# Fiero Productivity System

| | |
|---|---|
| Fiero concept | https://bit.ly/fiero-concept |
| Created by | Tom Deaderick |
| Date | January 17, 2024 |
| Copyright | 2024, Tom Deaderick |

## Background

Identity & Access Management (IAM) is a cool and fascinating blend of **Information Security**, **Customer Service** and **Operational Innovation**. It is an innovation challenge every day. I like to imagine it is like designing, building, and staffing a castle's fortifications.

I love my work, and especially imparting my enthusiasm for the pure craftsmanship of work into the people that report to me.

Enthusiasm is a battery that doesn't obey the physical world's laws. The enthusiasm from a single person can power many, and it grows stronger the more it is used.

Even if I did *not* love my work, I have always loved *striving to be great at it*. No matter what your work is, this should be everyone's great passion.

132 wonderful people report to me in my role as Sr. Director of Identity & Access Management (IAM). I want to do everything possible to enrich the hours we invest in our jobs.

I am not a gamer. It is hard for me to enjoy anything that *only* creates virtual accomplishments. I do, however, recognize the truth in this quote from Jane McGonigal's 2011 book REALITY IS BROKEN...

> "Bernard Suites, the late great philosopher, sums it all up in what I consider the single most convincing and useful definition of a game ever devised:
>
> > Playing a game is the voluntary attempt to overcome unnecessary obstacles."
>
> "Compared with games, **reality is too easy**. Games challenge us with voluntary obstacles and help us put our personal strengths to better use."

When we do repetitive tasks, we get so good at them that the challenge is lost, and in a role where one careless mistake can have disastrous consequences, like exposing sensitive data to the wrong people - *sustaining* our focus is critical both to both company and employee job satisfaction.

## Fiero

> "Fiero is the Italian word for 'pride', and it has been adopted by game designers to describe an emotional high we do not have a good word for in English. Fiero is what we feel after we triumph over adversity. You know it when you feel it - and when you see it. That is because we almost all express Fiero in exactly the same way: **we throw our arms over our head and yell.**
>
> The fact that virtually all humans physically express Fiero in the same way is a sure sign that it is related to some of our most primal emotions."
>
> REALITY IS BROKEN, Jane McGonigal

Fiero replaces tired SLA metrics with a new **achievement economy**, where virtual achievements fuel real world benefits, both for company and employee. In the case of the employee, achievements earned in Fiero are logged into an employee evaluation system that I built, where each achievement boosts an employee's odds at the next promotion.

**Fiero Proof-Of-Concept ("Concept")**

| | |
|---|---|
| **Setting** | Moon Colony |
| **Sectors** | Four<br>Each sector is analogous to a company's operating regions. |
| **Colonies** | Seven<br>A colony is like a collection of nearby facilities. |
| **Facilities** | 201<br>Facilities are like hospitals, or buildings on a campus. |

I wanted to build a concept that is recognizably similar in function to a large organization, while at the same time avoiding too close a comparison to my Healthcare Organization experience, so that it could be useful to anyone. I thought a moon colony would be a nice approach given my science fiction background. If you have not read any of my books, please check them out so we can talk about them.

## Technical details

I wanted to become more familiar with **Google BigQuery** and **Looker Studio**. The dataset has 204k made-up provisioning records which is much smaller than my work version which creates over 600k new provisioning request records a month. It is large enough to make the concept realistic enough.



I used **Microsoft CoPilot (AI)** to create the logo. I just described what I wanted and the logo I chose was in the first batch of four images. I've paid for logos in the past, and I like this one as much as any of them.

