

Observability Is the Central Nervous System for Your Applications

Padraig Byrne

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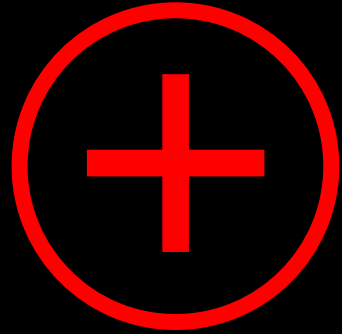
MAJOR DELAYS AT AIRPORTS ACROSS
AUSTRALIA DUE TO SYSTEM OUTAGE

*Telstra suffers major outage affecting
internet, mobile data*

[Finance](#) > [Economy](#) > [Australian Economy](#)

Osko outage cripples Australian banks, Westpac, ING, ANZ, NAB customers affected

Microsoft Teams hit with major outage



**Your Critical Applications
and Services **Are in Pain ...****

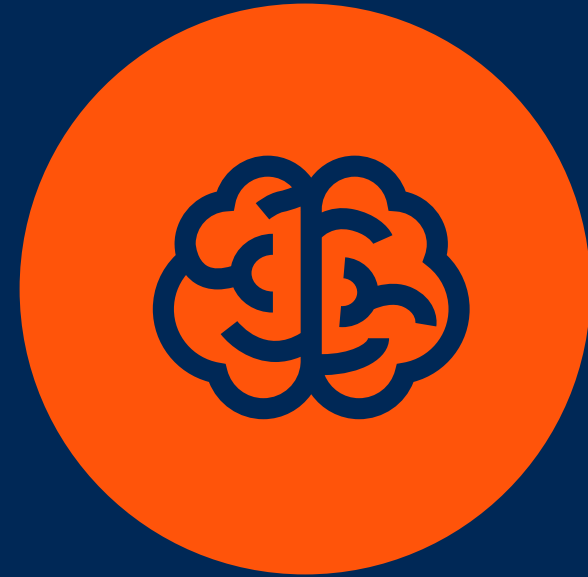
... and You **Don't Know
It Yet**



