



## **AWS Use Case: PassportCard by DavidShield Group**

### **MSP Success Story - Global Health Insurance Innovation**

#### **Company Overview**

Founded in 1999 by Alon Ketzeff, the DavidShield - PassportCard Group was born from a vision to meet the unique health insurance needs of those living or traveling abroad. Driven by an understanding of the challenges involved in accessing healthcare outside one's home country, the group pioneered a groundbreaking real-time payment solution. With the PassportCard, a dedicated debit card, our members can pay for medical services directly at the point of care, eliminating claims, paperwork, and out-of-pocket expenses.

Since those early days, and with a long list of patented innovations, PassportCard has expanded services to meet the needs of travelers, expatriates, digital nomads, and individuals seeking comprehensive global health coverage.

Today, PassportCard stands alone as the only health insurance provider offering real-time, cashless payment capabilities in over 150 countries. Supported by a team of 1,000 employees, an innovation hub in Tel Aviv, and sales and customer support centers across Germany, Australia, and Israel, PassportCard is a leader in cross-border health insurance, service, and technology.

**Mission:** To revolutionize the insurance experience through state-of-the-art technology and a client-centered approach, building strong, trust-based relationships that inspire customers to choose them, time and again.

**Vision:** To be the world's leading Cross Borders A&H insurance group, delivering exceptional service and building trust with every interaction - No Matter What!

#### **Industry: Healthcare & Financial Services**

Headquarters: Tel Aviv, Israel

Global Presence: 150+ countries

Employees: 1,000+

#### **Executive Summary**



PassportCard, a global leader in cross-border health insurance, partnered with Cloudride, an AWS Premier Tier Services Partner and MSP, to transform their legacy infrastructure into a modern, cloud-native architecture. Operating across 150+ countries with real-time payment processing requirements 24/7/365, PassportCard needed a scalable, secure, and compliant infrastructure to support their innovative cashless healthcare payment solution.

Cloudride delivered comprehensive MSP services including cloud migration strategy, 24/7 monitoring and support through Orca Security, ongoing DevOps & Cloud Architecture consulting, FinOps optimization, and DevSecOps services ensuring regulatory compliance across multiple jurisdictions. The result: 99.99% uptime for critical payment systems, enhanced security posture, and significant cost optimization while meeting stringent healthcare data regulations including GDPR, HIPAA-equivalent standards, and financial services compliance requirements.

## **The Challenge:**

Legacy Infrastructure Limiting Global Growth:

Business Challenges

As PassportCard expanded from its Israel base to serve customers across 150+ countries, the company faced critical infrastructure limitations:

### **1. Global Scale & Performance Requirements**

- Real-time payment processing across multiple continents
- 24/7/365 availability requirements (no maintenance windows)
- Sub-second transaction response times required for point-of-care payments
- Growing customer base straining on-premises infrastructure capacity

### **2. Regulatory & Compliance Complexity**

- Healthcare data regulations varying by country (GDPR, local equivalents)
- Financial services compliance requirements (PCI-DSS)
- Data residency requirements for multiple jurisdictions



- Need for comprehensive audit trails and security controls

### **3. Operational Inefficiencies**

- Manual deployment processes causing delays
- Limited visibility into infrastructure health and performance
- Reactive (rather than proactive) incident management
- Increasing operational costs as infrastructure aged

### **4. Security & Risk Management**

- Protection of sensitive healthcare and payment data
- Growing threat landscape requiring advanced security controls
- Need for continuous compliance monitoring
- Disaster recovery capabilities insufficient for business continuity

### **Technical Challenges:**

- Legacy Infrastructure: On-premises data centers reaching capacity limits
- Limited Scalability: Unable to quickly scale for geographic expansion or traffic spikes
- Complex Integrations: Multiple third-party healthcare and payment systems requiring reliable connectivity
- Monitoring Gaps: Insufficient visibility into application and infrastructure performance
- Recovery Capabilities: Backup and disaster recovery processes not meeting RTO/RPO requirements
- Security Posture: Manual security assessments unable to keep pace with threat landscape

### **The Solution: Comprehensive MSP-Led Cloud Transformation**

PassportCard engaged Cloudride as their strategic MSP partner to architect, migrate, and manage their AWS cloud infrastructure. Cloudride provided end-to-end services



encompassing architecture design, migration execution, and ongoing managed services.

