

A dynamic comic book illustration featuring a character with vibrant blue hair and large, round glasses. The character is shown from the chest up, looking directly at the viewer with a slight smile. They are wearing a light blue jacket with orange and yellow accents. The background is a complex, stylized depiction of a server room or data center, with various computer components, cables, and server racks visible. The overall color palette is dominated by blues, greys, and oranges.

# CONFLUENT CHRONICLES

THE DATA STREAMING REVOLUTION

Issue #1

RISE OF  
THE KAFKA HEROES



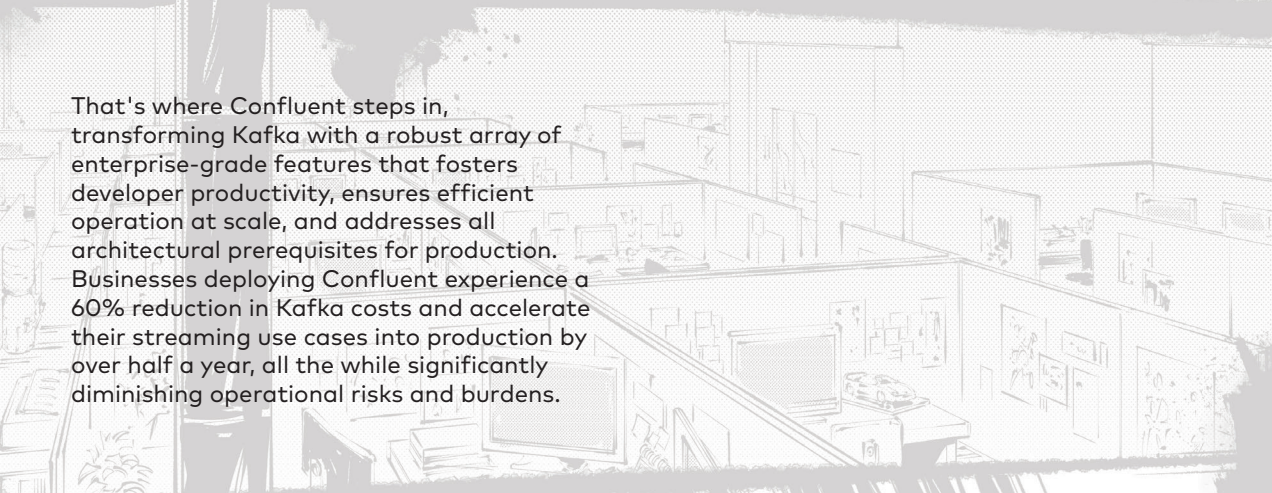


## Located in the heart of Mountain View,


the trailblazing shoe retail titan, NewLimits, is no stranger to success. However, confronted by growing demands from customers for real-time experiences and internal stakeholders for up-to-date data, management is forced to acknowledge the need for transformation. Yet, the 'how' remains a mystery—hopefully one that our intrepid heroes, Ada and Jax, can solve with the aid of Apache Kafka®.



Renowned for its use by over 80% of Fortune 100 companies, Apache Kafka is hailed as the defacto standard in the realm of data streaming. As an open-source distributed technology, it's leveraged by countless businesses to power their streaming data pipelines and real-time applications.



That's where Confluent steps in, transforming Kafka with a robust array of enterprise-grade features that fosters developer productivity, ensures efficient operation at scale, and addresses all architectural prerequisites for production. Businesses deploying Confluent experience a 60% reduction in Kafka costs and accelerate their streaming use cases into production by over half a year, all the while significantly diminishing operational risks and burdens.



Ada and Jax must fast-track the implementation and scaling of solutions. *But wouldn't it be simpler if a guide were to illuminate the path ahead?*



CORPORATE  
HEADQUARTERS  
OF NEWLIMITS.

I CAN'T  
BELIEVE THE  
NIGHTLY BATCH  
JOB FAILED  
AGAIN LAST  
WEEK.

YOU UP FOR A  
COFFEE BREAK?  
I CAN'T KEEP  
LOOKING AT THIS.  
MY TREAT.

DON'T THEY SEE  
THIS HOMEGROWN  
ETL TOOL IS JUST  
A **DISASTER**? ADDING  
POINT-TO-POINT  
INTEGRATIONS  
DOESN'T HELP  
EITHER.

ADA?  
I SAID MY TREAT.  
**FREE CAFFEINE.**  
YOUR FAVORITE.  
THIS IS THE PART  
WHERE YOU AGREE  
AND INSIST WE  
ALSO GET  
A PASTRY.

ADA?  
YOU OKAY?

NO  
JAX!  
I'M  
NOT  
OKAY  
!!!!!!

SORRY, JAX.  
I'M JUST FREAKING  
OUT A LITTLE BIT.  
I'M STILL SIFTING  
THROUGH ALL THE  
DATA THAT GOT LOST.

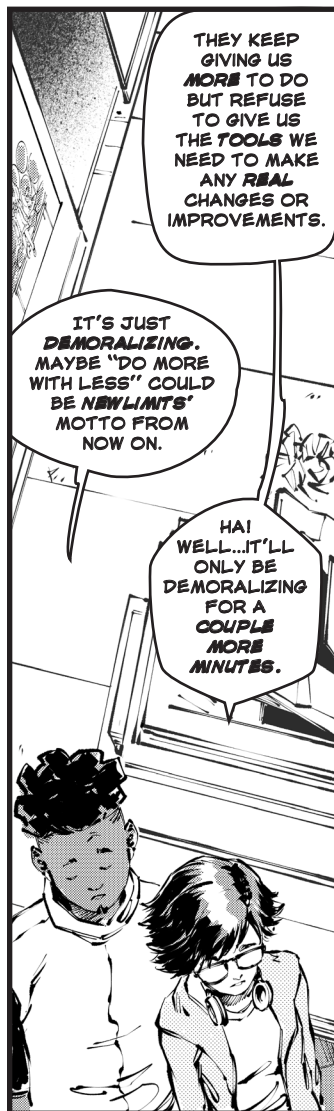
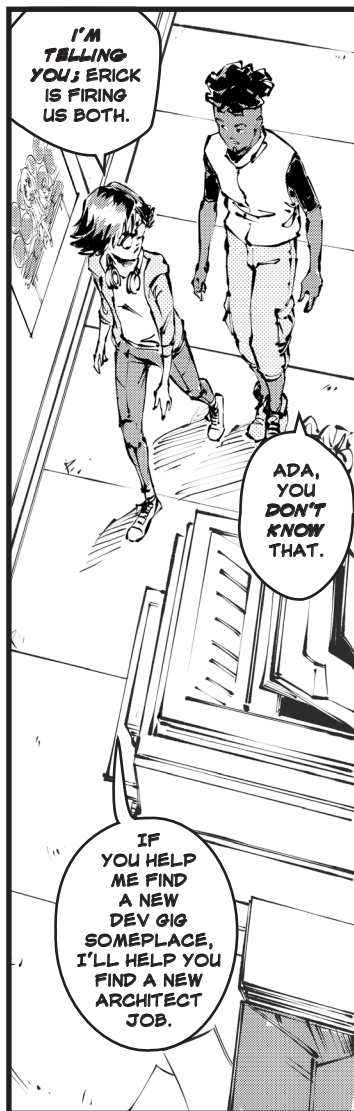
SOME OF THE  
SALES FIGURES ARE  
**SCREWED UP** AND THE  
WAREHOUSES ARE ALL  
LOOKING AT **DIFFERENT**  
NUMBERS FOR THE  
INVENTORY AND--

I FEEL  
LIKE I'M JUST  
WAITING FOR  
ERICK TO COME  
IN HERE AND  
FIRE US.

UM...ADA?  
JAX? I NEED  
TO SEE YOU  
BOTH RIGHT  
NOW. KIND OF  
URGENT.

BE  
RIGHT  
THERE,  
ERICK.







JUST A FEW MOMENTS LATER...

WE'RE ON A TIGHT SCHEDULE TODAY, SO I'LL CUT TO THE BOTTOM LINE HERE ABOUT THIS NEW PROJECT.

LET ME GIVE YOU ALL THE **BIG PICTURE** OF WHAT I'M THINKING ABOUT. IT'S GONNA BE A GAME CHANGER.

NOW I WISH WE WERE BEING FIRED.

THE SHORT VERSION IS THAT THE BIG BOSSSES THINK IT'S FINALLY TIME TO BRING IN **REAL-TIME CAPABILITIES** TO THIS COMPANY!

