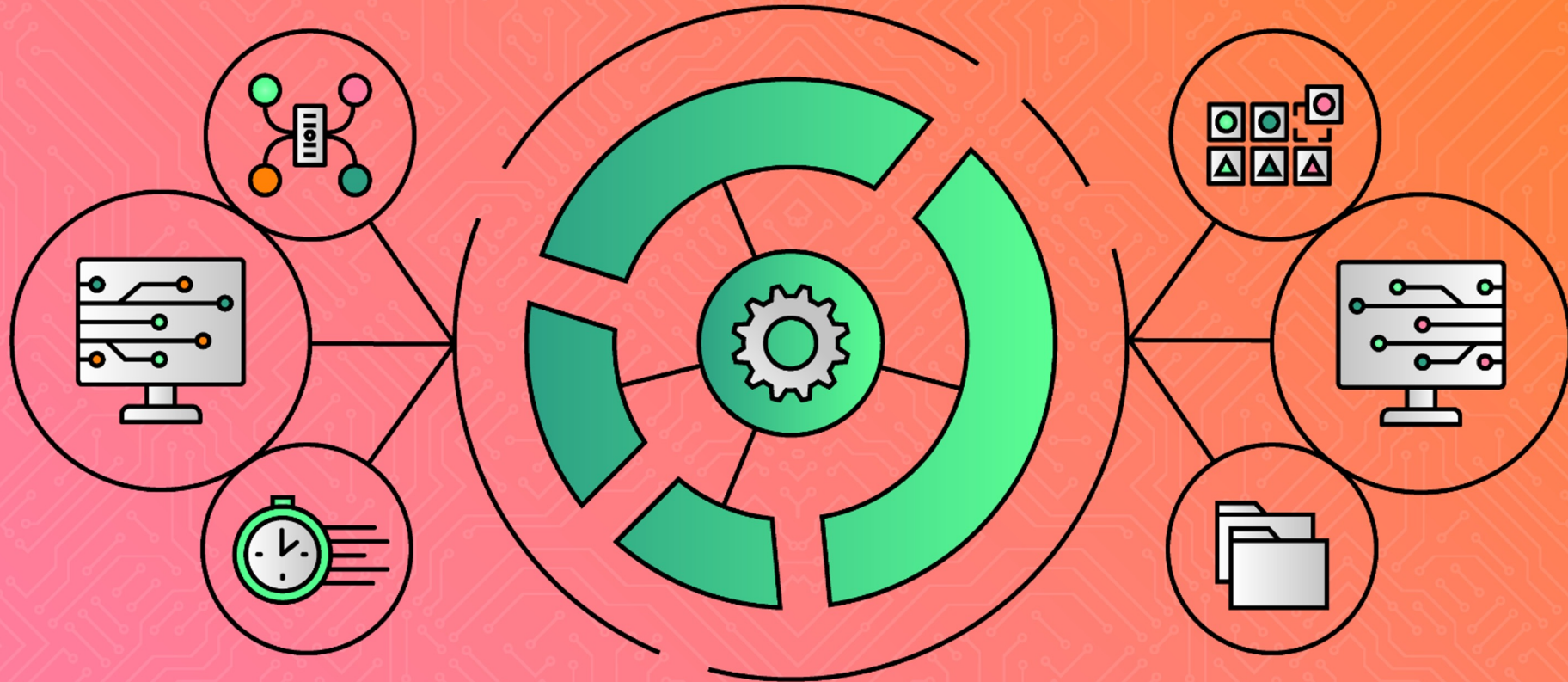


# The Unified Namespace (UNS)

## What is it and why should you care?



# Presenters



**Kent Melville**

Director of Sales Engineering  
*Inductive Automation*

