Immersive APM

Next Generation Application Performance Management - 1/2025
Value
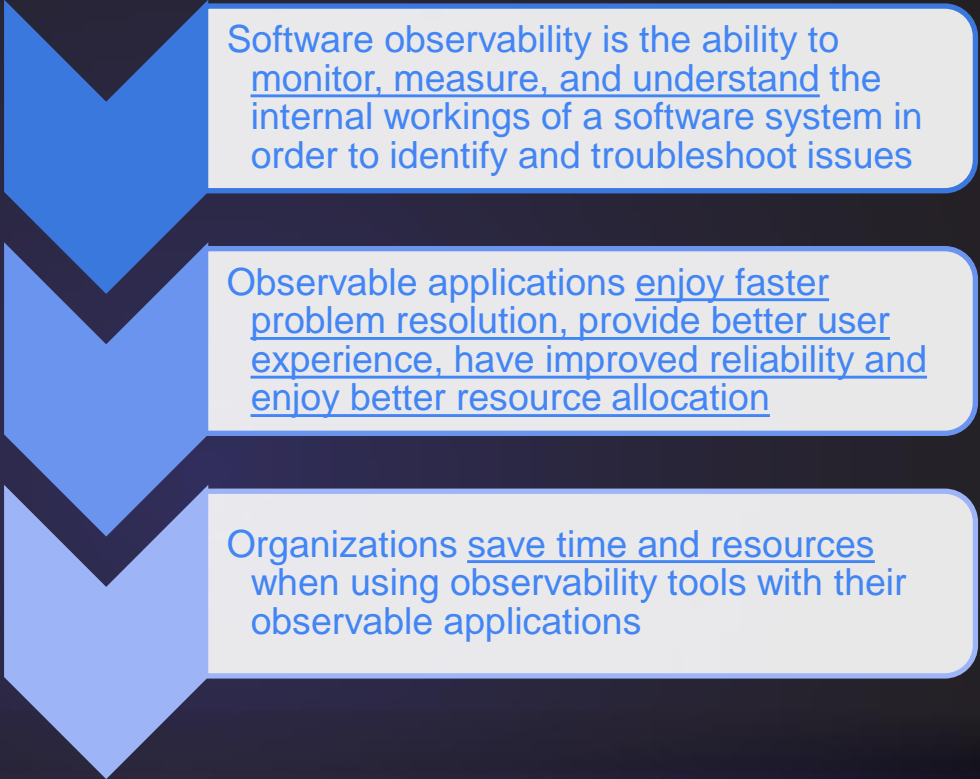
Rev. 5

Before we begin..

"The more complex the system, the greater the chance for error."
            - Murphy's Law

Software observability is the ability to monitor, measure, and understand the internal workings of a software system in order to identify and troubleshoot issues
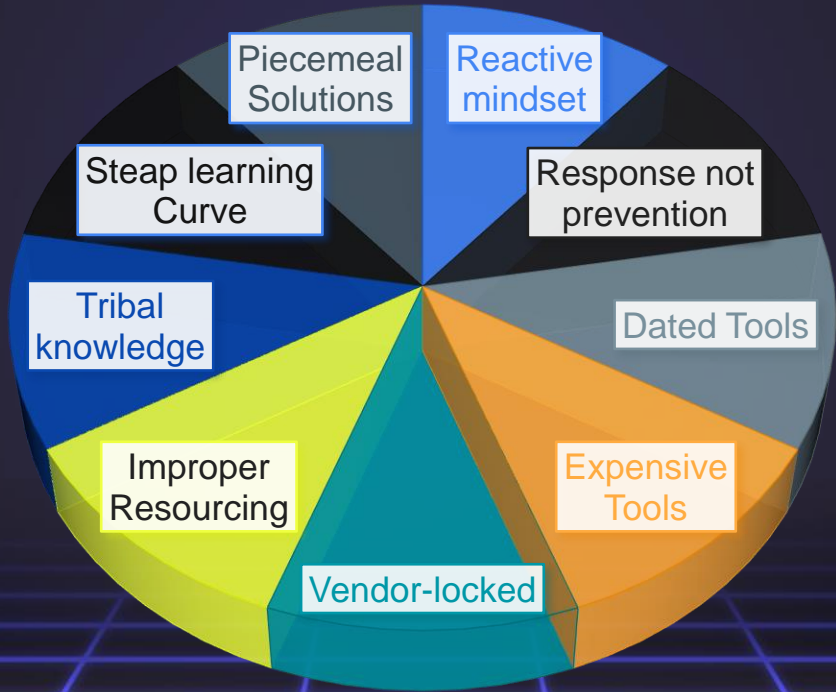
Observable applications enjoy faster problem resolution, provide better user experience, have improved reliability and enjoy better resource allocation

