



SAP on Cloud | Hyperscale. Hyperspeed. Hypercare.

Putting the Cloud in SAP

Babu Ayyalu, Solutions Architect- SAP on Cloud

We are Lemongrass

Transforming the SAP Ownership Experience on Native Cloud



100% success rate for SAP to Hyperscale Cloud migrations



REDUCED COST OF SERVICES

Up to 50% cost reduction

IMPROVED AVAILABILITY AND RESILIENCE

Average 99.99% availability

WORLD CLASS SECURITY

NIST and CIS accreditation

IMPROVED AGILITY AND INNOVATION

2,500 innovations per year

CLOUD NATIVE

Direct access to all Cloud native services

DEVOPS FOR SAP

Landscape optimization and increased change frequency

CLOUD AGNOSTIC AUTOMATION

AWS, Azure, GCP



© Lemongrass. All Rights Reserved.



Gold Microsoft Partner



Google Cloud



Customers' Views on SAP on Cloud



How to discover and remove barriers?



SAP runs cheaper in its own Data Center?



SAP workloads not Cloudy enough?



Siloed Ops - Not seeing promises?



Appears the same as running on-premises?



How to leverage native Cloud innovations?

"Customers seem to fully understand and leverage the Cloud only after, they've already moved to it"



Putting the Cloud in SAP

Cloud Native Enablement

Cloud Operating Model

Cloud Adoption

SAP   

Lift and Shift

Basic Cloud benefits including scalability, elasticity, consumption billing

Modernize Operations

Leverage advanced capabilities for **Automation, Availability, Network, Performance** management, and **Flexible Commercial** models

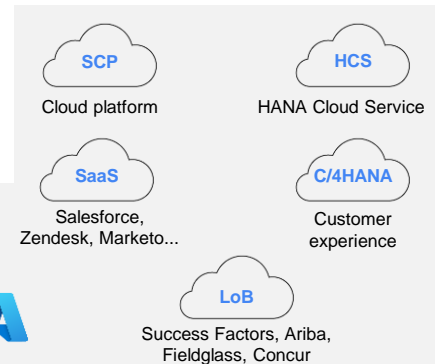
SAP   

SAP   

Innovate and Accelerate

Tying SAP **Data sources** in with Other Data sources included unstructured data, Cloud Native generated data, 3rd party data (all **Gravity of Data**) and using advanced tools: Datalakes, AI/ML Etc = ROI

Enable systems of record to be systems of insight



Increasing **Agility**, decreasing time To **Value**, and enabling new **Insights**



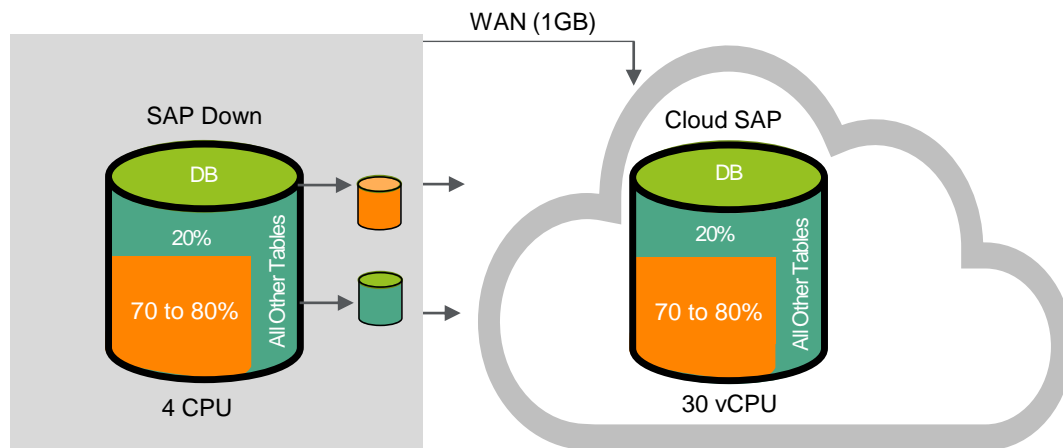
An Approach to Migrating Large Databases

Key Hurdles of Traditional SAP OS/DB Migration

- Top 50 tables often represent > 70% of Very Large DB volume with rate conversion ~ 500GB/Hour
- Costs of Low-Downtime techniques are High needs, heavy Infrastructure, and WAN requirements
- LCP is a lower cost than the other migration tools [SAP NZDT, Oracle GoldenGate, IBM CDC, SNP etc.]