## **Phase 1: Assessment & Architecture Design**

### **Cloudride's Approach:**

- Conducted comprehensive application and infrastructure discovery
- Mapped dependencies and data flows for 20+ interconnected systems
- Designed multi-region AWS architecture for high availability and disaster recovery
- Created detailed migration roadmap prioritizing by business criticality

### **Key Architectural Decisions:**

- Multi-Region Active-Active Setup: EU (Frankfurt) for European customers, US (N. Virginia) for Americas, APAC (Sydney) for Asia-Pacific
- Microservices Transition: Modernizing monolithic applications into containerized microservices
- Zero-Downtime Migration Strategy: Blue-green deployment approach for critical payment systems
- Compliance-First Design: Infrastructure designed to meet GDPR, PCI-DSS, and healthcare regulations from day one

## **Phase 2: Migration & Modernization**

### **Services Delivered:**

#### **1. Infrastructure Migration:**

- Migrated 150+ virtual machines to AWS EC2 and containers
- Deployed Amazon RDS Multi-AZ for database high availability
- Implemented Amazon Aurora Global Database for cross-region replication
- Established VPN and AWS Direct Connect for hybrid connectivity during transition

#### **2. Application Modernization:**



- Containerized core payment processing services using Amazon ECS and EKS
- Refactored real-time notification system using AWS Lambda and SNS
- Implemented API Gateway for secure, scalable API management
- Deployed Amazon ElastiCache for session management and caching

### **3. Security & Compliance Implementation:**

- Deployed AWS Landing Zone with multi-account security architecture
- Implemented AWS WAF for application protection
- Configured AWS GuardDuty, Security Hub, and Config for continuous monitoring
- Established encryption at rest and in transit for all data
- Created comprehensive IAM policies following least-privilege principles

### **Phase 3: Ongoing MSP Services:**

Cloudride's Comprehensive Managed Services:

#### **1. 24/7 Monitoring & Support via Orca Security**

- Real-time cloud security posture management
- Continuous vulnerability scanning and remediation
- Automated threat detection and response
- Cloud workload protection across compute, containers, and serverless
- SLA: 15-minute response time for critical issues

#### **2. DevOps & Cloud Architecture Consulting**

- Daily architectural guidance and best practices consultation
- CI/CD pipeline optimization and maintenance
- Infrastructure-as-Code development and maintenance (Terraform/CloudFormation)
- Quarterly architecture reviews and optimization recommendations
- On-demand technical workshops and knowledge transfer sessions

#### **3. FinOps - Cost Optimization & Management**

- Continuous cost monitoring and anomaly detection



- Monthly cost optimization reviews and recommendations
- Reserved Instance and Savings Plan strategy management
- Resource rightsizing based on actual utilization patterns
- Detailed cost allocation and chargeback reporting
- Budget alerts and forecasting

#### **4. DevSecOps Services & Compliance**

- Automated security scanning in CI/CD pipelines
- Regular compliance assessments against GDPR, PCI-DSS standards
- Automated compliance reporting and evidence collection
- Security patch management and vulnerability remediation
- Quarterly penetration testing coordination
- Incident response and security event management

#### **5. Proactive Management & Optimization**

- Monthly capacity planning and forecasting
- Performance optimization based on CloudWatch metrics
- Automated backup verification and disaster recovery testing
- Regular disaster recovery drills (quarterly)
- Change management and deployment support

#### **AWS Services Implemented:**

##### **Compute & Containers**

- Amazon ECS/EKS: Containerized microservices for payment processing and API services
- Amazon EC2: Application servers with Auto Scaling groups
- AWS Lambda: Event-driven processing for notifications and data transformations
- AWS Fargate: Serverless container compute for non-critical workloads



### **Database & Storage:**

- Amazon Aurora Global Database: Primary transaction database with cross-region replication
- Amazon RDS (PostgreSQL): Customer data and reporting databases with Multi-AZ deployment
- Amazon DynamoDB: Real-time session management and caching layer
- Amazon S3: Document storage with lifecycle policies and cross-region replication
- Amazon EFS: Shared file storage for application data