I'M TALKING ABOUT **REAL-TIME** INVENTORY MANAGEMENT. MAYBE WE NEED... UH... **WHAT'S IT CALLED... MACRO EVENT-**

**EVENT-DRIVEN ARCHITECTURE!**

RIGHT! **THAT!** MAYBE WE DON'T NEED IT? **WHO KNOWS?** IT'S GONNA BE A **CHALLENGE** TO FIGURE OUT.

JAX, WHO IS THAT? IN THE CORNER? SHE A NEW CONSULTANT? A DEVELOPER?

NO CLUE. I'VE NEVER SEEN HER BEFORE.

AND THAT'S WHY I'M PUTTING **ADA** AND **JAX** IN CHARGE OF THE **ENTIRE** PROJECT! IT'S AUGUST NOW, SO LET'S SAY YOU HAVE EVERYTHING FIGURED OUT BY **BLACK FRIDAY** FOR THE HOLIDAY RUSH?

WAIT... WE'RE DOING... WHAT ???

**BLACK FRIDAY IS ONLY FOUR MONTHS AWAY!**

GO, TEAM, GO!

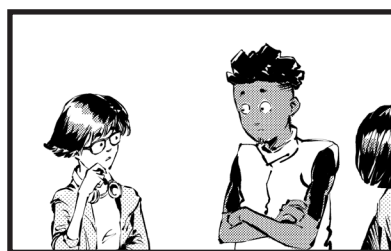
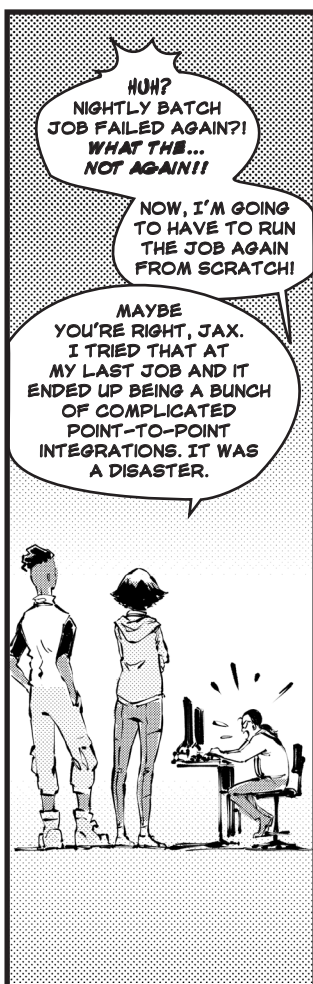
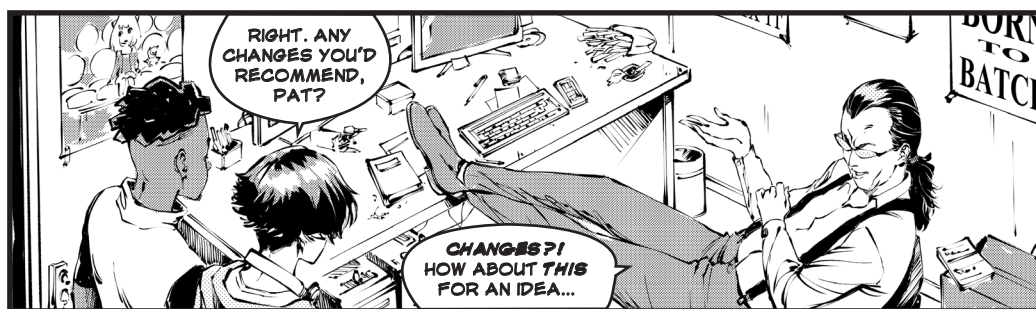
GO, TEAM, GO!

THE LAST UPDATE TO THE INVENTORY SYSTEM TOOK A FULL YEAR!

GO, TEAM, GO!

SO... **ERICK** PUT **YOU TWO** IN CHARGE OF THE **REAL-TIME INVENTORY PROJECT**.











MOMENTS LATER

UMM...  
WHERE  
ARE WE  
EXACTLY?  
AND  
WHAT  
ARE WE  
WEARING?!

WHEREVER  
IT IS, I  
KNOW IT ISN'T  
MOUNTAIN  
VIEW.

WE'RE  
IN A PLACE  
KNOWN AS  
BATCHLAND.

BATCHLAND?  
RIGHT... I MEAN... IT  
KINDA LOOKS COOL  
AND ALL... BUT... WHEN  
YOU SAID TO FOLLOW  
YOU... YOU SORT OF  
HINTED THAT YOU COULD  
HELP US WITH OUR  
PROJECT.

YOU KNOW? THE REAL-TIME  
INVENTORY PROJECT?  
OPTIMIZE EFFICIENCY  
AND SEAMLESS  
CUSTOMER EXPERIENCES?  
...ALL OF THAT STUFF  
ERICK LOVES.

REMINDE  
HER  
ABOUT THE  
BLACK FRIDAY  
DEADLINE.

SHHHH!  
WE'RE  
WAITING!

WE DON'T  
HAVE TIME TO  
WAIT! ERICK WANTS  
US TO FIGURE  
EVERYTHING OUT  
BEFORE BLACK  
FRIDAY HITS.

THAT  
MEANS WE  
HAVE TO  
START WITH  
A PROOF-OF  
CONCEPT AND  
MIGRATE THE  
REST OF OUR  
SYSTEMS-

THUUUUUUUMMMMMMM  
WHOAI  
WHAT IS  
THAT?

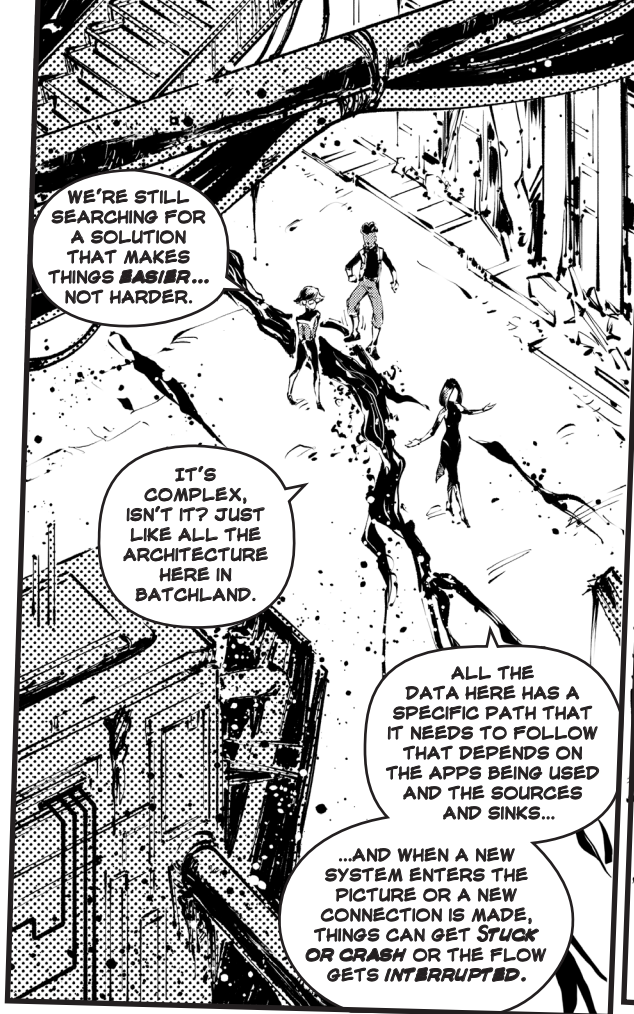
THIS IS  
A DATA DUMP.  
IT'S THE  
DAILY DATA  
TRANSFER HERE IN  
BATCHLAND. ALL  
THESE ISLANDS... ALL  
THE SYSTEMS  
IN HERE... IT'S ALL  
RUN BY BATCH  
PROCESSING.

IT LOOKS KIND  
OF... UGLY. AND  
SLOW? AND  
INEFFICIENT?

WELL, JAX,  
INEFFICIENT  
PROCESSING  
IS UGLY  
AND SLOW.

BUT I COULD HAVE  
SWORN I HEARD YOU  
BOTH SAY IT'S NOT  
WORTH THE EFFORT  
TO CHANGE FROM  
BATCH PROCESSING.



