NGRD—Driving a Culture of Self-Service through Architectural Innovation

Gordon Marantz
Business Technology Partner
Disney

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Data & Analytics Practice Lead
Slalom
Hello

**Gordon Marantz**  
*Business Technology Partner, Disney*

Gordon has been with Disney for upwards of 7 years. He is the internal NGRD product owner and primary sponsor/champion.

**Micah Wood**  
*Data & Analytics Practice Lead, Slalom*

Micah has been working with Disney on the NGRD platform for about 2.5 years. He is the external product owner and high-level architect.
Once upon a time…
Getting into the IT queue
Administration
Non-prioritized
Pixie dust?
Where are my numbers?
They don’t match!
Frustration
The End
Why Patrick Pot?

Patrick embodies the **archetypical business user**, openly embracing “shadow IT”.

<table>
<thead>
<tr>
<th>USEFUL</th>
<th>Has an <strong>existing process</strong> supporting business ops.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELF-GOVERNED</td>
<td>Has <strong>control</strong> over all aspects of his own data.</td>
</tr>
<tr>
<td>TECHNOLOGY</td>
<td>Needs a <strong>new tool</strong> that can handle larger data volumes.</td>
</tr>
<tr>
<td>AUTOMATION</td>
<td>There are <strong>no downstream</strong> impacts.</td>
</tr>
<tr>
<td>AUDITING</td>
<td>Wants to maintain <strong>historical</strong> records.</td>
</tr>
<tr>
<td>ISOLATED</td>
<td>Primary motivation is to make life <strong>easier</strong>.</td>
</tr>
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</table>
What makes Patrick’s story interesting?

Patrick encounters many of the **same hurdles** experienced by business users across the globe.

<table>
<thead>
<tr>
<th>1</th>
<th>Technological limitations of his typical tool-of-choice</th>
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<tbody>
<tr>
<td>2</td>
<td>Undesirably injected into a <strong>slow-moving process</strong></td>
</tr>
<tr>
<td>3</td>
<td>Forced to endure unnecessarily <strong>long wait</strong> times</td>
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<tr>
<td>4</td>
<td><strong>Inaccessibility</strong> of more new tools and technologies</td>
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<td>5</td>
<td><strong>Lack of an audit trail</strong> resulting in follow-on questions</td>
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<td>Error-prone process with <strong>limited repeatability</strong></td>
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Patrick Pot 2.0
There lived a guy named Patrick Pot
I need campaign numbers
Victory
The End
Different data has different needs

The concept of the NGRD was born from the apparent misalignment between traditional analytics processes and modern data volumes, rates, and varieties.

Tactical “Operational” Data
The day-to-day operations we do alone or in groups to contribute to these strategic, global initiatives

Strategic “Enterprise” Data
Enterprise-wide data and BI relating to overall business progress and growth
An organizational parallel

Org. Design

Centralized

Data Warehouse

Data Lakes

Decentralized

Coordinated Silos

Modern Data Ecosystem

CUSTOMER

BUSINESS USER
What is NGRD?

NGRD is a **coordinated silo** architecture – a data lake with swim lanes

- “Inverted” data lake
  
  “We will come **because** we built it”

- Preventing the “Wild West”
  
  File-based

- Storage is now cheaper than compute
  
  No more data modeling

- “Zero tech debt” architecture
  
  Decoupled file arrival

- New tool, reduced perception of change
  
  Leveraging Tableau and its robust API

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**Upload files from local machine to S3 DMZ through web portal UI**

**Validate uploaded file against template, checking for file consistency and security**

**Perform custom data blending like joins, de-duplication, business logic, etc.**

**Publish automated data exploration dashboard to Tableau for immediate data interaction**

**Schedule automated data feeds to replace manual uploads according to development priorities**
How does NGRD help... business users?

“After getting a better sense, I realized that there were a lot of great things in the ratings center dashboards that I would like to use in some of my own projects.

“How can I do this myself?”

• Reduced or **eliminated reliance on others**

• Self-governed

• **No downstream impact considerations**

• Supports **automation**

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<th>Challenges faced</th>
<th>Details</th>
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How does NGRD Help… information technology?

“Where should I focus my developers’ time?”

- Less time spent in firefighting or “running the business” activities
- More-informed development backlog
- No more wasted effort hydrating data lakes with data that goes unused
How does NGRD Help... information security?

“What’s my data risk?”

- Proactive monitoring and cataloging

- Visibility into previously untapped data sets and user bases

- New line of visibility into data exposure, usage, and risk
Use Cases
Let’s see some examples!
“[Leveraging NGRD, we] created an amazing warehouse that integrates with Tableau for easy analysis.”
Ratings Center

- Consolidate daily 20+ MB CSV files
- Required interactive data discovery capabilities
- Needed multi-year history of multiple networks and demographics

**Moderate**

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<th>SOURCES</th>
<th>Single, flat file requiring transformation</th>
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<td>DASHBOARD</td>
<td>Single, medium complexity</td>
</tr>
<tr>
<td>EFFORT</td>
<td>Few days to a few weeks</td>
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**300+**
Daily users

**90%**
Improved process time

**11K**
Fewer HTMLs published per year
Competitive Grids

- Automated the generation of 52 page/week report
- Restricted confidential views to executive users; released non-confidential views company-wide
- Maintained history across a decade of network data
Fast Facts

- Automated the consolidation of over 15 Excel documents and macros
- Required trend views of program performance over time
- Retained history across multiple network seasons

“With a more efficient way to deliver data, there will be more time towards understanding and deeper insights.”
What have we accomplished?

• All of the metrics just shown

• Introduced approximately **500 new people** to Tableau and self-service analytics

• Drastically **reduced the time it takes to deliver** enterprise analytics

• **Trained a set of power users** on how to create more complex analytics themselves

• Enabled the **retirement of two legacy application servers**

**Delivered for the business!**
What lessons have we learned along the way?

- Support is key!
- Focus on data security.
- Overcommunicate!
- Easy access leads to easy adoption.
Apollo was the combination of technologies, none of which was particularly dramatic. Combining it was the achievement. This was a bunch of people who didn't know how to fail. Apollo was a triumph of management, not engineering.

Tim Stevenson
Chief Engineer at Leicester University’s Space Research Center
Please complete the session survey in the mobile app

View ‘My Evaluations’ in the menu or find your session under ‘Schedule’
Thank You!

Are there any questions?