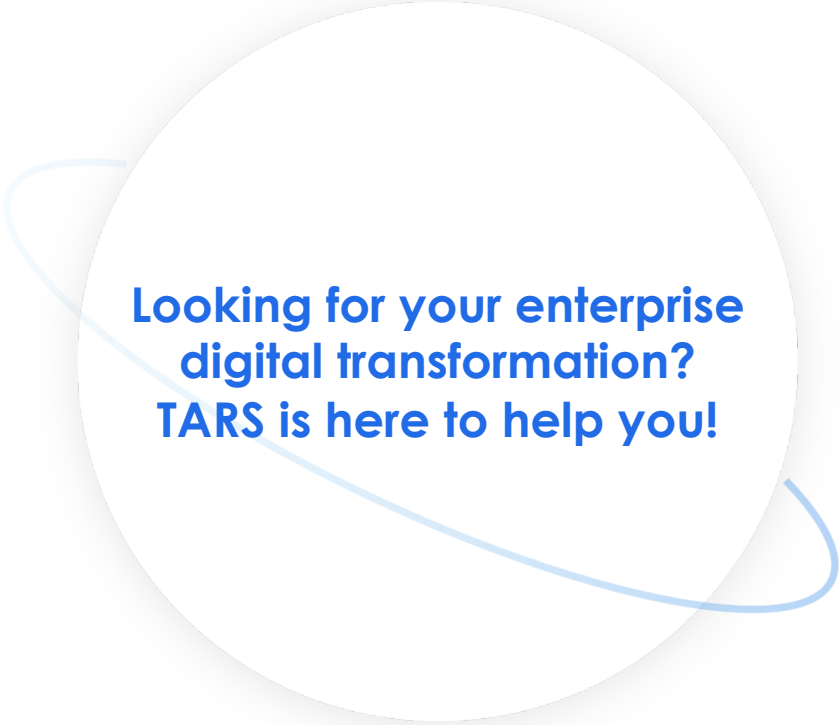# 5 reasons to migrate to TARS

TARS

Why TARS? Why now?

As the number of microservices increases, managing them gets more **challenging**. Additionally, developing microservices management tooling **on your own** can be **complex** and **cumbersome**.

Over its 12+ years of experience helping hundreds of organizations to successfully migrate their architecture to microservices, TARS can help you to **solve many challenges** that appear when implementing microservices. In this way, you can **strategize** and avoid those problems to reach your **microservices success**.

Looking for your enterprise digital transformation? TARS is here to help you!

TARS

5 challenges that TARS helps you to address

Focus on the business logic

Multiple Programming Languages

High Performance and High Concurrency Architecture

DevOps

Supporting Emerging Technologies

TARS

Focus on the Business Logic

Through encapsulation, TARS includes **transmission and service governance**, allowing developers to focus on the business logic.

Protocols: TARS protocols for IDL, shield serialization & protocol-codec, and interface-oriented programming.

Transmission: Encapsulation includes TCP/UDP by configuration, supports RDMA, and QUIC by plugins.

Service governance: Service register & discovery, load balance, overload protection, and distributed tracing.

*"TARS is available in **multiple languages** such as C ++ / Node.JS / Java / PHP / Golang, which can open up technical language barriers for all teams in the company.*
*At the same time, the **performance** of its RPC has passed the rigorous test of Tencent and other manufacturers, and the **test results are very good**.*
*Its built-in **operation and maintenance** platform **allows development to focus on logic only**, and **disaster recovery / release / monitoring / scheduling is fully automated**."*

Longtu Game

TARS

Multiple Programming Languages

With TARS you can develop your microservices in
5 different programming languages.
TARS has helped many organizations
to use multiple programming languages..

