

Accelerating Enterprise Cloud Transformation

Client success stories



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Cloud adoption



Client

Avid Technology

Project

Application migration

Platform

AWS

Location

Burlington, MA

Reducing Annual Operating Costs through Data Center Migration to AWS

We migrated 138 servers to Amazon Web Services (AWS), significantly reducing Avid Technology’s annual IT operating costs by focusing on innovation and agility.

Customer challenges

- Modernize IT operations to improve efficiencies and reduce costs
- Redesign and automate data center operations in the cloud
- Migrate corporate applications from Savvis to AWS
- Install AWS Storage Gateway to provide on-premises backup storage

CTP solution

- CTP delivered a solution with the following deliverables:
- Design and implementation of an AWS Account Structure and Virtual Private Cloud
 - Establishment of a migration factory to move approximately 138 servers to AWS
 - Implementation of an AWS Storage Gateway/VTL for use of systems in colocation
 - Define and implement an AWS tagging scheme that can be used to facilitate the analysis and management of AWS resources

Results

- Reduced IT operating expenses by 50% by focusing on innovation and agility
- Optimized deployment architecture
- AT&T NetBond® MPLS Service provisioned AWS Direct Connect in two weeks, instead of 12 weeks with a dedicated circuit

“We needed to be more agile, to accelerate adding value to the business and move more quickly. We could not do that with the model and vendor we had in place.”

– Jonathan Thomas, CIO, Avid





Client

Healthcare company

Project

Application migration

Platform

AWS

Location

Chicago, IL

Improving Patient Health Communication on AWS

We helped a healthcare company reduce the time for software updates from eight hours to several minutes, ensuring patients are guaranteed a higher level of care, 100% of the time.

Customer challenges

- Take advantage of data center lease expiration to accelerate the cloud initiative for a main application
- Migrate European data center applications and workloads to AWS
- Expand globally in multiple regions
- Maintain security and compliance requirements (Class 2 medical devices and HIPAA)

CTP solution

- CTP provided a complete solution, including the following deliverables:
- Security assessment and vendor evaluations for third-party tooling
 - Implementation of multiple POCs on AWS
 - Road map and effort/cost estimates for Minimum Viable Cloud (MVC) implementation
 - Implementation/utilization of Jenkins, Chef, CloudFormation, BitBucket, Tcat, Axeda, Liferay, RabbitMQ, Talend

Results

- TCO justified costs for the next phase of migration (lower TCO associated with requirements for dedicated instances). Over three years:
 - 32%—3 year reduction in TCO
 - \$5.1M total 3 year cost savings
 - \$1.5M 3 year project compute savings
- Reduced time for software releases from eight hours to minutes
- Ability for on-demand dev/test environments



Client

Natixis Asset Managers

Project

Application migration

Platform

AWS

Location

Boston, MA

Pioneering Cloud in the Financial Services Industry

We helped Natixis retire its physical data center footprint in less than three years, helping to manage risk, improve business efficiencies, and enable new opportunities for innovation.

Customer challenges

- Create an AWS environment that addresses all elements of cloud networking, security, and management
- Eliminate physical data center footprint in less than three years
- Establish an IT architecture that supports future cloud migrations and makes IT more responsive to the needs of the business units

CTP solution

- CTP designed and implemented a production AWS environment. The solution included:
- Migration and refactoring of applications and associated databases to AWS
 - Implementation of software build and release process using Jenkins and Git
 - Development of a TCO model, enabling the customer to analyze forecasted AWS costs vs. actual costs
 - Extensive training on AWS operations and management

Results

- Improved agility, automation, and business capabilities
- Better visibility into IT operational spend due to improved tagging
- 70% of applications, workloads, and databases now operating on AWS
- 1.4 TB of data migrated from SQL Server to Amazon RDS
- Push-button build and deployment of applications from Git to EC2 servers, plus complete application automation

“Natixis Global Asset Management engaged CTP based on their expertise in building stable and scalable cloud infrastructure on AWS. Their end-to-end approach to cloud adoption, spanning strategy to production operations, combined with their experience with financial services firms, gave us the confidence we needed to move our business line to the cloud.”

