The ROAD to DevSecOps

Dan Glass

CISO @ American Airlines

@djglass

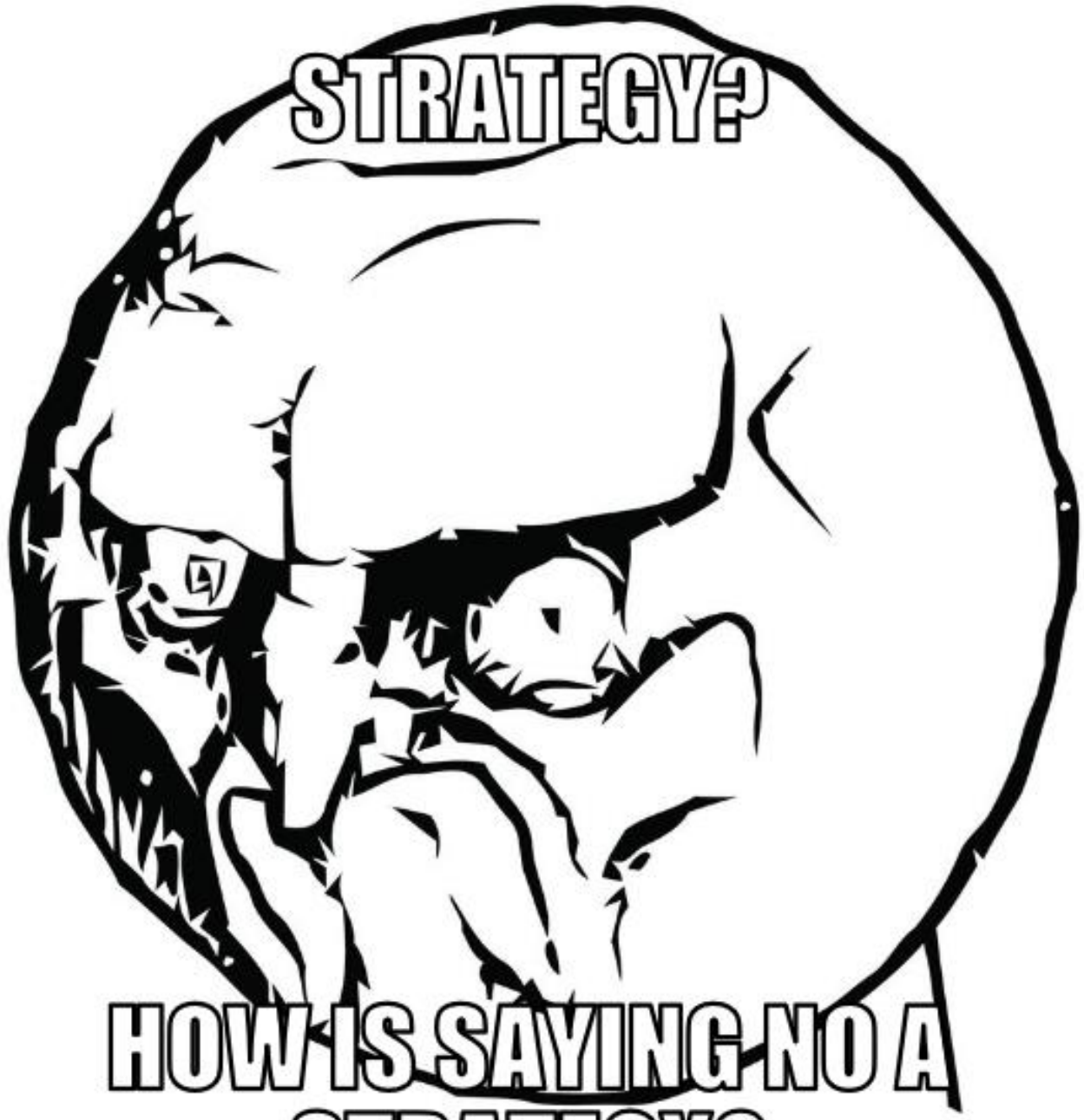
Founded 1926
115,000 employees
950 aircraft
350 airports
53 countries

4,500,000 flights
47,000,000 passengers
200,000,000,000 passenger miles


DANGER
MEMES
AHEAD


I have no idea
what I'm doing


I DO MY BEST THINKING
INSIDE THE BOX


STRATEGY?
HOW IS SAYING NO A STRATEGY?


