

October 2022

CSG's Ongoing Transformation Story

Leadership, Where It Started, How It Has Gone

Steve Barr, VP Software Engineering

Erica Morrison, VP Software Engineering @ericarmorrison





Revenue Management

Digital Monetization

Customer Communication
Management

Payment Gateway Services



**Empower companies around the world
to boldly build a better future,
making it easier for people and
businesses to connect to, use and pay
for the services they value most**



Transformational Leadership

**Leadership looks a
lot like loving people**



Seek to understand before you seek to change

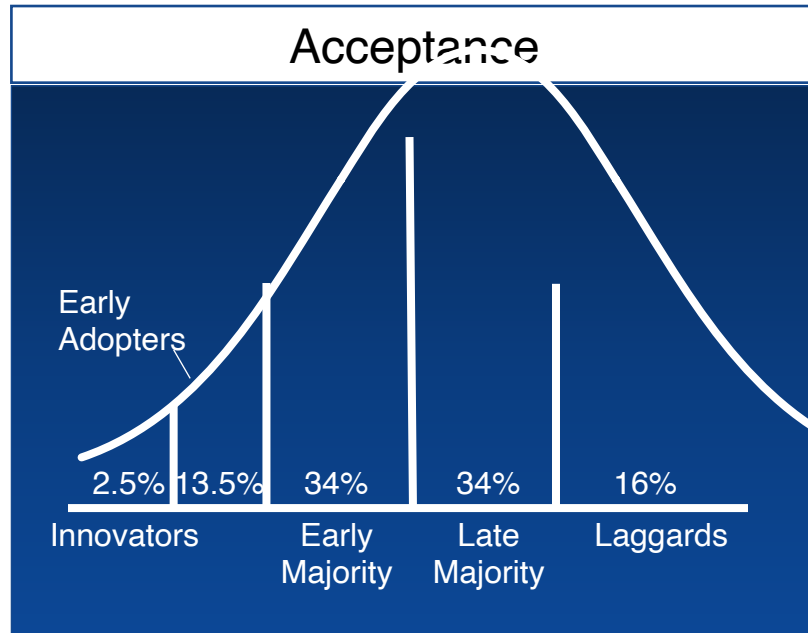
SLOW
DOWN

EDUCATE
YOURSELF

LISTEN

Empathy for Mindset

Humans are naturally wired to resist change



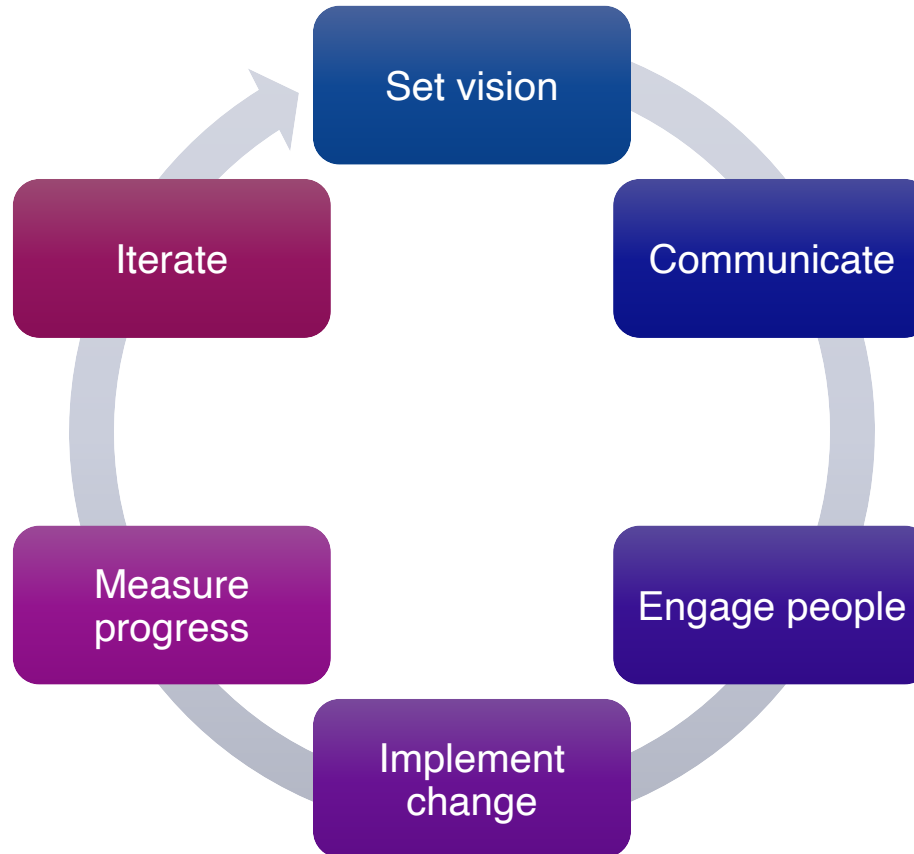
Threats

SCARF

- S - Status
- C - Certainty
- A - Autonomy
- R - Relatedness
- F - Fairness

WIIFM

High Level Steps



Communicate

- 1 Share the why
- 2 Regularly communicate via multiple formats
- 3 Communicate bi-directionally
- 4 Communicate at multiple levels



