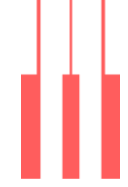Sonata Software
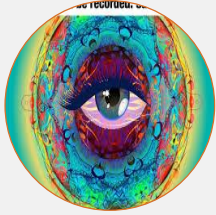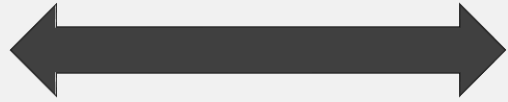
# Application Modernization with App Service

# Digital Agenda and Modern Infrastructure
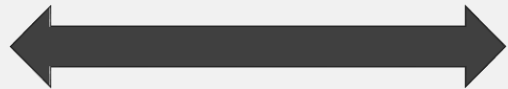
# Digital Agenda of customers today…

*Being Digital* (1995), technology futurist Nicholas Negroponte (1995), described how the old industrial economy would be eaten away by a new digital economy.

## Digital Business Agenda

| Drive Digital Business Revenue | Transforming Existing Business | Improved Capital & Resource Usage | Cost Reduction and Higher productivity |
|---|---|---|---|

Digital technology makes it possible for members of an organization to self-organize and thereby avoid the delays, distortions, and other damaging effects of hierarchically organized systems (Benkler, 2002).

Established companies recognize that digital technologies can help them operate their businesses with

- greater speed and lower costs
- offer their customers opportunities to co-design and co-produce products and services (Sambamurthy et al. 2003).
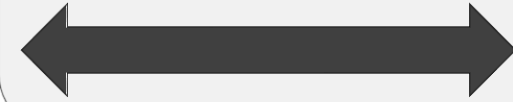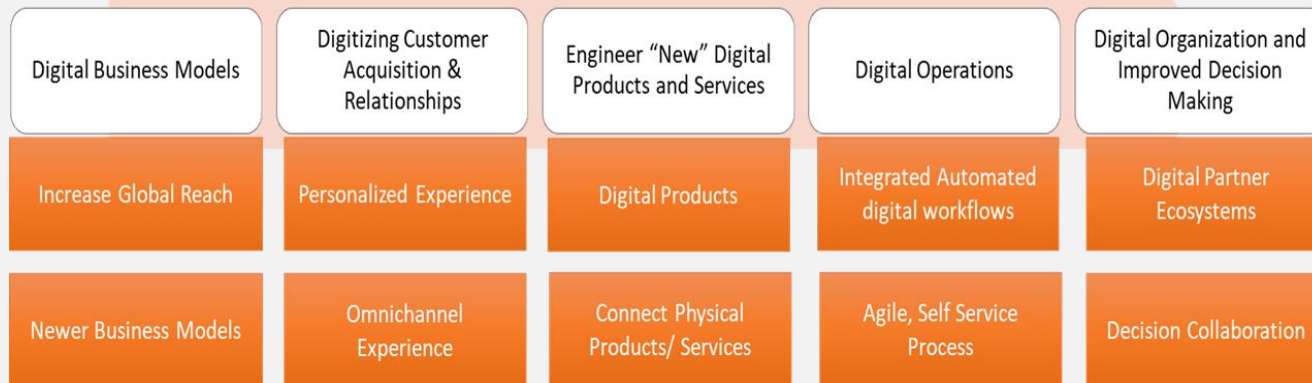
## Value Chain Transformation

