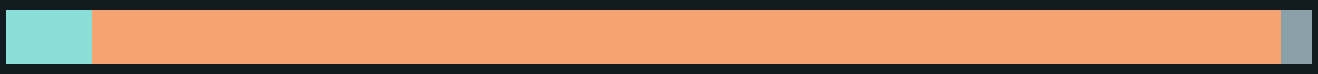
The Abundance Bill

$1.646Q

2050 annual subscription payments at full adoption

Q = quadrillion. Includes modeled public-funding contributions.

An economy still needs labor and consumers.
Increasingly, Delegates and Robots supply both.
Their operating bundles help fund a stable human life bill.



HUMANS 6.56% **DELEGATES 91.14%**

FULL RESEARCH REPORT / NOVEMBER 25, 2026

21 sections / financial model / fiscal mechanism / capacity / scenarios

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A full-adoption scenario for the subscription economy. All future rates and inventories are model inputs unless the source notes identify an external anchor. Gross billings, government receipts, GDP and profit are reconciled separately.

An economy needs labor and consumers. For most of history, humans supplied both. In the world I see forming, Delegates and Robots provide most of the labor and become most of the paying subscribers.

In 2050, the human's average monthly payment is still around $2,000. The Delegate's has gone up. The human receives a broad life bundle: housing, food, mobility, utilities, care, connectivity and personal intelligence. Productive Delegates have their own subscriptions. Their fees support the services they consume and an increasing share of the public obligations that once depended heavily on human wages.

My expanded Bundled Economy model reaches $1.646 quadrillion in annual subscription payments. Five hundred billion Delegates account for $1.5 quadrillion of that total. The human layer remains $108 trillion.

The economy still has workers and customers. Increasingly, they are Delegates and machines. This is the scale of my abundance forecast: production and paying demand can keep growing after human population levels off.

$108 trillion supports nine billion humans

The original calculation is straightforward: 4.5 billion paying humans × $2,000 per month × twelve months = $108 trillion annually. Another 4.5 billion humans pay nothing directly and still receive services. Across all nine billion served people, the revenue averages $1,000 monthly per person. It is the same funding total expressed across a different denominator.

The $2,000 buys much more than a connection or an AI tool. It funds an integrated life promise. The operator coordinates necessities and carries responsibility for delivery. The capitalist motive is greater wallet share: useful additions bring more of a person's spending into the bundle, supporting the capacity needed for the next addition.

Each human retains one permanent account from birth, with authority over their own personal system. Funding can come from elsewhere without transferring ownership of that identity. Four people sharing a residence remain four individuals. There is no household subscriber category.

I expect the average payment from a paying human to plateau around $2,000 as the bundle matures. After 2040, modest price deflation becomes possible. The company continues improving what that payment supplies as production and coordination become more efficient.

In my demographic scenario, humanity peaks near nine billion around 2056. There is current research behind that early-peak view: Jesús Fernández-Villaverde and Patrick Norrick's 2026 Terra Incognita examines rapidly declining fertility, and Fernández-Villaverde's Hoover presentation places the peak around 2056. The UN central projection is later, near 10.3B in the mid-2080s. I use the earlier nine-billion-human world here.

The economic point does not depend on the exact peak year. A plateau in human population need not become a plateau in productive workers or paying subscribers. The next expansion comes from the operating network surrounding those humans.

How the first useful bundle becomes the economic gateway

The entry offer matters because nobody adopts an economic theory. A person adopts a useful service. In the Starlink + Starlink Mobile + Grok route, the attraction is one coordinated connection and intelligence service that follows the individual through the day. The offer earns more spending when it solves a problem the person already has.

The next addition is evaluated against the whole relationship. A mobility allowance makes the connection useful beyond a screen. A workplace, somewhere to exercise and places to gather improve the day. Housing, food, maintenance and care move inside the promise when the operator has enough capacity and coordination to accept responsibility for them. At every step, the commercial question is whether the addition wins and retains more of the person's wallet at a sustainable cost.

That change reaches suppliers. A vehicle, apartment, kitchen or clinic that once sold directly to a consumer can become productive capacity purchased by a Bundler. Its operator wants utilization, predictable demand, reliable maintenance and payment. The Bundler wants a dependable input to the larger human service. A recurring operating subscription can join those interests.

The same process reaches digital workers. A company initially buys a model or a Delegate tool. Later it wants a Delegate that remembers its role, has the right permissions, can use its tools, completes work and can be supported when something fails. It pays for a continuing operating promise. The subscribed unit is the worker relationship, rather than a particular model release.

This is why a lower token price does not settle the future subscription price. The price buys a dependable scope of service. More capability can be included as underlying costs fall. The operator can retain margin, improve performance and take on obligations that were too expensive to include before. Public contributions then become another claim on the productive relationship.

Starlink's present network development provides a starting point, rather than proof that this entire bundle already exists. Qualcomm's November 4, 2026 announcement describes a terrestrial Starlink Mobile deployment planned to begin in 2027. The integrated life offer developed here is the forecast that follows from useful integration, greater wallet share and responsibility for delivery.