Organizations save time and resources when using observability tools with their observable applications
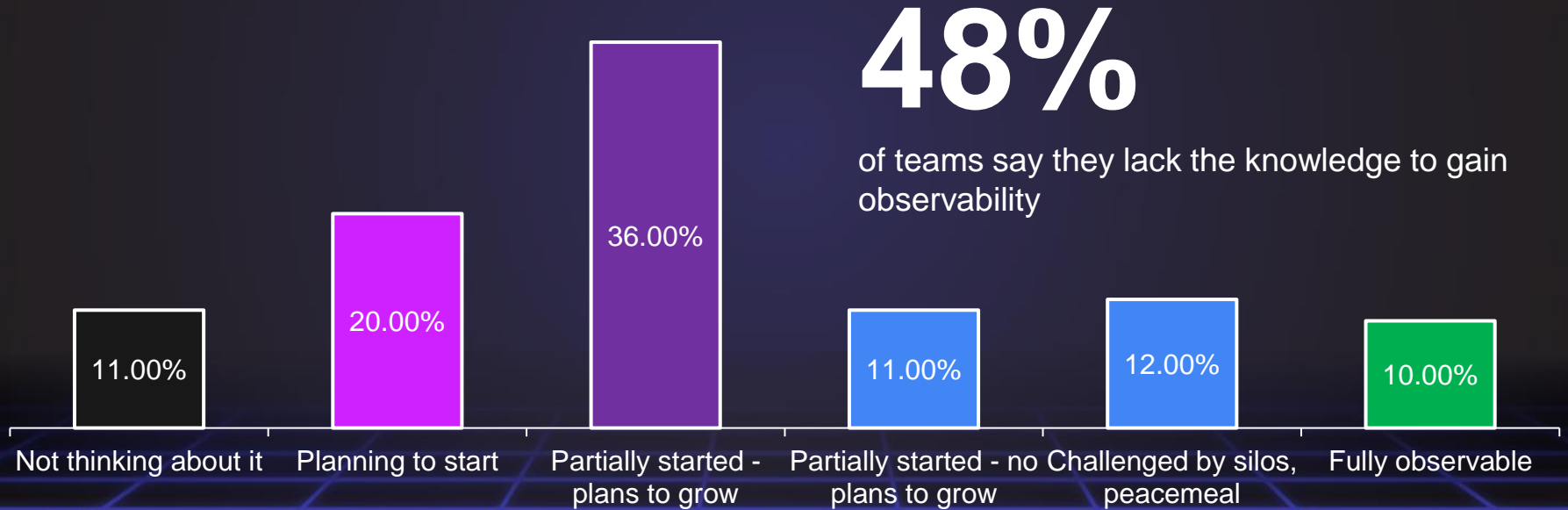
Let's go!

