

# **PLATFORM INTEGRATION METHODS PATENT**

**United States Patent No. US10777888**

## **ABSTRACT**

A system and method for integrating distributed computing platforms through intelligent middleware interfaces, comprising automated discovery and configuration of enterprise system endpoints, dynamic protocol adaptation, and machine learning-enabled optimization of data flows between heterogeneous systems.

## **PATENT DETAILS**

**Filing Date: March 15, 2018**

**Issue Date: September 22, 2020**

**Assignee: Summit Digital Solutions, Inc.**

**Inventors: Chang, Michael; Martinez, Robert; Henderson, James**

**Patent Term: 20 years from filing date**

## **TECHNICAL FIELD**

[0001] The present invention relates generally to enterprise systems integration, and more particularly to automated methods for discovering, connecting, and optimizing data flows between disparate computing platforms in large-scale digital transformation implementations.

## **BACKGROUND**

[0002] Enterprise digital transformation initiatives frequently encounter challenges when attempting to integrate legacy systems with modern cloud platforms. Traditional integration methods require extensive manual configuration and ongoing maintenance of point-to-point connections.

[0003] Prior approaches have failed to adequately address the dynamic nature of modern enterprise architectures and the need for intelligent, self-optimizing integration layers.

## **SUMMARY OF THE INVENTION**

[0004] The present invention provides systems and methods for automated platform integration through:

a) Dynamic endpoint discovery using machine learning algorithms to identify and classify system interfaces

- b) Intelligent protocol adaptation to enable seamless communication between disparate systems
- c) Self-optimizing data routing based on real-time performance metrics
- d) Automated configuration management and version control
- e) Predictive scaling and load balancing

## **DETAILED DESCRIPTION**

[0005] The system comprises:

### Discovery Module

- Network scanning components
- Interface classification engine
- Configuration template generator
- Security validation framework

### Protocol Adaptation Layer

- Dynamic protocol mapping
- Data transformation engine
- Message queue management
- Error handling and retry logic

### Optimization Engine

- Performance monitoring
- Machine learning models
- Route optimization
- Resource allocation

## **CLAIMS**

A method for automated platform integration comprising:

- a) Scanning enterprise networks to identify system endpoints
- b) Classifying discovered endpoints using machine learning
- c) Generating appropriate configuration templates
- d) Establishing secure communication channels
- e) Optimizing data flows through predictive analytics

The method of claim 1, wherein the machine learning classification utilizes:

- Natural language processing
- Pattern recognition
- Historical configuration analysis
- Behavioral modeling

The method of claim 1, further comprising:

- Real-time performance monitoring
- Automated failover procedures
- Dynamic resource allocation
- Self-healing capabilities

## **DRAWINGS**

[0006] Figure 1: System Architecture Diagram

[0007] Figure 2: Discovery Process Flow

[0008] Figure 3: Optimization Algorithm

[0009] Figure 4: Interface Classification Model

## **PROPRIETARY RIGHTS**

This patent and all related intellectual property rights are owned exclusively by Summit Digital Solutions, Inc. Any unauthorized use, reproduction, or distribution is strictly prohibited and may result in civil and criminal penalties.

## **ASSIGNMENT RECORD**

The inventors hereby assign all rights, title, and interest in this patent to Summit Digital Solutions, Inc., including:

- Right to practice the invention
- Right to license the technology
- Right to enforce the patent against infringement
- Right to collect royalties and damages

## **MAINTENANCE STATUS**

- First maintenance fee paid: March 15, 2024
- Next maintenance fee due: March 15, 2028

- Patent status: Active and in good standing

## **CERTIFICATION**

The undersigned hereby certify that they are the named inventors of the technology described herein and have assigned all rights to Summit Digital Solutions, Inc.

## **INVENTORS:**

—

Michael Chang

Chief Technology Officer

Date: September 22, 2020

—

Dr. Robert Martinez

Chief Innovation Officer

Date: September 22, 2020

—

James Henderson

Chief Digital Officer

Date: September 22, 2020

## **NOTARIZATION**

State of Delaware

County of New Castle

Subscribed and sworn to before me on September 22, 2020

—

Jane Smith

Notary Public

Commission Expires: December 31, 2024