



QualityStage Address Verification Interface

# Everything you need to know about Address Data Quality

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## Why We Care About Quality Addresses

- ❖ Central to Data Quality Initiatives
- ❖ Key Customer Demographic Data Attribute
  - ❖ For record matching and de-duplication
- ❖ Part of Data Fuel to AI and ML Applications
- ❖ Cost of Undelivered or Returned Mail & Pkgs
- ❖ Avoid Negative Customer Experiences
- ❖ Avoid Billing & Claim Delays
- ❖ Fraud Prevention



**360-degree View of Customer**  
**Know Your Customer**  
**Master Data Management**

## Global Addressing is Complex

Across the more than **245** countries and territories, **6500** spoken languages, **139** character scripts and **130** different address formats, address data is continuously changing. **Let IBM be your address/location data expert so you don't have to do this on your own.**



# Address Data Helps Businesses Make Better Decisions



## Sales & Marketing

- Geo targeting for campaigns (digital & traditional channels)
- Accurate territory designations



## Monitor Trends

- Geography based customer insights
- Visualize hot-spots for product or service demands



## Manage Risk

- Fraud detection and prevention (KYC)
- Identify high-risk geographies for insurance and other purposes

# Address Data Helps Businesses Make Better Decisions



## Plan Infrastructure Changes

- Base analysis on accurate location IDs
- Equipment and network service and support planning



## Deliver a Superior Service

- Precise customer communications i.e. account statements, billing, rewards
- Accurate product deliveries & service calls

## Global Change

**Why is global addressing more important now than ever?**



### Globalization

Access to vast new markets made accessible by e-commerce and global payment technology – this in turn opens up significant commercial opportunities, but also the potential for fraud.



### Personalization

Our customers, whether in our home market or elsewhere increasingly expect a personal relationship, that demonstrates respect for their data, and communication preferences.

## Global Change

**Why is global addressing more important now than ever?**



### Regionalization

Businesses are organizing themselves around regional service centers covering multiple markets – not always with in-country knowledge.



QualityStage AVI

# AVI Within QualityStage Overview





Please view this 1m 40s Overview Video on AVI



InfoSphere® QualityStage®

Address Verification Interface



<https://www.youtube.com/watch?v=ALXQtlzsXHw>

# Introduction of AVI in QualityStage

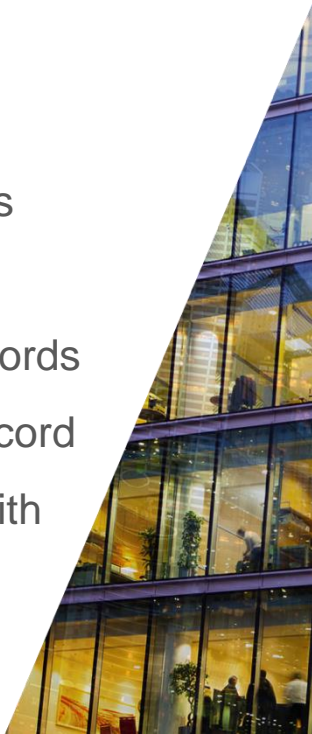
Resolution of address and geocode data quality issues, ensuring a complete, accurate view of a location record across the enterprise

## Requirements

- Resolution of address data quality issues
- Standardization of address data formats
- Cleansing of address data
- Enriching of address data
- Managing duplicate address data
- Enabling ongoing address quality

## Benefits

- Corrects and verifies addresses
- Enables duplicate removal
- Cross-references matching records
- Creates single best address record
- Enhances and enriches data with auto-complete, geocode and transliteration



# Address Verification & Geocode Overview

Continuously update, standardize and enrich address and geocode databases across your applications

1 Rocky neck Ave gloucester ma usa

Enhancing Address				
📍	██████	██████████	██	⚙️
📍	██	██	█	✓
📍	█	██████████	██	✓
📍	██	██	█	✓

📍 1 Rocky Neck Ave  
Gloucester MA 01930-4112  
Lat. 42.608360 Long:-70.655270

## Key Features

- Parses, Matches, Formats, Transliterates and Enriches address data
- Transliterates words or letters from 8 different global character sets into either native or Latin characters
- Enriches address data by adding missing values and appending Geocode

# Address Verification Interface Functionality

## Parsing

Performs a lexicon analysis of the address without validation against reference data

555 Bailey St.

san jose, ca



Premise | 555

Street | Bailey St.

