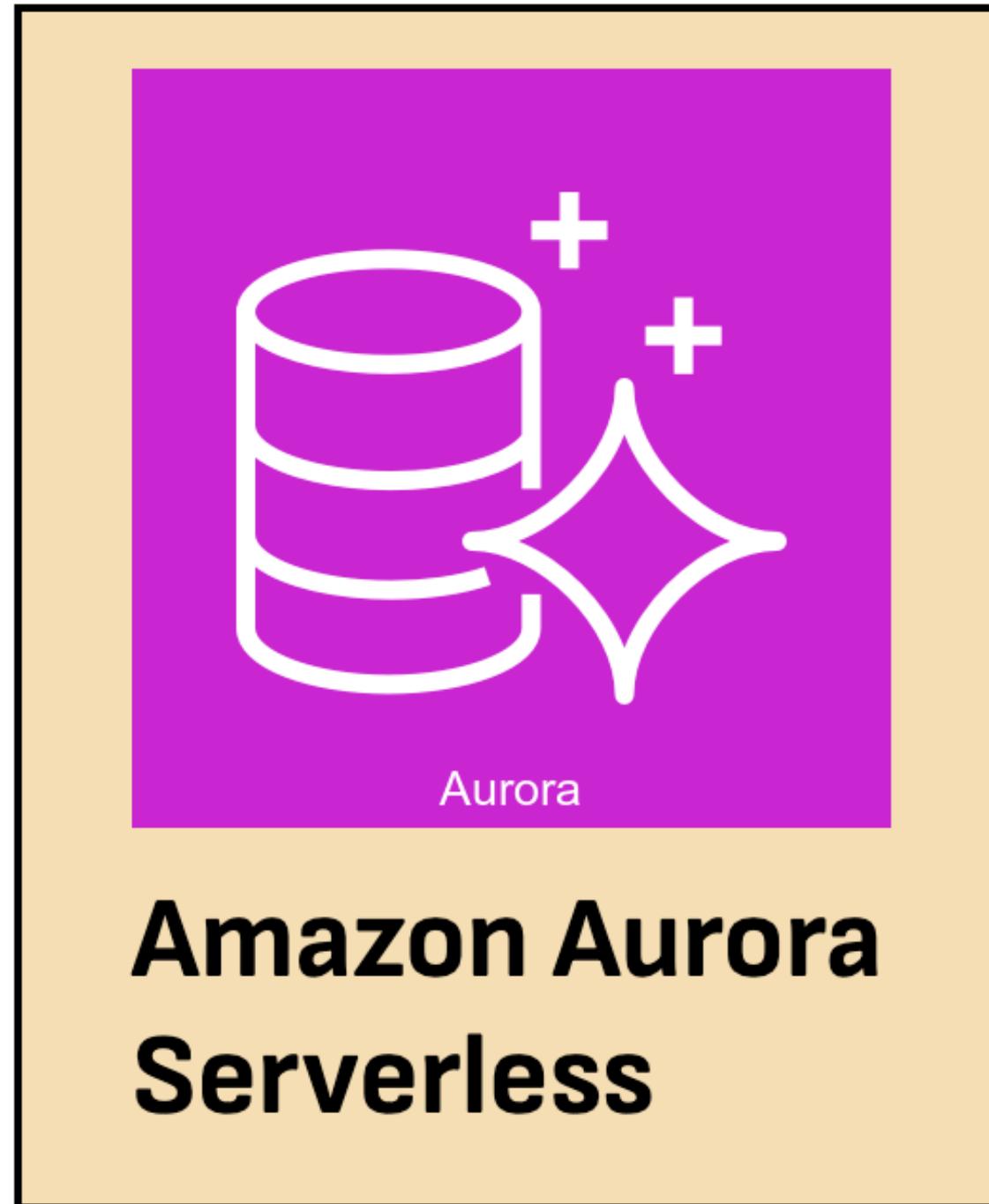




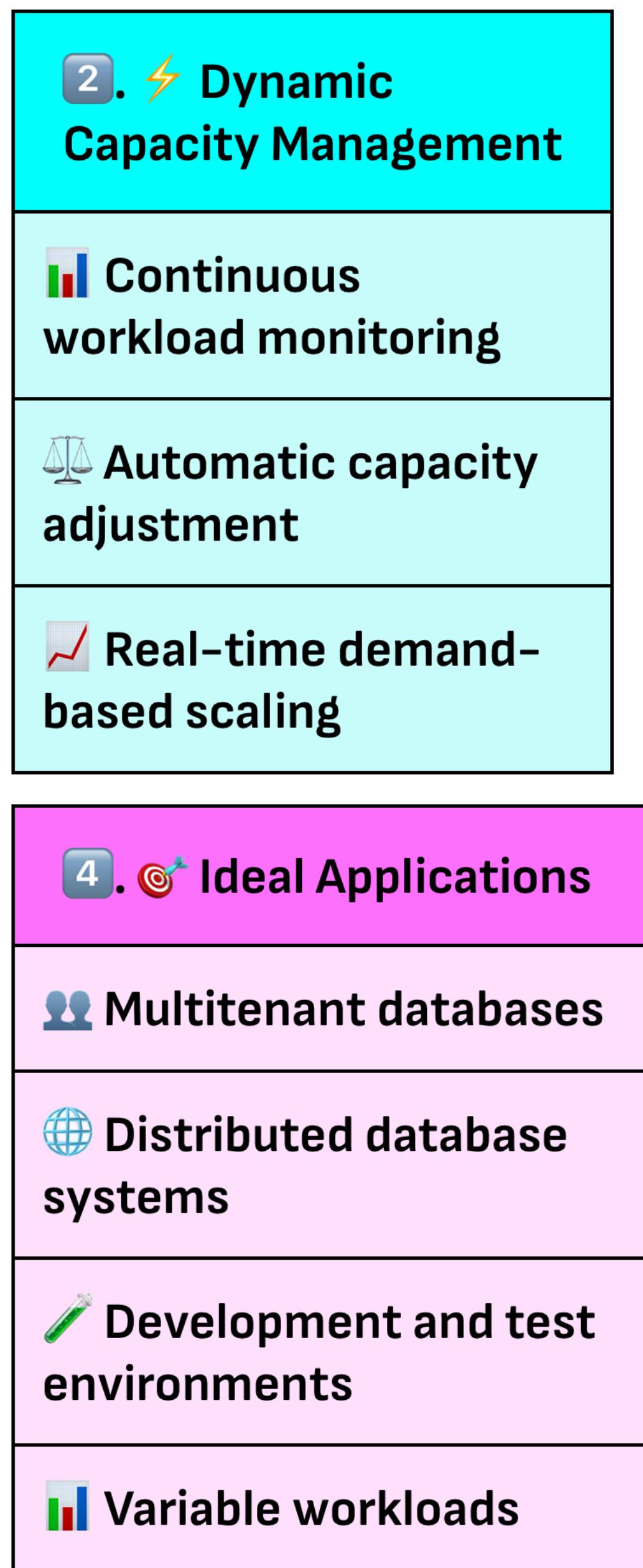
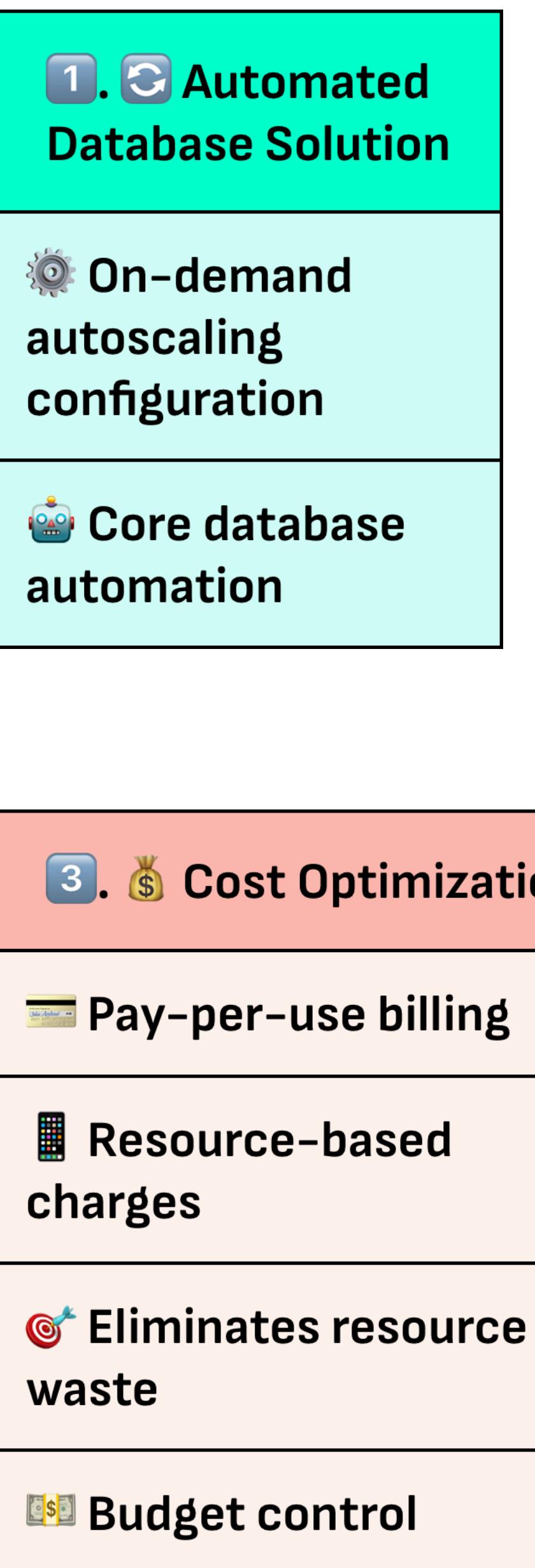
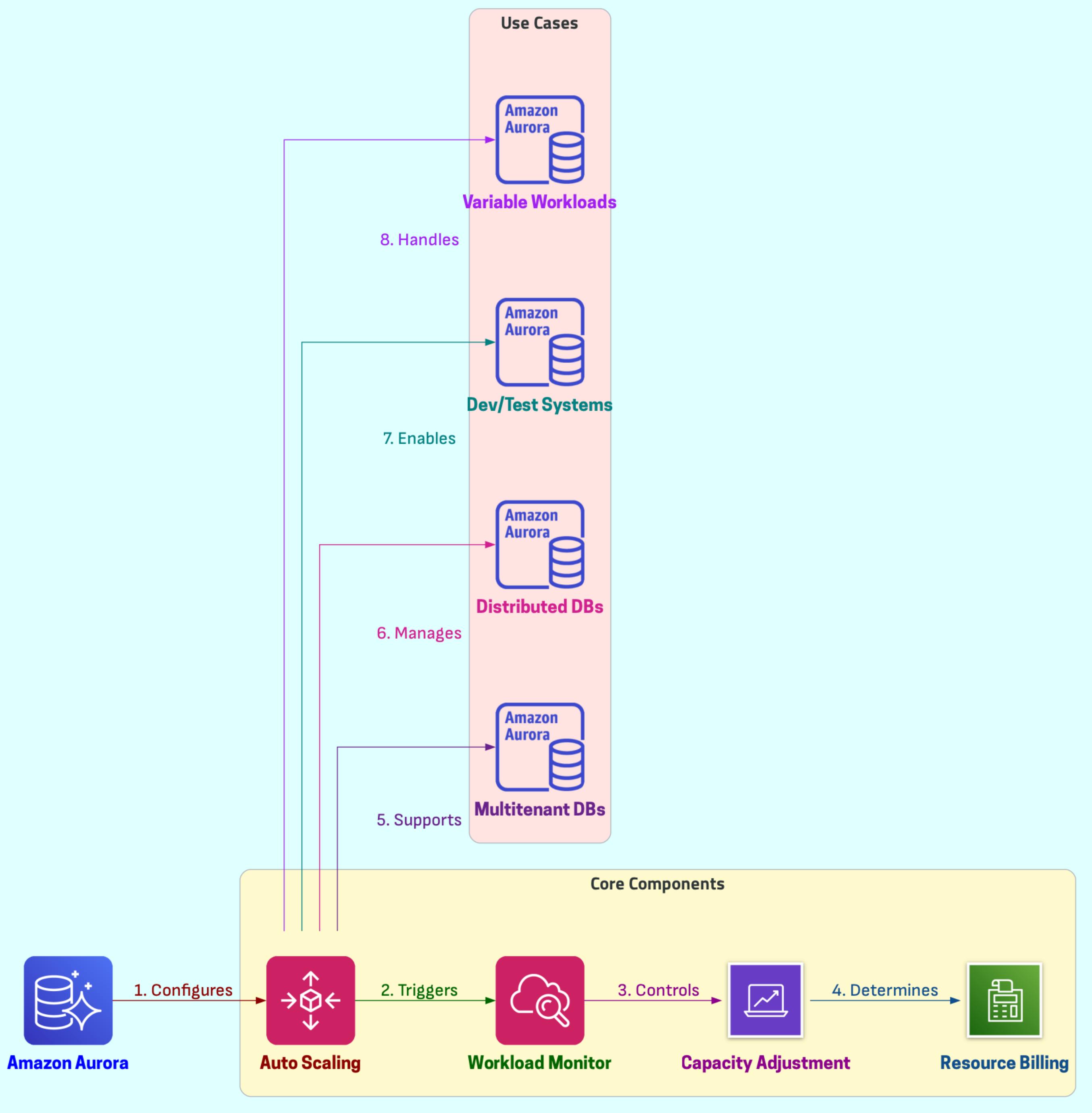
Aurora Serverless

Table of Contents

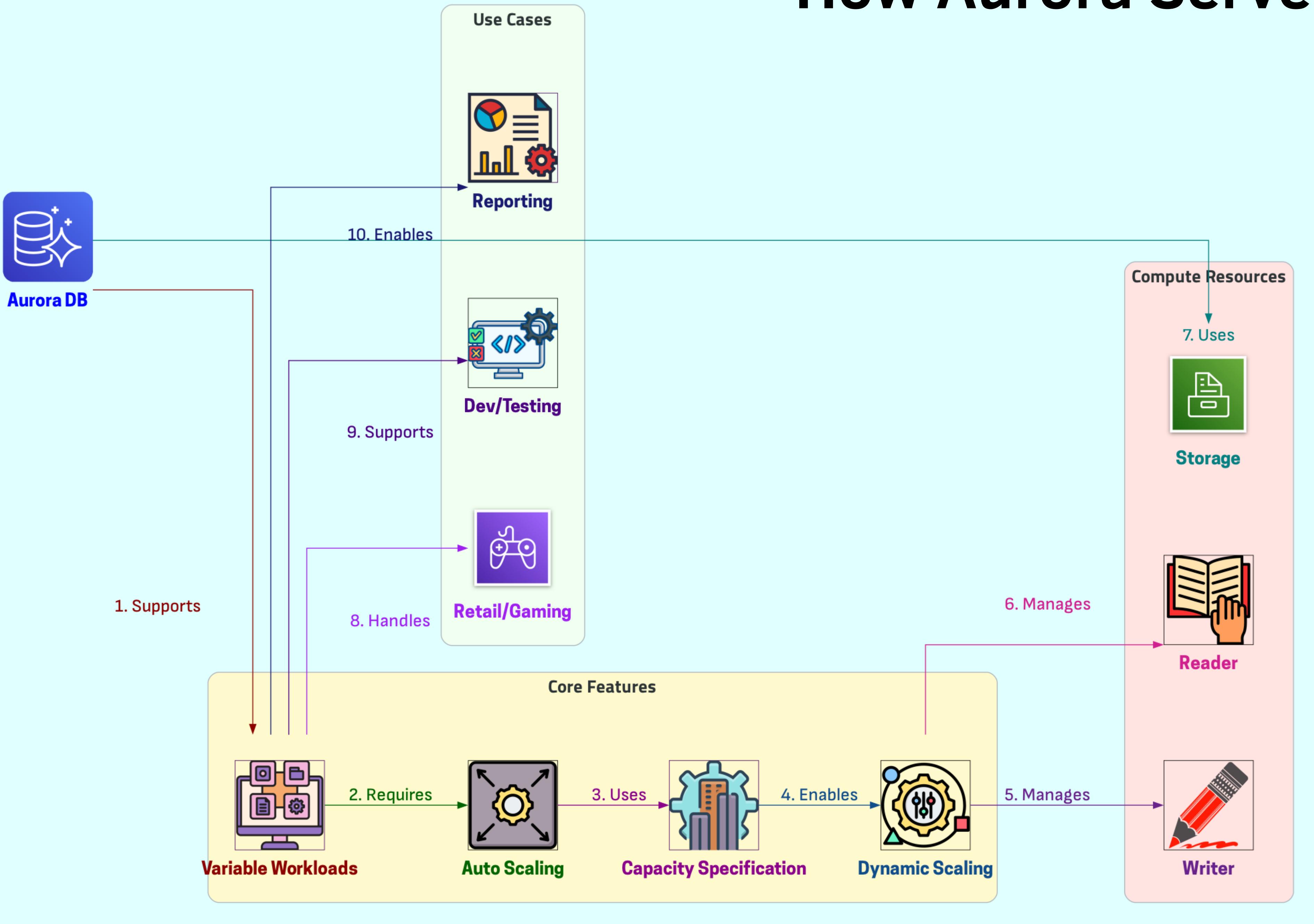


- 1. What is Aurora Serverless?**
- 2. How Aurora Serverless v2 works**
- 3. Understanding Aurora Capacity Units (ACUs)**
- 4. Aurora Serverless v2 scaling**
- 5. Performance and scaling for Aurora Serverless v2**

What is Aurora Serverless?