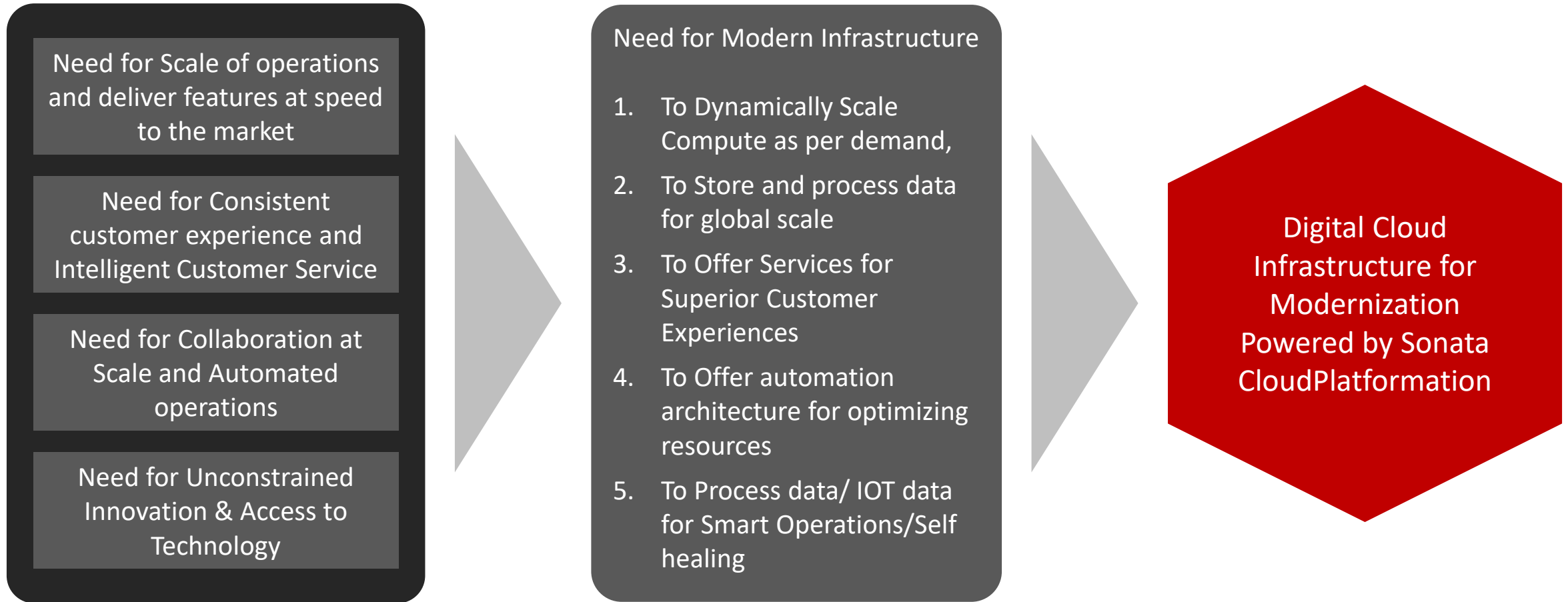| Digital Business Models | Digitizing Customer Acquisition & Relationships | Engineer "New" Digital Products and Services | Digital Operations | Digital Organization and Improved Decision Making |
|---|---|---|---|---|
| Increase Global Reach | Personalized Experience | Digital Products | Integrated Automated digital workflows | Digital Partner Ecosystems |
| Newer Business Models | Omnichannel Experience | Connect Physical Products/ Services | Agile, Self Service Process | Decision Collaboration |