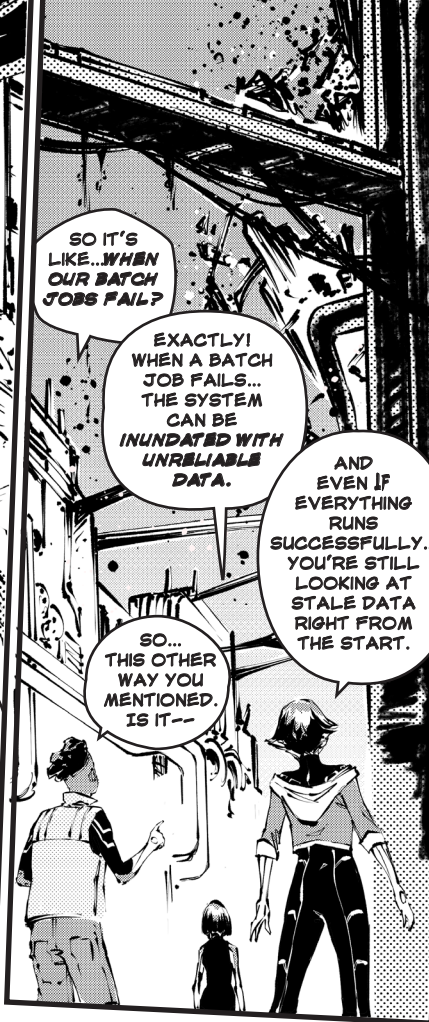


WE'RE STILL SEARCHING FOR A SOLUTION THAT MAKES THINGS *EASIER*... NOT HARDER.

IT'S COMPLEX, ISN'T IT? JUST LIKE ALL THE ARCHITECTURE HERE IN BATCHLAND.

ALL THE DATA HERE HAS A SPECIFIC PATH THAT IT NEEDS TO FOLLOW THAT DEPENDS ON THE APPS BEING USED AND THE SOURCES AND SINKS...

...AND WHEN A NEW SYSTEM ENTERS THE PICTURE OR A NEW CONNECTION IS MADE, THINGS CAN GET *STUCK* OR *CRASH* OR THE FLOW GETS INTERRUPTED.

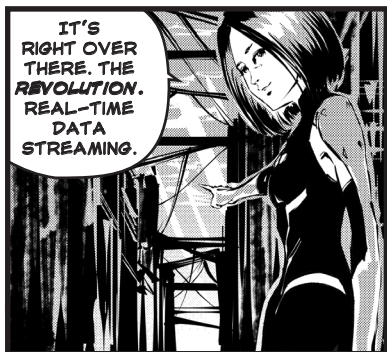


SO IT'S LIKE...WHEN OUR BATCH JOBS FAIL?

EXACTLY! WHEN A BATCH JOB FAILS... THE SYSTEM CAN BE INUNDATED WITH UNRELIABLE DATA.

AND EVEN IF EVERYTHING RUNS SUCCESSFULLY... YOU'RE STILL LOOKING AT STALE DATA RIGHT FROM THE START.

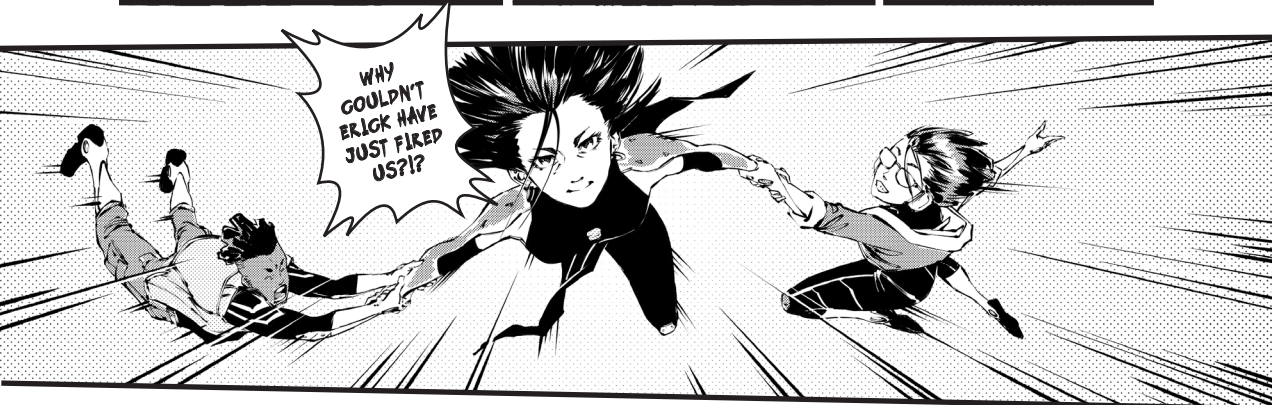
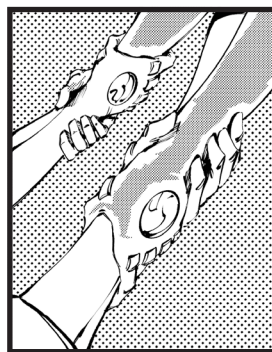
SO... THIS OTHER WAY YOU MENTIONED. IS IT--



IT'S RIGHT OVER THERE. THE *REVOLUTION*. REAL-TIME DATA STREAMING.



DO YOU WANT A CLOSER LOOK?



WHY COULDN'T ERICK HAVE JUST FIRED US?!

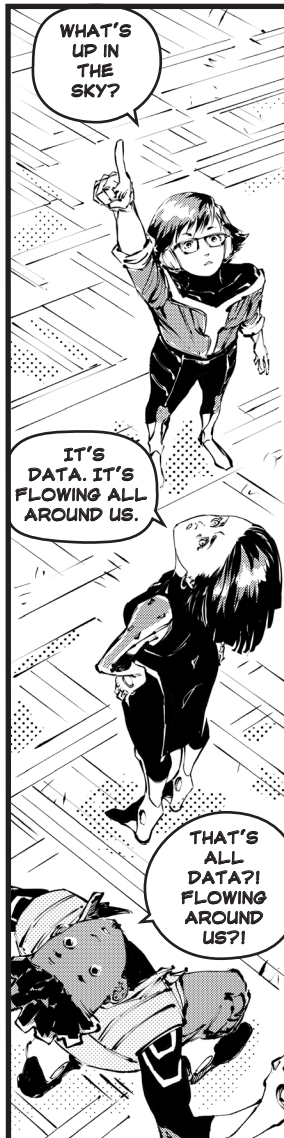




IT'S...  
IT'S...  
**BEAUTIFUL!**

ARE WE  
STILL IN  
BATCHLAND?

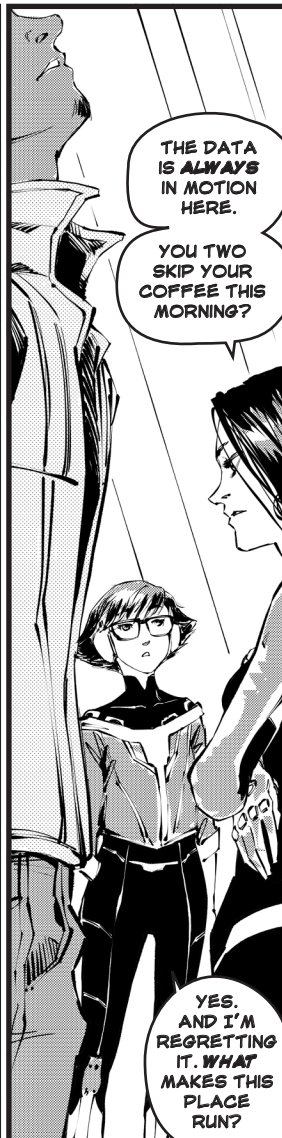
DOES THIS  
LOOK LIKE  
BATCHLAND?!  
THIS PLACE IS  
CALLED  
**STREAMSCAPE.**



WHAT'S  
UP IN  
THE  
SKY?

IT'S  
DATA. IT'S  
FLOWING ALL  
AROUND US.

THAT'S  
ALL  
DATA?!  
FLOWING  
AROUND  
US?!



THE DATA  
IS **ALWAYS**  
IN MOTION  
HERE.

YOU TWO  
SKIP YOUR  
COFFEE THIS  
MORNING?

YES.  
AND I'M  
REGRETTING  
IT. **WHAT**  
MAKES THIS  
PLACE  
RUN?



IT  
BEGAN BY  
HARNESSING  
POWER FROM  
**APACHE KAFKA**,  
BUT NOW  
IT'S BEING  
RUN BY  
**CONFLUENT.**

WAIT!  
IS THIS AN  
ELABORATE  
SALES  
PITCH?