We Need to Change How We Think About **Application Performance**



Monitoring

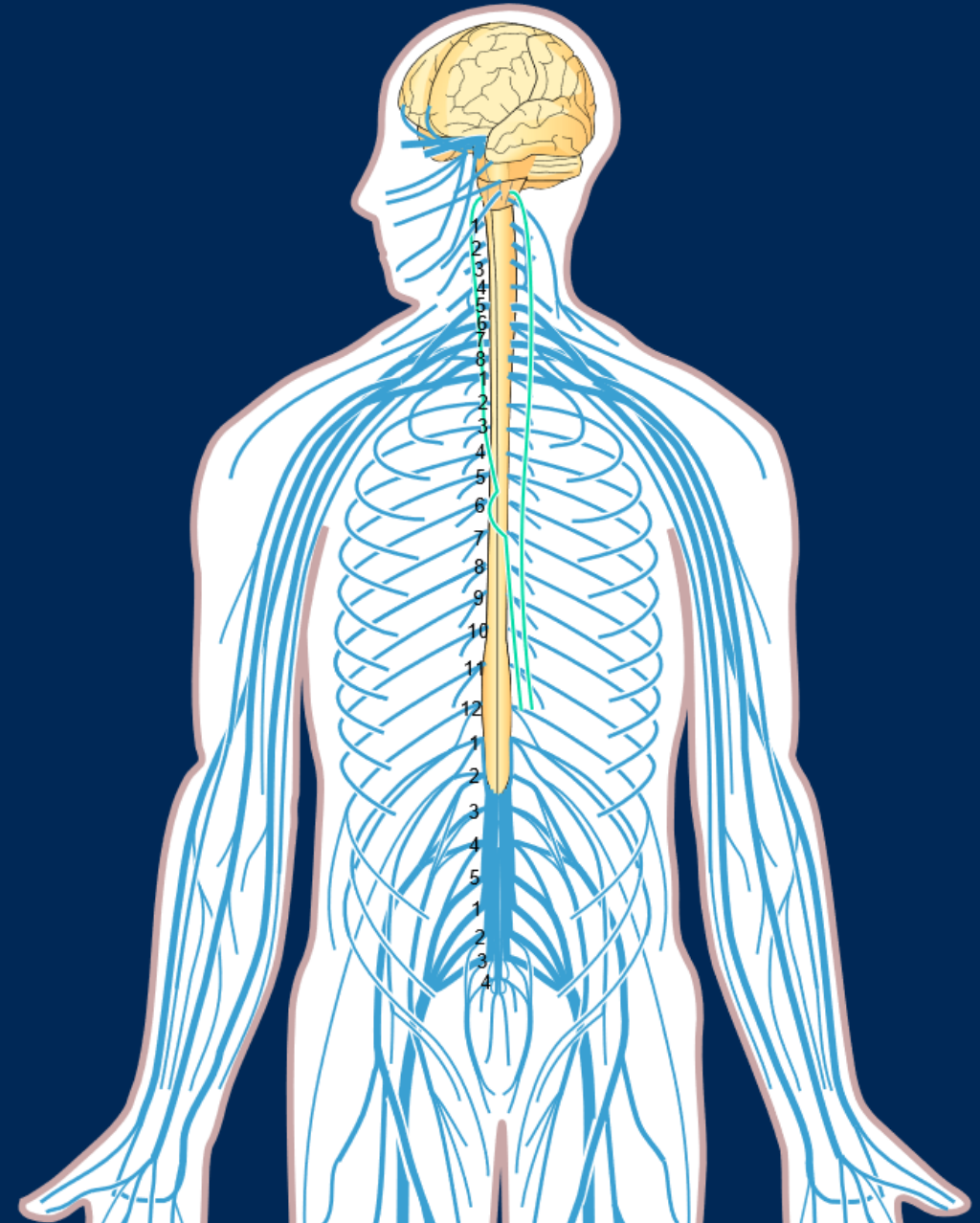


Observability

**“We Monitor Everything,
but We See Nothing.”**

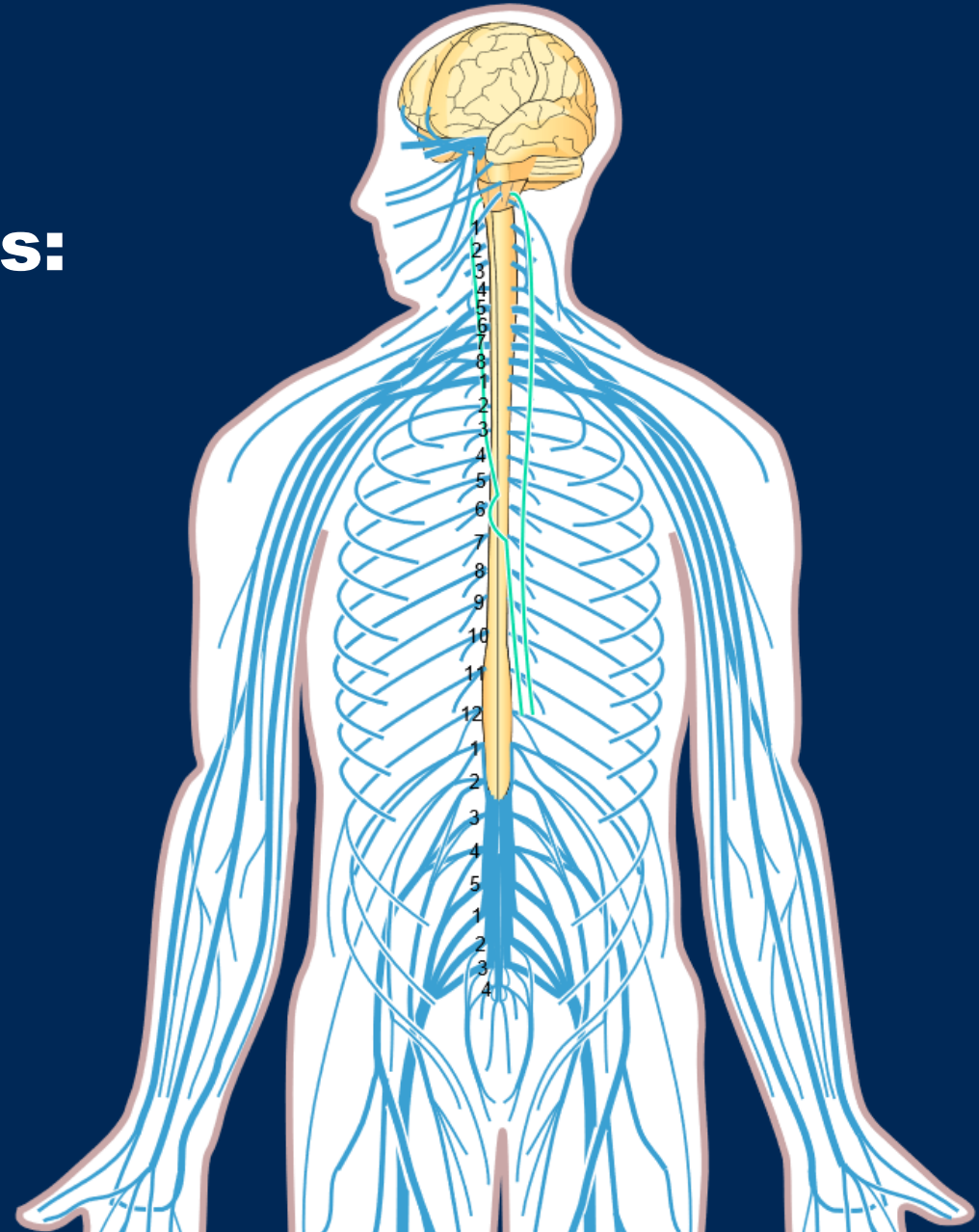
Observability is the characteristic of software and systems that enables them to be understood, based on their outputs, and enables questions about their behavior to be answered.

Think of **Observability** as the
Central Nervous System for Your
Applications and Services



A **Central Nervous System** Provides:

- Sensory information.
- Processing and analysis.
- Remediation and reaction.