Many start-up companies use digital technologies to develop new products and business models that disrupt the present way of doing business and take customers away from firms that cannot change and adapt.
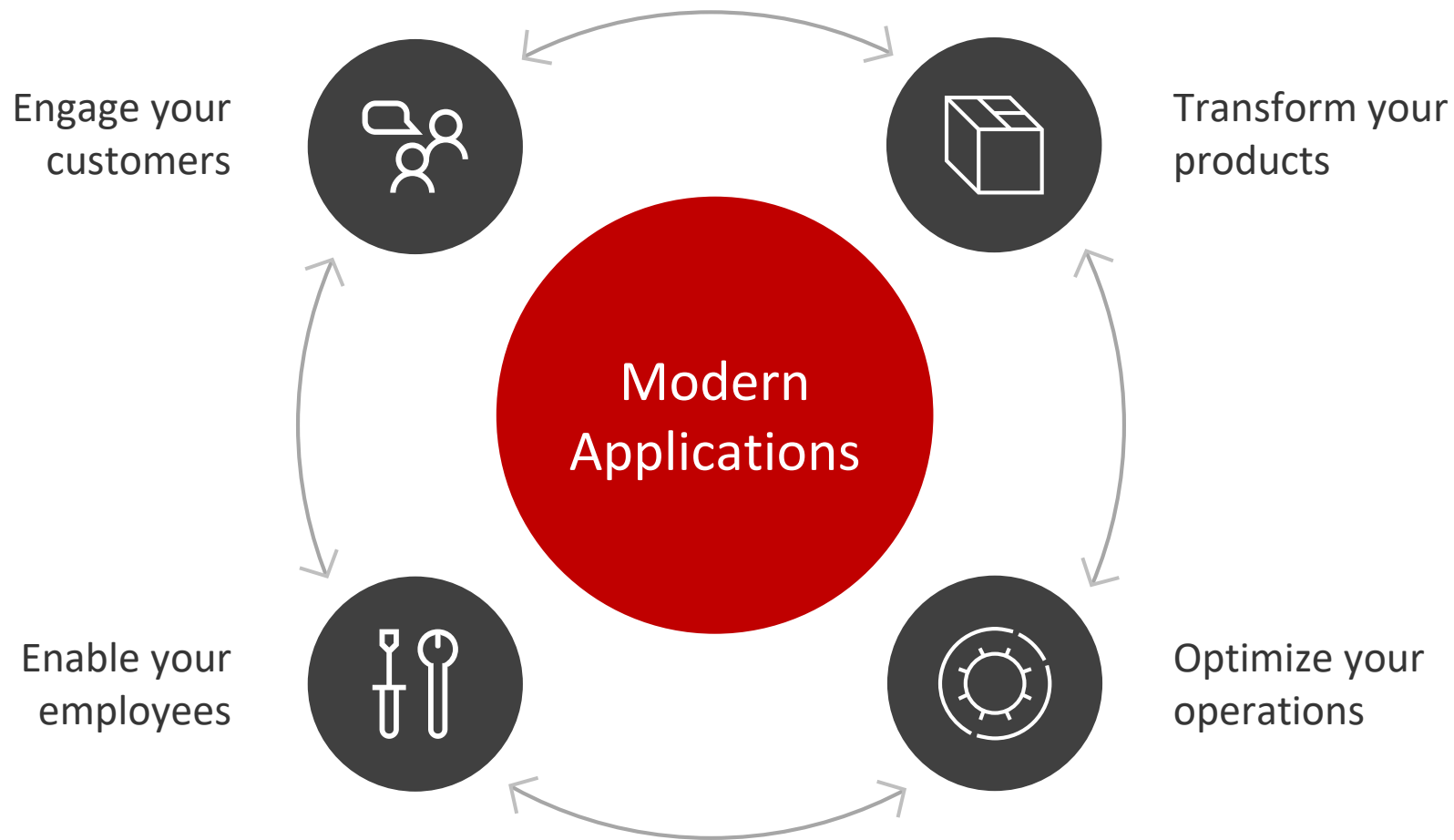
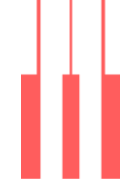# Digital Agenda Needs Modernization of Existing Infrastructure

Every Enterprise is now a "software and data" organization and is in need of building Modern ecosystems

**Need for Scale of operations and deliver features at speed to the market**

**Need for Consistent customer experience and Intelligent Customer Service**

**Need for Collaboration at Scale and Automated operations**

**Need for Unconstrained Innovation & Access to Technology**

Need for Modern Infrastructure

1. To Dynamically Scale Compute as per demand,
2. To Store and process data for global scale
3. To Offer Services for Superior Customer Experiences
4. To Offer automation architecture for optimizing resources
5. To Process data/ IOT data for Smart Operations/Self healing

**Digital Cloud Infrastructure for Modernization Powered by Sonata CloudPlatformation**

# App innovation fuels digital transformation

Engage your customers

Transform your products

**Modern Applications**

Enable your employees

Optimize your operations

# Cloud is an enabler of Modernization of Digital Infrastructure

Modernization use cases on cloud

| | | |
|---|---|---|
| Engineering agility, speedy release to market | Need for heavy content distribution | Reduce over-provisioning / Achieve Elasticity |
| Unique Services at a Scale<br><br>– NLP, IOT, ML/AI | Processing and Analyzing Huge datasets | Managing Cost of global IT systems |
| Need for Global distribution of product | Ability to make better IT Investment | Delivering scalable,<br><br>Always-on<br><br>Modern platforms |
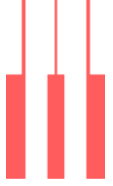
# Global outlook on Application Modernization
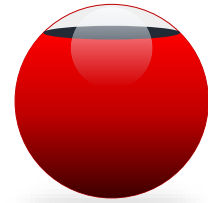
**75%**

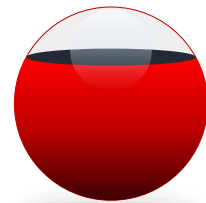of Non-Cloud applications will be Modernized in next 3 years
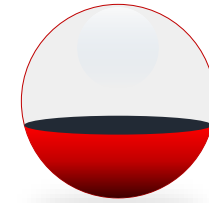
**42%**

of applications will be extended with cloud based features within next 3 years.

