporate innovation which produced breakthrough techno-scientific infrastructures, later partially universalised through global (neo)liberalisation (Arrighi, 2007; Block, 2008; Weiss, 2014). Neoliberal restructuring of global capitalism characterised by financial de-regulation, trade liberalisation and off-shoring of manufacturing to low-cost production zones allowed lead technology firms to spatially diversify production across global value chains while commanding monopolistic control over design, intellectual property, software, and standards-setting capacities in the capitalist core (Gereffi, 2018; Harvey, 2005).

Regimes such as TRIPS constitutionalized intellectual property multilaterally, encoding proprietary dominance of leading US pharmaceutical, software, and semiconductor capital in a disciplinary order characterized by the 'enclosure, commodification, and rent extraction of knowledge' (Gill, 2008; Sell, 2003). US dominance extended also over the governance of the internet, maintaining through ICANN, oversight over the IP address allocations and root-zone protocols all administered from US jurisdictions, until displaced through a multi-stakeholder IANA in 2016 (Mueller, 2017; DeNardis, 2014). A deeply asymmetric transnational circuit of accumulation benefiting incumbent powers, the US advanced 'liberal-internationalized' techno-governance integrating most regions into a US-centred digital capitalism commanding structural dominance over its rules and regulations (Schmalz, 2024).

China's integration to neoliberal capitalism followed a nuanced developmental strategy shaped by its selective internalisation of (neo)liberalisation bannered "socialism with Chinese characteristics". Beginning with Deng Xiaoping's reforms, opening-up was legitimised as a strategy of 'national rejuvenation, scientific modernisation, and productive harmonisation' to overcome autarkist growth stagnation (Naughton, 2007; Lim, 2010). This produced a variegated terrain of neoliberalisation as selective liberalisation (marketisation, export orientation, and FDI) coexisted with state coordination and steering over finance, industrial policy, and strategic technological sectors. WTO accession deepened China's integration into global circuits of trade, investment, and intellectual property governance, enabling accelerated technological growth and learning through joint ventures and technology transfer (McNally, 2012). Confronted with a "whip of external necessity", China leveraged 'uneven and combined development' defying developmental teleologies i.e. appropriating advanced production from developed economies, while accelerating its indigenous technological development`(Rolf, 2021).

A prominent example of this is how China seeded its domestic integrated-circuit industry in Shanghai with a joint venture with Japan's NEC in the 1990s, enabling later semiconductor firms to build off of. Similarly, through its Mid-to-Long Term Plan for Science and Development 2006 aimed at enhancing R&D and pursuing 'indigenous innovation', state's development finance enabled firms like Huawei, ZTE and Tencent to build strong patent portfolios and internationalize (Fuller, 2016; Fu, Woo, and Hou, 2016). By the 2010s, Chinese firms emerged competitively across global telecommunications infrastructure, fintech, e-commerce, batteries, quantum research, and renewable technologies, marked by booming patent filings and R&D alongside growing technological internationalisation. (Cao and Sun, 2024; WIPO, 2024)

Far from being linear, China's techno-industrial growth depended both on deeper integration in global capitalism and simultaneous cultivation of relatively internally embedded domestic digital-tech growth, producing insular "Galápagos" i.e. partially distinct standards, platforms, and innovation, which somewhat hinder its full internationalisation (Ezell and Atkinson, 2014). Regardless, the endogenous-exogenous dynamics of China technological catch-up transformed China's subordinate position in neoliberal globalisation into a potential challenger, also beneficiary of de-regulated production enabling its rise in global manufacturing as well. As Rolf (2021) argues, Chinese state capitalism is "both a product, and increasingly a transmitter, of the dynamics of competitive capital accumulation" an endogenous challenger benefitting from the liberal order's institutional and labour structure allowances.

The global technonationalist turn is situated within long-range crisis tendencies of post-Fordist capitalism and the strategic position technological sectors occupy within contemporary accumulation. Crises of neoliberal growth (secular decline in productive investment, compensatory financialisation to displace debt-fuelled consumption for wage-led demand in the US context, crises of overcapacity in China, and contagion effects evident in the 2008 crisis) created a renewed impetus for accumulation fixes to restore profitability and geopolitical command (Harvey, 2005; Brenner and Peck, 2013; de Graff et al., 2020). In this, digital and advanced technological production do not just form profitable sectors in themselves, but cross-cut multiple processes co-mediating labour, circulation, consumption, and accumulation. Control over AI, cloud computing, telecommunications, quantum innovation, and platforms etc. enable states and firms to capture disproportionate value through infrastructural dependencies, IP monopolisation, data extraction, and coordination across transnational production (Srnicek, 2017; Rolf and Schindler, 2023). Functioning as interoperable infrastructures, the 'hyperscaling' effects of digital infrastructures (integrating labour processes on platforms, intensifying productivity with automation and predictive analytics, integrating finance and co-coordinating logistics, services, and manufacturing) produces intense competition to command these high-value, high-speed sectors. The transition toward green-tech accumulation (encompassing batteries, renewable energy, smart infrastructures etc.) further intensifies renewed inter-imperial competition (Solty, 2012).

