

An Ongoing Mission of Service Discovery

Michael Donnelly

ITOA Solutions Architect

Ross Lazerowitz

ITSI Product Manager

.conf2016

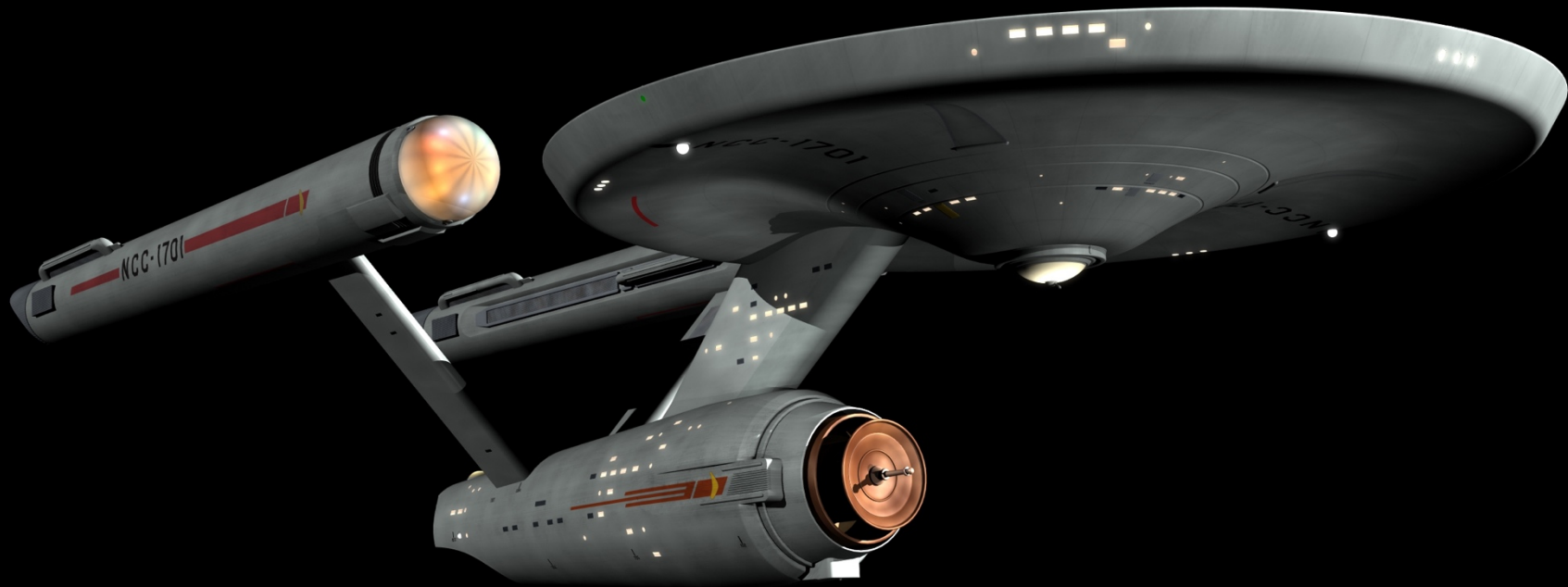
splunk >

Video Intro

<https://www.youtube.com/watch?v=hdjL8WXjlGI>

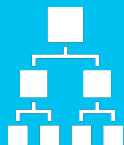
Disclaimer

During the course of this presentation, we may make forward looking statements regarding future events or the expected performance of the company. We caution you that such statements reflect our current expectations and estimates based on factors currently known to us and that actual events or results could differ materially. For important factors that may cause actual results to differ from those contained in our forward-looking statements, please review our filings with the SEC. The forward-looking statements made in the this presentation are being made as of the time and date of its live presentation. If reviewed after its live presentation, this presentation may not contain current or accurate information. We do not assume any obligation to update any forward looking statements we may make. In addition, any information about our roadmap outlines our general product direction and is subject to change at any time without notice. It is for informational purposes only and shall not, be incorporated into any contract or other commitment. Splunk undertakes no obligation either to develop the features or functionality described or to include any such feature or functionality in a future release.