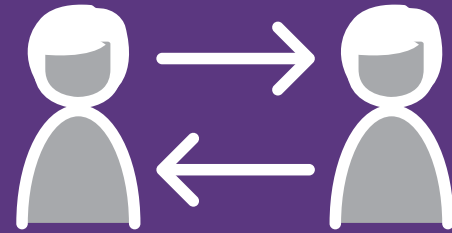
Engage People

1 Include everyone

2 Educate

3 Coach/Support

4 Find your change agents



Implement Change

- 1 Change how people do their work
- 2 Build on the positive
- 3 Don't get stuck on prioritization
- 4 Roll up your sleeves, get in the weeds



Iterate

- 1 Remember the goal is to get all the good ideas on the table
- 2 Know your absolutes and where you can compromise
- 3 Demonstrate psychological safety
- 4 Demonstrate vulnerability
- 5 Celebrate successes



Take Care of Yourself



- Change is hard for everyone
- Be cognizant of burnout
- Find a sounding board
- Don't give up

Our Story

Our story begins with a modernization project

How Do You Modernize a Mission Critical Middleware Application?

Development



Production



Modernized



IBM® Power® AIX®
operating system

Denver



Omaha

From Development to Operations



- Work captured in multiple sources
- Little prioritization
- Complex manual configuration
- Lack of shared and standard telemetry
- Brents

What I Began to Learn...

The work in operations wasn't understood, by the
development teams

Their work was taken for granted

Which lead them to being unappreciated

Another Attempt, With Safety



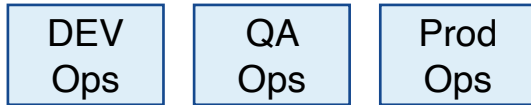
- Automated parallel testing
- Incremental transactional rollout
- Parallel old / new system operation

A person is seen from behind, standing on a path with their arms raised in a celebratory gesture. They are wearing a purple athletic top and dark pants. The background shows a bright, hazy sky and some foliage.

Success!
Kinda?

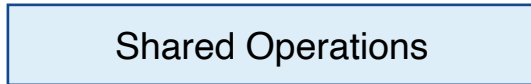
Shortening Operational Feedback Loops

PRACTICE TEAM != GAME TIME TEAM



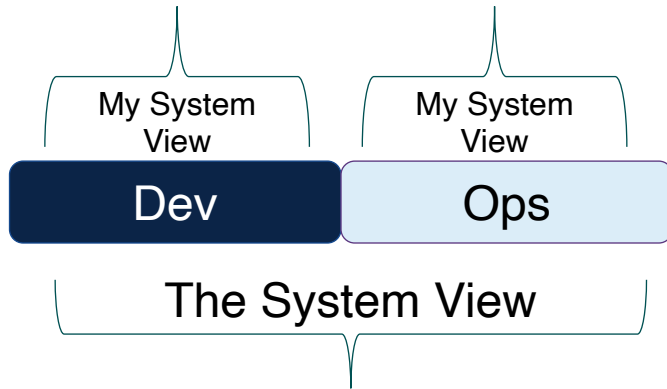
- Three teams operating environments in their own way
- Daily deploys to pre-production environments
- Lessons learned in non-production not shared

PRACTICE TEAM = GAME TIME TEAM



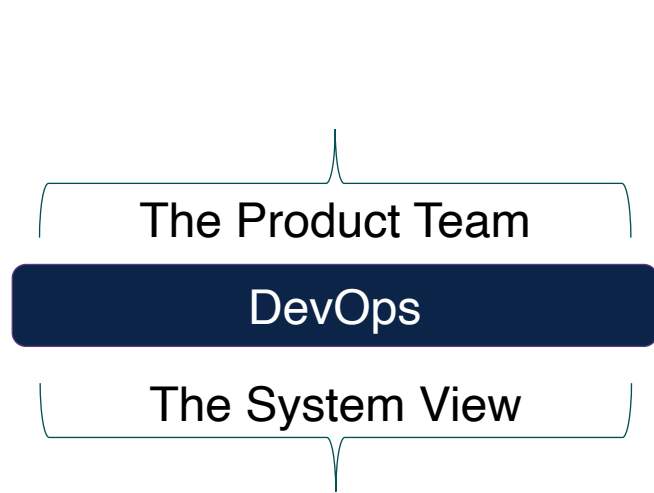
- Environment management became homogenized
- Operational artifacts under version control
- Same component make up

Things Were Better....But



- Large batch releases
- Non-contextual change control
- Change limited to pre-defined windows
- Mismatched prioritization Dev vs Ops
- Lack of feedback