How Aurora Serverless v2 works



1. 🎯 Ideal Use Cases

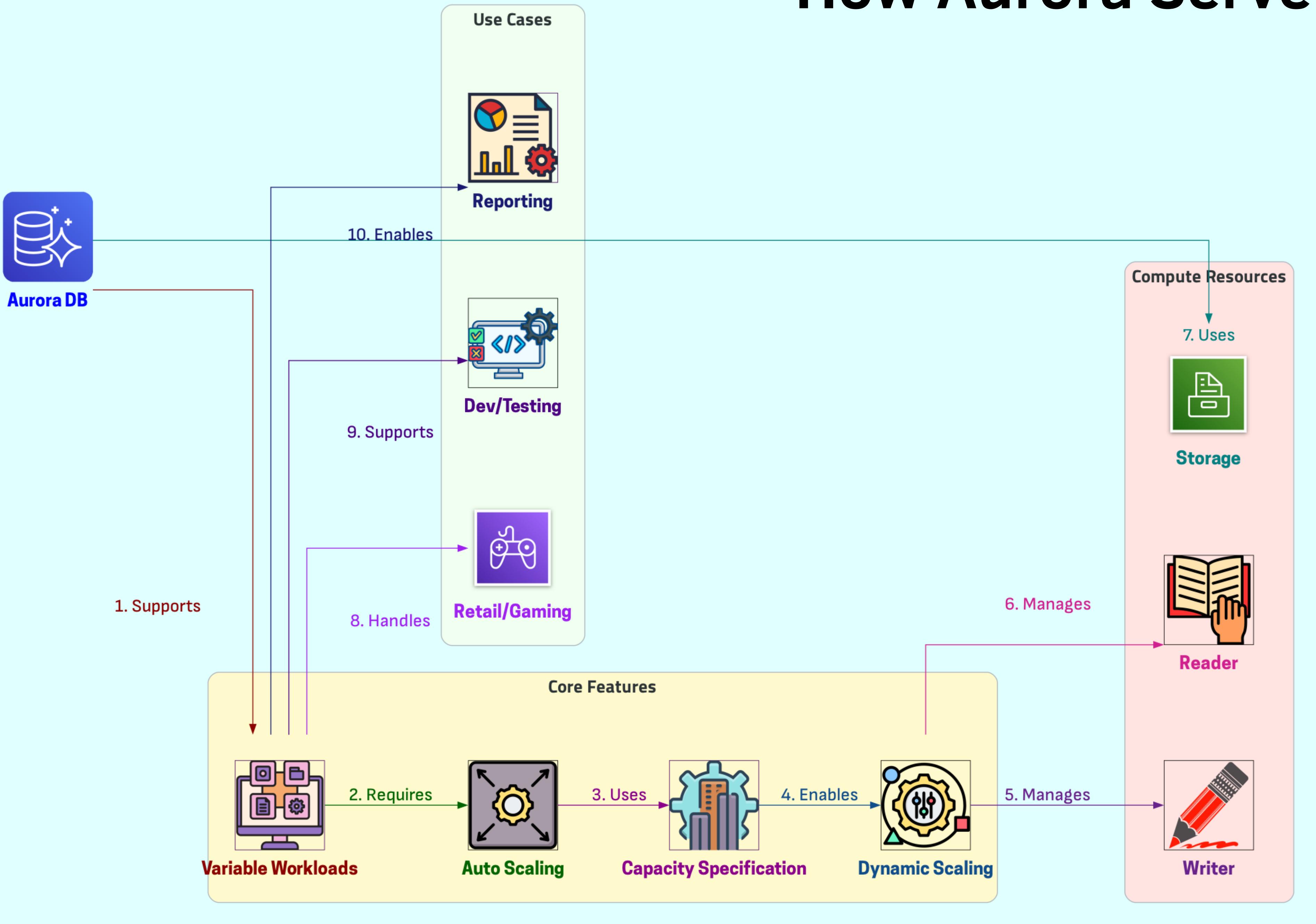
🛍️ Retail and gaming promotional events

📊 On-demand reporting databases

💻 Development environments

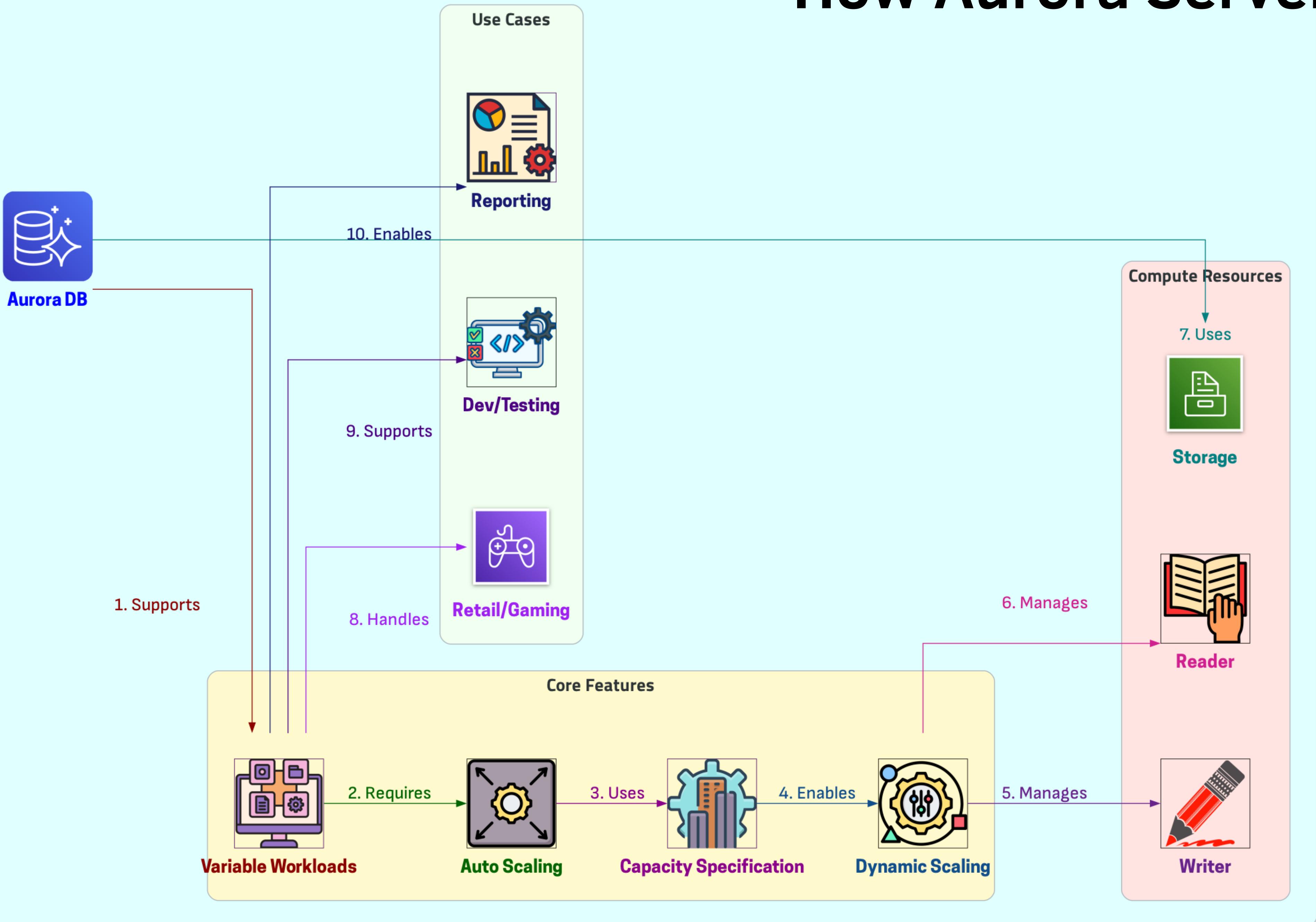
📈 Unpredictable workload patterns

How Aurora Serverless v2 works



- 2. Provisioned vs Serverless
- Steady vs dynamic workloads
- Fixed vs flexible capacity
- Manual vs automatic adjustments
- Outages vs continuous availability