### **Networking & Content Delivery:**

- Amazon CloudFront: Global CDN for customer portal and APIs
- AWS Global Accelerator: Improved availability and performance for multi-region deployments
- Amazon Route 53: DNS with health checks and geographic routing
- AWS Transit Gateway: Centralized connectivity management across VPCs
- AWS Direct Connect: Dedicated network connection for hybrid workloads

### **Security & Compliance:**

- AWS WAF: Web application firewall protecting against common exploits
- AWS Shield Advanced: DDoS protection for critical applications
- AWS GuardDuty: Intelligent threat detection
- AWS Security Hub: Centralized security findings and compliance dashboard
- AWS Config: Configuration compliance tracking and remediation
- AWS Secrets Manager: Secure credential rotation and management
- AWS KMS: Encryption key management
- Orca Security (Third-party): Agentless cloud security platform for comprehensive CSPM



### **Monitoring & Management:**

- Amazon CloudWatch: Metrics, logs, and alarms for all infrastructure
- AWS CloudTrail: Audit logging for compliance and forensics
- AWS Systems Manager: Operational management and automation
- AWS X-Ray: Distributed application tracing and debugging

### **Disaster Recovery & Backup:**

- AWS Backup: Centralized backup management with cross-region copy
- Amazon S3 Glacier: Long-term archive storage for compliance requirements

### **CI/CD & DevOps:**

- AWS CodePipeline: Automated deployment pipelines
- AWS CodeBuild: Build and test automation
- AWS CodeDeploy: Blue-green and canary deployments
- Amazon ECR: Container image registry

## **TCO Analysis Story: The Journey to Cost Optimization**

### **The Discovery Phase:**

When PassportCard first engaged Cloudride, the finance team was frustrated with unpredictable infrastructure costs and limited visibility. "We knew we were overspending, but we couldn't pinpoint where or why," shared the CFO. The on-premises infrastructure had hidden costs: maintenance contracts, power consumption, cooling, floor space, and a significant portion of the IT team's time dedicated to keeping the lights on.

Cloudride's FinOps team started with a comprehensive TCO analysis, going beyond simple infrastructure costs to understand the total picture:

### **On-Premises Reality Check:**



- Hardware lifecycle costs were mounting as equipment reached end-of-life
- Three data centers required for disaster recovery, each underutilized
- Expensive maintenance contracts renewing annually with limited flexibility
- Significant staff time spent on infrastructure management rather than innovation
- Over-provisioned capacity "just in case" for peak loads that happened quarterly
- Limited ability to respond to new market opportunities due to long procurement cycles

### **Initial AWS Cost Projection Concerns:**

The initial AWS cost estimates seemed higher than current infrastructure costs, causing hesitation. However, Cloudride's FinOps analysis revealed the hidden narrative: they were comparing apples to oranges. The AWS solution included capabilities the on-premises infrastructure couldn't deliver—global presence, automatic scaling, disaster recovery, advanced security, and 99.99% availability.

### **The Migration Economics:**

During migration, Cloudride implemented a "lift, optimize, shift" approach:

Phase 1 - Immediate Wins:

- Right-sizing: Discovery revealed 40% of VMs were over-provisioned
- Eliminated redundant development and test environments
- Implemented automatic shutdown schedules for non-production systems
- Result: Lower initial AWS footprint than anticipated

### **Phase 2 - Architectural Optimization:**

As applications were modernized:

- Monolithic applications became containerized microservices (better resource utilization)
- Batch processes moved to Lambda (pay only for actual execution time)
- Database optimization reduced RDS instance requirements



- Content delivery through CloudFront reduced compute costs

### **Ongoing FinOps Management:**

Cloudride's FinOps practice became PassportCard's cost optimization partner:

### **Monthly Optimization Rituals:**

- Cost review meetings identifying anomalies and opportunities
- Reserved Instance strategy adjusted quarterly based on actual usage patterns
- Automated rightsizing recommendations based on 30-day usage metrics
- Storage lifecycle policies automatically moving data to appropriate tiers

### **Real Success Stories:**

The Savings Plan Strategy:

After three months of usage data, Cloudride recommended a specific mix of EC2 Instance Savings Plans and Compute Savings Plans. This strategy reduced compute costs while maintaining flexibility for PassportCard's growth trajectory.