– George Marootian, EVP, Head of Technology, Natixis Asset Management

**Client**

Cowen

Project

Application migration

Platform

AWS

Location

New York, NY

Getting Out of the Data Center Business

We helped Cowen migrate 400 servers to AWS in less than a year, resulting in increased cost savings, agility, and elasticity.

Customer challenges

- Exit two colocation data centers to avoid renewing existing high cost contracts
- Migrate over 400 servers to AWS in less than a year
- Fast-track provisioning of foundational cloud services ahead of mass migration
- Transform siloed organization to effectively and efficiently support a cloud operating model

CTP solution

- CTP provided comprehensive migration assistance that included:
- Application assessment to identify portfolio characteristics and develop a road map strategy
 - Build out of a Minimum Viable Cloud (MVC)
 - Knowledge transfer to enable client's team throughout the engagement, including developing a DevOps oriented approach to the cloud
 - Agile and Scrum training to unite team under a single project management framework
 - Implementation of Terraform, Chef, Packer, Jenkins, TFS-based source code management

Results

- Successful migration to AWS within the specified time-frame
- Fully automated and compliant MVC developed under an auditable source control framework that will support a larger migration strategy
- Transformation of client's team to a DevOps mindset



**Client**

Retail Group

Project

Security

Platform

Microsoft® Azure

Location

Framingham, MA

Implementing a Proactive Security Framework for Microsoft Azure

We helped a major retail group create a security benchmark, reducing overall complexity and increasing confidence in moving forward with an Azure implementation.

Customer challenges

- Enhance agility and reach new customers via new ways of using the cloud
- Identify and close security gaps in existing Azure deployments
- Define security baselines, standards, and security patterns for workloads on Azure
- Develop cloud security best practices to eliminate security breaches

CTP solution

- CTP created and implemented a security solution based on best practices that:
- Provides a well-defined framework of foundational security controls to protect customers' data
 - Established a security benchmark to measure the security posture of Azure environments
 - Encompasses individual delivery initiatives with a set of well-defined security pattern-based measures

Results

- Increased confidence in Azure, thanks to the enhanced security
- Greater willingness to move ahead with Azure plans
- Reduced complexity with security standards now closely aligned with the company's privacy, security, and business unit needs



**Client**

Pharmaceutical company

Project

Security

Platform

AWS

Location

Branchburg, NJ

Addressing Security and Compliance Concerns to Identify Risks and Requirements for Migration at Scale

We helped a pharmaceutical giant assess over 170 technical controls to solidify future migration plans and increase overall confidence in its cloud program.

Customer challenges

- Respond to changing business needs and best practices
- Maintain and enhance business and market relevancy in the cloud
- Address security and compliance concerns while ensuring new projects are brought on in a cost-effective manner

CTP solution

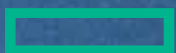
- CTP conducted an independent assessment with change recommendations. Specific deliverables included:
- A risk profile, security reference architecture, actionable recommendations, and an implementation road map
 - A comprehensive technical security assessment covering 170 technical controls
 - An 18-month road map outlining cloud initiatives for continued AWS development, DevOps, and best practices to support security needs and enable efficient onboarding of new workloads

Results

- Increased confidence about the overall cloud program and the company's ability to respond to application owners on security, onboarding and workload migration issues
- Enabled full transparency into cloud security risks and requirements for company IT and business sectors, allowing the teams to solidify plans for future cloud rollouts



Digital innovation

The background features a complex network of white and light blue lines connecting various nodes, some of which are highlighted in orange, yellow, and light blue. The overall aesthetic is futuristic and digital, with a bokeh effect of out-of-focus lights in the upper right quadrant.

Client

Virgin Money

Project

Data analytics platform

Platform

AWS

Location

London, UK

Building a Digital Bank Analytics Platform on AWS

We helped Virgin Money leverage the cloud to create a faster, more responsive, customer-centric bank of the future, while adhering to all governance, risk and compliance controls.

