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WHITE PAPER

Affiliation and Hierarchy Management

A unified POV for pharma

By Satyajeet Sahoo and Arun Bhosle

A foundational layer for pharma hierarchy management

Affiliation and Hierarchy Management (AHM) defines how healthcare entities relate to each other across organizational levels—from corporate parents and owner subsidiaries, to campuses, individual sites of care and affiliated prescribers. It is the foundational layer that determines how pharma commercial operations understands customers.

Getting this structure right has a direct impact on how organizations make and execute decisions across every commercial function.

FIGURE 1:

Various decision areas are enabled by AHM

Decision area	What AHM enables
Clinical	Formulary influence mapping, pathway adoption tracking, biosimilar switching analysis, site-of-care strategy
Financial	Qualitative market research
Operational	Provider
Strategic	Key account manager (KAM) account planning, market entry analysis, competitive positioning, pull-through strategy execution

Despite this centrality, most organizations still rely on legacy master data management (MDM) structures, static CRM hierarchies or basic vendor-provided affiliation tables—none of which capture the multilevel, dynamic nature of modern healthcare networks. The result: downstream processes operate on incomplete or conflicting data, impacting sales attribution, contracting, incentive compensation (IC) and field execution.

This white paper presents **ZAIDYN®'s out-of-the-box AHM POV,** a unified, rules-driven and scalable approach to building a high-fidelity hierarchy that enables accurate insights, consistent execution and improved commercial outcomes.

Why pharma needs a commercial data hierarchy

Pharmaceutical commercial data is inherently fragmented. Organizations consume external datasets (such as provider demographics, syndicated sales/DDD, claims, 844 chargebacks, 867 shipments and GPO rosters) alongside internal sources (including CRM platforms, field spreadsheets and manual overrides). Each source carries its own affiliation signals, and they rarely agree.

This matters most for account model customers—high-value customers that often span multiple colocated treatment sites listed as unrelated records in vendor data. When these sites are fragmented or misaffiliated, the impact is immediate: distorted sales attribution, incorrect IC payouts, misaligned contracting, incomplete KAM insights and poor targeting precision.

FIGURE 2:

There are four persistent challenges that result from site data

Challenge	Description
No single source of truth	Affiliation data differs by source—a facility may appear under one IDN in a vendor dataset but under a different parent in CRM, and GPO contracting relationships operate on a separate axis entirely. These misalignments cascade into targeting, IC, analytics and contracting.
Incomplete hierarchy and geospatial gaps	Most MDM systems support only two hierarchy levels, while real-world ecosystems operate across five or more. Hierarchies also fail to capture proximity-based clustering—critical in specialty markets where colocated clinics function as a single operational unit.
Governance and stewardship gaps	Feedback processes for hierarchy updates vary across brands, therapeutic areas and regions. Without standardized workflows and defined SLAs, stewardship is inconsistent, updates are delayed and changes lack auditability.
Limited visualization and usability	Flat CRM hierarchies cannot represent multilevel ownership, referral patterns or prescriber clustering. KAM and market access teams lack intuitive tools to navigate complex structures and validate changes.

Why MDM and third-party data are not enough

At first glance, AHM can be mistaken for an extension of MDM. After all, both involve customers, IDs and data quality. In practice, however, they serve fundamentally different purposes and address different layers of the commercial data ecosystem.

The core distinction: MDM focuses on records; AHM focuses on relationships. MDM ensures that individual customer records are accurate, deduplicated and consistently identified. AHM takes those clean records and defines how entities connect to each other—who owns whom, which sites form a campus, how contracting flows through the network and how the organization wants to view its customers for commercial decision-making.