YES  
AND NO...  
**KAFKA ITSELF**  
IS **OPEN SOURCE**,  
BUT THERE'S  
MORE THAN  
JUST **KAFKA**  
HERE...



SEE THAT IN THE  
CENTER OF THE SKY?  
**THAT'S APACHE KAFKA** AND  
ALL THE DATA IS FLOWING  
SEAMLESSLY THROUGH IT.

IT'S A  
SCALABLE,  
OPEN-SOURCE  
DISTRIBUTED SYSTEM  
USED TO BUILD  
STREAMING DATA  
PIPELINES  
AND REAL-TIME  
APPLICATIONS.

IT  
ELIMINATES THE  
NEED FOR  
POINT-TO-POINT  
CONNECTIONS.

AND NOW  
YOU JUST NEED  
ME TO FORWARD  
THIS INFO TO TEN  
OF MY CLOSEST  
FRIENDS, RIGHT?





I DON'T NEED YOU TO FORWARD ANYTHING, HOT SHOT. THE DATA IS OUT THERE ALREADY.

IT'S DATA STREAMING! INSTEAD OF STAGNANT DATA WE LOOK AT DATA AS A REAL-TIME STREAM OF EVENTS. YOU KNOW WHAT AN EVENT IS, RIGHT?

OF COURSE, I DO. I WENT TO MY NEIGHBORS' QUINCEANERA LAST WEEKEND. IT WAS QUITE THE EVENT.

I'LL TRY THIS A DIFFERENT WAY.

YOU, JAXI YOU'RE AN EVENT. AND ADA. US COMING HERE. THAT'S AN EVENT!

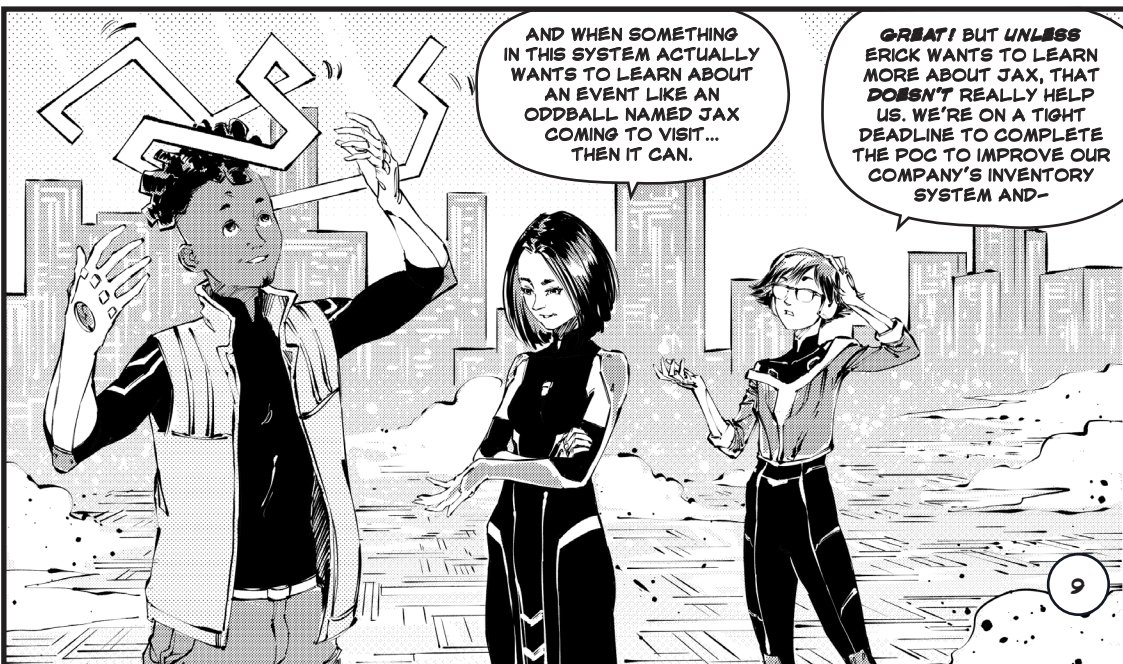
BUT NOT EVERY SYSTEM NEEDS TO KNOW ALL ABOUT US AT THIS VERY MOMENT.

THE SAME WAY THAT NOT EVERY DEPARTMENT IN YOUR OFFICE NEEDS ACCESS TO THE SAME INFORMATION AT THE SAME TIME.

POINT-TO-POINT INTEGRATIONS MUST BE UPDATED EVERY TIME A NEW DATA CONSUMER APPEARS. AND EACH NEW UPDATE CAN BE --

EACH NEW UPDATE CAN BE SLOW OR A POINT OF FAILURE! AND IT REDUCES RELIABILITY! THAT HAPPENS CONSTANTLY WITH OUR CURRENT SYSTEM.

YOU WOKE UP, JAXI AND WITHOUT YOUR COFFEE! WITH AN EVENT-DRIVEN ARCHITECTURE, PRODUCERS JUST EMIT EVENTS AND CONSUMERS MAKE USE OF THE DATA AS NEEDED.



AND WHEN SOMETHING IN THIS SYSTEM ACTUALLY WANTS TO LEARN ABOUT AN EVENT LIKE AN ODDBALL NAMED JAX COMING TO VISIT... THEN IT CAN.

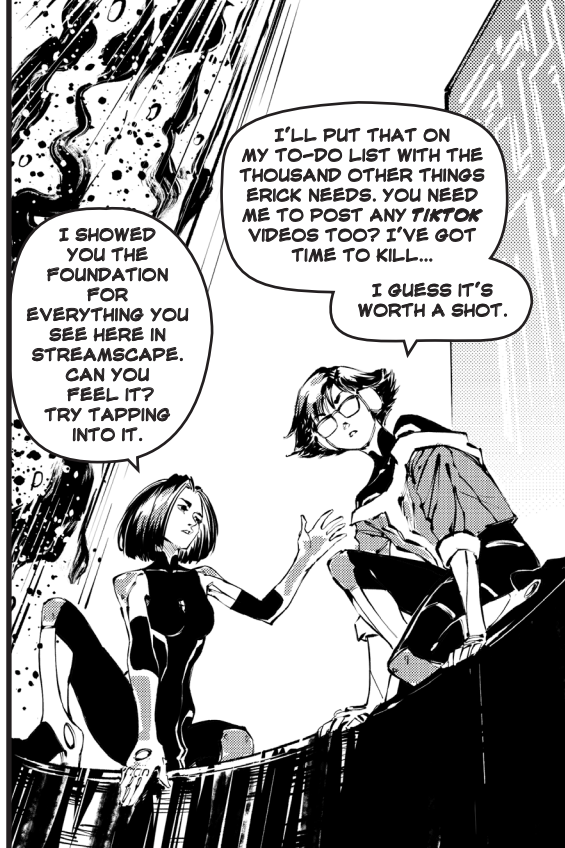
GREAT! BUT UNLESS ERICK WANTS TO LEARN MORE ABOUT JAX, THAT DOESN'T REALLY HELP US. WE'RE ON A TIGHT DEADLINE TO COMPLETE THE POC TO IMPROVE OUR COMPANY'S INVENTORY SYSTEM AND--





AND THAT'S WHAT I'M TRYING TO SHOW YOU, ADA! ALL THIS LIGHT ON YOUR RIGHT IS PART OF A SYSTEM THAT'S ALREADY HARNESSING THE POWER OF REAL-TIME DATA STREAMING.

AND ON THE LEFT IS PART OF YOUR COMPANY'S SYSTEM! *NOTHING* STREAMING AND *NOTHING* FLOWING IN OR OUT.



I SHOWED YOU THE FOUNDATION FOR EVERYTHING YOU SEE HERE IN STREAMSCAPE. CAN YOU FEEL IT? TRY TAPPING INTO IT.

I'LL PUT THAT ON MY TO-DO LIST WITH THE THOUSAND OTHER THINGS ERICK NEEDS. YOU NEED ME TO POST ANY *TIKTOK* VIDEOS TOO? I'VE GOT TIME TO KILL...

I GUESS IT'S WORTH A SHOT.