*"So far, almost all of the company's business has migrated to the TARS platform. In terms of language selection,
the company uses **C++** for services with Extremely high performance requirements,
Node.JS full-stack development for strong WEB/strong business logic services, and Java development for big data-related platform development.
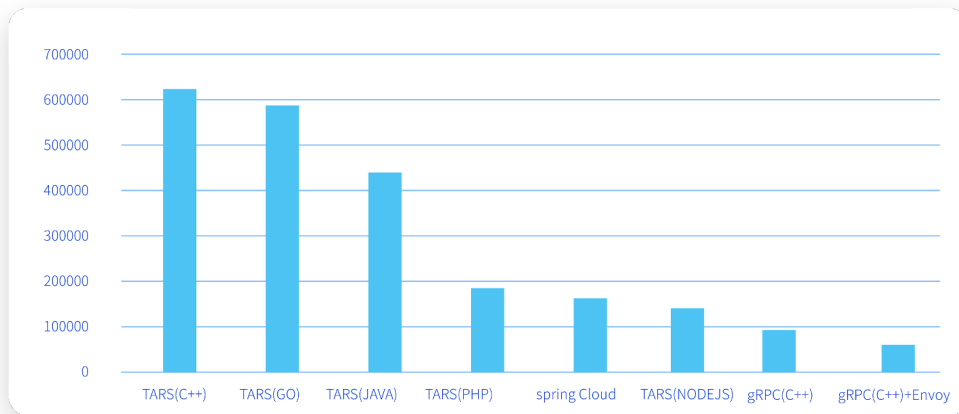At present, there are nearly **1500 C++ service modules** online,
more than **800 Node.JS** service modules, nearly **100 Java service modules**, and new service modules every day."*

UP Wealth

https://tarscloud.org/document/cases/6783104564875651

High Performance and High Concurrency Architecture

With TARS, you don't need to worry about how big your business is. TARS helps you to reduce costs and provides high performance and high concurrency architecture.

*"China Literature has grown rapidly in recent years, and now **MAU has exceeded 190 million**. In this case, the Spring Festival has a red envelope activity, **QPS is about 100,000,** and **the core engine data has reached 100,000.***

TARS supports this magnitude of how to make a high-performance and high-concurrency architecture."

https://tarscloud.org/document/cases/1661535480622558
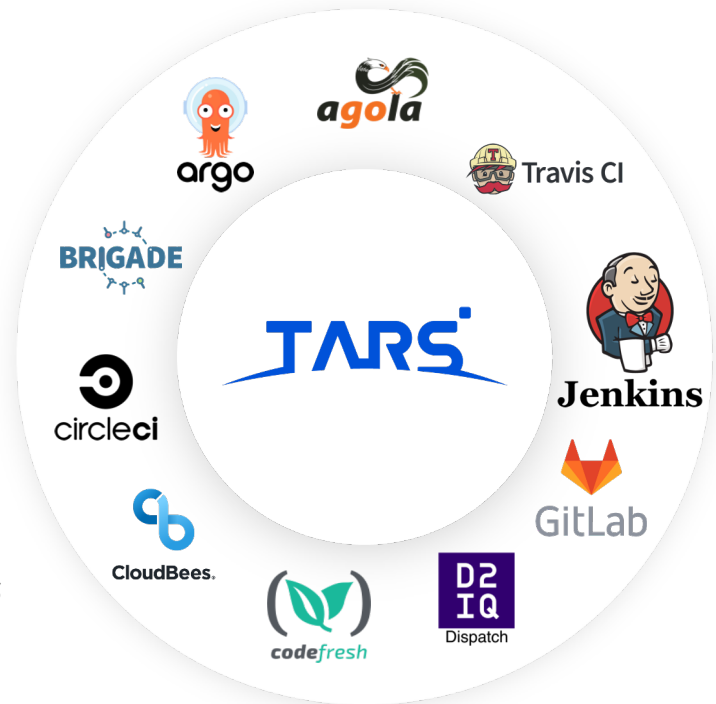
China Literature

DevOps

If you are looking for microservice excellence, DevOps is one of the key components. TARS offers greater **agility** and **operational efficiency** by **integrating with many CI/CD tools.**