FIGURE 3:

MDM and AHM each address different layers of the commercial data ecosystem

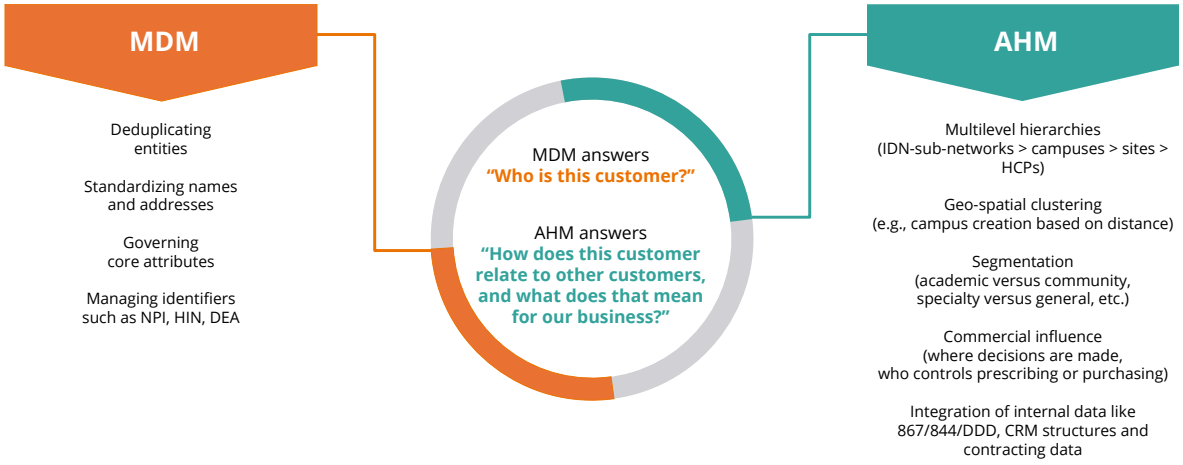


FIGURE 4:

AHM goes beyond the scope of what traditional MDM can address

Dimension	MDM	AHM
Primary focus	Record-level quality: deduplication, identifier management, attribute accuracy	Relationship structure: ownership, affiliation, campus grouping, commercial hierarchy
Scope	Individual HCO, HCP, affiliation records—names, addresses, affiliation, IDs, status	Multilevel organizational structure across 5+ levels (IDN > OSUB > campus > SOC > HCP)
Change triggers	New records appear, identifiers update, attributes need correction	Networks consolidate or fragment, facilities change roles, contracting shifts, commercial models evolve (e.g., move to KAM, new access model)
Business logic	Matching rules, survivorship rules, golden record creation	Affiliation rules, colocation thresholds, representative selection, academic/community classification, override governance
Primary stakeholders	IT, data governance, analytics	Sales operations, IC/finance, market access, KAM, field teams, brand teams, contracting
Natural	Relatively static changes when data quality issues surface	Dynamic and business-driven—evolves with market structure, commercial strategy and field intelligence
Output	Clean, deduplicated master records with consistent identifiers	Multilevel, governed customer hierarchy with commercial roll-ups, campus groupings and contracting alignment

MDM is a prerequisite for AHM—clean master data provides the foundation on which affiliation rules, campus logic and hierarchy governance operate. However, MDM alone cannot produce the multilevel, business-driven hierarchy that commercial teams require. Organizations that treat MDM as sufficient for pharma hierarchy management will inevitably encounter broken roll-ups, misaligned contracting and contested IC outcomes.

Where third-party data falls short

A key reason MDM cannot fulfill the AHM mandate is its dependence on third-party data as the primary source of affiliations. While vendors deliver essential HCO/HCP demographics and identifiers, they are not equipped to provide a complete, commercial-grade hierarchy on their own.

FIGURE 5:

Relying on MDM alone exposes many gaps in data affiliation

Gap	Description
Legal ownership ≠ commercial behavior	Vendor datasets document corporate ownership structures, but commercial influence and clinical decision-making do not always follow the legal tree. Two hospitals under the same health system may act independently in different therapeutic areas; an outpatient center may be formally independent yet tightly integrated with an academic medical center.
No colocated campus identification	Syndicated datasets treat every physical location as a separate record. They cannot calculate distances between sites, identify when multiple locations function as a single campus or recognize shared clinical teams and capacity. Capturing this requires geo-coding, distance calculations and therapeutic-area context—all outside the remit of vendor data.
No visibility into commercially important sites	Vendor records do not indicate which sites drive product volume, where the majority of treatment activity occurs or which address should serve as the roll-up point for sales, calls and IC. These are inherently brand- and client-specific business rules, not vendor attributes.
Slow refresh cadence	Vendor updates are typically monthly or quarterly. But the real world moves faster—IDNs acquire new systems, clinics relocate or consolidate, new treatment sites open and network relationships shift after contracts go live. These changes are visible to field teams and in transactional data long before they appear in syndicated reference files.