Locality | San Jose

Admin Area | CA

## Validation, Correction & Suggestion

Validates and if possible corrects (or enhances) an address  
Makes suggestions if address validation is ambiguous

555 Bailey St.

san jose, ca



Premise | 555

Street | Bailey St.

Locality | San Jose

Admin Area | Santa Clara

95141-1003, USA

## Transliteration

Transliterates and address character set:

- Native > Latin > Native
- Eg. Cyrillic > Latin

Belovezskaja Ulitsa 39

МОСКВА 121353 RUS



Belovezskaja Ulitsa 39

Mozhayskiy

Moscow 121353, RUS

## Geocoding

Provides latitude and longitude based on an address

555 Bailey Ave

san jose, ca



Latitude | 37.194380

Longitude | -121.753180

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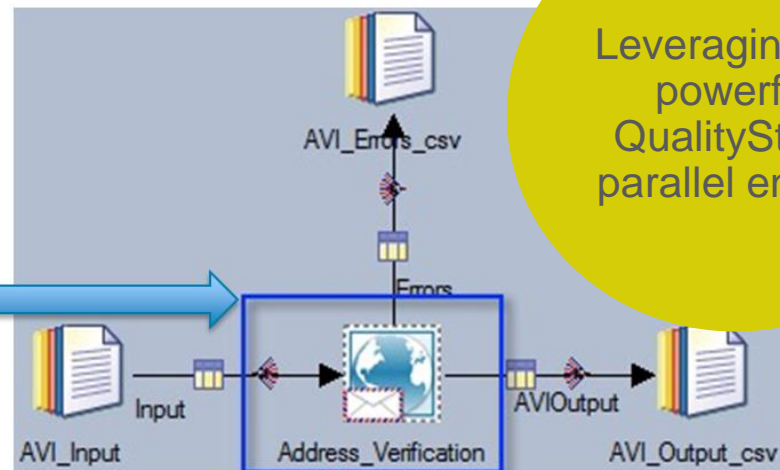
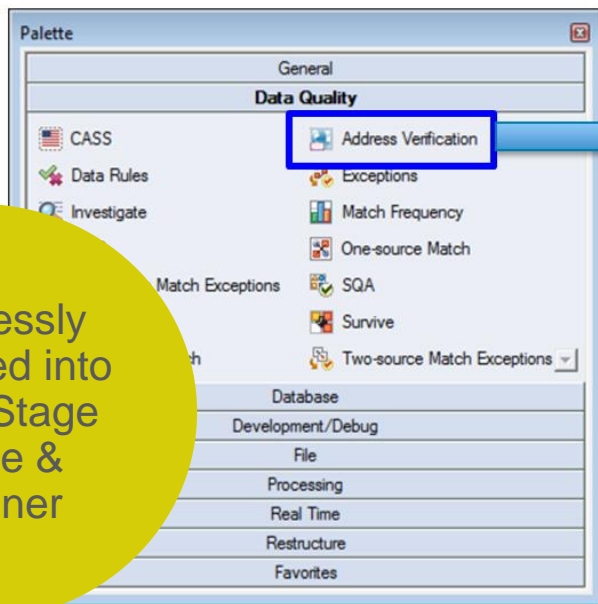


Latitude | 37.194380

Longitude | -121.753180

## Seamlessly Integrated with InfoSphere QualityStage

InfoSphere QualityStage  
Address Verification Interface is:

