



“Z” Adventures of our Z Apprentices

Company Overview

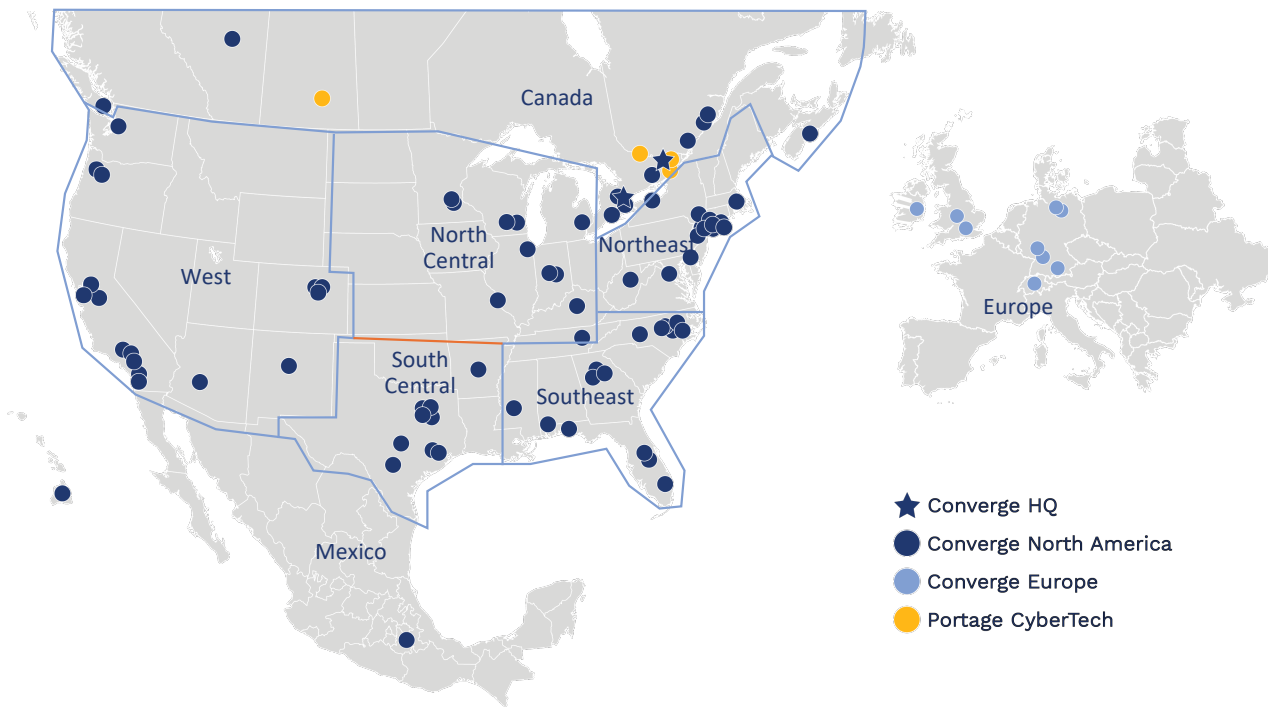
Converge is a **services-led**, software-enabled, **IT & Cloud Solutions provider** focused on delivering industry-leading solutions.

Converge supports these solutions with **advisory**, **implementation**, and **managed services** expertise across all major IT vendors in the marketplace



Converge Platform

- **Scaled Footprint with Strong Partner Relationships and Capabilities**



~3000 Employees Globally		
<i>incl.</i>		
60+ Office Locations	400+ NA Sales Personnel	1,200+ NA Technical Resources
400+ UK Personnel	300+ Germany Personnel	350+ EU Technical Resources
<i>with</i>		
1,000+ Certifications	4,000+ Customers	
10 Key Partner Relationships	1,000+ Total Partner Relationships	