FIGURE 6:

Beyond vendor data, a realistic view of the customer ecosystem must integrate multiple internal signals that no third-party provider can supply

Data source	Role in AHM
867 shipments	Product distribution by ship-to location; key input for campus representative selection and sales attribution
844 chargebacks	Billing entity identification; contracting eligibility validation and revenue leakage analysis
DDD/outlet sales	Outlet-level demand data; market share analysis and competitive benchmarking
CRM account data	Local affiliation edits, field-maintained relationships and account structures
GPO rosters	Membership, eligibility and chargeback relationships for contracting alignment
Field feedback	Real-time intelligence on new sites, closures, ownership changes and operational shifts

Integrating these signals into a unified hierarchy is the organization's responsibility, not the vendor's. Third-party data should be treated as input to hierarchy creation, not as the hierarchy itself. This is why AHM needs its own framework, rules and operating model—a distinct organizational capability that sits on top of MDM, integrates internal and external signals and produces a commercially actionable customer structure.

The case for a unified AHM framework

Given the limitations of fragmented data, static hierarchies and MDM-only approaches, pharmaceutical organizations need a purpose-built AHM capability. A unified framework delivers value across six critical dimensions:

Data integrity

A unified AHM layer creates a single, authoritative view of customer affiliations by reconciling external vendor data with internal signals (shipments, chargebacks, CRM edits, GPO rosters and field feedback). This eliminates conflicting hierarchies across departments and systems, and ensures that every downstream system containing consumer data, such as sales reporting platforms, IC systems, CRMs and other tools operate on the same trusted structure.

Commercial effectiveness

Accurate hierarchies directly improve targeting, territory alignment and field engagement. When KAMs can see the full organizational structure of their accounts—including how campuses, sites and prescribers relate to each other—they can plan their engagement more strategically, identify untapped opportunities, and prioritize the right stakeholders. This extends beyond clinical engagement to include financial decision-makers, contracting contacts and operational leaders within the network.

Contracting strategy and pull-through

AHM bridges the gap between contracting data and the customer master. By aligning GPO membership, eligibility and chargeback relationships with the ownership hierarchy, market access teams gain visibility into contracting coverage gaps, pull-through performance and revenue leakage—enabling more informed negotiation, better 340B program management and more effective execution.

Governance and compliance

A governed AHM framework ensures that every change to the hierarchy is logged, tracked and auditable. Structured feedback workflows replace ad hoc spreadsheet edits, and stewardship processes ensure that business-driven overrides are reviewed and approved before they propagate downstream. This is especially critical for IC audits, contracting disputes and regulatory reviews.

Scalability

As organizations launch new brands, expand into new therapeutic areas or acquire additional portfolios, the AHM framework must scale without requiring a rebuild. A rules-driven, configurable approach allows organizations to extend the hierarchy to new markets while maintaining consistency with existing structures.

Shared hierarchy configurable rules

A common question is whether each brand or therapeutic area requires its own AHM build. Standing up a full, independent hierarchy for every brand is not viable or necessary—it creates redundant overhead, inconsistent structures and maintenance burden.

FIGURE 7:

This recommended approach is a shared base hierarchy with brand- and TA-specific rule layers

Layer	Techniques	How it scales
Shared base hierarchy	The five-level structure (IDN > OSUB > campus > SOC > HCP), master IDs, crosswalk and core affiliation logic	Built once, reused across all brands and TAs. Changes to ownership, campus groupings and entity records propagate automatically to every downstream consumer.
Configurable rule layer	Colocation thresholds, campus representative selection priorities, academic/community classification rules and override governance	Configured per brand or TA. For example, an oncology brand may use a 0.1-mile campus threshold for dense urban infusion clusters, while a rare disease brand may use a 0.5-mile threshold to capture dispersed specialty centers.
Brand-specific overrides	Field-driven adjustments, local account exceptions and brand-level business rules	Managed through the governance workflow. Overrides apply only to the requesting brand's view without affecting the shared base hierarchy.