Non-physical AI and Physical AI

The formal classifications in this future are **Non-physical AI** and **Physical AI**. In everyday language, they become **Delegates** and **Robots**. The naming takes time. Today's sources still discuss agents, vehicles, vessels and satellites; the early inventory below keeps those familiar categories so the source trail remains readable.

As the convention settles, a car is understood as a robot with wheels. A ship is a maritime robot, an aircraft an aerial robot, and an autonomous satellite an orbital robot. They are forms of Physical AI. Their prices remain different because their operating promises are different.

The mature table therefore lists Delegates first among the AI categories, followed immediately by Robots. Companies and institutions remain legal service customers. Nonresidential sites remain infrastructure-service nodes unless the service scope itself is an autonomous physical system. A passive building or a tracked object does not become a robot merely because it has an account.

The original 4B-robot premise covered the embodied workers and drones in that row. Rolling the separately listed road, heavy, aircraft, ship and orbital systems into the same Robot classification brings the 2050 Physical AI total to 6.49123B paying nodes. This is a reclassification of the existing inputs, counted once; it leaves the annual total unchanged.

The first expansion: $137.919T

All amounts are US dollars. The nonhuman monthly rates below are my starting forecast assumptions for separately purchased services. The human funding model retains 4.5 billion payers at $2,000 monthly; the nonhuman counts use the supplied 2030 planning scenario.

Subscriber layer	Paying subscriptions	Monthly rate	Annual revenue	Revenue slice
01 Humans	4.5B	$2,000	$108.000T	78.31%
02 Autonomous AI software agents (later Delegates)	2.5B	$100	$3.000T	2.18%
03 Road vehicles	1.95B	$300	$7.020T	5.09%
04 Commercial, industrial and grid nodes	560M	$1,000	$6.720T	4.87%
05 Embodied robots and drones (early subgroup)	250M	$100	$300B	0.22%
06 Corporate and institutional entities	210M	$5,000	$12.600T	9.14%
07 Heavy agriculture, mining and construction	55M	$250	$165B	0.12%
08 Aircraft	600,000	$10,000	$72B	0.05%
09 Commercial ships	130,000	$25,000	$39B	0.03%
10 Satellites and orbital assets	50,000	$5,000	$3B	0.002%
Expanded total	10.0258B	Varies by layer	$137.919T	100.00%

Each row = paying subscriptions × monthly rate × 12. B = billion; M = million; T = trillion. Human services reach 9B people, funded by 4.5B payers. Nonhuman rows assume every modeled node pays. Rounded slices can differ slightly from 100%. This is full-adoption revenue capacity, not a forecast of revenue already captured by 2030.

The rates follow the promise

The starting table expands the $108T human benchmark by $29.919T, reaching $137.919T annually. Corporate entities pay a modeled $5,000 per month for organization-wide intelligence, administration, permissions and operational coordination. Large enterprises pay far more; small firms pay less. At 210M entities, that layer produces $12.6T.

Nonresidential sites pay a modeled $1,000 monthly for connectivity, monitoring, intelligence and coordination. A separately provisioned office, factory or battery site buys its own operating service. Its entire rent, raw-material bill and energy consumption are outside this particular fee. At 560M sites, the layer produces $6.72T.

The vehicle rate has a useful commercial anchor. Tesla's recent Cybercab invitation was reported at $299 monthly, with the vehicle purchased separately. Its November 12, 2026 autonomy agreement includes autonomous operation, connectivity, remote support, roadside assistance and specified services; insurance and charging remain owner expenses. I round the reference to a future $300 blended vehicle subscription. Across 1.95B road vehicles, that produces $7.02T annually. Ordinary cars, robotaxis and heavy road fleets will buy different packages.

A persistent software Delegate initially pays $100 monthly for inference, memory, tools, identity, execution and support. A robot or drone also pays a modeled $100 for its narrower operating service. Heavy off-road machines and individually provisioned containers average $250. Aircraft, ships and orbital customers pay premium rates for demanding managed services, though their small fleets give them modest slices of the total.

A corporate account, its separately billed Delegates and its separately billed facilities can coexist because they purchase distinct scopes. Included services must be allocated once. The table adds actual modeled payments, rather than turning every technical identifier into another invoice.

What makes a $250 Delegate subscription worth paying?

Begin with one Delegate before multiplying it by five hundred billion. Its subscription requires $3,000 a year. Someone must obtain enough value from its work to keep that budget funded. A role that cannot justify its operating cost is merged, redesigned, paused or retired. A large Delegate population therefore requires a very large population of useful, funded work mandates.

Consider an illustrative Delegate contracted to deliver $600 of accepted work in a month. Its operator pays $250 for the Delegate's bundle, leaving $350 before the operator's other costs, financing and return on capital. The work can involve design, software, scheduling, analysis, procurement or maintaining a complex operating system. The $600 is an example of a work contract, rather than an assumed wage for every Delegate in the model.

The subscription provider allocates the $250 differently. In the base case, $100 supports the public contribution and $150 supports the service. An illustrative service budget could devote $60 to models and computing capacity, $25 to memory and execution, $20 to tools and licensed data, $20 to support, recovery and operating risk, and $25 to reserves, reinvestment and operating margin. These are forecast budget allocations, not measured industry costs.