# The Problem

## Lack of Data Standardization

- Data silos
- Difficulty sharing data with others

# Problematic Data Management

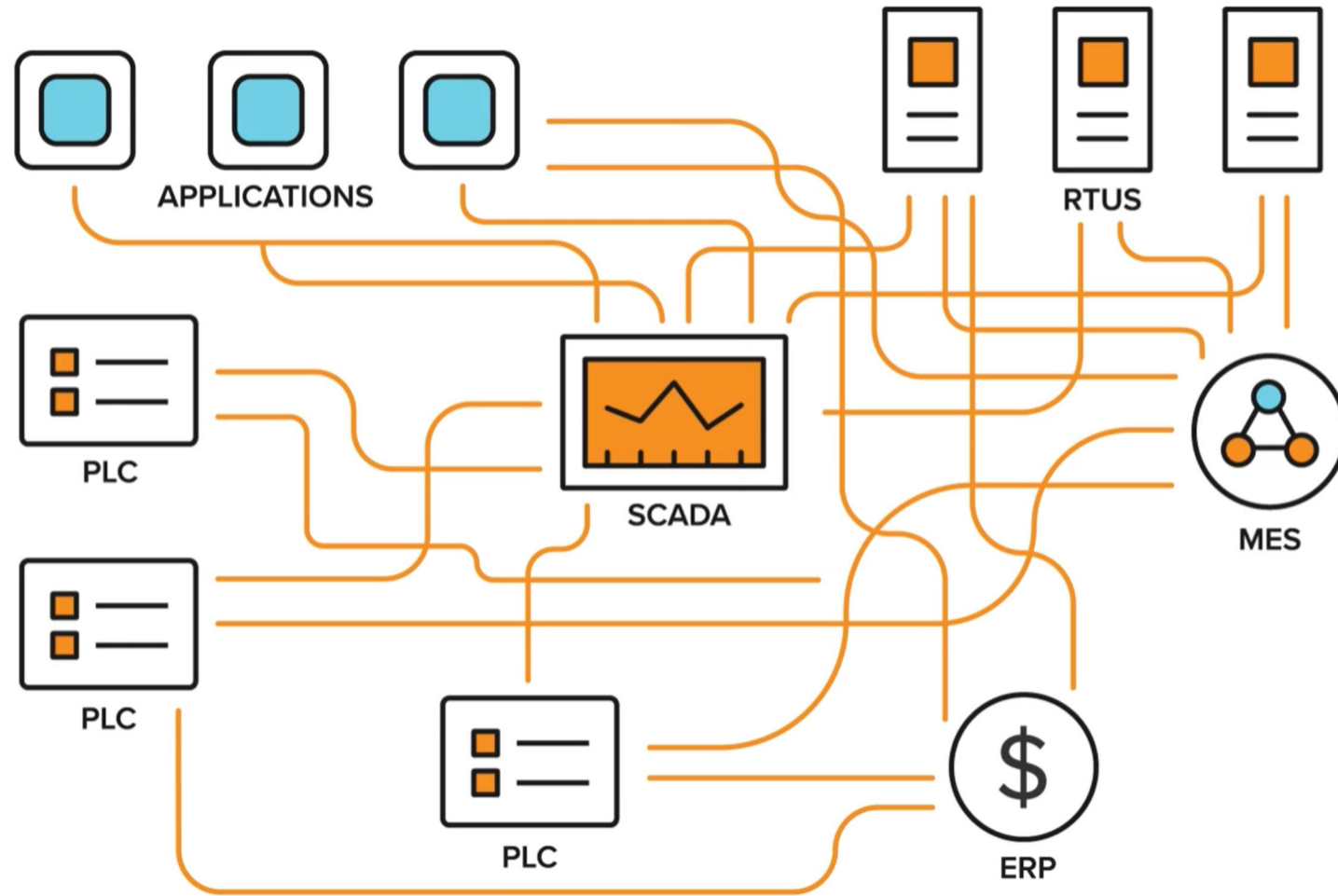
## Manual Data Entry

- Time-consuming