Observability as the Central Nervous System

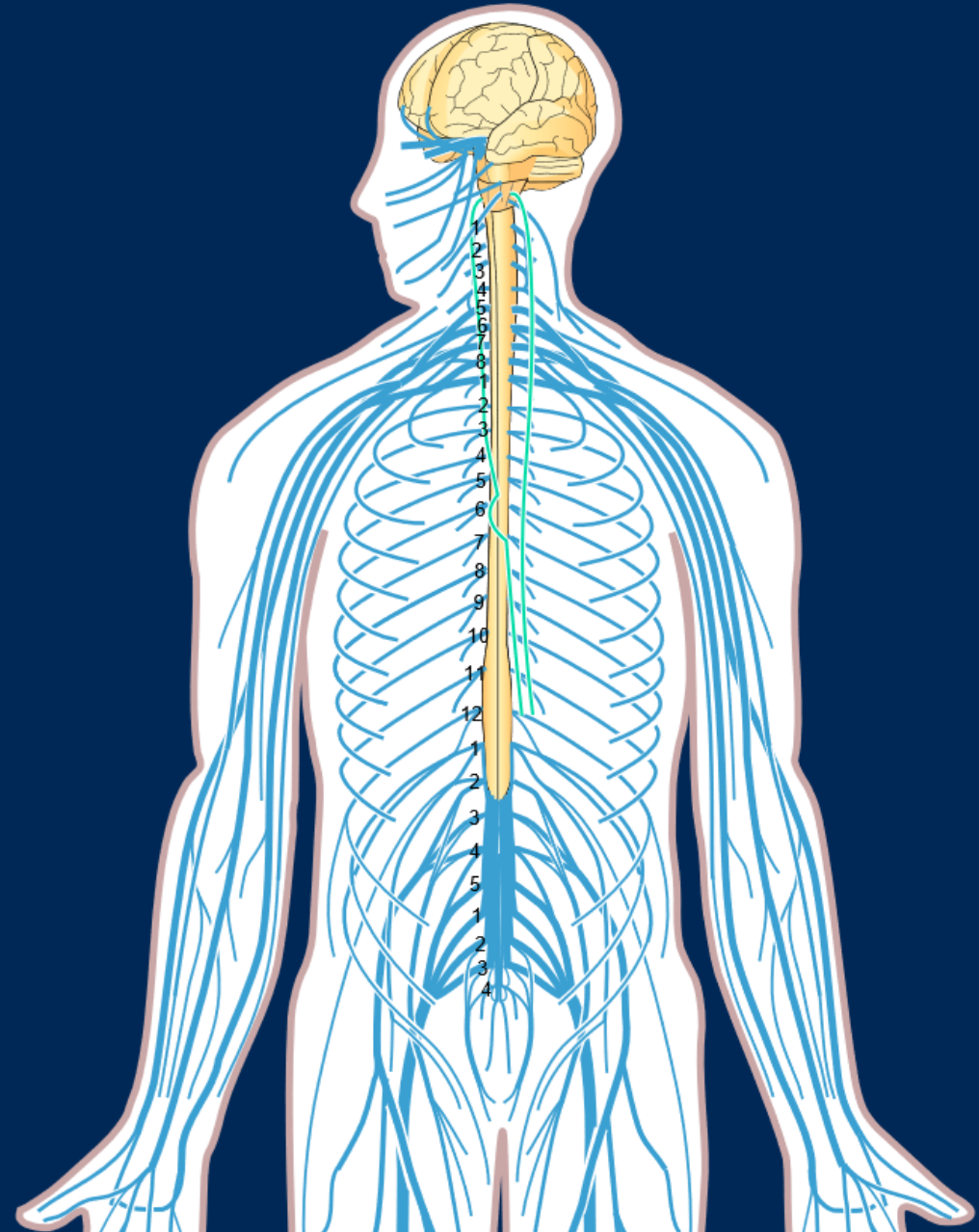
External Health Monitor



We look at application performance via monitoring — an **external process**.

Observability as the **Central Nervous System** for Your Applications Can Help:

- Ingestion of operational telemetry.
- Processing and prioritization.
- Automation and remediation.