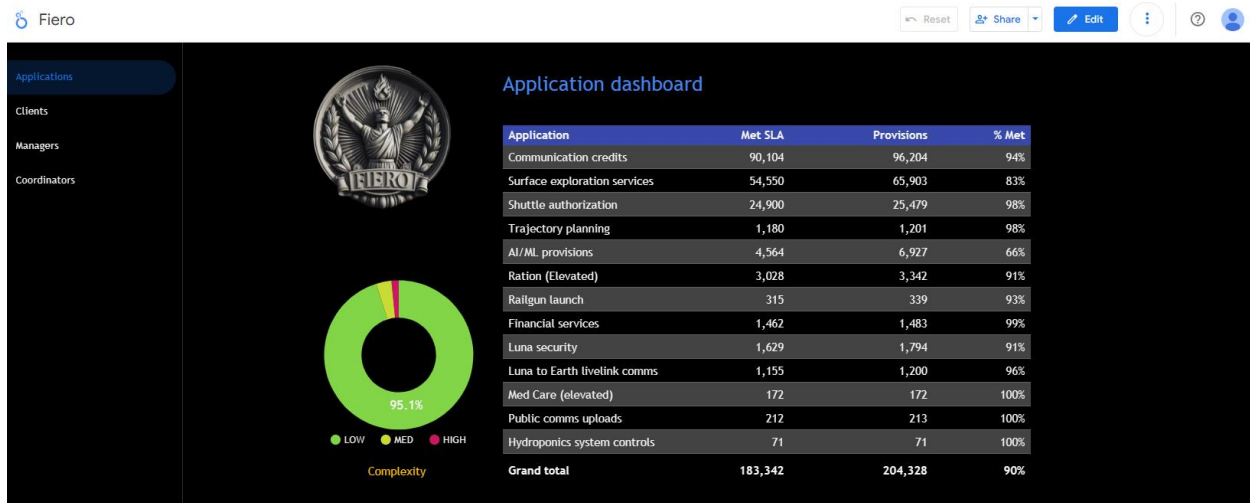This is bad news for logo design companies.

Ultimately, Fiero will have a lot more features.

For now, this is a starting point.

## Walkthrough

Please follow along using the Looker concept: https://bit.ly/fiero-concept

## Application dashboard



**Application dashboard**

| Application | Met SLA | Provisions | % Met |
|---|---|---|---|
| Communication credits | 90,104 | 96,204 | 94% |
| Surface exploration services | 54,550 | 65,903 | 83% |
| Shuttle authorization | 24,900 | 25,479 | 98% |
| Trajectory planning | 1,180 | 1,201 | 98% |
| AI/ML provisions | 4,564 | 6,927 | 66% |
| Ration (Elevated) | 3,028 | 3,342 | 91% |
| Railgun launch | 315 | 339 | 93% |
| Financial services | 1,462 | 1,483 | 99% |
| Luna security | 1,629 | 1,794 | 91% |
| Luna to Earth livelink comms | 1,155 | 1,200 | 96% |
| Med Care (elevated) | 172 | 172 | 100% |
| Public comms uploads | 212 | 213 | 100% |
| Hydroponics system controls | 71 | 71 | 100% |
| **Grand total** | **183,342** | **204,328** | **90%** |

### On the surface

SLA data showing the percentage of provisions that met the SLA targets for access that one might need on a moon colony.

### Below the surface

ServiceNow was created over 20 years ago. Twenty years later, the very large company I work for is talking about reports that actually show the delays that your team is responsible for rather than the overall delay of a ticket that has been passed from team to team before you received it.

I'm sure ServiceNow fans will provide assurances that the feature *is* in the software, but if every company I've worked for can't get it implemented, it must not be straightforward.

Like ServiceNow, the access requests for this moon colony data routes through approvals.

The elapsed time begins when the request is created, when...

    a) there is no approval required, or

    b) the approval is performed by the IAM team itself.

Otherwise, the elapsed time begins once the approval is complete.

Under this model, the report easily highlights the percentage of time between request creation and closure that is attributable delays in approval vs. provisioning. This allows approval delays to be isolated and targeted for improvement.

The SLAs in this example are for 2 business days, or in the case of one complex and low criticality provision 15 business days. The SLA target date and times factor out weekends, and holidays.

Nothing that is terribly complex, but it begs consideration of how your ticket system handles these important factors.

To calculate the complexity, I calculated the average time to close for each application and established a simple (think T-Shirt size) classification model. Click a few of the applications in the table to observe each application's complexity. Each application has three possible provisioning actions; create, modify, and terminate. Each combination has varying fulfillment complexity.

Use the "Reset" button or click on the selected table value to reset the filter.

