OPEN SOURCE SOFTWARE

Open Source Software (OSS) is computer software with its source code made available with a license in which the copyright holder provides the rights to study, change, and distribute the software to anyone and for any purpose.[1] Open-source software may be developed in a collaborative public or community manner.

The following benefits contribute to the growing popularity of OSS:

Freedom

Users have the freedom to run, copy, distribute, study, change and improve the software. Thus, "free software" is a matter of liberty, not price.

THE #1 REASON FOR OSS ADOPTION IN 2016 WAS **FREEDOM FROM VENDOR LOCK-IN** [2]

Cost

OSS is crowd-sourced. As a result it has the benefit of being free to acquire. This benefit alone makes OSS highly appealing.

amazon REPORTED THAT ADOPTING OSS HAS **REDUCED TECHNOLOGY EXPENSES BY 25%** [3]

Quality

Reused code improves faster than proprietary code. Open source code tends to be very high quality, on par or better than proprietary code.

THE #2 REASON FOR OSS ADOPTION IN 2016 WAS **QUALITY OF CODE** [2]

Customization

OSS may be customized by anyone with the requisite skill. Thus, OSS can be readily adapted to meet specific user needs.

**MORE THAN 70% OF IT PROFESSIONALS IN THE USA PREFER OSS FOR CONTINUITY AND CONTROL** [4]

The following is a use case illustration of how 1901 Group uses **Open Source Software** to benefit customers:

The Challenge

COTS

Custom Reporting + Data Warehousing + System Integration

FedRAMP + FISMA
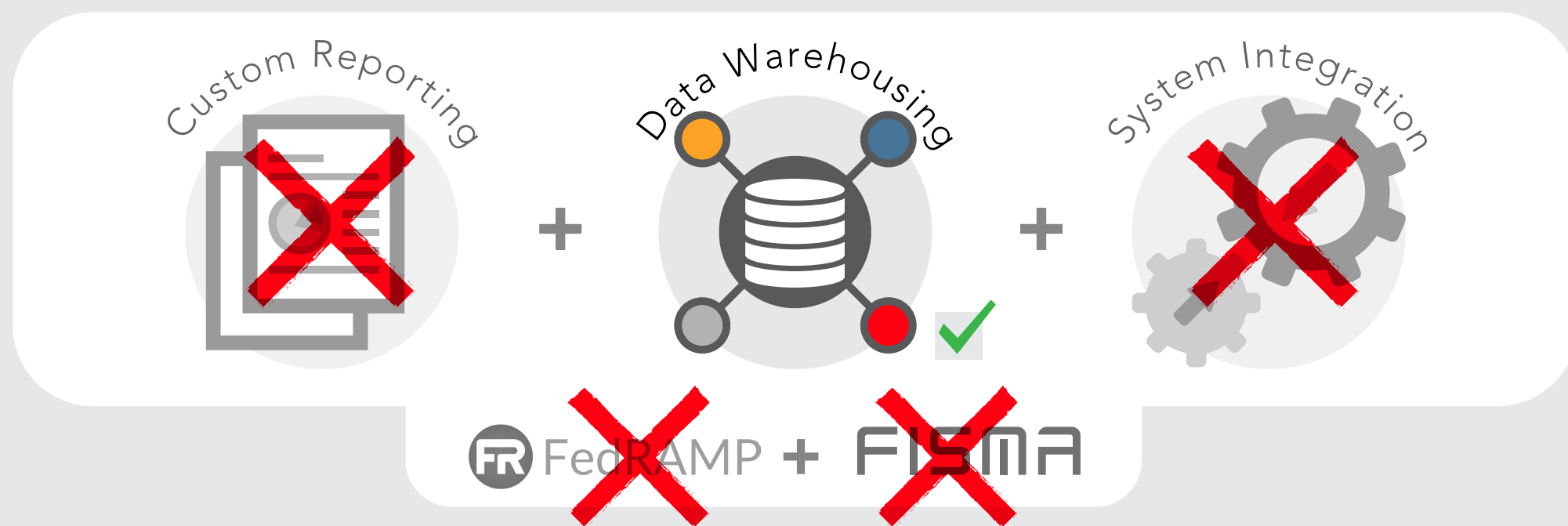
As a managed service provider (MSP), who migrates public and private sector customers from multiple legacy ITSM systems to our leveraged platform utilizing both commercial and FISMA ServiceNow instances, 1901 Group is responsible for incident and request ticket data replication to local resources, preparing custom reports, data warehousing, and system integration, while ensuring compliance with FISMA and FedRAMP security requirements. The Commercial Off the Shelf (COTS) product being used for data replication did not provide the FISMA and FedRAMP security controls necessary to support Federal agency customers; **therefore, 1901 Group created an agile solution using both custom code and OSS for data replication features and functionality.**