I PROMISE SECURITY CONTROLS
AREN'T MEANT TO MAKE YOUR LIVES MORE DIFFICULT

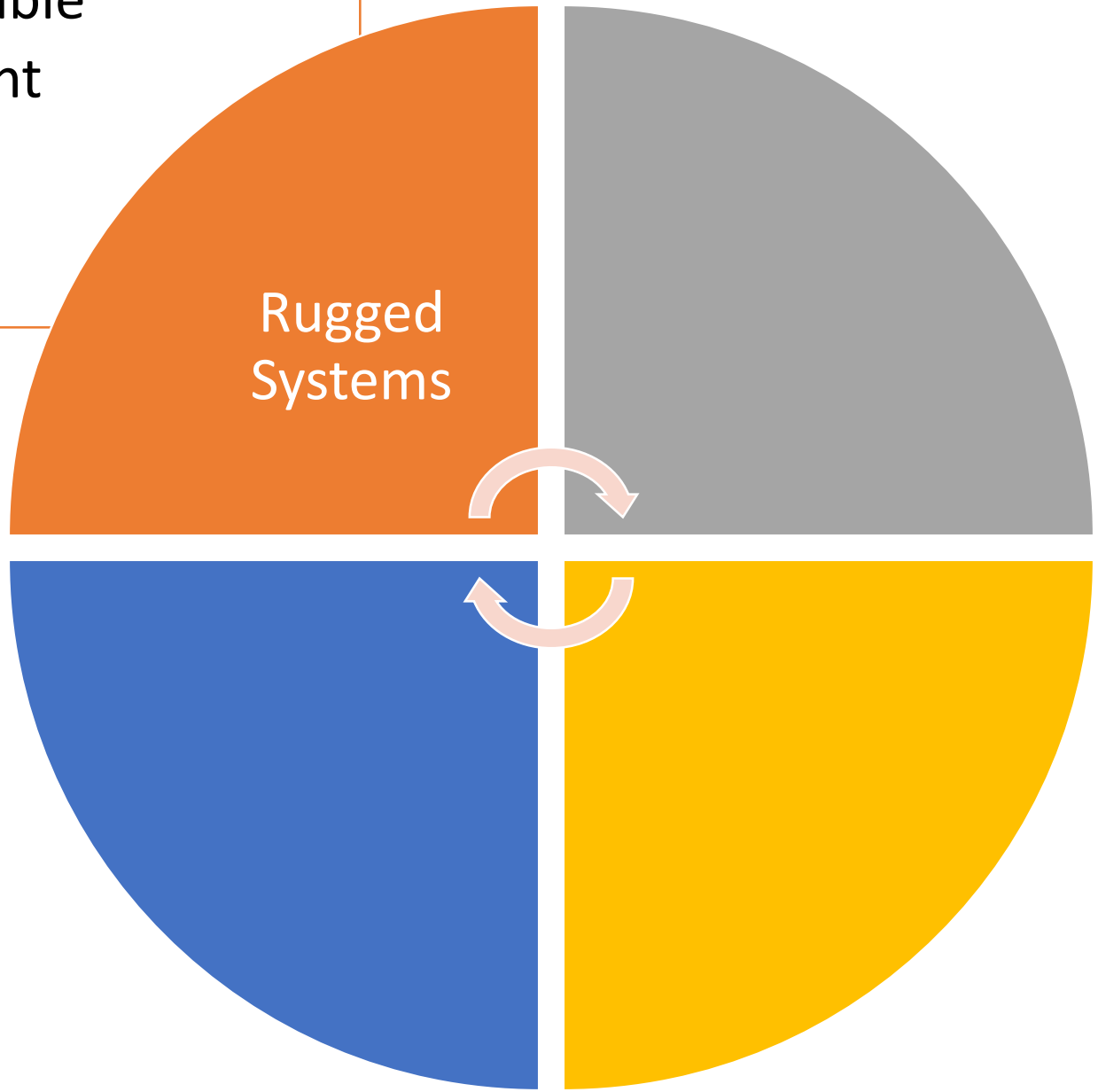
...THAT'S JUST A

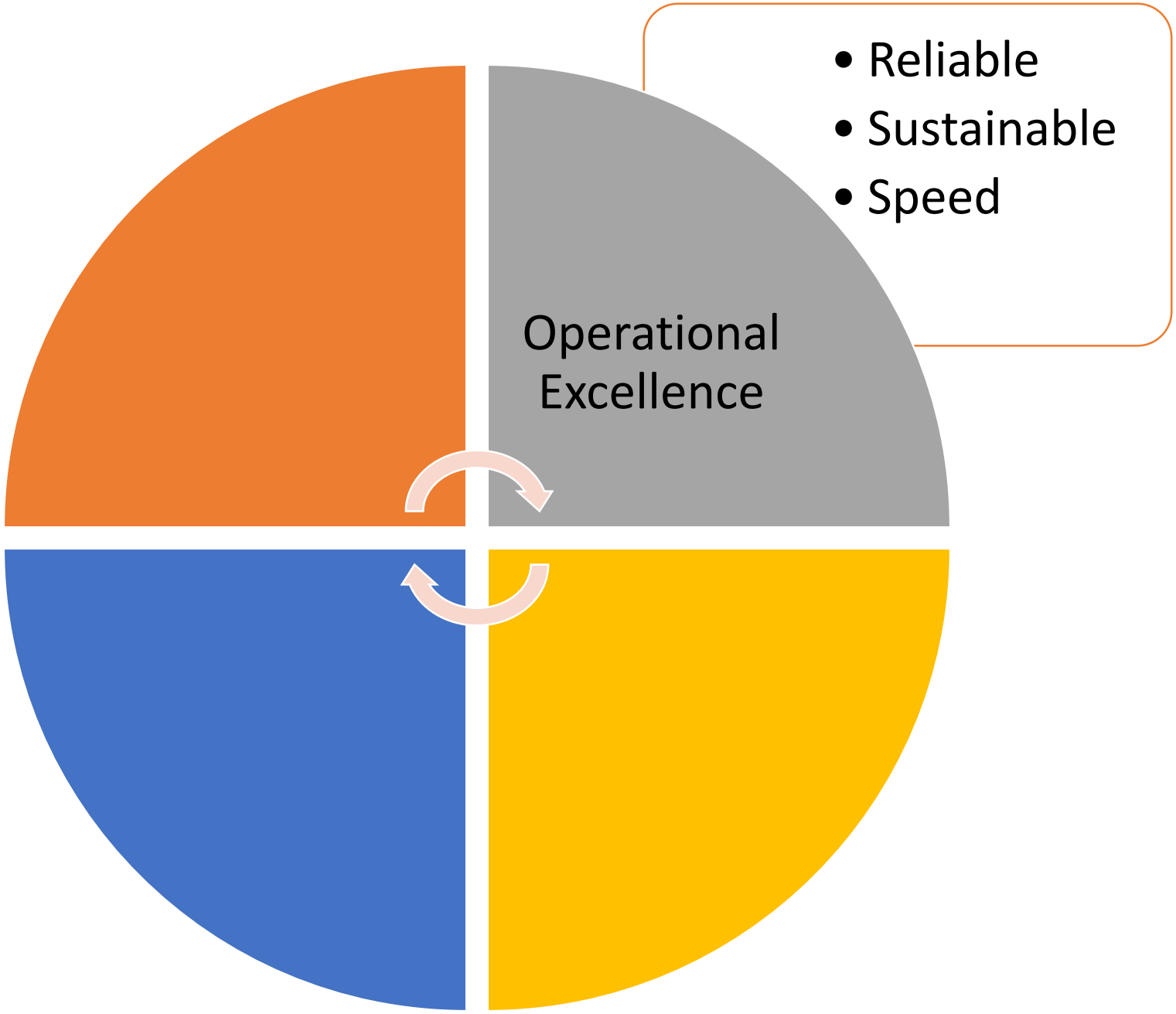
POSITIVE SIDE EFFECT

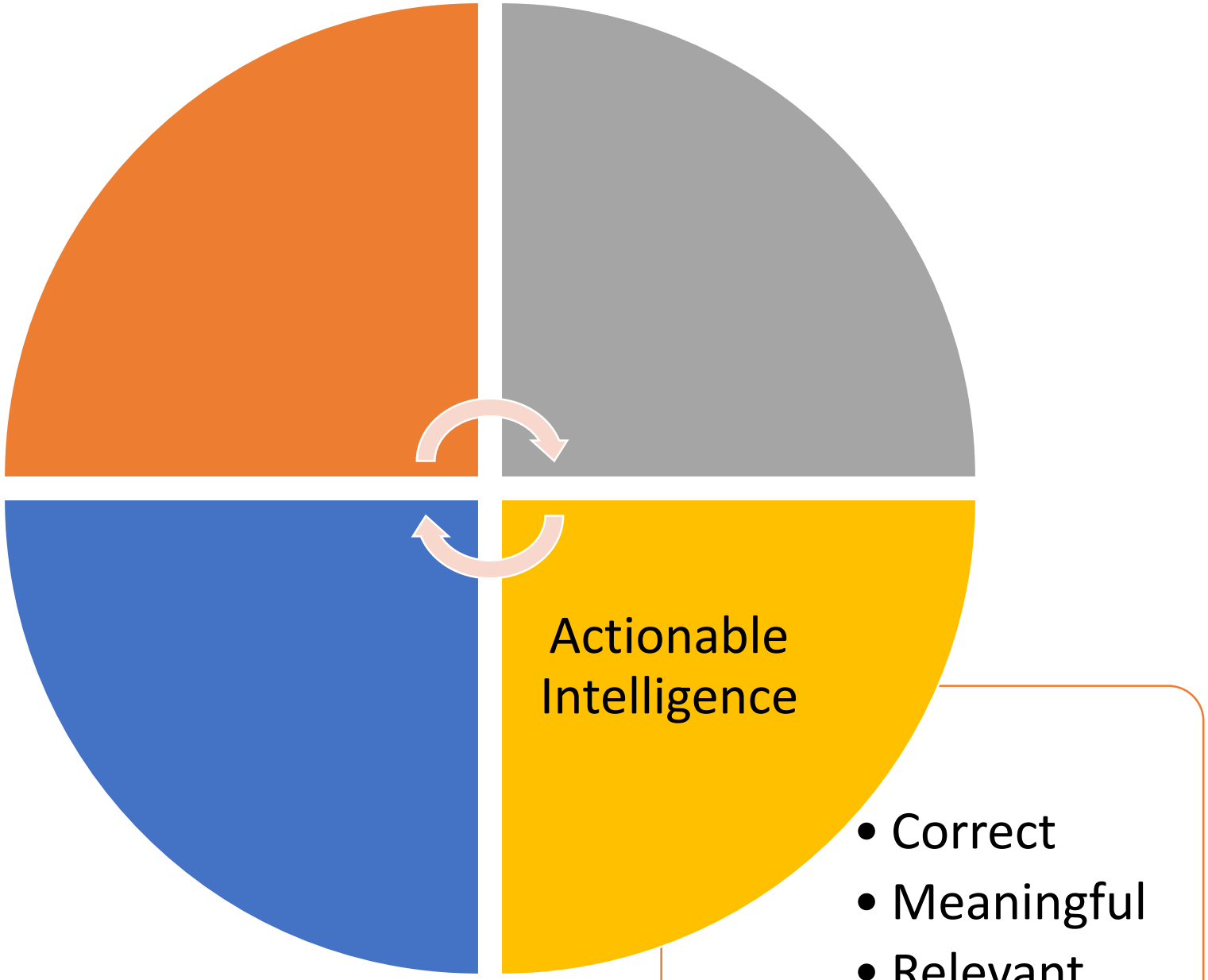

E PLURIBUS
"STRATEGERY..."