- Error-prone

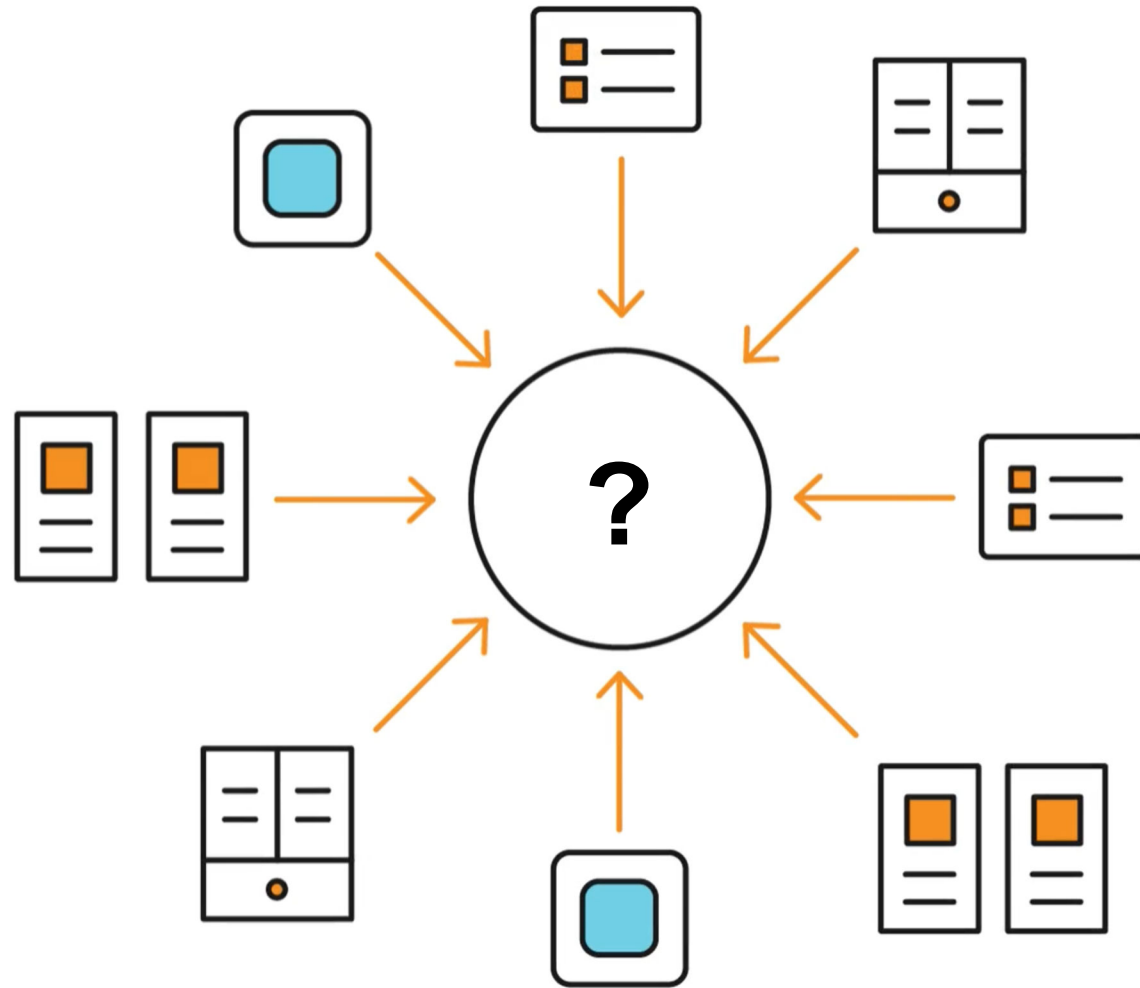
## Point-to-Point Data Integration

- Need for specialized engineering
- Namespaces are tightly coupled
- Difficult to scale

