

The *@deprecated* Journey: Five Stops from Schema Hint to Gateway Power

GraphQL Conf 2026
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Senior Software Engineer

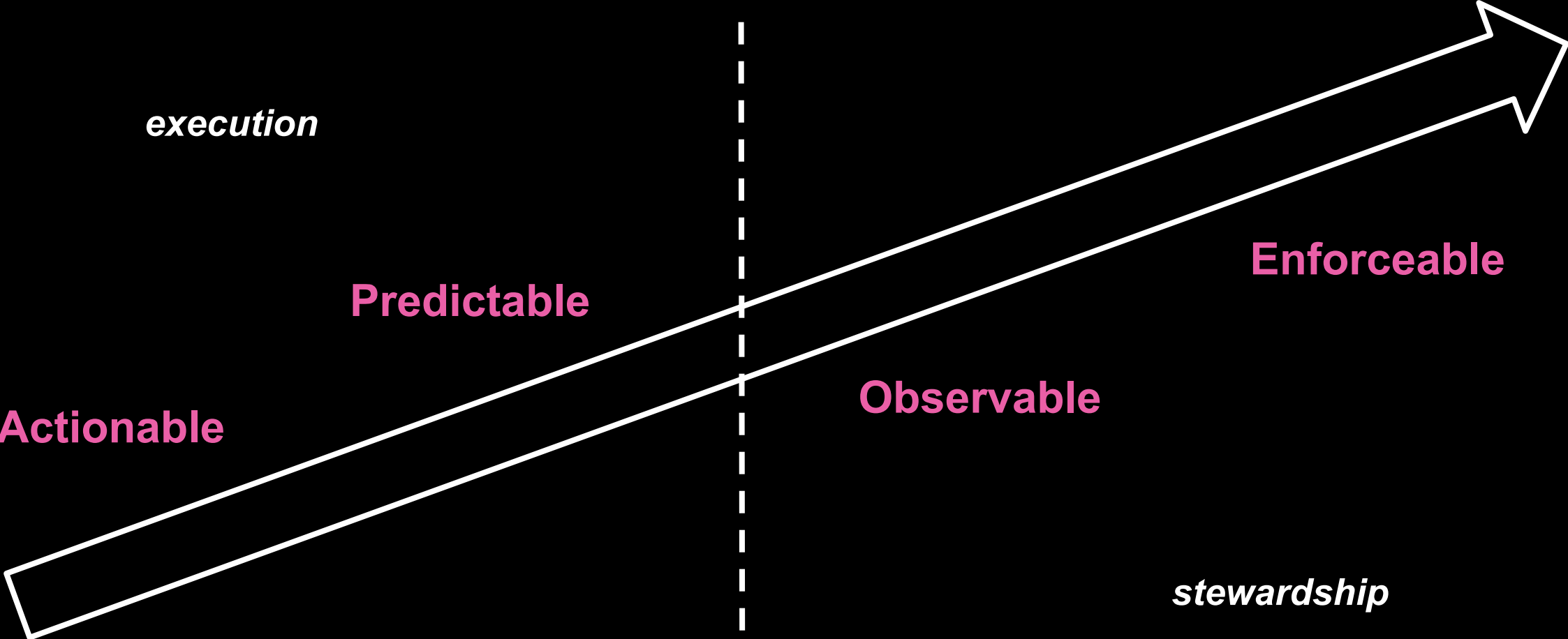
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Engineering

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Where our **@deprecated** journey *should* take us



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1 - Schema Hint

2 - Schema Transformer

3 - Schema Observer

4 - Subgraph Power

5 - Gateway Power



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Make `@deprecated` actionable!

```
directive @deprecated(  
  reason: String = "No longer supported"  
  replacedBy: String  
  migrationUrl: String  
) on FIELD_DEFINITION | ENUM_VALUE
```



Actionable



```
# Order Subgraph
type Order @key(fields: "id") {
  id: ID!
  address: String @deprecated(
    reason: "Address data has moved to the Location subgraph.",
    replacedBy: "Location.streetAddress",
    migrationUrl: "https://example.com/migration-guide#address-to-location"
  )
  pizzas: [Pizza!]!
}
```

```
GetActiveDrivers.graphql 1 X
queries > GetActiveDrivers.graphql > GetActiveDrivers > activeDrivers > orders > pizzas
6 query The field Order.address is deprecated. Moving to new service. Use Location.streetAddress
7 acti instead. GraphQL: Deprecation
9 di Order.address: String
10 or
11 Deprecated: Moving to new service. Use Location.streetAddress instead.
12 View Problem (^F8) No quick fixes available
13 address
14 location {
15 id
16 streetAddress
17 city
18 zipCode
19 }
20 pizzas {
21 id
22 name
23 toppings
24 }
25 }
26 }
27 }
```

```
ActiveDrivers +
1 query ActiveDrivers {
2   activeDrivers {
3     name
4     orders {
5       address
6     }
7   }
8 }
```

The field Order.address is deprecated. Moving to new service. Use Location.streetAddress.

Order.address: String

Deprecated: Moving to new service. Use Location.streetAddress.