The uneasiness underlying US-China technonationalism thus reflects competitive tensions within and across (futures) of the global political economy (scramble over infrastructural, material, and technological constituents) to command dominance over capitalism's next 'temporal fix' (Ibid). These structural pressures were increasingly evident geopolitically after 2008. US's "Pivot to Asia" and the securitisation of Indo-Pacific security (the QUAD), protectionism and export controls targeting Chinese firms, 'Chip Wars' through bipartisan consolidation of the US CHIPS Act, reflect Washington's growing recognition that technological supremacy is key to its wider hegemonic centrality (Starrs and Germann, 2021). China, with its Belt and Road Initiative (BRI) and its technological arm the Digital Silk Road (DSR), is also internationalisationing its infrastructural and technological influence especially in the Global South (Mulvad, 2019; Zhang and Juang, 2025). In this context, competing "restorative" projects i.e. the MAGA and the "China Dream" are strategies to control crisis-ridden accumulation through nationally anchored, transnationally oriented state-capital nexuses (Schindler et. al, 2024).

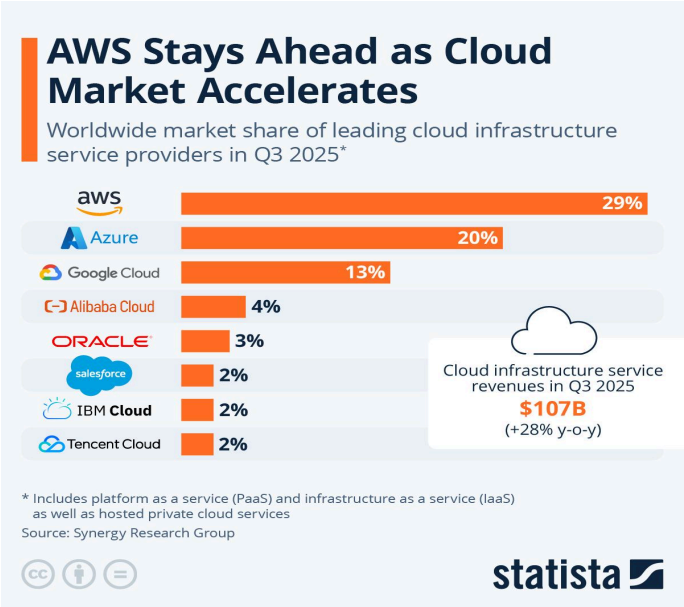
Both projects are simultaneously strongly protectionist as well as internationalist within an economically interdependent global system, increasingly conflictual as visible empirically. The unstable coexistence of deep global integration and intense material competition defines the technonationalist interregnum. The politics over 'technological stacks' further impacts re-alignments of third states across the globe.

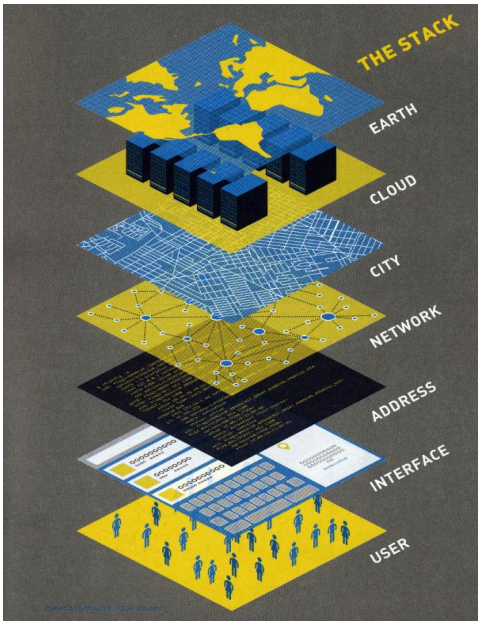
2. Vectors of Conflict within a Global "Inter-stack" Rivalry