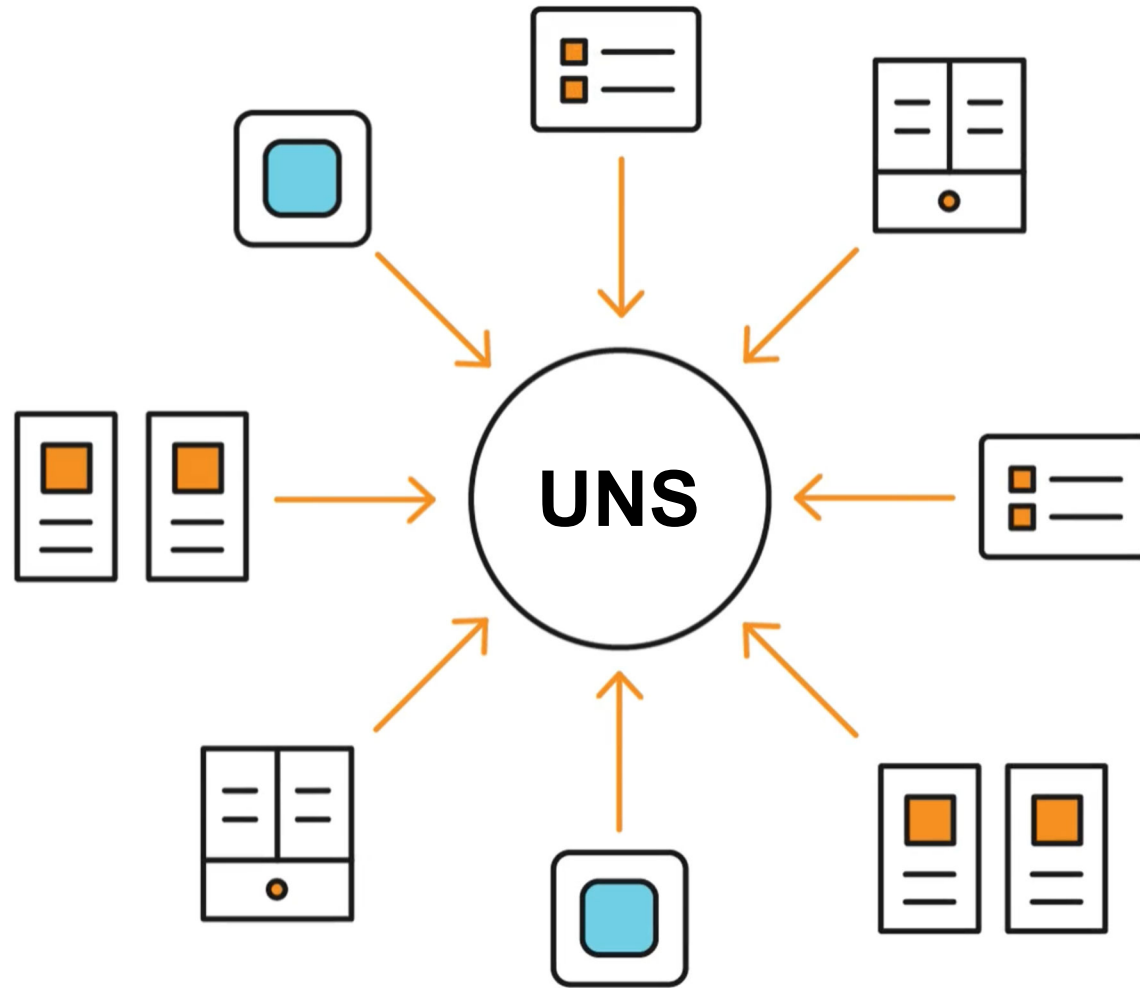
# Problematic Data Management



# The Solution?



# The Solution?





# Overview of the Unified Namespace

## What is a Unified Namespace?

- Standardized way to organize and name data
- Contains an enterprise's structure and events
- One communication interface