View Problem (^F8) No quick fixes available

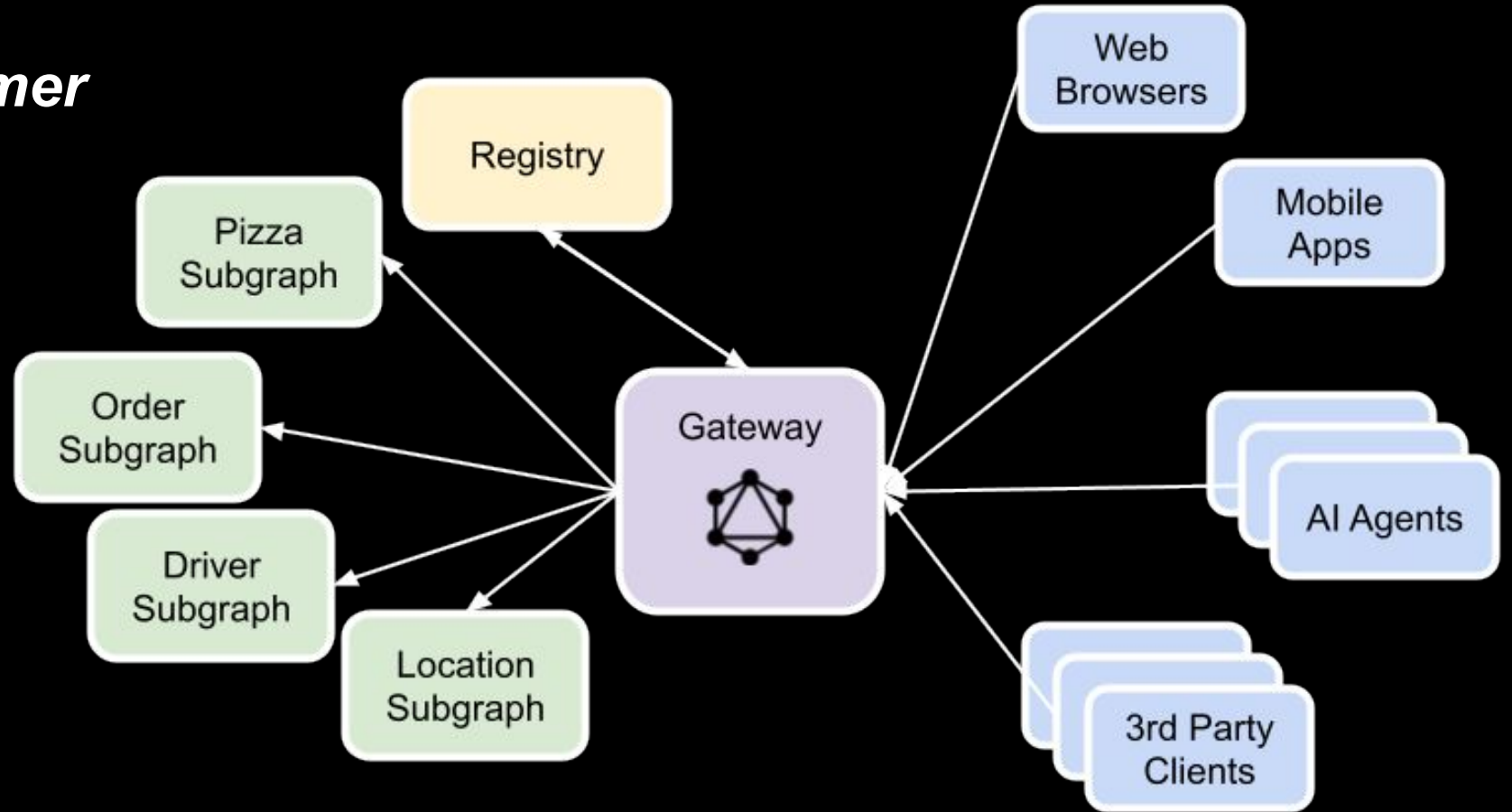
1 - Schema Hint

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The naive `@deprecated` Schema Transformer

```
import { mapSchema, getDirective, MapperKind } from '@graphql-tools/utils';
import { GraphQLSchema } from 'graphql';

export function pruningTransformer(schema: GraphQLSchema): GraphQLSchema {
  return mapSchema(schema, {
    // We intercept every field definition in the graph
    [MapperKind.FIELD]: (fieldConfig) => {

      // Check for the existence of @deprecated
      const deprecatedDirective = getDirective(schema, fieldConfig, 'deprecated')?.[0];

      if (deprecatedDirective) {
        return null;
      }

      return fieldConfig;
    },
  });
}
```

Not



Predictable

Client sends query

```
query { order { address } }
```

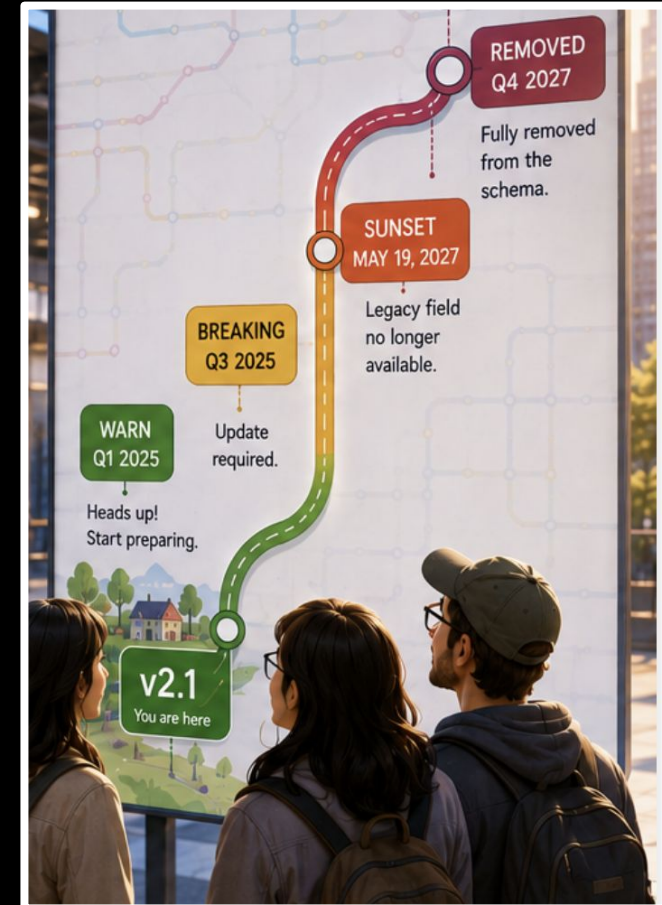
Server validates against schema

Validation Error

```
"errors": [{
  "message": "Cannot query field \"address\"",
  "extensions": { "code": "GRAPHQL_VALIDATION_FAILED" }
}]
```

Make `@deprecated` *predictable!*

```
directive @deprecated(  
  reason: String = "No longer supported"  
  replacedBy: String  
  migrationUrl: String  
  sunsetDate: DateTime  
) on FIELD_DEFINITION | ENUM_VALUE
```



The **@deprecated** Schema Transformer

```
{ "data": {  
  "order": {  
    "address": "123 Main St"  
  }  
}}
```

Before Sunset / Before
Deprecation

```
{ "data": { ... },  
  "extensions": {  
    "deprecations": [{  
      "field": "address",  
      "sunsetDate": "2026-06-01",  
      "replacedBy": "Location.streetAddress"  
    }]  
  }  
}}
```

Deprecation Window

Prefer **deprecated field resolution**
over **nullification**

Predictable



```
{ "errors": [{  
  "message": "Field sunset reached",  
  "extensions": {  
    "code": "FIELD_SUNSET_REACHED",  
    "replacedBy": "Location.streetAddress",  
    "migrationUrl": "https://..."  
  }  
}]}
```

