Webinar
Navigating Cloud Migration in the New Normal
## Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 AM</td>
<td>Welcome note</td>
<td></td>
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<tr>
<td>10:05 AM</td>
<td>The impact of Cloud Migration in the new normal</td>
<td>Mr. Bill Martorelli</td>
<td>Principle Analyst, Forrester</td>
</tr>
<tr>
<td>10:15 AM</td>
<td>Empowering digital transformation with the power of Cloud</td>
<td>Mr. Son Ngoc Nguyen</td>
<td>VP of Cloud CoE, FPT Software</td>
</tr>
<tr>
<td>10:25 AM</td>
<td>Boosting business growth with the cloud</td>
<td>MD. Dr. Kal Patel</td>
<td>CEO &amp; Co-Founder, BrightInsight</td>
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<tr>
<td>10:35 AM</td>
<td>Q&amp;A Discussion</td>
<td>Moderator:</td>
<td>Mr. Andrej Zdravkovic</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Senior Vice President, Intellinet</td>
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01

The impact of Cloud Migration in the new normal

Mr. Bill Martorelli
Principal Analyst, Forrester
The Big Picture

Cloud powers the new connected economy

The fastest digital businesses create connected cloud ecosystems with their customers at the center.

Cloud-powered transformation tops the CIO agenda in 2020.
Cloud Is Now Shorthand For Modern

Everything about apps is changing at once

• MODERN ARCHITECTURES
  • Microservices
  • Serverless

• MODERN DEVELOPMENT STYLES
  • DevOps
  • CI/CD

• MODERN INFRASTRUCTURE
  • Containers plus VMs
  • Infrastructure as Code & SRE
WHY MODERNIZE NOW?

Fight off competitive threats.

Attract your next technical leaders.

Break your innovation crisis.

Replace your house of cards.

Restructure, merge, and acquire.
Cloud is powering core business app transformation – not just web apps

**FORRESTER ANALYTICS**

**Enterprise Developers Are Using Cloud To Modernize Both Core And Customer-Facing Apps**

Modernize Core Applications With Cloud

"Which of the following types of applications are you/your team currently developing using a cloud environment or have delivered to a cloud environment in the past 12 months?"

(Multiple responses accepted)

<table>
<thead>
<tr>
<th>Application</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business intelligence, analysis, and reporting</td>
<td>31%</td>
</tr>
<tr>
<td>Enterprise resource planning (ERP) software</td>
<td>31%</td>
</tr>
<tr>
<td>Customer service and support applications</td>
<td>29%</td>
</tr>
<tr>
<td>Mobile sites/applications</td>
<td>29%</td>
</tr>
<tr>
<td>Commerce software</td>
<td>29%</td>
</tr>
<tr>
<td>Sales force automation (SFA)</td>
<td>27%</td>
</tr>
<tr>
<td>Human resource management software</td>
<td>24%</td>
</tr>
<tr>
<td>Finance and accounting software</td>
<td>24%</td>
</tr>
</tbody>
</table>

Base: 691 developers from Australia, Canada, France, Germany, India, the UK, and the US who work at enterprise companies of 1,000 employees or more and have developed software for a cloud computing environment.

Source: Forrester Analytics Global Business Technographics® Developer Survey, 2019

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Less than 20% of core enterprise applications have been migrated to cloud platforms.

Why?

Core apps are

1. Static and inflexible.
2. Hard-to-get data.
3. Expensive to maintain and run.
Core Apps Defined

Goal: Core apps that flex with the business, drive new operations processes, and run cost efficiently

Manage business records
- Financials
- Inventory
- Customers/accounts
- Personnel
- Medical records

Shared services
- Billing
- Pricing
- Scheduling
- Onboarding
- Identity security
- IT management

Automate business operations
- Core banking
- Distribution
- Merchandising
- Patient journeys
- Engineering . . .
Five Approaches To Modernization

• Lift and shift
• Move, then improve
• Improve, then move
• Replace with SaaS
• Rebuild
Trend: Move, Then Improve