## Clients dashboard
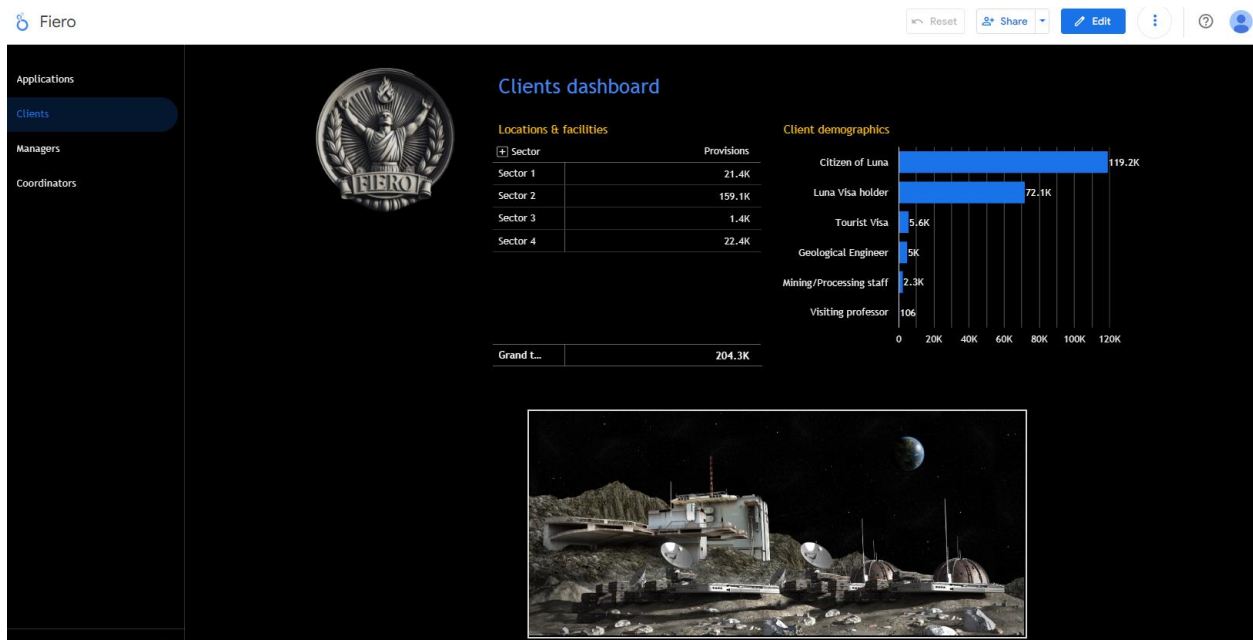


**On the surface**

This report provides the demographics of the clients served by this moon colony IAM department.

Sector 2 has the largest number of provision requests (159.1k).

Click the plus signs to expand the hierarchy.

Click on an expanded sector to observe the identity type of people who requested access. The identity type is an important IAM consideration of course, which determines whether an access request is appropriate. The identity type might also adjust the target SLA times.

**Below the surface**

I used **Google BigQuery** to consolidate data from relational data tables. I used **Microsoft CoPilot (AI)** to convert familiar SQL queries into BigQuery versions. The translations worked about 80% of the time and were a great time-saver in learning BigQuery.

**Looker Studio** is available without a monthly fee, but it lacks LookML scripting, which would have been nice. It would be ideal if Looker Studio had an export capability capable of restoring the entire dashboard. I learned to keep notes of the more challenging to discover controls.