After Sunset

Errors contain **proper context**

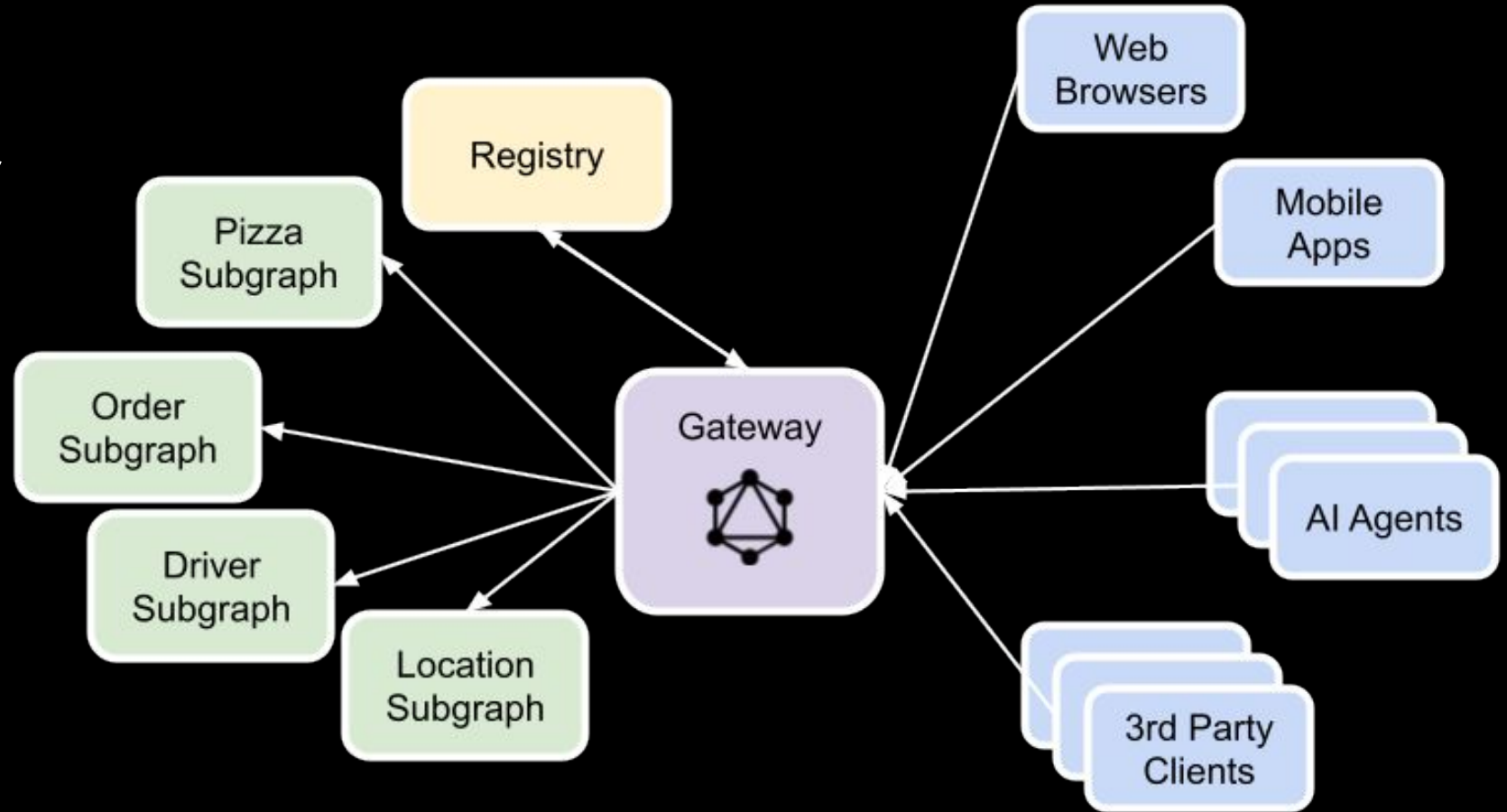
1 - Schema Hint

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The **@deprecated** Schema Observer

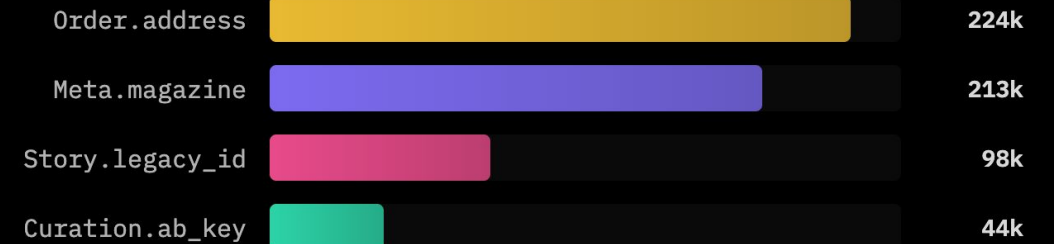
```
const sunsetAt = new Date(deprecatedDirective.sunsetDate);
const { resolve = defaultFieldResolver } = fieldConfig;

fieldConfig.resolve = async function (source, args, context, info) {
  Logger.warn(`Request made to deprecated field "${fieldConfig.name}".`);

  const now = new Date();

  if (now > sunsetAt) {
    Logger.error(`Request made to sunset field "${fieldConfig.name}".`);
  }
}
```

DEPRECATED FIELD REQUESTS (LAST HOUR)



CLIENT BREAKDOWN — ORDER.ADDRESS

REQUESTING

4

mobile-app (142k)
web-checkout (58k)
ai-agent-v2 (19k)
cms-editor (5k)