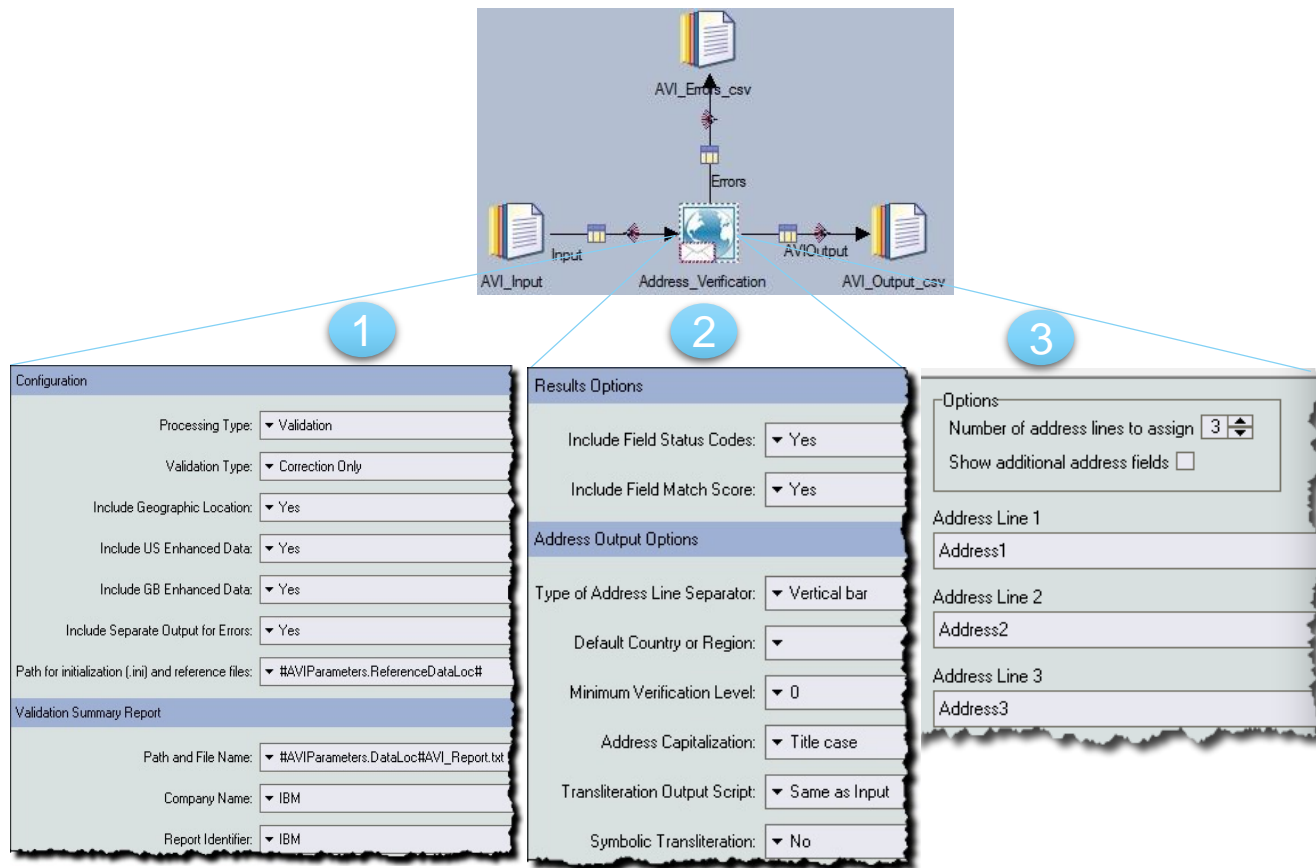


Leveraging the  
powerful  
QualityStage  
parallel engine

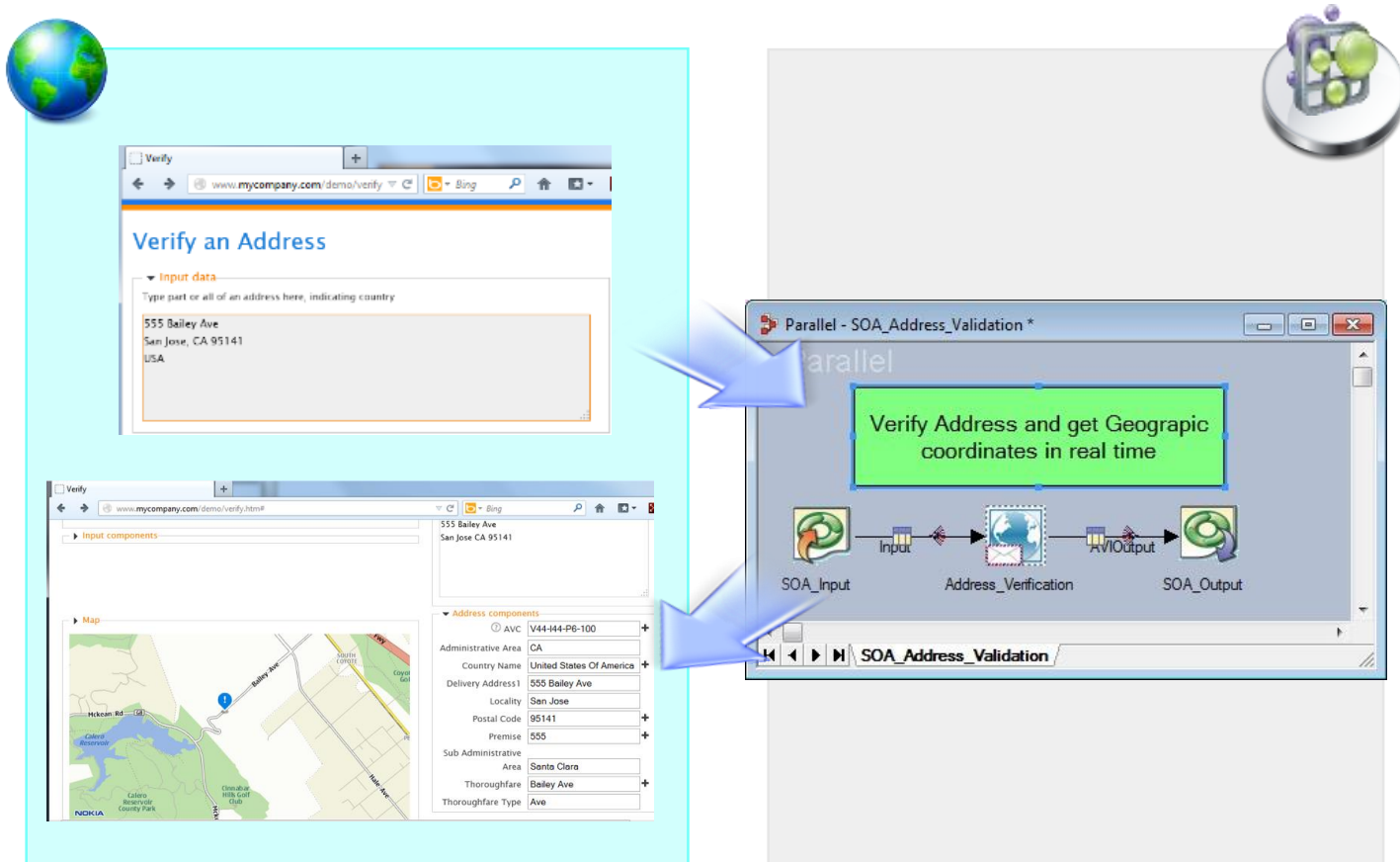
Seamlessly  
integrated into  
QualityStage  
Engine &  
Designer



# Address Verification Configuration as easy as 1,2,3



# Flexible validation execution in Real-time or Batch-style



## Feature Summary



### Global Data Platform

Contains knowledge base data and location reference data from over 245 countries and territories



### Global Parsing Engine

Component level parsing engine will standardize and validate both partial and full global address inputs



### Transliteration

Transliterates words or letters from 8 different global character sets into either native or Roman characters



### Verify

Component level solution for batch verification needs. Databases are batch cleansed and maintained