"Please select any of the following practices that are part of your current cloud strategy."
(Multiple responses accepted)

- Migrating existing workloads into a hosted private cloud: 47%
- Migrating existing workloads into a public cloud: 47%
- Migrating existing workloads into an internal private cloud: 42%
- Building net-new applications in cloud environments: 35%
- Complete rewriting of existing workloads into your cloud environment: 28%
- Partial rewriting of existing workloads into your cloud environment: 28%

Move, then improve
Build new
Improve, then move

Base: 814 infrastructure decision makers from Australia, Canada, France, Germany, the UK, and the US who work at enterprise companies of 1,000 employees or more and whose firms have planned, implemented, or expanded upon cloud strategy.
## Pros and cons of the modernization approaches

<table>
<thead>
<tr>
<th>Factor</th>
<th>No. 1: Lift and shift</th>
<th>No. 2: Move, then improve</th>
<th>No. 3: Improve, then move</th>
<th>No. 4: Replace with SaaS</th>
<th>No. 5: Rebuild</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimize infrastructure costs.</td>
<td>✅</td>
<td>✅</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Optimize software costs.</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Improve security.</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Improve application functionality.</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Improve operations.</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Improve business responsiveness.</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Minimize business disruption.</td>
<td>✅</td>
<td>✅</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Modernize architecture.</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</table>
Covid 19: A Drama In Three Acts

- Survival
- Adaptive
- Growth
Are You In Survival Mode, Adaptive Mode or Growth Mode?

<table>
<thead>
<tr>
<th>Situation</th>
<th>Challenges</th>
<th>Key concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survival Mode</td>
<td>You see a massive drop in demand, resulting in significant revenue declines.</td>
<td>Your running costs are starting to eat up your liquidity base.</td>
</tr>
<tr>
<td>Adaptive Mode</td>
<td>You experience severe disruptions to your ongoing operations, exposing your lack of flexibility.</td>
<td>You're forced to lay off or furlough a significant part of your workforce.</td>
</tr>
<tr>
<td>Growth Mode</td>
<td>You see rising demand for your services and solutions as a result of the pandemic crisis.</td>
<td>You're forced to cancel new projects and delay existing ones.</td>
</tr>
</tbody>
</table>

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Challenges and Opportunities

- Know your applications portfolio
- Reconsider your global sourcing mix now that everyone is remote
- Resist the lure of pure lift and shift
- Obtain necessary assistance as required
- Decide on how cloud native you want to be
Thank You.

Bill Martorelli  
@billmartorelli  
wmartorelli@forrester.com
Empowering digital transformation with the power of Cloud

Mr. Son Ngoc Nguyen
Vice Director of Cloud COE, FPT
Customer Story

Digital Connected Services

- Software Distribution
- Security Events
- Cash Management
- Hardware Events

Data Stores
- Kafka

HDInsight Kafka Kerberized Cluster
HDInsight Stream Kerberized Cluster
HDInsight Batch Kerberized Cluster

Semantic Layer
Visualization

STAGE
TRANS
HUB

HUB EFFECTIVE (UPSERT - Delta Lake)

Azure Data Lake Storage

Enterprise Security Infrastructure

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We need to be faster to return to the growth and new normal.

We should focus on long-term organizational success and value optimization.

Digital transformation still be the approach to help organization to overcome COVID-19.

MODERNIZATION is one of top selected initiatives.
The Challenges

1. Agility and speed for continuous evolving;
   Gain immediate values to survive or to catchup with business opportunities;
   Heading to strategic goal.

2. Re-usability for speedy innovation;
   Capture the realized knowledge to evolve;
   Assets for re-usability;
   Legacy system limitation.