BREAKING

1

partner-feed (98k)
past sunset date

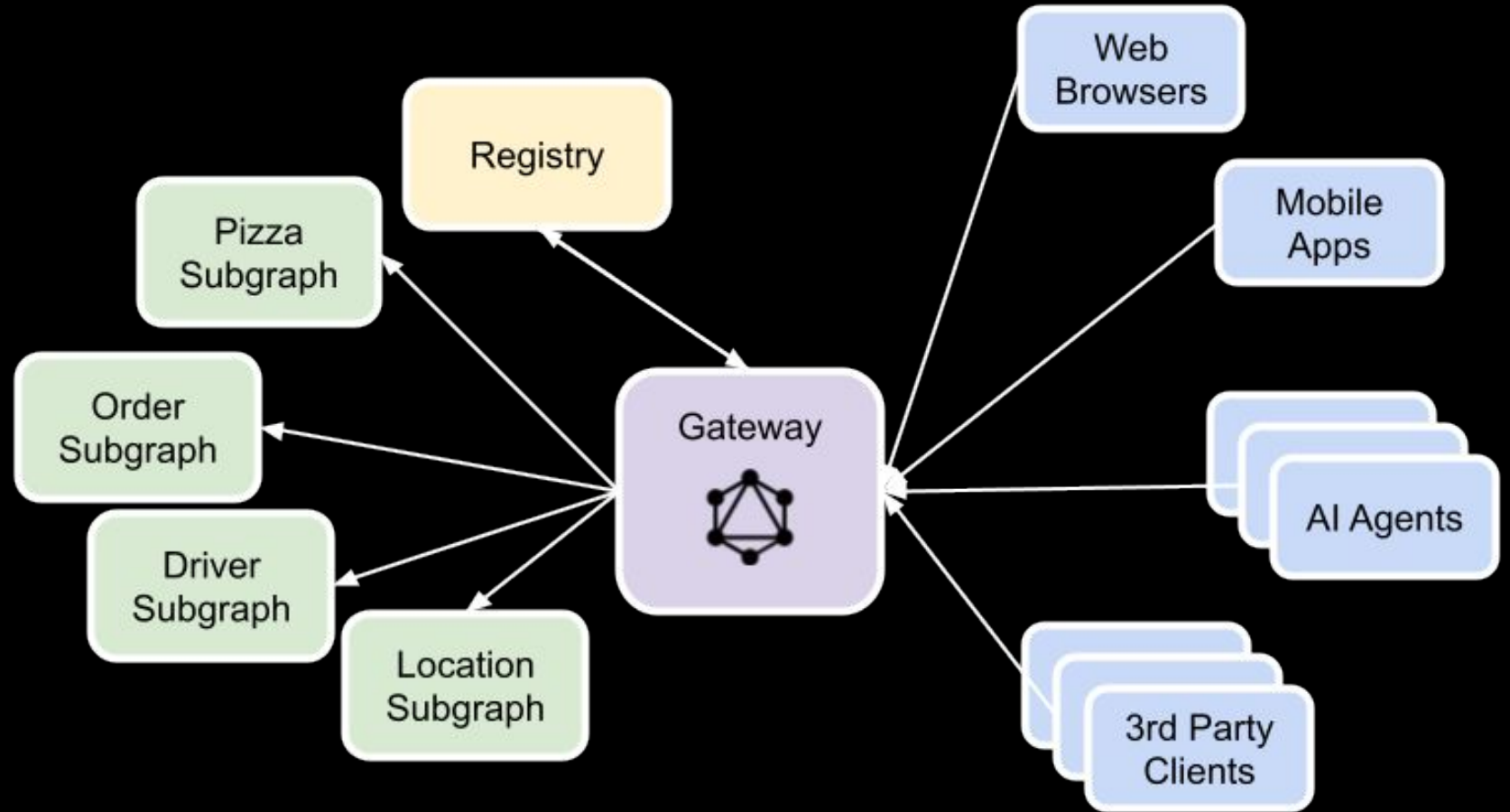
1 - Schema Hint

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3 - Schema Observer

4 - **Subgraph Power**

5 - Gateway Power



The Client-Aware **@deprecated** Field Resolver

Leverage GraphQL Context

```
fieldConfig.resolve = async function (source, args, context, info) {
  const clientName = context.clientInfo.name;

  Logger.warn(`Request made to deprecated field "${fieldConfig.name}" by client "${clientName}".`);

  const now = new Date();

  if (now > sunsetAt) {
    Logger.error(`Request made to sunset field "${fieldConfig.name}" by client "${clientName}".`);
  }
}
```

Observable



```
deprecatd-field-resolver.log

14:23:01    WARN    Deprecatd field Order.address | client: mobile-app
14:23:01    WARN    Deprecatd field Order.address | client: web-checkout
14:23:02    WARN    Deprecatd field Meta.magazine | client: cms-editor
14:23:03    ERROR    Sunset field Story.legacy_id | client: partner-feed
14:23:03    WARN    Deprecatd field Order.address | client: mobile-app
14:23:04    WARN    Deprecatd field Order.address | client: ai-agent-v2
14:23:05    ERROR    Sunset field Story.legacy_id | client: partner-feed
14:23:06    WARN    Deprecatd field Curation.ab_key | client: web-checkout
14:23:06    WARN    Deprecatd field Order.address | client: mobile-app
14:23:07    ERROR    Sunset field Story.legacy_id | client: cms-editor
```