The Lemongrass Way: Standard Tooling + Lemongrass Cloud Platform(LCP) Migrate

- Leverage of Standard SAP Tooling, available WAN, and available Infrastructure
 - SAP R3load and SAPup tool (for table-splitting) will be the foundation; no supportability concerns
 - LCP Data Range Analyzer for very large tables analysis, identifying stable ranges, to be used in conjunction with R3load and SAPup tool (70%-80% of VL Tables)
 - Monitoring of PRD DBs for several weeks to ensure 100% reliability and completely foolproof
 - Data ranges processed online are monitored by Zero-Impact triggers



Benefits

- Traditional outage reduced by as much as 80% to achieve < 12 hours
- Significantly cheaper approach. Low CPU/Mem requirements.
- Leverage of Tier-1 Standard Storage. Low requirements on WAN: 0.5 to 1.0GB suffice. No Production outage for Mocks/Trials



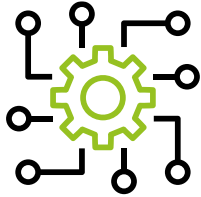


lemongrass

Cloud Operating Model

Adopt a Cloud Mindset

Getting SAP to the Cloud is not enough.



Define a comprehensive **Service Catalog**

...enabled by Tooling & **Automation**

...delivered by a **Cloud Operating Model**

.....underpinned by **experience and methodologies**



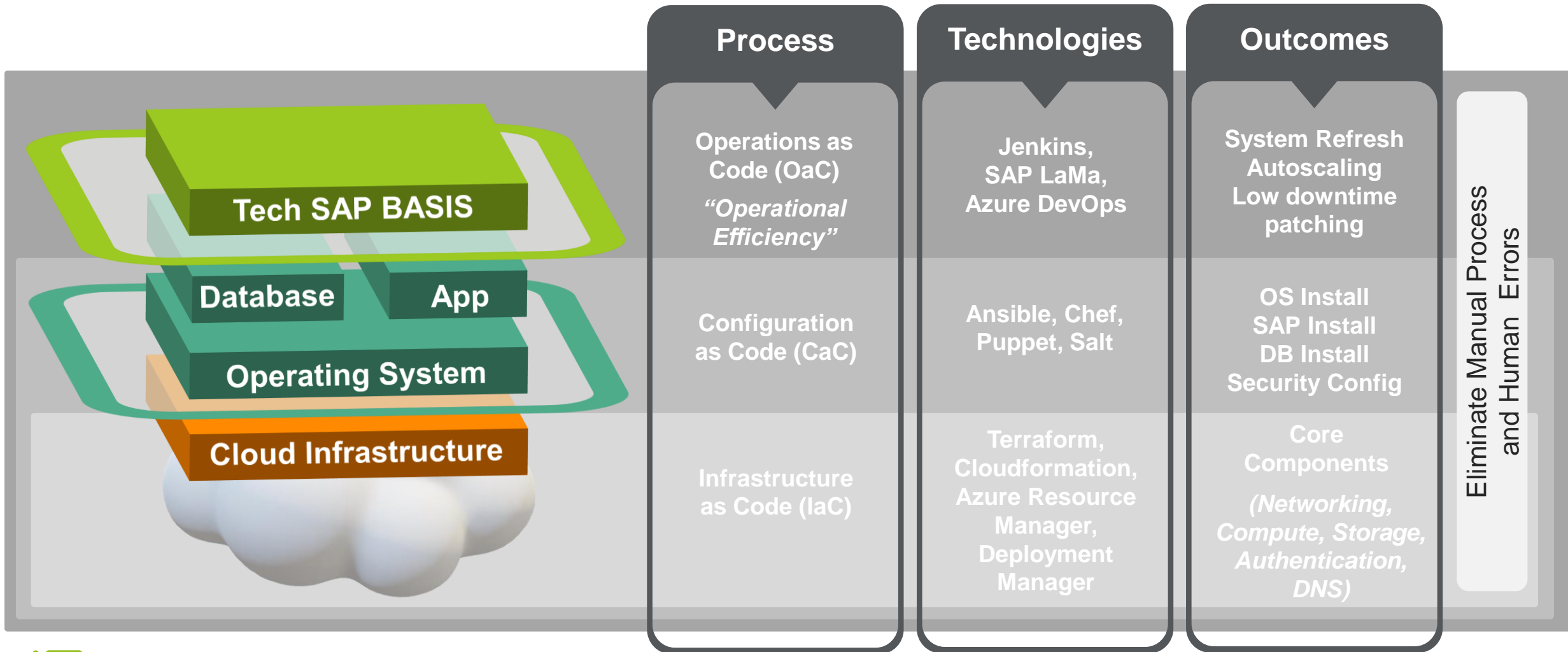
Start with Operate in Mind

- The Operation of SAP on the Cloud is very different from operating it on-premises
 - New **Capabilities** are needed (IaaS, FinOps, SecOps, Automation)
 - New **Tools & Approaches** need to be defined, configured, and maintained for monitoring, backups, patching, security, and other operations)
 - New **SOPs** need to be written and steady-state teams trained
- If set up early, Operate can:
 - Run some Services during the Migration (SecOps, FinOps, System Installs)
 - Act as a QA for receiving the systems from Migration (ensure setup is to Operate standards)