Operational **Telemetry**, Such as

- Logs
- Metrics
- Traces
- Events

Are Your **Senses**

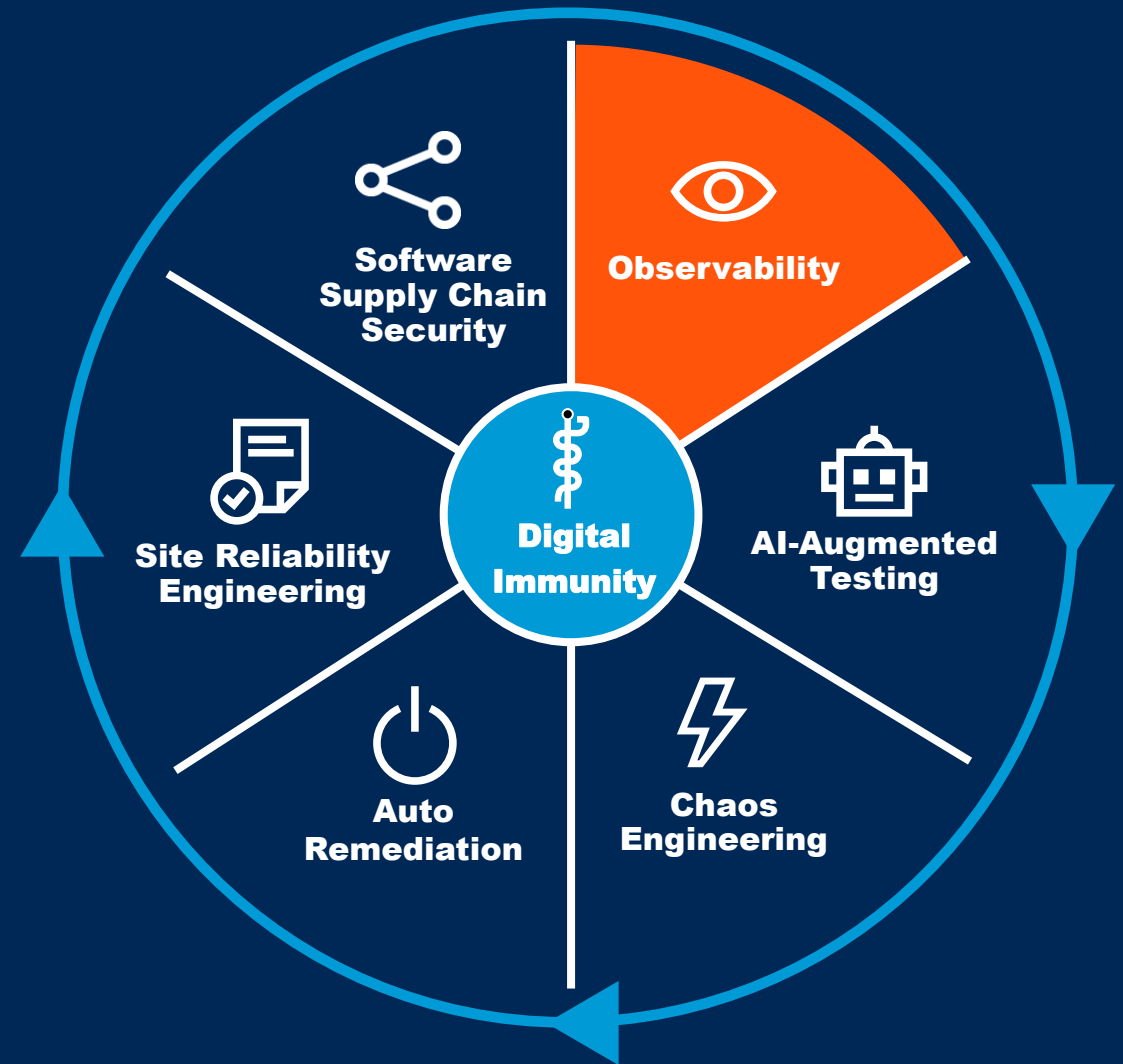


**“Without our
observability tool,
we realized that
we were blind.”**

— Conversation With Financial Gartner Client

Observability Is a Core Element of the Digital Immune System

Building Resilience in Your Applications



What Are the **Benefits** of Better Senses?



**Problem
Awareness**



**Faster
Identification**



**Enhanced
Context**

What **Technologies** Can Help Me?



Open Telemetry
Vendor Agnostic



Observability Platforms
Ingest Multiple Telemetry Types



Process Your Senses





**Your Body Sends
11 Million Bits of
Data per Second ...**

**... but We Only
Process 50 Bits
per Second**

Organizations generate **100s of TBs** of operational data (logs, metrics, traces, events) ...

Leads to:

 **Overwhelming “noise.”**

 **Massive costs.**

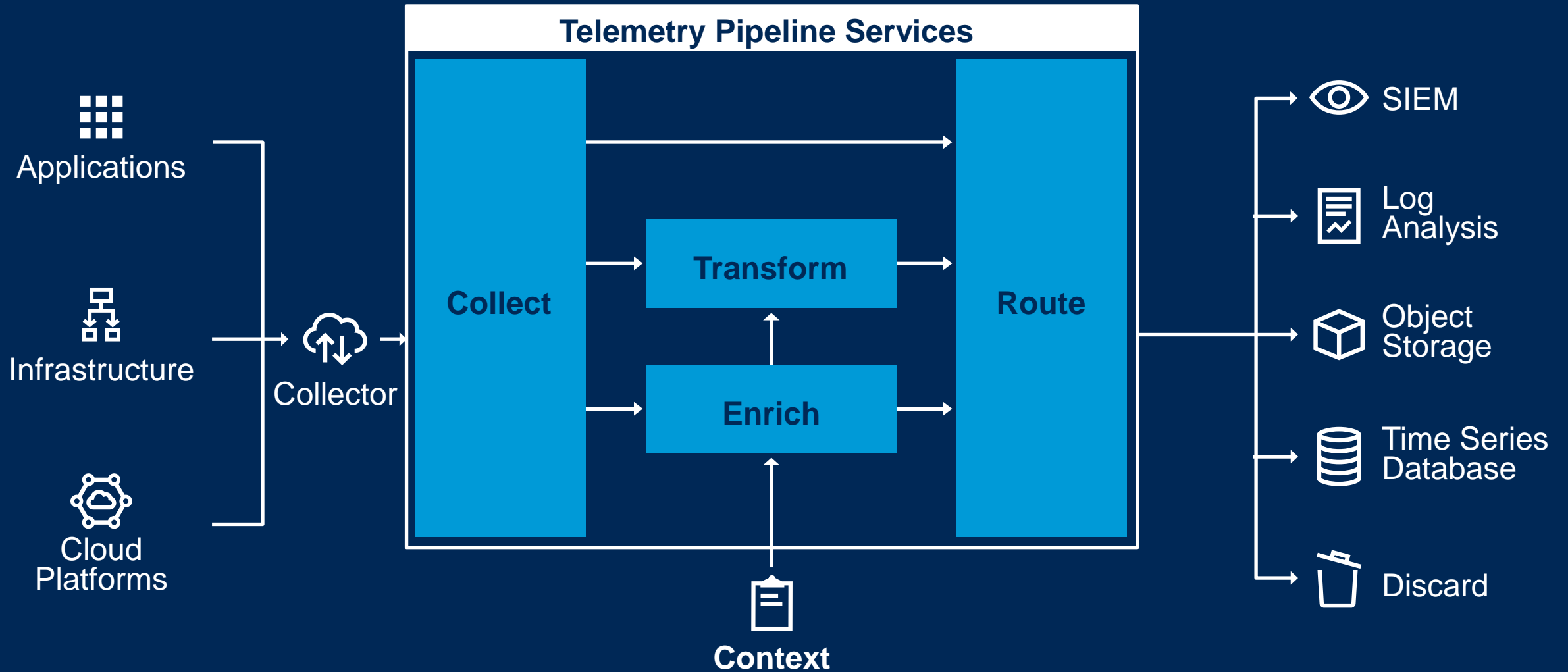
 **Operator burnout.**

Sensory Input Needs Intelligent Processing

- **Telemetry Pipelines**
 - Reduce the volume.
 - Normalize the data.
- **AI Models**
 - Analyze the data.