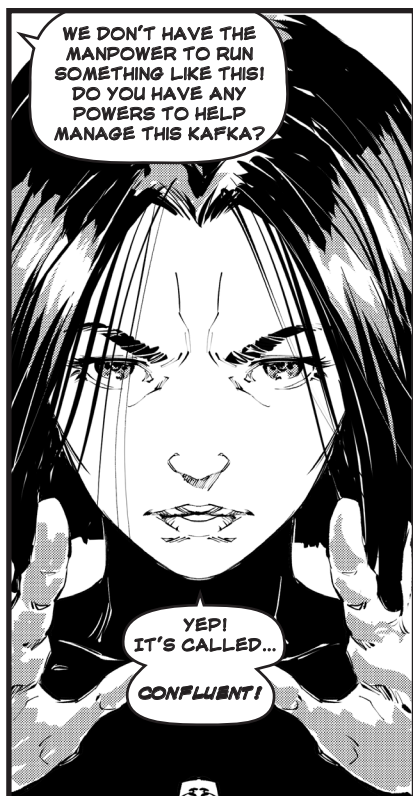
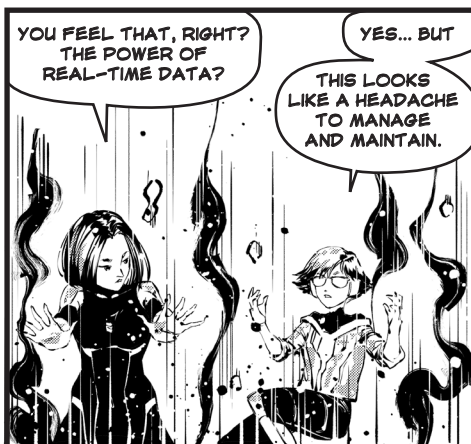
KAFKA?



YOU FEEL THAT, RIGHT? THE POWER OF REAL-TIME DATA?

YES... BUT

THIS LOOKS LIKE A HEADACHE TO MANAGE AND MAINTAIN.

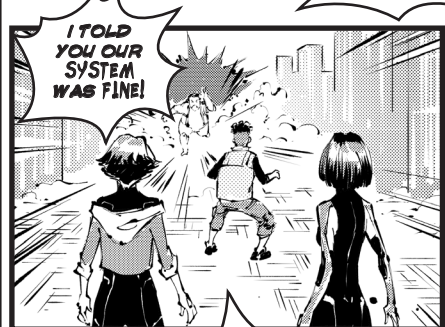
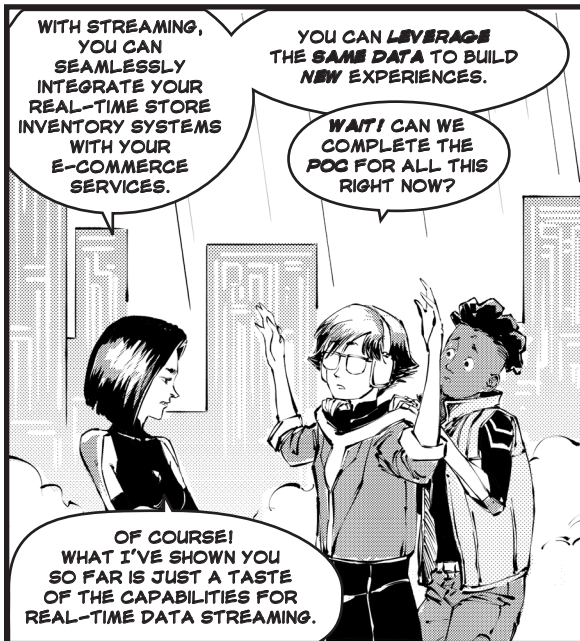
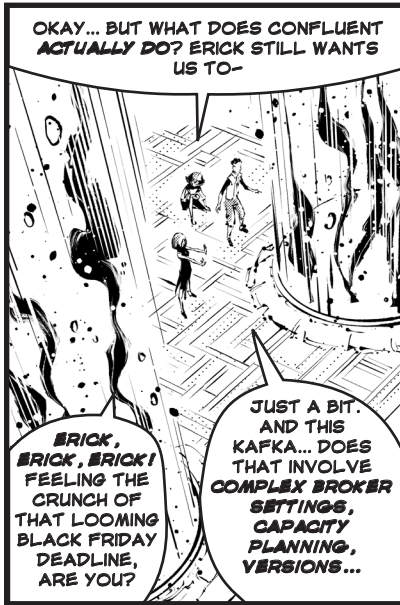


WE DON'T HAVE THE MANPOWER TO RUN SOMETHING LIKE THIS! DO YOU HAVE ANY POWERS TO HELP MANAGE THIS KAFKA?

YEPI IT'S CALLED...

CONFLUENT!



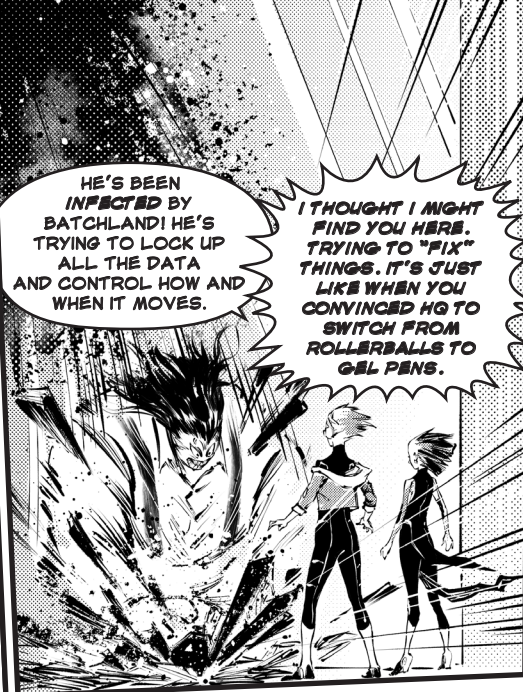






IS  
THAT...  
IS THAT...  
PAT?!

WHAT  
HAPPENED  
TO HIM?! HE TRIED  
PROGRAMMING  
SOMETHING IN "C",  
DIDN'T HE? HE KNOWS  
BETTER THAN THAT.



HE'S BEEN  
INFECTED BY  
BATCHLAND! HE'S  
TRYING TO LOCK UP  
ALL THE DATA  
AND CONTROL HOW AND  
WHEN IT MOVES.

I THOUGHT I MIGHT  
FIND YOU HERE.  
TRYING TO "FIX"  
THINGS. IT'S JUST  
LIKE WHEN YOU  
CONVINCED HQ TO  
SWITCH FROM  
ROLLERBALLS TO  
GEL PENS.



I LIKE  
ROLLERBALLS!

THERE'S NOTHING  
WRONG WITH OUR  
SYSTEM. I WON'T LET  
YOU CHANGE IT!!

J-J-  
JAX...  
KAFF...  
H-H-  
HELP  
US!



TELL ME  
WHAT TO DO!!  
I DON'T HAVE  
ANY POWER!

YOU DO  
HAVE POWER,  
JAXI FOCUS!

REMEMBER  
WHAT I SHOWED  
ADAI YOU'RE NOT  
LOCKED INTO  
RUNNING BATCH  
PROCESSES  
MULTIPLE TIMES  
A DAY!



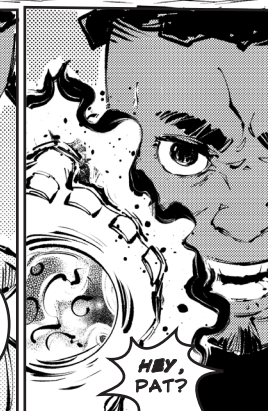
I'M  
TRYING.  
BUT I  
CAN'T--



I JUST  
CAN'T  
FEEL IT.

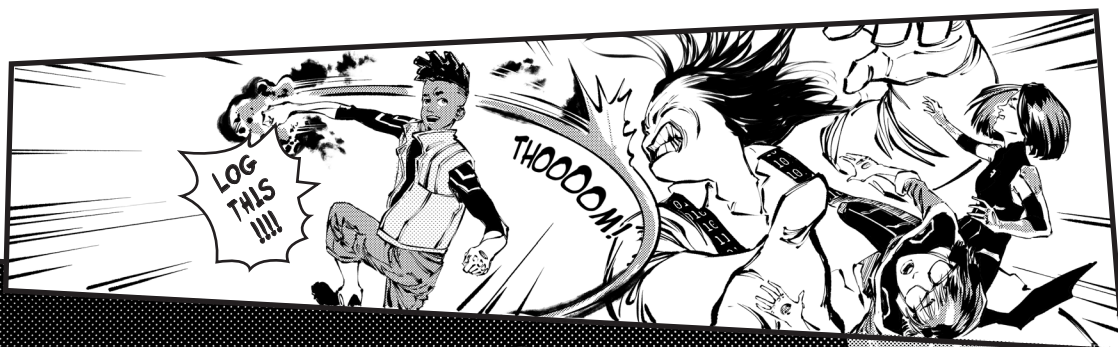


I  
CAN'T...  
I JUST...  
I--



HEY,  
PAT?