- Ensure effective, efficient operations in a steady state



Modernize SAP Operations

Key Technologies



Automation Capabilities

Automated Server Copy

SAP Aware Start/Stop

Application Server Auto Scale

OSS Note Import

Environment Rebuilds

Automated HANA Patching

Automated Server Resize

Auto DR Failover

Auto OS Patching

Auto DB Patching

Infrastructure as Code

- Automate infrastructure provisioning
- EC2 deployments
- Storage configuration
- Network configuration

Configuration as Code

- OS parameters
- Auto install of DB
- DB parameters
- SAP application install
- Add-on installs
- Baseline security
- HA configuration
- DB replication
- Non-HANA log shipping

Operations as Code

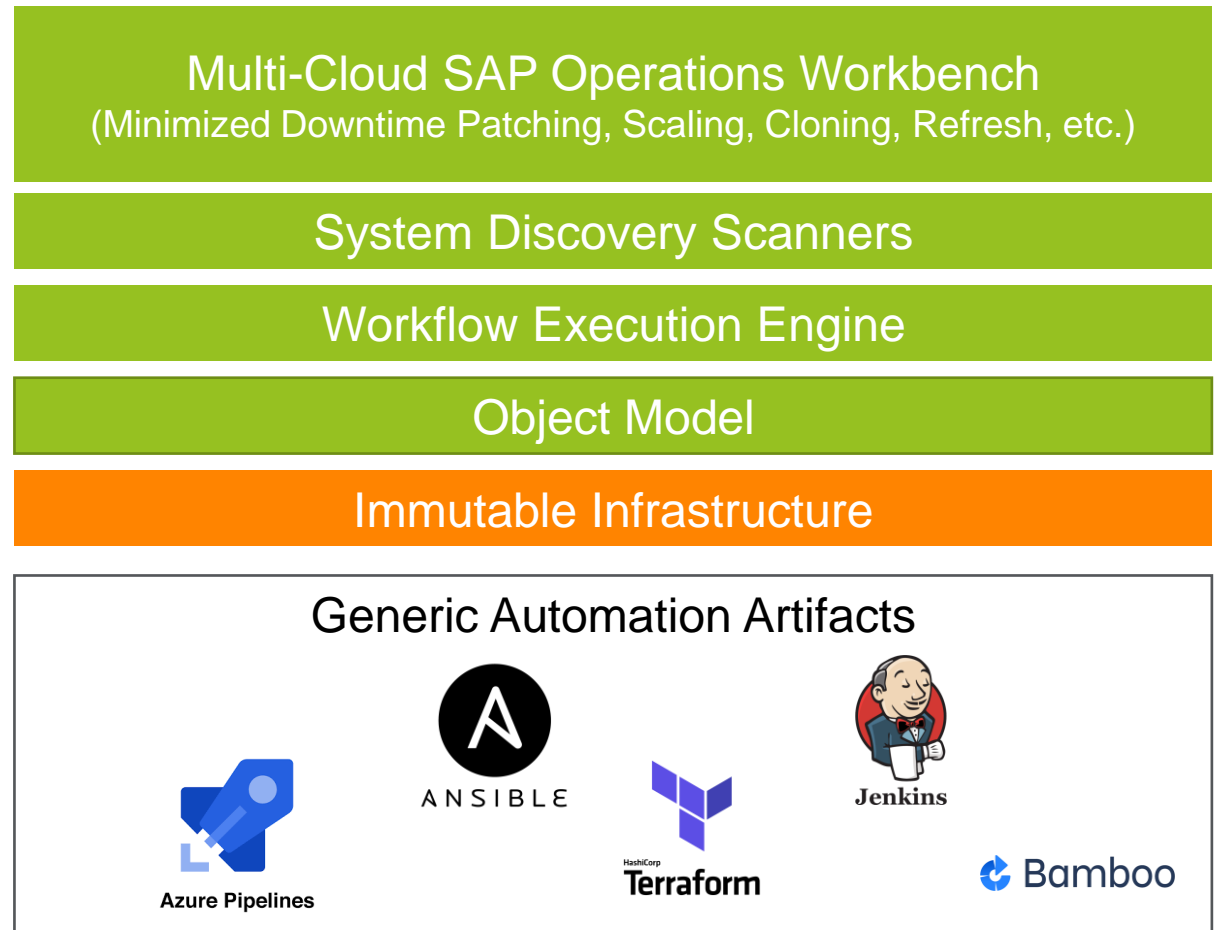
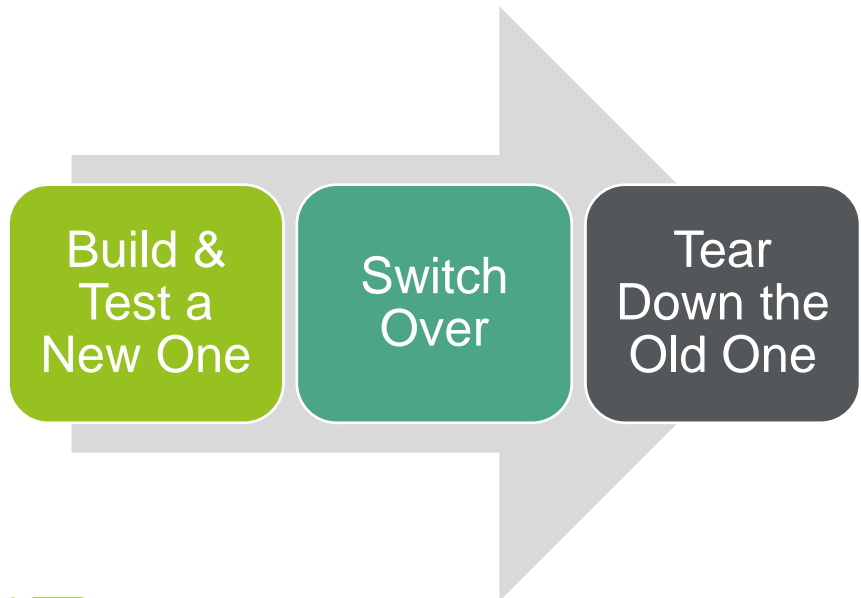
- Bill of Materials
- Service Contracts
- Operational State
 - Confirm configuration
 - Validate patch levels
- Backup Status