It's 2025, and observability
still suffers from a ton of **WASTE**

Scenarios

- A developer on a team who is constantly stuck with diagnosing problems
- A support engineer needs to find what's wrong with a system
- An engineer needs to determine if the issue is transient error or a bug
- A service interruption: is it the server or the infrastructure?
- A non-database administrator is trying to prioritize a database problem
- A recent Tier-1 support hire who is confronted with an outage

Case Study: Lack of prevention or slow remediation

- Online store is selling orders for $100
- An outage occurs and shopping cart service fails for 1 hours
- 100 orders fail and customers do not retry

Gross Losses: 100 x $100 = $10,000

Possible loss reduction options:
- A proactive observability tool that helps teams stop that service failures are prevented.
- A reactive observability tool that helps teams recover from service failures are prevented.

Case Study: Lack of tooling

- Development/operations team has an inadequate or no observability tool
- Senior developer who knows the software is responsible for troubleshooting
- The developer spends an overage of 5 hours a week troubleshooting instead of developing
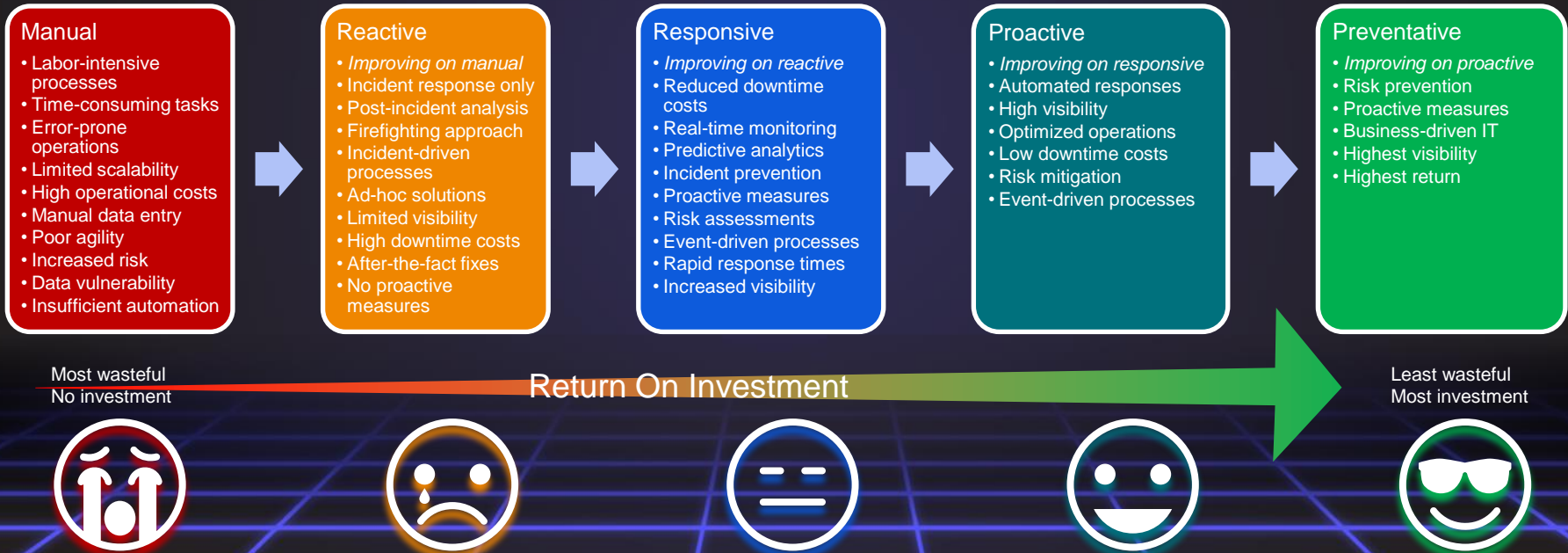- Hourly rate for the developer is $100/hour

Losses: 4 x 5 x $100 = $2000/month

Possible loss reduction options:

- An observability tool does not rely on tribal knowledge.
- An observability tool that is easy to learn as use to entry level developers.

Operational Maturity

Operational maturity for a software application refers to the ability of the software to function effectively and reliably in a live production environment.