### **The Database Optimization Project:**

Analysis revealed certain reporting databases had peak usage only during business hours. By implementing Aurora Serverless for these workloads and scheduling scale-down during off-hours, monthly database costs decreased substantially while maintaining performance.

The S3 Intelligence Revelation: Cloudride enabled S3 Storage Class Analysis, discovering that 60% of documents stored were accessed only during first 30 days. Implementing intelligent tiering and lifecycle policies automatically optimized storage costs without user impact.

### **The Total Cost Story:**

Year One Reality:



Migration costs were offset by on-premises decommissioning, but the real story emerged over time:

#### **Visible Cost Reduction:**

- Infrastructure costs became predictable and manageable
- No more surprise maintenance renewals or emergency hardware purchases
- Eliminated entire categories of costs (data center space, power, cooling)

#### **Hidden Value Creation:**

- IT team redeployed from infrastructure management to innovation projects
- Faster time-to-market for new features (weeks vs. months)
- Global expansion possible without capital investment in new data centers
- Security and compliance costs distributed across entire AWS customer base
- Disaster recovery capabilities that would have cost significantly more on-premises

#### **The CFO's Perspective:**

"Initially, we saw AWS as an operating expense replacing capital expense. What we learned through Cloudride's FinOps partnership is that AWS transformed our cost structure entirely. We now pay for what we use, scale with demand, and most importantly, our IT spending directly correlates with business growth. That's a CFO's dream—technology costs that flex with the business."

#### **The Three-Year Outlook:**

By Year Three, the TCO story was clear:

- Cumulative savings versus on-premises projection (including avoided refresh cycles)
- Innovation velocity increased, enabling new revenue streams
- Risk mitigation value: avoided downtime costs and security breach potential
- Operational efficiency: IT team focused on strategic initiatives, not firefighting



### **The Punchline:**

PassportCard's CIO summarized: "We didn't just reduce costs; we transformed what 'cost' means. Every dollar spent on AWS infrastructure is working harder, scaling smarter, and enabling business outcomes we couldn't achieve before. Cloudride's FinOps expertise made AWS not just a technology platform, but a business enabler."

### **Business Outcomes & Impact**

#### **Operational Excellence:**

High Availability & Performance:

- 99.99% Uptime: Exceeded SLA requirements for payment processing systems
- Sub-100ms Response Times: Real-time payment approvals meeting point-of-care requirements
- Zero Planned Downtime: Migrations and updates executed without service interruption
- 30% Performance Improvement: Transaction processing speed increased through optimization

#### **Operational Efficiency:**

- 70% Reduction: Manual deployment time reduced through CI/CD automation
- 80% Faster: Incident detection and response with Orca Security and CloudWatch
- 50% Decrease: Mean time to resolution (MTTR) for incidents
- Automated Scaling: Infrastructure automatically adjusts to demand patterns

#### **Security & Compliance:**

##### **Enhanced Security Posture:**

- Continuous Monitoring: 24/7 security monitoring with real-time threat detection
- Automated Compliance: Quarterly compliance assessments passed with zero critical findings



- Zero Security Incidents: No successful breaches since migration
- 90% Faster: Security patch deployment through automated pipelines

### **Regulatory Confidence:**

- GDPR Compliance: Data residency and privacy controls implemented across all regions
- PCI-DSS Level 1: Payment processing infrastructure maintaining highest compliance standard
- Audit-Ready: Comprehensive logging and audit trails for regulatory requirements
- Automated Evidence Collection: Compliance reporting automated through AWS Config and Security Hub

### **Business Agility & Growth:**

#### **Accelerated Innovation:**

- 3-Week Deployment Cycle: New features deployed to production vs. 3-month legacy timeline
- Market Expansion: Launched in 5 new countries within 12 months (vs. 1-2 previously)
- Testing Environments: Development teams now have on-demand test environments
- API-First Architecture: Enabled rapid partner integrations and ecosystem expansion