Minimized Downtime Operations (MDO™) for SAP

A solution that allows customers or consultants to trigger, monitor, and schedule significant operations on SAP Systems and the infrastructure on which they reside, with:

- Very Low Complexity
- Very Low Effort
- Very Low Downtime



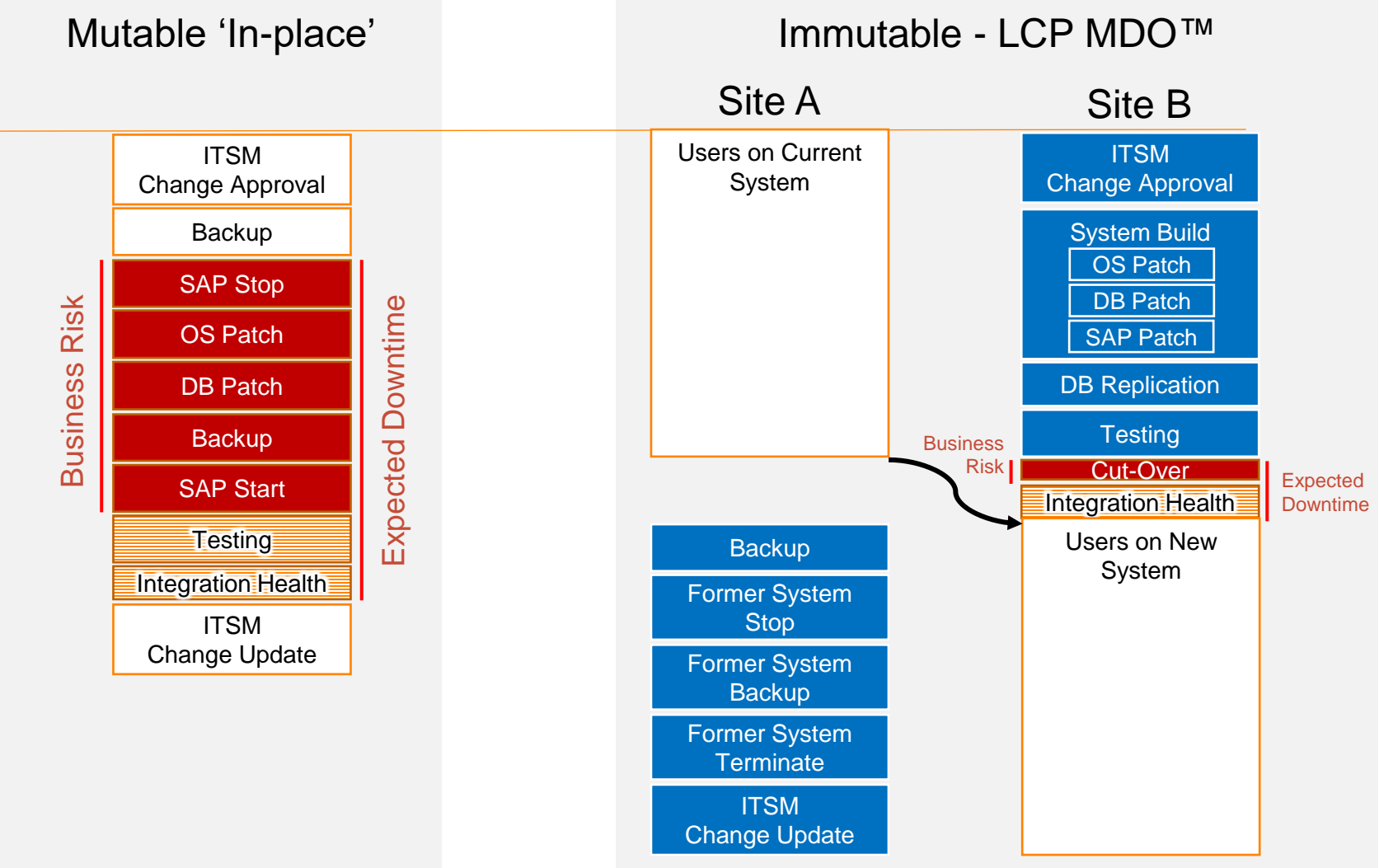
Reducing Planned Downtime

Mutable vs Immutable

Initiate

Expected Downtime
Planned Business Downtime based on comparable historic executions