Example: A pharmaceutical company with both an oncology portfolio and a rare disease launch shares the same five-level hierarchy and mastered customer data. The oncology brand configures its rule layer with tighter campus thresholds, prioritizes infusion-capable sites for representative selection and applies NCI/NCCN-based academic classification. The rare disease brand uses wider campus thresholds, prioritizes HCP density and applies keyword-based classification for specialist centers. Both brands consume the same underlying hierarchy—only the rules differ.

Multilevel healthcare hierarchy model

A commercial-grade AHM model should be generalizable, business-aligned and scalable.

FIGURE 8:

Each hierarchical level in the model includes different sets of connected datasets

Level	Name	Description
Level 5	Corporate parent/IDN	The top-level health system or integrated delivery network that holds ultimate organizational control. Drives systemwide clinical, financial and strategic decisions.
Level 4	Owner subsidiary (OSUB)	A regional or functional subsidiary within the IDN that manages a cluster of facilities. Reflects operational management rather than just legal ownership—critical for understanding how decisions are delegated within large systems.
Level 3	Campus	A geospatial grouping of colocated sites of care that function as a single operational unit. Created using proximity thresholds and geocoding. Essential for accurate sales attribution and IC roll-ups.
Level 2	Site of care (SOC)	Individual facilities such as hospitals, clinics, infusion centers, physician offices, specialty pharmacies or ambulatory surgery centers.
Level 1	HCP	Individual prescribers and practitioners affiliated with the SOC. Links clinical activity to the organizational hierarchy.

This five-level model enables organizations to represent real-world complexity—from the broadest IDN umbrella down to individual prescribers—while supporting clean roll-ups for IC, targeting, reporting and contracting.

Visualizing the hierarchy

A five-level hierarchy is only as useful as the tools that make it accessible. As IDNs expand to dozens or hundreds of affiliated care sites, text-based or flat CRM views cannot convey the full picture—referral pathways, parent-child cascades, pull-through influence, prescriber clustering or contracting spread.

A network visualization layer addresses this by displaying the hierarchy as a multilevel, interactive graph. Key capabilities include:

- Hover and drill down from IDN level down to individual HCPs
- Visual identification of outliers and misaligned affiliations
- Rapid field validation of proposed hierarchy changes
- Side-by-side comparison of current versus proposed hierarchy
- Integrated governance: approve or deny changes directly within the visualization

For organizations with large KAM teams, visualization transforms hierarchy data from a back-office structure into a frontline engagement tool—enabling faster insight, more informed account planning and direct participation in hierarchy governance.

Data mastering and standardization

For affiliation rules to work reliably, data must be refined, standardized and matched across disparate sources. A multilayer mastering engine delivers accurate, enterprise-grade customer matching.

FIGURE 9:

A summarization of each step of the standardization pipeline

Step	Techniques	Purpose and impact	Prerequisites
Name standardization	Token-based normalization (removing stop words: LLC, group, clinic); N-gram matching for variations; expansion of medical abbreviations (ctr › center, hosp › hospital)	Reduces noise in entity names and increases accuracy of downstream matching. Ensures that the same organization is recognized regardless of naming conventions used across data sources.	Reference dictionary of medical abbreviations and stop words; agreed-upon normalization rules with the client's data governance team
Address standardization	Token matching and parsing; postal abbreviation cleanup; punctuation removal; GeoAPI-based latitude/ longitude enrichment	Produces clean, geocoded addresses essential for distance-based campus creation. Without accurate geocodes, colocation logic cannot function.	Access to a geocoding service or GeoAPI; vendor-provided address data with street-level granularity (not just city/ state)
Identifier matching	NPI, DEA, HIN, vendor-specific IDs, GPO roster IDs	Provides high-confidence deterministic matches across data sources. Identifier-based matching is the most reliable linkage method when identifiers are available.	NPI and DEA feeds from vendor or CMS NPPES; HIN data from distribution partners; GPO roster files with facility-level identifiers
Fuzzy matching and stewardship	Fuzzy score algorithms (Jaro-Winkler, Levenstein); address similarity thresholds; volume-based rules; conditional matching by product type	Handles low-overlap sources (867 shipments, DDD outlets) where identifiers are missing. Low-confidence matches are routed to data stewards for manual resolution using tie-break rules.	Defined stewardship team with subject-matter expertise; agreed-upon confidence thresholds and tie-break rules; access to 867/DDD source files
Crosswalk (XREF) creation	One unique mastered ID per entity; consistent roll-ups across CRM, IC, BI and targeting; standardized hierarchy lineage	Creates a standard profile for each entity—a single reconciled identity that anchors the entire hierarchy. Ensure every system references the same customer structure.	Agreed-upon golden record survivorship rules; alignment across business teams on which source system is authoritative for each attribute