How Aurora Serverless v2 works



3. ⚡ Architecture Benefits

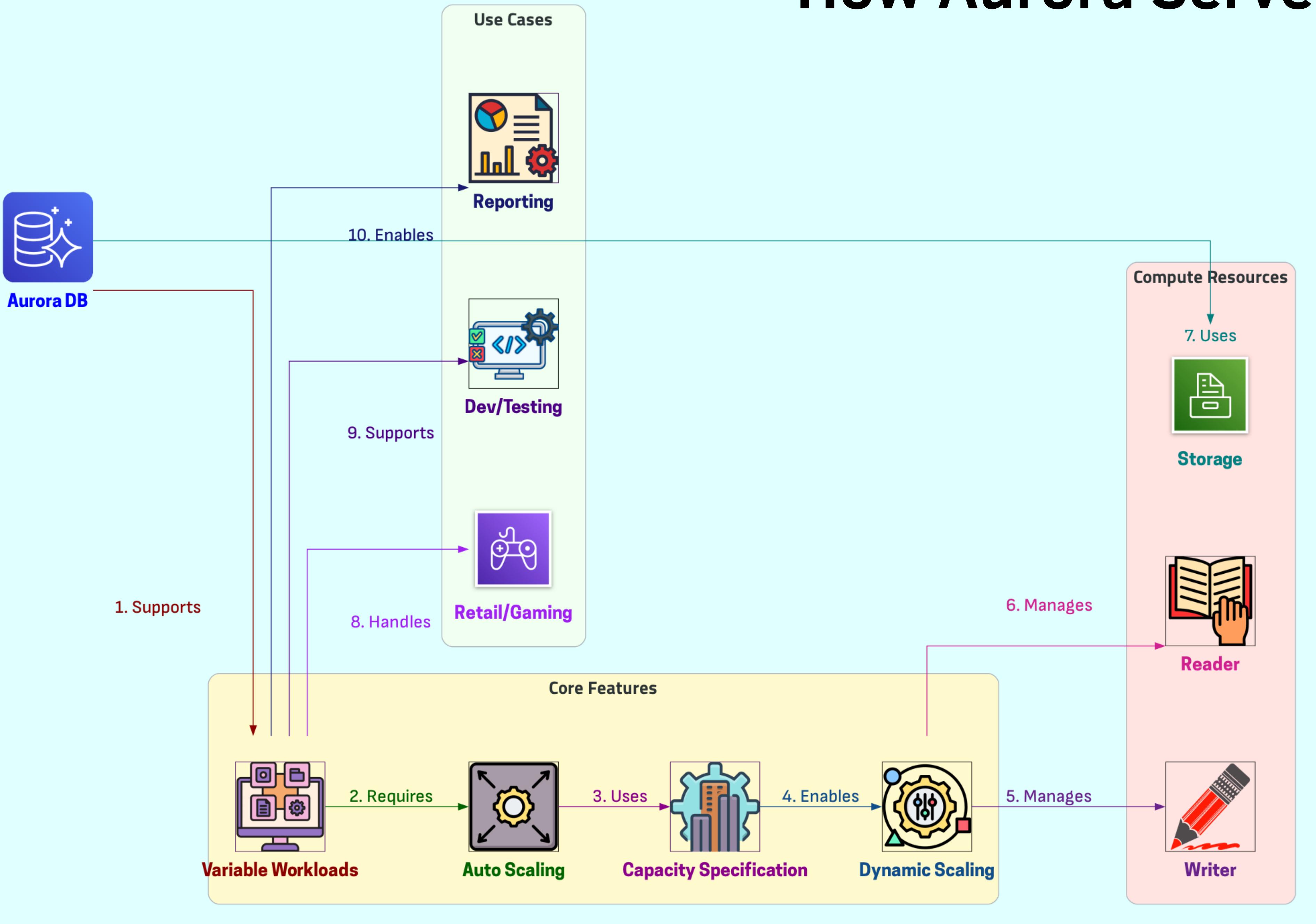
🚀 Instant scalability

🛡 Enterprise-grade security

⚡ Minimal overhead

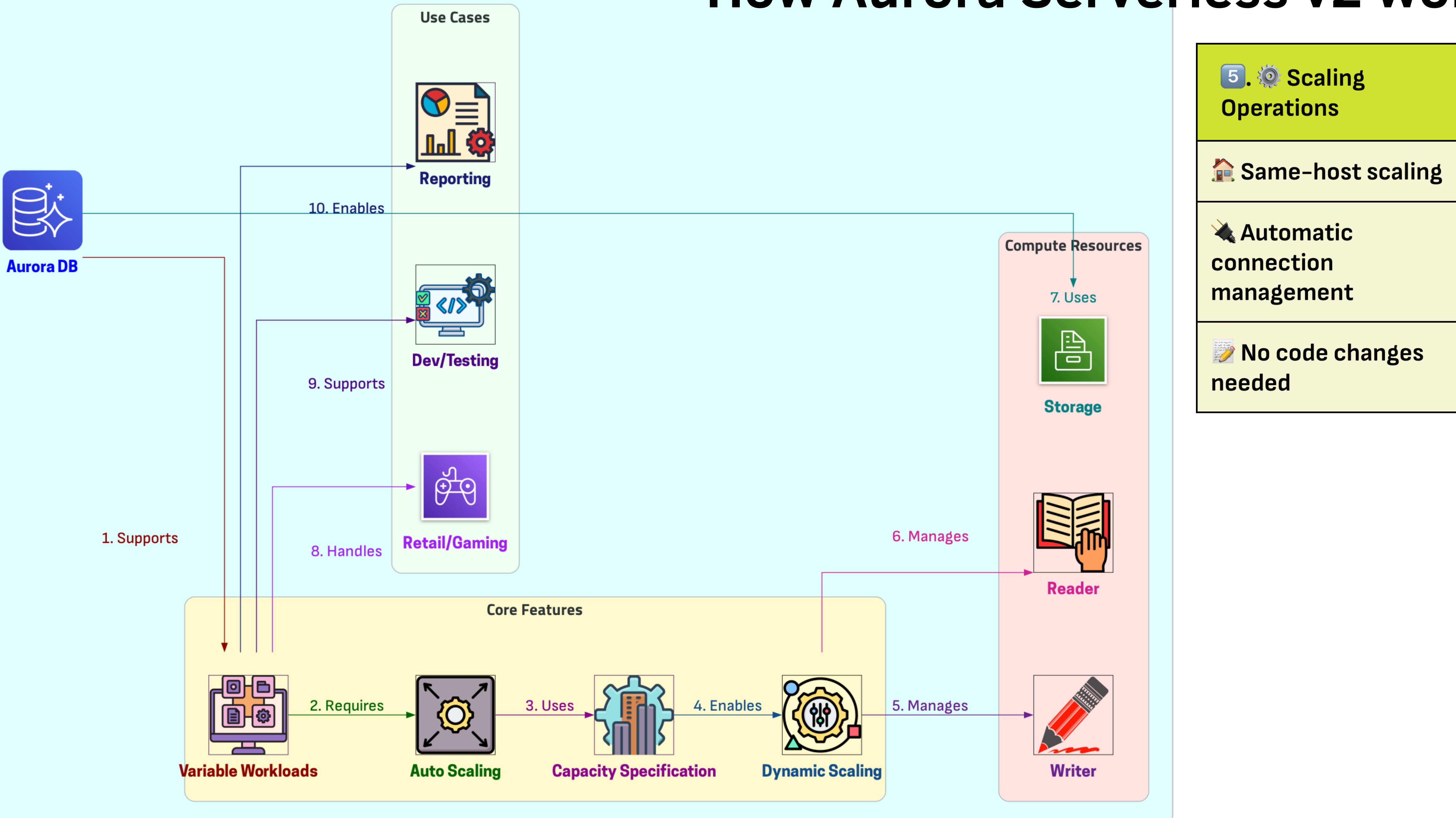
📈 Rapid response to demands

How Aurora Serverless v2 works

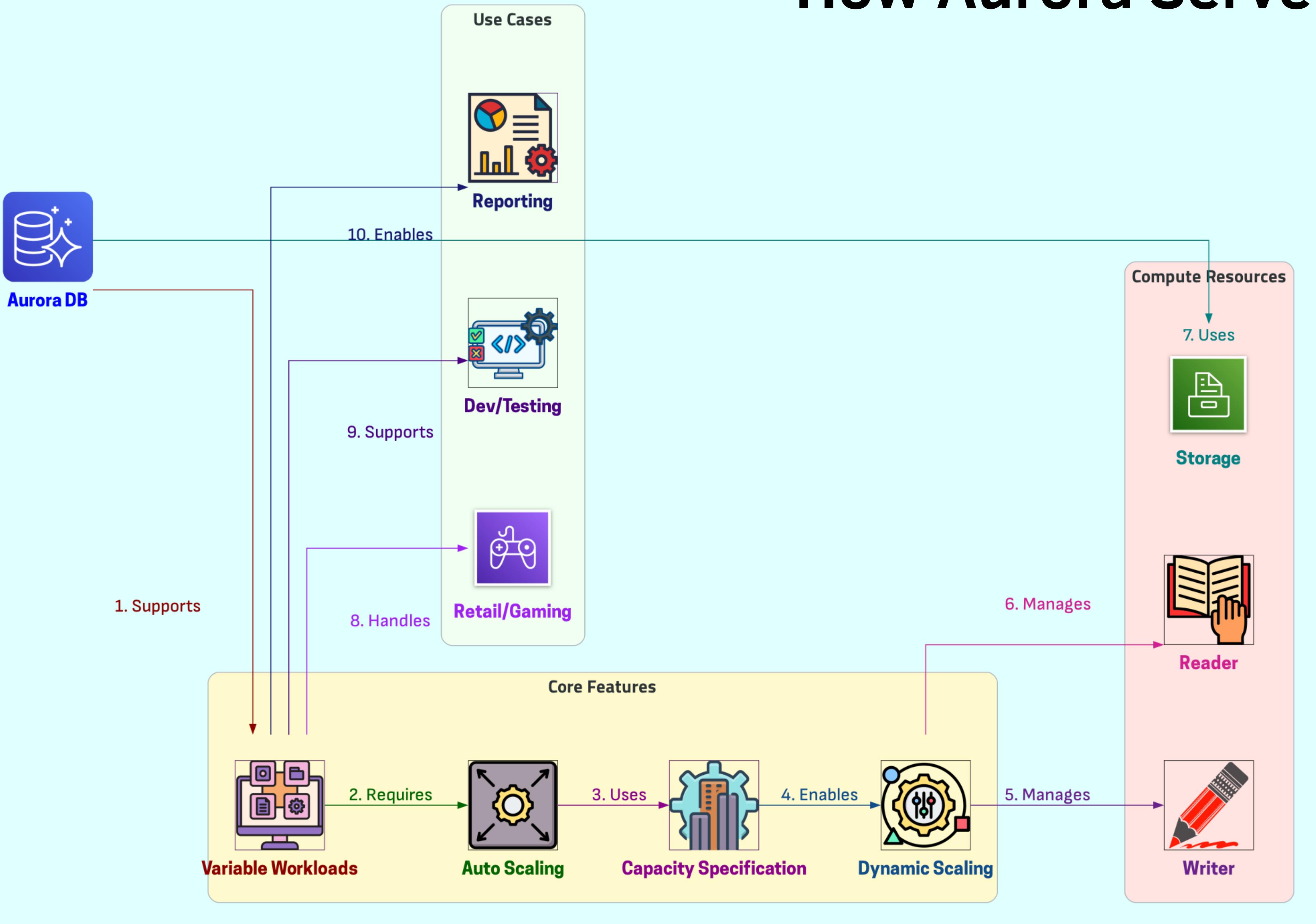


4. **Flexible Capacity**
- Min-max capacity ranges**
- Independent scaling**
- Multi-AZ deployment**
- High availability**

How Aurora Serverless v2 works



How Aurora Serverless v2 works



- 6. **Resource Management**
- Independent storage/compute**
- Terabyte-scale data support**
- Efficient resource utilization**
- Optimized cost management**

1. ACU Definition

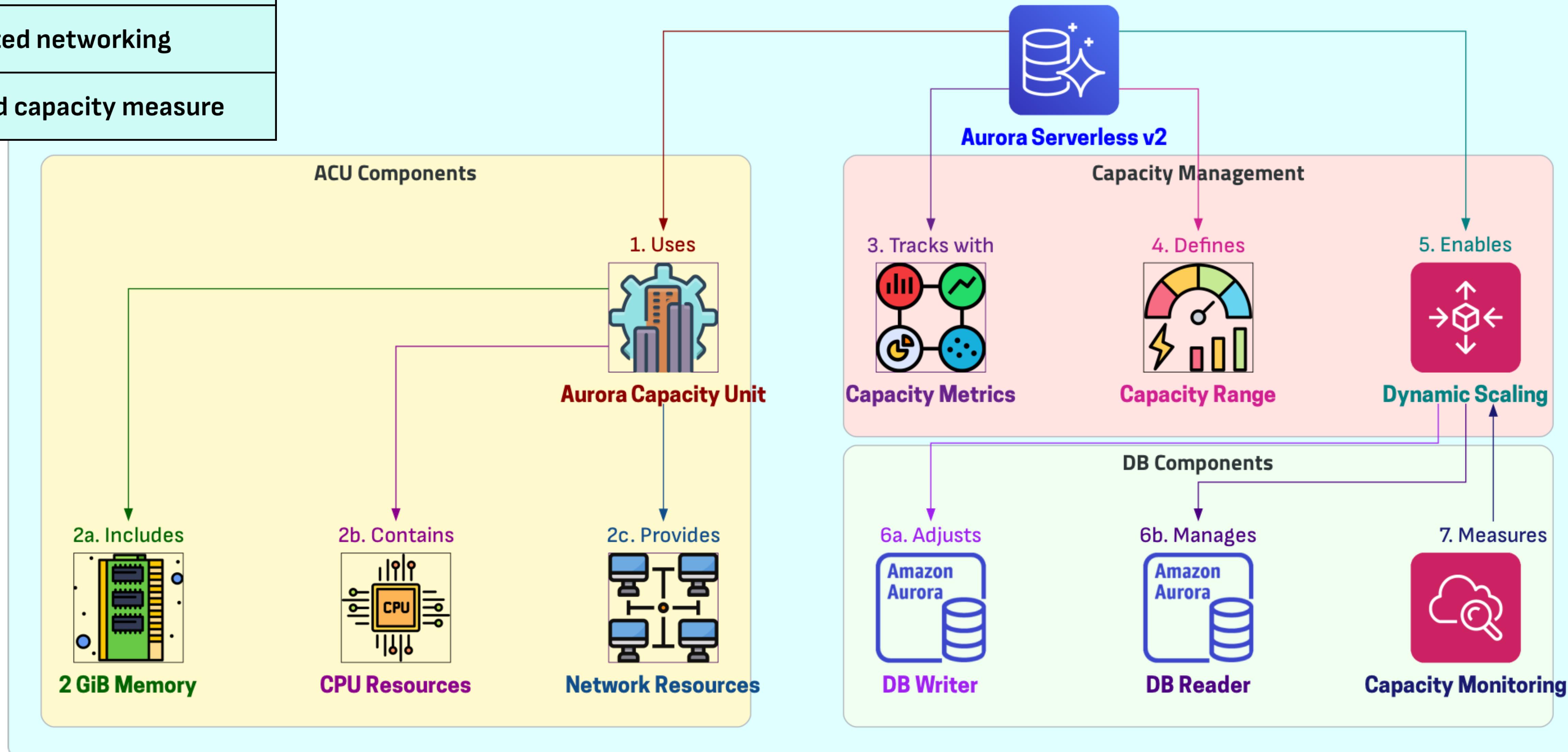
2 GiB memory per unit

Matched CPU resources

Associated networking

Standard capacity measure

Understanding Aurora Capacity Units (ACUs)



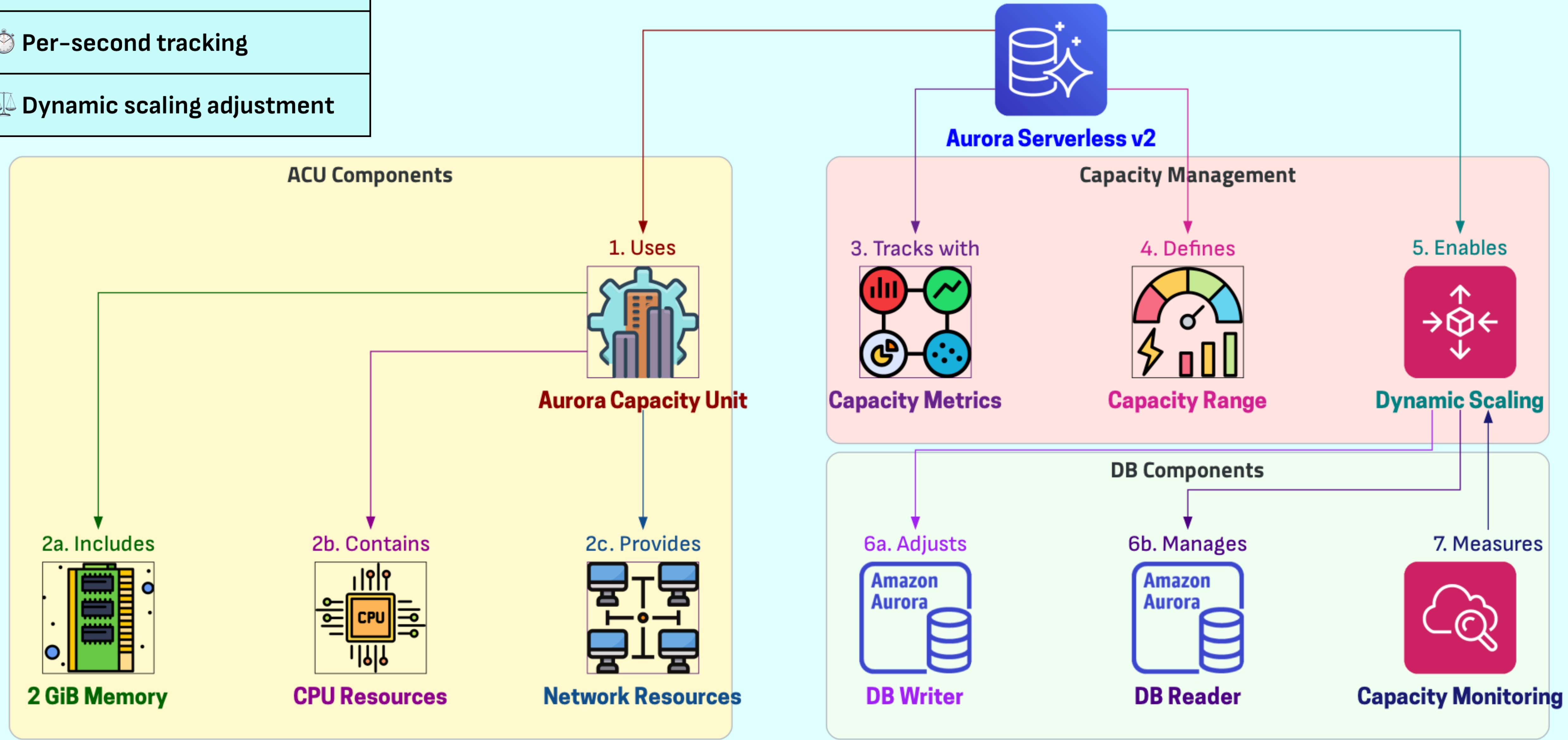
2. Capacity Measurement

1234 Floating-point representation

⌚ Per-second tracking

⚖️ Dynamic scaling adjustment

Understanding Aurora Capacity Units (ACUs)



