



GIGASPACE
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TURBOCHARGING IPAAS

How Smart DIH Boosts Application
Integration



TURBOCHARGING IPaaS: HOW SMART DIH BOOSTS APPLICATION INTEGRATION

iPaaS solutions provide API integration and enable data set processing, event processing and data distribution. They offer recognized value for discovering, moving, managing, governing and orchestrating data across application and data repositories. At the same time, the rapid growth in both number and heterogeneity of underlying data sources has exposed some limiting factors with iPaaS implementations.

1

Performance is capped by the backend systems and system load; **the platform can only perform** as well as its poorest performing component.

2

To improve API performance as well as data availability, **iPaaS may use a cache**. However, a cache solution only stores recently requested data for a limited time (TTL - time to live). The Cache Hit Ratio indicates that only some of the data was served by the cache, therefore, both performance and data freshness cannot be accurate nor predictable.

3

Excessive calls can cause the back-end systems to reach their maximum capacity, which may result in **degraded performance and potential downtime** due to system overload.

Overcoming Complex Service Orchestration with Smart DIH

The performance issues described above are elegantly solved with GigaSpaces' Smart DIH, an out-of-the-box, in-memory Digital Integration Hub (DIH). It serves data to iPaaS-based workloads from a real-time, event-driven replica of the data, thus protecting the SoRs by reducing the load on the underlying systems. This also reduces response latency, since responses can be received directly from memory, instead of going all the way to the system of record. Smart DIH provides the applications users with the experience expected from modern, digital applications.



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In addition, Smart DIH offers event-based integration, data persistence, data access microservices, data tiering, data validation, security, scalability, and more. This platform can be deployed in the cloud and on premises, supporting hybrid and multi cloud configurations.

The highly-available and scalable replica provided by the Smart DIH unleashes the full potential of always-on APIs orchestrated over the iPaaS. The platform delivers a high performance, ultra-low latency and an always-on digital experience for iPaaS-dependent applications. Smart DIH consolidates data from various sources into a unified data model within its distributed, scalable, in-memory data grid, **resulting in tangible performance enhancements:**



Complex joins, aggregations and business logic can be performed in the Smart DIH hosting layer regardless of where data came from, or the format in which the data is stored



No overload on the core business systems



Reduce the dependencies on the availability of backend systems



Centralized data access policies



Operations are no longer dependent upon the availability of the backend systems, bringing decoupling to the next level by isolating the data access services from the underlying systems of record



Avoids the 'spaghetti effect' of hard-to-maintain integration logic in systems with multiple point-to-point integrations where unnecessary duplication of integration logic usually occurs

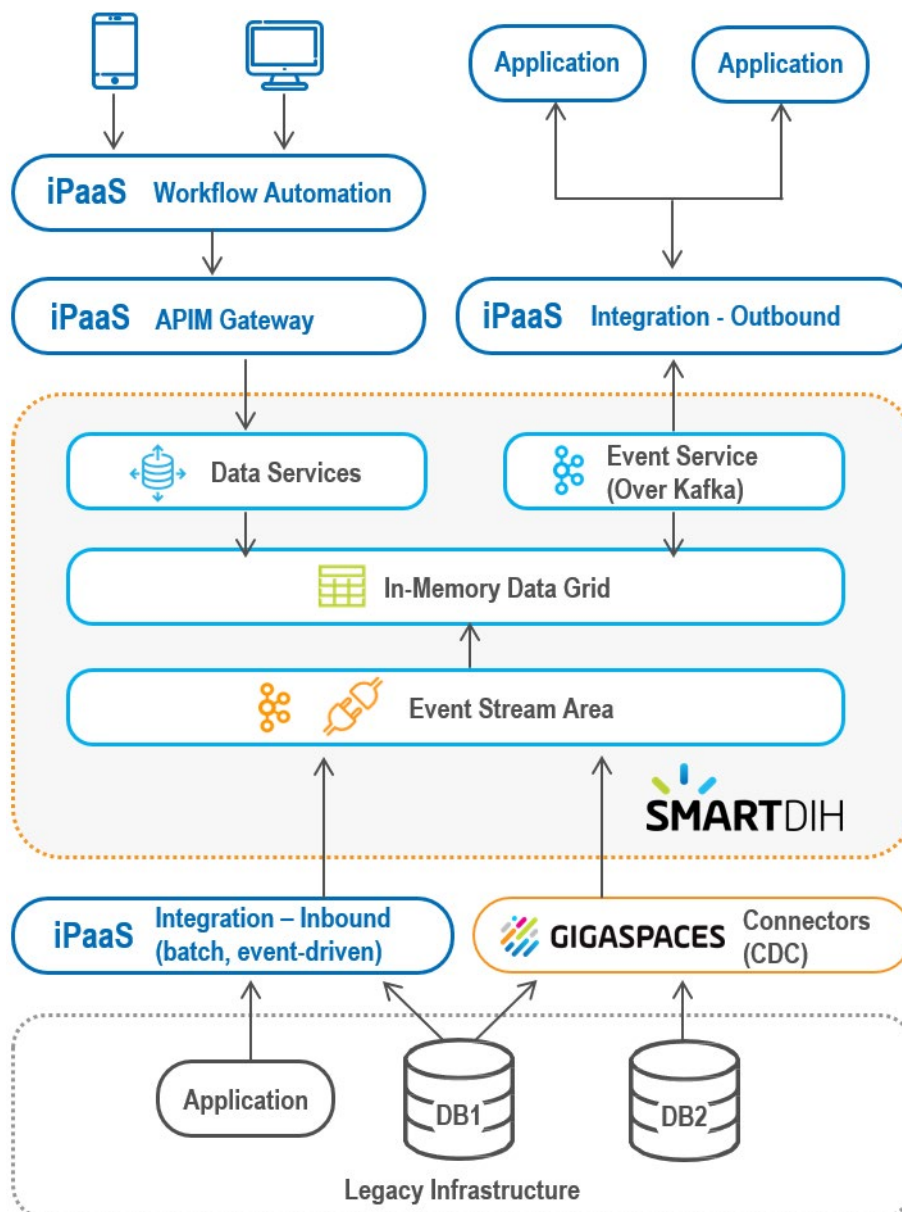
A Digital Integration Hub (DIH) decouples APIs from systems of record (SoRs), **servicing applications** with accurate fresh and complete data from the SoRs using an event-based integration. The DIH **delivers high performance, ultra-low latency, and an always-on digital experience.**