To Boldly Go ... Where No One Has Gone Before

Takeaways



How to discover Services, and service dependencies

Seek Out new KPIs and onboard new data

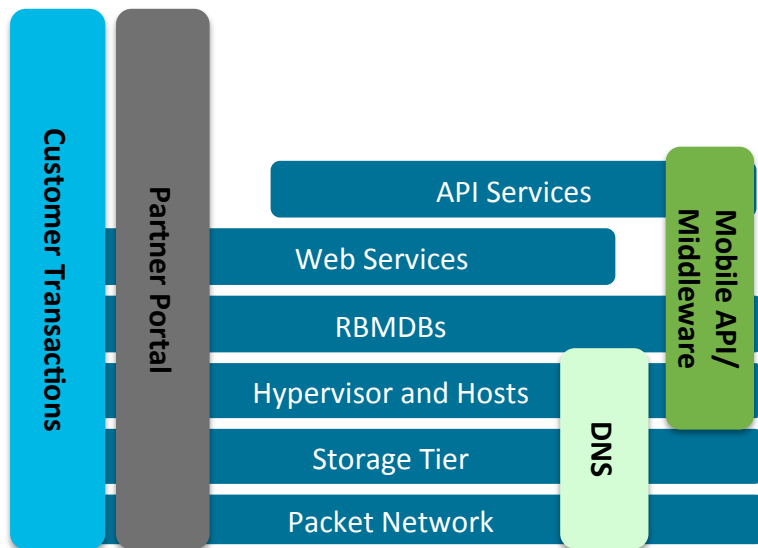


To boldly move to ...



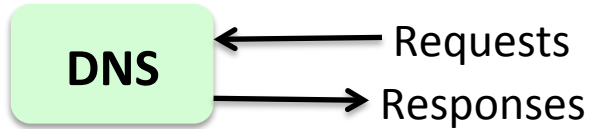
Splunk IT Service
Intelligence™

What is a Service?



Services can encompass multiple tiers of the IT domain.
Services may also depend upon other services

What is a KPI?



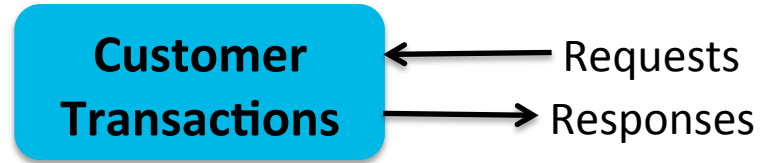
KPI: Number of requests

KPI: Error rate

KPI: Average response time

KPI: Servicer CPU load

KPI: Server network I/F errors



KPI: Number of transactions

KPI: Error rate

KPI: Average response time

KPI: Count of Incident Tickets

KPI: Synthetic Transx Health

KPIs and Health scores constitute the means by which Services are monitored.

Measuring Service Health

Composite Score: 100 ■ Normal

Range: Critical 0-20, High 20-40, Medium 40-60, Low 60-80, Normal 80-100

KPI Title	Simulated Severity	Importance
CPU Idle: %	■ Normal ▾	<input type="range" value="5"/>
CPU Utilization: Interrupts/second	■ Normal ▾	<input type="range" value="5"/>
CPU Utilization: System Threads	■ Normal ▾	<input type="range" value="5"/>
Memory Available: MB	■ Normal ▾	<input type="range" value="5"/>
Memory Free: %	■ Normal ▾	<input type="range" value="5"/>
Memory Operations: Paging	■ Normal ▾	<input type="range" value="5"/>

Service Health Scores are a weighted calculation of KPI status values.