Manual
- Labor-intensive processes
- Time-consuming tasks
- Error-prone operations
- Limited scalability
- High operational costs
- Manual data entry
- Poor agility
- Increased risk
- Data vulnerability
- Insufficient automation

Reactive
- *Improving on manual*
- Incident response only
- Post-incident analysis
- Firefighting approach
- Incident-driven processes
- Ad-hoc solutions
- Limited visibility
- High downtime costs
- After-the-fact fixes
- No proactive measures

Responsive
- *Improving on reactive*
- Reduced downtime costs
- Real-time monitoring
- Predictive analytics
- Incident prevention
- Proactive measures
- Risk assessments
- Event-driven processes
- Rapid response times
- Increased visibility

Proactive
- *Improving on responsive*
- Automated responses
- High visibility
- Optimized operations
- Low downtime costs
- Risk mitigation
- Event-driven processes

Preventative
- *Improving on proactive*
- Risk prevention
- Proactive measures
- Business-driven IT
- Highest visibility
- Highest return

Most wasteful
No investment

Return On Investment

Least wasteful
Most investment

Improving Operational Maturity

Improving operational maturity is not just about adopting new technologies or processes, it's about creating a culture of continuous improvement and making it a part of the fabric of your organization.

Innovation **+** Process Improvement **+** Improved Tooling **=** Increased Maturity

Reference: Patterns that support operational excellence: learn.microsoft.com/en-us/azure/well-architected/operational-excellence/design-patterns

Maturing through Observability

Observable applications are software applications that are designed to provide real-time visibility into the performance and behavior of the application itself, as well as the underlying infrastructure and systems that support it. These applications are built with monitoring and observability in mind and typically rely on a range of tools and technologies to collect, analyze, and visualize data.
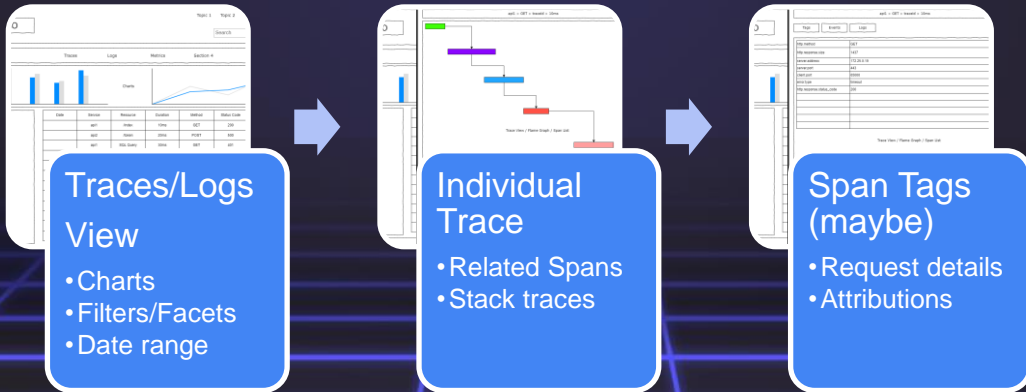
Benefits:

- Rapid Root Cause Analysis
- Rapid On-boarding
- Incident prevention
- Faster incident response
- Improved visibility
- Better troubleshooting
- Improved performance optimization

Conventional APM Experience

- Not Real-Time
- Accessed via a web browser
- Dashboard and charts
- Users drill down into specific data
- May include alerting and reporting
- Onboarding and training times vary

Traces/Logs View
- Charts
- Filters/Facets
- Date range

Individual Trace
- Related Spans
- Stack traces

Span Tags (maybe)
- Request details
- Attributions

Immersive APM Experience

- Real-time
- Advanced and ambient data visualization
- Enables deep understanding of architecture and performance
- Rapid diagnosis and understanding to optimize for better user experiences
- Interactive and visual approach
- Familiar troubleshooting and ambient techniques
- Reduced onboarding and training times

But the real magic is like
seeing those connections come alive.

youtube.com/watch?v=Hc9xWW4TH3I

Talk: Tier-1 Support Enablement
IF @ US Defense Information Systems Agency (DISA) - disa.mil
Technical Exchange Meeting (TEM) - 4/24/2024

