

# Duke Office of Information Technology

## Design for information lifecycles

### Description

Our system designs explicitly address the "cradle to grave" lifecycle migration of data and application technologies. As such, we make sure to plan not only for the initial deployment, but ongoing maintenance and eventual decommissioning of a solution. We avoid strategies that make upgrade or replacement of a solution more difficult. By designing for decoupled, independent solutions, we are prepared for future technical and data migrations.

### Components

#### Data

- ? Data is decoupled from infrastructure and services
- ? Have an entrance and exit strategy for data in systems' lifecycle
- ? Maintain the value of data as infrastructure and services change
- ? Consider strategies to prevent accumulation of garbage data
- ? Consider expiration or archiving needs of data

#### Infrastructure

- ? Decoupled systems allow independent improvement and replacement of components
- ? Consistency in functions and capabilities simplifies ongoing maintenance

#### Services

- ? Preserve investment in business logic
- ? Be wary of technology lock-in
- ? Have an exit strategy

#### Support

- ? Decomposed, redundant systems can be more easily maintained without service disruption

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