"By utilizing CI/CD tools with TARS, China Literature was able to improve its operational efficiency. Specifically, it **solves the problem of different interface protocols** *during QA testing, and* **reduces the cost of invoke process** *by deploying automatically via Jenkins when publishing services.* **Improved service quality and test efficiency** *are also the benefits of using TARS. "*
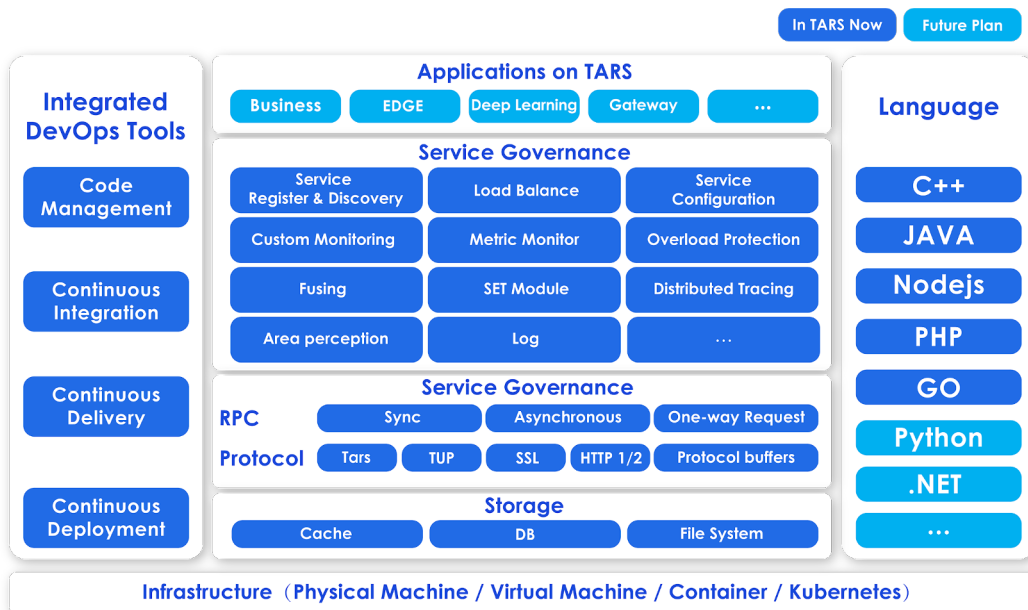
China Literature

Supporting Emerging Technologies

TARS helps business to incorporate **IoT technologies, deep learning, and edge computing** into their products and processes.

TARS supports different protocols such as **TARS, HTTP 1/2, SSL, Protocol Buffers, and user defined protocols**, and supports **multiples tools and libraries** to develop deep learning algorithms and edge computing.

Furthermore, if you are working with emerging technologies, you might need to work with communication across multiple protocols, different data models and different data formats.
With TARS, that is pretty easy!

In TARS Now   Future Plan

Integrated DevOps Tools

Code Management

Continuous Integration

Continuous Delivery

Continuous Deployment

Applications on TARS

| Business | EDGE | Deep Learning | Gateway | ... |

Service Governance

Service Register & Discovery	Load Balance	Service Configuration
Custom Monitoring	Metric Monitor	Overload Protection
Fusing	SET Module	Distributed Tracing
Area perception	Log	...

Service Governance

RPC | Sync | Asynchronous | One-way Request |

Protocol | Tars | TUP | SSL | HTTP 1/2 | Protocol buffers |

Storage

| Cache | DB | File System |

Language

C++
JAVA
Nodejs
PHP
GO
Python
.NET
...

Infrastructure（Physical Machine / Virtual Machine / Container / Kubernetes）

TARS

TARS - The best choice for your enterprise digital transformation

No matter how small or how big your business is,
TARS will solve the challenges faced when migrating to microservices.
The 5 reasons mentioned in this ebook can help you to achieve your business success with less effort.

https://tarscloud.org

https://github.com/TarsCloud

https://twitter.com/TarsCloud

Official Account: TarsCloud

tars@tarscloud.org

TARS

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TARS