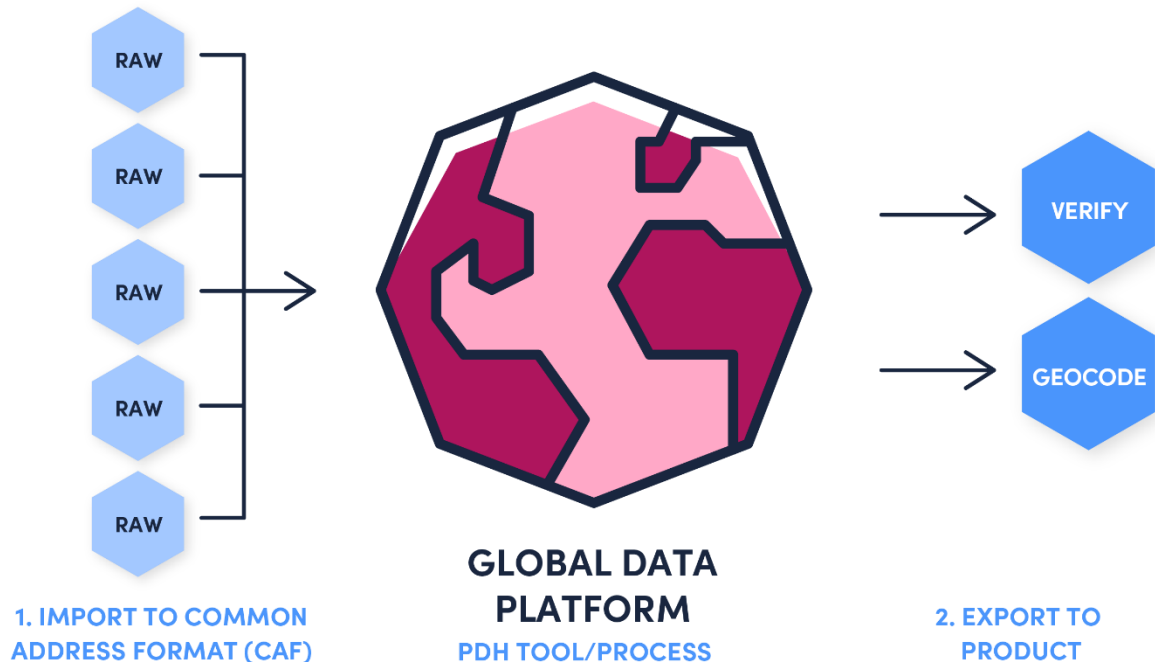
### Geocode

Associates a latitude and longitude coordinate to a specific address location

Identifies locations nearest to a latitude and longitude coordinate

## Current Accurate Address Data as a Strategic Advantage

IBM partners with best of breed location/address experts Loqate. Loqate continuously curates address and geocode data from multiple sources and applies proprietary processes to create a single best reference record.



# DataStage & QualityStage Modernization

Value in modernizing with Cloud Pak for Data

## ONE Reduced infrastructure management effort of 65% to 85%\*

- Cloud-ready Data Integration Architecture for AI built on containers and microservices
- DataOps ready through out-of-the-box integration with governance, BI, data virtualization and data science

## TWO Save up to 30% of workload execution time

- Performance gains in heavy workload and resource contention situations
- Design once, run anywhere at extreme scale

## THREE Reduce cost of operations by up to 50%

- Meet mission critical SLAs through automatic failure resolution
- Leverage existing DataStage investments in skills and assets – no costly retraining required

## FOUR Remove network bottlenecks with co-located Netezza or Db2 Warehouse on Cloud Pak for Data System



“One of the great things about the Cloud Pak for Data System is the speed with which we'll be able to launch and scale our analytics platform. The integrated stack contains what we need to improve data quality, catalog our data assets, enable data collaboration, and build/operationalize data sciences. **We're able to move quickly with design, test, build and deployment of new models and analytical applications.**”

\*TEI report: <https://www.ibm.com/downloads/cas/V5GNQKGE> "Reduced infrastructure management effort: 65% to 85%" [link](#)