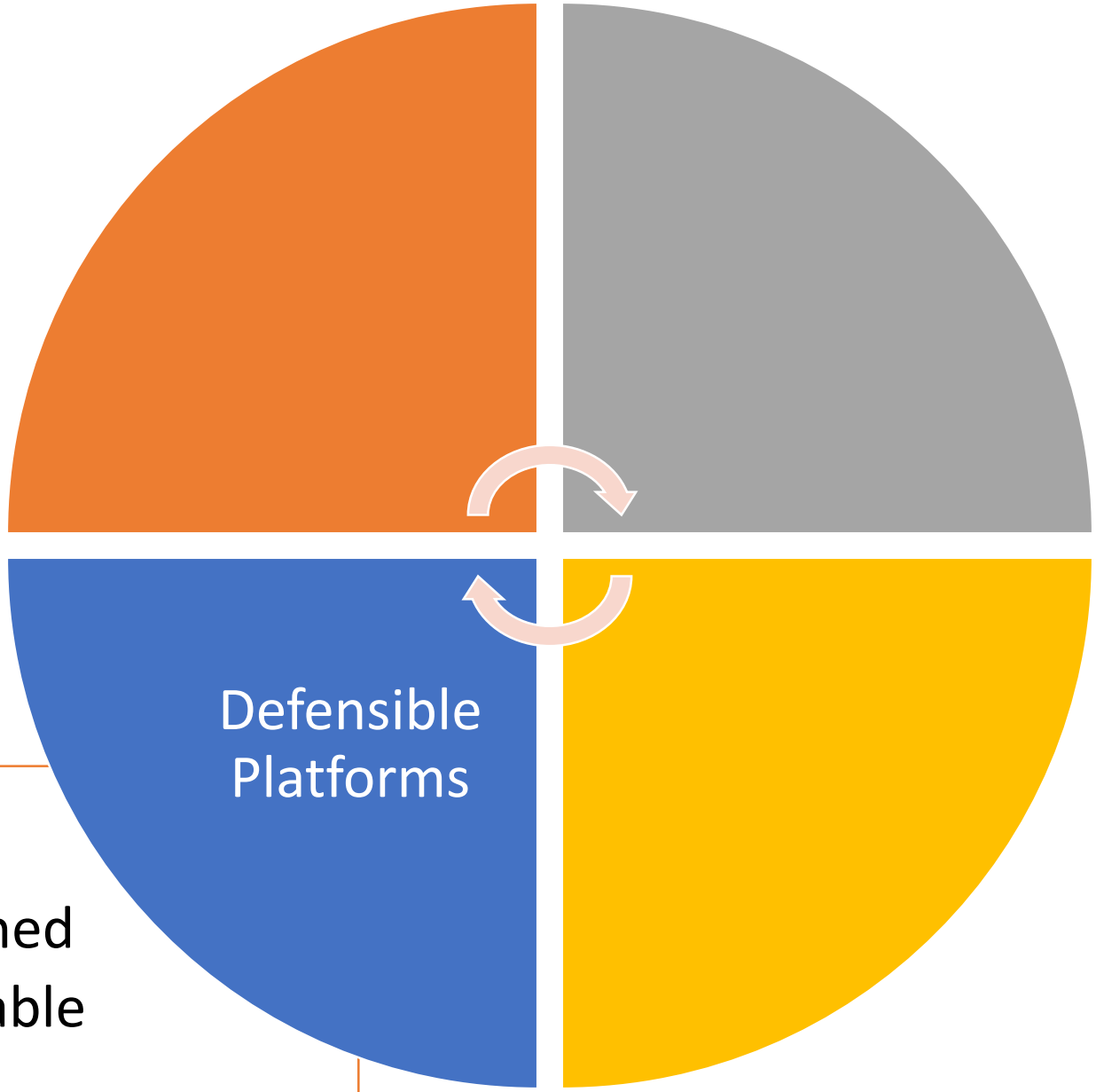

Rugged Systems
Operational Excellence
Defensible Platforms
Actionable Intelligence