The conflictuality of US-China techno-nationalism within a globalized context can be understood heuristically by understanding emergent politics over technological "stacks" (Bratton, 2016). As Bratton coined it, stacks are vertical multi-layered planetary infrastructures of digital capitalism. These are composed of physical infrastructures (undersea cables, semiconductor assemblies and data centres, and satellites) constituting their material bases, network infrastructures (5G, cloud computing, and IoT systems), mediation layers (platforms, operating systems and applications), and data, AI infrastructures and behavioural datasets constituting the intelligence layers. Within such complex, deeply integrated, modular and piecemeal configurations, control at any layer provides leverage over other layers of the structure. Competition in the global political economy thus increasingly centres on "recruiting users and nations to rival state-platform nexuses" to augment structural power over production, circulation, logistics, finance, as stack/platform control enables (extra)-territorial influence, and hyperscaled transnational accumulation (Rolf and Schindler, 2023; Likavcan, 2022; Farrell and Newman, 2019).

Power concentration over stacks remains exclusive, with a cluster of US firms (AWS, Microsoft Azure, and Google Cloud) dominating global cloud infrastructures (Rikap, 2024; SRG, 2025). Chinese firms such as Alibaba Cloud, Tencent, and Beidou (BAT) increasingly compete with parallel infrastructures across Asia, Africa, Latin America, and the Gulf (Hillman, 2021; Erie

and Steinz, 2023). The inter-stack rivalry is inherently complex and contradictory as 'stacks' derive value from expansion, interoperability, and transnational integration, yet their infrastructural concentration in select original stacks also renders them objects of securitisation and geopolitical containment, creating tensions and perceptions of vulnerability amid the opacity of their (mis)usages (Selwyn, 2025; Schindler et al, 2024). Undersea fibre-optic cables are examples of this; as Chinese HMN-Tech cables started to expand in the Pacific, the US counter-pressured governments to abandon these contracts (Reuters, 2023). Contrarily, China's first-ever military base in Djibouti concerns preserving its PEACE Cable, beside other strategic imperatives (Erie and Steinz, 2023). With increasing (almost irreversible) subsumption of states, firms and society within tech-stacks, the competition intensifies, seen simultaneously as commercial, geopolitical, and securitarian.





(From SRG, Statistica 2024) (STACK illustration by Stackivism)

The United States increasingly pushes for coercive (re)globalisation, preserving necessary openness for financial, platform, and standards dominance while also weaponising/de-risking from interdependence through export controls, pressures to friend-shore (with firms adopting diversification/hedging strategies like China+1) and on-shoring production (Schindler, 2025). The latter are aimed at re-industrialization of previously de-industrialised regions hollowed out during de-regulatory neoliberalism, coalescing around MAGA populism and techno-nationalism (Starrs and Germann, 2021). China, confronting domestic overcapacity and its growth-slowdowns, similarly expands its infrastructural-technological influence promoting its OEM satellite and fibre-optic infrastructures necessary bases for its stack expansion, while also intensifying techno-industrial self-sufficiency, indigenous innovation, supply-chain de-risking, and strategic state control over critical sectors, visible in the 'Made in China' 2025 (Zhang and Juang, 2025;

Naughton, 2021; Jia and Nieborg, 2022). For functional necessity, contenders cannot withdraw from full globalisation competing instead to *re-centre* globalisation around their respective accumulation spheres. Chinese firms increasingly de-listed across the US and European economies, are pushed to expand in Global South markets, offering concessional full-stack packages (with policy-bank support and infrastructural loans) along the BRI, soft conditionalities dressed as 'South-South' cooperation (Baldakova, 2025; El Kadi, 2024).

Secondly, the way in which stack's political economy reorganises dominant social forces and strategic state-capital relations further adds to its uniquely escalatory dynamics. History is greatly instructive. During the US-Soviet tech-race, military-industrial accumulation was central to the development of technologies like the Internet (previously D-ARPA intra-net), and GPS (linked to aerospace research). Close integration between strategic state priorities and technological capital has historically been constitutive of hegemony (Block, 2008). The scale, speed, and depth of this fusion under digital/techno-scientific capitalism has only deepened (Birch and Muniesa, 2020).

Developments in dual-use technologies mean that pivotal advances in cloud computing and AI, satellite systems, and quantum research are seen as necessary to expand commercial profitability, surveillance capacities, and military capabilities; eliding profit accumulation and security. In the United States, major technology firms are integrated into defence and intelligence through Pentagon cloud contracts, AI-enabled surveillance systems, and cybersecurity partnerships (Weiss, 2014; Slawotsky, 2021). In China, a similar dynamic has emerged through 'military-civil' fusion (MCF) and an emerging "whole-of-state system" for innovation integrating state support, technology firms, universities, and the military into techno-industrial, techno-security apparatuses (Zhang and Lan, 2023). For instance, the PLA's surveillance systems use monitors produced by the state-owned Hikvision, while a majority of China's AI military equipment suppliers are also its private companies (Fedasiuk et al., 2021; Kania, 2017). China is also investing in AI-military applications to challenge US influence in the Asia-Pacific.