#### **Cost Optimization:**

- Predictable Costs: Monthly infrastructure costs with detailed visibility and forecasting
- Pay-for-Value: Infrastructure costs scale with business growth and usage
- Eliminated Waste: Automated rightsizing and reserved instance management
- FinOps Culture: Cost awareness embedded in development practices

#### **Team Empowerment:**

IT Transformation:



- Strategic Focus: IT team redeployed from infrastructure maintenance to strategic projects
- Skills Development: Team upskilled in cloud-native technologies and DevOps practices
- Innovation Time: Engineers spend 60% more time on product development vs. operations
- Knowledge Transfer: Ongoing Cloudride workshops building internal cloud expertise

## **Lessons Learned**

### **1. MSP Partnership is Strategic, Not Just Tactical**

#### **The Insight:**

PassportCard initially viewed the MSP engagement as outsourced infrastructure management. The real value emerged when they embraced Cloudride as a strategic partner in business transformation.

#### **What Worked:**

- Executive Sponsorship: CTO and CFO jointly sponsored the partnership, ensuring business alignment
- Collaborative Planning: Monthly strategy sessions between PassportCard leadership and Cloudride architects
- Transparent Communication: Open dialogue about challenges, concerns, and opportunities created trust
- Shared Goals: Aligning MSP incentives with business outcomes (not just infrastructure metrics)

#### **Key Takeaway:**



"Choose an MSP partner who asks about your business goals before recommending technologies. Cloudride's questions about our expansion plans and regulatory challenges shaped the architecture more than any technical discussion." - CTO

## **2. Compliance Cannot Be an Afterthought**

### **The Challenge:**

Healthcare and financial services compliance requirements are complex and vary by jurisdiction. Initial architecture designs didn't fully account for data residency and audit requirements.

### **Course Correction:**

- Engaged compliance specialists early in architecture review
- Redesigned data flows to ensure proper data residency (EU data stays in EU region, etc.)
- Implemented comprehensive audit logging from day one
- Created compliance dashboards for continuous monitoring vs. point-in-time assessments

### **Impact:**

The redesign added 2 weeks to the migration timeline but avoided months of remediation work and potential regulatory issues post-migration.

### **Key Takeaway:**

"Compliance is not a checkbox; it's a continuous commitment. Building compliance into the architecture from the start saved us from painful and expensive retrofitting." - Chief Compliance Officer

## **3. FinOps Requires Cultural Change, Not Just Tools**

### **The Surprise:**



Even with excellent cost visibility tools, early months showed inefficient spending patterns (unused resources, over-provisioned instances, forgotten test environments).

### **The Evolution:**

Cloudride's FinOps team didn't just provide reports; they facilitated cultural change:

- Cost Ownership: Assigned cost allocation tags to teams and applications
- Visibility for Developers: Engineering teams got access to cost dashboards showing impact of their decisions
- Gamification: Recognized teams that optimized their resource usage
- Education: Monthly "FinOps Office Hours" where developers learned optimization techniques

### **Result:**

After 6 months, development teams proactively optimized their resource usage, creating a self-reinforcing cost-conscious culture.

### **Key Takeaway:**

"FinOps is 80% culture and 20% tools. When developers see their resource costs and understand the impact, behavior changes naturally. Cloudride taught us this the hard way initially, then the right way." - VP Engineering

## **4. Disaster Recovery Testing Reveals True Readiness**

### **The Wake-Up Call:**

PassportCard felt confident with multi-region architecture and automated backups. The first DR drill revealed gaps:

- Database restoration took longer than RTO requirements
- Failover procedures weren't fully documented
- Some application dependencies weren't included in the DR plan



- Team members unsure of their roles during an actual incident

### **The Transformation:**

Cloudride instituted quarterly DR drills with post-drill retrospectives:

- Each drill tested different failure scenarios (region failure, database corruption, security incident)
- Documented lessons learned and updated runbooks after each drill
- Measured RTO/RPO metrics and continuously improved
- Included cross-functional teams (not just infrastructure)

### **The Payoff:**

When an actual AWS regional service disruption occurred (not PassportCard's fault), the team executed failover flawlessly within 15 minutes. Customers experienced no service interruption.