## Managers dashboard
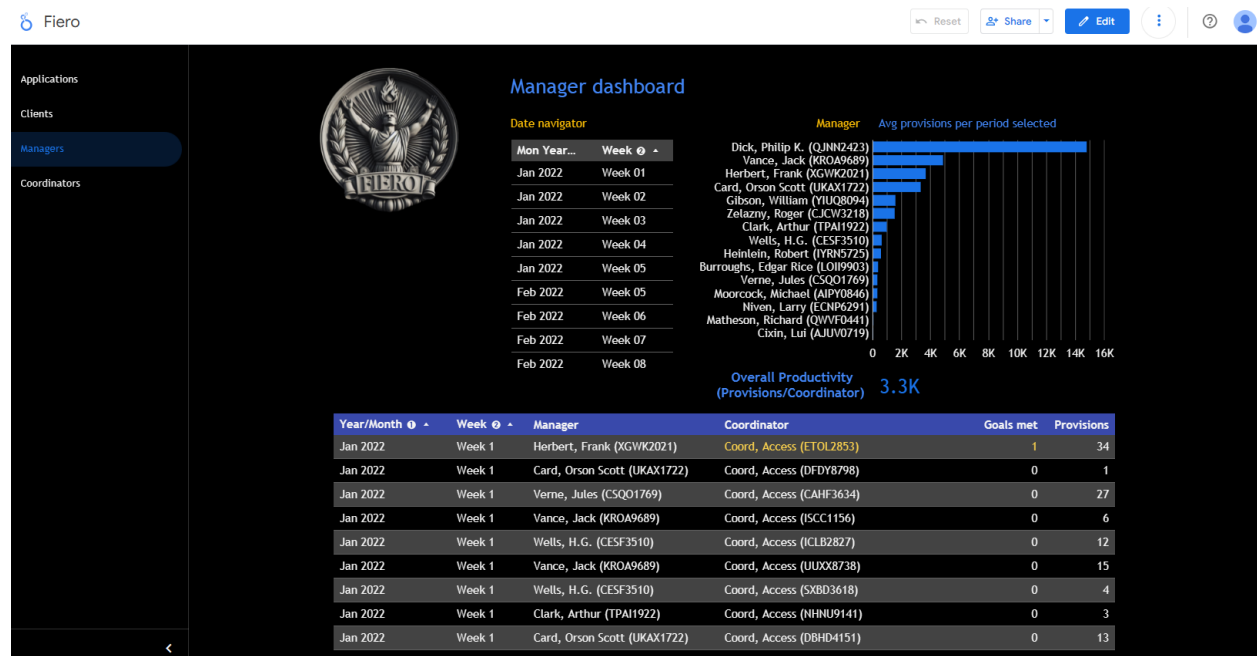


**On the surface**

This dashboard has some of the features for which Fiero was designed.

At work, I direct a team of 10 managers, and 122 coordinators.

The company has an employee engagement system that surveys various aspects of an employee's job satisfaction twice a year.

Managers with fewer than 10 direct reports cannot isolate the comments from their direct reports from those of the rest of the department. This is established to protect the anonymity of the responses but losing the ability to specifically attribute comments to a manager makes it harder to focus improvements. For this reason, I try to keep the number of direct reports for each manager at 10 or higher.

The remaining 22 people are allocated by provisioning demand and by manager productivity. Obviously, some managers are better than others, constantly experimenting with their processes, motivating their teams and generally being more on top of their responsibilities.

Productivity is generalized into the number of provisions completed for each coordinator on the team. Reset the dashboard using the button at the top to see the overall productivity metrics.

This moon colony IAM department has provisioned 3.3k requests per coordinator in this two year period.

Philip K. Dick is the most productive manager, and assigning extra employees to his team will obviously have the best return for the company.

> **Author's note**
>
> Each of the science fiction books that I've written is an homage to the books I grew up reading.
>
> FLIGHTSUIT & FLIGHTPACK are similar to Heinlein's HAVE SPACE SUIT WILL TRAVEL.
>
> FLIGHTSPAWN is similar to Stephen King's Castle Rock world-building approach, with some scenes that Edgar Rice Burroughs fans will appreciate.
>
> LIFEFLASH resembles Philip K. Dick's books.
>
> TRY-CATCH is my last book, and I believe my best writing. I read a lot of books on quantum physics trying to make it as realistic as possible.

Harry Harrison is the lowest performing manager in the moon colony IAM department and he should be guided to observe the processes established by other managers. Additional coordinators should be withheld from Harrison's team until his management improves.

Click any row in the date navigator table to observe the respective chart.

Try...

Jan 2022 Week 01: Philip K. Dick has not yet started. Jack Vance and Frank Herbert are the best performing managers.

Jun 2022 Week 22: Philip K. Dick starts.

Jun 2022 Week 23: Big influx in something, find out.

**Below the surface**

**Goals**

Click the "Reset" button to clear all filters, then click the "Goals met" column header to sort this column in descending order.

Observe that coordinator IQYM2330 has met 82 goals.

Goals are the first of Fiero's achievements. A goal is achieved each time a coordinator closes a request within 20% of the fastest time anyone has ever closed an application/action combination.

Meeting goals is much more challenging than meeting SLA.

Remember the quotes from above...

> "Bernard Suites, the late great philosopher, sums it all up in what I consider the single most convincing and useful definition of a game ever devised:
>
> > Playing a game is the voluntary attempt to overcome unnecessary obstacles."
>
> "Compared with games, **reality is too easy**. Games challenge us with voluntary obstacles and help us put our personal strengths to better use."

Fiero has introduced an achievement economy; a reward that unlike bonuses, or reward cards, costs the company nothing, yet provides greater work enthusiasm and the potential for advancement (goals met factors into the employee evaluation system and thus improves the odds of receiving the next available promotion).

As coordinators improve their efficiency, the goal request completion times decrease, and the challenge in meeting goals ratchets higher. The overall impact is that the average hours to close requests and SLAs improve.

The ideal next step would be to develop a scoreboard for coordinators to see the daily, weekly, monthly, and annual rankings of others in the department. I believe there is no greater way to motivate a performance-focused person than to provide transparent and timely feedback.

Performance-focused coordinators will network with coordinators who excel in provisioning an application, to learn what they are doing differently. Those who are not

performance-focused lose out on promotions, and eventually self-eliminate from the department, even without direct management intervention.