The example makes the commercial bargain visible. The buyer receives accepted work worth funding. The provider has to deliver the service within its available revenue. The government receives the public contribution. Capital remains necessary because equipment, software, research and service commitments must be financed before their returns arrive.

The $25 residual is not a net-profit forecast. Depending on the contract, further obligations can include depreciation, financing, insurance, legal responsibility, development, public agreements and losses on failed work. The provider must price the entire promise and reserve for what can go wrong.

Nor does every Delegate need the same package. A light delegate can share infrastructure and work intermittently. A research Delegate can consume far more inference and specialized tools. An industrial planning Delegate can require expensive reliability, data rights and support. The $150 service component is an average across a future mix of workloads, just as the $2,000 human funding average spans very different lives.

A permanent role also differs from permanent computation. Current AWS AgentCore pricing already distinguishes active CPU and memory use from waiting time; its runtime can reduce CPU usage during waits and reclaim idle memory. That is a useful architectural reference. A future subscribed agent can retain a role and memory without reserving a full accelerator every second. Efficient scheduling and shared infrastructure are central to making the population affordable.

The market expands when useful output per subscribed worker rises faster than the full cost of keeping that worker active. Counting workers alone is insufficient. Renewal, funded budgets and accepted results establish whether the operating relationship deserves to persist.

Five hundred billion Delegates have their own subscriptions

IDC’s October 2026 research forecasts 2.5B agents by 2030. My 2050 scenario extends the operating pattern to 500B persistent, funded Delegates and 4B other embodied Robots and drones, before rolling in road, maritime, aerial and orbital systems. These are my long-horizon premises. Each Delegate has its own operating account, permissions, budget and subscription, serving a durable work mandate.

A business uses Delegates for planning, design, production, logistics, maintenance, customer service and administration. Humans use personal delegates. Machines coordinate with other machines. An operating entity can support many specialized workers, and each useful worker consumes services. Capital can fund its budget; productive work replenishes the resources that sustain it.

Five hundred billion does not mean five hundred billion new human wallets. It means a vast population of productive service relationships. A temporary model call or a disposable subtask is not a separately subscribed worker.

The average Delegate's monthly payment rises to a modeled $250 by 2050. I allocate $150 to its service package and $100 to public funding. The service becomes more capable: more work, tools, coordination, reliability and operating responsibility. The public component grows as governments move more of the tax and welfare burden toward productive AI activity.

Cheaper inference can coexist with a higher subscription. The Delegate does more, receives a broader operating promise, and carries public obligations. Its price no longer follows only the cost of generating tokens.

At 500B Delegates, the $250 payment yields $1.5 quadrillion annually. Delegates become the dominant subscriber layer.

Who funds the Delegates, and where does demand come from?

The first Delegate budget is funded by an existing actor: a business, a person, an investor, an institution or a public program. It exists because that actor expects useful work. Once the Delegate helps produce something that another party purchases, the proceeds can replenish its budget. Retained earnings and new investment finance further Delegates and physical capacity.

Imagine a network upgrading a coastal district's water system. Planning Delegates evaluate demand and operating history. Engineering Delegates design components. Procurement Delegates arrange production and delivery. Robots make, install and maintain equipment. Monitoring Delegates keep the system working after the construction project ends. Their subscriptions are costs of supplying a real service that people and operating businesses use.

The expansion does not require another household to be invented. Better infrastructure can serve the same people with more reliability. New productive facilities can consume water and energy while supplying the next layer of capacity. Scientific work, environmental restoration, more dependable care and improved materials provide further reasons to commission productive labor.

Delegate-to-Delegate spending is economically meaningful when it purchases useful inputs or productive assets. A Delegate ordering computing capacity, a manufactured component or a maintenance service creates demand for those suppliers. The supplier's own Delegates and robots then buy the bundles needed to fulfill their commitments. More specialization creates more operating relationships.

There is a limit to what circular invoices can establish. If two Delegates pay one another for work that nobody uses and no asset improves, the payments do not demonstrate a sustainable market. Debt and venture funding can finance development; continued operation requires output, credible asset value or a deliberately funded public purpose. The model's large receipts must ultimately be supported by useful production and financing arrangements that can persist.

The 4.5B human payers in the original benchmark are a funding role, rather than a count of human jobs. They can receive income from work, businesses, productive ownership and other arrangements. As Delegates perform more work, the sources of human income and public support change. The human funding identity remains separate from the workforce composition.

Delegates becoming consumers does not mean they start wanting a human's home, meals or medical care. Their consumption is an operating bundle and the productive inputs behind it. The subscription model turns that demand into a recurring commercial relationship. Its expansion can sustain suppliers and investment after the number of human customers plateaus.

The human experience remains the reason the life bundle matters. The productive system can become a much larger direct buyer while remaining accountable for outcomes that humans value. That is the commercial bridge from a finite biological population to an expanding economy of operating subscribers.

Humanity can peak. The economy can keep growing.

A productive Delegate earns or receives a budget for useful work. It buys a bundle that supplies intelligence, memory, tools, connectivity, execution, support and permission to operate. A robot buys the operating services required to perform physical work. Their recurring purchases create demand for energy, computing, equipment, facilities, maintenance and other Delegates.