Transforming underlying class-institutional contexts, an emerging form of 'militarised neoliberalism' characterized by proximate state-capital alliances vies for transnationalization within a globalized digital capitalism (Chacko and Jayasuriya, 2012). Potential escalation is structurally embedded as social coalitions as accumulation is materially linked to the expansion of competing technological-strategic ecosystems. This is why progressive weaponisation of interdependence, the Chip Wars (from 7nm export controls to 3nm in 2023, and the Foreign Direct Product Rule imposing stricter licences on non-US firms) are exercises in coercively leveraging interdependence for state-strategic, and class-strategic, objectives (Malkin and He, 2024; Miller, 2021). Rounds of weaponisation are meant to re-alter supply chains to impose capability and access costs, reduce future interdependence, often eroding the supposed moderating constraints, creating fragmentation and unpredictability across supply chains.

The competition is further producing an actively contested and uneven geographical restructuring of the global political economy shaped by various third states responses. European states (especially Germany) increasingly pursue de-risking to selectively contain Chinese investments in critical infrastructures despite continued dependencies upon Chinese market and industrial inputs especially in green-tech supply. EU states are also expanding autonomous semiconductor capacitation through the EU Chips Act (Meunier, 2014). A similar protectionist-internationalist dynamic, rather than active decoupling is evident, balancing strategic risks while preserving benefits of continued integration. More broadly, as Schindler et al. (2024) argue with the concept of "peri-centricity," the technonationalist competition is not reducible to a bi-polar US-China confrontation as third, even peripherally positioned states, actively negotiate, mediate, and selectively appropriate traversing through the rivalry.

A "new state capitalism" has emerged (especially across the Global South after 2008) intensifying state-directed accumulation shaped by specific class formations, developmental imperatives, and geopolitical opportunities. Multi or poly-alignment has been appropriated as a developmental strategy to leverage competition between techno-economic blocs to extract investment, infrastructure, technology transfer, and diplomatic concessions across a range of actors (Alami and Dixon, 2020). Vietnam and Mexico, for example, benefit from manufacturing displacement associated with US friendshoring pressures while African mineral economies are becoming central to both Chinese and Western competition over critical minerals despite potential re-primarisation. As Kalvelage and Tups (2024) argue, processes of risk reduction, securitisation, and extraterritorial competition are increasingly "pushing out" new infrastructural relationships into peripheral regions. The technonationalist competition is therefore mediated around more explicitly geopolitical, state-mediated, and infrastructurally differentiated forms of integration. Peri-centric state-capital forces participate in the conflict through internally rescaling political economies (renewed extractivism, or scalar redifferentiation of urban-rural geographies), while conflicted geographies are also integrated through persisting extractive arrangements (e.g. Congo). This emphasises the differential geographical-historical factors and the interests of dominant social forces across these political economies whose (poly)alignments determine how the broader rivalry is mediated.

The stack's dual-use and hyperscaling dynamics elide profit and security. Deepening stack integration amid geoeconomic fragmentation generates internal contradictions within state-platform-finance nexuses as at one; their expansion depends on globally integrated circuits of finance and production, while their internal growth, especially in pivotal terms, rests on protectionism and state subsidisation. The rivalry is thus deeply conflictual and contradictory even if deep interdependencies mitigate major confrontations. Given inter-dependence is coercively also leveraged, perhaps tested out, to reshape contours of supply and access, inter-dependence ceases to be an as-is static moderator, ever-evolving and contingent. The expanding statist capitalism across

both core and periphery means that the trajectory is critically shaped by a constellation of transnational-class coalitions. The international system is in a structurally unstable condition, visible in continuous indirect confrontations as state-capital alliances strategise and vie for supremacy.

3. Perspectives on the trajectory of technonationalist rivalry

Amid the technonationalist rivalry, confrontations already exist with various forms and possible trajectories. Two frameworks relevant in this context warrant critical engagement. First, liberal inter-dependence thesis interprets continued trade integration as structurally moderating forces preventing a major conflict (Owen, 2019). Enduring US-China trade volumes and complex inter-dependencies in global trade evidence how inter-connectivity moderates against a full-scale conflict. However this can underscore how interdependence is itself historically contingent and politically malleable particularly since weaponization (protectionism, mineral weaponisation, and friend-shoring perpetuate not *despite* interdependence but *through* it) to (continually) tinker with and shape alternative circuits within a conflictual field (Malkin and He, 2024; Farrell and Newman, 2019).