I  
THOUGHT IT  
WOULD'VE  
TAKEN HIM  
MORE TIME  
TO PROCESS.

I THINK  
JAX MIGHT  
NEED YOUR  
HELP.

OH,  
I'VE GOT  
THIS!



HEY, PATI IT'S NOT QUITE TIME  
FOR THAT DAILY BATCH TRANSFER  
YOU LOVE SO MUCH. BUT I'VE GOT  
SOMETHING ELSE FOR YOU.



INSTEAD  
OF  
ENDLESS  
LINES  
OF CODE...



KAFKA!!!

...HOW  
ABOUT  
JUST  
THESE  
FIVE  
DIGITS?!!







IT LOOKS LIKE  
THEY'RE TRYING  
TO BUILD OUT THE  
POC TO JUSTIFY  
SWITCHING TO AN  
EVENT-DRIVEN  
ARCHITECTURE!

THIS OUGHT TO  
PUT AN END TO  
THEIR LITTLE  
EXPERIMENT.  
**HAHAHA!**

**BATCH  
SCRIPT!**

**BATES  
NUMBER!**

**BATCH  
UP!**

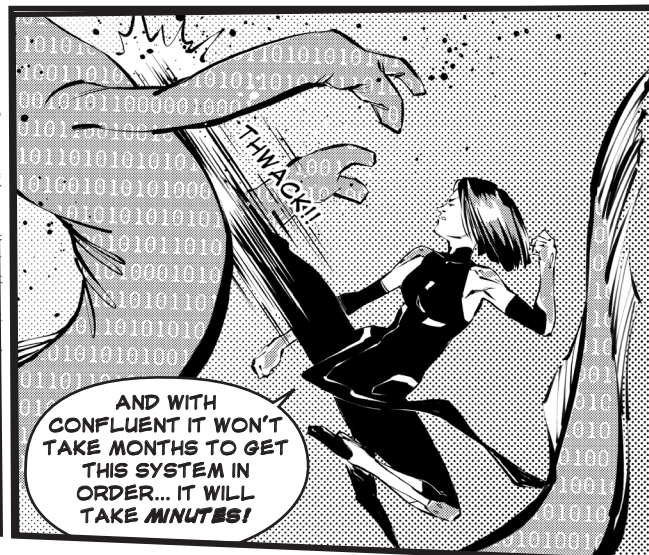
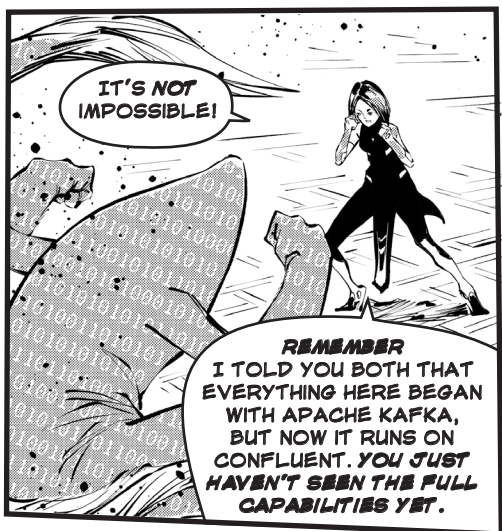
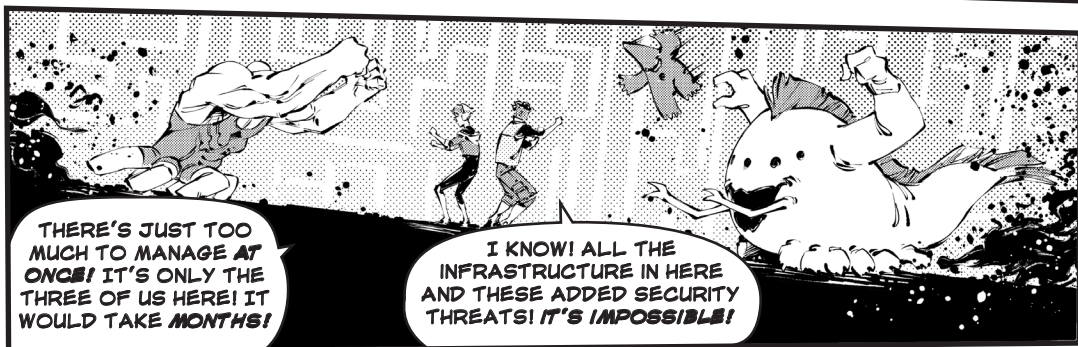
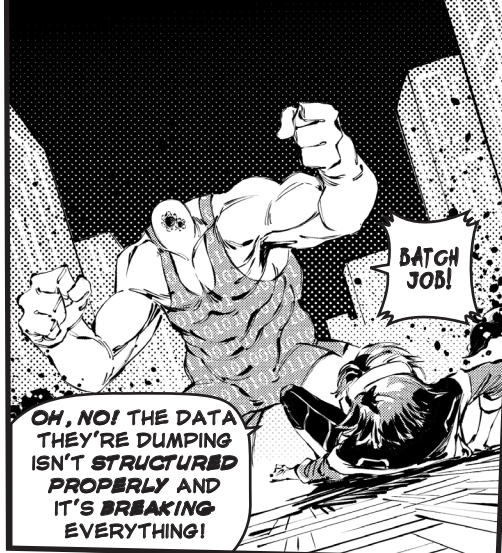
**Noooooo!!!**