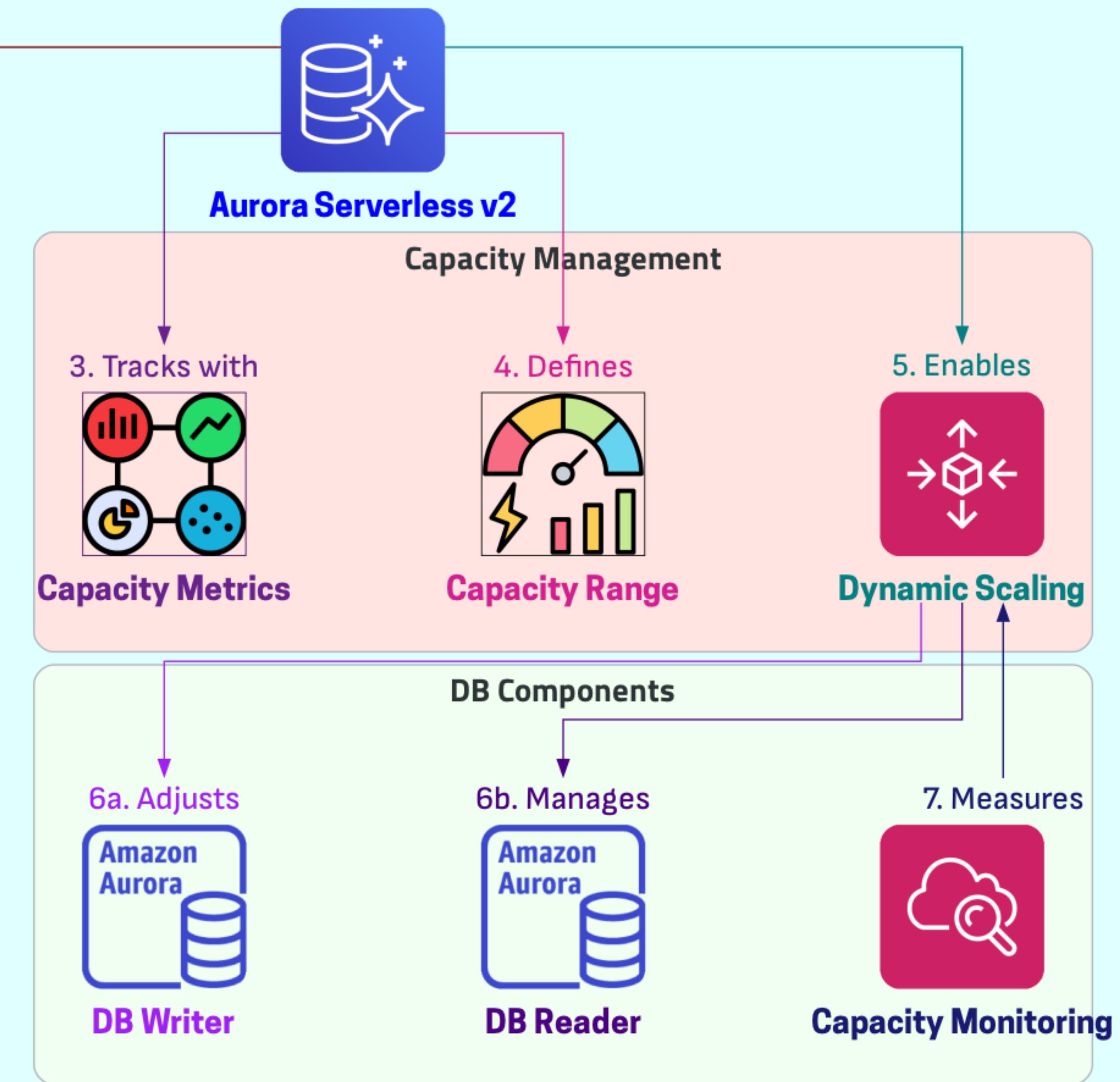
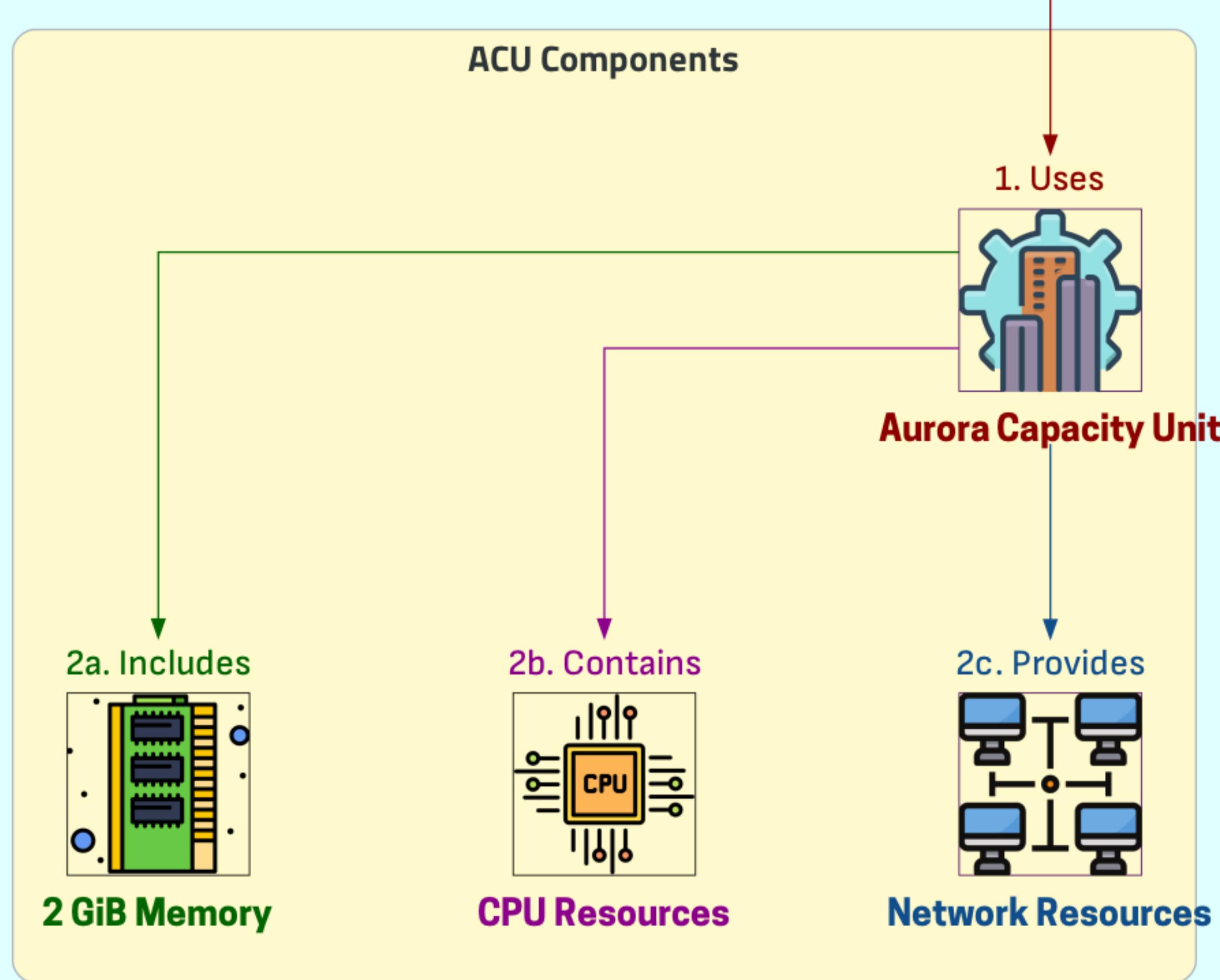
3. Range Configuration

Minimum capacity setting

Maximum capacity setting

Uniform cluster application

Understanding Aurora Capacity Units (ACUs)



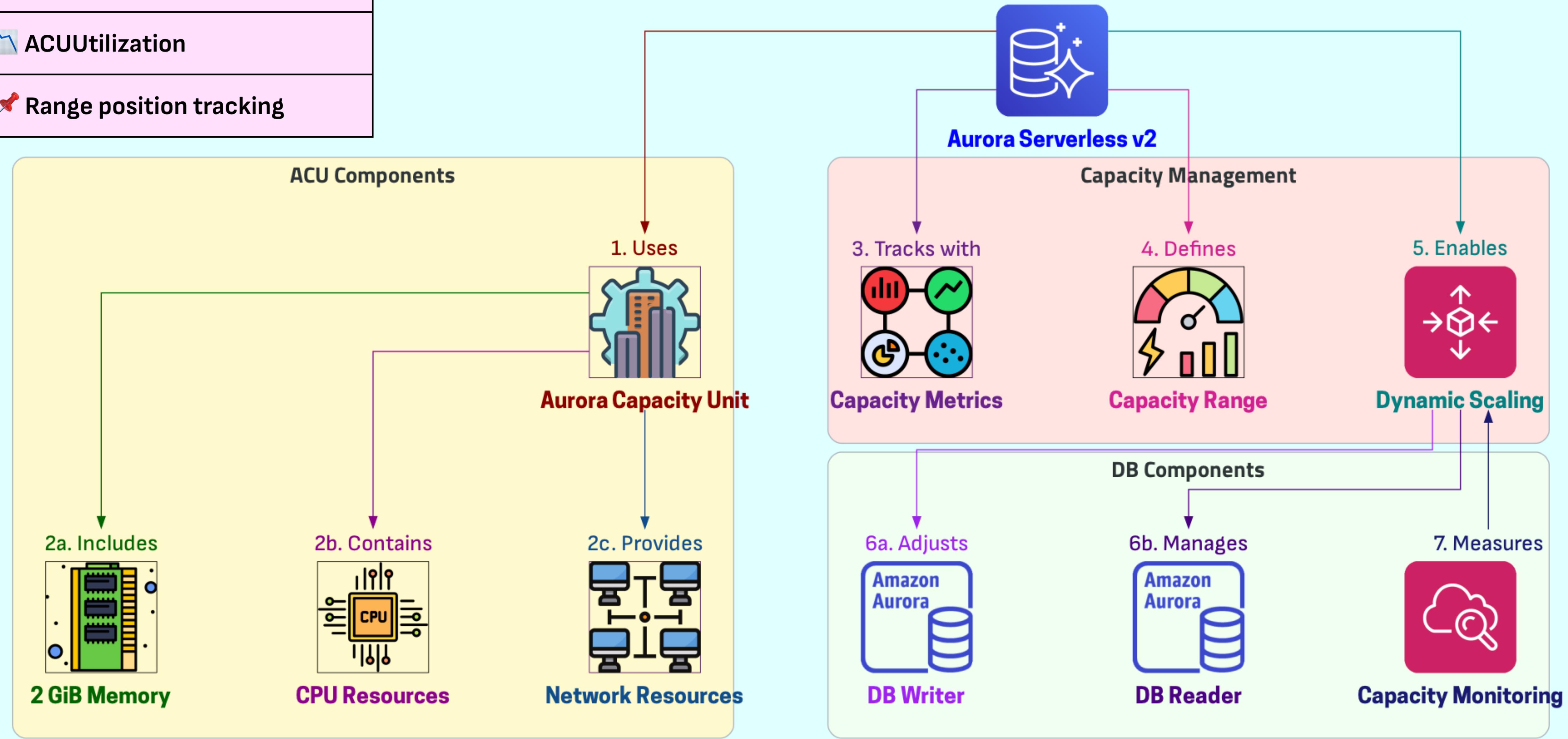
4. Monitoring Metrics

Serverless Database Capacity

ACU Utilization

Range position tracking

Understanding Aurora Capacity Units (ACUs)



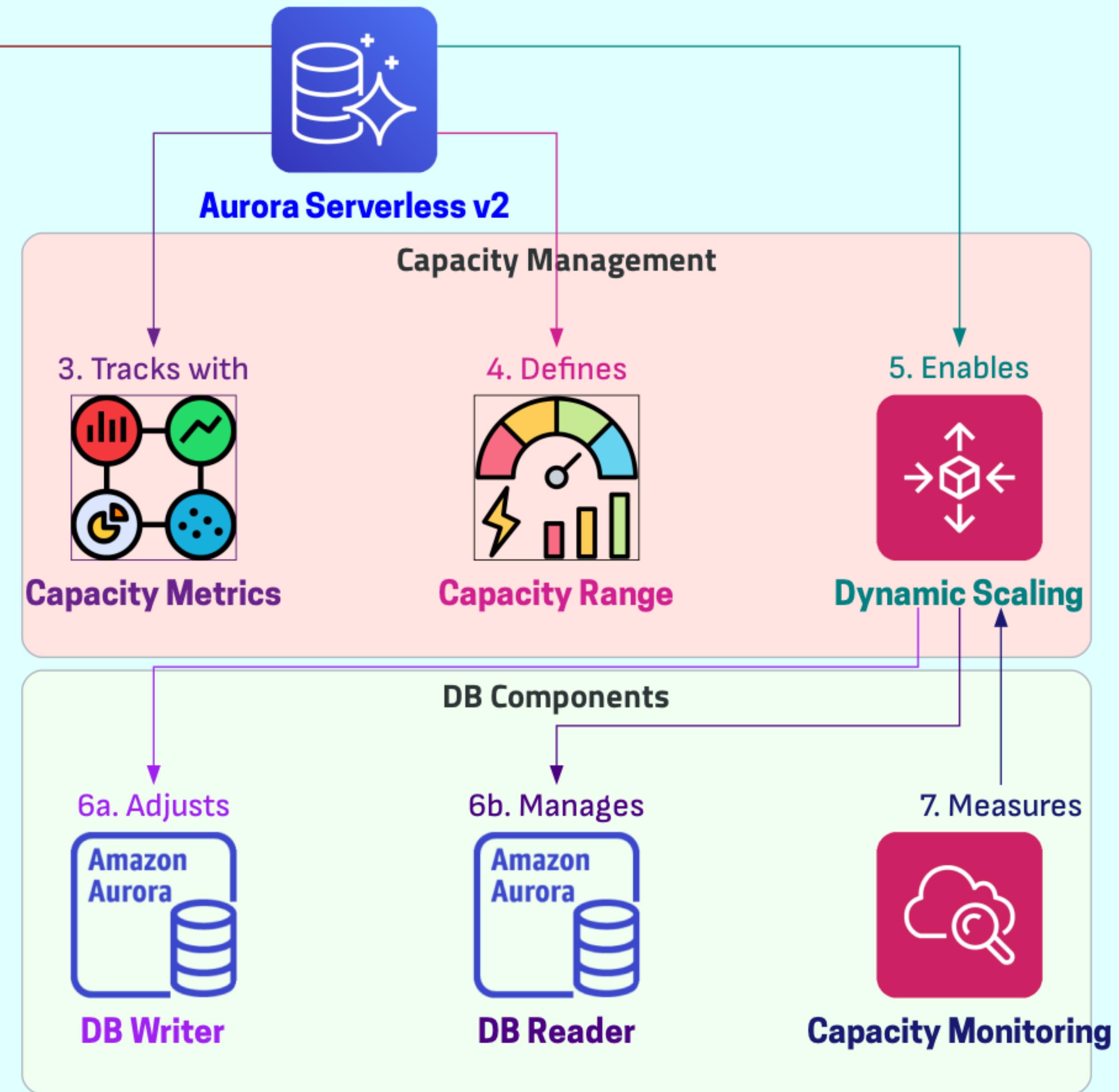
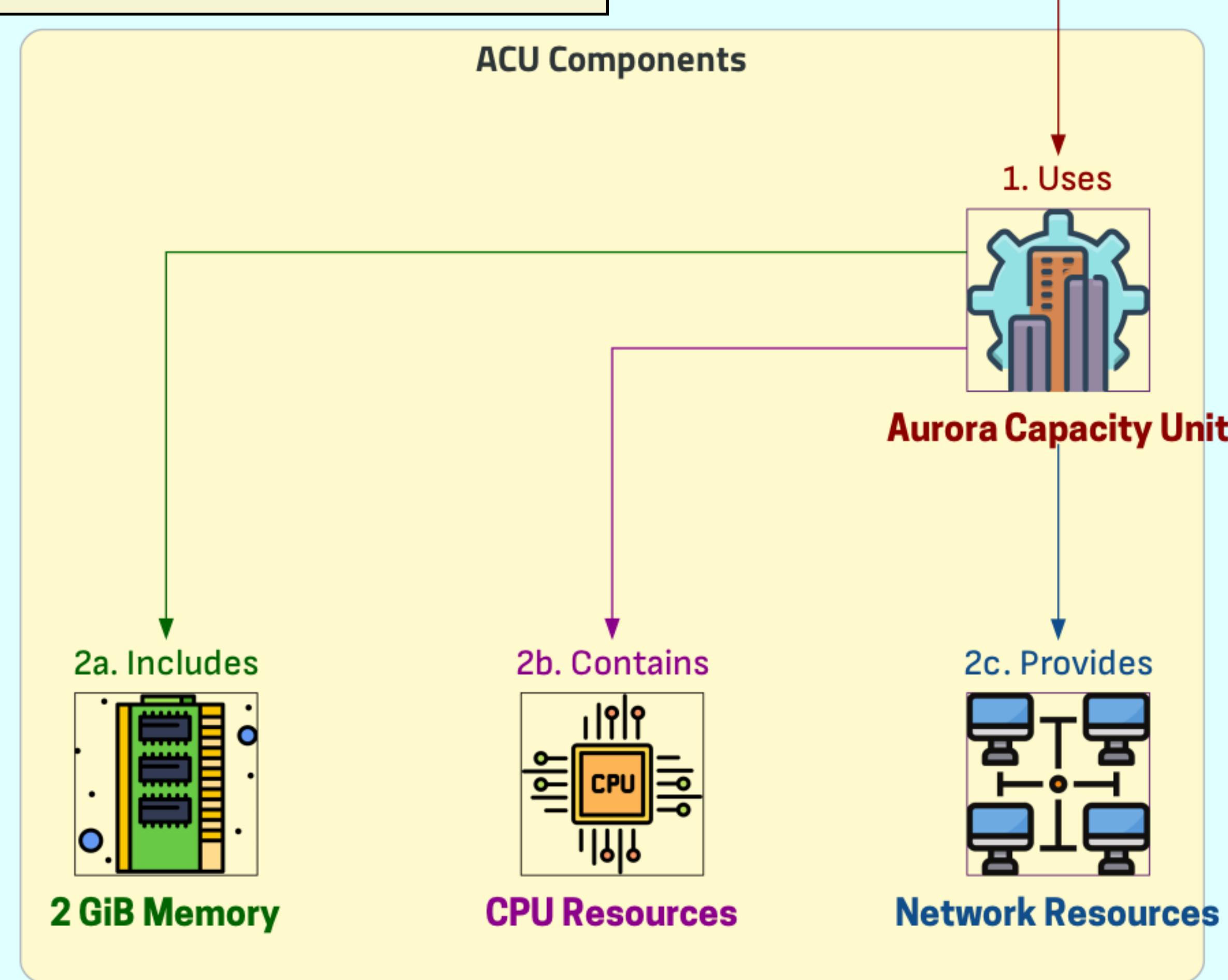
5. 📈 Individual Scaling