- Adaptable
- Resilient
- Tested

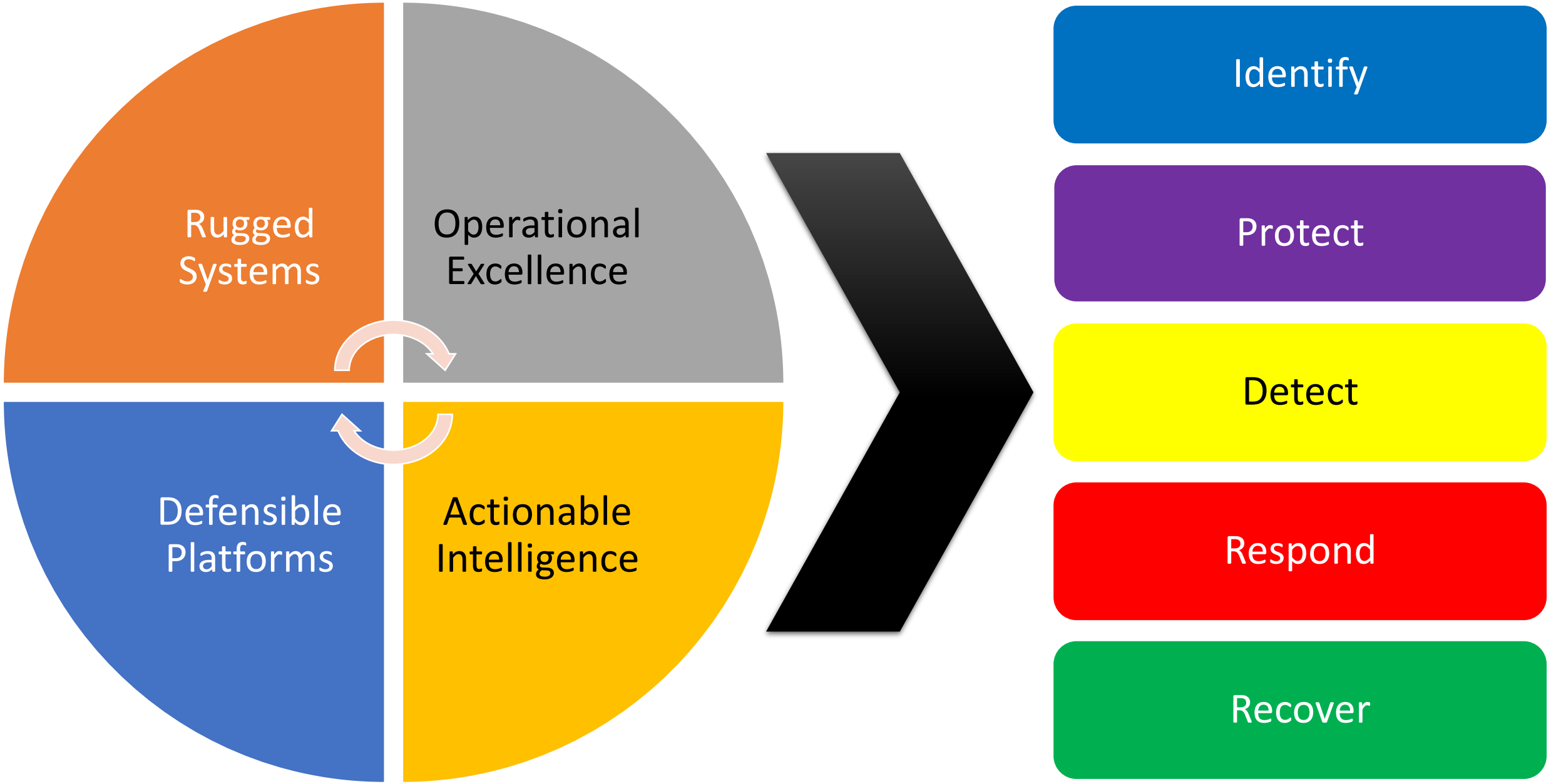


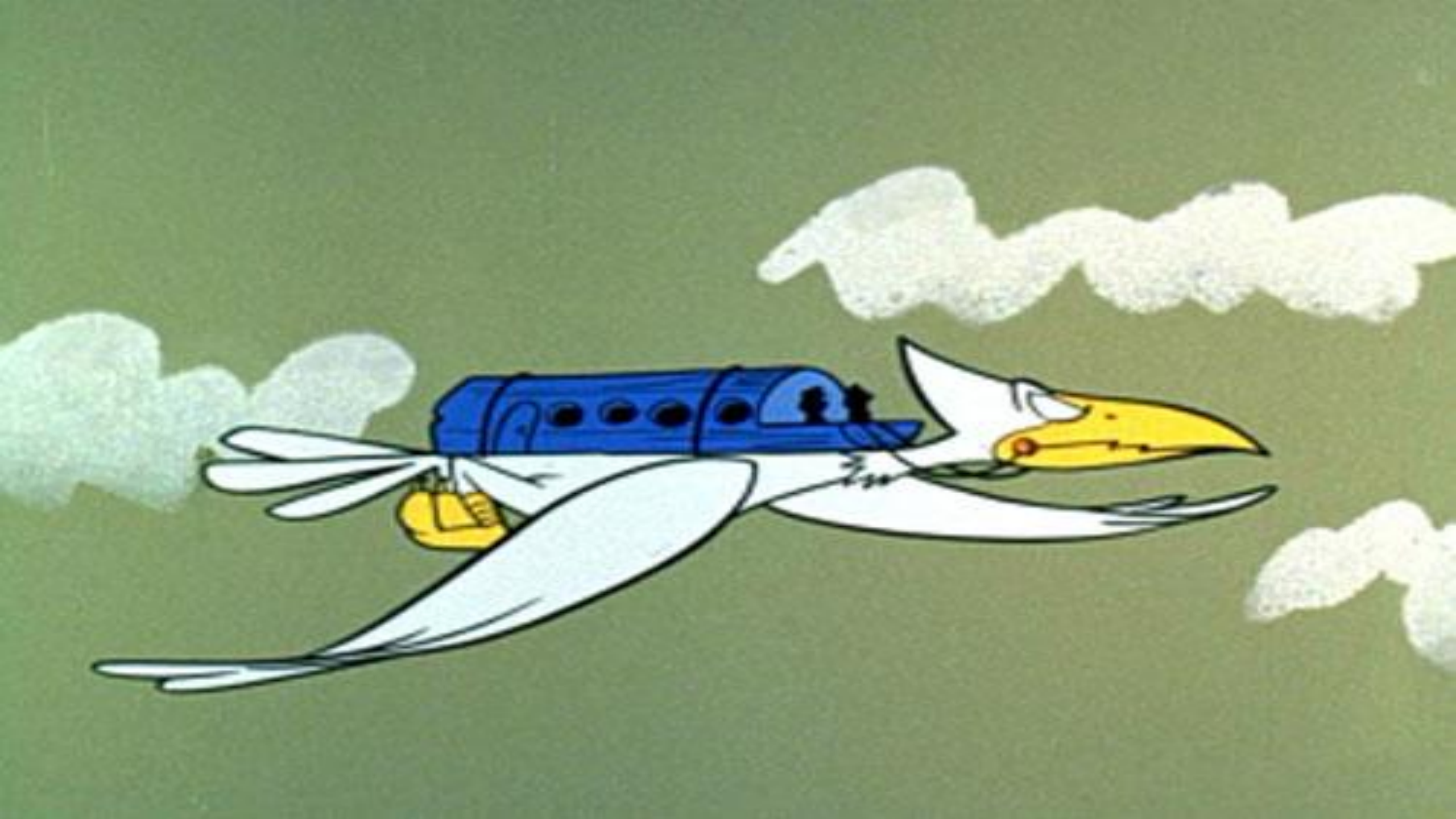

• Reliable
• Sustainable
• Speed
Operational Excellence

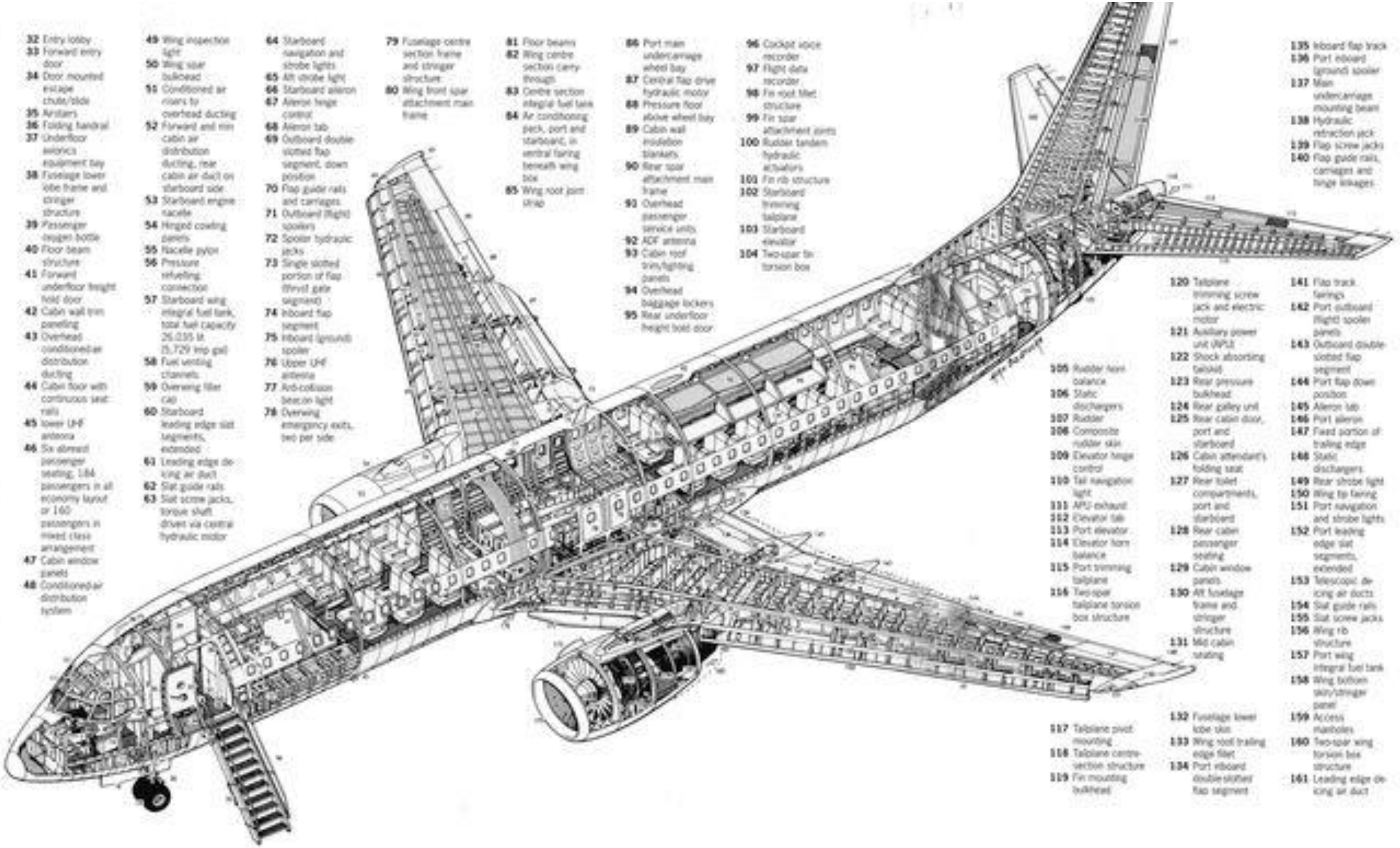

Actionable
Intelligence
• Correct
• Meaningful
• Relevant



- Hardened
- Survivable
- Tested


Rugged Systems
Operational Excellence
Defensible Platforms
Actionable Intelligence
Identify
Protect
Detect
Respond
Recover