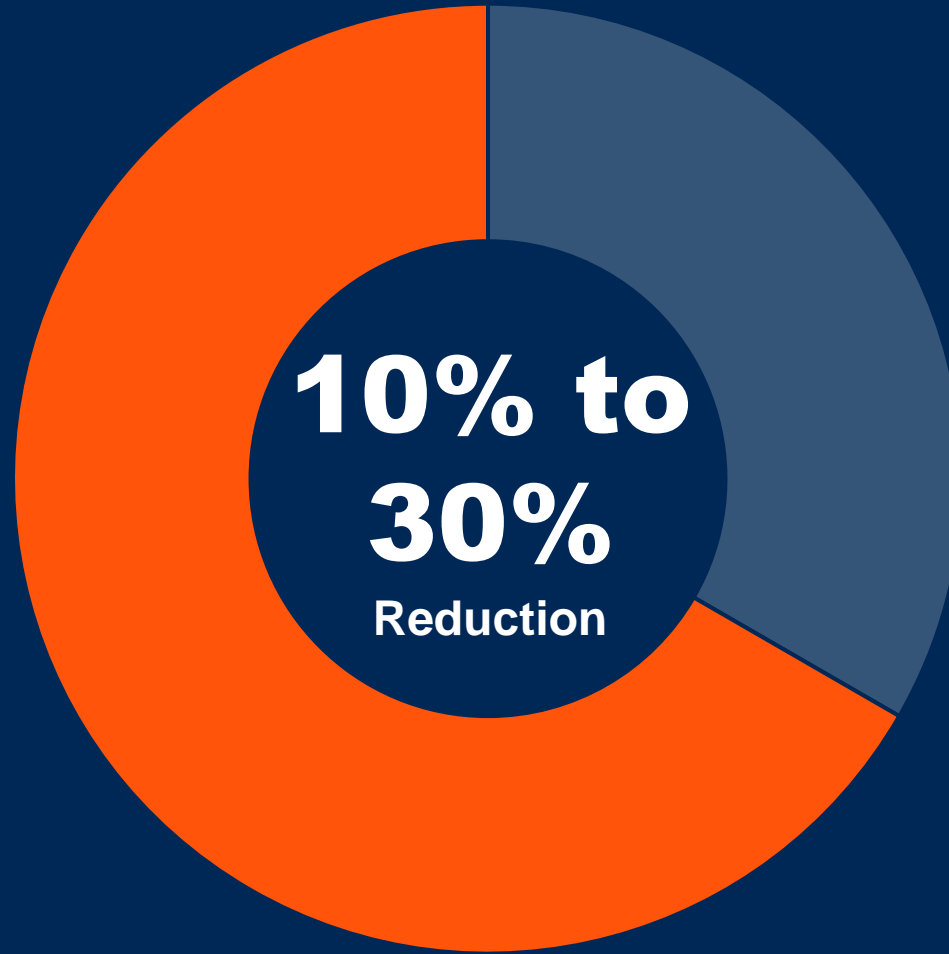


Telemetry Pipeline Overview



Source: Gartner

Telemetry Costs



Using **AI** in IT Operations



**Natural Language
Processing**



**Root Cause
Analysis**



**Explanatory
AI Output**

What Are the **Benefits** of Better Processing?