Business rules for hierarchy creation

The hierarchy model is only as good as the rules that populate it. This section describes the business rules that govern affiliation, campus creation, representative selection and segmentation.

Affiliation rules

Affiliation is the backbone of hierarchy creation. SOCs may share the same parent on paper yet differ in operational alignment or contracting behavior. To ensure accurate organizational roll-ups:

- Two SOCs can be grouped together only if they share the same owner subsidiary (Level 4) or corporate parent/IDN (Level 5).
- Cross-IDN grouping is prohibited to prevent contamination of the ownership hierarchy.
- In borderline cases (e.g., ambiguous OSUB definitions), business-driven overrides are permitted but must be governed through stewardship review and approval.

Colocation rules (geospatial campus creation)

Campus creation is one of the most strategically valuable innovations in AHM. Real-world treatment delivery frequently occurs across multiple colocated facilities—clinics, infusion centers, outpatient departments—where care teams and patient flows overlap. These clusters often function as a single operational unit, even though syndicated datasets list them as separate, unrelated locations.

FIGURE 10A AND 10B:

Campus grouping is typically based on proximity thresholds

0.1-mile threshold for dense urban areas
0.4-mile threshold for suburban or dispersed location

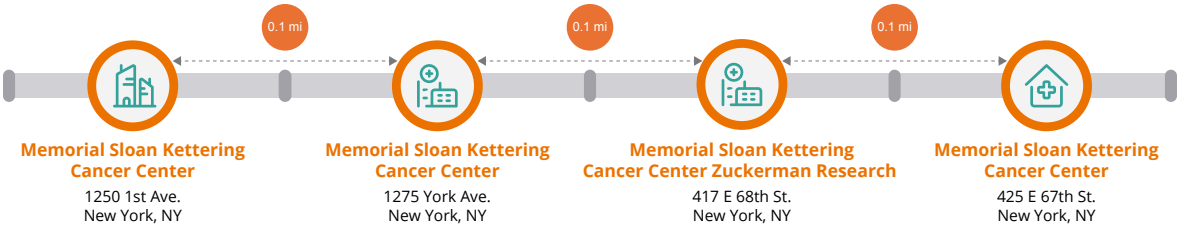
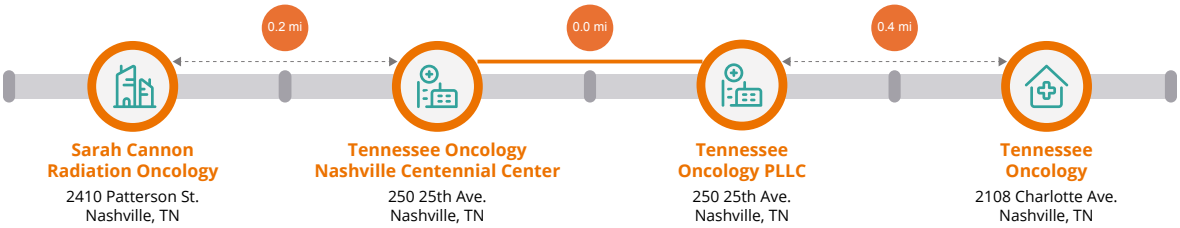


FIGURE 10B:



Buy-and-bill and specialty accounts benefit disproportionately from this capability. These high-impact practices often operate across several adjacent treatment suites or outpatient buildings that are not connected in vendor data. Without campus logic, fragmented sites dilute sales attribution, distort IC roll-ups, complicate contracting visibility and undermine KAM account planning. Grouping colocated facilities into a single campus entity ensures that reporting, targeting and engagement reflects how treatment is actually delivered.