**BATCH  
JOB!**

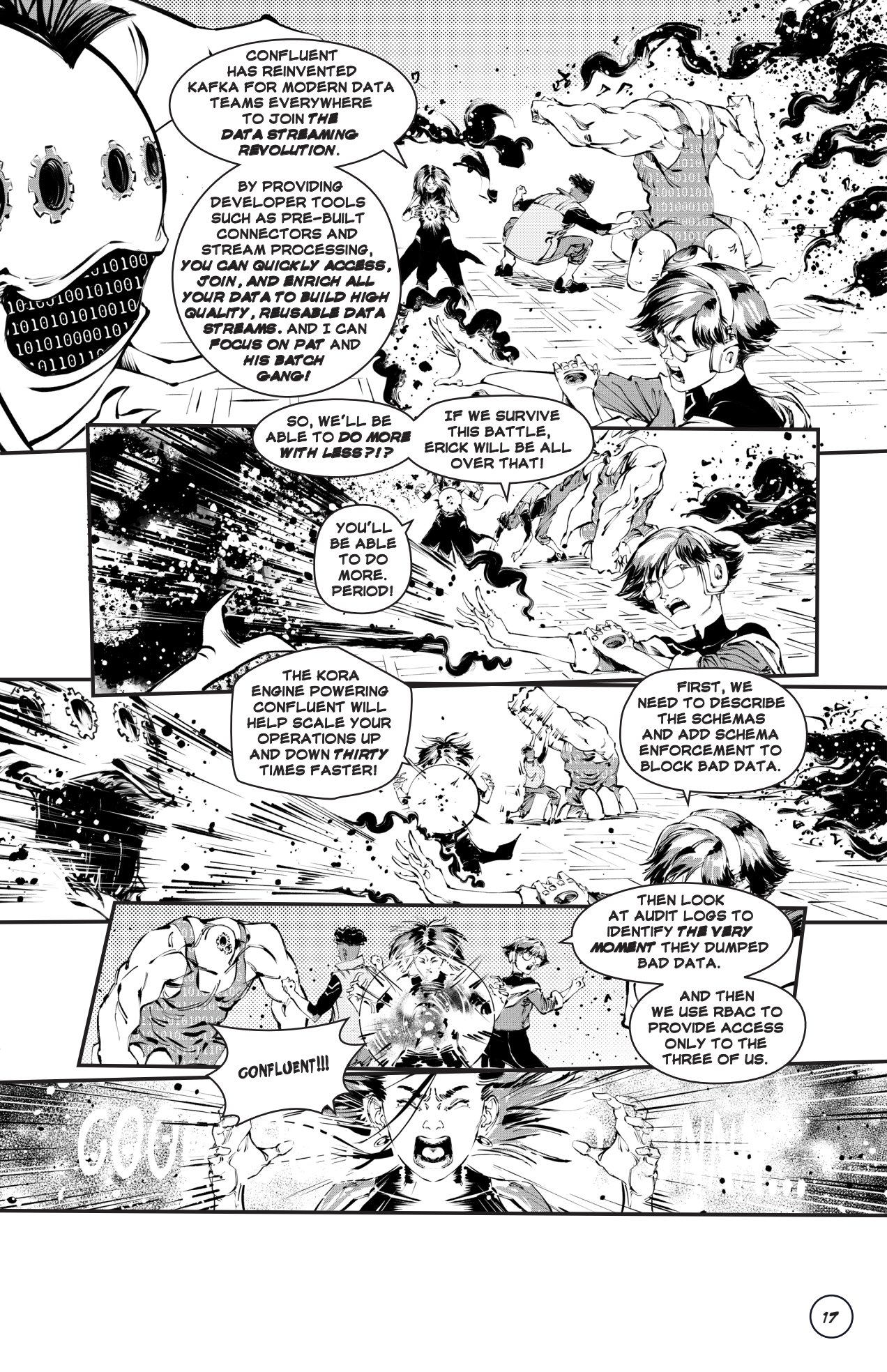
**BATCH  
FILE!**

NOW... **FILL  
THE SYSTEM WITH  
BAD DATA!**









CONFLUENT HAS REINVENTED KAFKA FOR MODERN DATA TEAMS EVERYWHERE TO JOIN THE DATA STREAMING REVOLUTION.

BY PROVIDING DEVELOPER TOOLS SUCH AS PRE-BUILT CONNECTORS AND STREAM PROCESSING, YOU CAN QUICKLY ACCESS, JOIN, AND ENRICH ALL YOUR DATA TO BUILD HIGH QUALITY, REUSABLE DATA STREAMS. AND I CAN FOCUS ON PAT AND HIS BATCH GANG!

SO, WE'LL BE ABLE TO DO MORE WITH LESS?!

IF WE SURVIVE THIS BATTLE, ERICK WILL BE ALL OVER THAT!

YOU'LL BE ABLE TO DO MORE. PERIOD!

THE KORA ENGINE POWERING CONFLUENT WILL HELP SCALE YOUR OPERATIONS UP AND DOWN THIRTY TIMES FASTER!

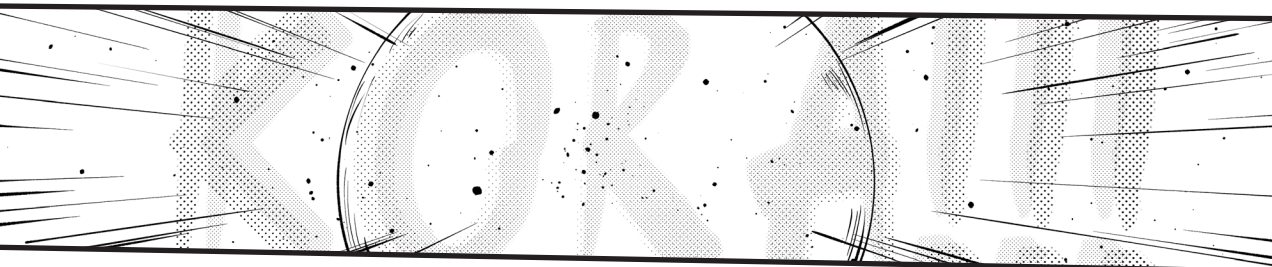
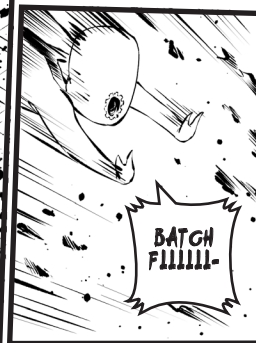
FIRST, WE NEED TO DESCRIBE THE SCHEMAS AND ADD SCHEMA ENFORCEMENT TO BLOCK BAD DATA.

THEN LOOK AT AUDIT LOGS TO IDENTIFY THE VERY MOMENT THEY DUMPED BAD DATA.

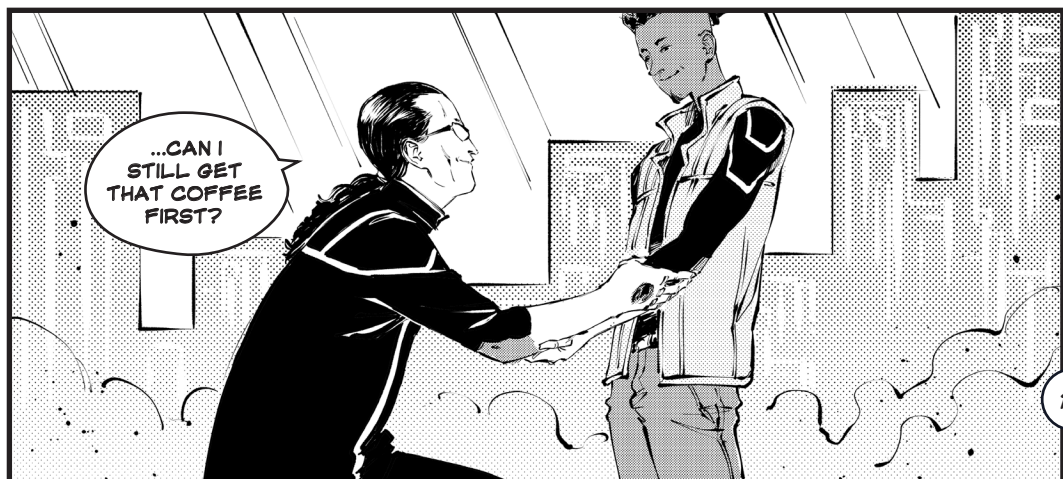
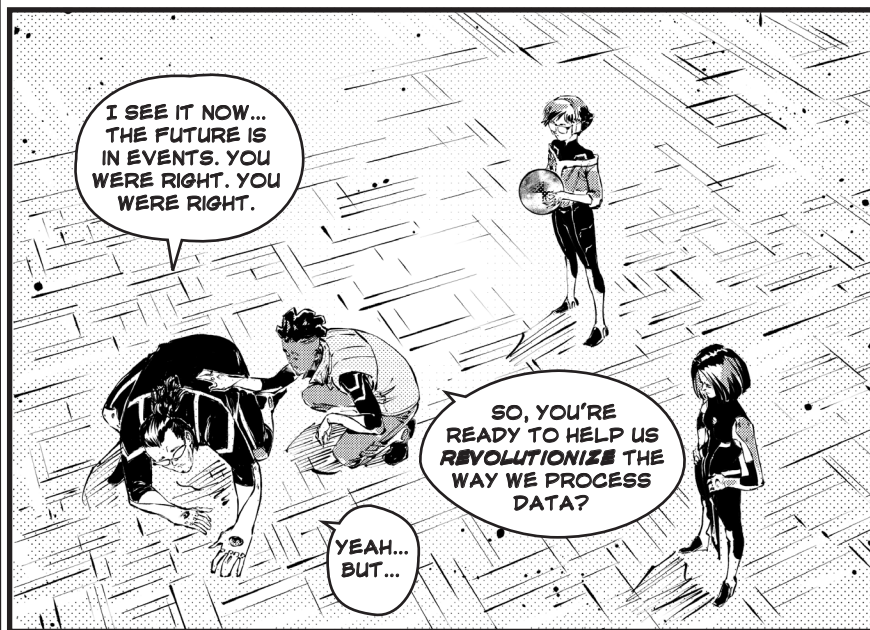
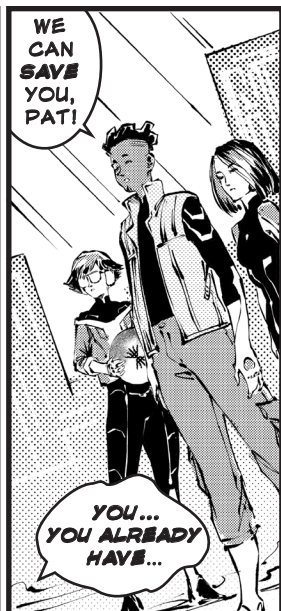
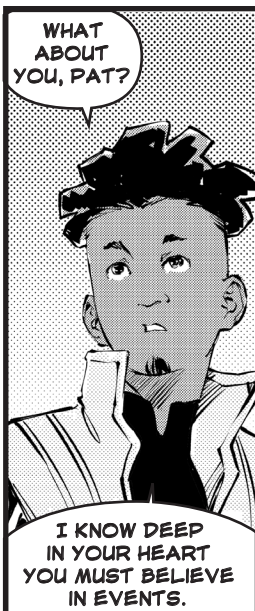
AND THEN WE USE RBAC TO PROVIDE ACCESS ONLY TO THE THREE OF US.