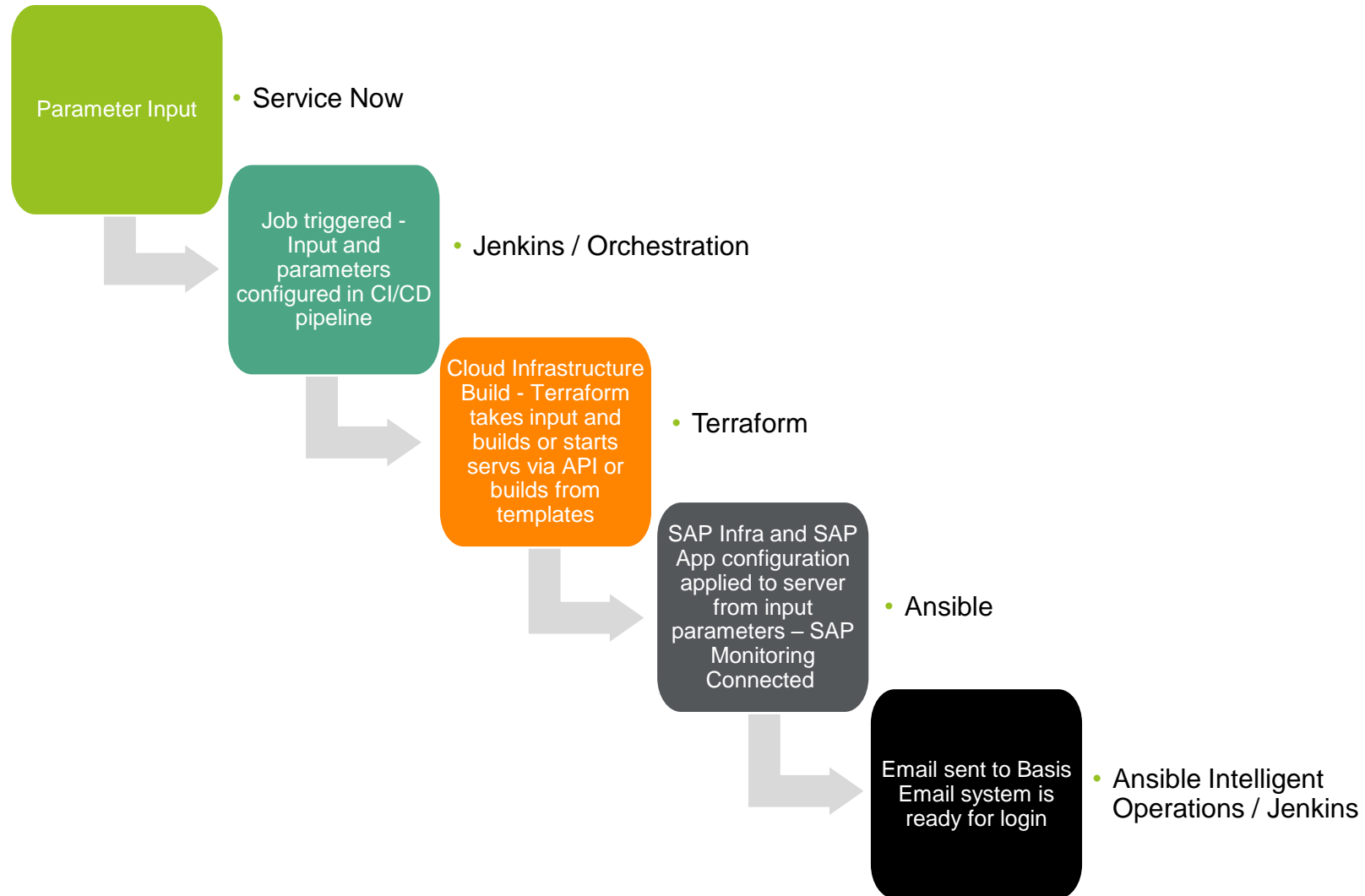
Business Risk
Time period during which any failure leads 1:1 to unplanned downtime