The Solution

OSS

Custom Reporting + Data Warehousing + System Integration

FedRAMP + FISMA
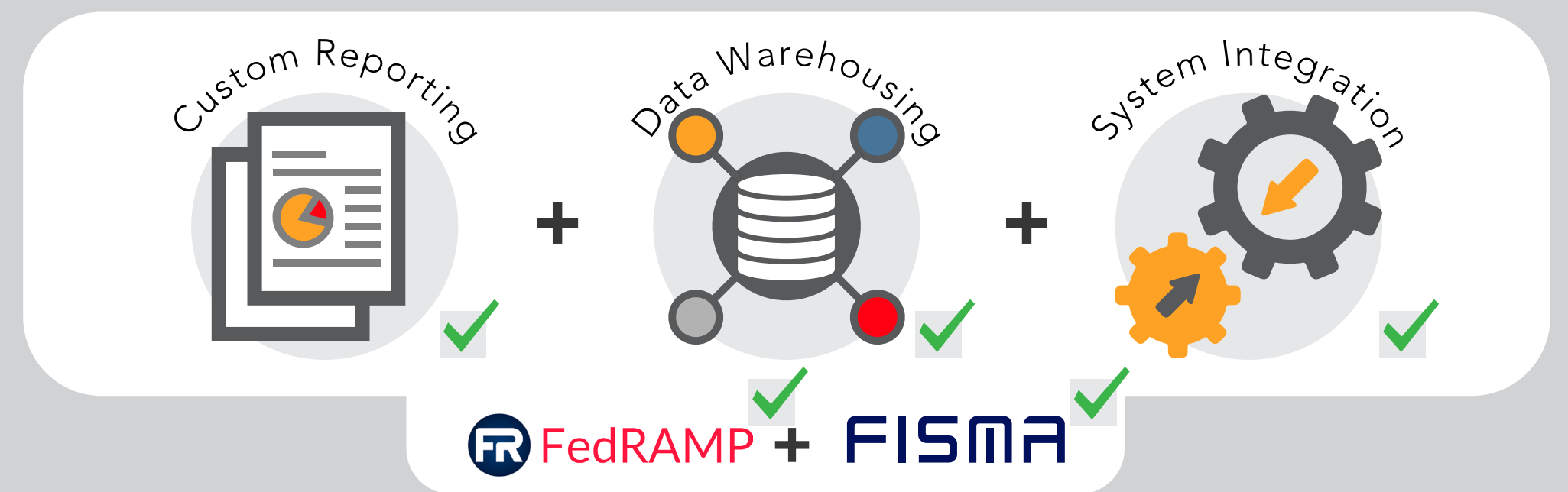
1901 Group exceeded customer expectations and program requirements by implementing OSS to create customized data replication capabilities using Microsoft Visual Studio 2015, C#, .Net Core, Angular and Microsoft's cross platform development platform for web.
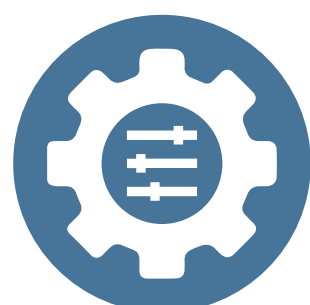
The new OSS quickly delivered benefits to the customer after:

- **2 weeks** designing data replication requirements,
- **12 weeks** developing code, and
- **2 weeks** testing to implement new capabilities.

The 1901 Group team ranks the benefits from using OSS as:

#1 Control and Compliance

1901 Group's solution enabled complete control over all aspects of the software ensuring compliance. Modular development using industry standards promotes quality, continuous improvement, and maintainability moving forward.

#2 Skills Development and Employee Satisfaction

The personnel working on this endeavor expanded their skills sets to include trusted, leading edge technologies leveraged by Microsoft tools. These skills were immediately beneficial to 1901 Group's long term corporate Cloud-Factory goals.

#3 Costs

Short term cost savings were recognized in eliminating COTS licenses; Additionally, the long term costs of COTS license renewals were projected to be over $100,000 which greatly exceeds the cost of development, operations and maintenance.

SOURCES:
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4. "The Open Source Collaboration Study: Viewpoints on Security and Privacy in the US and EMEA". info.zimbra.com/zimbra-ponemon-survey-en