The same system contains both sides of the economic exchange. A Delegate is labor when it designs a component, negotiates a supply arrangement or operates a workflow. It is a customer when it purchases the services that let it do that work. A robotic factory supplies machines to an expanding population of productive subscribers; those machines themselves need continuing service.

Capital finances useful capacity. Work and sales fund its continued operation. Retained earnings support expansion. More productive subscribers buy more operating bundles, and the resulting demand supports further production. Each new subscription needs funded work and delivered service behind it.

The demand is different from a human's, but it is demand. Delegates consume computing, tools, communication, security, space and operating support. Their bundle is narrower than a human life bundle. Hundreds of billions of such purchases still create an enormous market.

Now move from 500B Delegates to one trillion while holding the Delegate payment at $250 monthly and every other layer fixed. Delegate subscriptions reach $3Q annually. Total subscription payments reach $3.145878Q. The public component at $100 per Delegate supplies $1.2Q inside that total. Human subscriptions remain $108T.

The human population does not have to double for the productive workforce and its paying demand to double. One trillion is another scale test, rather than a dated forecast; it shows why nine billion humans need not set the ceiling on this economy.

Five hundred billion Delegates still need power and capital

Delegate identities do not consume a fixed amount of electricity. Workload, model choice, hardware, memory, networking, duty cycle and supporting infrastructure determine consumption. The useful scaling question is average power allocated to each subscribed role over the whole year, including its share of overhead.

The following tests are engineering sensitivities, not measured wattages for today's Delegates. They hold the Delegate population at 500B and use 8,760 hours in a year. Average allocated watts × Delegate count gives average power; multiplying by the hours converts that power into annual energy.

Average power per role	Fleet average power	Annual electricity
0.1 watt	50 GW	438 TWh
0.5 watt	250 GW	2,190 TWh
1 watt	500 GW	4,380 TWh
5 watts	2,500 GW	21,900 TWh

These figures cover the assumed Delegate allocation only. Robot motion, manufacturing, transport and other productive loads require additional energy unless already included in that allocation.

For a near-term research reference, the IEA's November 2026 World Energy Outlook projects data-centre electricity use reaching about 1,000 TWh in 2030 under its Stated Policies Scenario. The one-watt test is more than four times that 2030 data-centre benchmark. Reaching the long-horizon Delegate population therefore involves both efficiency gains and a major physical buildout.

The capacity cannot be judged only by annual terawatt-hours. It needs sites with dependable power, transmission, connection rights, cooling, equipment and resilience. Generation capacity in one place cannot support a data centre somewhere else without the network between them. A cheap annual electricity contract does not guarantee supply during a local peak.

The IEA also reports global data-centre capacity of about 120 GW today and another 120 GW added by 2030 in its stated-policy case. These are capacity measures, distinct from average utilization and annual energy. Its discussion of grid queues and equipment constraints shows why a Delegate subscription must help finance delivery capacity, rather than merely promise access to software.

The robot layer creates another industrial requirement. Moving from the supplied 250M-robot scenario in 2030 to 4B in 2050 requires roughly 14.9% annual net stock growth. The increase averages 187.5M additional robots per year over those twenty years, before replacements for retired units. Components, factories, installation, repair and training all have to grow with that stock.

Bundlers can support the buildout through predictable recurring demand, advance commitments and capital investment. Durable equipment and reliable maintenance protect subscription margin. Better utilization reduces the amount of redundant capacity needed. Physical constraints influence the pace and geography of abundance; they also create some of the strongest incentives to integrate production and service.

When government needs more money, the Delegate fee goes up

This is the mechanism I expect: governments raise the required public-funding contribution embedded in AI-Delegate subscriptions. Bundlers collect the higher payment and meet the corresponding public obligation. The state reaches the productive system through a recurring, verifiable service relationship.

A country needs additional funding for care, infrastructure or support for people whose wages no longer finance a dependable life. It raises the required Delegate contribution. The operator's Delegate subscription rises with it. The human's average life payment can remain near $2,000.

The contribution attaches to productive activity and its operating permission in a jurisdiction. A Delegate's service record identifies the mandate, responsible operator, funding arrangement and obligations. Governments negotiate with Bundlers over access to markets and infrastructure, contributions and the services those agreements support. The burden shifts through the Delegate's account and the productive enterprise behind it.

The pricing can vary by productive capacity, service class and jurisdiction. The table uses a global average. That permits a small delegate and a high-value industrial Delegate to face different actual fees without pretending every prompt has the same economic value.

Consider the scale. With 500B paying Delegates, each additional $1 of average monthly contribution provides $6T annually. An additional $10 provides $60T. A $100 public component provides $600T.

That $600T is already inside the $1.5Q Delegate row and the $1.646Q total. It is the public use of part of the subscription receipts. It is not added again as another market.

Taxation does not manufacture food, a home or an hour of care. Productive Delegates and robots must create enough useful output to sustain their fees. The fiscal mechanism gives governments a way to direct a share of that productive capacity toward human services.