Finally, “The” System View



- Operational work became visible
- Priorities began to align
- Practices shared

Modernization Began to Spread

Mainframe

- VSAM/QSAM to DB2
- HLASM and COBOL to Java

All using the same countermeasures and sense of safety we had established while migrating our middleware application



Output Solutions

- Document archival
- Document composition

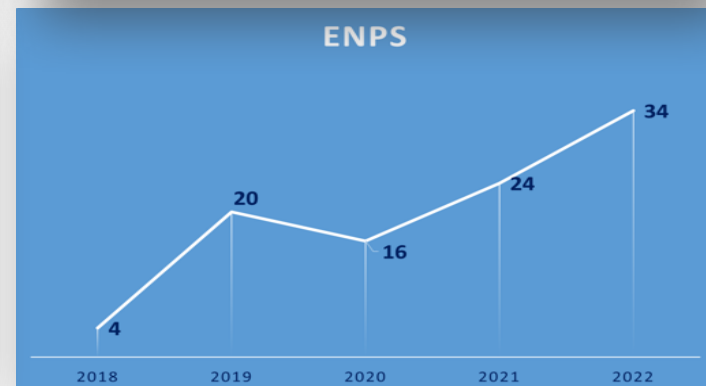
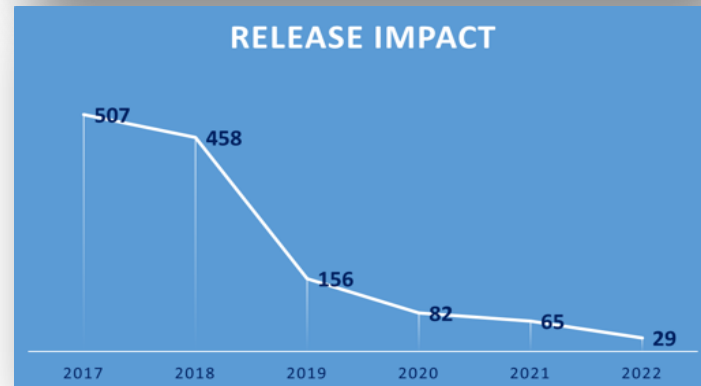
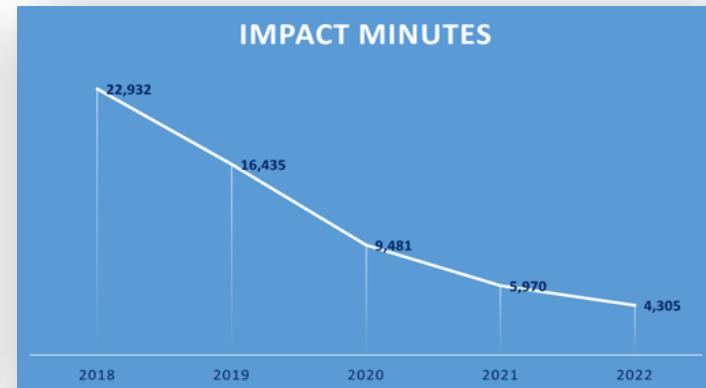
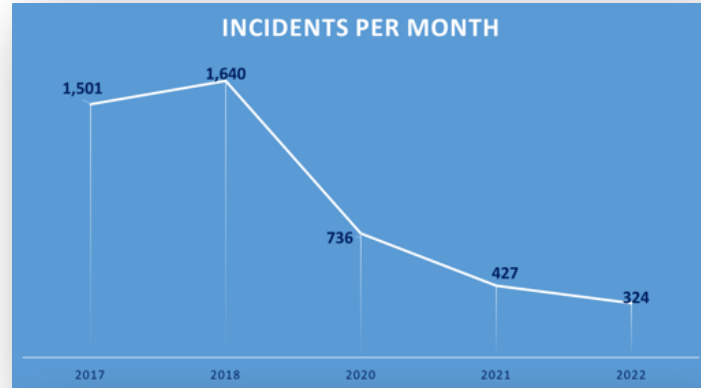


Process

- Incident/Problem Management
- Outage Management
- Change Management




Business Results



Improved TTM From 12+ Months To 4 Months Or Less

70% Of Our Features Are Implemented As Release On Demand (ROD)

Grew Subscriber Base From 50M Subs To 80M Subs

A photograph of a chessboard with several pieces. In the foreground, a white king piece is lying on its side on a light square. Behind it, several dark-colored pieces (pawns and a king) are standing upright. The background is a soft-focus bokeh of warm, golden light circles against a blue-grey sky.

What started with a modernization project,
became a way of life at CSG

Help We Are Looking For



Tell us how you are expanding your recruiting and hiring pipelines to attract a more diverse workforce

WE'RE HERE
TO MAKE
GOOD
THINGS
HAPPEN FOR
OTHER PEOPLE.





Thank you!

Corporate Headquarters

6175 S. Willow Drive Floor 10
Greenwood Village, CO 80111

T: +1 303 200 2000

F: +1 303 200 3333