ALPHAREN CORE-Integrator (ARINT) System

Core-Integrator System Overview

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What is ARINT Core

ALPHAREN Core Integrator (aka `ARINT` or `arint`) system is a framework product for automation, integration and interoperability between *distributed systems* or *data sources* basically aimed to build *API oriented*, *middleware*, *frontend* and *backend* applications.

Practically it allows to create small-footprint and focused *business oriented microservices* or to transform "monolith" applications to micro-applications that will act *as a single one* but with a high degree of *maintainability*.

Product is available as *distinct software* or as *ready to run appliance* (including also some built-in components such as an internal database for business operations).

> **ARINT as Service bus**
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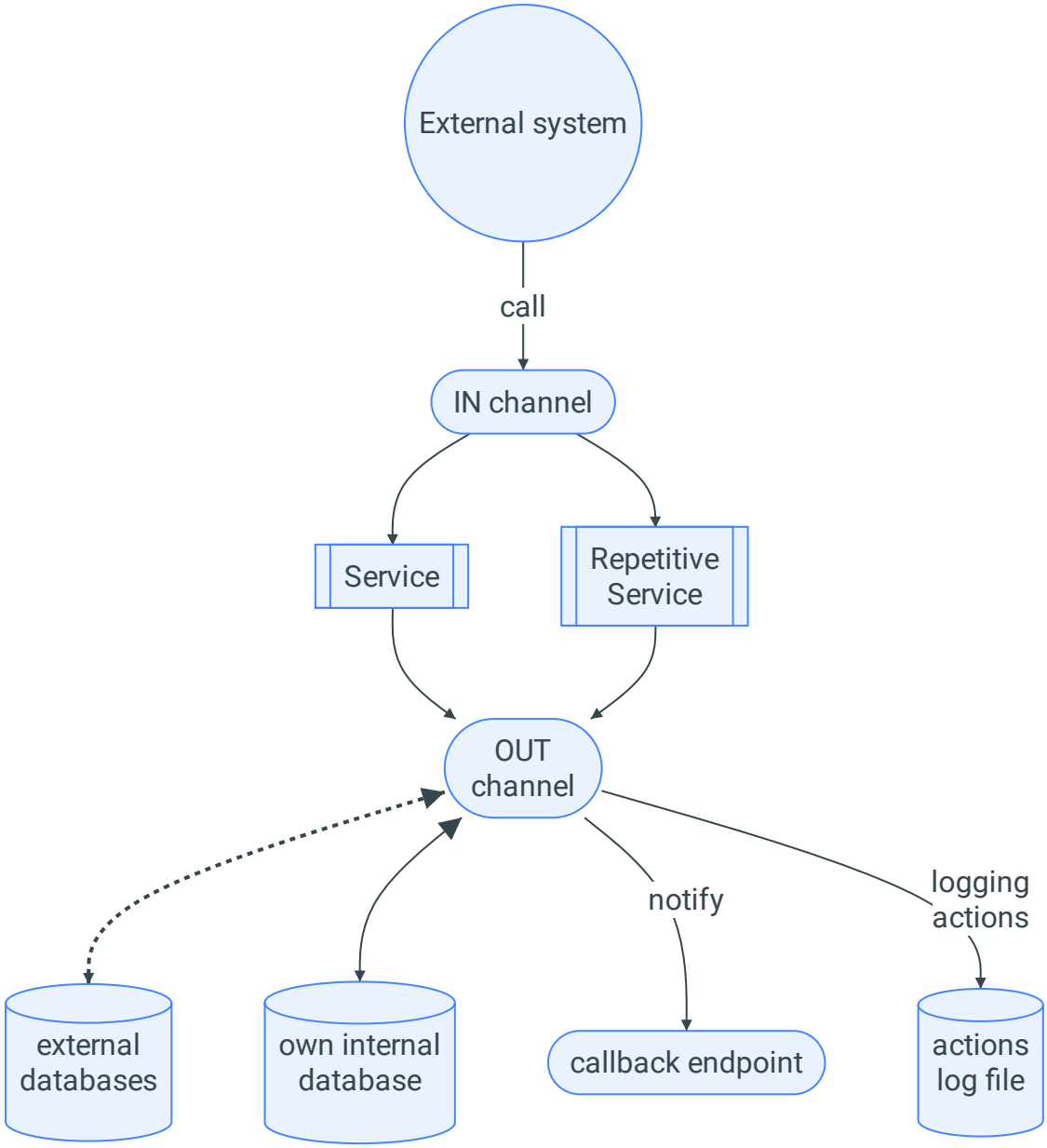
> ARINT acts as a high level *Service BUS* (ie, ESB or ESOA) to connect different micro-services and to make them to work ***as one***. As example it is already used by all *RENware Software Systems* products. Of course it can be used for **CUSTOMER SYSTEMS and SERVICES** too.

ARINT generic process flow is:



Remarks to diagram

- practically an `IN channel` establish a way to address the ARINT system, how to call it
- a `Repetitive Service` is normally called once (ie, to start it) and it begins to repeat operations (in background) at *defined time intervals* and for a *defined period* (or indefinitely)

Availability and system "presence"

- **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

> Each ARINT system (cluster containing one or more servers) can run on premises or in cloud deployed as classic software or Docker application container, Kubernetes node / container or as any general containerization "standard" method.

Features

For features list go here

Typical use cases

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

Real-world, production ***ALPHAREN CORE-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 for example to protect them to direct access or to hide particular implementation details (especially in legacy old databases) allowing for a smooth and transparent transition to new redesigned implementations

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