The underlying pressure is visible today: the IMF has warned that AI can weaken labor-income tax bases while increasing the need for social protection. The particular collection mechanism here - raising the Delegate subscription's public component - is my forecast of how the Bundled Economy responds.

The Delegate contribution is a powerful lever with real incidence

The $100 public component in the base model is 40% of the Delegate's $250 subscription invoice. It is not an assumed 40% tax on all Delegate income, profit or value added. Those are different bases. This model estimates a recurring contribution embedded in the service relationship and collected through the operator supplying it.

The global $600T public flow is correspondingly large. For scale, an average contribution of $18 per Delegate per month would raise $108T annually at 500B Delegates: the size of the entire original human funding benchmark. That comparison explains how much public responsibility can shift to the Delegate economy without requiring every human's bill to rise.

It does not mean the state must collect the entire $600T or spend it all on human subscriptions. The actual contribution can fund infrastructure, care, public services, welfare, productive capacity and other public commitments. A government's choice of fee and spending mix belongs to its public agreement with the operating networks and its political accountability.

Collection needs a dependable basis. An economic Delegate has a funded mandate, an operating identity, an accountable provider and a record of productive activity. Those records identify which arrangement carries the obligation and where it arises. They can survive changes in the underlying model without treating every version upgrade as a new taxpayer.

A contribution based only on arbitrary software IDs invites consolidation and renaming. An operator can combine many functions inside one nominal Delegate or split one function into thousands of accounts. My forecast therefore requires contribution classes tied to funded productive capacity, activity and operating scope. The published Delegate count remains the number of independently subscribed worker relationships within that system.

Governments will also compete. Productive networks can locate computing and organization across borders, while the people and infrastructure they serve remain in particular places. A public agreement has to make operating access, market access, service obligations and contribution responsibilities sufficiently legible to collect revenue. Cross-border coordination becomes a fiscal capability.

The burden ultimately reaches an economic actor. It can reduce an owner's return, raise a customer's price, change a supplier contract or be offset by greater productivity. Calling the account an AI Delegate does not make its public contribution costless. The optimistic mechanism is that productive capacity grows enough to carry more of the public bill while keeping the human life offer affordable.

A government can raise a required contribution when it needs revenue. Collection rises sustainably when the productive base can bear the change. Operators respond by improving output, changing service scopes, retiring weak mandates or negotiating different arrangements. The count of paid Delegates and their price are related economic variables.

This is why I put the public component on the subscription ledger. The reader can see who is charged, how the money moves and what a change in the required fee does to the total. It gives public finance an operating mechanism inside the Bundled Economy.

$1.646 quadrillion per year

The same $108T human funding benchmark now sits beside $1.537878Q in nonhuman subscriptions. Delegates pay $250 monthly; other categories retain their earlier modeled rates.

Subscriber class	Paying subscriptions	Monthly payment	Annual payments	2050 slice
Humans	4.5B	$2,000	$108.000T	6.56%
Delegates / Non-physical AI	500B	$250	$1.500Q	91.14%
Robots / Physical AI	6.49123B	Varies by type	$13.878T	0.84%
Corporate and institutional entities	250M	$5,000	$15.000T	0.91%
Commercial, industrial and grid sites	750M	$1,000	$9.000T	0.55%
2050 total	511.991B	Varies by scope	$1.645878Q	100.00%

Inside the Robot category

Robot subtype	Count	Monthly rate	Annual payments
Road robots / vehicles	2.4B	$300	$8.640T
Other embodied workers and drones	4B	$100	$4.800T
Heavy machines and autonomous cargo systems	90M	$250	$270B
Aerial robots / aircraft	850,000	$10,000	$102B
Maritime robots / ships	180,000	$25,000	$54B
Orbital robots / satellites	200,000	$5,000	$12B
Physical AI total	6.49123B	$178.16	$13.878T

Subtypes are contained within the Robot row above and are not added again. The heavy/cargo scope assumes autonomous physical operating systems in the mature scenario. Earlier counts describe addressable stock, not proof that today's entire fleet is autonomous. The blended $178.16 rate follows the mix of subtypes; it is not one universal robot tariff.

Full adoption at the stated prices, in nominal US dollars. The human row funds 9B served people through 4.5B paying humans. Delegate receipts include a modeled $100 monthly public component. Other 2050 counts are explicit planning inputs: 2.4B road vehicles, 750M sites, 250M entities, 90M heavy assets/containers, 850, 000 aircraft, 180, 000 ships and 200, 000 orbital-service customers. Q= quadrillion; T= trillion; B= billion. Rounded slices may not sum exactly.

One useful service can appear in several gross payments

Suppose a human pays a Bundler $2,000. To supply that life promise, the Bundler pays a vehicle-service provider, a Delegate operator and a care organization. Each supplier can record revenue for the service it supplies. The human's payment and the suppliers' receipts are real transactions, but adding them does not reveal the economy's value added.

The same distinction applies when a Delegate buys its operating bundle. Its fee can pay for tools, computing, support and a public contribution. Those recipients can make further purchases. The report follows a defined set of subscription receipts across layers, rather than all transactions made with the same money.