Campus representative selection rules

Each campus requires a single representative entity at Level 3 to ensure clean downstream roll-ups.

FIGURE 11:

Representative selection follows a prioritized, rules-based approach

Priority	Selection criterion	Rationale
1	Highest 867 shipment sales	Strongest indicator of actual product volume at the location
2	Highest DDD/outlet-level sales	Secondary volume indicator when 867 data is unavailable or inconclusive
3	Total market volume (own+competitor)	Captures overall market activity at the site, regardless of brand share
4	Account type priority	Specialty clinics > hospitals > multispecialty > infusion centers (configurable by TA)
5	HCP density	Higher prescriber concentration indicates greater commercial relevance

This ensures that all downstream reporting accurately reflects the most commercially relevant location within the campus in each formula and that all downstream reporting accurately reflects the most commercially relevant location within the campus.

Accurate segmentation between academic and community accounts is critical for specialty and therapeutic markets.

FIGURE 12:

A robust classification approach applies multiple layers

Classification method	Description
Accreditation-based	NCI, NCCN, AACI designations provide the highest precision for academic classification
Vendor class-of-trade (COT)	Provider master classifications used as a secondary signal
Keyword rules	Matches on terms like university, research, institute, medical center
Parent roll-down	If any SOC within an IDN is academic, the entire Level 5 entity inherits that classification
Override lists	National IDNs that should remain community despite constituent academic sites

This ensures that commercial strategy, messaging and segmentation reflect the institutional character and decision-making culture of each account.

Governance and operating model for AHM

Without governance, even the best hierarchy model decays quickly.

Field feedback integration

Field teams identify real-world changes first—new facilities, closures, ownership transfers and operational shifts. A structured feedback process should include:

- Standardized feedback templates to capture specific change requests
- Defined cutoff schedules (e.g., weekly submission windows) to batch and process changes efficiently
- Automated override creation for high-confidence changes
- Stewardship validation for complex or ambiguous requests
- Transparent feedback closure summaries so field teams know the outcome of their submissions

Stewardship and approval workflow

Data stewards and AHM owners collaborate to:

- Validate incoming feedback against available data sources
- Resolve conflicts when multiple teams submit competing edits
- Approve or deny requests based on rules and supporting evidence
- Apply overrides with expiration dates to ensure periodic re-evaluation
- Conduct periodic audits of hierarchy quality, feedback loop analysis and rule refinement to ensure the AHM capability evolves with the business