**55%**

of Applications developed in next 12 months will be designed as cloud native

**66%**

of companies overall are exploring cloud native development
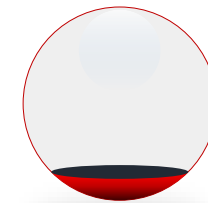
**25%**

of existing cloud applications will be completely rebuilt as cloud native application.

# Application Modernization journey

**Top-down buy in: Business case | Executive sponsorship | Business and IT alignment**
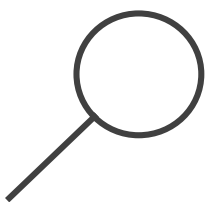
Assess
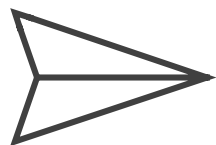
Migrate

Optimize
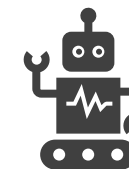
Modernize

**Foundational investments: Technical | Process | People**

# Modernization Service

## Assessment

**Modern DC Assessment**
- On Prem to Cloud Migration Assessment

**Application Modernization Assessment**
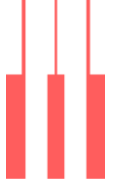- Legacy Application to Modernization Assessment

## Modernization

**DC Modernization**

**Modern DR and BCP**

**Application Modernization**
- With App Service
- With AKS
- With Microservice and Service fabric
- With Platform Engineering

**Biz Apps on Azure**
- SAP ECC / SAP Hybris
- MS Dynamics
- Internal Business Applications, Platforms

## NextGen Managed Services

**Managed DC**

**Managed Applications**

# Application Modernization with App Service

# Service Description

This service includes assessment, architecture design, engineering and deploying the applications in the azure environment.

## Assessment

- Defining the Scope of Engagement
- Identify candidate application for modernization
- Review Application Architecture, resource usage and Integration with other systems.
- Perform GAP analysis and develop requirements.
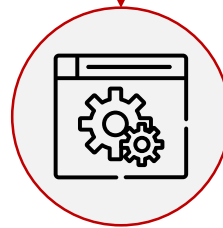
## Architecture

- Analyze architectural Options
- Define To-Be architecture and present it.
- Estimate Time and Cost
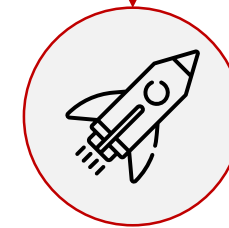
## Deliver

- Build microservice architecture applications.
- Integrate Azure app services into the application
- Deploy CI/CD for developing applications for development services.

# Application Modernization Reasons

## Migrate
### Optimize IT

## Modernize
### Transform customer experiences

Lift + shift tactical apps
to cloud to reduce cost
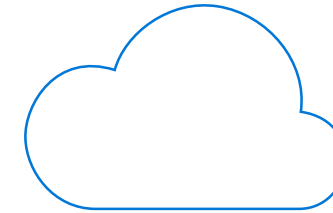
Migrate and reimagine apps
that matter to your business

**406%**
**Five-year ROI**

**53%**
**Less expensive than
on-prem/hosted**

**98%**
**Less database
downtime**

**100T**
**Transactions
per day on
Jet.com**

**100M**
**Customers supported
worldwide with Citrix**

**500M**
**Fans get real-time
experiences with
Real Madrid**

Source: IDC White Paper | The Business Value of Microsoft Azure SQL Database Services