**High-Quality
Information**

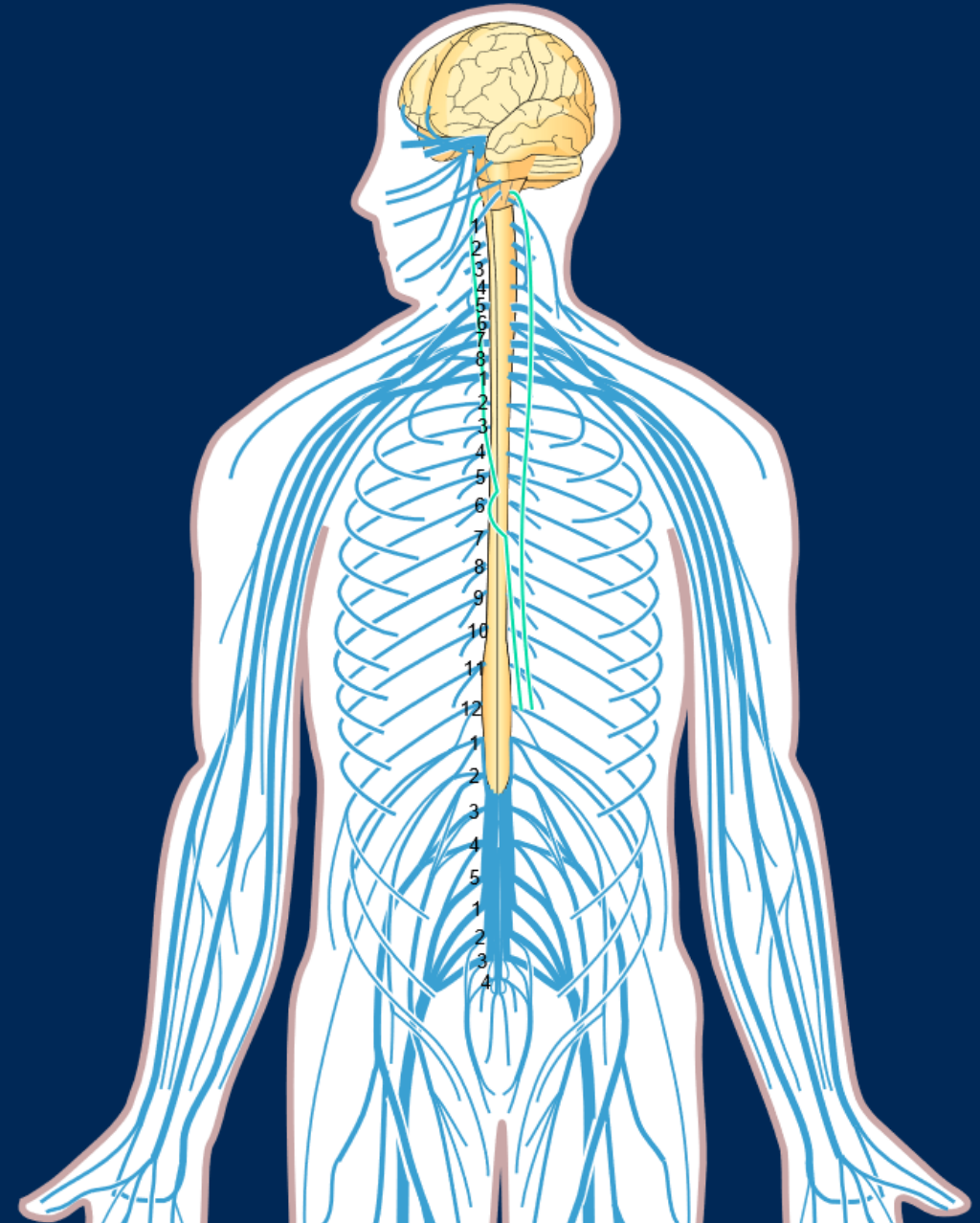
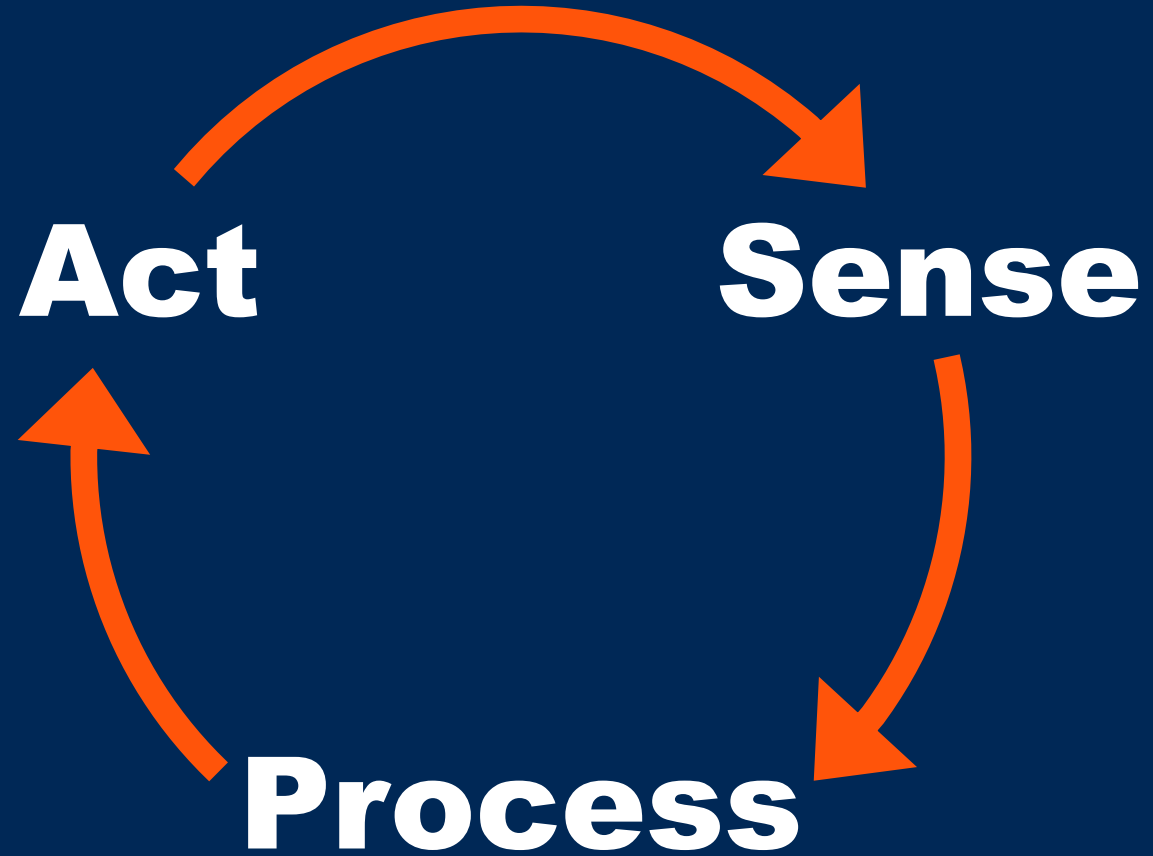