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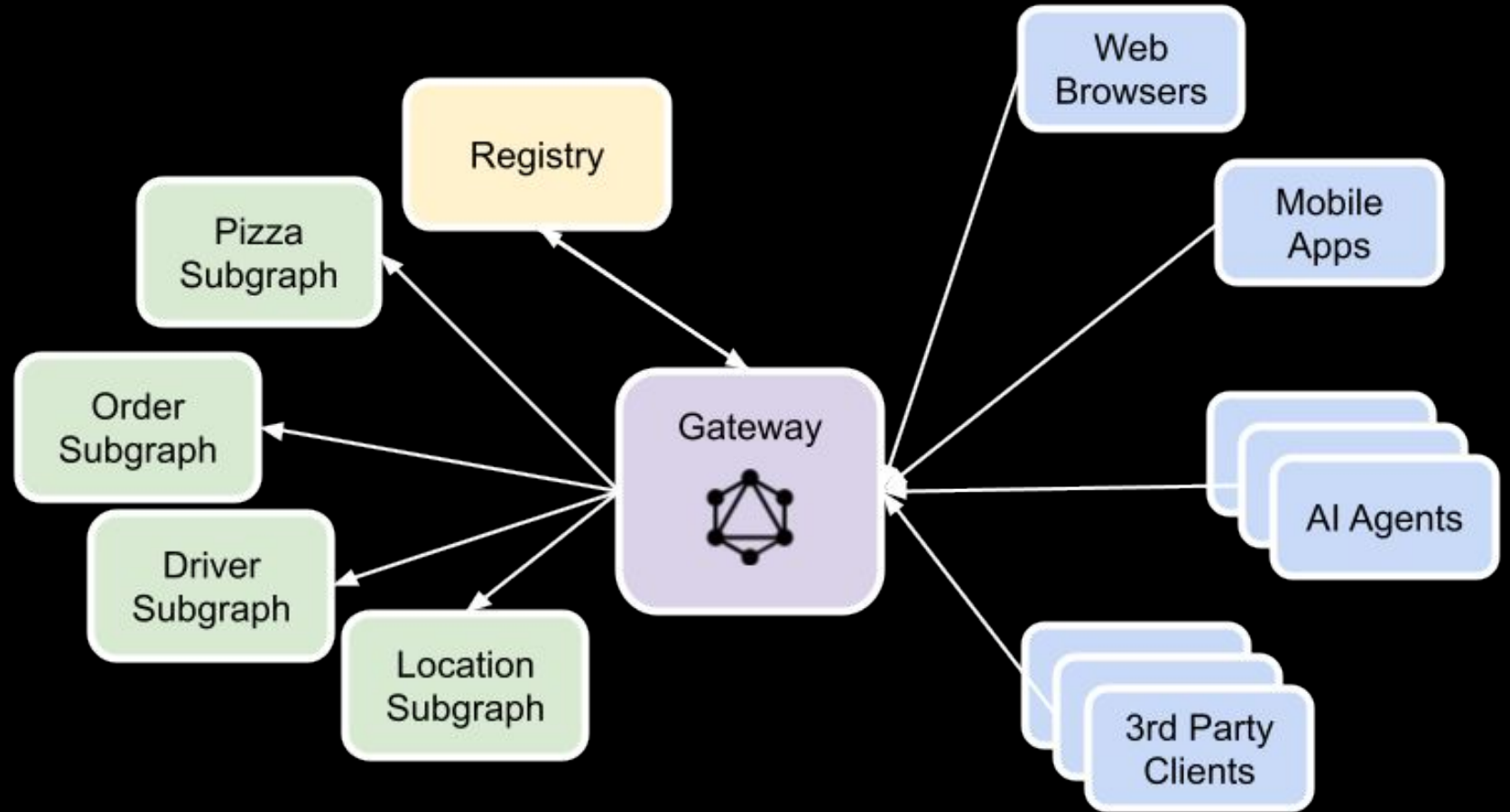
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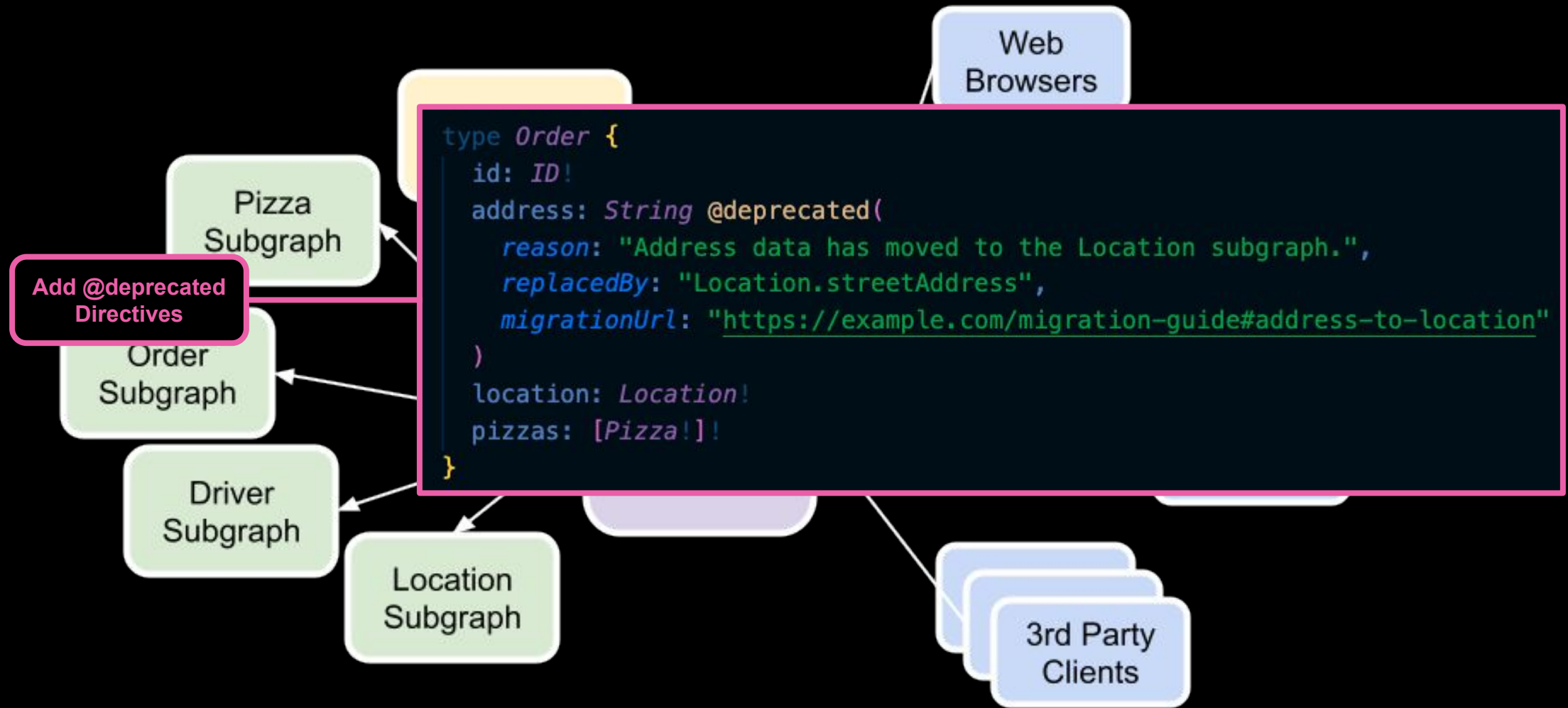
3 - Schema Observer

