

Exploring Systems of Systems

Matt Neale – Chief Technology Officer



Matt Neale

- Chief Technology Officer at eStar & Viare
- 20+ years in eCommerce
- Provides technical oversight, architecture and strategic direction for eStar's solutions







Credentials

- Melbourne and Christchurch
- \$1.5B in transactions
- End to End eCommerce
- Distributed Order Management
- Gartner recognised Order Management System
- Largest eCommerce ISV in region

















Some of our clients

DAVID JONES

COUNTRY ROAD







bed bath & beyond

running bare 📆

PAULCARROLL



HARROLDS



WIWCO

WITCHERY

plumbingworld

Stirling Sports (5)

TRENERY

Introduction

- A System of Systems What is that?
- Increasing sophistication of eCommerce systems
- Progression of eCommerce systems
 - Suites to Products to Systems

• Distinction of Monoliths v. Headless v. Composable



Introduction

- Competitive advantage
- The promise* of interchangeability
- The challenge of multiple vendors
- Some useful* advice
- All in one slide deck



^{*}Your mileage may vary.

Specialisation

- Evolutionary Specialisation
 - Dedicated solutions Analytics, CRM, OMS
 - Customer sophistication
- Unique Requirements
 - Personalised products
 - Loyalty systems
- Functional Depth
 - Pareto Principle (80:20 rule)
- Commoditisation of Capability
 - Off the shelf capabilities



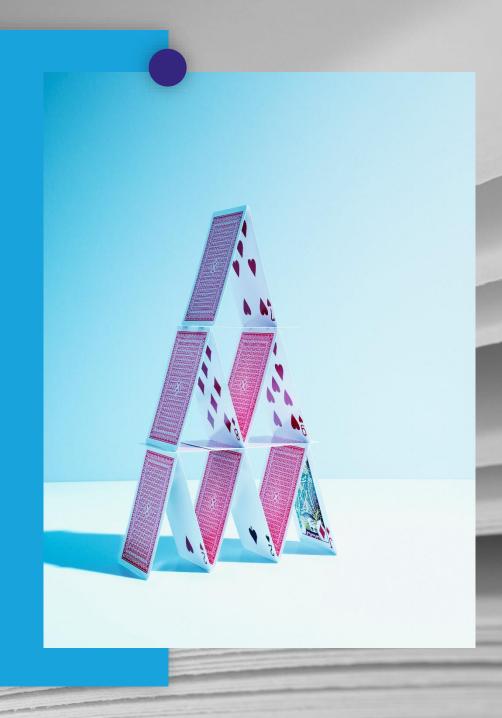
Selection of Systems

- Operational Capacity
- Operational Capability
- Matching your ability to utilise new systems
- Example of a new CMS
 - Match capabilities to tools
 - Low-code vs. code-first



Integration of Systems

- Compatibility
 - Data e.g. City vs. Suburb
- Technical Connectivity
 - Cartridges
 - API's *
- Advantages of Automation
- Gotcha's
 - Timing Inventory!
 - Differential scaling



Joining the dots - Architecture

- It's your business, you own the architecture
- Be clear on the role of each system
 - RACI
 - Source of Truth / System of Record
 - TOGAF ...
- Each data movement should be monitored
- Know your cause and effect
 - Ensure dependencies are known



Architecture & Vendors

- Vendor sprawl
 - Plugins & Extensions
 - Shadow IT
 - GTM tags, 3rd party scripts etc. !!!
- Formalise your governance
 - Know who's who in the zoo
 - Keep it live, intentional
- Example: 3rd Party Scripts (& cookies!)



Incidents in Systems of Systems

- \$#it happens
- How you react respond makes the difference
- Mean Time To Innocence
- Centralized monitoring and alerting systems
- Collaboration and communicate



Retailer Experience

- Enhanced Customer Satisfaction and Loyalty
 - On-brand experiences
 - Faster processing
 - Sales step-changes
- Scaling and Growing
 - Increasingly sophisticated customer expectations.
 - Increasing sales
 - Adapting to business changes.
- Vendor Selection and Management
 - Vendor alignment and working together
 - Managing competitive overlaps!?



Conclusion

- There are gains to be had from specialisation
 - Competitive advantage
 - Happy customers
 - Happy staff
- There are key things to keep on top of
 - Be intentional about your reasons
 - Establish and maintain clear governance
 - Own your ecosystem





estar