ALPHAREN Integrator (ARINT) System

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Integrator System Overview
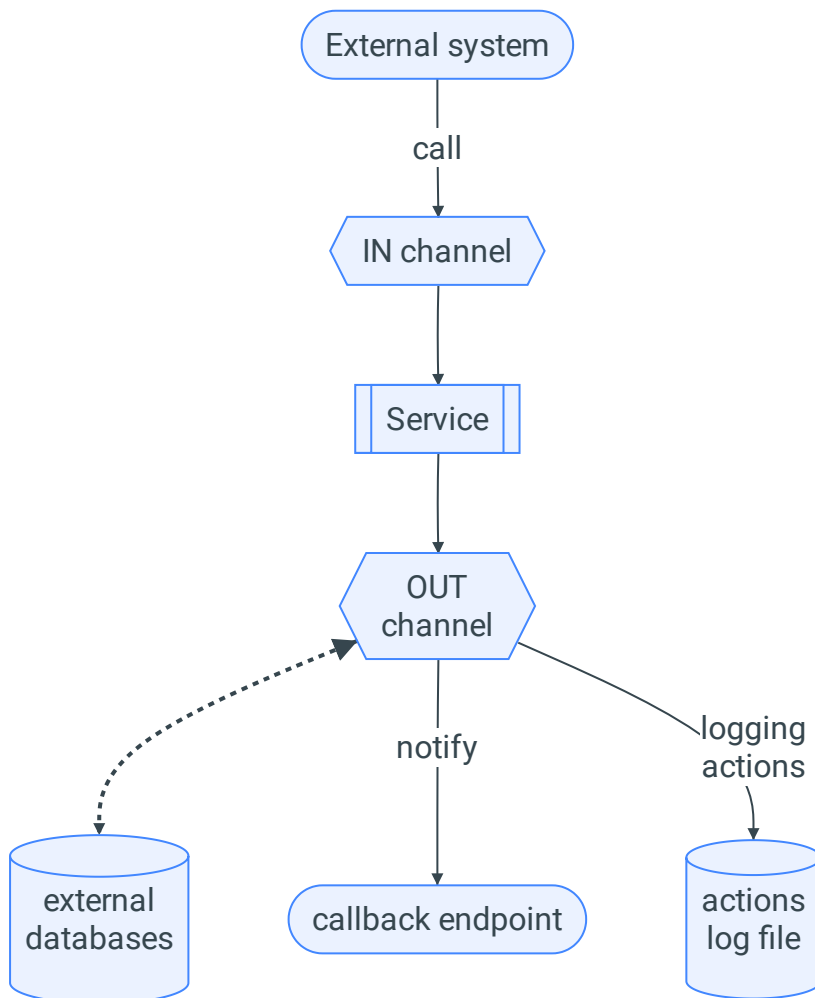
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ALPHAREN Integrator (aka `ARINT` or `arint`) system is a product (available as *software* or *appliance*) aimed to assure integration of different and various informational services between systems.

It acts as a high level *ESB or ESOA* to connect different services and to make them to work ***as one*** without the human intervention, ie, is automated.

ARINT very general and generic process flow is:

```
                    ┌─────────────────┐
                    │ External system │
                    └─────────────────┘
                             │
                            call
                             │
                             ▼
                      ╱─────────────╲
                      │  IN channel │
                      ╲─────────────╱
                             │
                             ▼
                       ║┌─────────┐║
                       ║│ Service │║
                       ║└─────────┘║
                             │
                             ▼
                      ╱───────────────╲
                      │      OUT       │
                      │    channel     │
                      ╲───────────────╱
                    ╱        │          ╲
                  ╱       notify          logging
                ╱           │             actions
              ▼             ▼                ▼
        ┌──────────┐  ┌──────────────┐  ┌──────────┐
        │ external │  │   callback   │  │  actions │
        │databases │  │   endpoint   │  │ log file │
        └──────────┘  └──────────────┘  └──────────┘
```

Fundamental features

- **ANYWHERE**. can work even the systems that must be integrated are in different non routable LANs (address systems at `http` protocol level)
- **ANYHOW**. is agnostic to format, composition, structure, encoding of information required / provided by systems that must be integrated
- **ANYTIME**. can work as a distributed high scalable cluster of "**ALPHA-REN Integrator Machines**"
- **SECURED**. can work with any public standard (ie, defined at least as `RFC`) of Internet security

Detailed features

For features list see

Typical use cases

ALPHAREN Integrator is used for enterprise, business integrations, data science, IoT and other scenarios that require integrations of multiple systems.

Real-world, production *ALPHAREN Integrator* environments include:

- A platform for processing payments from consumer devices
- A system for a telecom operators integrating CRM, ERP, Billing and other systems as well as applications of the operator's external partners
- A data science system for processing of information related to securities transactions (FIX)
- A platform for public administration systems, helping achieve healthcare data interoperability through the integration of independent data sources, databases and health information exchanges (HIE)
- A global IoT platform integrating medical devices
- A platform to process events produced by early warning systems, (ex SAP EWS)
- Backend e-commerce systems managing multiple suppliers, marketplaces and process flows B2B platforms to accept and process multi-channel orders in cooperation with backend ERP and CRM systems
- Platforms integrating real-estate applications, collecting data from independent data sources to present unified APIs to internal and external applications
- A system for the management of hardware resources of an enterprise cloud provider
- Online auction sites
- E-learning platforms
- ad-hoc data API for databases, protecting them to direct access

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