There are innumerable possible achievements. Coordinators could build Fantasy teams to compete with others, grouping coordinators to compete with management challenges such as...

Emergency scenario: Target specific emergency applications, with coordinators from impacted areas removed from the game for that week.

Best balanced: Move every coordinator into a fantasy team to achieve the maximum SLAs for the department as a whole.

There is a crowd-sourcing aspect to the scenarios of course. Leadership can use the game results to reorganize the actual teams.

## Coordinators dashboard



**On the surface**

Click the "Reset" button to clear filters.

Click the "Year" dropdown and select the "Only" link beside "2023".

Click the "Day" dropdown and select the "Only" link beside "Jan 7, 2023".

Observe there are three coordinators listed in the two bottommost tables. On January 7, Coordinator IEOX9831 provisioned 15 requests as shown in the "Num (Day)" column, while Coordinator TJQN4601 provisioned only 3 requests.
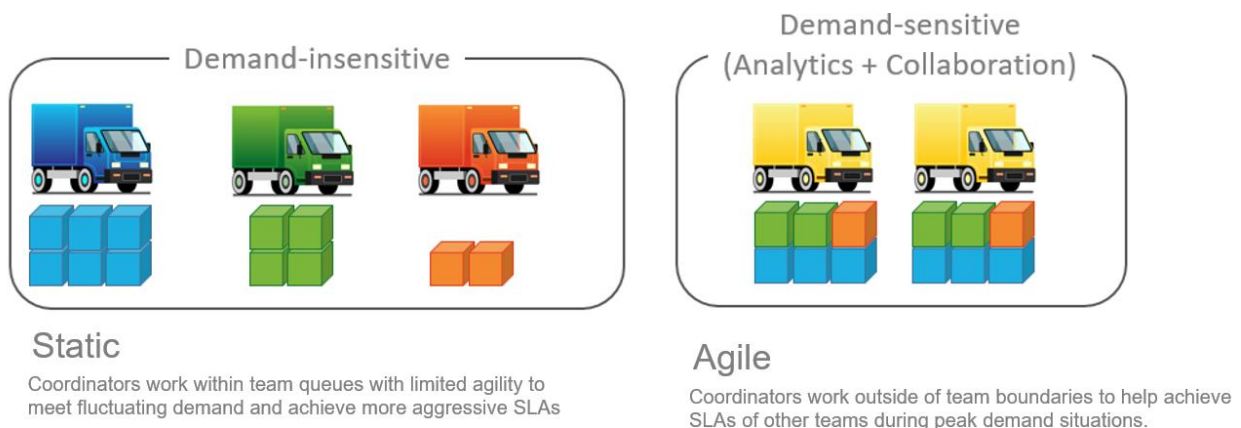
Observe in the table immediately above that Coordinator IEOX9831 is the top ranked coordinator for that day, while Coordinator TJQN4601 is ranked third of three coordinators.

The week and month requests and rankings work the same way. For example, Coordinator IEOX9831, ranked 1st on January 7, but for the month ranked 8th, and is the 22nd highest performing coordinator overall.

**Agile Access Management**

Regardless of how well managed an IAM department is, there will always be fluctuations in demand that overload some teams and leave other teams with easily manageable queues. In such situations, it would be ideal if coordinators from other teams could pitch in and help the overloaded teams, and thereby achieve the best overall SLA for the department.

Teams can often become arbitrary boundaries around resources that prohibit the optimum overall productivity. I created a concept called "Agile Access Management" to enable this.



**Static**
Coordinators work within team queues with limited agility to meet fluctuating demand and achieve more aggressive SLAs

**Agile**
Coordinators work outside of team boundaries to help achieve SLAs of other teams during peak demand situations.

If the excess demand is for "Luna Security" applications, the best coordinators to help are those who are top ranked on that specific application. Prior to Fiero, there was no way to identify the top 10 fastest coordinators for that specific application.

Click the "Reset" button to clear filters.

Click the "Application" dropdown and choose "Luna Security".

Observe the top 10 coordinators at provisioning "Lune Security" and the ideal people to help overcome the demand.

## Conclusion

Experienced leaders understand the limitations of salary increases, bonuses and promotions in creating highly engaged and enthusiastic workers that are dedicated to increasing their craft. Budgets are finite, and as much as we might hope that a promotion a year ago would create sustained motivation, we understand that it does not.

An achievement economy is limited solely by a leader's creativity, understanding of human motivation and mastery of analytics.

Tom Deaderick
January 17, 2024