Acquisition Overview

M&A Strategic Pillars



Culture



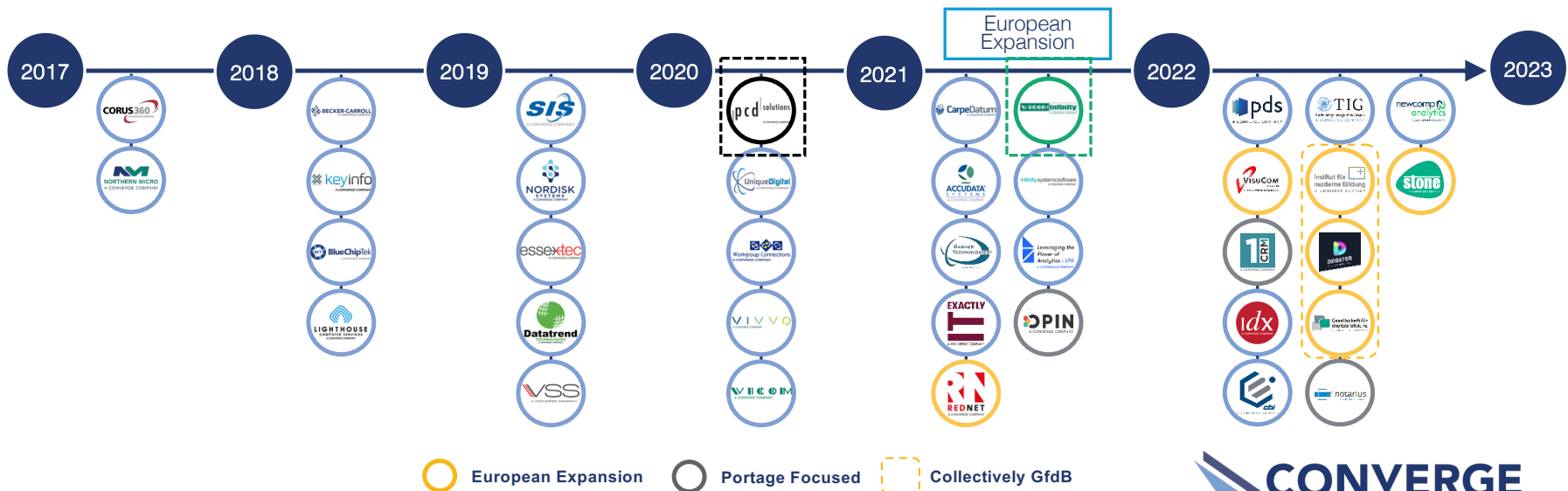
Skills



Clients



Partnerships



Fully Integrated Set of Solutions & Services

A Full Suite of Solutions...



Advanced Analytics

- AI/ML
- Business Analytics
- Data Visualization
- Data Platforming & Integration
- Financial & Operational Mgmt.
- Robotic Process Automation



Application Modernization

- Application Development & Migrations
- DevOps
- Containers Services & Kubernetes
- Automation & Orchestration
- Observability & Intelligent Ops
- Integration & Middleware



Cloud Platforms

- Cloud Foundations & Landing Zones
- Cloud Migrations
- IBM Power on Cloud
- VMware on Cloud
- Infrastructure as Code & Automation
- Cloud Governance & Operations
- FinOps & Cost Optimization



Cybersecurity

- Threat Assessments
- Risk & Compliance
- Identity & Access
- Data Protection
- Security Intelligence & Analytics
- Response, Remediation & Maturity



Digital Infrastructure

- Datacenter & Compute
- Intelligent Networking
- Customer Experience
- Multi-site Deployment
- Configuration Centers
- Infrastructure Security



Digital Workplace

- Voice & Unified Communications
- Workplace Productivity Solutions
- Endpoint Management Solutions
- Virtual Desktop Solution
- End User Compute



Global Integration & Deployment

- Planning/Acquisition
- Configuration
- Deployment
- Support
- Management
- Retirement/Disposal

...Delivered through End-to-End Service Offerings

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Advise

- Architecture Planning & Insights
- Roadmap Design & Prioritization
- Software Asset Management
- Strategic Transformation Workshops & Assessments



Implement

- Agile Methodology & DevSecOps
- Build & Design
- Integration & Support
- Program & Project Management
- Talent Services



Manage

- Service Desk & Managed ITSM
- Managed Application (AMM)
- Security Operations Center (SOC)
- Infrastructure Operations Center (IOC)



Vicom Infinity Historical and Current Mainframe Capabilities

- **Since Our Founding / Late 1990's**

- Major Account Presence
- Value-added Reseller of IBM Hardware, Maintenance, and Software
- Trusted Vendor Source for IBM Z Mainframe and Associated Storage and Network I/O

- **Long-Term Trusted IBM Relationships**

- IBM Champion Program
- IBM Z Academic Initiative Program
- IBM Certified Platinum Level Business Partner and VAR
- IBM Authorized Tier One Services Provider
- IBM Participant Alpha/Beta Tests
- IBM Software Migration Project Office (SMPO) Staffing Partner




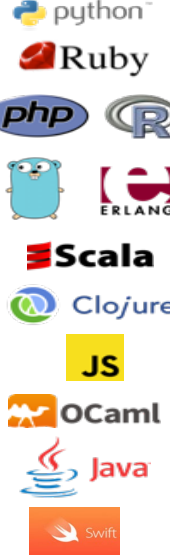



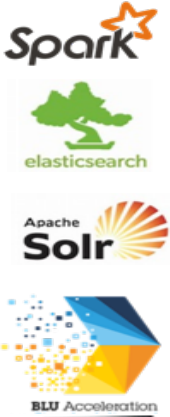
- **Our Full Range of IBM Mainframe Lifecycle Services**