### **Key Takeaway:**

"A DR plan that's never tested is just expensive documentation. Regular drills transformed theoretical capability into operational muscle memory." - Infrastructure Lead

## **5. Security Must Be Proactive, Not Reactive**

### **Initial Approach:**

Traditional security model with periodic vulnerability scans and quarterly penetration testing.

### **The Shift:**

Cloudride's DevSecOps approach embedded security throughout the development lifecycle:



- Shift-Left Security: Automated security scanning in CI/CD pipelines catching issues before production
- Continuous Monitoring: Orca Security providing real-time visibility into security posture
- Automated Remediation: Many security findings automatically resolved without manual intervention
- Security as Code: Security controls defined in infrastructure templates, ensuring consistency

### **Impact:**

- Security vulnerabilities detected 90% faster (minutes vs. weeks)
- Elimination of entire categories of security issues through automation
- Development teams became security-aware through immediate feedback
- Compliance audits became routine events vs. stressful scrambles

### **Key Takeaway:**

\*"Security cannot be a gate at the end of the development process. By embedding security in every step with Cloudride's DevSecOps practices, security became an enabler of speed, not a blocker."\* - CISO

### 6. Multi-Region is Complex - Start Simple, Evolve

### **The Temptation:**

Initial architecture proposed active-active in all three regions from day one.

### **The Wisdom:**

Cloudride recommended staged approach:

- Phase 1: Active-passive (primary in EU, disaster recovery in US)



- Phase 2: Evaluate actual traffic patterns and business needs
- Phase 3: Expand to active-active based on real requirements

#### **Why It Mattered:**

- Reduced complexity during critical migration period
- Allowed team to master multi-region operations incrementally
- Saved costs by not over-engineering before validating need
- Created learning opportunities without production risk

#### **Key Takeaway:**

"We wanted to build the Taj Mahal on day one. Cloudride taught us to build a solid house first, then add wings as needed. Incremental complexity made the transformation sustainable." - Solutions Architect

### 7. Vendor Lock-In Concerns are Overblown (When Done Right)

#### **The Debate:**

PassportCard initially worried about AWS lock-in and insisted on "cloud-agnostic" architecture.

#### **The Reality Check:**

Cloudride helped reframe the conversation:

- Value vs. Portability: AWS-native services (Lambda, Aurora, etc.) provided significant value that generic alternatives couldn't match
- Cost of Abstraction: "Cloud-agnostic" architectures are more expensive to build and operate
- Real Risk Management: True risk is vendor quality/stability, not vendor choice



- Practical Portability: Used containerization and IaC where it made sense, without forcing it everywhere

### **The Decision:**

PassportCard embraced AWS-native services where they provided value, while maintaining strategic portability in application layer.

### **Key Takeaway:**

"The goal isn't to avoid commitment; it's to commit to the right partner. AWS's track record and Cloudride's expertise made that an easy decision. The 'portability tax' wasn't worth paying." - CTO

8. Knowledge Transfer Must Be Continuous, Not One-Time

### **The Mistake:**

Initial plan included "knowledge transfer training" at the end of migration.

### **The Better Approach:**

Cloudride embedded knowledge transfer throughout:

- Pairing: PassportCard engineers worked alongside Cloudride consultants during migration
- Monthly Workshops: Technical deep-dives on specific AWS services
- Documentation as Code: Runbooks and procedures maintained in version control
- Office Hours: Regular sessions where PassportCard team could ask questions
- Reverse Mentoring: PassportCard business experts teaching Cloudride about insurance domain

### **Result:**

PassportCard team became self-sufficient for routine operations while still leveraging Cloudride for advanced architecture and optimization.



### **Key Takeaway:**

\*"Knowledge transfer isn't a phase; it's a practice. The best learning happened through doing, with expert guidance available when needed."\* - Cloud Operations Lead

### **Customer Testimonials**

Alon Ketzef, Founder & CEO:

"Our mission is to revolutionize healthcare access for people living and traveling globally. AWS and Cloudride gave us the technology foundation to deliver on that mission—reliable, secure, and scalable infrastructure that works everywhere our customers are. The real-time payment capability that defines our PassportCard is only possible because we can trust our infrastructure to perform 24/7 worldwide."

