

Market Research & Launch Brief

Capacity demand, directional market sizing, portfolio strategy, and launch gates

REV A - JULY 26, 2026 - U.S. MARKET

A better home for every device.

Institutional charging furniture for schools, higher education, healthcare IT, libraries, and shared fleets. Warm architectural surfaces meet secure, mobile, serviceable device organization.

NAME SCREENED	PRE-PRODUCTION PRODUCT	SAFETY-GATED
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AlderGrid passed an initial exact-name federal trademark and .com registry screen; formal common-law clearance remains required. Product images are concept renderings. Exact capacity and construction are controlled by the Rev A technical specification. No third-party certification is claimed.

Executive recommendation

Launch AlderGrid around the Class 30, Class 32, and Class 36. Across eight established institutional charging-cart catalogs, 36 bays appeared in all eight, 32 bays in seven, and 30 bays in six. The 30-bay size also carries a direct retailer best-seller signal. Build and validate these three first, then extend the shared platform to seven coverage models from 12 to 48 bays.

10	30 / 32 / 36	\$56.3M
coordinated launch models	priority prototype capacities	base annual U.S. addressable spend

Commercial interpretation

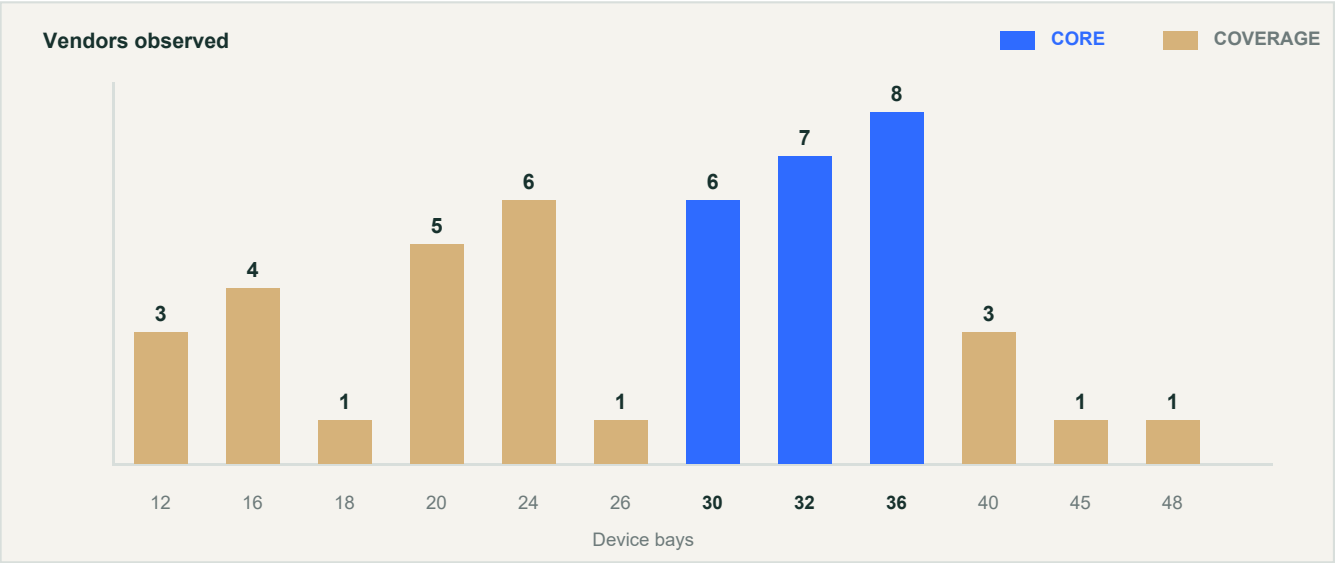
K-12 is the strongest first wedge because the addressable site base is large, one-to-one device programs are common, and the core 30-36 device capacities align with classroom cohorts. Higher education and healthcare IT are credible second waves, but their utilization, cleaning, and procurement requirements should be tested before inventory commitments.

What the evidence can and cannot prove

The capacity study measures catalog prevalence and channel language; it is not verified unit sales. The market model combines sourced site counts with editable assumptions. Use it to prioritize pilots, customer interviews, and certification spending - not as a bankable revenue forecast.

The center of demand is 30-36 devices

Capacity presence was counted once per vendor catalog. Core sizes are highlighted in blue. Thirty-six bays is the only capacity present across all eight observed catalogs.