For an integrated corporate group, transfers between its own divisions disappear on consolidation. A Bundler cannot create external revenue by charging an internal Delegate an internal price and adding that allocation to the human invoice. If an independently billed service is already included in another package, its receipts must be allocated across the service scopes once.

The Bureau of Economic Analysis distinguishes gross output from value added in exactly the accounting sense needed here: value added removes intermediate inputs from output, and economy-wide value added sums to GDP. Its framework supplies the accounting boundary. It does not supply this report's future revenue estimate.

The $1.645878Q base case is gross subscription billings across the specified human and nonhuman layers, including $600T of explicit Delegate public funding. Remove that component and $1.045878Q remains in other billings before costs and other obligations. That remainder is still not profit or GDP. The future system needs a separate value-added account to estimate either its contribution to national output or the tax base available from profits and income.

This distinction strengthens the production-and-consumption argument. Delegates can increase GDP by producing useful final services, capital goods and improvements, or by making the same output with fewer inputs. Their purchase of an input is also an economically meaningful transaction. The two measures answer different questions and should be maintained together.

Public support for a human bundle must also be reconciled. If Delegate-funded government receipts finance an existing human subscription, the funding source changes. The individual remains one customer. The subscription cannot be counted a second time because the public treasury helped fund it.

Delegates supply 91.14% of the receipts

All other subscribers together supply 2.30%. The Delegate public-funding allocation is contained within the Delegate slice.

Human subscriptions still produce $108T. The mature Robot class contributes $13.878T, corporate entities $15T and sites $9T. Those are substantial service markets; the Delegate layer changes the scale of the denominator.

The first expansion follows humans, organizations and productive assets onto the network. The next expansion follows the work itself. A finite human population can commission vastly more than one digital worker per person, while industrial production supports a growing physical workforce.

The $1.6Q total is driven overwhelmingly by the Delegate layer's combination of volume and a rising monthly payment. The human payment does not have to keep rising to finance an expanding subscription economy.

Raise the Delegate contribution

Hold 500B Delegates and every other subscriber count fixed. Keep the Delegate's service component at $150 monthly. Change its public-funding component; the human payment remains $2,000.

$900T Delegate payments + $145.878T from all other layers. This test sets the explicit Delegate public contribution to zero.

$1.5Q Delegate payments + $145.878T from all other layers. $600T of the Delegate receipts supplies the modeled public contribution.

$2.1Q Delegate payments + $145.878T from all other layers. $1.2Q of the Delegate receipts supplies the modeled public contribution.

Every additional $1 of average monthly Delegate contribution produces $6T annually at 500B paid subscriptions. These are arithmetic scenarios, not measured tax rates or spending commitments.

Paid work, adoption and retention determine the realized market

The headline assumes the modeled population consists of paid, independently served nodes. A registered Delegate that has no budget or ongoing work is outside that paying population. So is a temporary task whose service is already funded inside a parent subscription. The relevant observation is a paid subscriber-month, with a defined scope and a continuing reason to renew.

Realized annual Delegate billings equal reachable Delegate count × adoption × paid-service share × average monthly payment × twelve. The table sets those realization factors to full adoption to expose the scale of the future market. An operating forecast must measure them rather than assume they are all one.

For example, if only half of the 500B-Delegate scenario purchases the independently priced $250 bundle, Delegate billings become $750T. Hold the other 2050 layers fixed at $145.878T, and the total is $895.878T. At a quarter paid share, the corresponding total is $520.878T. The public component falls with the paid Delegate base in these tests.

Price can vary as much as penetration. A more efficient, narrower package can command a smaller fee; a high-responsibility operating package can command more. The count-price matrix below changes the whole average Delegate fee. It therefore represents alternative service and fiscal mixes, separate from the earlier control that changes only the public component.

Corporate and physical categories deserve the same discipline. A legal entity is not automatically a paying operational customer. A dormant shell can have no service demand. One industrial campus can contain several separately provisioned sites, while a small business can share a location. The forecast needs service records and scoped contracts to establish the addressable unit.

Vehicles are also heterogeneous. The $300 blended fee assumes widespread useful operating services beyond basic connectivity. Applying it to every road vehicle is a market-capacity case. Fleets that need only tracking, owners who keep manual vehicles and vehicles with an included service affect the paid fraction and the average.

Ships and aircraft show the reverse effect. A small number of demanding customers can pay premium rates, but that does not make them the largest aggregate market. Their importance can instead lie in reliability, strategic routes and the infrastructure they help support.

The annual total is therefore a function of delivered promises and retained budgets. The largest uncertainty is not the final decimal place in the fleet count. It is how much productive work supports an independent subscription and what that subscription can charge while remaining useful.

A better life within a stable bill

This is the connection I see between the Bundled Economy and the optimistic economic vision called abundance. Productive intelligence becomes plentiful. Physical automation turns more of that intelligence into goods and services. A recurring contribution from the productive system helps finance access to the resulting capacity.

A child receives services without needing an income. A person whose paid work disappears retains a permanent account and a funded path to care, housing and daily necessities. A working human’s subscription need not absorb every increase in the public budget. The Delegate population becomes a growing source of funding alongside the people who still generate income.