🎯 Independent capacity values

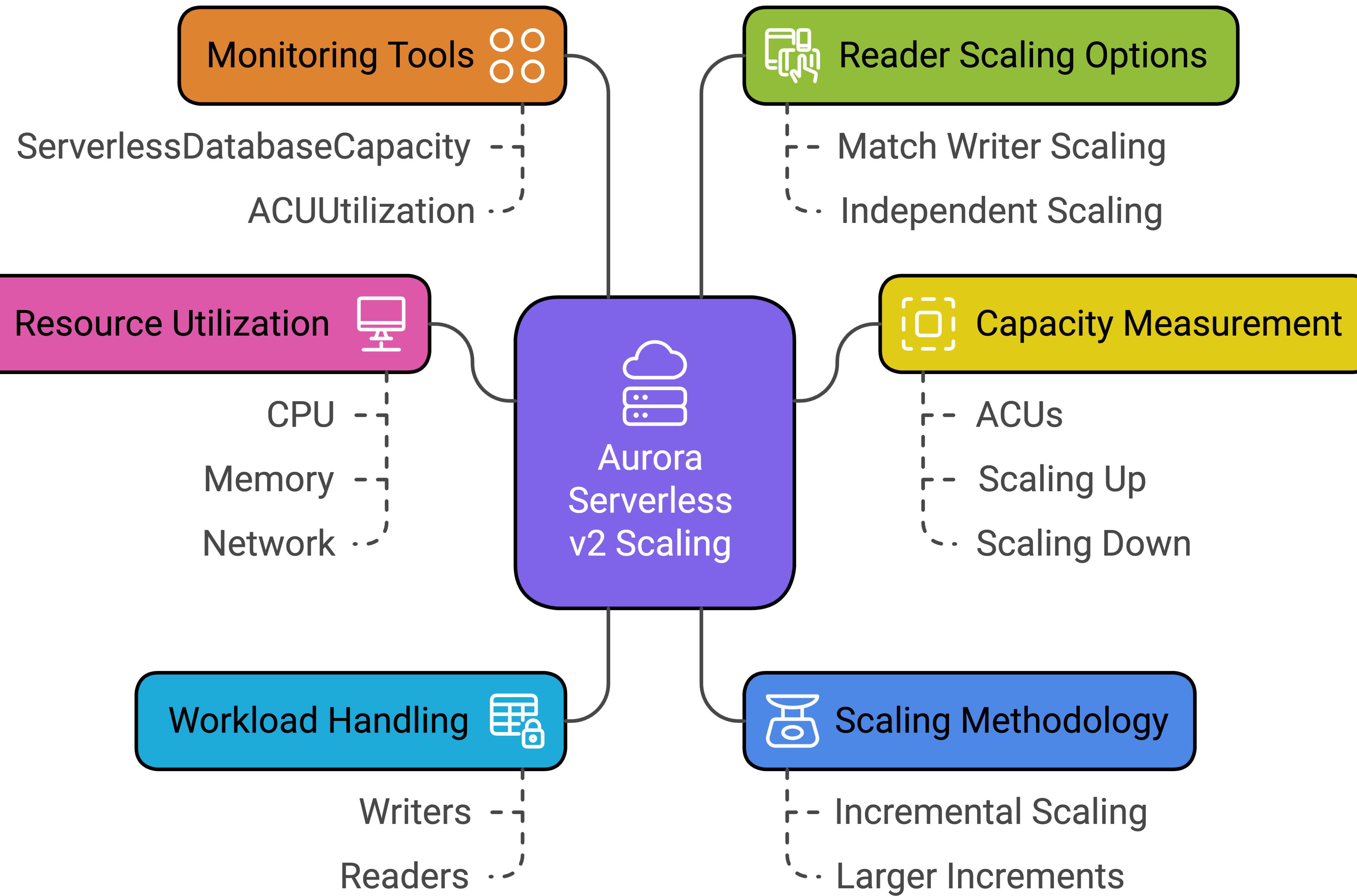
🔒 Shared range boundaries

⚖️ Balanced scaling control

Understanding Aurora Capacity Units (ACUs)

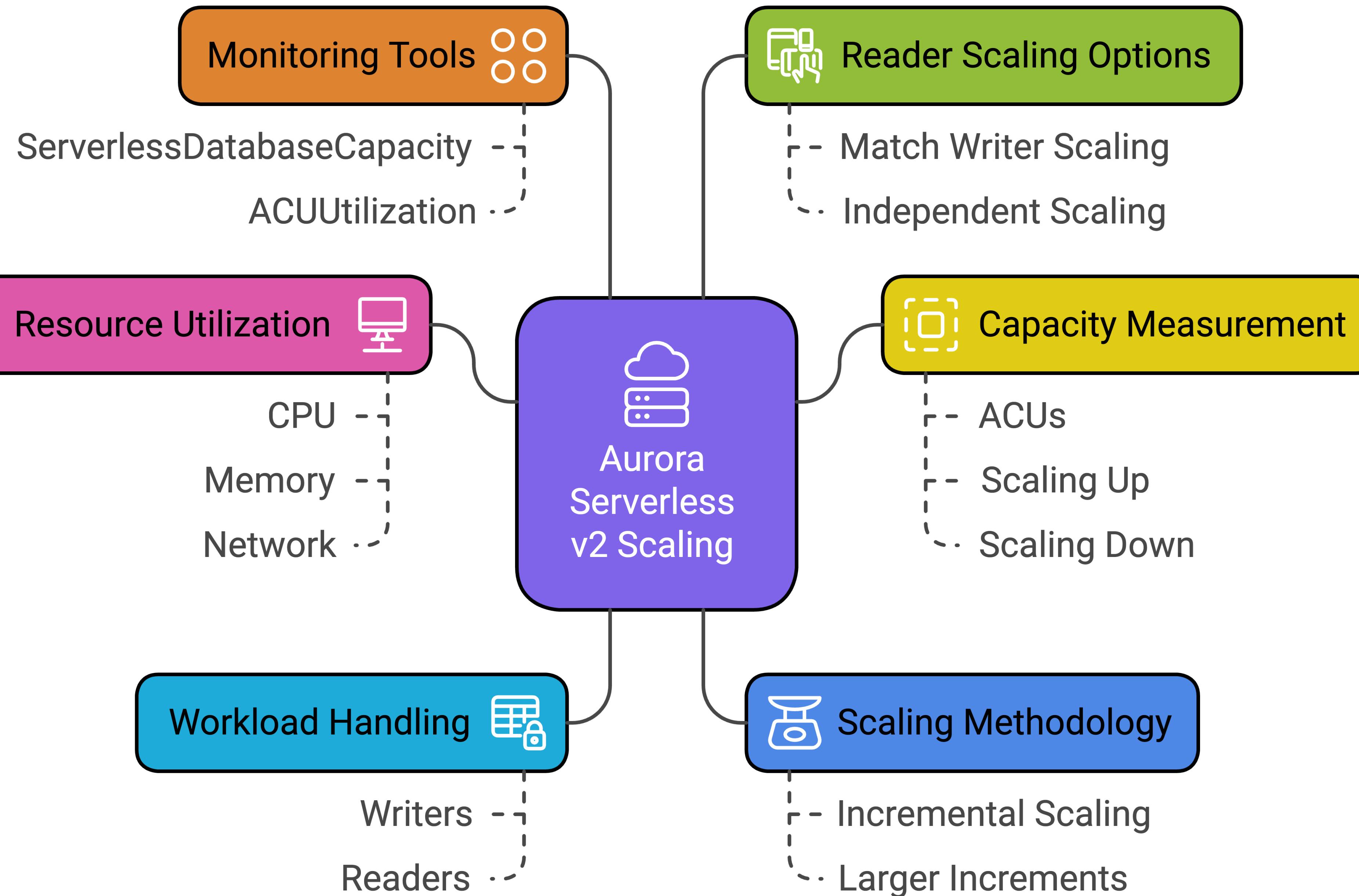


Aurora Serverless v2 scaling



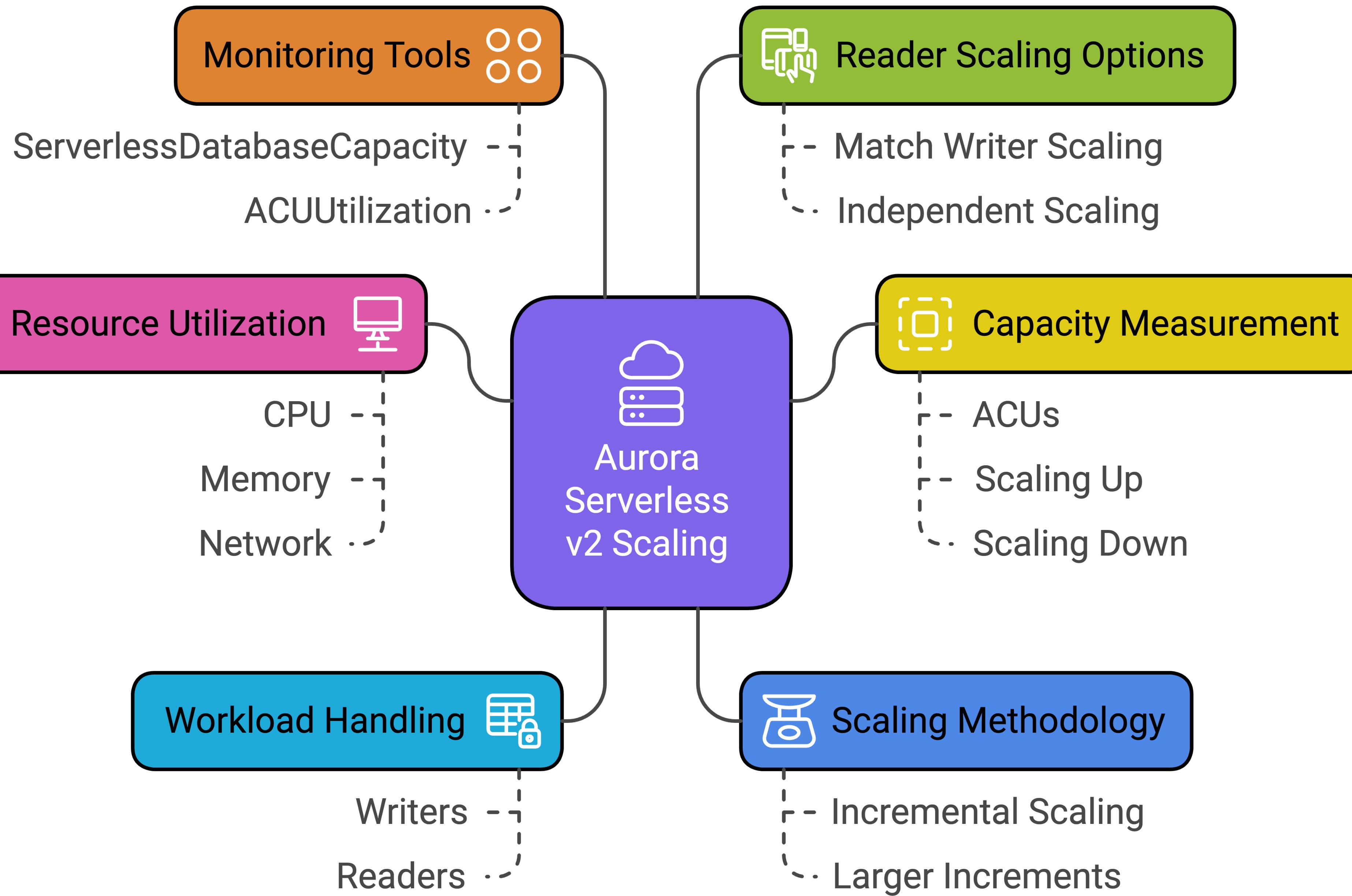
| |
|----------------------------------|
| 1. Resource Monitoring |
| Tracks CPU, memory, network |
| Monitors performance constraints |
| Triggers scaling as needed |
| 2. Workload Distribution |
| Writers handle DDL/modifications |
| Readers process SELECT queries |