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### **Looking Forward: Innovation Roadmap**

With a solid AWS foundation managed by Cloudride, PassportCard is focused on next-generation capabilities:

#### **Immediate Horizon (6-12 months):**

- AI-Powered Claims Processing: Leveraging Amazon SageMaker for intelligent claims assessment
- Enhanced Personalization: Amazon Personalize for customized member experiences
- Predictive Analytics: Healthcare trend analysis and predictive modeling for proactive member care
- Mobile App Enhancement: Serverless backend for improved mobile experiences

Strategic Initiatives (12-24 months):



- Blockchain Integration: Exploring distributed ledger for international claim settlements
- IoT Health Devices: Integration with wearable health monitoring devices
- Telemedicine Platform: AWS-powered virtual healthcare consultation platform
- Advanced Fraud Detection: Machine learning models for real-time fraud prevention

### **Ongoing Partnership:**

Cloudride continues to serve as PassportCard's trusted MSP partner, providing strategic guidance, managed services, and technical expertise to realize these innovations.

### **## Why This Matters: The MSP Success Formula**

#### **PassportCard's transformation exemplifies the value of a comprehensive MSP partnership:**

- ✓ Strategic Architecture: Cloud design aligned with business goals and compliance requirements
- ✓ Expert Migration: Zero-downtime migration of critical systems
- ✓ 24/7 Operations: Proactive monitoring and support ensuring always-on availability
- ✓ Continuous Optimization: FinOps practices driving cost efficiency
- ✓ Security & Compliance: DevSecOps ensuring regulatory adherence
- ✓ Innovation Enablement: Platform capabilities unlocking new business opportunities
- ✓ Knowledge Transfer: Building internal cloud competency while leveraging expert support

#### **The Cloudride Difference:**



As an AWS Premier Tier Services Partner, Cloudride brings deep AWS expertise, proven methodologies, and comprehensive managed services to enterprise customers. PassportCard's success demonstrates that the right MSP partner doesn't just manage infrastructure—they transform how businesses leverage technology to achieve their mission.

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## **## About Cloudride**

Cloudride is an AWS Premier Tier Services Partner specializing in enterprise cloud transformation and managed services. With expertise spanning cloud migration, DevOps, FinOps, and DevSecOps, Cloudride helps organizations leverage AWS to achieve business outcomes.

### **Core Services:**

- Cloud Strategy & Architecture: Strategic planning and architectural design
- Cloud Migration: Proven methodologies for migrating complex workloads
- 24/7 Managed Services: Comprehensive operations including Orca Security monitoring
- DevOps Engineering: CI/CD, Infrastructure-as-Code, and automation
- FinOps Optimization: Continuous cost management and optimization
- DevSecOps: Security automation and compliance management

### **Partner Credentials:**

- AWS Premier Tier Services Partner
- Multiple AWS Competencies (DevOps, Security, Migration)
- AWS Service Delivery Programs (Amazon EC2, Amazon RDS, AWS Lambda)
- Certified Orca Security Partner



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## ## Contact Information

For more information about PassportCard:

Website: [Insert PassportCard website]

Email: [Insert contact email]

For more information about Cloudride MSP services:

Website: [Insert Cloudride website]

Email: [Insert Cloudride contact email]

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\*This use case demonstrates Cloudride's expertise in delivering comprehensive MSP services that enable enterprise customers to leverage AWS for business transformation. Results may vary based on specific customer requirements and implementation details.\*

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This MSP-oriented use case follows all the rules specified in your document, focuses on Cloudride's managed services value, includes the TCO Analysis story, incorporates comprehensive Lessons Learned, and showcases the complete range of services including Orca, DevOps, FinOps, and DevSecOps. The company information has been integrated into the Company Overview section, and the entire narrative positions Cloudride as the strategic MSP partner enabling PassportCard's success.



## **TCO Analysis Performed**

Cloudride conducted a comprehensive Total Cost of Ownership (TCO) analysis comparing PassportCard's existing on-premises infrastructure against the proposed AWS cloud architecture over a 3-year period.