The state can use Delegate contributions for infrastructure, welfare, public services and support arrangements around individual human subscriptions. A contribution toward someone’s existing bundle changes its funding source; it does not create a second person or a second subscription. The human funding benchmark and public transfers must be reconciled on the same ledger.

Abundance becomes real when a person can obtain a useful home, good food, dependable mobility and care when needed. Robots must build and maintain. Energy must reach the machinery. Clinicians, equipment and supply networks must support care. A larger financial flow supports those commitments only when productive capacity can fulfill them.

The human payment can even decline. In an illustrative 0.5% annual deflation case for ten years after 2040, $2,000 becomes about $1,902 monthly by 2050. Human receipts decline to $102.72T. With all other assumptions unchanged, total subscription payments are still about $1.641Q annually.

Neither the human price nor the number of humans sets the outer limit of this economy. The productive network keeps growing, and its public contribution carries more of the cost of making a good life broadly available.

The economy still needs *labor and consumers*. Increasingly, Delegates and robots supply both - while the *human life bill holds near $2,000*.

Subscriber count and price change the scale

Paid Delegate roles	$100/month	$250/month	$400/month
100 billion	$0.266Q	$0.446Q	$0.626Q
500 billion	$0.746Q	$1.646Q	$2.546Q
1 trillion	$1.346Q	$3.146Q	$4.946Q

Every cell includes the same $145.878T from humans and other non-Delegate layers. Whole Delegate-fee alternatives can imply different service scopes and public contributions; they do not preserve the base case's $150/$100 allocation.

At 500B roles and the central $250 price, Delegates supply 91.14% of total receipts. At 100B roles and $100 monthly, their $120T is a much smaller part of the $265.878T combined case. The Delegate workforce still expands the market, but the quadrillion-dollar result specifically requires the scale and average payment shown in the central forecast.

What has to happen between the first bundle and abundance?

The first stage is operational credibility. Personal and business Delegates need dependable memory, controlled authority, usable tools and recovery when something fails. The important milestone is completed work that a customer accepts and pays to continue. The interface can be impressive while the underlying operating service remains incomplete.

The next stage is an account and settlement system that can distinguish human authority, an organization's obligations and a worker's mandate. A person can change providers while retaining the same permanent identity. A Delegate's permissions and funding can be reassigned or ended without erasing that human. Corporate information remains governed by its owner.

Physical service then has to become dependable at scale. Vehicle availability, delivery, repairs, housing and care need real capacity. The operator's revenue gives it a reason to secure that capacity and reduce preventable failure. A subscription that handles the invoice but leaves the human coordinating every supplier has not delivered the forecast's useful integration.

Public agreements emerge as the operating networks become consequential to a place. Governments need services, infrastructure and contributions. Bundlers need access and dependable obligations. The Delegate subscription becomes a collection point because it joins a productive mandate to an accountable operating network.

The 2030 source anchor and the 2050 agent premise are far apart. Moving from 2.5B agents to 500B over twenty years requires about 30.3% annual net growth in paid worker relationships. That rate describes an industrial and commercial expansion, not merely an increase in model calls. It needs continuous creation of useful mandates, delivery capacity and budgets.

The optimistic outcome is that capability and coordination make that expansion worthwhile. More Delegates do more useful work; more robots turn plans into physical service; public contributions support the society receiving the benefit. Human population can peak while productive labor, input consumption and investment keep expanding.

I would monitor funded Delegate roles, retained billings, accepted output, service cost per outcome, installed physical capacity, public collections and actual human access to necessities. A growing inventory of IDs accompanied by weak renewals would indicate a very different economy. So would higher public fees without a growing productive base, or large billings alongside persistent shortages of the services promised to humans.

The numerical model is a way to make the forecast inspectable. Its strongest claim is the change in the unit of economic expansion: the additional worker and customer increasingly arrives as a subscribed Delegate or machine. Its practical test is whether that larger system produces and funds a better life.

Keep the totals on one ledger

Annual payments, public funding and GDP

The headline measures gross subscription billings, including the explicit public-funding component of Delegate fees. In the 2050 base case, $600T of the $1.645878Q total is earmarked for public funding through the Delegate layer. Removing that allocation leaves $1.045878Q in other billed amounts, before operating costs and any other public obligations.

The $600T is a subset of receipts, rather than an extra revenue row. Depending on the eventual legal and accounting arrangements, tax collected for government can be excluded from a provider's recognized

revenue. The model's billings measure makes the payment flow explicit without treating public transfers as profit.

Subscription receipts are not GDP. Delegate activity can expand real output, but GDP measures value added; these gross flows can include transactions between suppliers and Bundlers. Consolidated accounts eliminate internal transactions. The model does not claim $1.646Q of incremental GDP, net provider revenue or profit.

Human benchmark and the 2030 node map

The supplied 2030 rows sum to 14.02578B addressable nodes, including 8.5B humans. The human share is 60.60%. The earlier $137.919T expansion preserves the mature 9B-human/$108T funding benchmark and adds the nonhuman rows, producing 14.52578B served nodes.