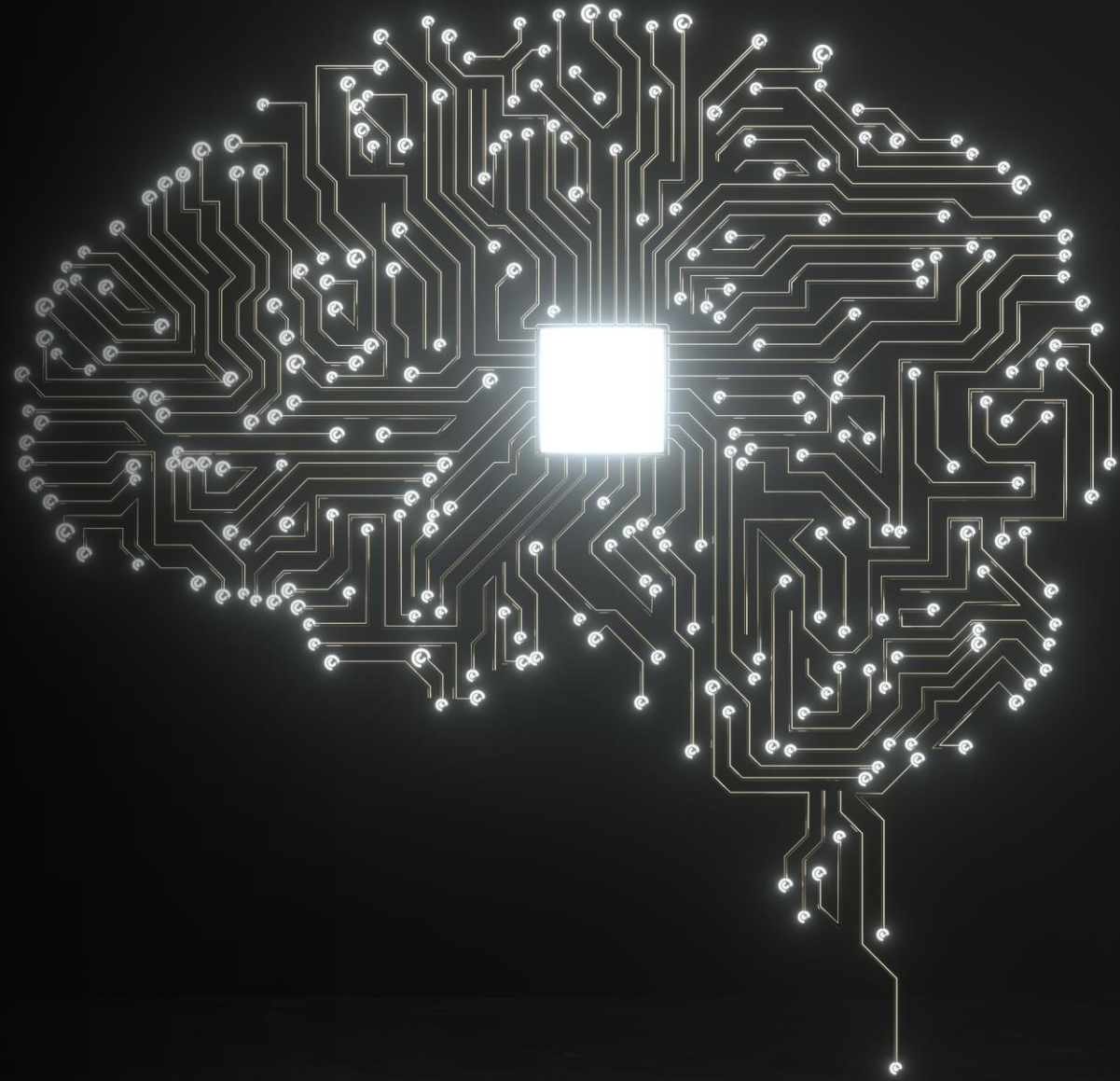
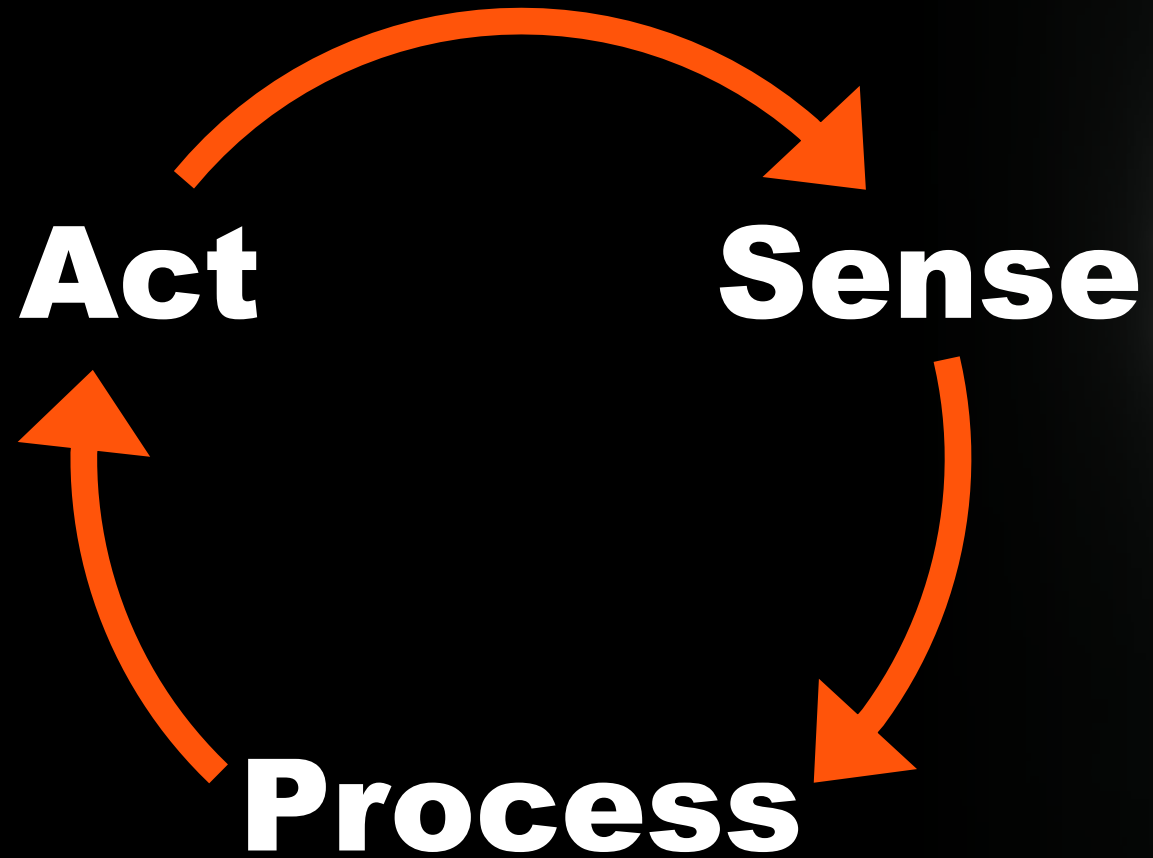
**Less
Burnout**