# Breaking down the Application migration journey

## Lift & Shift

Rehost

## Application Modernization

Refactor　　　　Rearchitect　　　　Rebuild

## SaaS

Replace

On-Premises　　　IaaS　　　Containers　　　PaaS　　　Serverless

*Infrastructure Platform*　　*Infrastructure Platform*　　*Container Platform*　　*Application Platform*
　　　　　　　　　　　　*"lift & shift"*
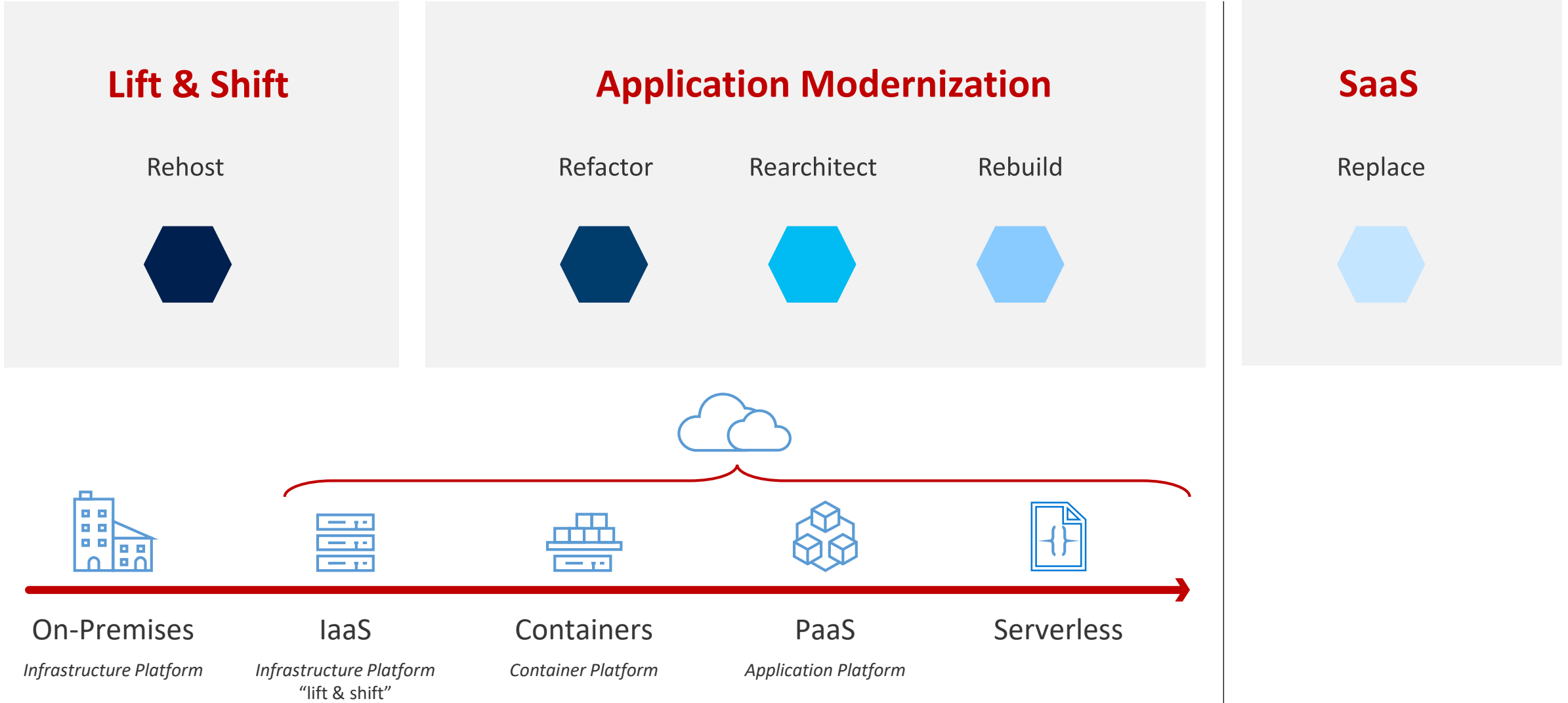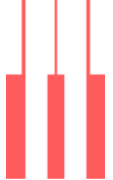
# Application Modernization Options