Aurora Serverless v2 scaling



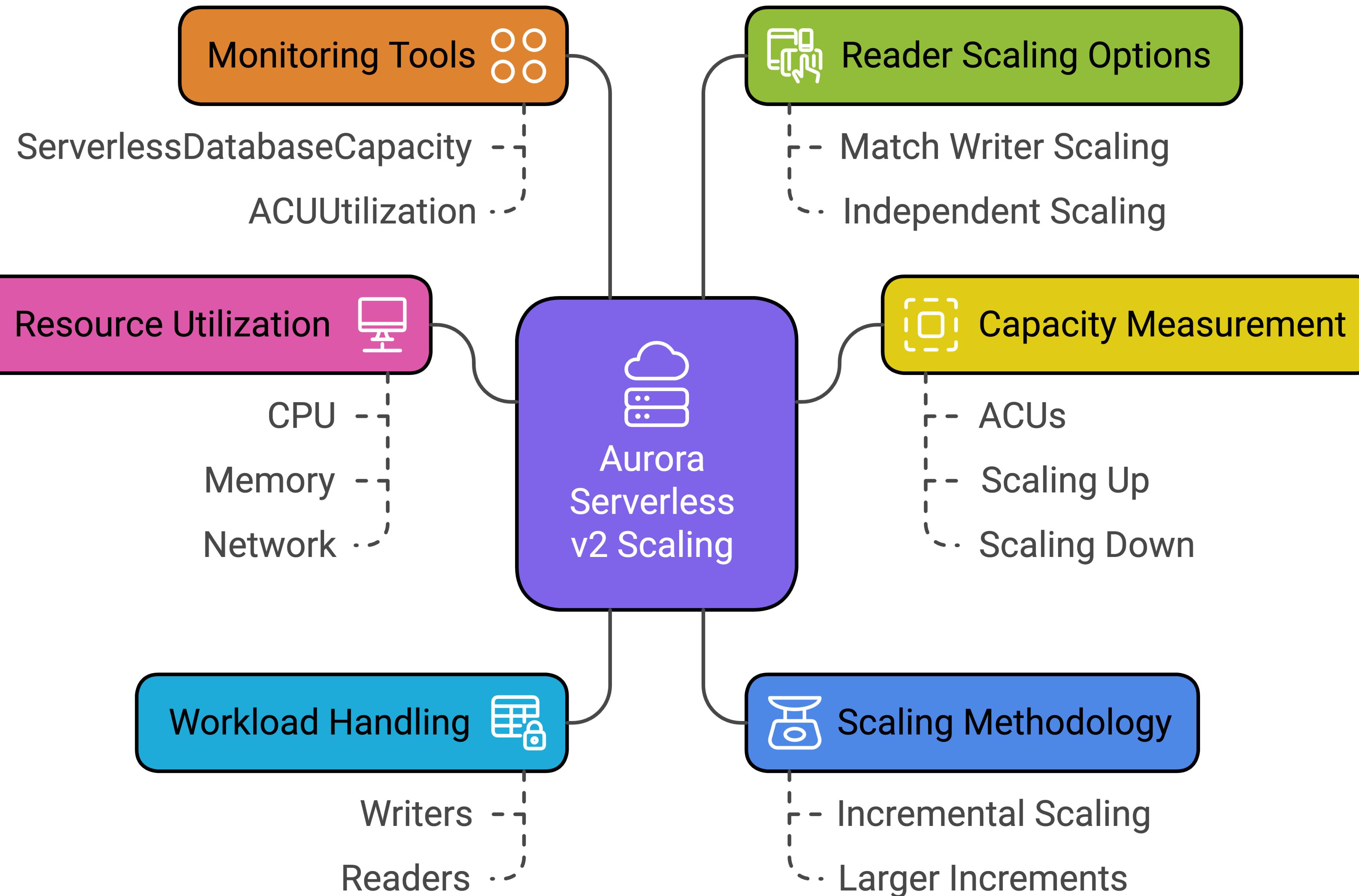
- 3. Capacity Management**
 - Independent ACU measurements
 - Scales up when insufficient
 - Scales down when excess
- 4. Scaling Approach**
 - Minimum 0.5 ACU increments
 - Larger steps at higher capacity
 - Faster scaling at scale

Aurora Serverless v2 scaling



5. **Performance Tracking**
- ServerlessDatabaseCapacity**
- ACUUtilization metrics**
- Continuous monitoring**
6. **Reader Configuration**
 - Tiers 0-1: Match writer scaling**
 - Tiers 2-15: Independent scaling**
 - High availability options**

Aurora Serverless v2 scaling



7. ⚡ Seamless Scaling

No disruption to operations

Active connections maintain

Continuous transactions

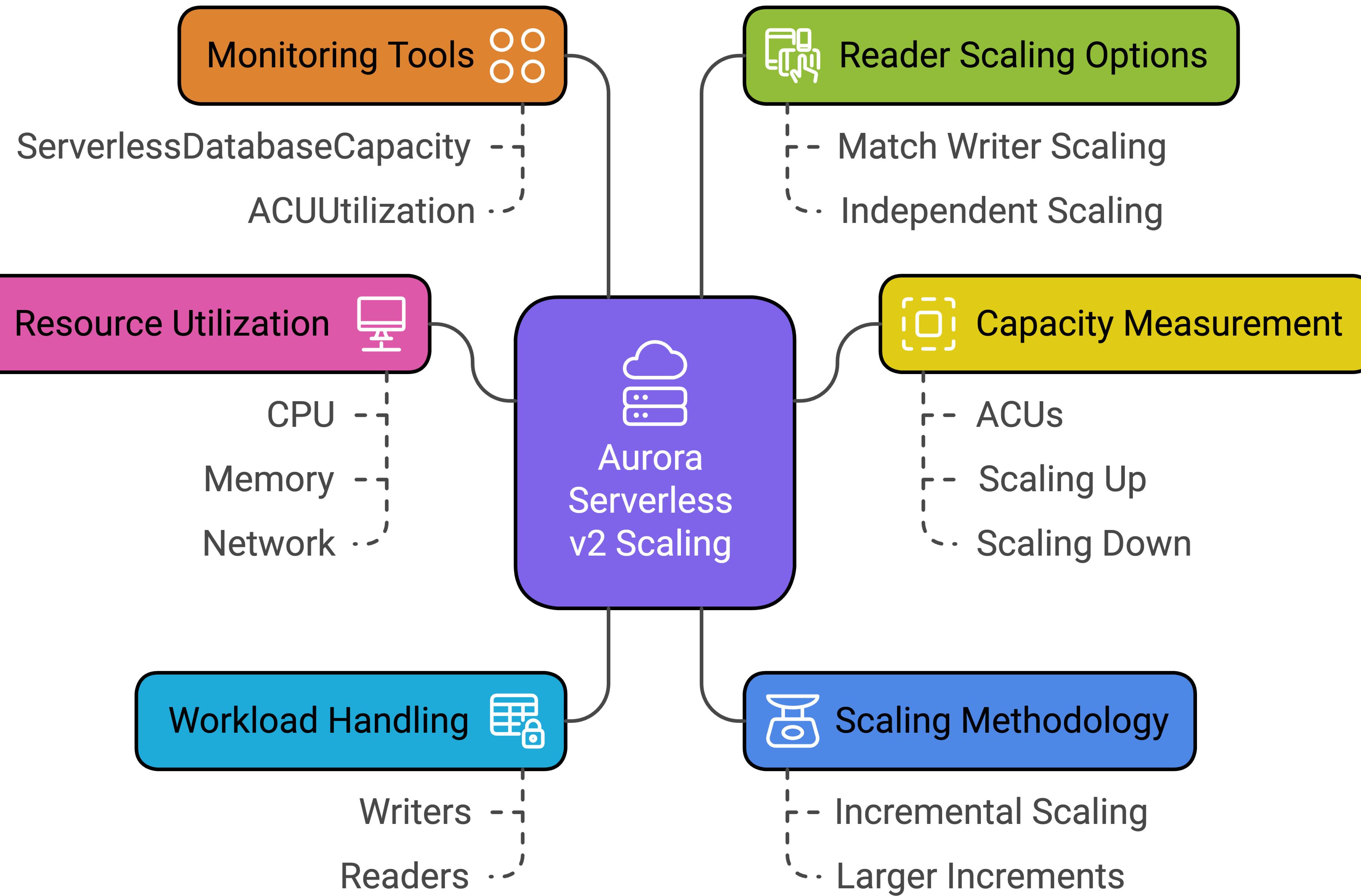
8. 📚 Multiple Readers

+ Add readers as needed

Individual scaling ranges

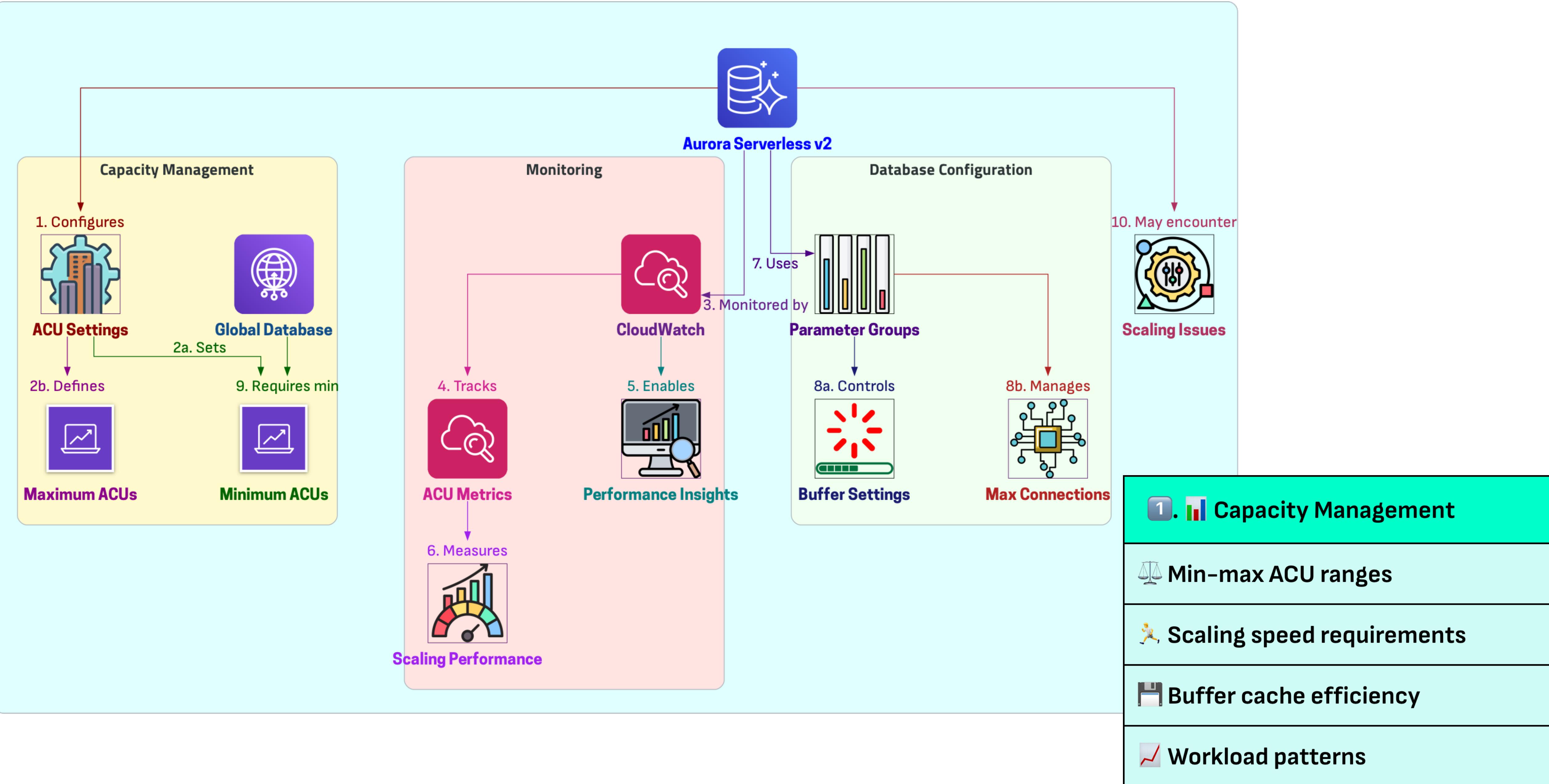
Balanced load handling

Aurora Serverless v2 scaling

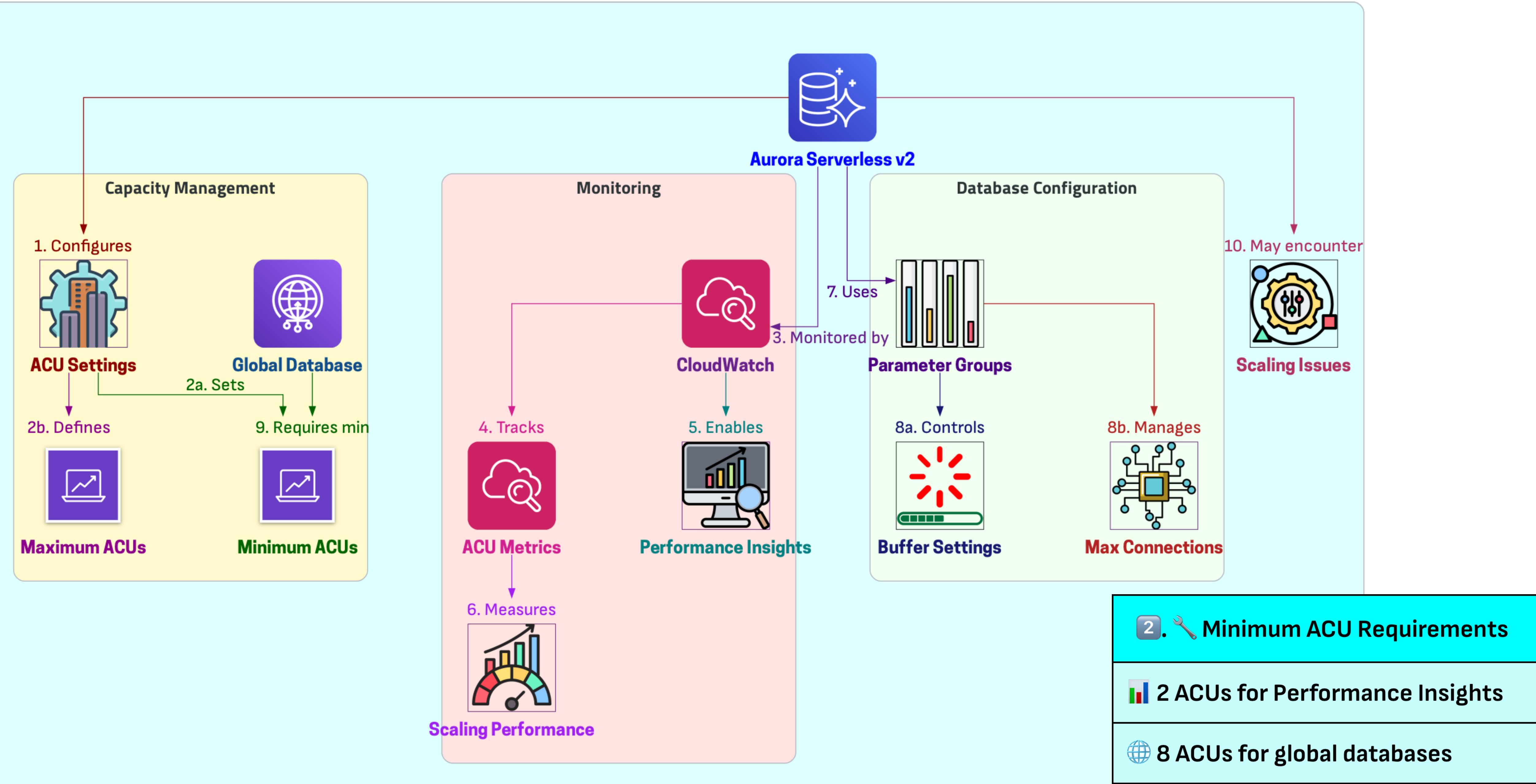


| 9. Scaling Factors |
|-----------------------------|
| Cluster ACU settings |
| Promotion tier config |
| Writer-reader relationships |

