



**Survalent.**



**Hasnain Mirza, Product Manager**

# Why Cloud Matters for ADMS Utilities



## Scalable Data Management

Effortlessly handle growing data volumes from DERs, renewables, and smart devices with dynamic cloud scalability.



## Unified Systems Integration

Integrate ADMS, SCADA, OMS, GIS, AMI, and DERMS in real-time for a comprehensive, actionable grid view.



## Operational Agility

Accelerate innovation cycles, enhance disaster recovery, and support renewable energy integration goals.

## Cloud Computing for ADMS Utilities



# Common Concerns

## Security & Compliance

Protecting critical infrastructure from cyber threats while meeting NERC and regulatory standards.

## Legacy OT Integration

Challenges in migrating operational technologies and bridging siloed IT/OT environments.

## Cost Management

Balancing CAPEX vs OPEX under regulatory revenue caps and capitalizing cloud investments.

## Data Privacy & Control

Ensuring data sovereignty and minimizing risks in multi-tenant cloud environments.



# Resolve Cloud Challenges

## Phased Migration Strategy

This reduces risk and builds confidence.

## Dedicated Cloud Resources

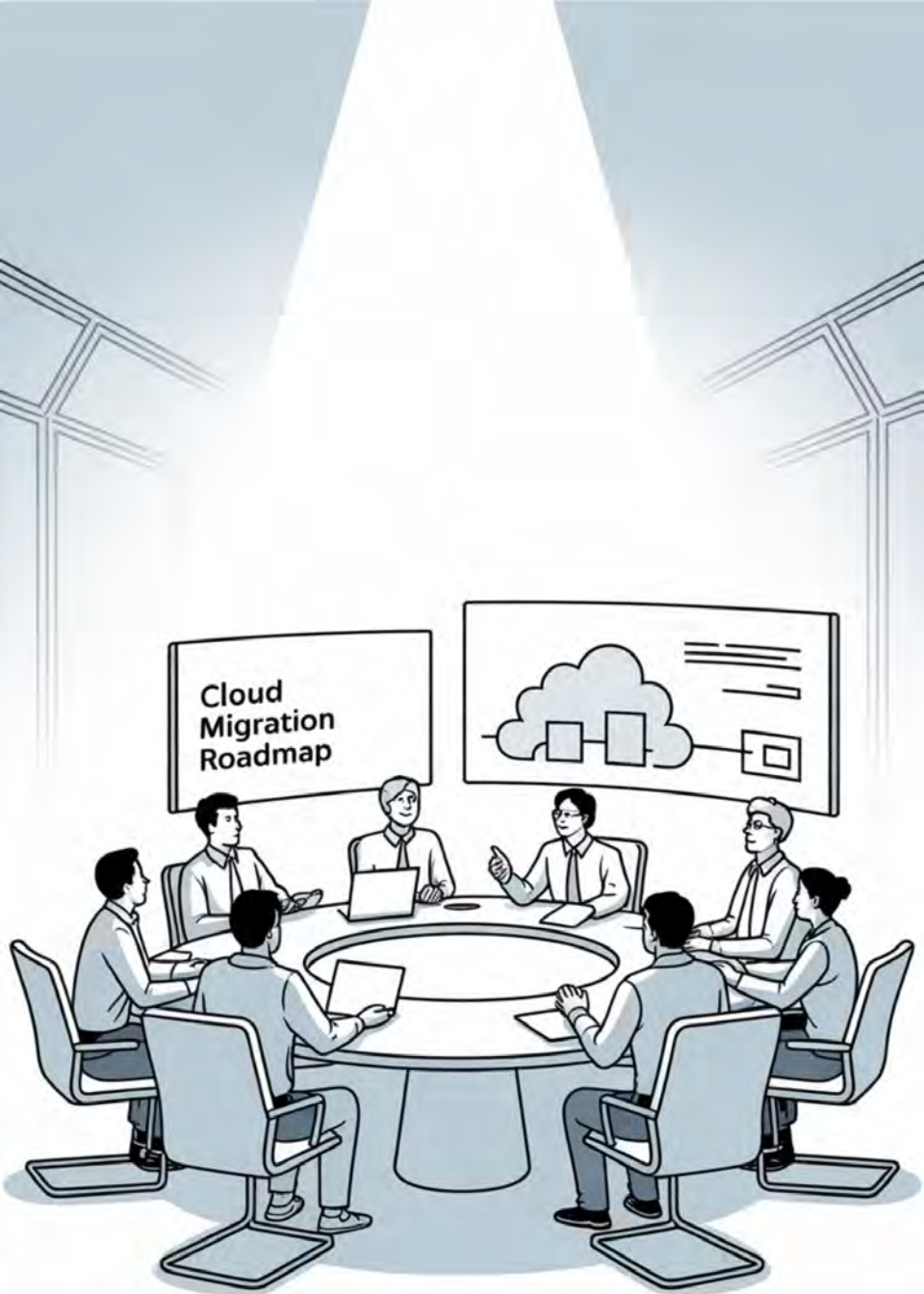
Implement sole-tenant nodes and dedicated hosts

## Cost Optimization

Deploy cloud cost management

## IT/OT Collaboration

Foster cross-functional.