The Problem Scenario

USS Enterprise



A starship floating through the vacuum of space

Flying faster than the speed of light into uncharted territories

... and being fired upon by hostile forces

So we can already start



A starship floating in space

Flying FTL, discovering new worlds

Klingon attacks

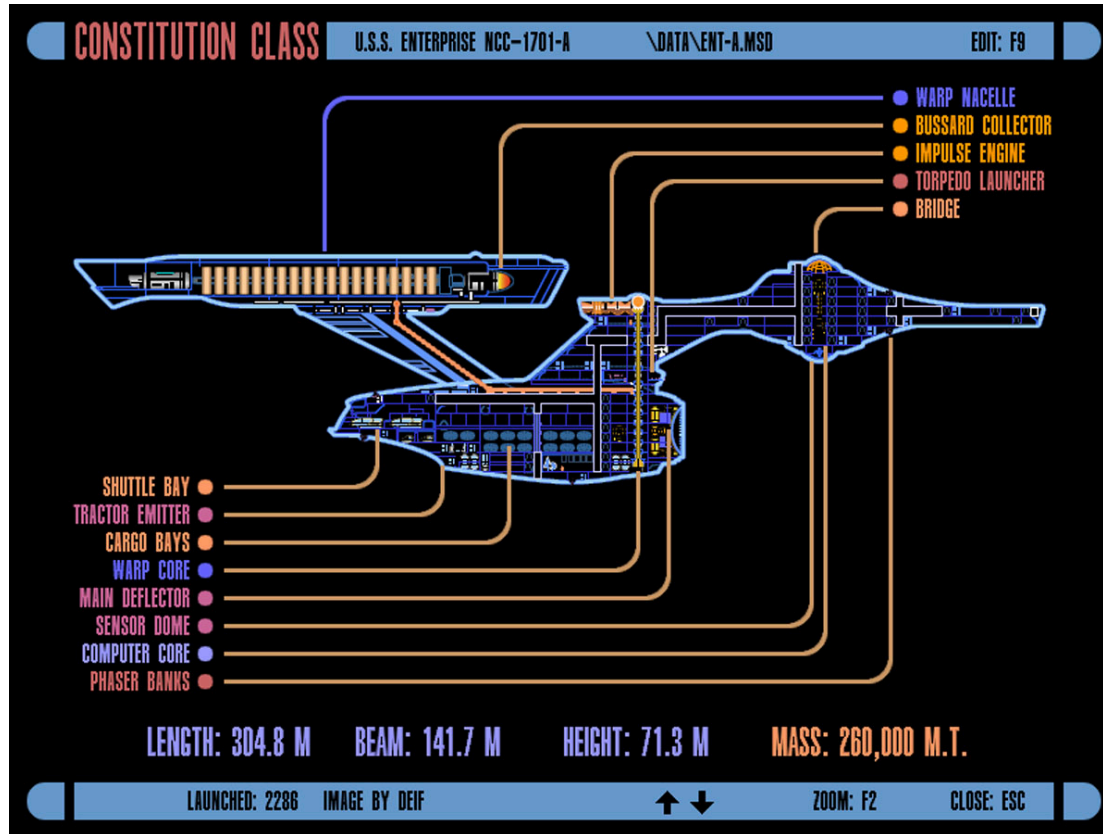
What's required to fulfill the mission?

Hull Integrity, Life Support

Power, Propulsion, Scanners

Defenses, Weapons, Medical

The goal... cross systems monitoring



Best Practices For Service Modeling

1

Start with a Problem worth solving





2

Bring Subject Experts Together



3

Design Before Configuring





Start With A Problem Worth Solving

Review the most critical services

Identify services that have measurable challenges



Uncovering the Problem Worth Solving

Critical Services

- What are the top services in your Starship?
- How do you measure the *fleet* experience with these services?
- What is the *crew* experience with these services?

Issue Frequency

- How often does the Starship experience issues with the service?
- When issues arise, who gets involved in resolving them?
- How do teams work together to resolve issues?

Impact

- What's the average time to issue resolution?
- What's the impact when crew have a bad experience with your services?



Bring Subject Experts Together



Identify stakeholders and support personnel for the selected service

Create awareness and invite their collaboration to solve the business challenge



Design Before Configuring

Identify pains, performance indicators
and measurement goals for the service

Consolidate the mappings into
an enterprise process/services map

Identify components and data
needed to drive service insights

Propulsion



KPI A

KPI B

KPI C

KPI D

Dependencies?