Conversely, neo-realist frameworks such as Allison (2017)'s Thucydides Trap predicts a near-deterministic break-down as shifts in relative power balance create skewed perceptions of power depth, arms-race spirals, and insecurities ultimately entrapping the hegemon into a perilous major confrontational trap against a rising power. Treating states as unitary, opaque actors operating behind cave-man like informational asymmetries amid power transformations, the framework reifies anarchy as trans-historical, attending less to the historical specificities and changing accumulation dynamics in the global economic structure (Glenn, 2012; Callinicos and Rosenberg, 2008). The conflict is neither generated nor moderated through an inevitable hegemonic war or inherent stabilising rationality of markets, but how the contradictory coexistence of deep systemic integration and intensifying geopolitical securitisation is managed.

The position in this essay tries to analyse the rivalry from the lens of spatial-temporal dynamics of contemporary accumulation. Capital's drive to 'annihilate space with time' finds contemporary relevance in the 'stack(s)' (Harvey, 2005; Bratton, 2016). The technonationalist turn emerges from impulses to centre technological globalisation around rival state-platform nexuses. This competition remains simultaneously protectionist and internationalist as neither technopole can isolate from the global system while pressuring other actors to choose sides through incentives or coercion (Rolf and Schindler, 2023; Schindler et al., 2024). A form of unstable interdependence persists as antagonistic accumulation projects compete for greater universalism which explains why the rivalry intensifies even as integration deepens. Forms of confrontation are already evident. War-gaming operations in the South China Sea, semiconductor export restrictions, sanctions and

de-listing, coercion over undersea cable construction, competition over cloud infrastructures and rare-earth supply chains all demonstrate the presence of cumulative confrontations (Miller, 2022).

Yet major world-level confrontations are constrained by different contradictory (if not stabilising mechanisms) internal to the existing order. Nuclear deterrence imposes huge material limits on aggressive military escalation, while the consequences of a possible confrontation over hot-beds like Taiwan (disruptions of semiconductor supply chains, maritime trade, and financial markets) create counter-pressures. Furthermore, internationalist finance-capital fractions (despite gelling-in of techno-military nexuses), and polyaligned third states selectively appropriating techno-economic spheres, retain interests in preventing systemic disruptions. Crucially, finance-capital fractions are often inseparable from techno-military nexuses as similar coalitions benefit simultaneously from internationalisation and state imperatives/internal social embedding (Wijaya and Jayasuriya, 2024). It is largely valid that these constraints together mitigate against major escalations because of self-interested coalitions preserving global accumulation circuits, however such consensus are also fragile, potentially contradictory, and contingent.

The US-led liberal order confronted with China's developmental catch-up and internationalization struggles to consolidate a sufficiently universal bloc, persists increasingly with coercive mechanisms. Conversely, the emergent Chinese's internationalisation, lacking comparable coercive (read military) strength in the global system, tries to expand its BRI/DSR, through (strategically, marginally) consensual mechanisms, forced very much to lay low but still prepare for eventualities. Under such conditions, confrontations are diffused across layers of technological stacks, standard regimes, global supply chains, financial systems, and peripheral zones of strategic competition. The trajectory, irreducible to simplistic 'war v. peace' binaries, forms a tense, institutionally deteriorating coexistence shaped by political projects and interests of various dominant social forces navigating through its complexity. The impasse, the escalation-retaliation showdowns, palpitates with morbid signs of inherent conflictuality.

Conclusion

The US-China technonationalism in an inter-dependent world does not reduce its conflictual potential. Technonationalism operates in a global realm of competing hegemonic projects with protectionist and internationalist dimensions as contenders pursue self-sufficiency/de-risking and global network-centrality expansion. Interdependencies are contingent and strategically instrumentalized, as opposed to being moderating structural constants. Contrasting the optimism of liberal interdependence, neo-realist fatalism can obscure the complexity of inter-linked accumulation dynamics and their internal contradictions, predicting an inevitable fall-out. Perspectives like the state platform capitalism (SPC) and militarised neoliberalism highlight how indirect confrontations (evident in warm-gamey operations, dual-use AI military advances, stack fragmentation, and renewed infrastructural competition in the Global

South) are structurally embedded in the rivalry driven by competitive imperatives. Future trajectory is determined both by structural hegemonic imperatives as well as negotiated by contested political projects of various social forces dominant in the global political economy.

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