Patterns & Practices Solution Architects…
Amplify customer success by offering strategic guidance, communicating best practices, and aligning technology with business needs.
Best Practices
Patterns and practices for overcoming business challenges

People

Process

Technology

Amplify customer success with a business first approach
Best Practice: Manage Identities
Uniquely and securely describe user access to maps, apps, data, and analysis

- Configure in the portal
  - Users
  - Roles
  - Privileges
- Incorporate in your apps

Identity enables participation!
Best Practice: Essential Patterns of a Location Strategy

Common geospatial functions that re-occur across business models and environments

Essential Patterns

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location Enablement</td>
<td>Discover, use, make, and share maps at work—anywhere, anytime</td>
</tr>
<tr>
<td>Constituent Engagement</td>
<td>Facilitate and manage communication with stakeholders</td>
</tr>
<tr>
<td>Decision Support</td>
<td>Inform events and management with maps and location intelligence</td>
</tr>
<tr>
<td>Field Mobility</td>
<td>Get authoritative information into and out of the field</td>
</tr>
<tr>
<td>Analytics</td>
<td>Describe, predict, and improve business performance</td>
</tr>
<tr>
<td>Location Data Management</td>
<td>Collect and organize location data about your assets and resources</td>
</tr>
</tbody>
</table>

Pattern Gap Analysis

The patterns are a framework for driving value.
Best Practice: Workforce Development
Equip people with knowledge and experience

Workforce Development should not be considered a cost, but rather an investment.

If you or your organization have an Esri qualifying product with a current maintenance subscription, unlimited access to all of our self-paced e-Learning resources is yours to enjoy—anytime from anywhere. It's learning without limits.

Achieve greater value and a faster return on investment from ArcGIS.
Best Practice: Apply IT Governance
Governance focused specifically on IT systems, their performance, and risk management
Best Practice: Application Implementation Strategies
Minimize cost and maximize development resources

- Configure *First*
- Extend *Existing* Apps & Templates
- Use the ArcGIS Web *APIs* and *SDKs*

Configure first for the lowest cost and least effort

*Deviations from “core” increase risk!*

Best Practice: Choose Projects Wisely
Maximize success by balancing business benefits with challenges

Drive value from technology investments
Best Practice: Rapid & Agile
Seek short term value even as you build long term capabilities

- Keep iterations brief (~30 days)
- Involve stakeholders
- Stop | restart at any time
- Iterations terminate with the business need
- Deprecate when no longer used

Each iteration results in deliverable you can use…
Best Practice: Security

Securing the ArcGIS platform should be addressed early in the design process as techniques and approaches may vary depending upon business needs and environment.

- Authentication/Authorization
- Filtering
- Encryption
- Logging/Auditing

Leverage the organization’s existing security framework!
Best Practice: Environment Isolation
Separate and distinct compute environments

- Production: *an operational, real-time compute environment*
- Staging: *a separate, mirrored, pre-production environment*
- Development: *a limited scale environment sufficient for primary code and data modeling*

Reduce risk and protect operational systems from unintentional changes and negative business impacts
Best Practice: High Availability
A design approach that targets a prearranged level of operational performance during a period of time

- Improve service delivery
- Reduce risks

<table>
<thead>
<tr>
<th>Availability (%)</th>
<th>Downtime per year</th>
<th>Downtime per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>95.0</td>
<td>18.25 days</td>
<td>8.4 hours</td>
</tr>
<tr>
<td>99.0</td>
<td>3.65 days</td>
<td>1.68 hours</td>
</tr>
<tr>
<td>99.9</td>
<td>8.76 hours</td>
<td>10.1 minutes</td>
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<tr>
<td>99.99</td>
<td>52.56 minutes</td>
<td>1.01 minutes</td>
</tr>
<tr>
<td>99.999</td>
<td>5.26 minutes</td>
<td>6.05 seconds</td>
</tr>
</tbody>
</table>

What is the acceptable downtime for your business workflows?
Best Practice: Workload Separation
Separate technology deployments by solution pattern

- Improve service delivery
- Reduce risks
- Minimize system resource contention

Typically SLAs determine which server deployments need to be separated.
Best Practice: Publication Strategy – Geospatial Content Delivery

Publication is the act of delivering content (data, services, and applications) to appropriate consumers

- Performance
- Reliability
- Security

Example: ArcGIS Online helps decouple contending usage patterns
The ArcGIS Conceptual Reference Architecture
Best Practices Documented