Propulsion



Dilithium Matrix strength

Current speed

Warp Core stability

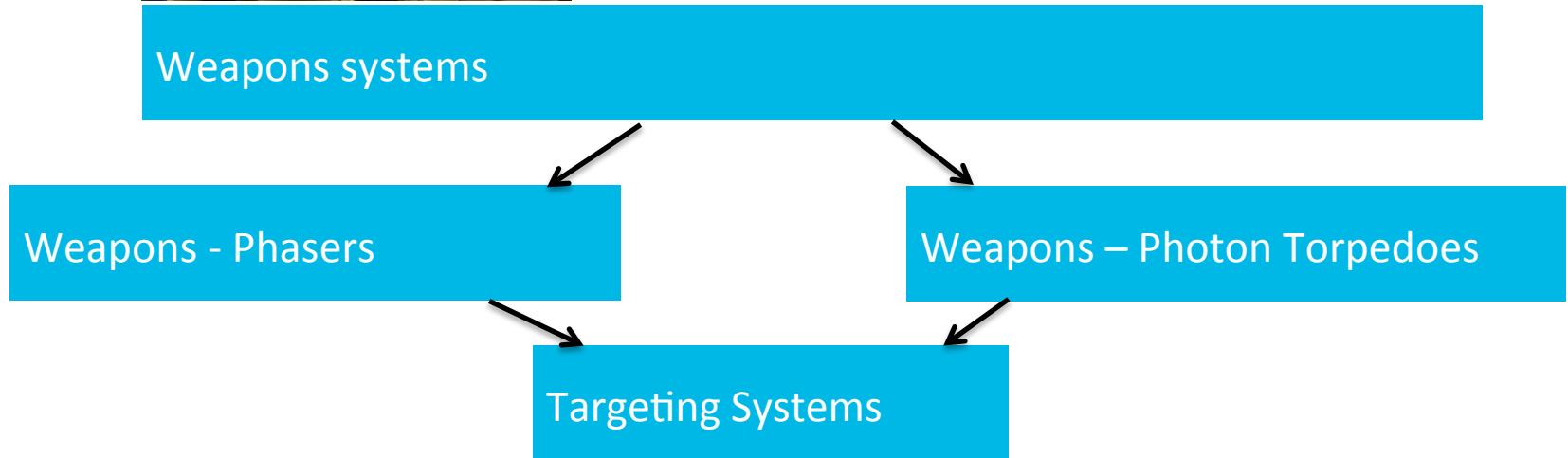
Impulse Engine

Dependencies: Shields, Scanners

Weapons systems



Two types of weapons systems?
Phasers & Photon Torpedoes.



Weapons subsystems

Weapons - Phasers

KPI 1

KPI 2

KPI 3

KPI 4

Weapons - Torpedoes

KPI 1

KPI 2

KPI 3

KPI 4

Weapons subsystems

Weapons - Phasers

Main Ship Power Avail.