CONFLUENT!!!

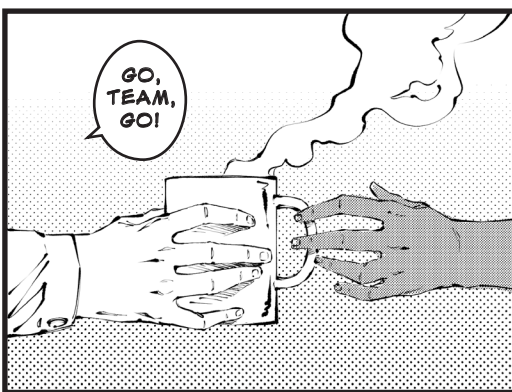
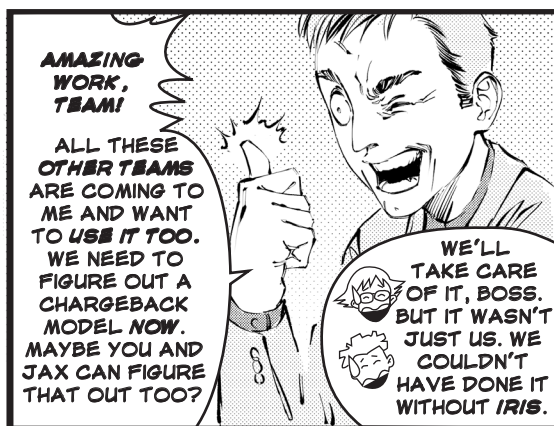
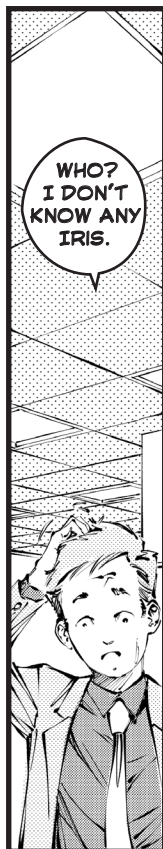






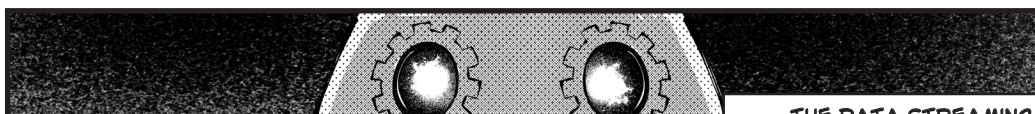
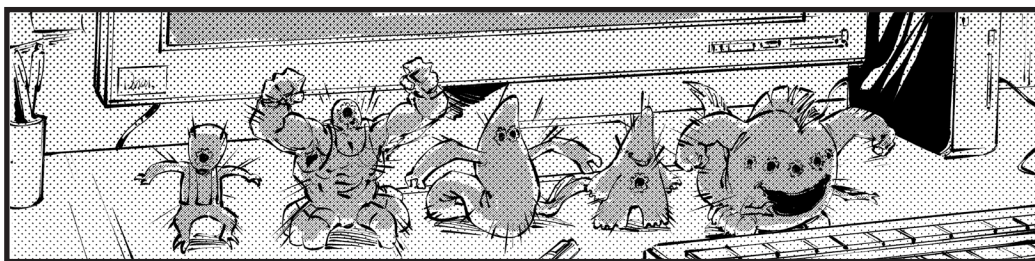








LATER THAT NIGHT...



THE DATA STREAMING  
REVOLUTION CONTINUES...

READY  
TO JOIN THE  
DATA STREAMING  
REVOLUTION?



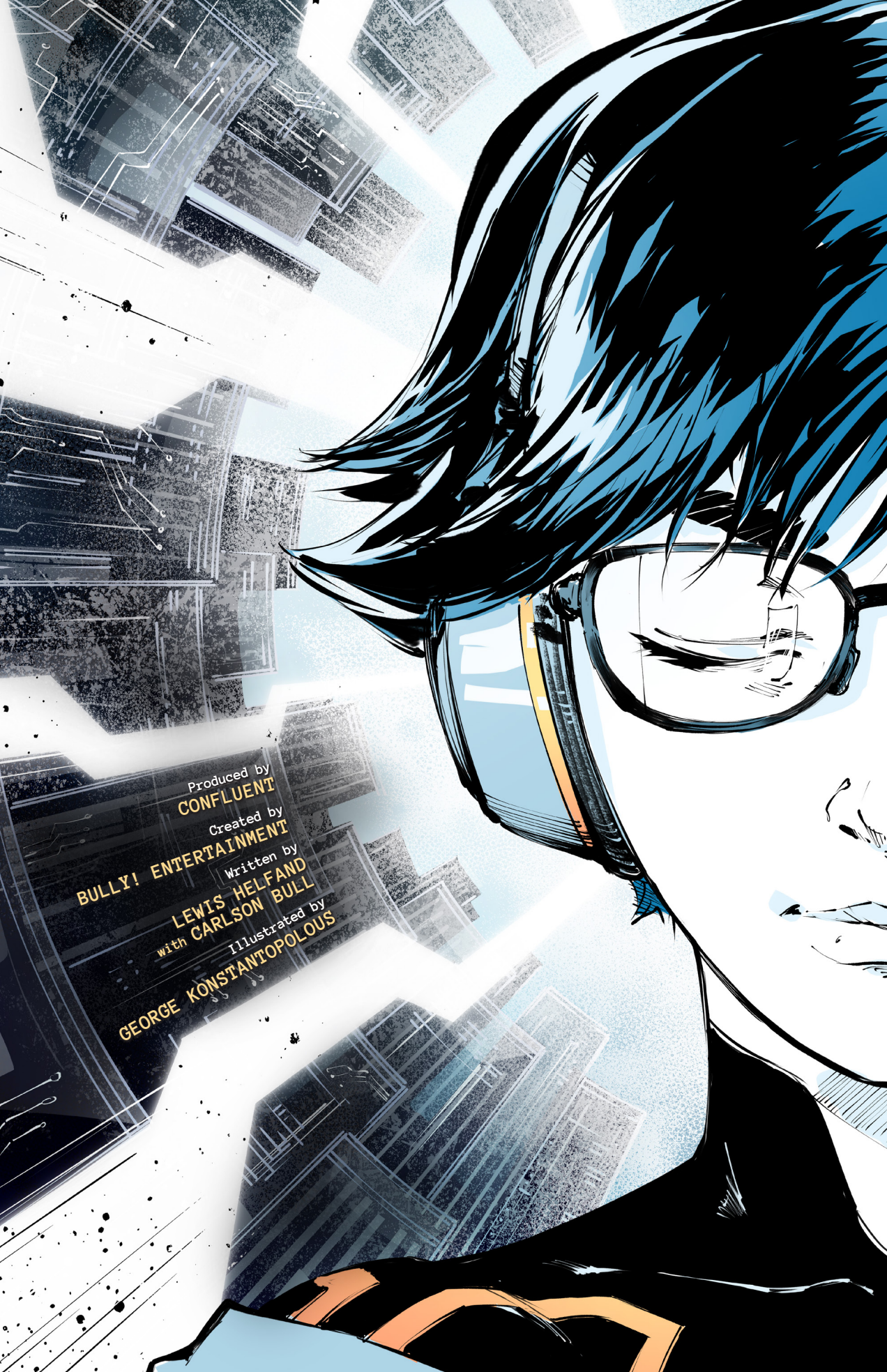
**Get started with  
Confluent Cloud for free.**

In just a few minutes, you'll have the power of Confluent at your fingertips and unlock a world of endless possibilities.

### Special thanks to:

Sophia Jiang, Thao Nguyen, Carlson Bull, Michael Santee, Alina Timoftica, Nick Asphodel, Julie Newcomer, Diana Vornicov, Igor Nechyta, Todorov Maxim, Jack Vanlightly, Cathy Nunez, Chase Thomas, Jade Monroe, Hailey Wheeler, and Kevin Chao





Produced by  
**CONFLUENT**

Created by

**BULLY! ENTERTAINMENT**

Written by

**LEWIS HELFAND**  
with **CARLSON BULL**

Illustrated by

**GEORGE KONSTANTOPOLOUS**