3. Lack of visibility & control
   Compliance with industry standard (such as GDPR, ISO27001, CIS, etc.)
   Compliance with policy and circulars of the governance.
The Solutions

Cloud Journey with FPT Digital Kaizen™

akaClaud:
- Minimum Business Infrastructure (Landing Zone)
- Reference Solutions & Digital Labs
- Rehost
- Refactor
- Rearchiect
- Cloud Ops (Cloud Operation)
- Cloud Expense (Cost Management & Optimization)
- Cloud Guard (Security Compliance & Threat Protection)
- ...

akaInsights
Customer Data Platform

akaBot
Now Everyone Can Automate

Multi-Cloud Strategy

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Cloud Journey with FPT Digital Kaizen™

Success with F500 companies.
Focus on critical mission (operational task and digital initiatives).
Resolve pain points and improve productivities.

Think Big by setting high target for Cloud and Digital initiatives.

Start Smart by quick win with reference solutions.

Scale Fast by replicating and optimizing solution to other workloads.

Multi-Cloud is default environment and culture.

Compliance by default & security by design.
## Reference Solutions

<table>
<thead>
<tr>
<th>50+ Reference Solutions</th>
<th>30+ AWS</th>
<th>20+ Azure</th>
<th>3 GCP</th>
</tr>
</thead>
</table>

### Cloud Migration/Transformation
- VM Migration With CloudEndure
- Oracle Database To Amazon Aurora MySQL
- SQL Server Database To Amazon Aurora MySQL
- Amazon RDS for Oracle Database to Amazon Redshift
- On-Premises NFS to AWS DataSync & Amazon File Gateway
- Git Repository To AWS CodeCommit
- Rehost whole data center
- Oracle to Azure Database for PostgreSQL
- SQL Server to Azure SQL Database
- MySQL to Azure SQL Database
- On-Premises NFS to AWS DataSync & Amazon File Gateway
- Git Repository To AWS CodeCommit
- Rehost whole data center
- Zero downtime Migration from Sybase
- Migrate data to Azure storage
- Migrating SAP HANA efficiently to Azure
- Migrating A VM Image Into Google Compute Engine
- Migrating A MySQL Database To Google Cloud SQL

### Cloud Innovation
- Analyze Big Data With Hadoop
- Modern Data Warehouse
- Gain Insights The Data With Big Query

### Cloud Managed Services
- Centralized Log Monitoring With Amazon Kinesis
- Fully-Containerized Application Stack In Kubernetes
- Hybrid Cloud environment
- Business continuity and Disaster recovery

### Cloud Security
- GDPR Compliance
- PCI Compliance
- Data protection with File Sync

### In 2020 we focused on:
- AWS, Azure
- Database migration
- VM Lift & Shift

### In 2021 we will expand to have more biz cases:
- Azure, GCP
- Application lift & shift/transform/optimize
- Legacy app migration
- Cloud operation and optimization
- Cloud innovation (BI, Big Data, Analytics, AI)
- Cloud security & compliance
- Domain specific biz cases

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Reference Solutions

30 - 70%
Improved performance and scalability

20 - 50%
Reduced infrastructure TCO

20 - 30%
Reduced risk at security and compliance

20-30%
Reduced operational cost

Reference architecture for Data Hub, Data Analytics, which applied to FPT Corporation and many customers.
Security Compliance

Compliance Policies

<table>
<thead>
<tr>
<th>Standard</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIPAA</td>
<td>82</td>
</tr>
<tr>
<td>HITRUST</td>
<td>130</td>
</tr>
<tr>
<td>NIST</td>
<td>151</td>
</tr>
<tr>
<td>CSA</td>
<td>136</td>
</tr>
<tr>
<td>SOC 2</td>
<td>141</td>
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<tr>
<td>CCPA</td>
<td>119</td>
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<tr>
<td>GDPR</td>
<td>111</td>
</tr>
<tr>
<td>PCI DSS</td>
<td>95</td>
</tr>
<tr>
<td>ISO27001</td>
<td>141</td>
</tr>
<tr>
<td>PIPEDA</td>
<td>294</td>
</tr>
<tr>
<td>CIS</td>
<td>141</td>
</tr>
</tbody>
</table>

100% for Azure and AWS
Customer Experience Platform

Easily define your own customer segmentation.

Deep-dive into customer journey.