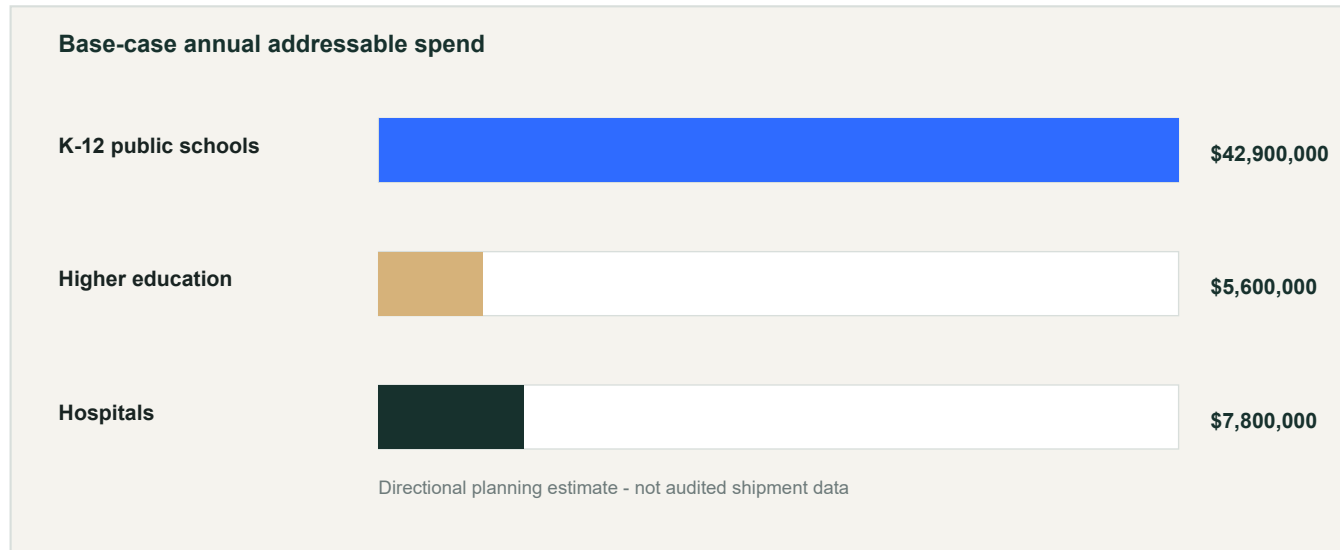


Capacity	Vendors	Signal	Decision
30	6 of 8	Retailer best-seller claim	Prototype first
32	7 of 8	Broadest recurring platform size	Prototype first
36	8 of 8	Present in every observed catalog	Prototype first
12-24	3-6 of 8	Compact and departmental coverage	Extend after core
40-48	1-3 of 8	Large-pool and high-density coverage	Extend after core

Product-market implication: keep the public catalog broad, but spend prototype, test-lab, and pilot resources on the Class 30/32/36 shared platform first.

Directional annual addressable spend

The base case totals approximately \$56.3 million in annual U.S. addressable spend. The editable workbook exposes every assumption and recalculates the low, base, and high scenarios.



Segment	Low	Base	High	Confidence
K-12 public schools	\$11,400,000	\$42,900,000	\$115,000,000	Medium
Higher education	\$1,000,000	\$5,600,000	\$27,000,000	Low-medium
Hospitals	\$1,900,000	\$7,800,000	\$77,000,000	Low
Total	\$14.3M	\$56.3M	\$219.0M	Directional

Model logic

Annual spend = addressable sites x eligibility rate x carts per participating site x average selling price x annual purchase rate. Site counts are sourced; the remaining factors are planning assumptions that must be replaced with customer-discovery and channel data.

Priority customer discovery

Interview district technology leaders, school purchasing cooperatives, campus IT loaner programs, healthcare simulation centers, and healthcare IT departments. Test willingness to pay for a fully assembled, pre-wired USB-C solution versus lower-cost AC-outlet carts.

Recommended ten-model portfolio

Three modular families provide broad capacity coverage without requiring ten independent platforms. Doors, locks, power-bay controls, steel shelf logic, casters, cable management, finishes, and assembly methods are shared wherever geometry allows.

Model	SKU	Bays	Family	Overall W x D x H	MSRP	Role
Nook 12	AG-N12	12	Nook	24 x 27.5 x 36 in	\$873.25	Coverage
Nook 16	AG-N16	16	Nook	24 x 27.5 x 38 in	\$978.25	Coverage
Class 20	AG-C20	20	Class	26 x 28.5 x 38 in	\$1,118.25	Coverage
Class 24	AG-C24	24	Class	28 x 28.5 x 38 in	\$1,223.25	Coverage
Class 30	AG-C30	30	Class	28 x 29.5 x 40 in	\$1,398.25	Core
Class 32	AG-C32	32	Class	29 x 29.5 x 40 in	\$1,468.25	Core
Class 36	AG-C36	36	Class	30 x 30 x 41 in	\$1,573.25	Core
Fleet 40	AG-F40	40	Fleet	29 x 30.5 x 44 in	\$1,678.25	Coverage
Fleet 45	AG-F45	45	Fleet	30 x 30.5 x 44 in	\$1,818.25	Coverage
Fleet 48	AG-F48	48	Fleet	31 x 30.5 x 44 in	\$1,923.25	Coverage

Recommended launch sequence

1. Engineer Class 30, 32, and 36 prototypes.
2. Engage a nationally recognized testing laboratory before freezing the power architecture.
3. Place five to ten school pilots and one healthcare IT or simulation pilot.
4. Validate thermal behavior, device fit, loaded mobility, tip resistance, locks, cable service, and cleaning.
5. Release the seven coverage models after the shared platform passes.