Customer challenges

- Leverage the cloud to enable services, and then handle the large volume of data they plan to collect and analyze
- Adhere to strict security, governance, risk and compliance requirements, and controls involved in managing the data of their UK customer base

CTP solution

- CTP built a fully automated deployment of a Minimum Viable Cloud (MVC) on AWS, addressing core infrastructure, security, operations, and automation. Specific solution elements included:
- CTP worked jointly with the client analytics team to develop multiple Big Data proofs of concept with cutting edge analytic tools and models to demonstrate the value of a data driven banking platform
 - AWS provided validation of the architecture and advised on further services such as service catalog, AI, ML, managed services, and security best practices

Results

- Platform delivered in four months, rather than the two years it would have taken with their existing on-site IT operating model
- Cloud reference architecture and standards can be extended to support full production ready deployments over the coming months
- Enables the bank to offer customers new and exciting ways to conduct banking utilizing the cloud

“Working with CTP, we were able to produce an enterprise-class cloud development platform in less than four months—less than 20 percent of the time we estimated that it would have taken building the platform in its existing onsite operating model.”

– Jem Walters, Director of Digital Enablement Virgin Money





Client
Navigation Application

Project
Application development

Platform
AWS

Location
Burlington, MA

Intelligent Mapping for the Connected Car

We helped a navigation and mapping application company use real-time and Big Data analytics to build a foundation of live mapping data for the connected car.

Customer challenges

- Meet drivers' expectations for real-time mapping data that accounts for the latest in traffic patterns, accidents, and other obstacles
- Build a foundation of live mapping data for the connected car
- Ensure the cloud and analytics solution can scale and support inputs across millions of vehicles globally

CTP solution

- CTP solution leveraged the AWS public cloud as a foundation for the ability to infinitely scale. CTP also:
- Enabled a sensor chain which uses a real-time storm cluster to ingest, analyze, and deliver actionable data to vehicles
 - Built a self-service portal to deliver a customized Amazon Elastic MapReduce (EMR) solution to leverage and process map and sensor data across many applications
 - Implemented EMR, Docker (ECS), AWS Cloud Formation, Amazon S3, Kafka®, ZooKeeper, Storm, Spark, R, Hadoop

Results

- Built an MVP solution to demonstrate the business value and viability of handling real-time and Big Data analytics on AWS
- Successfully delivered initial innovative cloud architecture to handle Big Data and ETL at scale with high performance throughput





Client
Railroad Systems Supplier

Project
Data analytics platform

Platform
AWS

Location
Alberville, AL

Ensuring Reliability on the Railroad

We built a railroad systems supplier a centralized data ingestion application that would identify vulnerabilities on the railroad, preventing more than \$1 million in costs per outage.

Customer challenges

- Complexity with multiple streams of data in various sources and formats from global locations
- Inefficiency due to multiple downstream systems which need that data
- Lack of reliability with brittle current systems to manage data flows and frequent streaming failures which were difficult to find and fix

CTP solution

- CTP created a new, centralized application for gathering and normalizing data. Components included:
- Global analytics dashboard to see near real-time information from locomotives
 - New data model, specific to this application that is flexible enough to ingest data from multiple sources
 - RESTful APIs to connect to outside systems and avoid copying data unnecessarily

Results

- Enabled savings of more than \$1 million per prevented locomotive outage
- Built a prototype of the new application in four weeks
- Built and deployed the production solution in six months





Client
Land O'Lakes

Project
Internet of Things

Platform
Google™ Cloud Platform

Location
Arden Hills, MN

Developing an Agricultural Data Exchange Environment on Google Cloud Platform

Using cloud, IoT, and Big Data, we helped Land O'Lakes develop a solution that enables farmers to more quickly and accurately store, share, and analyze crop data.

Customer challenges

Farmers experience reduced efficiency due to:

- Separate systems with unique data sets and user experiences
- Need for users to upload data files to multiple systems
- Complex data models that make changes in workflows and access controls difficult
- Legacy infrastructure makes deployment of new applications time-consuming and inflexible

CTP solution

CTP's solution elements included:

- Creation of a new, centralized application for sharing data between existing applications
- Leverage Google App Engine and Cloud SQL platforms for quick development of a prototype application
- Creation of a new data model, specific to this application that is flexible enough to allow for ingest of data from multiple source
- Use of RESTful APIs to connect to outside systems and avoid copying data unnecessarily

Results

- Built a prototype of the new application in six weeks
- Successfully extended the base data model to accommodate new data sources and data types
- Farmers can now produce more food, with fewer resources and less environmental impact by efficiently capturing, ingesting, and analyzing data from multiple sources at the same time





Client
Consulting firm

Project
Application development

Platform
Google Cloud Platform

Location
Boston, MA

Developing an Employee Intelligence Solution on Google Cloud

We used cutting edge technologies to develop a system that can detect rogue trading in banks, leading to billions in cost savings through avoiding trade fines.

