# CONTROL, TRANSPARENCY, AND MOBILITY

## The Foundations of Next Generation Digital Marketing and AdTech Technology

HELIOS DATA INC

Today's digital marketing industry, including adtech, is a model of technological and economic innovation built on a foundation of 25 years of incremental improvements to data, protocols, algorithms, and business models. A radically new operating environment driven by new privacy regulations and technologies is forcing a reckoning with the legacy model, and a new one based on first-party data s still emerging.  The issues go far beyond just new regulations and technologies to include issues like first-party data control, value chain transparency, and data and platform mobility. These new issues aren't addressed adequately by third-party cookies, "walled gardens", and "data clean rooms", and demand new developments to meet both the privacy and commercial demands of digital marketers, and especially adtech leaders.

Helios Data's PaaS[1]-based Secure Data Sharing (SDS) solution addresses and resolves these critical challenges to the legacy adtech model so that industry participants can stay focused on revenue growth.  The SDS:

- Restores and ensures **control** of shared data, including personal data, to prevent it from being spread around the entire adtech ecosystem.
- Grants **transparency** to all the data collaboration in any adtech processing, including for commercial and regulatory auditing purposes, and create new business opportunities associated with the transparency, such as metering and data-centric pricing mechanisms.
- Provides **mobility** for the adtech processing to happen and be fully secured almost anywhere, at the data provider, the analytics partner, or a neutral locations, and on any kind of platform – Cloud, on-premises, etc.
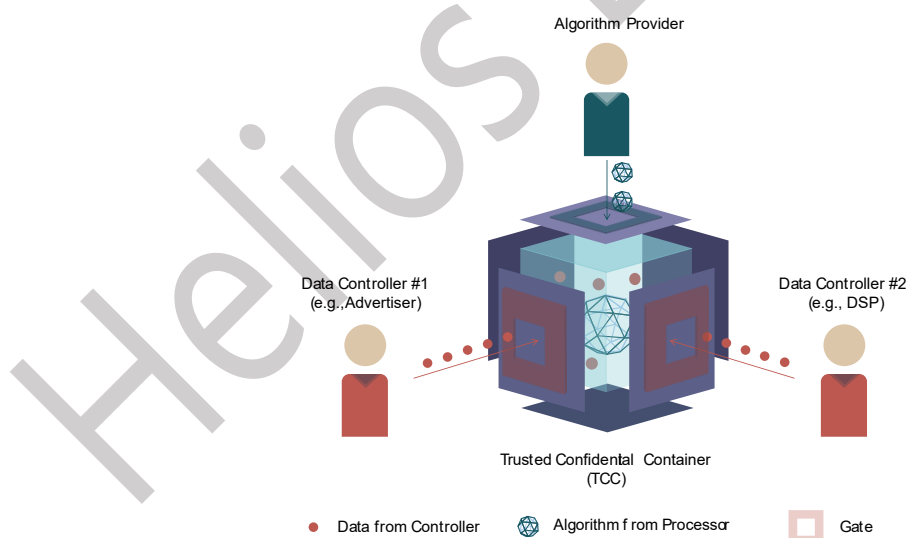


*Figure 1. The TCC enables secure sharing of sensitive data for third-party processing wherever it is needed and with complete control and processing transparency to the data and analytics partners.*

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[1] "Platform-as-a-Service"

All these capabilities are native to Helios Data's patented Trusted Collaboration Container™ ('TCC', Figure 1), an enclave that provides total protection to the data and algorithms within it. The TCC is provides total protection over the data assets and algorithms within a shared container connecting the data provider(s) and analytics provider. Within the container, the partners execute agreed-upon commercially important business collaboration opportunities, each within a unique container. Data controllers – especially data-rich advertisers and publishers – need this protection, but so do the algorithm owners and other intermediaries whose collaboration will also benefit from a rigorous, well-designed and trusted business model that prizes value as well as compliance.

With the TCC, first-party data can be onboarded, shared, and processed safely; complex analytics can be carried out effortlessly "on demand"; and data usage can be tracked and metered with precision, objectivity, and reliability. Leaks or losses are eliminated, and full value can be provably extracted, distributed, and tallied for invoicing. With these in place, all parties in a TCC-based trusted data collaboration can address and eliminate risks, and then go on use control, transparency, and mobility as the foundation for innovating new adtech models and increasing the volume, types, and profitability of transactions.