Gartner® lists GigaSpaces as one of four Representative Providers with an out-of-the-box DIH-enabled API platform.

Gartner, Innovation Insight: "Turbocharge Your API Platform with a Digital Integration Hub", January 28, 2022

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Smart DIH consolidates data from various sources into a unified data model within its distributed, scalable, in-memory data grid, resulting in tangible performance enhancements:



The Pluggable Connector Framework, part of the Smart DIH's open platform architecture, is the foundation for defining and operating real-time data pipelines. This framework offers a straightforward, declarative way for data exchange between Smart DIH and the iPaaS connectors. The iPaaS connectors complement the Smart DIH's out-of-the-box change data capture (CDC) and batch connectors, to provide vast connectivity with both legacy and cloud-based systems.

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The Benefits of a DIH Powered Application Integration Approach

This powerful iPaaS-Smart DIH integration offers application leaders responsible for integration architecture a way to improve architectural agility and deliver high-throughput, responsive and reliable APIs, providing:

- ✓ Efficient and effective data hosting, persistence and management, with event-driven consolidation of different data models from any SoRs
- ✓ Ultra-low latency and high concurrency response rates, optimized for highly demanding digital channels according to applicative requirements and cost considerations
- ✓ Always-on digital services, even when an SoR is down as they are fed from the highly available replica provided by the Smart DIH
- ✓ Architecture that facilitates streamlined development, deployment and maintenance of data services, offering digital acceleration and faster time-to-market for new digital applications

Smart DIH ensures that your iPaaS implementation can quickly access all the data it requires, at any time, and in any format, enabling a supreme customer experience.

For more information visit www.gigaspace.com

About GigaSpaces

GigaSpaces is the pioneer of in-memory computing. Some of the world's largest enterprises trust the GigaSpaces award-winning data platform with their data including Morgan Stanley, Bank of America, Goldman Sachs, CSX, American Airlines, UBS, Société Générale, and Crédit Agricole. GigaSpaces' offices are located in the US, Europe and Israel, with partners around the globe.

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```
def operation = function (v)
  mirror_mod.use_x = false
  mirror_mod.use_y = true
  mirror_mod.use_z = false
  elif operation == "MIRROR_Z":
    mirror_mod.use_x = false
    mirror_mod.use_y = false
    mirror_mod.use_z = true

#selections at the end -add back the deselected mirror modifiers
mirror_ob.select=1
modifier_ob.select=1
bpy.context.scene.objects.active = modifier_ob
print("Selected" + str(modifier_ob)) # modifier ob is the active
mirror_ob.select = 0
# bpy.context.scene.objects.active = mirror_ob
```