Safety and certification gates

The furniture concept is commercially differentiated, but the charging cart is still an electrical assembly. The cabinet geometry may be prototyped now; commercial production must wait for controlled engineering, testing, and production documentation.

Gate	Launch requirement
Complete-cart evaluation	Confirm the applicable standards path with an NRTL and evaluate the finished cart, not only purchased power components.
Power compartment	Use the isolated 18-gauge steel rear power bay, protective-earth bonding, controlled ventilation, strain relief, and approved component set.
Composite panels	Specify TSCA Title VI-compliant laminated composite wood panels and retain supplier declarations.
Mechanical validation	Verify loaded mobility, caster and handle loads, stability, tip resistance, shelf strength, and door/lock life.
Thermal validation	Test the worst-case charging load, blocked vents, fan or controller faults, and realistic device/case combinations.
Claims	Do not claim UL, ETL, BIFMA, GREENGUARD, medical-grade, or healthcare certification until formally authorized.
Healthcare boundary	Position Rev A for healthcare IT, training, and departmental fleets outside patient vicinity unless specialist review approves more.

Pilot scorecard

Measure daily plug-in time, cable replacement time, lock and door issues, device temperature, complete charge success, maneuverability on real thresholds, cleaning compatibility, noise, and buyer willingness to pay. Require a documented go/no-go decision before production tooling.

Limitations

Catalog presence can overstate variety and does not reveal revenue or unit velocity. Seller labels may change. The market model excludes freight variance, dealer margin, warranty reserves, certification costs, discounts, and competitive reaction. AlderGrid passed an initial exact-name federal trademark and .com registry screen; formal common-law and counsel clearance remains required.

Research sources

Capacity prevalence was observed from manufacturer catalogs. Site counts and compliance gates use government or institutional sources. Links below are the reviewed pages available on July 26, 2026.

Source	Reviewed page
LocknCharge	Capacity catalog https://www.lockncharge.com/charging-carts
AVer	Capacity catalog https://presentation.aver.com/lines/tablet-storage-and-charging
Eaton / Tripp Lite	Capacity catalog https://tripplite.eaton.com/products/charging-station-buying-guide
Bretford	Capacity catalog https://www.bretford.com/solutions/charging-carts/cube-cart/
JAR Systems	Capacity catalog https://www.jar-systems.com/knowledge-base/how-many-devices-can-each-charging-cart-accommodate
EarthWalk	Capacity catalog https://earthwalk.com/products/charging-carts/saverseries/
Power Technologies	Capacity catalog https://powertechnologies.com/products/charging-carts/
Copernicus	Capacity catalog https://www.copernicused.com/product/ftt732-699/techtub2modular-cart-for-ipads-with-usb-c-20w-adapter-36

Market and compliance sources

Topic	Reviewed page
Regular public schools	Regular public schools https://nces.ed.gov/ccd/tables/202324_summary_4.asp
Public schools with 1:1 computing	Public schools with 1:1 computing https://ies.ed.gov/learn/press-release/more-half-public-school-leaders-say-cell-phones-hurt-academic-performance
Degree-granting postsecondary institutions	Degree-granting postsecondary institutions https://nces.ed.gov/programs/digest/d23/tables/dt23_317.20.asp
U.S. hospitals	U.S. hospitals https://www.aha.org/statistics/fast-facts-us-hospitals
NRTL approval of workplace electrical equipment	NRTL approval of workplace electrical equipment https://www.osha.gov/nationally-recognized-testing-laboratory-program/frequently-asked-questions
UL 962 and UL 962A recognized standards	UL 962 and UL 962A recognized standards https://www.osha.gov/nationally-recognized-testing-laboratory-program/ul
UL 962A furniture power distribution units	UL 962A furniture power distribution units https://www.ul.com/services/power-strips-testing-and-certification
TSCA Title VI composite wood requirements	TSCA Title VI composite wood requirements https://www.epa.gov/formaldehyde/frequent-questions-consumers-about-formaldehyde-standards-composite-wood-products-act
SchoolOutlet describes its 30-unit cart as its best-selling cart	SchoolOutlet describes its 30-unit cart as its best-selling cart https://www.schooloutlet.com/products/30-unit-charging-cart-assembled-w-key-lock-for-chromebook-tablets-ipads-tin-laptops
CDW-G best-seller sorting surfaced a 36-bay Anywhere Cart	CDW-G best-seller sorting surfaced a 36-bay Anywhere Cart https://www.cdwg.com/category/office-equipment-supplies/charging-carts/?SortBy=TopSellersCombinedDesc
LocknCharge frames 30 devices as the shared-classroom sweet spot and 40 for larger pools	LocknCharge frames 30 devices as the shared-classroom sweet spot and 40 for larger pools https://www.lockncharge.com/charging-carts
U.S. district procurement pricing includes 12, 16, 30, 32, 36, 40, 42, and 45 bay products	U.S. district procurement pricing includes 12, 16, 30, 32, 36, 40, 42, and 45 bay products https://purchasing.jordandistrict.org/wp-content/uploads/sites/16/Chromebook-Cart-Monthly-Pricing-Summary-August-2025.pdf