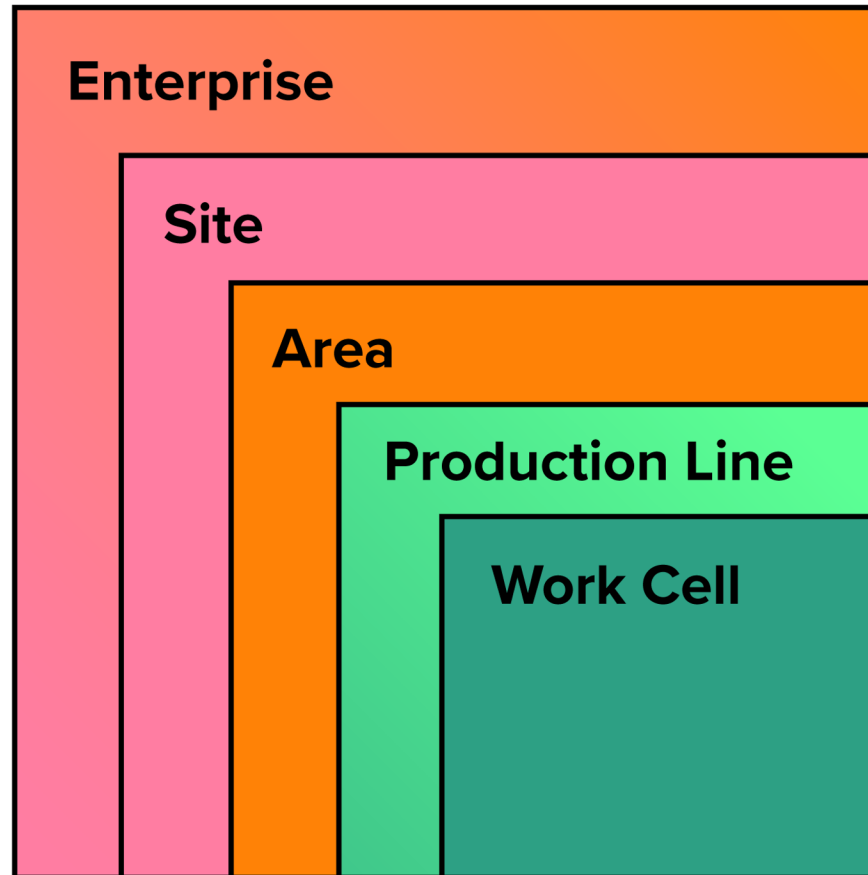
# Overview of the Unified Namespace

## What is a Unified Namespace?

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# Unified Namespace Example Structure

## ISA 95 Common Data Model



# Overview of the Unified Namespace

Enterprise

Enterprise/Site

Enterprise/Site/Area

Enterprise/Site/Area/Line 1

Enterprise/Site/Area/Line 1/Machine A

Enterprise/Site/Area/Line 1/Machine A/Running

Enterprise/Site/Area/Line 1/Machine A/Setpoint

Enterprise/Site/Area/Line 1/Machine A/Process Value

Enterprise/Site/Area/Line 2

...

Enterprise/Site/Area/Line 3

...