Boeing 737-800

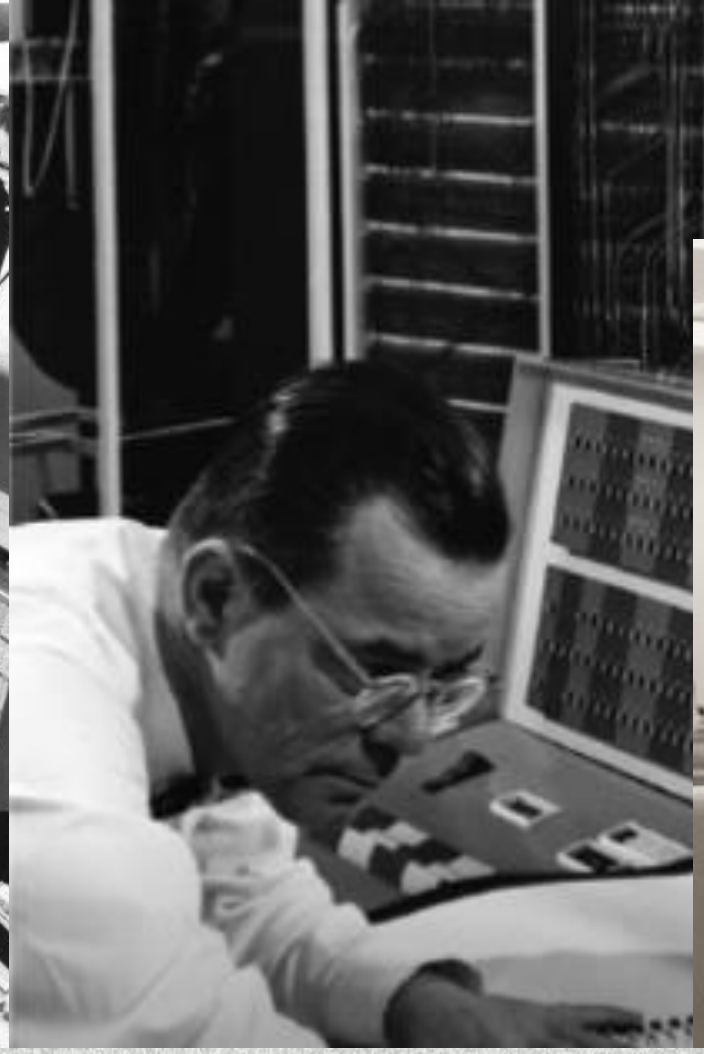
1 Radome with lightning conductor strips
2 Weather radar scanner
3 ILS glideslope
4 Radar scanner tracking mechanism
5 Front pressure bulkhead
6 Rudder pedals
7 Control yoke
8 Instrument panel, EFIS displays
9 Instrument panel shroud
10 Windscreen wipers
11 Windscreen panels
12 Cockpit eyebrow windows
13 Overhead systems control panel
14 Co-Pilot's seat
15 Captain's seat
16 Flight bag/ document stowage
17 Nose undercarriage wheel bay
18 Nosewheel doors
19 Twin nosewheels, forward retracting
20 Torque scissor links
21 Hydraulic steering jacks
22 Nosewheel leg pivot mounting
23 Dual pilot heads
24 Cockpit bulkhead
25 Observer's folding seat
26 Forward toilet compartment
27 Cockpit door
28 Starboard service door
29 Forward galley units
30 Closet compartment
31 Cabin attendant's folding seat
32 Entry lobby
33 Forward entry door
34 Door mounted escape chute/slide
35 Airstairs
36 Folding handrail
37 Underfloor avionics equipment bay
38 Fuselage lower lobe frame and stringer structure
39 Passenger oxygen bottle
40 Floor beam structure
41 Forward underfloor freight hold door
42 Cabin wall trim panelling
43 Overhead conditioned-air distribution ducting
44 Cabin floor with continuous seat rails
45 Lower UHF antenna
46 Six abreast passenger seating, 184 passengers in all economy layout or 160 passengers in mixed class arrangement
47 Cabin window panels
48 Conditioned-air distribution system
49 Wing inspection light
50 Wing spar bulkhead
51 Conditioned air risers to overhead ducting
52 Forward and rear cabin air distribution ducting, rear cabin air duct on starboard side
53 Starboard engine nacelle
54 Hinged cowling panels
55 Nacelle pylon
56 Pressure refuelling connector
57 Starboard wing integral fuel tank, total fuel capacity 26,035 lit (5,729 Imp gal)
58 Fuel venting channels
59 Overwing filler cap
60 Starboard leading edge slat segments, extended
61 Leading edge de-icing air duct
62 Slat guide rails
63 Slat screw jacks, torque shaft driven via central hydraulic motor
64 Starboard navigation and strobe lights
65 Aft strobe light
66 Starboard aileron
67 Aileron hinge control
68 Aileron tab
69 Outboard double slotted flap segment, down position
70 Flap guide rails and carriages
71 Outboard (flight) spoilers
72 Spoiler hydraulic jacks
73 Single slotted portion of flap (thrust gate segment)
74 Inboard flap segment
75 Inboard (ground) spoiler
76 Upper UHF antenna
77 Anti-collision beacon light
78 Overwing emergency exits, two per side
79 Fuselage centre section frame and stringer structure
80 Wing front spar attachment main frame
81 Floor beams
82 Wing centre section carry through
83 Centre section integral fuel tank
84 Air conditioning pack, port and starboard, in ventral fairing beneath wing box
85 Wing root joint strap
86 Port main undercarriage wheel bay
87 Central flap drive hydraulic motor
88 Pressure floor above wheel bay
89 Cabin wall insulation blankets
90 Rear spar attachment main frame
91 Overhead passenger service units
92 ADF antenna
93 Cabin roof trim/lighting panels
94 Overhead baggage lockers
95 Rear underfloor freight hold door
96 Cockpit voice recorder
97 Flight data recorder
98 Fin root fillet structure
99 Fin spar attachment joints
100 Rudder tandem hydraulic actuators
101 Fin rib structure
102 Starboard trimming tailplane
103 Starboard elevator
104 Two-spar fin torsion box
105 Rudder horn balance
106 Static dischargers
107 Rudder
108 Composite rudder skin
109 Elevator hinge control
110 Tail navigation light
111 APU exhaust
112 Elevator tab
113 Port elevator
114 Elevator horn balance
115 Port trimming tailplane
116 Two-spar tailplane torsion box structure
117 Tailplane pivot mounting
118 Tailplane centre-section structure
119 Fin mounting bulkhead
120 Tailplane trimming screw jack and electric motor
121 Auxiliary power unit (APU)
122 Shock absorbing tailskid
123 Rear pressure bulkhead
124 Rear galley unit
125 Rear cabin door, port and starboard
126 Cabin attendant's folding seat
127 Rear toilet compartments, port and starboard
128 Rear cabin passenger seating
129 Cabin window panels
130 Aft fuselage frame and stringer structure
131 Mid cabin seating
132 Fuselage lower lobe skin
133 Wing root trailing edge fillet
134 Port inboard double-slotted flap segment
135 Inboard flap track
136 Port inboard (ground) spoiler
137 Main undercarriage mounting beam
138 Hydraulic retraction jack
139 Flap screw jacks
140 Flap guide rails, carriages and hinge linkages
141 Flap track fairings
142 Port outboard (flight) spoiler panels
143 Outboard double slotted flap segment
144 Port flap down position
145 Aileron tab
146 Port aileron
147 Fixed portion of trailing edge
148 Static dischargers
149 Rear strobe light
150 Wing tip fairing
151 Port navigation and strobe lights
152 Port leading edge slat segments, extended
153 Telescopic de-icing air ducts
154 Slat guide rails
155 Slat screw jacks
156 Wing rib structure
157 Port wing integral fuel tank
158 Wing bottom skin/stringer panel
159 Access manholes
160 Two-spar wing torsion box structure
161 Leading edge de-icing air duct
162 Port twin mainwheels
163 Main undercarriage leg strut
164 Folding side stay
165 Inboard machined wing ribs
166 Leading edge ribs
167 Engine bleed air duct to conditioning system
168 Landing and taxiing lights
169 Leading edge wing root fillet
170 Ventral ram air intake to conditioning system heat exchangers
171 Inboard Krueger flap, extended
172 Nacelle strake
173 Nacelle pylon structure
174 Intake de-icing air duct
175 Engine intake, flattened at lower edge
176 CFM56-7 turbofan engine with FADEC control
177 Engine fan casing
178 Side mounted accessory equipment gearbox, oil tank on starboard side
179 Thrust reverser cascades
180 Engine turbine section
181 Fan air (cold stream) exhaust duct
182 Translating cowling, reverser cascade opening
183 Core engine (hot stream) exhaust duct
184 Pylon attachment points