## RESTORING CONTROL

With the disappearance of IDFA and third-party cookies, first-party data is becoming much more crucial to adtech. That means that adtech participants, and especially advertisers and publishers, must gain and hold **full control** – meaning, not just the traditional legal control written up in standard contracts, but substantive, tangible control - over their personal data assets wherever they are, whether at rest, in motion, or in use. This kind of unambiguous and continuous control is the prerequisite for practical, real privacy compliance, and is non-negotiable. But *beyond* the privacy imperative, control is *also* the prerequisite for data providers to be able to negotiate and gain the full financial value – revenue and profits - and other benefits of adtech transactions that involve their data assets. In short, "data control" can equal "value control". Helios Data's TCC provides this control by making sure that data is used – and that it can **only** be used - in the ways intended and agreed to by the counterparties, and in no other ways. Data assets whose use is fully controlled and understood **can't** be a privacy threat ... and it **can** be commercialized and monetized with confidence.
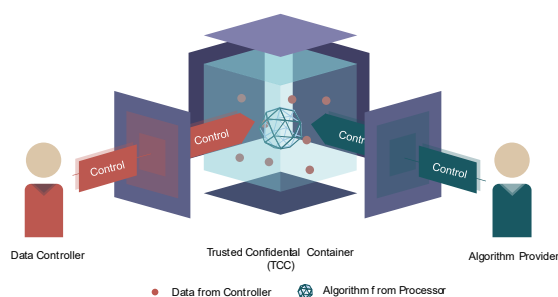


*Figure 2. TCC returns control to both data Controllers and Processors*

The TCC is used by advertisers and their partners to embrace *and fully control* as much of the adtech value chain as the parties choose. From on-boarding through matching, all the digital transformations take place in a multi-tiered "secure enclave" in which all on-boarding and computing can take place with no risk of disclosure to counterparties or the world at large. Helios Data implements this in the TCC, where data and algorithms are all submitted with rigorous encryption and can then, once inside, be decrypted and combined safely.

The TCC is truly the center of control. Accessed through and governed by "gates", Helios Data's TCC provides an uncrackable sanctum into which advertisers or other personal data providers can deliver encrypted data and where analytics partners can submit encrypted algorithms, *but where none of the parties is able to see the other's IP even as both parties can be continually aware of what the other is doing*! This "asymmetric transparency" renders it impossible for counterparties to see, much less leak or repurpose, each other's assets. All the computing capabilities, even intermediary processes from DSP's, DMPs, SSPs, and onboarding players, can be relocated inside the TCC, where they can carry out their transformations confidentially but with asymmetric transparency.

Some adtech players use "clean rooms" for some of these tasks, but that requires that they cede control to a remote third-party, which is bad governance and risky business. In contrast, Helios Data's TCC provides the counterparties with direct control of their data and processing, in real time, with no delegation of responsibilities or controls to the clean room operator. This recentering of control around the counterparties, and away from non-value-added 3rd-parties, means privacy risks are eliminated, and commercial flexibility is maximized.

Rigorous control is also enforced via Helios Data's unique digital contract capabilities, which provide for counterparties, including advertisers, to translate legal terms into digital terms that can be coded instantly from anywhere, and are enforceable automatically in real-time all the time. Digital contracting means that an unmatchable level of risk reduction is achievable by automated vigilance against changed algorithms, attempted misuse, or accidental diversion of data in ways that no human can hope to achieve. Helios Data's digital contracts are on duty 24x7 and can terminate processing, alert managers, or take other actions instantly and automatically.

> *Think escrow, whether for a house or even for commercial software: Partners want to transact an asset and need a secure place to hold it subject to agreed-upon conditions with no risk of it being taken, degraded, or misused.*
>
> *Helios Data's **Secure Data Sharing** solution provides the safe container and the digital contract monitors and manages the agreed-upon conditions so that all the parties can carry out their digital marketing collaborations with full confidence – and trust - in the security of their assets and the integrity of their partnership.*

## FULL TRANSPARENCY FOR SECURITY VIGILANCE AND COMMERCIAL SUCCESS

The opacity of the adtech ecosystem and value chain invites more disasters like the Cambridge Analytica scandal, where bad actors can carry out bad actions out of the sight of data providers. Data providers, and especially advertisers and publishers, need to be able to know *at every moment* where their data is and what is being done with it. The Helios Data Platform's TCC and digital contracts features eliminate these risks by throwing open to the relevant parties all the computing on all platforms to full commercial and compliance scrutiny. The facts, of course, are not provided, but rather the observable, perfectly countable, and indelible artifacts of each computational transformation.
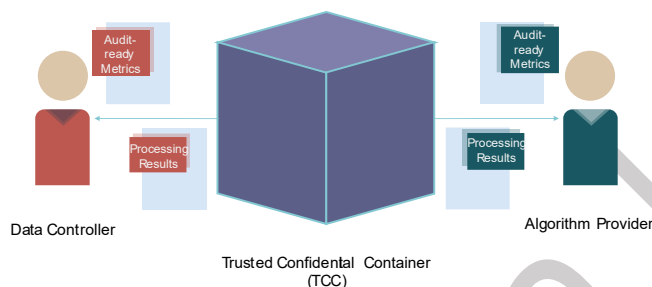


*Figure 4. TCC provides transparency to the entire data processing*

Audits cost adtech players millions of dollars annually, which is a huge drain on both capital and human resources that sometimes even requires providers to shut down to enable access to auditors. The Helios Data Platform observes, records, and fully scrutinizes all the computation within the TCC, and monitors and meters them in granular detail. These records are tamper-proof and convert easily to reportable and auditable records and statistics that will be instantly visible to both parties. The statistics correlate to the performance parameters of the processing – for example, rows read, items consumed, result records created – *without revealing any of the semantics* of the items. For example, both parties can observe how many rows (i.e., Consumer records) of an advertiser's data file were consumed without the processor – the third-party analytics firm - knowing who they were or the actual results. With Helios Data, nothing in the TCC enclave can be lost, deleted maliciously, or manipulated, and counterparties can use that attribute to improve their trust to focus more on growth.