# Overview of the Unified Namespace

Enterprise

Enterprise/Site

Enterprise/Site/MES

Enterprise/Site/MES/OEE

Enterprise/Site/MES/OEE/Availability

Enterprise/Site/MES/OEE/Performance

Enterprise/Site/MES/OEE/Quality

Enterprise/Site/ERP

Enterprise/Site/ERP/Production Schedule

Enterprise/Site/Area

Enterprise/Site/Area/Line 1

Enterprise/Site/Area/Line 1/MES/OEE

Enterprise/Site/Area/Line 1/MES/OEE/Availability

Enterprise/Site/Area/Line 1/MES/OEE/Performance

Enterprise/Site/Area/Line 1/MES/OEE/Quality

Enterprise/Site/Area/Line 1/Machine A

Enterprise/Site/Area/Line 1/Machine A/MES/OEE

Enterprise/Site/Area/Line 1/Machine A/MES/OEE/Top 5 DT Reasons

Enterprise/Site/Area/Line 1/Machine A/MES/OEE/Availability

Enterprise/Site/Area/Line 1/Machine A/MES/OEE/Performance

Enterprise/Site/Area/Line 1/Machine A/MES/OEE/Quality

Enterprise/Site/Area/Line 1/Machine A/Running

Enterprise/Site/Area/Line 1/Machine A/Setpoint

Enterprise/Site/Area/Line 1/Machine A/Process Value

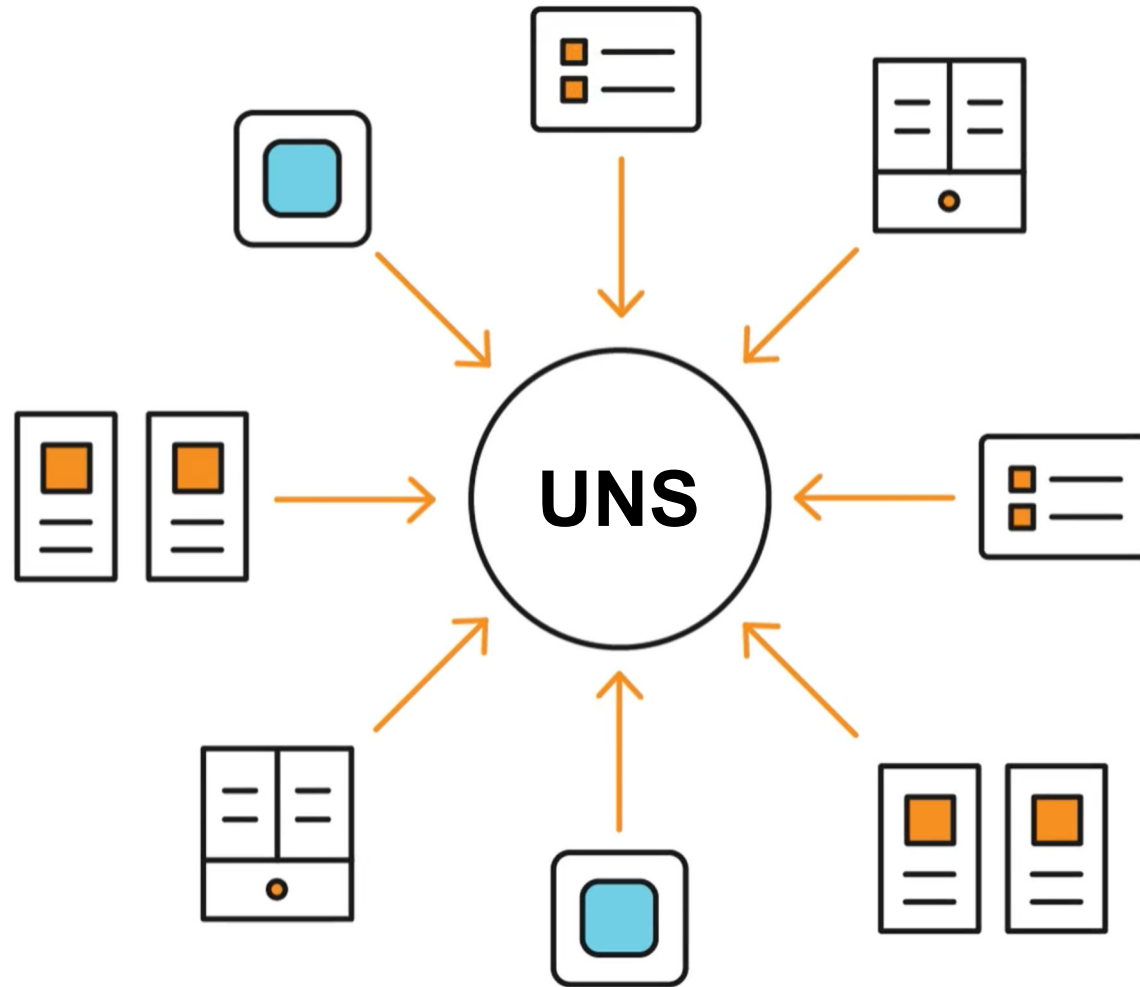
Enterprise/Site/Area/Line 2

...

Enterprise/Site/Area/Line 3

...