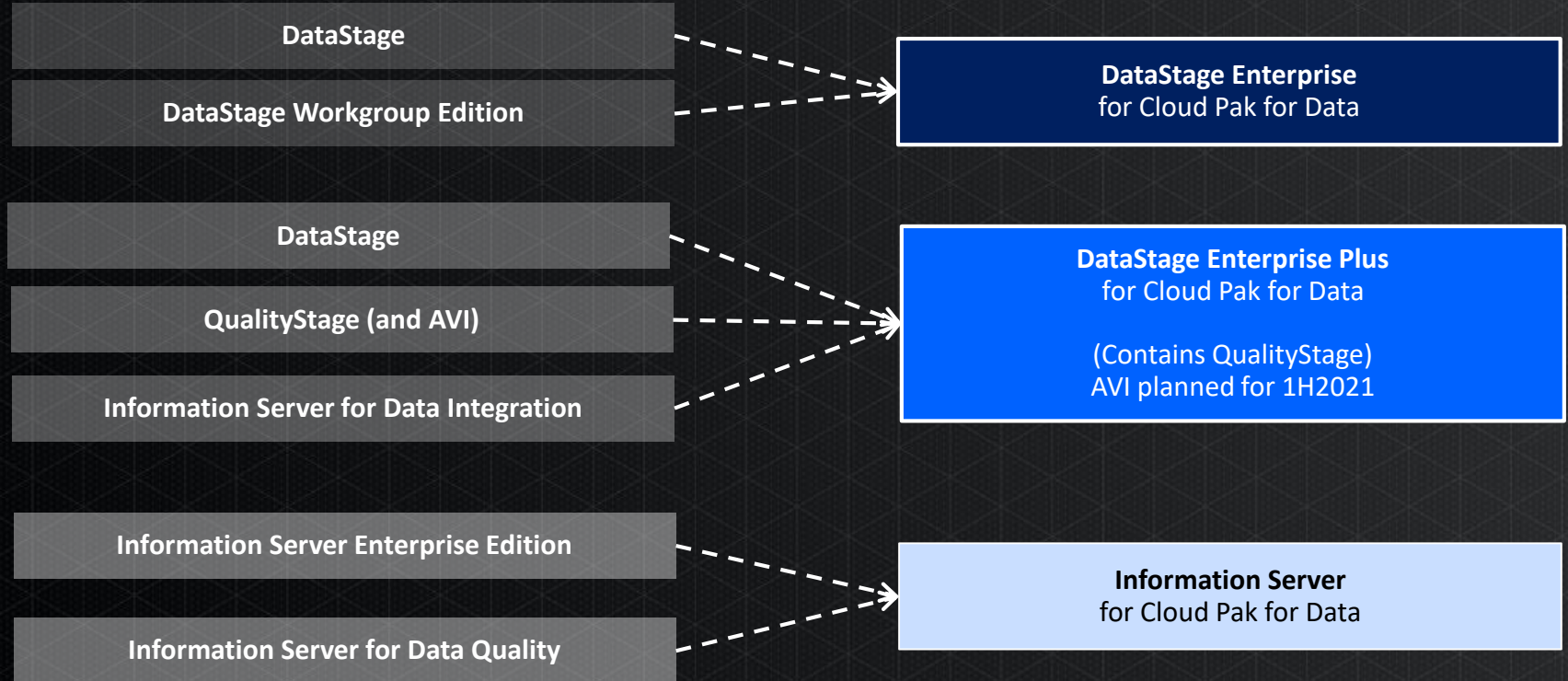
**Steve Lueck**  
**Vice President, Data Management**  
**Associated Bank**



# Paths to Modernize

## Today

## Modernization Offering



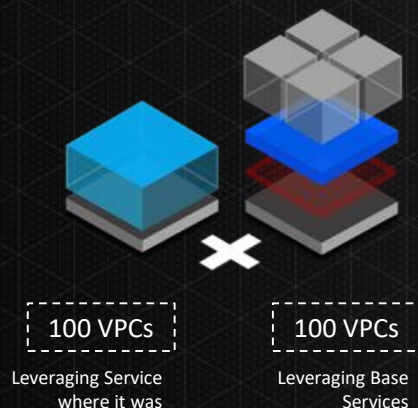
# How entitlements traded up to Modernization Upgrade can be allocated

## Scenario: Your existing DataStage

- Today: 7000 PVUs of DataStage Standalone (Prod)
- At renewal: trade-up to DataStage Enterprise Upgrade
- Get at a minimum: 100 VPCs of DataStage Enterprise + 100VPCs of Cloud Pak for Data
- Once they trade-up, they can allocate this entitlement in an infinite number of ways, some shown below:

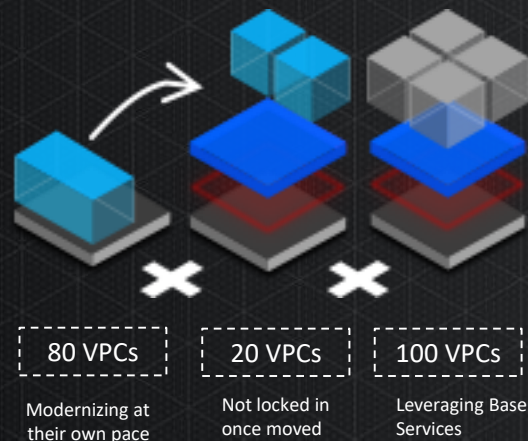
### Example

Trade-up license entitlement but workload still runs on stand-alone offering



### Example

Trade-up license entitlement and move workload to extension gradually





Learn more about QualityStage AVI and DataStage

Webpage: [Modernization upgrade for existing customers](#)

Whitepaper: [QualityStage AVI and IBM DataStage](#)

Join the online Information Server and DataStage community:  
[bit.ly/datastage-community](https://bit.ly/datastage-community)