% Emitters Available

Phase Couplings

Radion Particle
Containment

Weapons - Torpedoes

% Tubes Operable

Torpedoes Avail

Photon Tube Integrity

Photon Control Systems

Life Support

LOTS of *dependencies*

Gravitational systems

Atmosphere, Water

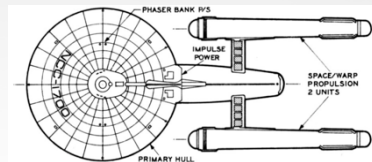
Sick Bay, Medical





Service Decomposition

Ship-wide Health



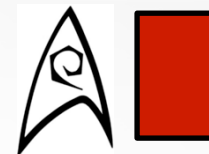
Operations



Command



Sciences



Engineering & Support

Mission Control

Scanners

Engines

Departmental Services

Helm

Sick Bay

Weapons

Tactical

Research

Shields

Shared Infrastructure

Sensors

Power

Transporters

Life support

Structure

Ship Health

LCARS 53266

LCARS ORG

98-164323

50

ServiceHealthScore

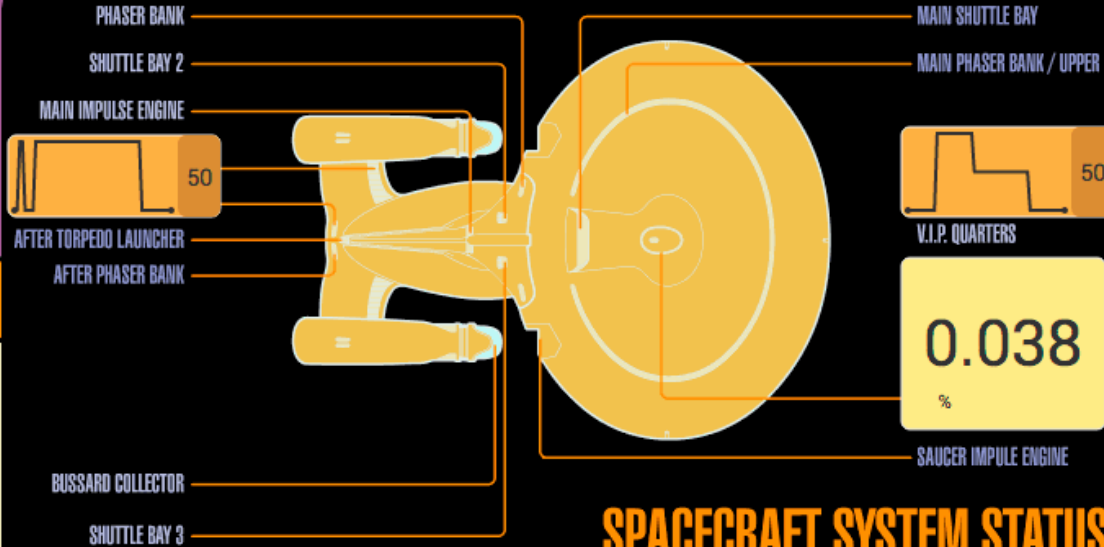
INITIATE
CALIBRATE

INITIALISE
EXTRACTING

234-99878

123-879444

4446-3216666



SPACECRAFT SYSTEM STATUS

DEFLECTOR SHIELDS DEACTIVATED

Shields Health

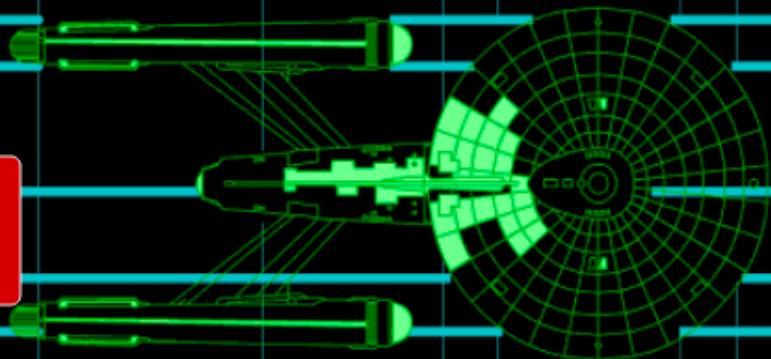


System Critical Count

1

Power

2k
KJ



1289
53
1232

1786
32
1098

1341
8987
098

AD

COMPUTER STATUS

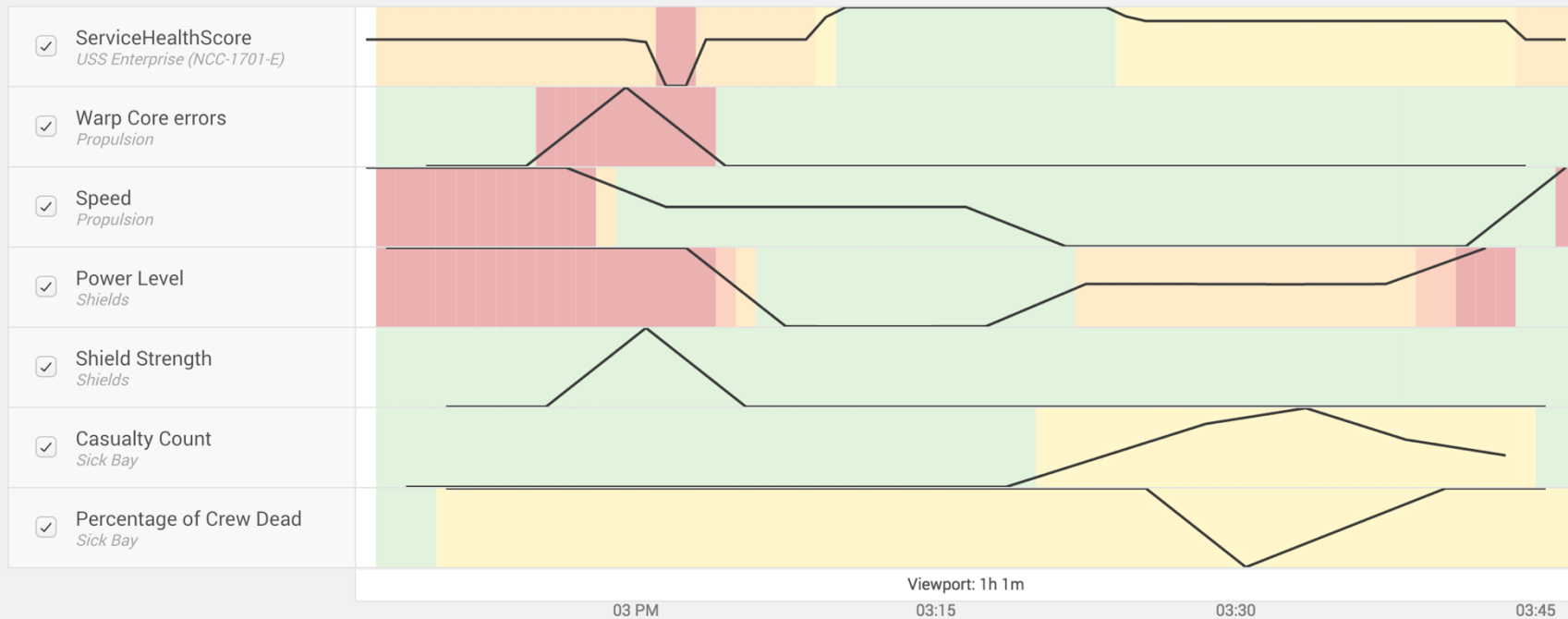
4401

Enterprise

Last 60 minutes Save as... Save

Bulk Actions

+ Add Lane Compare to ...

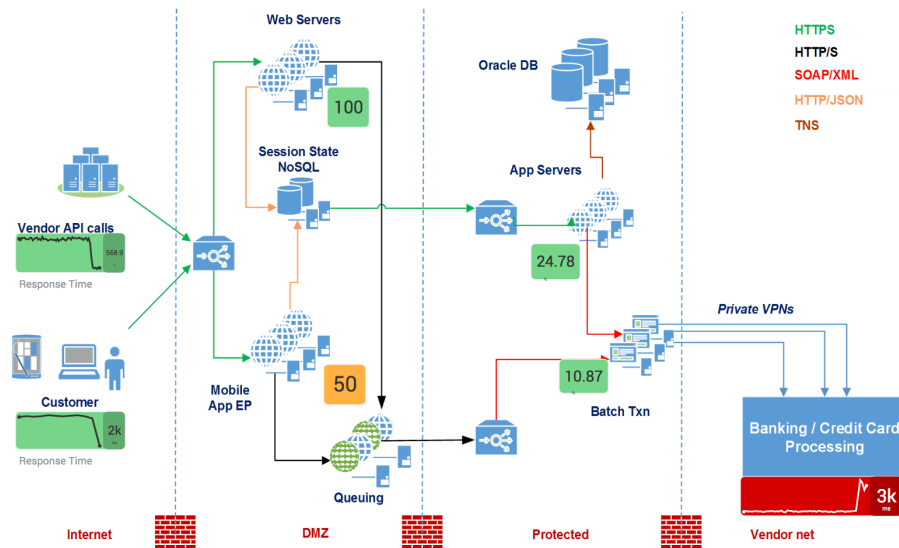


Focus: USS Enterprise (NCC-1701-E)

