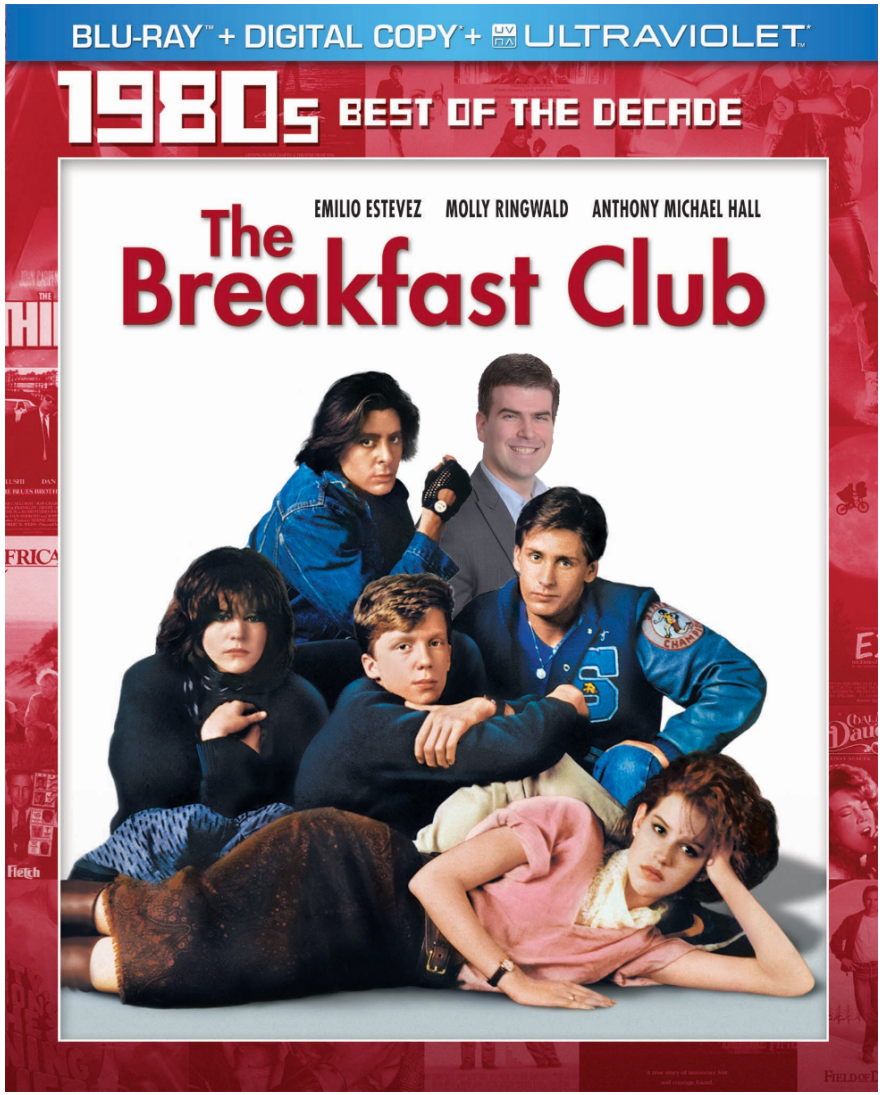
Power BI operations

Monitoring and administration at scale

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Oklahoma PUG
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Let’s talk about me

- I am Greg
- I have a lot to say
- I look like this on the internet
- If you like what I have to say, please get in touch
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My boss makes me include this slide



Cofounder of Argus PBI: https://www.arguspbi.com

Simplifying Power BI operations

Whole-tenant monitoring and reporting for operational metrics

Turnkey solution

Get in touch for a demo and free trial!

Agenda

- Operations
  - Definitions
  - Concerns
  - Still?
- Operational reporting
  - Inventory
  - Activity
  - Performance
- More!
- Q&A



Credit Wired: https://www.wired.com/story/nasas-space-shuttle-rises-from-the-dead-to-power-new-vehicles/amp

What do I mean by “operations”?

What happens after launch

Traditional operations and systems administration

Monitor and track

- Compute resources
- Storage
- Logs
- Configuration management
- Resource utilization
- Backups
- Availability
- Disaster recovery
- Patches and deployments
-

After “is it alive?”

- What is happening?
-
- Is it doing the right things?
-
- Are things changing?
-
- Should we care?
-
- Lifecycle (including deprecation)

Does SaaS eliminate old-school operations and systems administration?

Please see Betteridge’s law of headlines: https://en.wikipedia.org/wiki/Betteridge%27s_law_of_headlines

Does SaaS eliminate old-school operations and systems administration?

Power BI Service gives you:

- High availability
- Fully managed infrastructure
- Unlimited RAM and storage*
- Some notifications

Operational concerns

- ~~Compute resources~~
- ~~Storage~~
- Logs
- Configuration management
- Resource utilization
- Backups
- ~~Availability~~
- Disaster recovery
- ~~Patches and deploy~~ments
- ~~What~~ is happening?
- Is it doing the right things?
- Are things changing?
- ~~Sh~~ould we care?
- Lifecycle (including deprecation)
-

What can we do in Power BI?

- Built-in reports
-
- Built-in alerts
-
- Manual checks
-
- APIs

Inventory – what is

- Built-in
  - Workspace inventory: https://app.powerbi.com/admin-portal/workspaces
  - Lineage view: https://app.powerbi.com/groups/<workspace-id>/lineage
  - Permissions and access settings
    - Workspace
    - Sharing
    - Apps
  - Limits:
    - Current state only
    - Many separate locations
- API
  - Scanner API: https://learn.microsoft.com/en-us/power-bi/admin/service-admin-metadata-scanning-setup
    - All of the above in one place
    - Unified lineage and permissions view
    - Table and column-level detail of datasets

Activity – what are people doing?

- Built-in
    - Usage metrics report: https://learn.microsoft.com/en-us/power-bi/collaborate-share/service-usage-metrics
        - Greatly improved in recent times
        - Includes some data not readily available in APIs, including performance and per-page metrics
    - Limits
        - Report views only, no other activity
        - 30 days retention
- API
    - User activity in Power BI: https://learn.microsoft.com/en-us/power-bi/admin/service-admin-auditing
    - All user activity types, not just views

Performance

- Built-in
    - Refresh history
    - Failed refresh alerts
    - Capacity refreshes: https://app.powerbi.com/admin-portal/refreshCenter/history
    - Limits
        - Configured and viewable only per-dataset
        - Centralized view is Premium only
        - 7 day history max
- API
    - Refreshables (all capacities): https://learn.microsoft.com/en-us/rest/api/power-bi/admin/get-refreshables
    - Refresh history: https://learn.microsoft.com/en-us/rest/api/power-bi/datasets/get-refresh-history-in-group

More!

- Capacity metrics:
  https://learn.microsoft.com/en-us/power-bi/enterprise/service-premium-metrics-app
- Data quality
  - Execute Queries:
    https://learn.microsoft.com/en-us/rest/api/power-bi/datasets/execute-queries-in-group
    - Get rowcounts for every table after every refresh
- Performance
  - Log analytics:
    https://learn.microsoft.com/en-us/power-bi/transform-model/log-analytics/desktop-log-analytics-overview
    - Detailed diagnostic logs for individual queries
  - Execute Queries (again)
    - Run test queries daily to monitor performance
    - Copy every query from a report page and run concurrently to simulate user

We deserve nice things too

- Power BI is a unique tool that can visualize so much information about itself
-
- Be data driven in prioritization and planning
-
- Ask questions, explore!



Fin

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Feel free to reach out with any questions – I love this stuff!