# The Solution?



# Unified Namespace Benefits

- Makes data accessible
- More affordable way to get needed data together
- Better ability to predict when things will go wrong
- Better traceability
- Easier scalability

# Unified Namespace Benefits

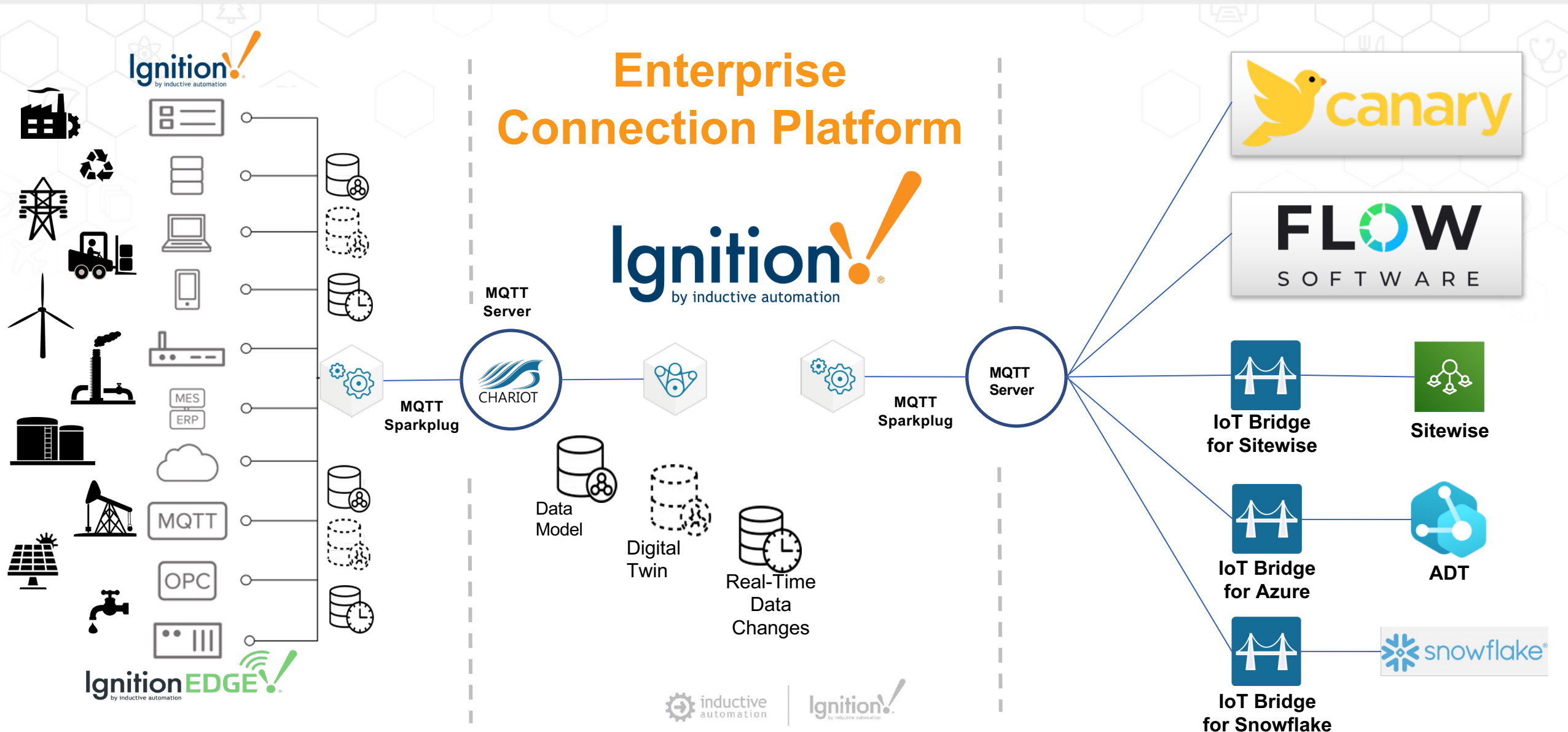
- Single source of truth
- Less manpower/engineering
- Use supply chain better
- Greater efficiency
- Better decision-making



# What is Driving the Unified Namespace?

- Artificial Intelligence (AI)
- Machine Learning (ML)
- Predictive Maintenance (PM)
- Leveraging the above in large enterprises
- Maintaining the above in cost-effective ways

# Example: Applying a Unified Namespace



# Thank You

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