These metrics can be the basis for new and highly profitable business opportunities, for example, enabling new pricing models for data providers based on the actual and audited amount of data used in any given processing. Our TCC will be the only one to know it all, with precision.

## FAST AND FAR-REACHING MOBILITY

Unlike legacy safe computing models, Helios Data's TCC isn't a heavy operational weight stuck to physical location, needing intense support. It is fully mobile, meaning that there are no practical limits to the customer's ability, in effect, to stretch the enclave to wherever the partners are and,

when there, connect and envelop it "on demand" to all partners and incorporate all computational platforms and activities wherever they are and whenever they are needed.

As a "Platform as a Service" (PaaS) offering, the Helios Data Secure Data Sharing solution is instantly reconfigurable and fully scalable across all computing environments, including multi-Cloud and most on-premises domains. New adtech partners are easily added and operationalized, wherever their technology is running. The TCC's "elastic enclave" can project its data wherever it is needed and expand its computing scope to encompass it.  And the TCC isn't just for bilateral data sharing and computing between unique pairings; it can accommodate multiple players, for federated arrangements, and users can also use their "gates" to engage with any or all partners at any time.
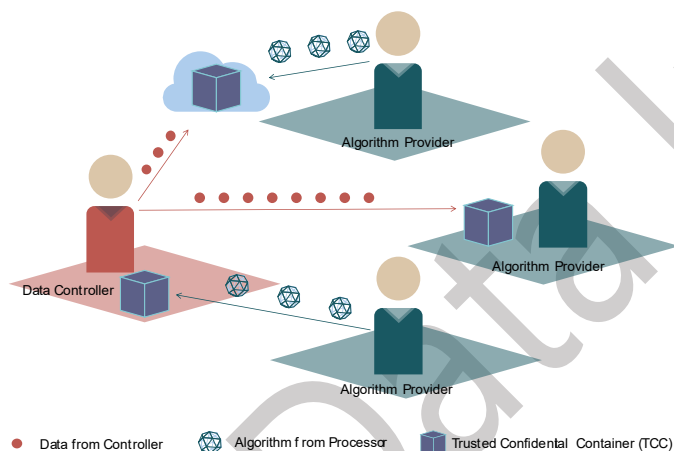


*Figure 3. TCC provides mobility for data processing activities*

## FROM RISK REDUCTION TO GROWTH ACCELERATION

All of this is about coming up with new "plumbing" – the data and processing value chain model –for adtech that is trouble-free, secure, and "fit-for-purpose" for today's "high privacy" risk and competitive pressures.  In adtech, getting the new model right will be the difference between a failed marketplace and a smart and exciting new world for programmatic marketing. Helios Data's TCC is designed to be the infrastructure for that new model.

As important as control, mobility, and transparency are for privacy compliance-related risk reduction, they are the foundation for truly exciting strategic advantages that enterprises can harvest, enabling data-rich companies to return to and accelerate commercialization of their first-party data through adtech and other marketing models. The secure and constrained structure of the solution eliminates the revenue leakage even more than data; increases auditability and accurate pricing and invoicing of all usages; and provides the secure foundation for better operating economics through de-risking, consolidating, and simplifying supply chains.

So many companies have curbed their adtech ambitions out of fear of GDPR and CCPA, but Helios Data's SDS allows these firms to participate once again.

> **CASE:** An advertiser wants to onboard its information about its consenting consumers to match them to a publisher's personal data files or profile, and the publisher translates their business terms into a computational (or digital) contract that supervises the data exchange and processing. These contracts are validated through sample data and matched sample outputs. The enclave is established virtually to encompass the publisher's computations, and gateways to the TCC are set up through which the data and the processing instructions (i.e., algorithms) as provided, where – and only where – they are matched to decryption keys provided through the Gateways by the counterparties. The computing takes place, and so long as the processing conforms to the digital contract, the results are shared out for commercialization and the inputs are destroyed. With risk mitigated, the Advertiser can focus on return, and go on to accelerate its adtech-related monetization partnerships and activities.

Helios Data's approach, as embodied in its Secure Data Sharing solution, is the secure, private, and scalable way to carry forward adtech, as well as martech and even sales technology models. When data-rich companies, such as advertisers and publishers, know that their personal data and data processing is controlled, transparent, and mobile they can address the privacy and control risks and move ahead to carry out even more successful adtech programs. Far more than actual armored fortresses, virtual garden walls, or the other legacy ways of securely providing data for use in adtech, companies that use Helios Data's Secure Data Sharing to secure their adtech data collaboration succeed in defending their assets and projecting their value far and wide.

*For more information on the Helios Data Secure Data Sharing product, please go to www.HeliosData.com, or contact us at sales@HeliosData.com*