# Cloud Fundamentals: Understanding the Shift

## Cloud Fundamentals: Understanding the Shift

It's about shifting from owning and maintaining physical hardware to consuming computing resources as a service.

### Your Data Center Today

**Physical Hardware:** Owning and maintaining all the hardware

**Manual Management:** In-house teams handles all maintainance.

**Capital Expenditure (CapEx):** Significant upfront investments in infrastructure.

**Fixed Capacity:** Planning for peak loads, often leading to underutilized resources.

### The Cloud: A New Paradigm

**Virtualized Resources:** Accessing on-demand.

**Managed Services:** Providers handle maintenance, security, and scalability.

**Operational Expenditure (OpEx):** Pay-as-you-go model, converting costs to usage.

**Elastic Scaling:** Instantly scale resources up or down based on demand.



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# Cost of moving SurvalentOne to the Cloud



# Core Cloud Pricing Models

1

## **Pay as you go**

Pay per usage hour/second with maximum flexibility, but costs can escalate rapidly if unmanaged

2

## **Reserved / Subscription**

Fixed monthly fees for defined resource allocations, enabling predictable budgeting and cost control

3

## **Spot / Preemptible**

Charges based on number and type of virtual machines (VMs) or containers deployed

# Key Cost Drivers for ADMS & DERMS Cloud Migration



## Compute Resources

Virtual machines or containers running ADMS/DERMS applications, sized by CPU cores and RAM requirements



## Storage

Data retention for operational history, real-time analytics, system backups, and regulatory compliance



## Networking

Data transfer between cloud infrastructure, field devices, control centers, and distributed energy resources



## Support & Maintenance

Cloud provider support plans, ongoing system updates, security patches, and technical assistance



## Data Egress Fees

Often overlooked charges for outbound data transfers from cloud to utility networks and external systems



# Factors Influencing Your Cloud Cost Variability



## Scale of DER Penetration

Higher DER adoption drives increased compute and networking requirements for real-time management



## Data Retention Policies

Longer historical data storage periods significantly increase monthly storage costs



## Cloud Provider Choice

Some vendors provide better prices over the others



## Geographic Region

Regional pricing variations



## Optimization Practices

Rightsizing instances, auto-scaling, and eliminating idle resources reduce operational costs

# Cost Management Best Practices for Small Utilities

01

## Use Cost Estimator Tools

Leverage cloud cost estimators tailored to your specific workloads and usage patterns

02

## Implement Continuous Monitoring

Deploy cloud cost analysis and optimization workflows for ongoing expense management

03

## Negotiate Volume Discounts

Secure Universal Credits or volume discounts for more predictable billing structures

04

## Monitor Data Egress

Design architectures strategically to minimize costly outbound data traffic

05

## Plan Phased Migration

Spread costs over time and validate cost assumptions through incremental deployment



# Survalent Cloud Options

Feature	SurvalentCloud IaaS	SurvalentCloud SaaS
Infrastructure Management	✓ Full responsibility (VMs, VPNs, OS)	✓ Included as part of the service
Cybersecurity & Patch Updates	✓ ISO 27001-aligned, managed by Survalent	✓ Included (inherited from IaaS)
Survalent Software	☐ Customer-owned	✓ Subscription-based, included
Survalent Support	☐ Customer-owned	✓ Subscription-based, included
User & RBAC Administration	✓ Infrastructure-level control	✓ Infrastructure-level control
Ideal For	Existing customers with limited IT staff	New customers without existing licenses
License Ownership	Customer retains software licenses	Survalent owns and provides licenses

## Enhanced Security and Isolation:

- Each customer's data is completely isolated.
- Tailored security measures specific to each customer's requirements

## Performance and Reliability:

- Dedicated resources
- Implement high availability and disaster recovery solutions



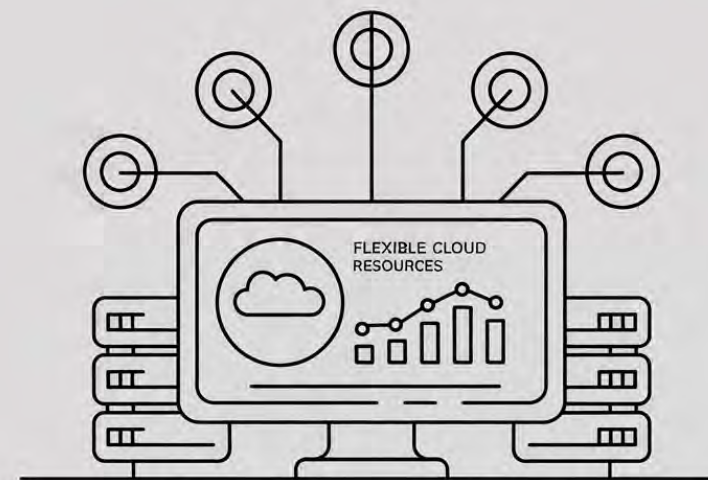


## Scalability and Flexibility:

- Scale resources up or down as needed
- Perform upgrades and maintenance at times convenient for the customer, with minimal disruption