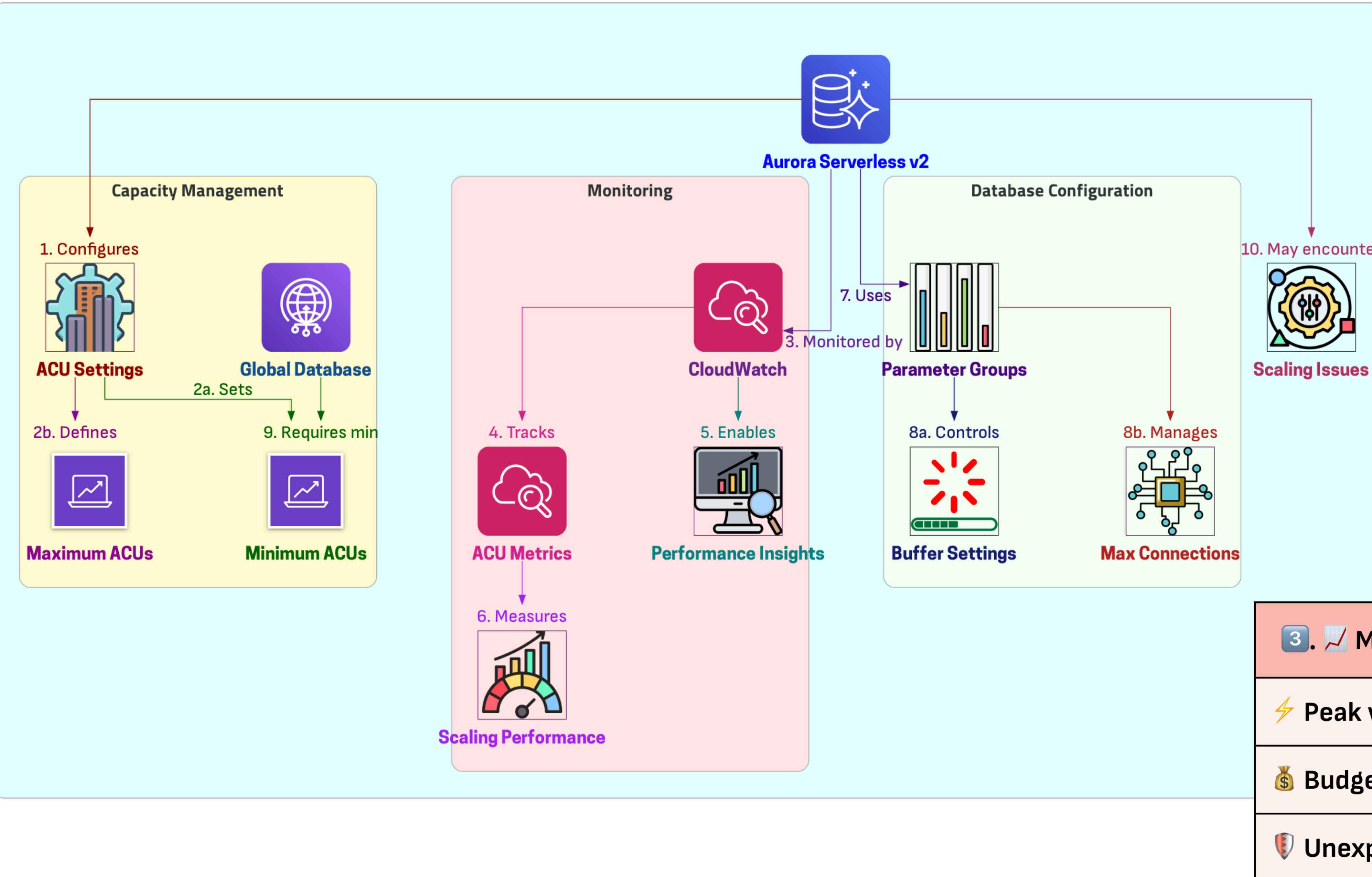
Performance and scaling for Aurora Serverless v2



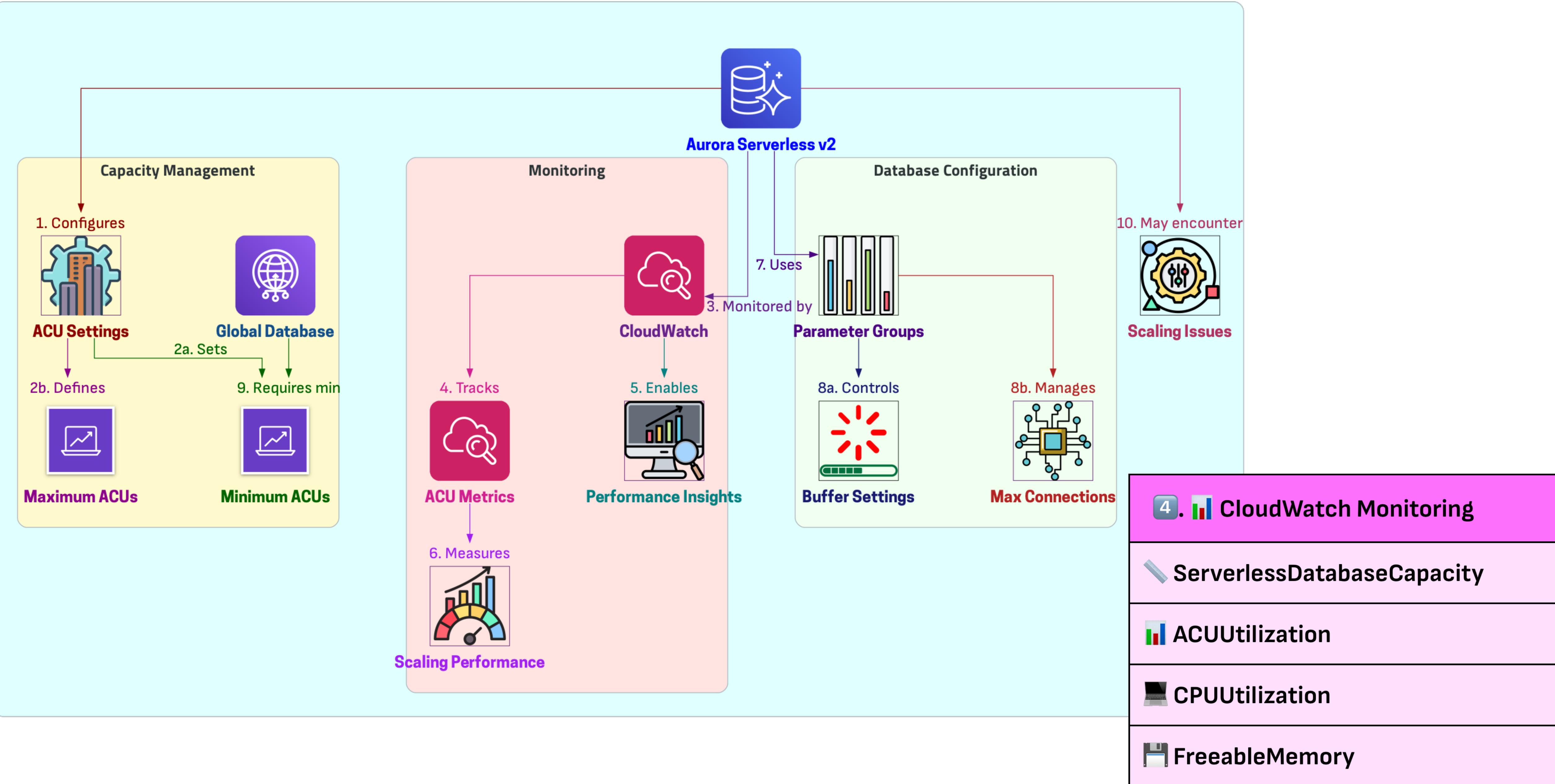
Performance and scaling for Aurora Serverless v2



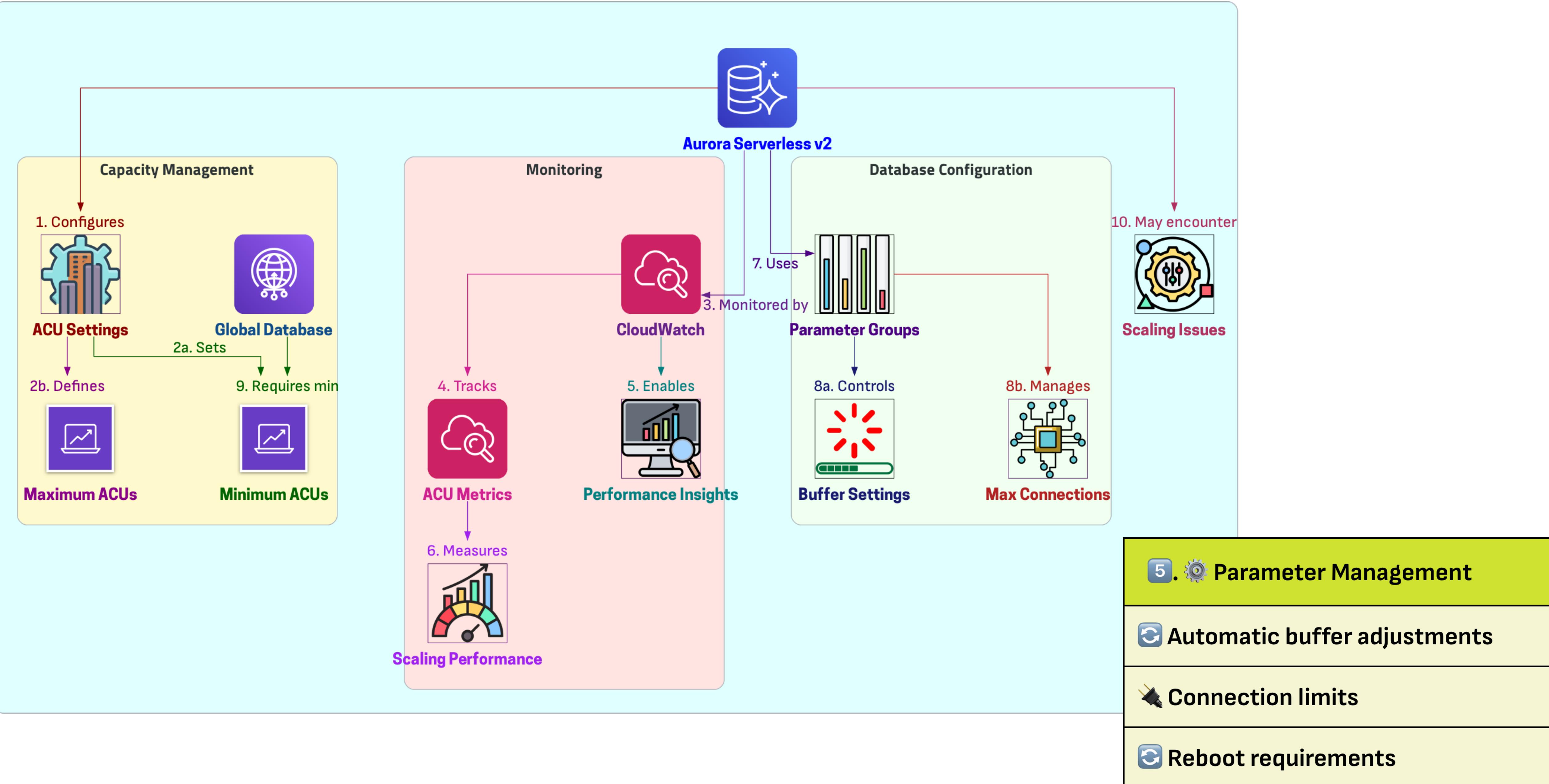
Performance and scaling for Aurora Serverless v2



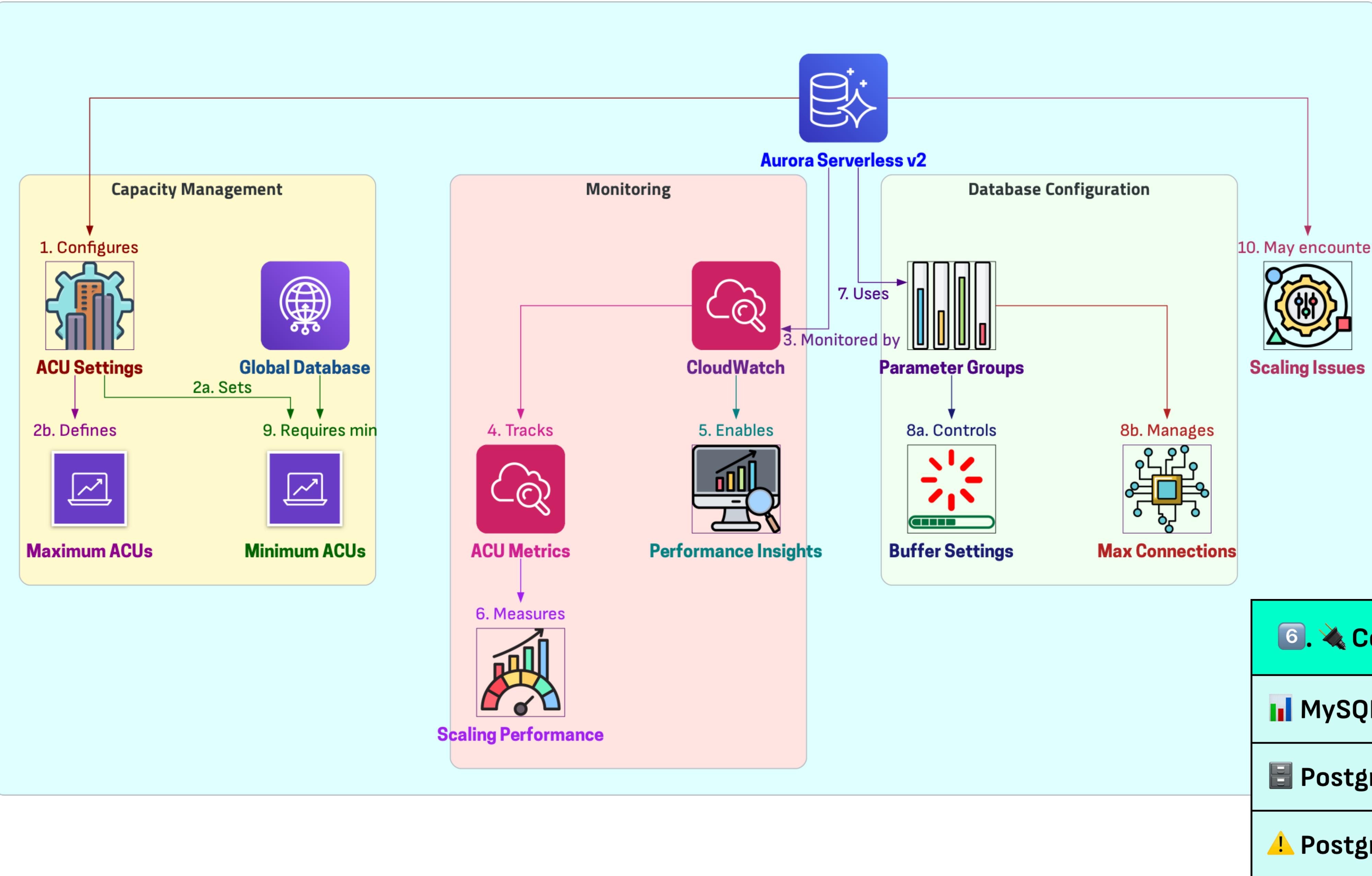
Performance and scaling for Aurora Serverless v2