So now that we've saved the Federation

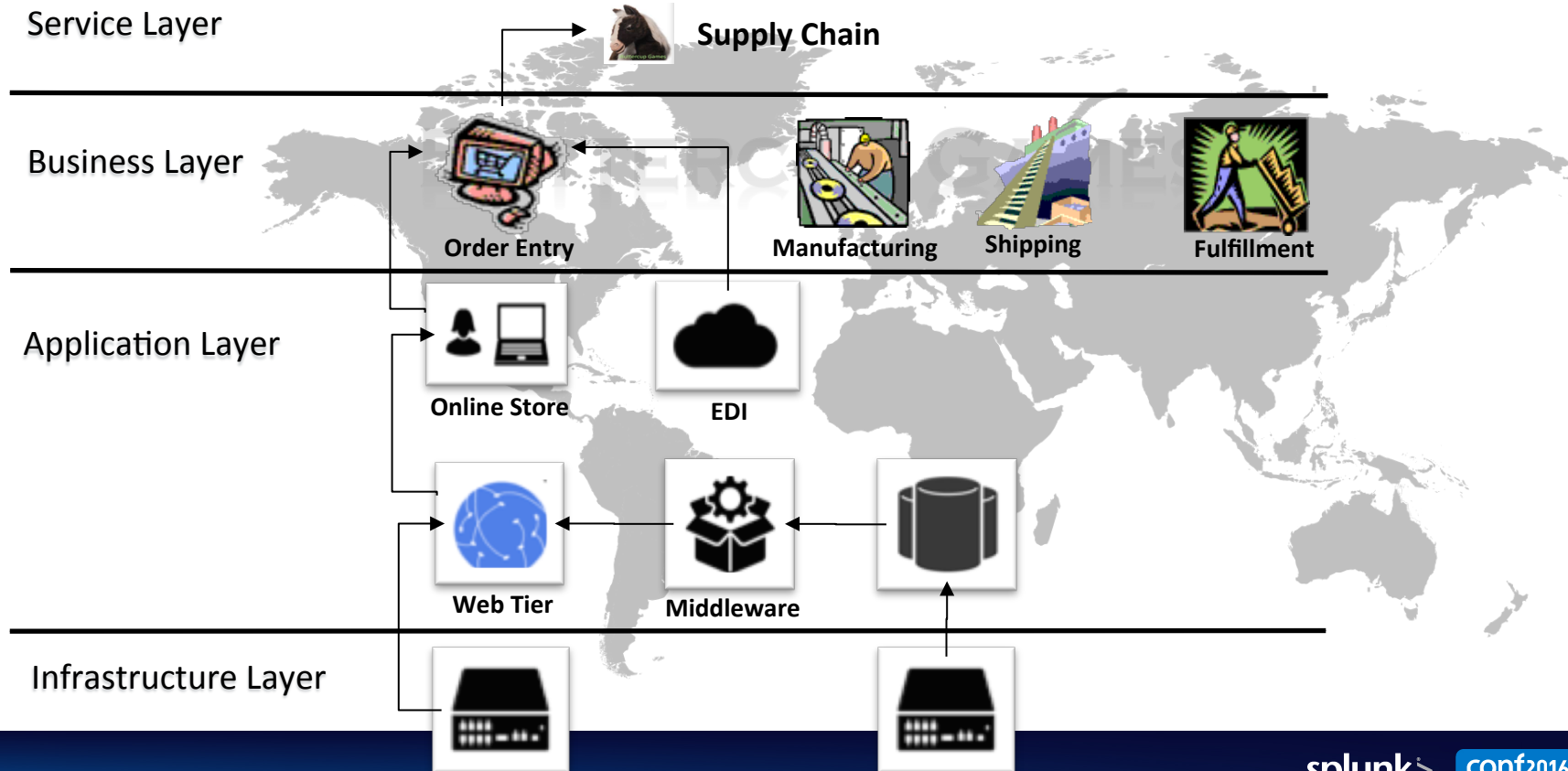
Now we are going to bring this back to Planet Earth

- You too can have Enterprise-grade monitoring of your IT environment.
- ITSI is Splunk's method for cross system performance, health monitoring





Service Decomposition





Putting it all together

Service Layer



Supply Chain

- ServiceHealth

Business Layer



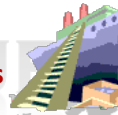
Order Entry

- Total Orders
- Total Revenue
- ServiceHealth



Manufacturing

- Unit Count
- Unit Failures



Shipping

- Service Level



Fulfillment

- Delivery Time

Application Layer



Online Store

- Online Orders
- Online Revenue



EDI



Web Tier

- ServiceHealth



Middleware

- ServiceHealth



- ServiceHealth

Infrastructure Layer



- CPU Load
- Memory Used
- Disk Used
- IO Latency



- CPU Load
- Memory Used
- Disk Used
- IO Latency

Demo



.conf2016

splunk >

Come to our booth for a demo of ITSI

.conf2016

splunk >

THANK YOU

.conf2016