NCC-1701


APP TEAMS
AS SEEN BY ENTERPRISE OPS


ENTERPRISE
OPS TEAM


BUT IT WAS A JUST TINY
CHANGE TO THE PNR SERVICE

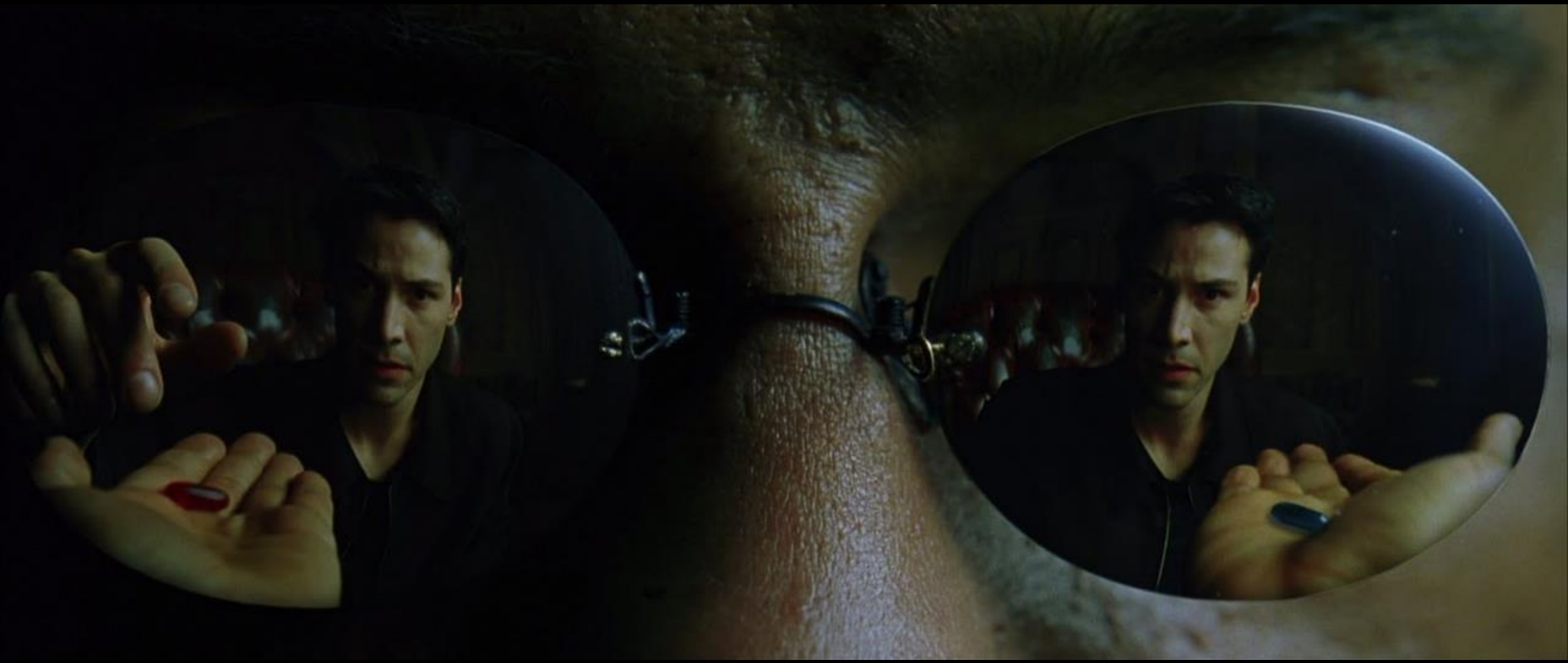


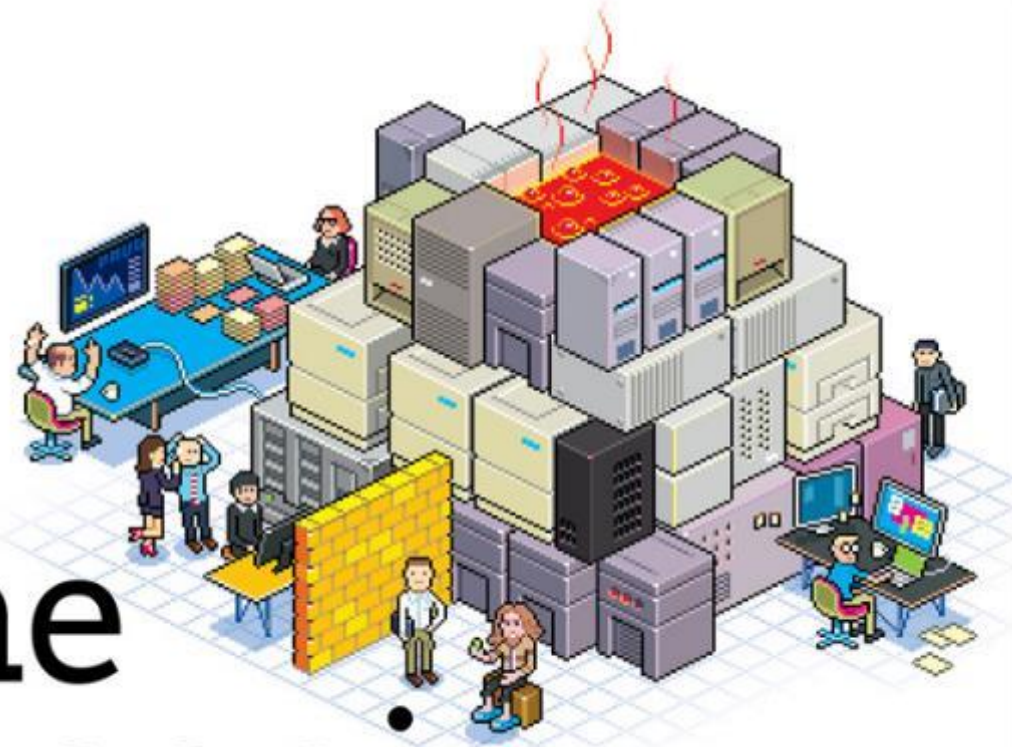
AMERICAN AIRLINES

SABRE