**Reduced
Client-Impact**

Remediation and Reaction





Act and Respond



Optimization








Remediation



Automation

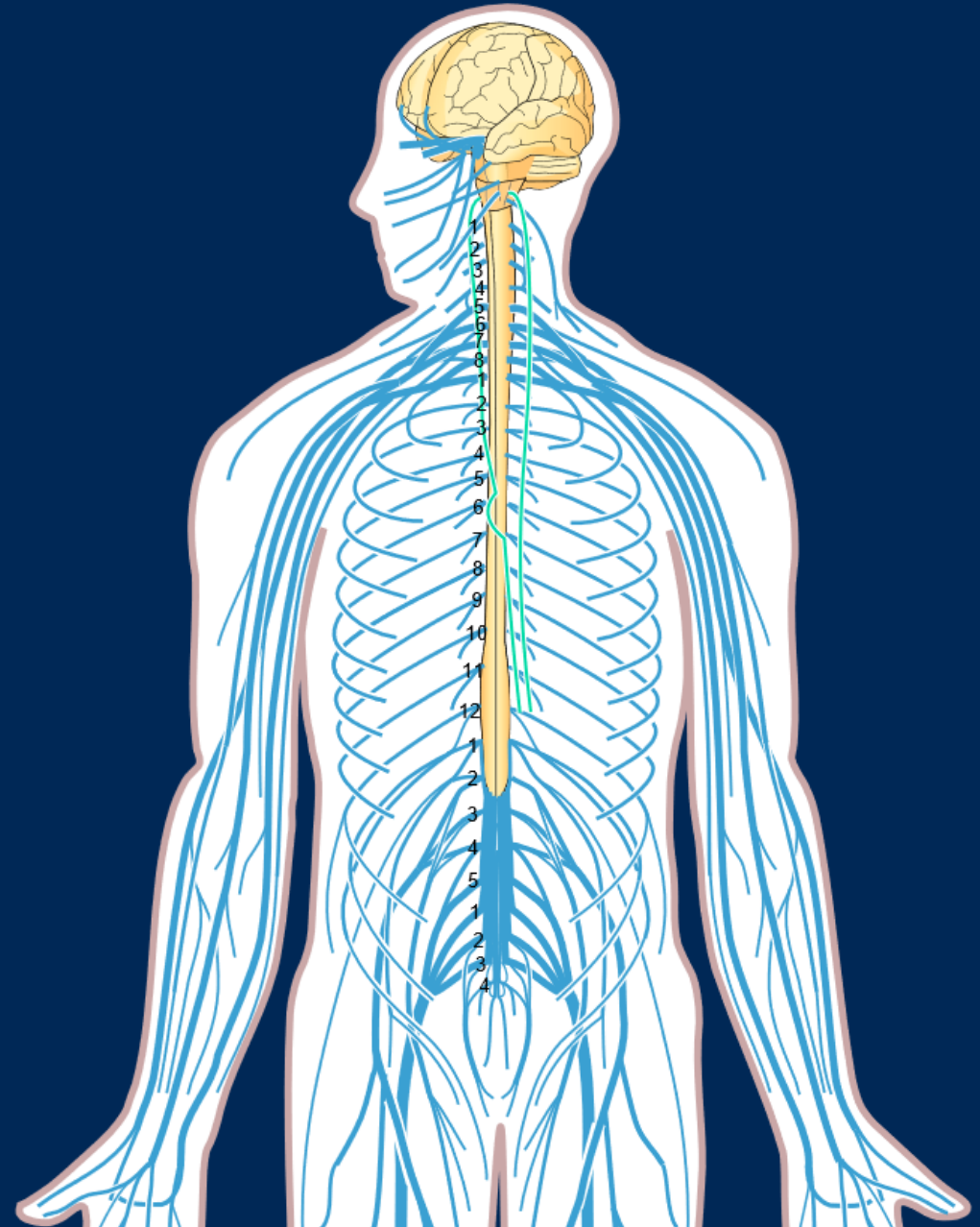
Levels of Automation

Level 0	Level 1	Level 2	Level 3	Level ...
				
All Human	Mostly Human	Minimal Human	No Human	Future

Source: Gartner

Closing Thoughts

**Stop thinking about monitoring
— and consider observability
as the **central nervous system**
for your applications.**



Recommendations

- ④ Stop thinking of monitoring as an external function — think of observability as your central nervous system.
- ④ Know the pain — look to ingest telemetry widely in your applications.
- ④ Decrease your observability spending by implementing telemetry pipelines.
- ④ Speed problem resolution by building in better automation and remediation.

Recommended Gartner Research

- 🔍 **Magic Quadrant for Application Performance Monitoring and Observability**
Gregg Siegfried, Mrudula Bangerla and Others
- 🔍 **Critical Capabilities for Application Performance Monitoring and Observability**
Mrudula Bangerla, Padraig Byrne and Others
- 🔍 **Innovation Insight: Telemetry Pipelines Elevate the Handling of Operational Data**
Gregg Siegfried
- 🔍 **Enhance Monitoring and Observability via Telemetry Pipelines**
Andre Bridges
- 🔍 **Hype Cycle for Monitoring and Observability, 2023**
Pankaj Prasad and Padraig Byrne