## Customization and Control:

- Full control over resource allocation and management
- Ability to implement custom configurations and integrations



# SurvalentCloud Interface to 3rd Party



## Standard Integration Methods

- MultiSpeak Web Services for AMI, OMS, and CIS integration
- SQL Tables for historical data access and reporting
- Flat Files via SFTP or Shared Folders for batch processing
- API Suite: SCADA API, OMS API, Notifications API for real-time integration

## Cloud-Native Integration Services

- Azure Logic Apps for workflow automation and system orchestration
- Azure Data Factory for ETL processes and data warehousing
- Azure Webhooks for event-driven integrations and notifications
- Azure Stream Analytics for real-time data processing from grid devices

**ADMS** Advanced Distribution Management System



## **Dedicated Support:**

- **Specialized Teams:** Our support teams are intimately familiar with your unique environment, providing expert assistance tailored to your specific needs.
- **Rapid Response:** Fast and efficient support to minimize downtime and address any issues promptly.

## **Customization and Control:**

- **Continuous Monitoring:** Regular monitoring to detect and address potential issues before they impact your operations
- **Preventative Measures:** Implement proactive maintenance strategies to ensure system reliability and stability.

## Service Level Agreement:

- Our Service Level Agreements (SLAs) offer 24/7 support and can be tailored to your needs, with tier options such as Silver, Gold, and Platinum.
- Monitor and Support directly by our Support Team. Benefit from 24x7 telephone emergency support or through our Support Portal.

## Annual Software Upgrades:

- Patch Management: Regularly apply updates and upgrades to address cybersecurity vulnerabilities.
- Latest Technology: Annual upgrades to the latest versions of Microsoft OS, SQL Server, and Survalent Applications.



# Next Steps: Your Cloud Journey

01

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## Schedule Detailed Consultation

Work with our account managers to assess your specific requirements and design a customized cloud strategy aligned with your operational goals and constraints.

02

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## Develop Migration Plan

Create a comprehensive roadmap with clear milestones, resource requirements, and risk mitigation strategies tailored to your organization's capabilities and timeline.

03

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## Begin Pilot Implementation

Start your cloud journey with a carefully planned pilot deployment that demonstrates value while building internal expertise and confidence.



# Next Steps: Your Cloud Journey

Come talk to us..



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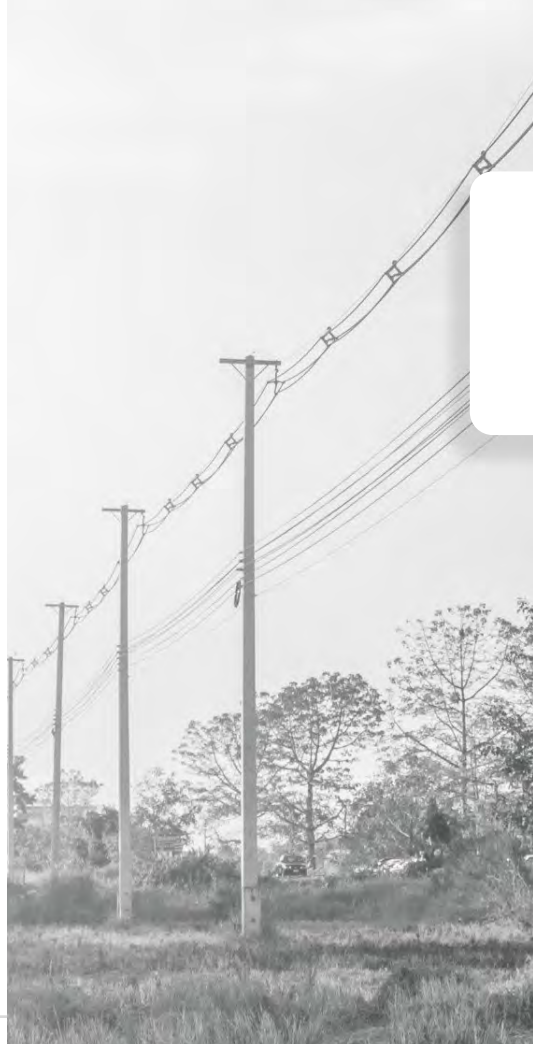
Vice President of Product  
Management



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# Questions



**Thank You**