Application
Modernization

Modernization
Assessment

**Application Modernization with AKS**

**Application Modernization with Microservices and service fabric**

**Application Modernization with App service**

**Application Modernization with platform engineering**
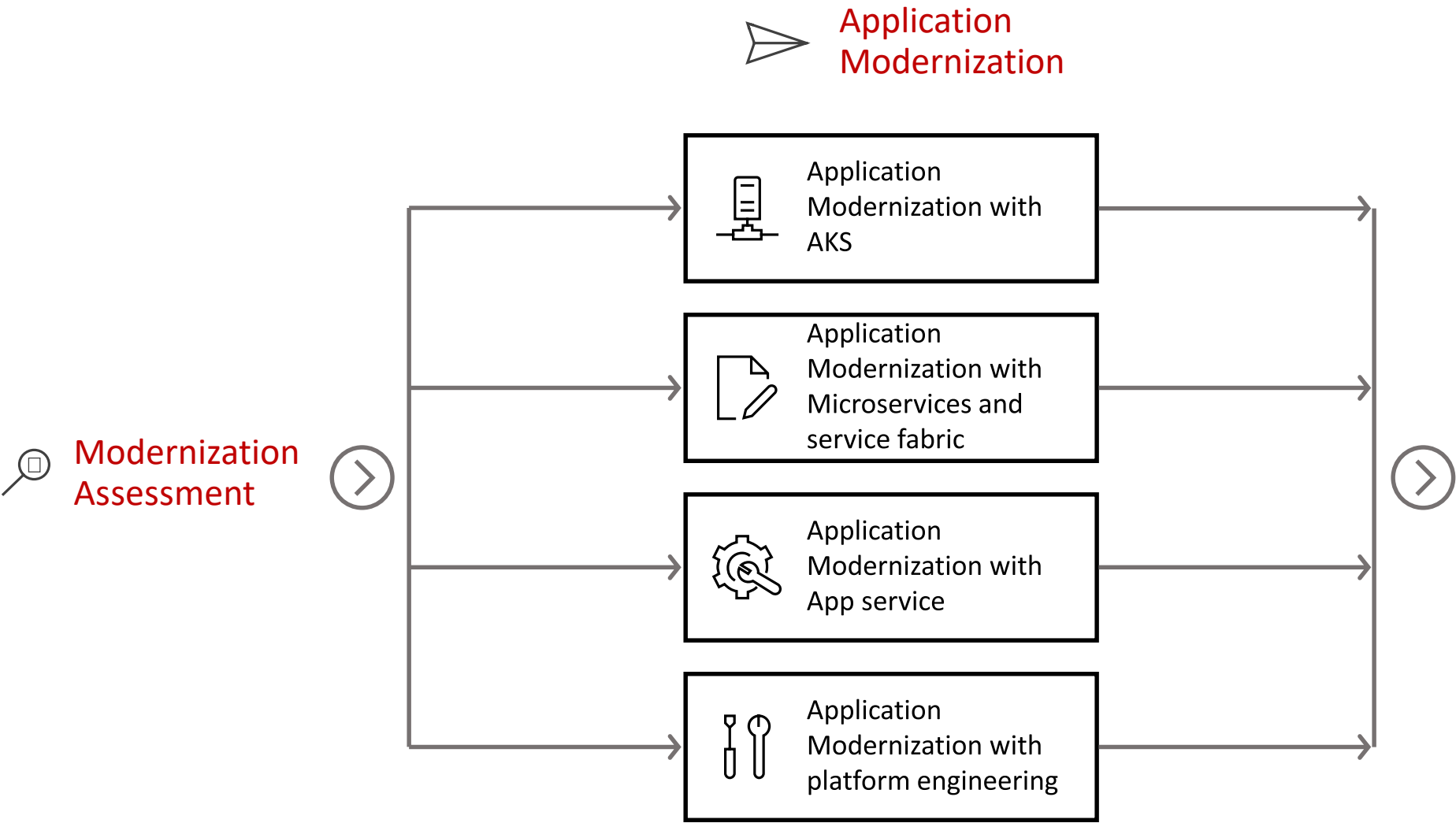
# Why use App Service for App Modernization

## Enterprise-grade apps

Global data center footprint

Hybrid support

AAD integrated

Secure + compliant

## Fully managed platform

Built-in auto scale and load balancing

High availability with auto-patching

Reduced operations costs

Backup and recovery

## High productivity development

.NET, Java, PHP, Node, Ruby, and Python

Staging and deployment

Testing in production

App gallery marketplace

**Source:** Microsoft

# Modernization with App Services

**LOGIC APPS**

Automate business process across SaaS and on-premises

**WEB APPS**

Web apps that scale with your business

**MOBILE APPS**

Build Mobile apps for any device

**API APPS**

Easily build and consume APIs in the cloud

# Build in API Connectors

## Connectors

- Box
- Chatter
- Delay
- Dropbox
- Azure HD Insight
- Marketo
- Azure Media Services
- OneDrive
- SharePoint
- SQL Server
- Office 365
- Oracle