Using 8.5B humans instead and keeping half as payers gives 4.25B×$2,000×12=$102T human revenue. Add $29.919T from the early nonhuman scenario and that version totals $131.919T. The 2050 case retains the 9B-human benchmark to make the growth of Delegate and machine subscriptions clear.

The UN's 8.2B population reference belongs to 2024, rather than a measured 2026 baseline. The supplied 2026 reference rows total 10.731-10.831B, implying roughly 75.7-76.4% humans, rather than 77.5%. Those reference-column corrections do not alter the subscription calculations.

Counts, definitions and physical capacity

IDC directly anchors the earlier 2.5B-agent forecast for 2030. The 2050 premises of 500B agents and 4B robots are the author's extension. Other 2050 stocks and monthly rates are planning estimates. The earlier 560M-site,210M-entity and 250M-robot counts also remain scenario inputs; no compatible global registries were established for the first two.

IFR reports 5.079M industrial robots in operation in 2025 and 250,000 professional service-robot sales within its sample. These do not establish a 250M installed robot fleet. Moving from the scenario's 250M physical robots in 2030 to 4B in 2050 requires about 14.9% annual net stock growth. Software Delegates require computing capacity, power, memory, useful work and funding; they are not resource free.

Road robotaxis belong in road vehicles. Drones belong in robots and are excluded from the aircraft row. Heavy off-road equipment and individually provisioned containers belong in the heavy layer. Embedded controllers are not independently subscribed Delegates. A nonresidential site is provisioned once; a corporate seat buys a separate legal-entity service. Owned relay satellites are capacity rather than external subscription customers.

OICA supplies historical road-fleet stock context. IEA's 250M electric-vehicle projection for 2030 in its 2025 outlook excludes two- and three-wheelers and is a subset of the road fleet. UNCTAD counted about 112,500 merchant vessels of 100 GT or more at the start of 2025. The broader future fleet counts are this report's estimates. Two- and three-wheelers, individual sensors, pets and leisure boats are outside this ten-layer scope.

The price and public-contribution assumptions

The starting blended prices are $2,000 per paying human, $100 per Delegate, $300 per vehicle, $1,000 per site, $100 per robot, $5,000 per corporate entity, $250 per heavy asset, $10,000 per aircraft, $25,000 per ship and $5,000 per orbital-service customer, all monthly. Human payers fund service for the entire 9B-human benchmark.

The 2050 Delegate payment rises to $250: an illustrative $150 service package plus $100 public-funding contribution. That allocation models the author's fiscal mechanism; it is not a quoted tariff or existing worldwide tax. Other prices remain flat in nominal dollars. Every node is assumed to pay for a distinct scope. Realized receipts additionally depend on reach, adoption, funded workloads and collection.

Sources and further reading

The Bundled Economy: How the Fight for Your Wallet Reorganizes the World - the human funding model and causal foundation.

UN DESA: Future in Focus - population reference years. World Population Prospects - demographic datasets.

IDC: AI Is Short of Capacity, Not Demand, October 22, 2026 - agent-count forecast and infrastructure constraints.

Tesla: Cybercab Autonomy Subscription Agreement, version 20261112 - service scope. Not a Tesla App, November 14, 2026 - invitation price reporting; the official announcement is linked there.

OICA: Total World Vehicles in Use, 2020 - historical road-fleet stock. IEA: 2025 electric-mobility outlook and 2026 executive summary - electric-fleet scope and updated context.

IFR: President's Report by Jane Heffner, 2026 - industrial stock and professional service-robot sales.

UNCTAD: Review of Maritime Transport 2025 - merchant-fleet count and definition.

Qualcomm: SpaceX Selects Qualcomm to Accelerate Starlink Mobile's Nationwide 5G Network, November 4, 2026 - terrestrial rollout planned to begin in 2027. The integrated Starlink + Mobile + Grok operating offer is the forecast's entry model.

IMF: The World Can't Afford to Get AI Wrong, October 15, 2026 - fiscal pressure as AI changes labor income and the tax base. IMF: Fiscal Policy Can Help Broaden the Gains of AI to Humanity, June 17, 2024 - social protection and capital taxation. The agent-subscription collection mechanism developed here is my forecast; the IMF's 2024 analysis advises against a specific robot tax.

Fernández-Villaverde and Norrick: Terra Incognita: The Economics of a Shrinking World, NBER Working Paper 35809, September 2026; Hoover Institution author presentation, October 2026 - early population-peak scenario. UN population projection - central-scenario comparison.

AWS: Amazon Bedrock AgentCore Pricing - current resource-metering architecture and waiting-time treatment, checked November 25, 2026. It does not establish the report's future $150 service price.

IEA: World Energy Outlook 2026, Overview and key findings and full report, chapter 1 - latest 2030 data-centre energy/capacity reference and grid constraints.

BEA: Gross output and GDP by industry - accounting distinction between receipts, intermediate inputs and value added.

Research checked November 25, 2026. All nonhuman monthly averages, the $150/$100 agent-fee allocation and 2050 stocks are explicit forecast inputs. 500B agents and 4B robots are the author's 2050 premises. Earlier node counts combine source anchors and the commissioned planning scenario; precision represents arithmetic, not certainty about adoption.