4 - Subgraph Power

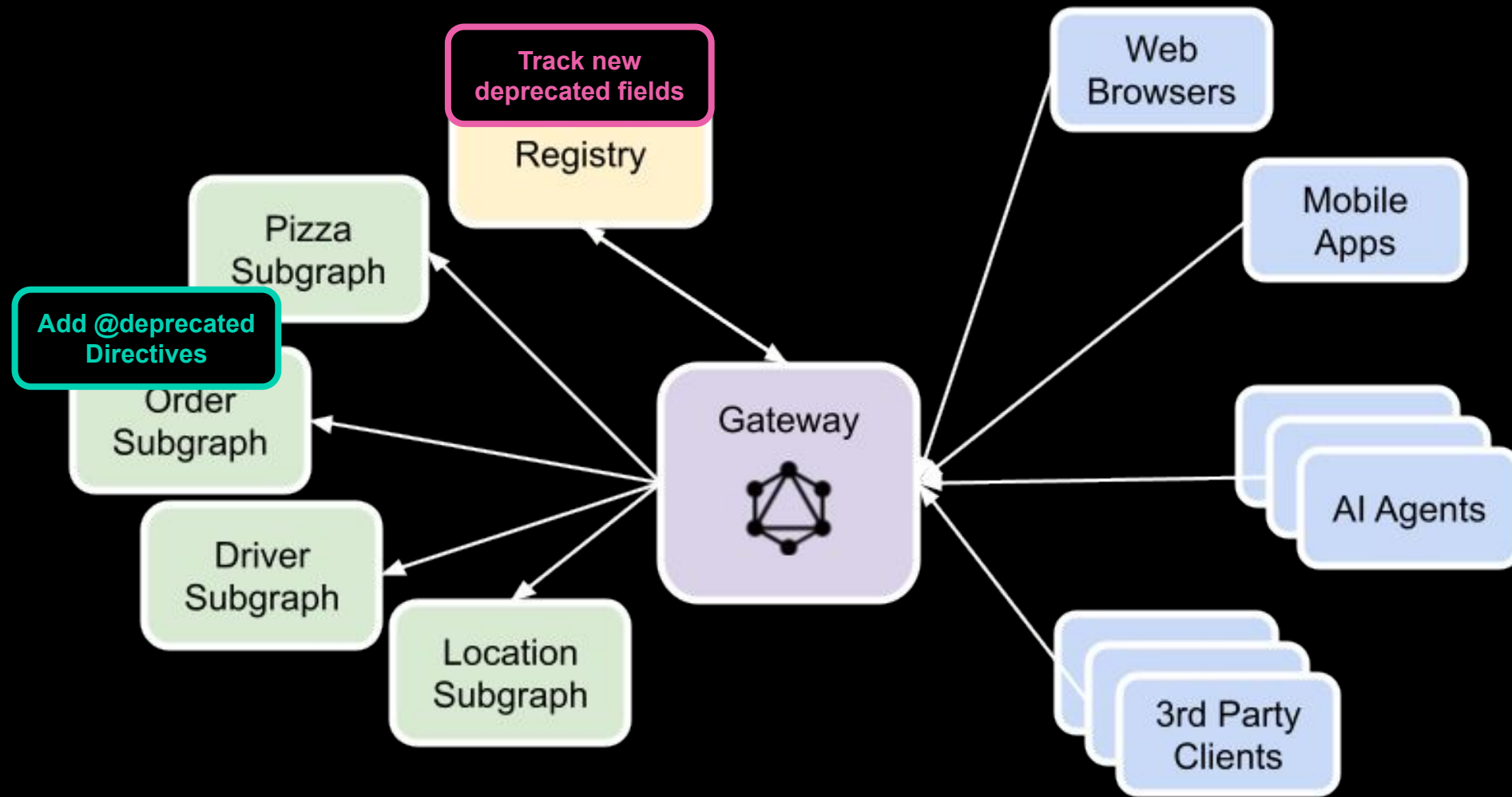
5 - Gateway Power



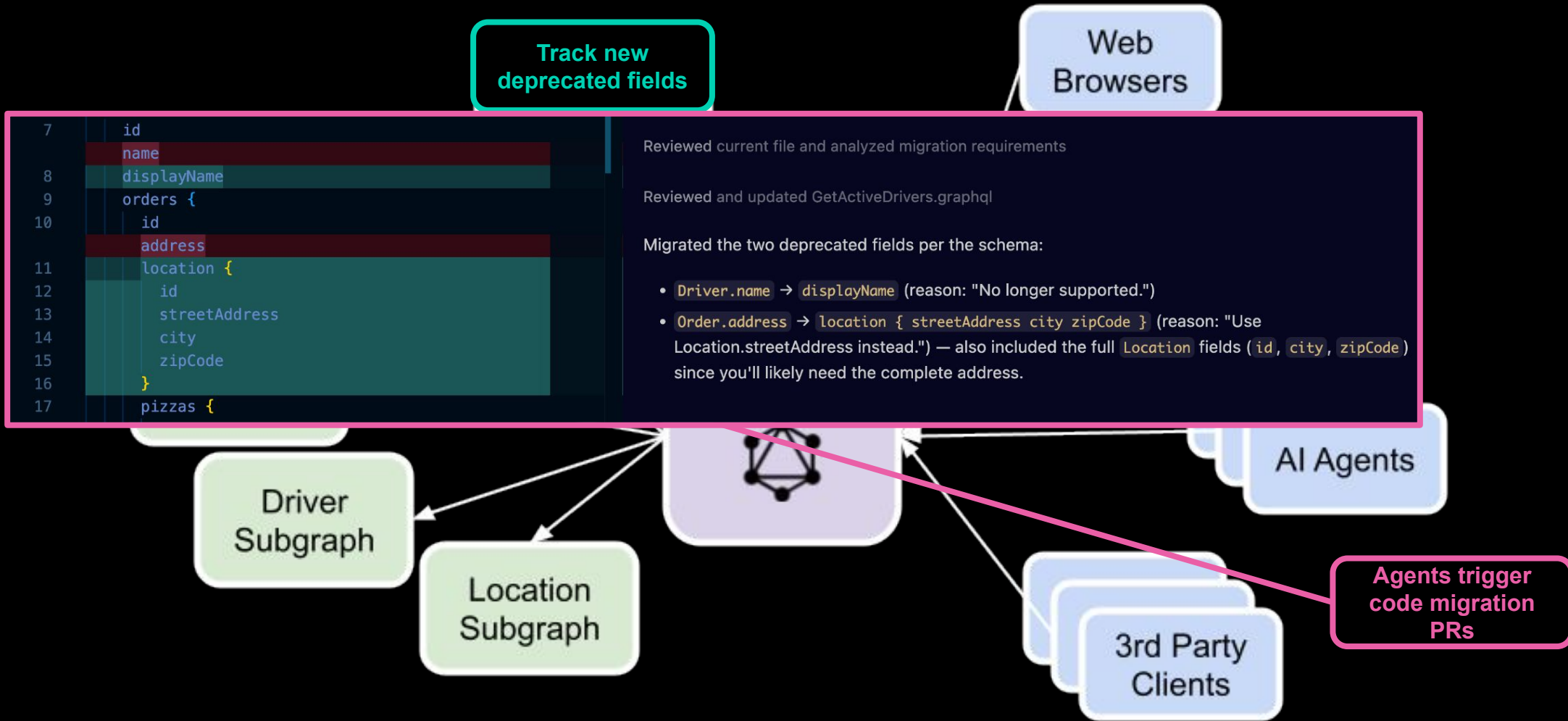
@deprecated as Gateway Power



@deprecated as Gateway Power



@deprecated as Gateway Power



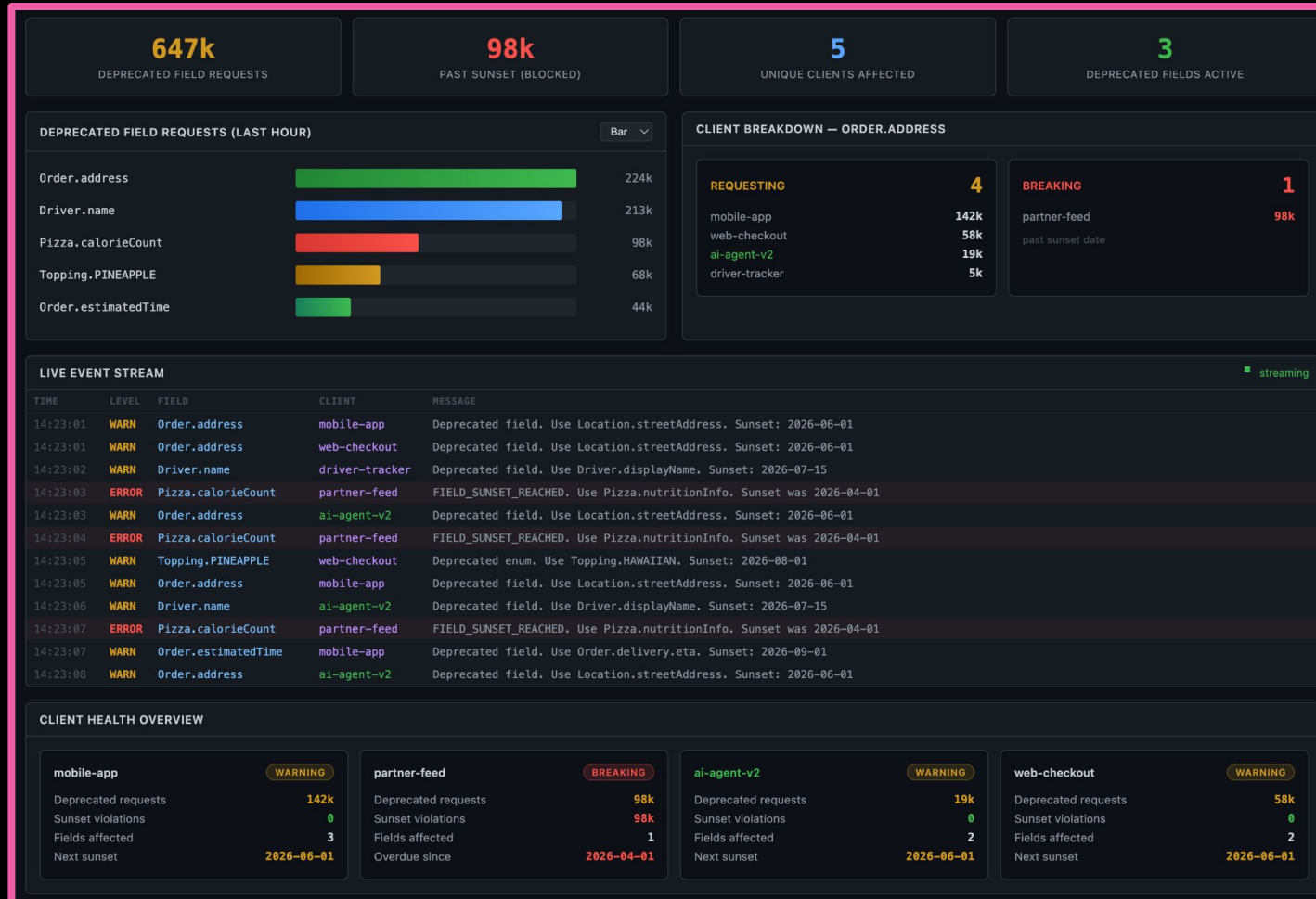
@deprecated as Gateway Power

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9     di Order.address: String
10    or
11      Deprecated: Moving to new service. Use Location.streetAddress instead.