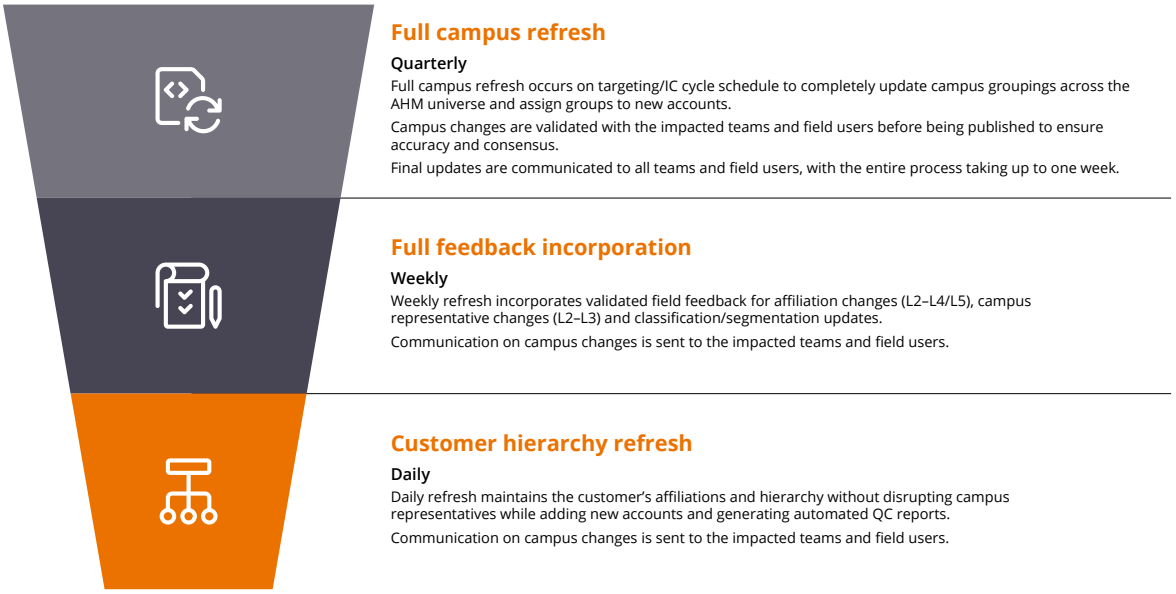
Audit, SLA and process adherence

Every change to the hierarchy must be:

- Logged with timestamp, author and rationale
- Tracked through a defined status life cycle (submitted > reviewed > approved/denied > applied)
- Measured against defined SLAs—e.g., five business-day turnaround for standard requests, escalation paths for complex cases, committed timelines for hierarchy refresh delivery
- Auditable by governance councils and leadership teams
- Versioned, so that downstream systems can always reference a point-in-time view of the hierarchy

FIGURE 13:

Timeframes for various levels of refresh cycles



This ensures that downstream systems always operate on traceable, defensible hierarchies that can withstand scrutiny during audits, IC reviews and contracting disputes.

Roles and accountability

Successfully operationalizing the governance framework above requires clear ownership and accountability across teams.

FIGURE 14:

The following RACI matrix defines who is responsible for each key AHM activity

AHM activity	Governance council	Stewardship team	Field teams	IT/data management
Hierarchy rule changes	A (Approve)	R (Recommend)	C (Consulted)	I (Informed)
Field feedback submission	I (Informed)	R (Process)	R (Submit)	I (Informed)
Override approval	A (Escalations)	R (Apply)	C (Evidence)	I (Informed)
Hierarchy refresh execution	I (Informed)	C (Validate)	I (Informed)	R (Execute)
SLA monitoring and reporting	A (Review)	R (Track)	I (Informed)	C (Metrics)
Periodic hierarchy audits	A (Commission)	R (Execute)	C (Validate)	C (Data)

System architecture considerations for AHM solutions

An enterprise AHM solution must integrate with the broader commercial data ecosystem rather than operate as a standalone silo.

FIGURE 15:
The following table consolidates the key architectural requirements

Requirement	Description	Why it matters
Data hub integration	AHM functions as a core module within the commercial data hub. Hierarchy is accessible to CRM, IC engines, BI platforms, targeting tools and contracting databases via standardized APIs or data feeds.	Prevents siloed hierarchies. Ensures every downstream system consumes the same trusted customer structure.
Modular, rules-driven design	Business rules for affiliation, campus creation, representative selection and classification are configurable, not hard coded.	Allows extension to new brands, therapeutic areas or commercial models without reengineering the platform.
Refresh cadence	Automated refreshes aligned with data cycles: monthly for vendor data, weekly for internal transactional data. Field feedback and overrides processed on a shorter weekly/bi-weekly cycle.	Keeps the hierarchy current with real-world changes without manual intervention.
Version control	Point-in-time hierarchy snapshots preserved for historical reference.	Essential for IC reconciliation, contracting audits and year-over-year analytics.

Illustrative case studies

FIGURE 16:

The following anonymized examples illustrate the impact of a well-implemented AHM capability across different organizational contexts