Get the IT downtime to Zero. Minimized Downtime Operations(MDO)™ are a way



Sample: SAP System Build Service

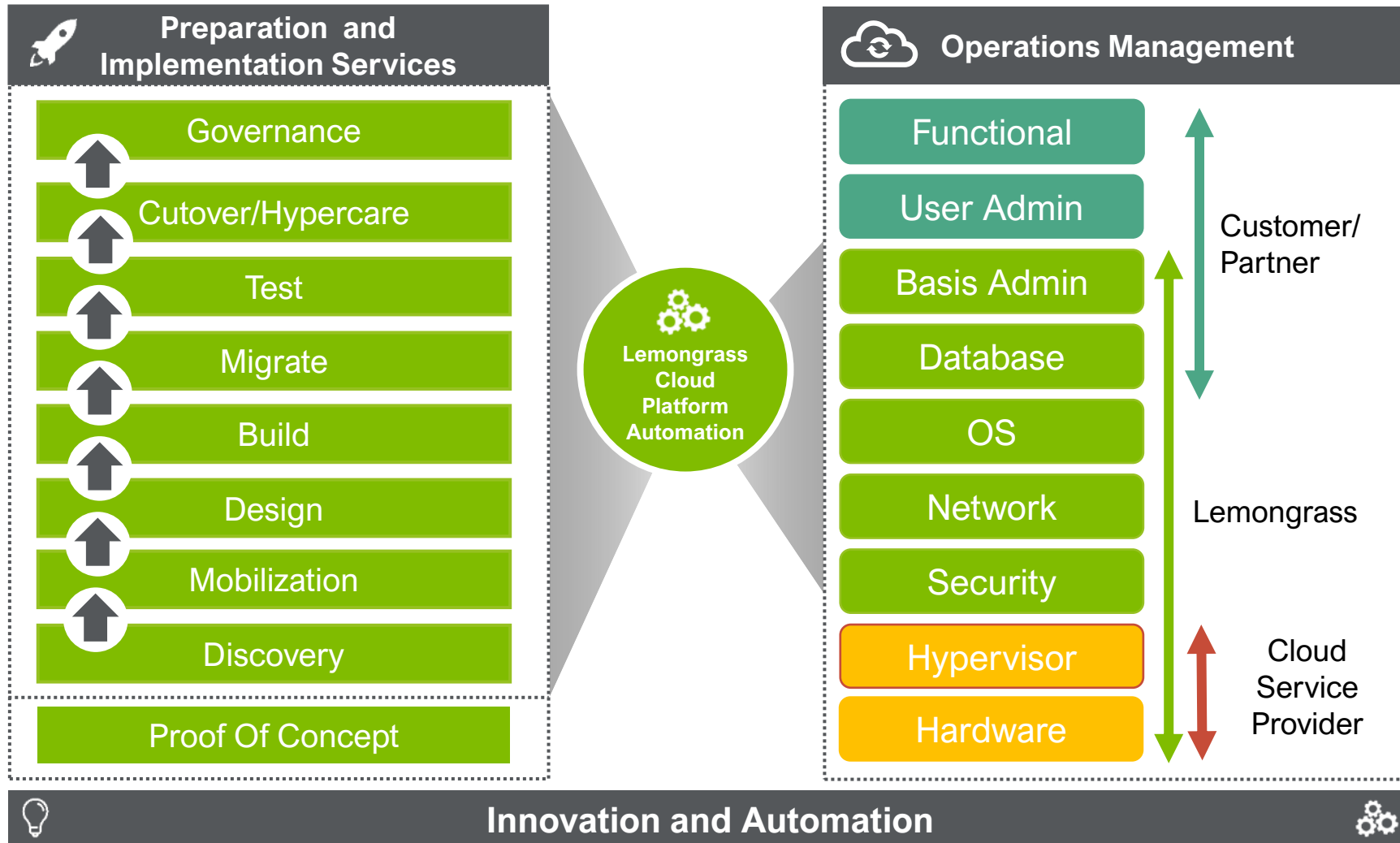




lemongrass

Cloud Native Enablement

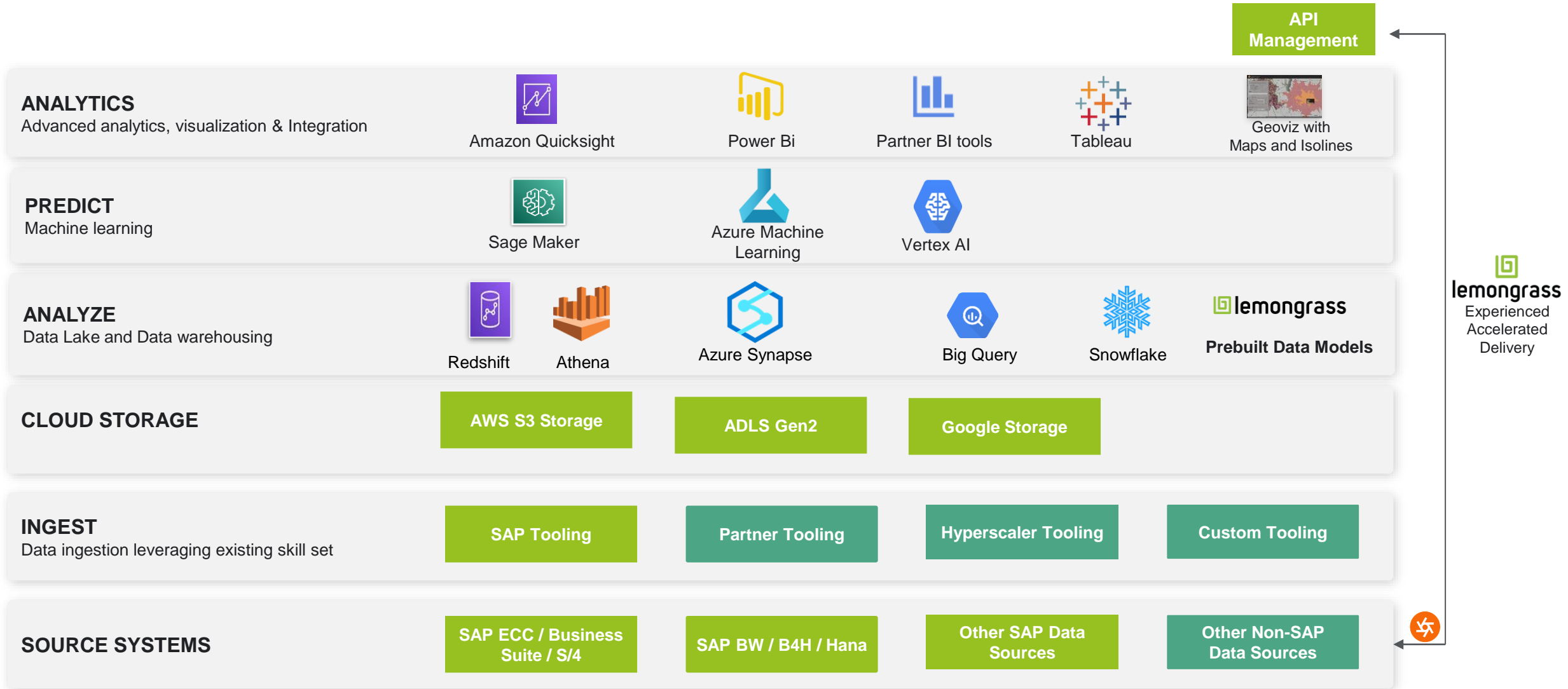
Working with Clients



How can customers take advantage of the pace of innovation from Cloud Service Providers?



Cloud Native Enablement



LCP - Rapid Accelerators Subject Areas Catalog

Financial Suite

- General Ledger
- Accounts Payable
- Accounts Receivable
- Cost Center

Operational Suite

- Inventory
- Purchasing
- Sales
- Shipping-Billing