Reservation System by IBM


SAY IT WORKS ON YOUR MACHINE
ONE MORE TIME

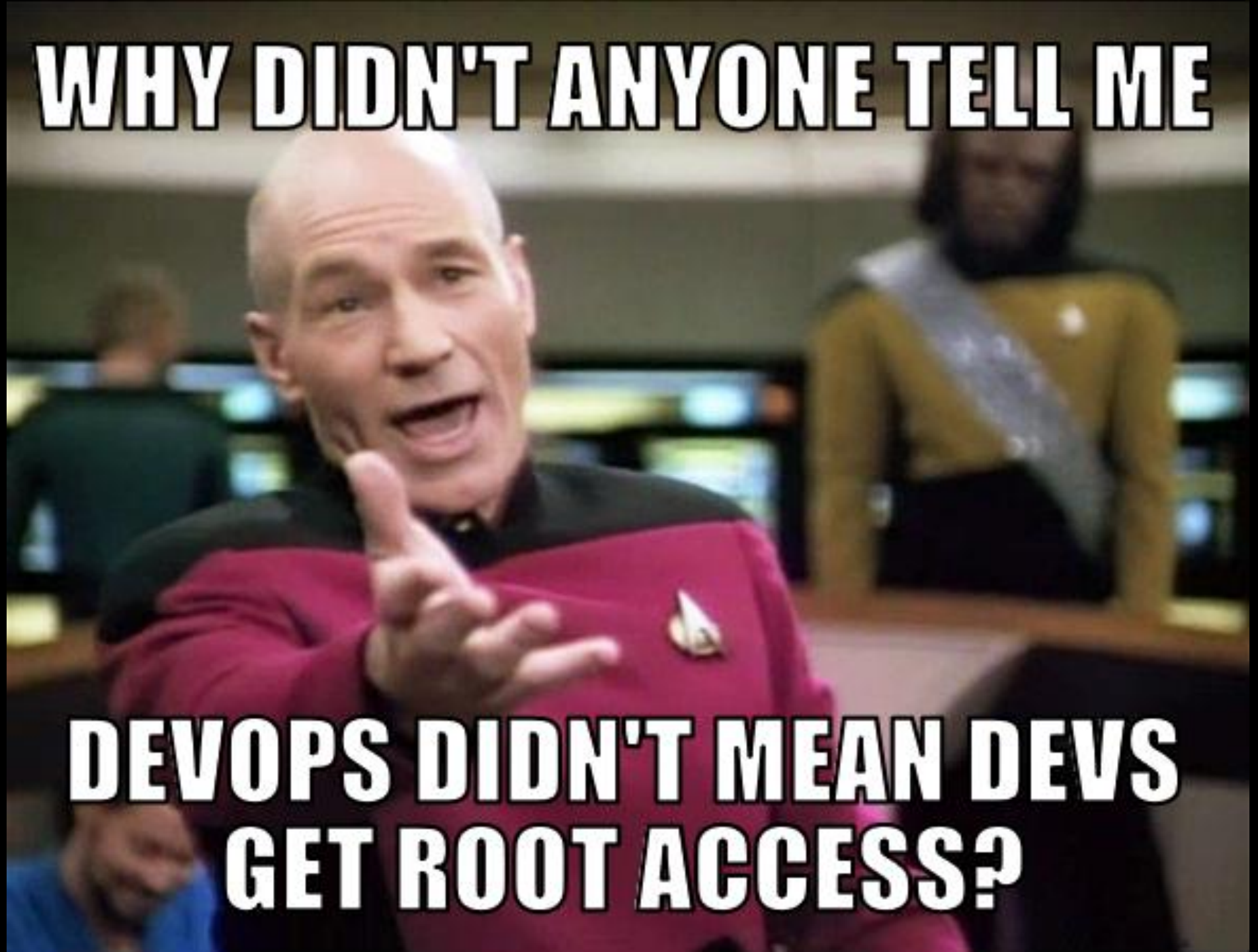




The Phoenix Project

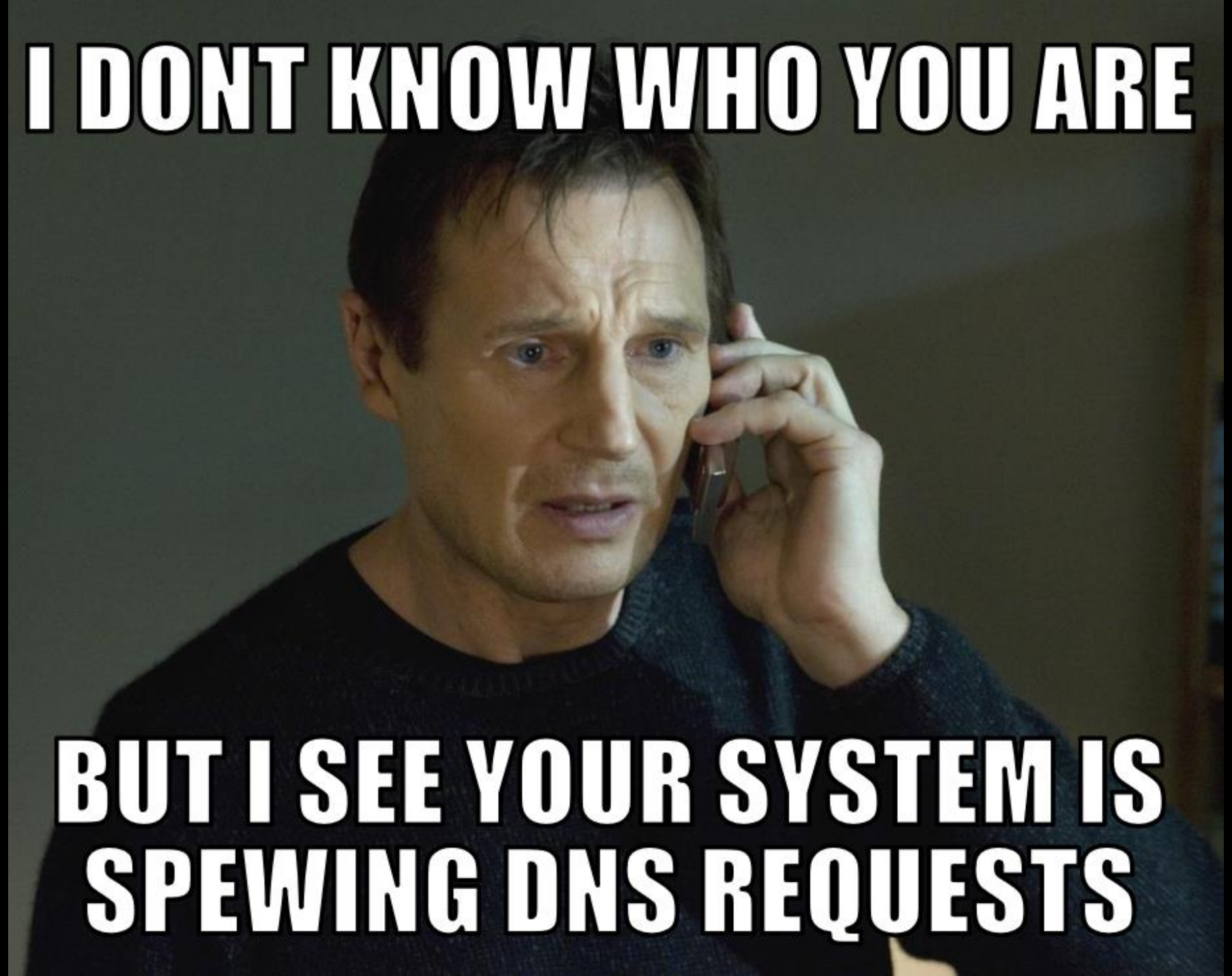
A Novel About IT, DevOps, and Helping Your Business Win