	Case A: Specialty biotech	Case B: Specialty pharma	Case C: Large pharma manufacturer
Challenge	Inconsistent IDN roll-ups across 40+ facilities led to misattributed sales and IC disputes	Significant mismatches between 867 shipment and DDD outlet-level sales data, causing unreliable market share reporting	Unclear OSUB structures across regions made it difficult for KAMs and contracting teams to assess account relationships and coverage
AHM capabilities applied	Five-level hierarchy model, geospatial colocation logic, standardized affiliation rules	Fuzzy matching (Jaro-Winkler), name/address standardization, XREF creation	OSUB mapping integrated with AHM engine, GPO affiliation layering for unified contracting and ownership view
Outcome	Consolidated network into 16 accurate campuses; improved targeting precision, IC fairness and KAM planning	87% reduction in mismatched sales records; significantly improved data reliability for analytics and field teams	Improved KAM planning, contracting visibility and cross-functional alignment between sales, market access and analytics
Key AHM section	Multilevel hierarchy model, colocation rules	Data mastering and standardization	Affiliation rules, GPO affiliation management

Each case demonstrates that AHM is not a theoretical framework—it produces measurable improvements in data accuracy, commercial alignment and field effectiveness when implemented with clear rules and governance.

How a dedicated AHM capability provides a competitive advantage

A modern pharmaceutical commercial model cannot operate effectively on fragmented customer affiliation structures. As healthcare networks consolidate, expand and evolve, the need for a unified, automated, governed and visual AHM capability becomes increasingly urgent.

The framework presented in this white paper—built on a five-level hierarchy, rules-driven affiliation logic, geospatial campus creation, multisource data mastering, interactive visualization and structured governance—provides a comprehensive approach to building commercial-grade customer hierarchies.

Organizations that invest in a dedicated AHM capability gain a measurable competitive advantage through:

- **Data integrity:** a single, trusted source of customer affiliations across the enterprise
- **Operational scalability:** a configurable framework that adapts to new brands, TAs and commercial models
- **Commercial precision:** accurate sales attribution, IC calculations, targeting and contracting insights
- **Governance maturity:** traceable, auditable and defensible hierarchy changes
- **Field empowerment:** KAM and field teams equipped with clear, visual and actionable account structures

AHM is not merely a data management exercise, it is a foundational commercial capability that enables better decisions, better execution and better outcomes for patients and organizations alike.

Appendix

FIGURE 17:

Glossary of key terms

Term	Definition
IDN	Integrated delivery network: a top-level health system that owns or manages multiple facilities.
OSUB	Owner subsidiary: a regional or functional division within an IDN.
Campus	A geospatial cluster of colocated sites of care that function as a single operational unit.
SOC	Site of care: an individual facility such as a hospital, clinic or infusion center.
HCP	Healthcare professional: an individual prescriber or practitioner.
GPO	Group purchasing organization: an entity that negotiates contracts on behalf of its member facilities.
NPI	National Provider Identifier: a unique 10-digit identification number issued to healthcare providers.
DEA	Drug Enforcement Administration: registration number for controlled substance prescribers.
HIN	Health Industry Number: used to identify healthcare entities in purchasing and distribution.
MDM	Master data management: the discipline of maintaining record-level quality and consistency for customer data.
IC	Incentive compensation: the system for calculating and distributing sales performance incentives.
KAM	Key account manager: a field role responsible for managing strategic customer relationships.
XREF	Crosswalk: cross-reference table-mapping identifiers across data sources to a single mastered ID.
DDD	Outlet-level syndicated sales data used for demand measurement and market share analysis.
844	Chargeback transaction data between wholesalers and manufacturers.
867	Shipment/inventory data from wholesalers showing product distribution to end customers.

Distance calculation notes

Campus creation relies on the Haversine formula to calculate the great-circle distance between two points on a sphere, given their latitude and longitude coordinates. Standard thresholds used in campus creation:

- 0.1 miles (~160 meters) for dense urban environments
- 0.4 miles (~640 meters) for suburban or campus-style healthcare complexes

These thresholds are configurable and should be adjusted based on the organization's specific market geography and therapeutic area dynamics.

About the authors

Satyajeet Sahoo is a platform services consultant with over seven years of experience in the life sciences industry. He specializes in deploying ZAIDYN products with a focus on data warehousing, reporting and analytics and master data management. He has supported 12+ pharmaceutical and biotech clients in building scalable data platforms, enabling self-service reporting and driving data governance initiatives. Satyajeet brings expertise across ZAIDYN, Power BI and cloud platforms and is known for delivering practical, high-impact solutions that improve data quality and accelerate decision-making.

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