Easy to monitor efficiency of all customer engagement activities.
About Us

1. **Gartner evaluation (•):**
   - Featured in 2020 Market Guide for Public Cloud MSP, Asia/Pacific
   - Enterprise-grade, support large enterprises in 30+ countries
   - Expert in Cloud Migration using Agile Methodology
   - 1,000+ Certified Cloud Engineers

2. **FPT Digital Kaizen™** is success with F500 companies
   - Focus on Agility and Critical Missions
   - 1000+ Projects with 100+ Customers in 30 countries

3. **akaClaud:**
   - Automated MBI (Minimum Business Infrastructure)
   - Multi-Cloud Ready (AWS, Azure, GCP, FPT Smart Cloud)
   - 50+ Reference Solutions available in Digital Labs
   - Cloud Compliance (11 Compliances; 400+ automated policy)
   - Cost Optimization Framework

(*) Gartner, "2020 Market Guide for Public Cloud Managed and Professional Services Providers, Asia/Pacific", DD Mishra, To Chee Eng, Jaideep Thyagarajan, Wataru Katsurashima, Kevin Ji, 19 October 2020
Services We Provide

Digital Lab
- MBI Provisioning
- Solution Mapping
- Solution Development
- Solution Migration

Cloud Assessment
- Cloud Readiness Assessment
- Cloud Provider Assessment
- Cloud Migration Readiness Assessment
- Application Migration Assessment

Cloud Operation Optimization
- Multi-Cloud Managed Services
- Cloud Security Assurance
- Cloud Optimization Services
- Cloud Automation Services

Cloud Transformation and Innovation
- Lift & Shift Migration
- App & Data Modernization
- Cloud Native Development
- Containerization/APIfication
- BI & Data Analytics
- DevOps/DevSecOps

Cloud Strategy & Roadmap (following FPT Digital Kaizen™)
03

Boosting business growth with the cloud

Kal Patel, MD
CEO & Co-Founder, BrightInsight
BrightInsight provides the leading global regulated digital health platform for biopharma and medtech.

Recently spun out of Flex with venture backing from top healthcare and technology investors

100 years of combined experience in digital health within biopharma & medtech

HQ in Silicon Valley with corporate presence in NJ, UK, Switzerland and Copenhagen

Customers include global biopharma and medtech

Awards and recognitions as the leading regulated IoT platform for life sciences

Platform could be available in US, European Union, Canada, Japan, Brazil, Australia (regulatory) Available in 9 additional countries (privacy)

Others not publicly disclosed: Current customers include five of the largest biopharma and medtech companies that account for an estimated $700B+ in market cap

Customers include global biopharma and medtech

Awards and recognitions as the leading regulated IoT platform for life sciences

Platform could be available in US, European Union, Canada, Japan, Brazil, Australia (regulatory) Available in 9 additional countries (privacy)
The BrightInsight Platform takes the hard work out of building, scaling and maintaining regulated digital health offerings.

Connectivity
BrightInsight offers connectivity and management for regulated apps, algorithms, devices or combination products.

Data management
BrightInsight can aggregate data from multiple sources and can integrate with EHRs and other IT systems.

Analytics & insights
Clinical, operation and patient engagement dashboards provide valuable insights in real-time.

Privacy  Security  Regulatory  Quality Management System is ISO 13485:2016 Certified
Healthcare’s move to the cloud has been slow.

BCG’s 2018 Digital Maturity is Paying Off study, surveyed more than 1,900 companies in Europe and the US to estimate their digital maturity based on 37 dimensions.

43% healthcare had the largest share of digital laggards

70% of biopharma companies have yet to embrace digital transformation

Do you know anyone who uses their car’s built in GPS?
Traditionally, biopharma and medtech have developed their solutions on the edge.

- Biopharma tends to put software on the edge, e.g. building apps with no backends
- Medtech tends to build all of its software running on the medical device - not connected to cloud

By not leveraging the cloud, biopharma and medtech are missing the opportunity for product or device optimization.
By leveraging the cloud and analytics, you can generate a host of insights to drive business growth.
Q&A Discussion

Mr. Andrej Zdravkovic
Senior Vice President, Intellinet
Thank You!