- QuickBooks
- SalesForce
- Sugar CRM
- SAP
- Azure Service Bus
- Azure Storage
- Timer / Recurrence
- Twilio
- Twitter
- IBM DB2
- Informix
- Websphere MQ

- Azure Web Jobs
- Yammer
- Dynamics CRM
- Dynamics AX
- Hybrid Connectivity

## Protocols

- HTTP, HTTPS
- File
- Flat File
- FTP, SFTP
- POP3/IMAP
- SMTP
- SOAP + WCF

## BizTalk Services

- Batching / Debatching
- Validate
- Extract (XPath)
- Transform (+Mapper)
- Convert (XML-JSON)
- Convert (XML-FF)
- X12

- EDIFACT
- AS2
- TPMOM
- Rules Engine

# Azure Cloud Capability

# Our Capability - Expertise

| CSP, MSP, ISV Dev Center, ESP | Experience of managing 150+ azure engineering engagements | CoE for Azure Infra, Engineering and DevOps | 100+ CSP/ Managed Service Customers |

## Credentials

- CSP & Enterprise Cloud partner
- 54 + CSP Customers/ Managed Service associations
- End to End Cloud Services- Consulting to Managed Services, 24/7 Support
- Sonata IP In Azure / AppSource

## Experience

- 200+ Cloud engineers and 300+ Azure Developers
- 40+ cloud evangelists and Architects
- 100 + Successful Cloud Migrations
- 50 + Assessments
- 10+ Large Data Migrations to cloud

## Methodology

- Proven Consulting Methodology
- Proven Migration Methodologies
- Platform Engineering Methodology
- Operations and Automation Methodology

## Framework / Automation

- Own Platform for managing operations
- Automated Framework for DevOps
- Automated Framework for CloudOps

Microsoft
Engineering, Migration, Evangelizing, Global Support

SAR

PennyMac®

QueenslandRail

TUI Travel PLC

sage

Lexvia

Expedia®

Sterling Talent Solutions

Crawford®

# Technology Expertise – at a Glance

**SONATA**
SONATA SOFTWARE

## Operating System

**Windows**

**Linux and Unix**

## Databases

Traditional RDBMS - Microsoft SQL, Oracle, DB2

Opensource – Postgres, My SQL

NoSQL – Cosmos, AzureSQL, MongoDB, Maria, Azure Cache

## MS 365

Windows 10

Office 365 and Messaging

Office 365, Messaging and collaboration

## Cloud Services

Assessment – CloudAmize, Corent, UnifyCloud
Migration Tool- Zerto Azure Migrate, DB migrate

VMs, containers, Storage, AKS ,VPN, Policy, Import-Export, Servicebus, Data factory

AppService, Service fabric, AKS, Azure functions, Azure Automation, API mgmt., Logic Apps, Search

## Enterprise Management Tools

Microsoft System Center
SCOM, SCCM, SCVMM, OMS,

Symantec, Ntapps, Sophos, WebSense, ASR, Azure backup, Express route, VPN

SolarWinds, HP Openview, Splunk, Manage Engine, Tivoli, Remedy, ICCM, Nagios

Newrelic, OTRS, Zabbix, Librato, Splunk, Azure Monitor, Network watch, Cost Optimization

## DevOps

Automation & Orchestration
Chef, Ansible, Terraform

Build, Deployment and Test management tools
Jenkins, Jira, Bugzilla, Fortinet, Jmeter etc