Customer challenges

- Establish system to detect unusual behavior among employees that could lead to problems (e.g., rogue trading in banks)
- Replace existing alert systems that collect data and act separately from one another
- Create a visually appealing, easy to navigate user interface for displaying and interpreting data

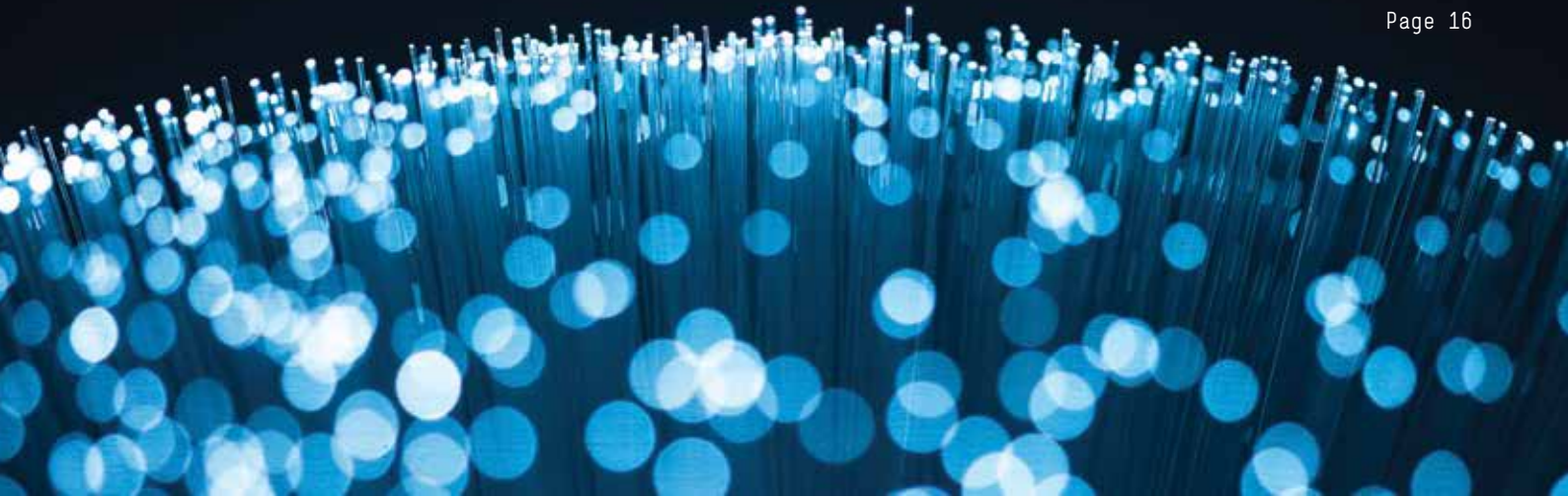
CTP solution

- CTP developed an Employee Intelligence Solution (EIS) demo that gathered information about employee actions from various sources to help identify abnormal behaviors. We also:
- Defined the unique selling points (USPs) of an EIS
 - Proved that Google Cloud Platform (GCP) could be utilized for this type of system
 - Defined the USPs of the GCP

Results

- Proved the EIS is a viable solution, leading to potential cost savings in the billions for banks through avoiding rogue trading fines
- Generated 3.5 million records that reveal relationships between data sets (person, chat, profit and loss, trade alert data)
- Used cutting edge technologies and proved the capabilities of the GCP





Client

AFL Telecommunications

Project

Application development

Platform

Google Cloud Platform

Location

Lowell, MA

Building a Cloud-Based Mobile Testing Platform

We built a mobile solution to streamline the fiber optic cable testing process, establishing strong competitive differentiation with cloud-based field workforce management.