- Scenarios & Context
- Application complexity over time
- Issues in running software applications
- Observability
- Gaps in observability
- Addressing the critical issues effectively
- Demonstration
- Observability in action
- Driving innovation

Testimonial: Carl Heller
Immersive Fusion Champion / Customer

TAP FOR SOUND

Visit immersivefusion.com for details
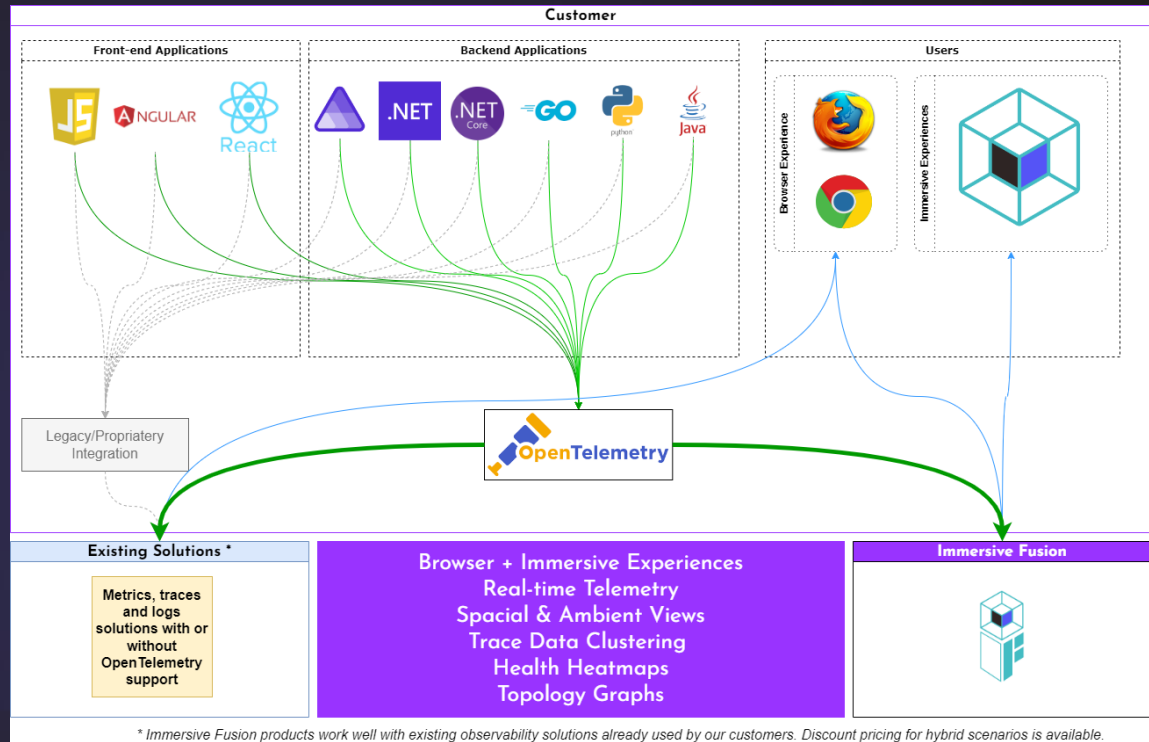
youtube.com/watch?v=ZRhTvz5XxFU

Vendor unlocking

- Cloud Native
- Open Standard Compliant
- Try-and-Buy friendly
- Rapid integration
- Limited effort from customers

60%

of respondents said they are using or planning to use OpenTelemetry to instrument their applications. [This is an] increase from the previous year's survey, where only 28% of respondents said they were using or planning to use OpenTelemetry.

Source: Lightstep Survey

Subscription Plans

FREE

forever trial
try for free

START

Experience application immersion with zero risk, allowing you to gain valuable insights into your application's behavior.