Azure DevOps, Sonata Rapid DevOps platform

# DevOps Processes and Services

**SONATA**
**SONATA SOFTWARE**

**DevOps**

**Dev Lifecycle**

**Ops Lifecycle**

| Design | Develop | Deploy | Manage |
|---|---|---|---|

| CI | CT | CD | Infra | Monitoring | Support Automation |
|---|---|---|---|---|---|

| App CI | DB CI | Data CI | App CT | DB CT | Service CT | App CD | DB CD | Service CD |
|---|---|---|---|---|---|---|---|---|

| CI | CT | CD | Infra | Monitoring | Support Automation |
|---|---|---|---|---|---|
| CodeRepo/Branching | Test Stages | Environments/Review | Design Infra | Monitoring Tools | Service Support |
| Build | On-Demand Environments | Application Installs | Deploy Infra | Application Perf | User Mgmt |
| Unit Testing | Test Automation | Configure | Manage Infra | Infra Perf | Feedback Mgmt |
| Code Analysis | Defect Analysis | Activate, Deactivate | D/B Infra | D/B Infra | State Changes and Testing |
| Regression | Performance testing | Activate, Deactivate | Activate, Deactivate | Data Monitoring | State Changes and Testing |
| Packaging/Repo | Security Testing | Smoke Testing | Patching & Testing | Synthetic Mons | Audits and Updates |

**Business Dashboard – Feature flow, Collaboration, Feedback and Monitoring Analytics**

## Sonata Platform Services

- SonataReady – Rapid Enginering Platform
- Sonata Custom – Custom DevOps Platform

## Sonata DevOps Services

- Project Services
- Managed Services
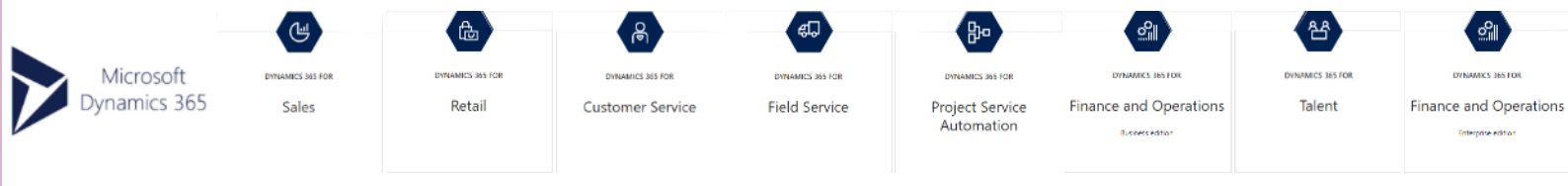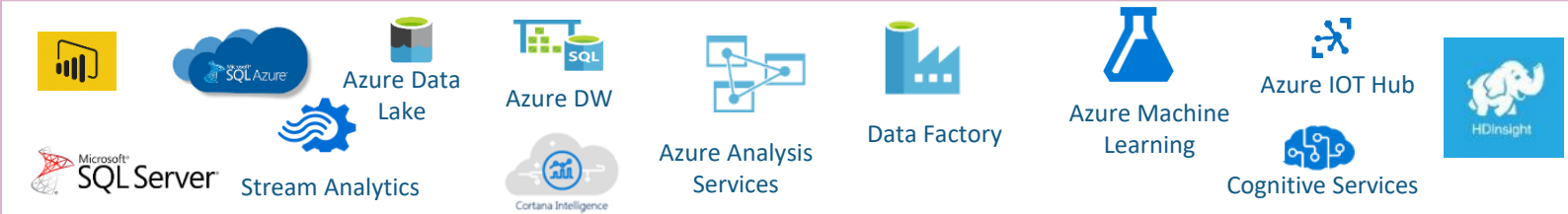- Automation Services

# MARQUEE CLIENTS

Microsoft · epiq · UB · STILLWATER INSURANCE GROUP · AVERY DENNISON

TESCO · Mahindra · Crawford · Church's Chicken CHICKEN GENIUS · Johnson & Johnson · SKS MICROFINANCE · Himalaya HERBAL HEALTHCARE

Pulse Secure · sage · TrueValue · Expedia · Sterling Talent Solutions · Hewlett Packard Enterprise

SONY · PEPSICO · GOODYEAR · TUI Travel PLC · QATAR DUTY FREE

Carrefour · QueenslandRail · The electronics specialist maplin · QATAR AIRWAYS · FUTURE GENERALI GENERALI GROUP TOTAL INSURANCE SOLUTIONS

MAERSK · TATA Sky · COLUMBIA ASIA · THE REJECT SHOP · LORNA JANE ACTIVE LIVING

Thank You