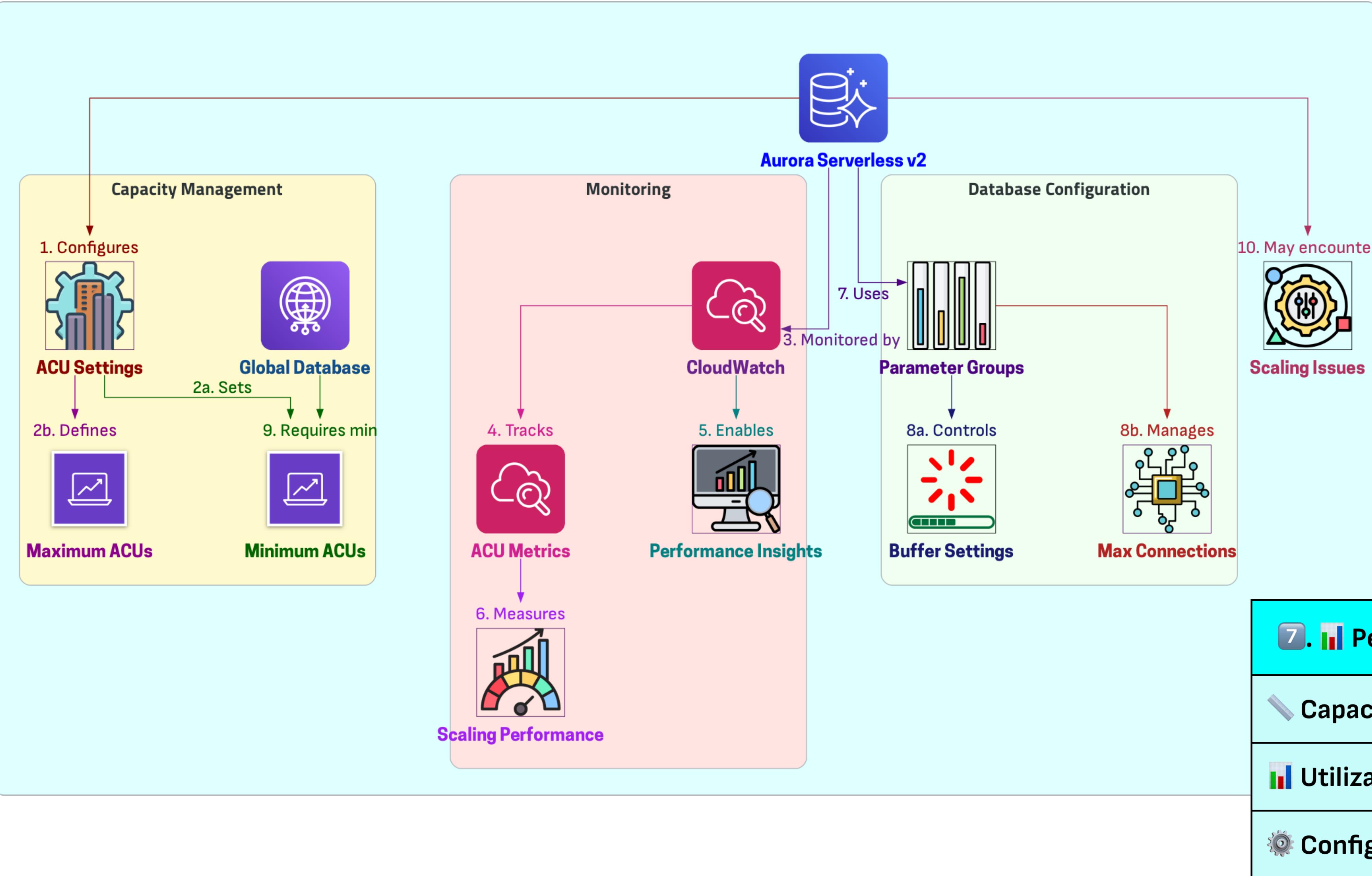
Performance and scaling for Aurora Serverless v2



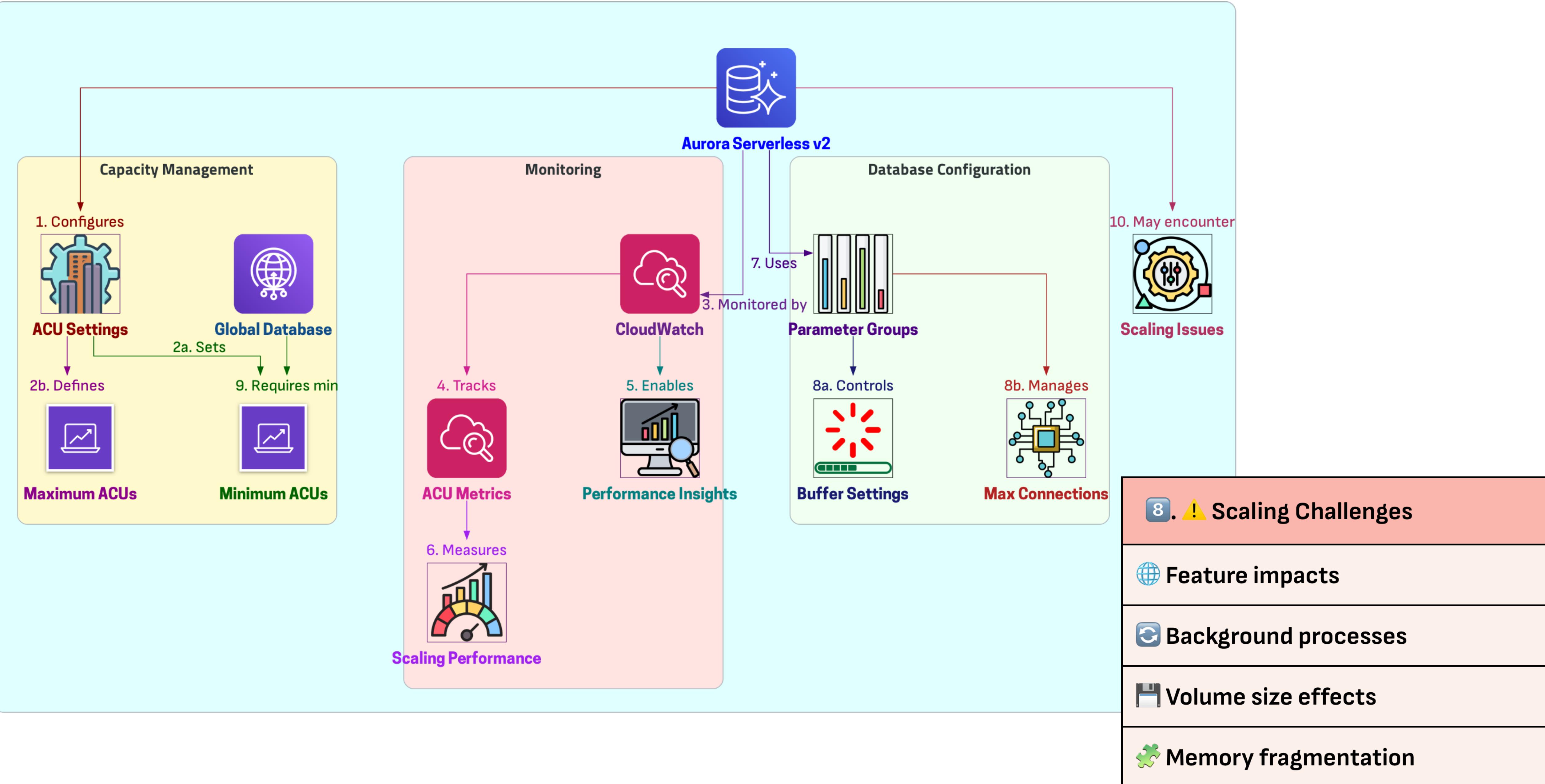
Performance and scaling for Aurora Serverless v2



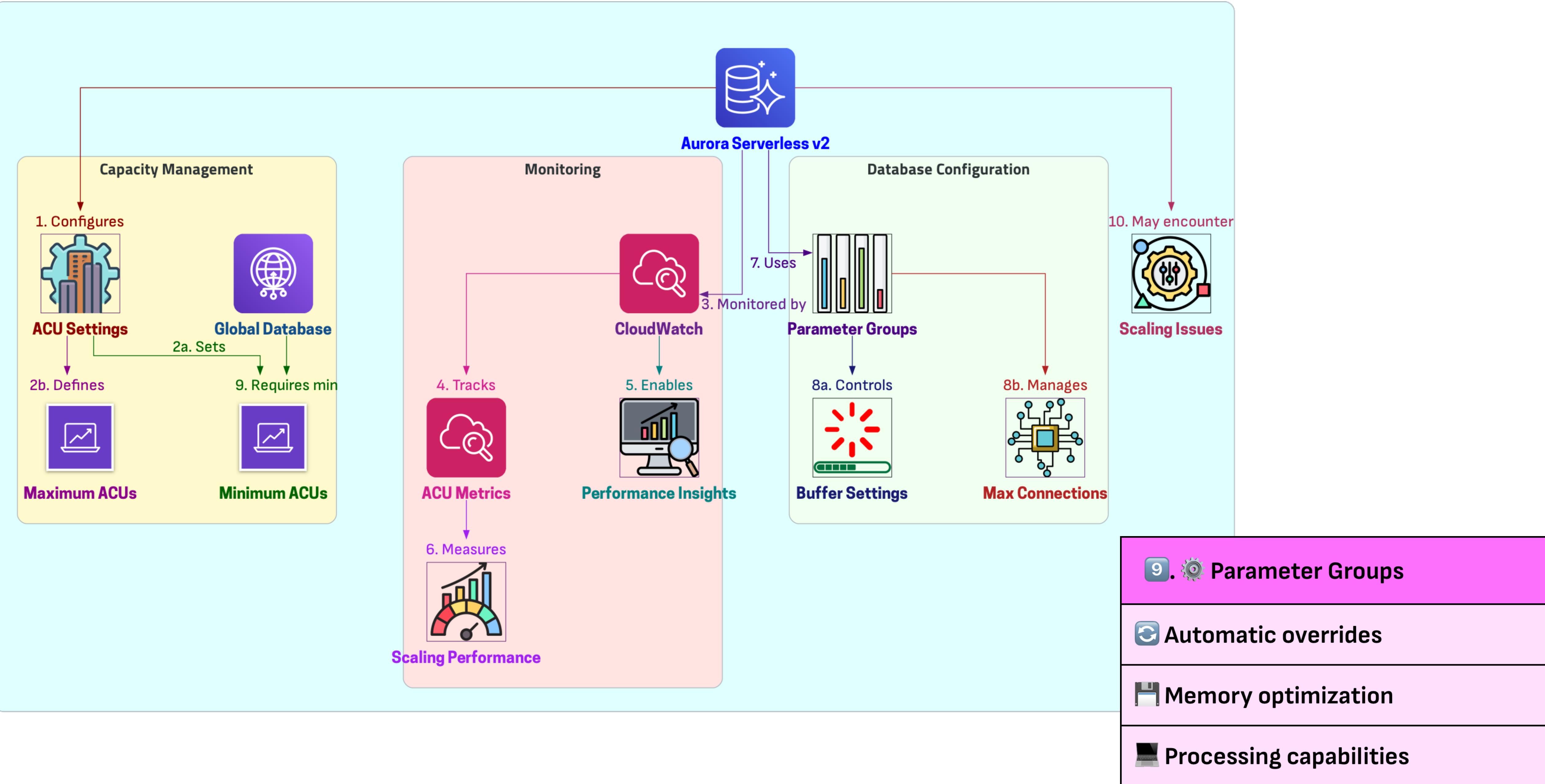
Performance and scaling for Aurora Serverless v2



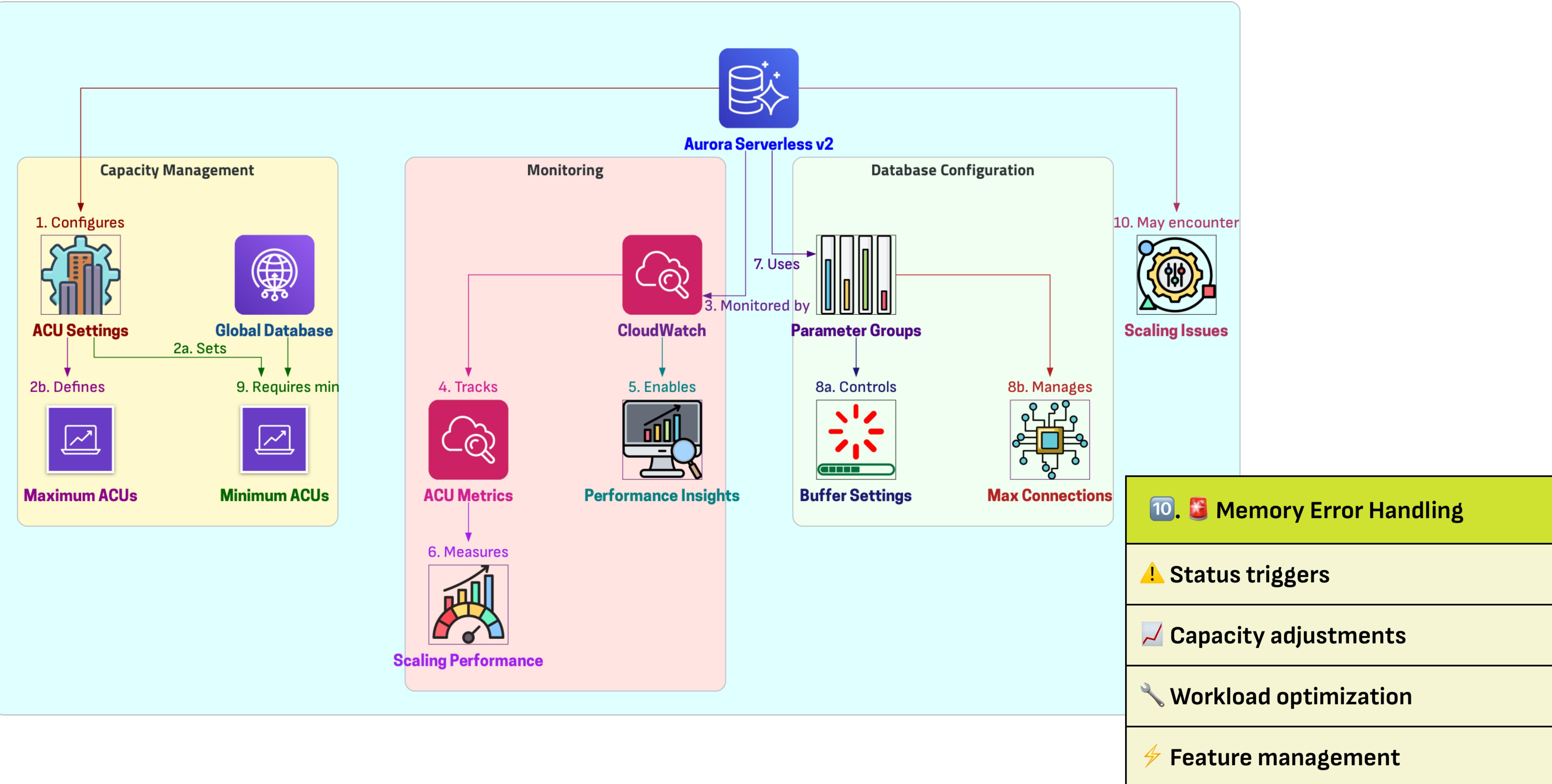
Performance and scaling for Aurora Serverless v2

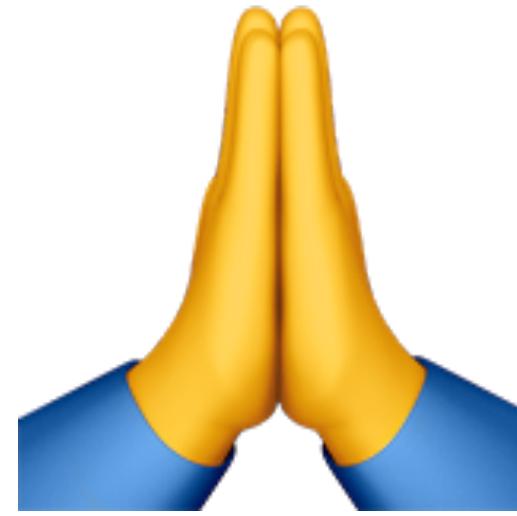


Performance and scaling for Aurora Serverless v2



Performance and scaling for Aurora Serverless v2





**Thanks
for
watching**