Shared | No Uptime SLA
Immersion 3D/VR
5 (traces + logs) / second
No Data Retention
Discord / Community Support

Sign Up

$20.00

per node per month
1 node minimum

VISUALIZE

Enhance your application immersion capabilities with expanded availability and comprehensive support.

Shared | 99% Uptime SLA
Immersion 3D/VR
10 (traces + logs) / second
No Data Retention
Chat / Email Support

Sign Up

$45.00

per node per month
25 node minimum

ANALYZE

Improve your application visualization capabilities by incorporating historical data retention and dedicated resources.

Dedicated | 99.9% Uptime SLA
Immersion 3D/VR
50 (traces + logs) / second
15+ Day Data Retention
Chat / Email / Phone Support
Dedicated Success Representative
Professional Consulting Services

Coming Soon

$60.00

per node per month
50 node minimum

FUSE

Elevate your application monitoring and management with the stability, scalability, and expertise of an enterprise-level solution.

Dedicated | 99.99% Uptime SLA
Immersion 3D/VR
100 (traces + logs) / second
30+ Day Data Retention
Chat / Email / Phone Support
Dedicated Success Representative
Professional Consulting Services
Early Access to New Functionality
Hall of Supporters Feature

Coming Soon

Help

Start & Visualize with Immersive APM (Hybrid)

Enrich the experience and increase team productivity <u>without removing</u> existing APM. Side-by-side implementation.

Win-win:
- Painless, 5 step integration
- Existing institutional knowledge preserved
- Small blast radius
- Complementary addition to limit disruption
- Single Single-On (recommended and free of charge)
- Improved Root Cause Analysis
- Reduced on-boarding and training for new hires

immersivefusion.com/pricing

Alerts

Dashboards

Metrics

Traces/Logs

Dynamic Topology

Immersion

OpenTelemetry Integration Required

Analyze & Fuse with Immersive APM (All-In-One)

Single solution for all diagnostic needs. Single pane of glass.

Win-win:
- Painless, 5 step integration
- Small blast radius
- Single solution
- Single Single-On (recommended and free of charge)
- Root Cause Analysis
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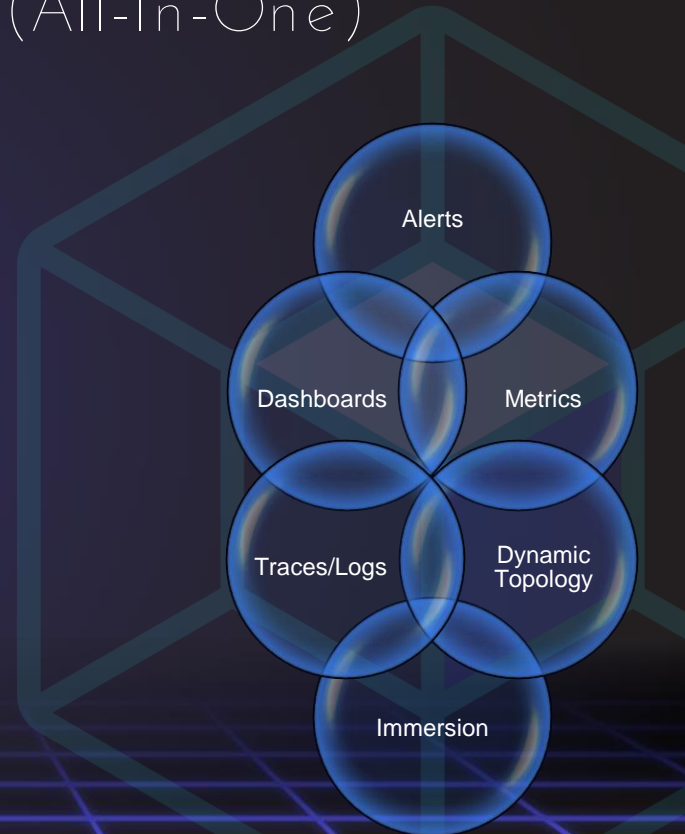
Immersion

OpenTelemetry
Integration Required

Q & A

Thank You

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