- Architect and Design Assistance
- Capacity Planning & Modeling
- Disaster Recovery Planning & Implementation
- Installation Planning & Implementation
- Software Migration & Installation
- Application Modernization and Migration
- System Upgrade, Migration, & Conversion Services
- Pervasive Encryption
- Parallel Sysplex Training
- End User New Technology Training
- Staff Augmentation / Contingent Workforce
- Key Personnel Risk (KPR) Program Management
- Mainframe Managed Services - Remote / On-Prem / Hybrid

Notable Mainframe Clients, and many more



Our Legacy and Continuing Drive of Mainframe Innovation

Distributions	Virtualization	Languages	Runtimes	Management	Database	Analytics
<p><u>Supported Versions</u></p>  <p><u>Community Versions</u></p> 						



Background

- IBM Z Apprentices:
 - Victoria Pecovic
 - Lucas Terrone
- I am fond of their “IBM Z Apprentice” title as it sounds “magical”, which as you’ll soon discover, is an accurate term
- Victoria and Lucas are recent University graduates who work for Converge as “Z Apprentices”
- No exposure to Mainframes during college, and little to no exposure to Linux

Lots to do

- Many clients, many tasks
- Opportunity to relieve burden on System Architects and accelerate client objectives
- Assigned selected tasks to IBM Z Apprentices
 - Well-defined project goals
 - Tight scope
 - Rigid timelines
- Not all tasks were Z-centric, but were integration components
 - This promoted broad-scope knowledge

Challenges

- Level of task difficulty ranged from “manageable” to “monumental”
- Nothing was “easy”
- We literally threw them into the ocean, expecting them to swim
 - “Learn by drowning doing” – a “hands-on” approach

Training

- Enrolled in a 12-month z/OS training program
- Weekly assignments
- IBM Badges accrued
- Full-time, salaried employees during apprenticeship

Timesheet application

- This was our inaugural project
- A hodgepodge of JavaScript & MySQL
- Supposedly a Web Development assignment
- Leveraged “trial by modification” tactics
- Needed to determine which source files were current
- Taught us basic Linux skills
- Gained more experience with GitHub
- Google and ChatGPT was our friend
- First exposure to Linux

Data Replication

- IBM InfoSphere Data Replication – Capture database changes
- Learned SMPE
- Learned USS
- Leveraged peer mentoring
- Existing documentation was not suitable for environment they were using, therefore had to take an entirely new approach
- Utilized a JDBC connection that they previously configured
 - o Accessed DB2 Database to run Apply and Capture programs

IBM Secure Directory Server

- Windows application
 - LDAP server
 - Client requirement
 - Component of Identity Management solution
- Learned Windows Administration
- Manipulated Windows Services
- Learned RDP

IBM Verify Privilege Vault

- Windows application
- Pretty much “Next”, “Next”, “Next”, “Finish”

IBM GKLM

- Linux application
 - (License Key Manager)
- Installed in a Linux KVM instance (acquired KVM skills previously)
- Key component used for data at rest encryption by IBM ESS infrastructure
- High-availability architecture requirement: 2 instances were installed
- Referenced commands documented from previous installs to build these instances

IBM Spectrum Control

- Windows application installed via RDP
- Set of tools for managing storage capacity and performance
- One of the "trickier" installs as it did not work first try
- Very vague error messages led to a difficult diagnosis
- After many google searches and flipping through provided documentation, it was later discovered that a pre-existing & incompatible DB2 instance was being pointed to instead of the version this product needed

IBM QRADAR

- Linux application
- Absolutely no context for this assignment
- Critical infrastructure component for a hybrid cloud deployment
- Installed via ISO (different from installing Linux from an ISO)
- Installed in Linux KVM environment
- Discovered magical “history” command
- Leveraged peer mentoring
- Wrestled with IBM documentation
- Opened a PMR

Research Tools

- Web searches
- ChatGPT conversations (our BFF)
- Documentation
 - "Welcome to the wonderful world of IBM Documentation"
- IBM Support (PMR)
- Colleagues
 - Peer mentoring was essential
 - Mutual collaboration between Lucas and myself

Outcomes

- Enhancements made to Timesheet application helped reduce timekeeping effort
- Installation documentation not always helpful
- We were assigned several difficult, high-priority tasks and given (VERY) minimal information
- All assignments completed on schedule, including required documentation
- Contributed to the success of a major hybrid cloud engagement
- Z Apprentices flourished when given autonomy and a moderate support system

Perspectives

- Today's outlook:
 - Z Apprentices continue to learn (have yet to drown)
 - Their skillsets are diverse, current, and marketable
 - Learning diagnostic approaches that are useful for future projects
 - They've done so well that we are encouraged to further challenge them
 - They help us recognize gaps in current mainframe training offerings
 - They help magnify a fresh perspective on mainframes and associated products and skills; such insights help us create better documentation and services

Stay tuned...

Special
Thank You
To
Our Z Apprentices!!!