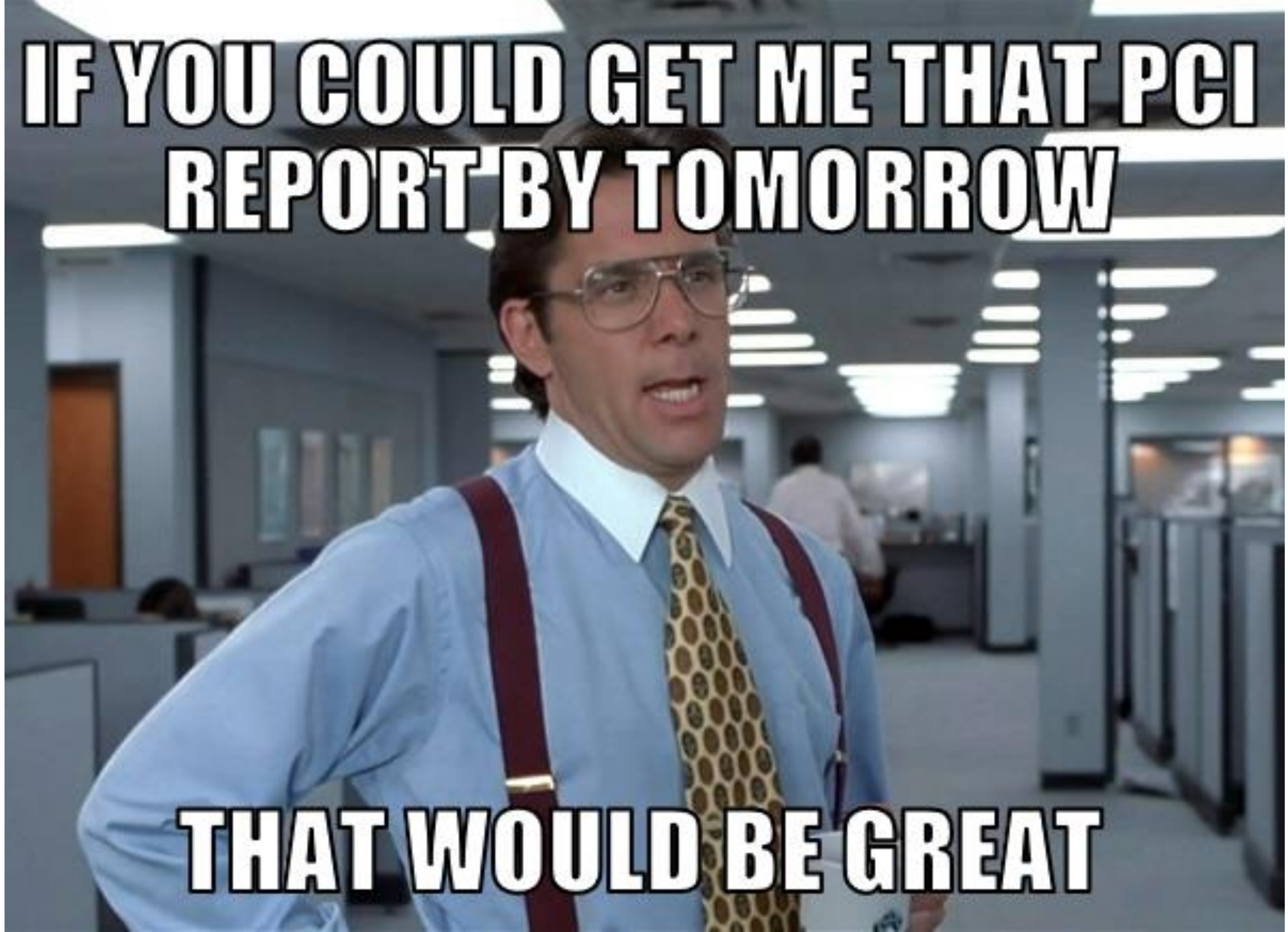
Gene Kim, Kevin Behr, and George Spafford


WHY DIDN'T ANYONE TELL ME
DEVOPS DIDN'T MEAN DEVS GET ROOT ACCESS?


ONE DOES NOT SIMPLY
WALK INTO DEVOPS


WHAT IF I TOLD YOU
YOU COULD GET BETTER SECURITY OUTCOMES WITH FEWER CONTROLS?

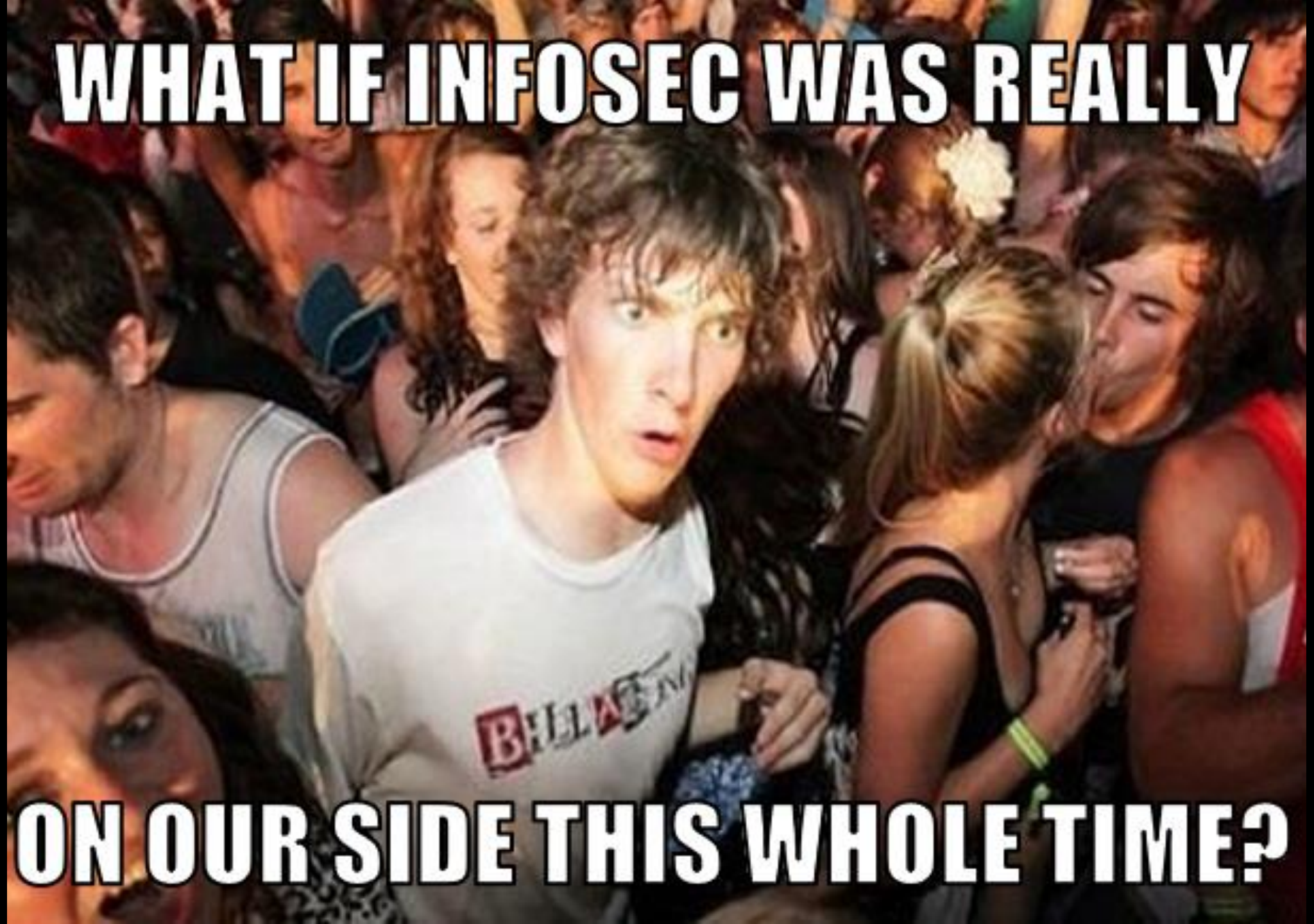

I DONT KNOW WHO YOU ARE
BUT I SEE YOUR SYSTEM IS SPEWING DNS REQUESTS


IF YOU COULD GET ME THAT PCI REPORT BY TOMORROW
THAT WOULD BE GREAT


OH YOU'RE IN THE CLOUD?
PLEASE, TELL ME HOW YOU TAKE
6 WEEKS TO DEPLOY A SERVER


YEAH, WE SKIPPED THE SECURITY SCANS
WHY DO YOU ASK?


BRACE YOURSELVES
SECURITY IS JOINING THE STAND-UP


WHAT IF INFOSEC WAS REALLY
ON OUR SIDE THIS WHOLE TIME?

Czarknado
@pczarkowski

Follow

Cant tell if london underground map or openstack architecture diagram.

thanks!