12    View Problem (⌘F8) No quick fixes available
13    address
14    location {
15      id
16      streetAddress
17      city
18      zipCode
19    }
20    pizzas {
21      id
22      name
23      toppings
24    }
25  }
26 }
27 }
```

Developers receive query hints

Agents trigger code migration PRs

@deprecated as Gateway Power



Web Browsers

Mobile Apps

AI Agents

3rd Party Clients

Monitor all deprecated field traffic

Developers receive query hints

Agents trigger code migration PRs

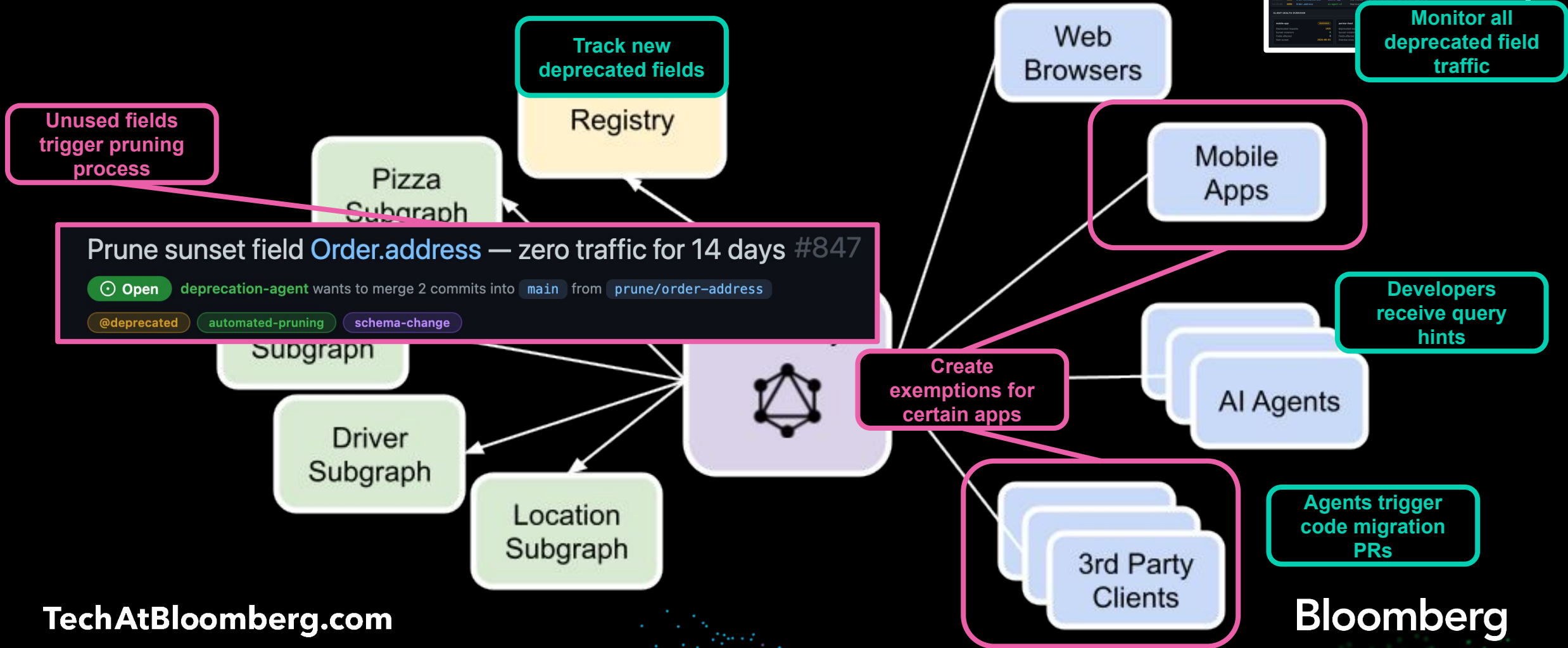
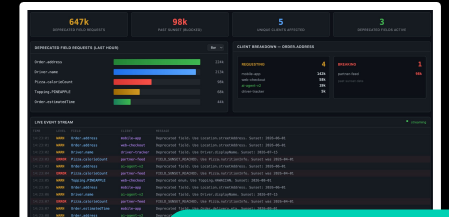
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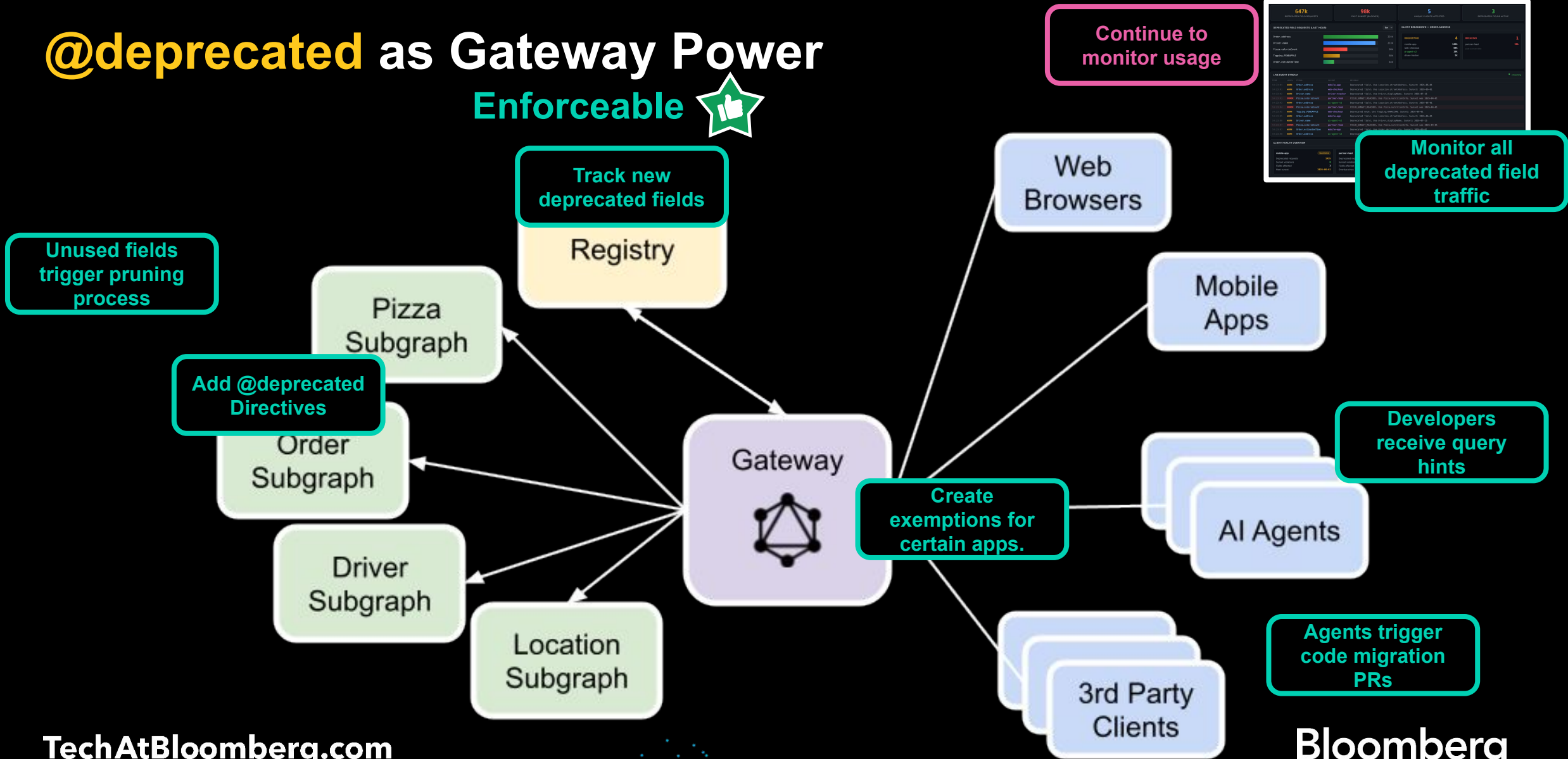
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Enforceable



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Thank you!

<https://spec.graphql.org/draft/>

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