Customer challenges

- Launch new, state-of-the-art fiber testing platform within six months, to keep pace with fast-moving competition
- Grow market share by 15%, and addressable market by \$100 million
- Create new mobile and cloud applications which integrate with new hardware testing platform
- Deploy globally and synchronize data across hardware, mobile, and cloud solutions

CTP solution

CTP built a web-service based solution in Java/JavaScript on Google Cloud Platform and in C#/Xamarin on Android and iOS. The solution featured:

- Automated testing
- Continuous integration/continuous deployment

Results

- Successfully launched pilot platform at major trade show within six months
- Established strong competitive differentiation with cloud-based synchronization and field workforce management
- Enabled software and infrastructure operational costs to be incurred only as business grows
- Established software and infrastructure operational costs at less than 2% of sales

“CTP helped us accelerate our new product development into mobile and cloud applications. The team was flexible, knowledgeable and extremely effective at helping us achieve business results.”

– Dane Krampitz, Engineering Director, AFL



Cloud operations





Client
Bank Holding Company

Project
Security and Compliance

Platform
AWS

Location
McLean, VA

Delivering PCI and SOX Audit Readiness

We successfully prepared a top national bank for its annual PCI and SOX audit, thereby avoiding fines ranging from \$100,000 to \$1M.

Customer challenges

- Following the firm's migration to AWS, it faced an upcoming Payment Card Industry (PCI) and Sarbanes-Oxley (SOX) audit from the Office of the Controller (OCC), U.S. Department of the Treasury
- Lacked the quality assurance and regulatory affair professionals needed to perform the audit preparation in-house

CTP solution

- Performed a complete controls assessment for AWS environments, including cloud security capabilities, controls, and tools against the PCI and SOX requirements
- Identified any non-compliant areas and recommended the required changes

Results

- Passed all audits without receiving any matters requiring action (MRAs) thereby avoiding fines ranging from \$100,000 per PCI demerit and up to \$1 million for SOX penalties
- The firm now relies on a CTP-developed compliance dashboard that provides real-time metric scores and insights into the organization's compliance on AWS



**Client**

Software publisher

Project

Cloud Business Office

Platform

Microsoft Azure

Location

Charleston, SC

Empowering the Nonprofit World with Microsoft Azure

We helped a nonprofit software supplier create a Cloud Business Office to align with stakeholders and prepare for a large-scale migration to Microsoft Azure.

Customer challenges

- Expand delivery of internally developed custom software apps and maintain control of internal IT resources
- Migrate internally developed commercial applications to the public cloud
- Develop a series of assessments and action plans to enable the transition to Microsoft Azure

CTP solution

- CTP created a Cloud Business Office (CBO) and provided a Minimum Viable Cloud (MVC) enablement to drive Azure adoption. CTP also:
- Used the CBO to define the governance office and assessed the readiness to operate effectively in the cloud
 - Created metrics to ensure ongoing governance of the CBO and implement a series of security frameworks and controls

Results

- Client moved a critical application to Microsoft Azure in 2018
- MVC enablement helped extend an initial environment in Azure for that critical application
- The enterprise now enjoys a consistent technical architecture
- The CTP solution included recommendations to develop an automated CI/CD build pipeline on Azure and deploy additional automation and security capabilities





Client
Automobile manufacturer

Project
DevOps assessment

Platform
N/A

Location
Herndon, VA

Improving Deployment and Build Quality with DevOps

We helped a performance automobile manufacturer streamline online deployments while improving build quality across IT and business needs.

Customer challenges

- Existing web application requires frequent updates
- Poor handoff between external ad agency and IT operations
- Team always in firefight mode
- Time to market results did not meet business needs

CTP solution

- CTP proposed and implemented a complete solution that included:
- DevOps maturity assessment
 - Major organizational and process change recommendations
 - Ad agency resources embedded within IT team to improve collaboration and problem resolution
 - Recommended the implementation of a Kanban pull system to handle variability in work in progress
 - Proposed using DevOps tool chain to support automated CI/CD

Results

- Enhanced quality through automated testing
- Improved trust between IT and business units
- Developed a road map to transform the company from legacy waterfall to agile methodology
- Established the full team support of a .com assets approach, eliminating silos



Get started with your cloud transformation

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From strategy to operations, CTP accelerates hybrid cloud adoption with the best services, software and intellectual property available on the market.

Our cloud adoption, digital innovation, and managed cloud solutions help you achieve business results faster, no matter where you are in your hybrid cloud transformation.

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