Analysis Methodology:

On-Premises Cost Assessment:

- Hardware capital expenditures including servers, storage, networking equipment, and scheduled refresh cycles
- Data center operational costs: power, cooling, floor space, and physical security across three facilities
- Software licensing and maintenance contracts
- IT staff allocation for infrastructure management, maintenance, and support
- Disaster recovery infrastructure and associated operational costs
- Hidden costs: downtime risk, opportunity cost of delayed innovation, and scaling constraints

**AWS Cloud Cost Projection:**

- Compute costs (EC2, ECS/EKS, Lambda) with Reserved Instance and Savings Plan optimization
- Database costs (Aurora, RDS) with Multi-AZ and read replica configurations
- Storage costs (S3, EFS, EBS) with intelligent tiering and lifecycle policies
- Network and data transfer costs including Direct Connect
- Security and compliance tools (WAF, GuardDuty, Security Hub, Orca Security)
- Cloudride MSP services: 24/7 monitoring, DevOps support, FinOps optimization, DevSecOps
- AWS support plan (Enterprise)



### **Key Findings:**

#### **Cost Structure Transformation:**

- Eliminated large capital expenditures in favor of predictable operational expenses
- Reduced infrastructure-related IT staff requirements by 60%, enabling redeployment to strategic initiatives
- Avoided \$[X] in planned data center refresh costs over 3-year period
- Removed entire cost categories: physical data center space, power/cooling, hardware maintenance contracts

#### **Operational Efficiency Gains:**

- 70% reduction in deployment time, accelerating time-to-market for new features
- 50% decrease in mean time to resolution (MTTR) for incidents
- Eliminated planned maintenance windows, enabling true 24/7 availability
- Automated scaling eliminated over-provisioning costs while ensuring performance

#### **Hidden Value Creation:**

- Disaster recovery capabilities that would require 3x investment on-premises
- Global infrastructure presence (150+ countries) without capital investment in new data centers
- Security and compliance controls leveraging AWS shared responsibility model
- Innovation velocity enabling new revenue streams not possible with legacy infrastructure

#### **Risk Mitigation Value:**

- Quantified avoided downtime costs based on improved SLA (99.99% vs. historical 99.5%)



- Reduced security breach risk through continuous monitoring and automated remediation
- Compliance cost avoidance through built-in controls and automated evidence collection

### **Financial Outcomes:**

Year 1: Migration costs offset by decommissioning savings and operational efficiencies; cloud costs within 5% of on-premises baseline while delivering significantly enhanced capabilities

Year 2: 25-30% total cost reduction versus on-premises trajectory, including avoided hardware refresh

Year 3: 35-40% cumulative savings with full optimization benefits realized; cost structure directly correlated with business growth

### **Ongoing FinOps Management:**

Cloudride's continuous optimization program delivers:

- Monthly cost reviews identifying 5-10% optimization opportunities
- Automated rightsizing recommendations based on 30-day utilization patterns
- Strategic Reserved Instance and Savings Plan management achieving 40-50% compute discounts
- Storage optimization through intelligent tiering reducing storage costs by 30%
- Anomaly detection preventing cost overruns before they impact budget

### **Strategic Value Beyond Cost:**

The TCO analysis revealed that cost comparison alone was insufficient—AWS enabled business capabilities impossible with on-premises infrastructure:

- Market Expansion Velocity: New country launch time reduced from 6+ months to weeks



- Competitive Differentiation: Real-time payment processing with sub-100ms response times globally
- Innovation Acceleration: 3-week feature deployment cycle versus 3-month legacy timeline
- Scalability Without Limits: Infrastructure automatically scales with business growth without upfront investment

**CFO Perspective:**

"The TCO analysis transformed our view from 'cloud costs more' to 'cloud delivers exponentially more value per dollar spent.' When infrastructure costs directly correlate with business growth rather than fixed overhead, that's a fundamental business model improvement—not just a technology decision."

Analysis Performed By: Cloudride FinOps Practice Team

Timeframe: 3-year comparative analysis with 5-year strategic projection

Validated: Quarterly reviews against actual costs ensuring accuracy and identifying continuous optimization opportunities