Manufacturing Suite

- Plant Maintenance
- Procurement Planning
- Production Planning
- Good Receipt and Invoice Verification
- Project System

Retail Management Suite

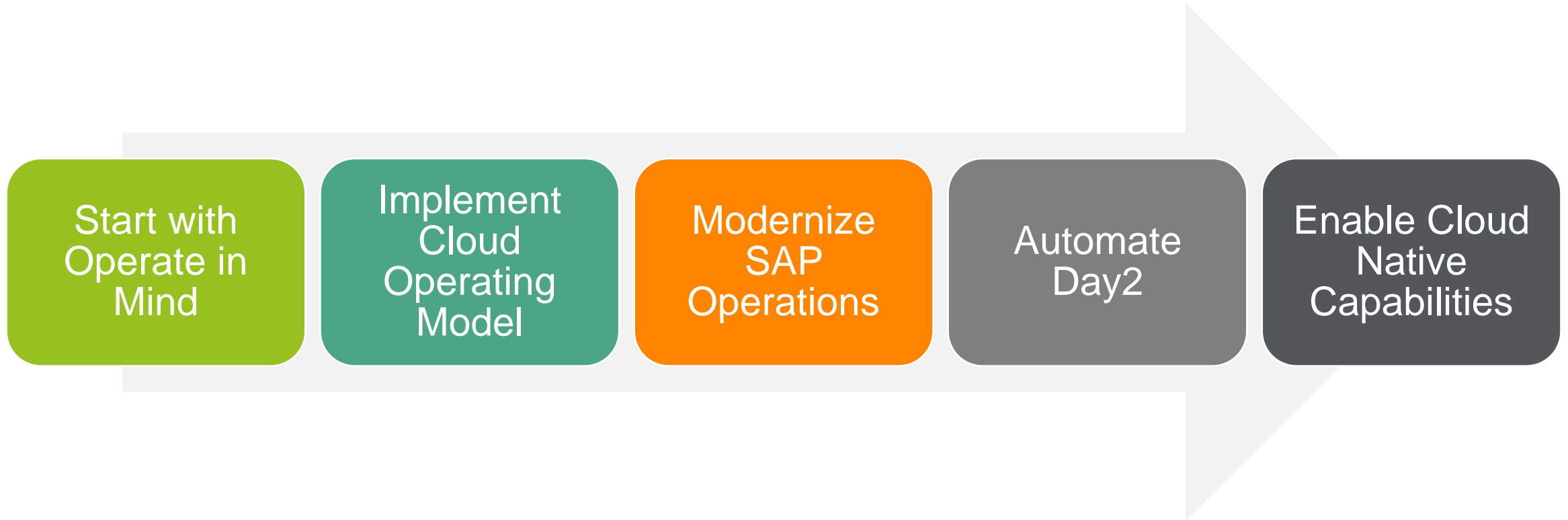
- POS
- Sales Audit

- Customers seeking to leverage more native Cloud data services and AI/ML capabilities
- Business leaders demanding more rapid access to data services and self-service reporting capabilities
- Analytics with SAP tools expensive compared to Cloud-native

Integrate – Flexibility – Speed – Simplicity – Cost – Support



Put the Cloud in SAP



 lemongrass