S-Square

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CERTIFIED NMSDC MBE 2018

S-Square - LowCode/NoCode (LC/NC) Enabling Technology Presentation

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Current Challenges in Traditional Application Development

Long Development Timelines

- Custom development with standard SDLC processes
- Long incubation period before seeing a MVP
- Minor changes require long turn around time for design, build and testing.

High Capital Expenditure and Operating Costs

- Investment in Software platforms and Infrastructure for custom development
- Higher support costs due to diverse support requirements

Disparate Technology Landscape

- Multiple small projects using disparate technologies
- No uniform platform to manage small developments

Developer Shortages

- Developer shortages and skill-set challenges
- Multiple small productivity projects get deprioritized

6 Generations of Programming Languages

First generation (1GL) - machine-level programming language used to program first-generation computers
Examples: machine-level programming languages

Second generation (2GL) - assembly languages. Examples: Assembly

Third generation (3GL) - more machine-independent (portable) and more abstract therefore more programmer-friendly than previous generations of languages
Examples: Fortran, COBOL, BASIC, Pascal, C, C++, Perl, Python, Java, JavaScript, Ruby, PHP, C#

Fourth generation (4GL) - include support for database management, report generation, mathematical optimization, GUI development, or web development. Examples: ABAP, Unix Shell, SQL, PL/SQL, Oracle Reports, R

Fifth generation (5GL) - any programming language based on problem-solving using constraints given to the program to make the computer solve a given problem without the programmer, rather than using an algorithm written by a programmer. Examples: Prolog, OPS5, Mercury

Sixth generation (6GL) - programming language based on visual development. The overall umbrella term for these is "NoCode". Examples: Appian, WEM.io, Bubble.io

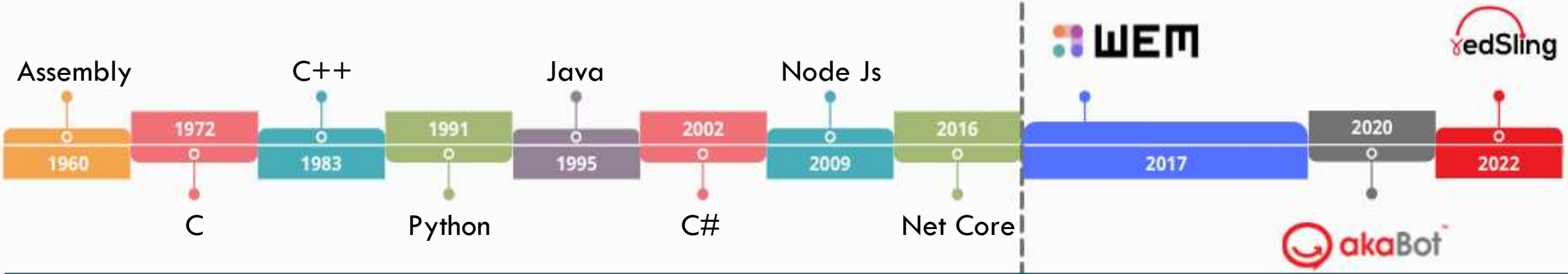
Reinventing Software Development

Traditional Coding

Requiring expensive, hard to retain code-linquists

No-Code

Empowering transforming support to employ business-knowledgeable techno-functional resources



Traditional computer languages require programmers to translate their thinking process into code built for the CPU and memory

Optimized for how we humans think. Converting natural thinking process into working software

Digital Transformation. Legacy Modernization. Business Velocity.

80%

COST REDUCTION

Empowers employing business knowledgeable (techno-functional) resources instead of costly, hard to retain code-linquists to build, deploy and maintain secure scalable enterprise-grade software.

10%

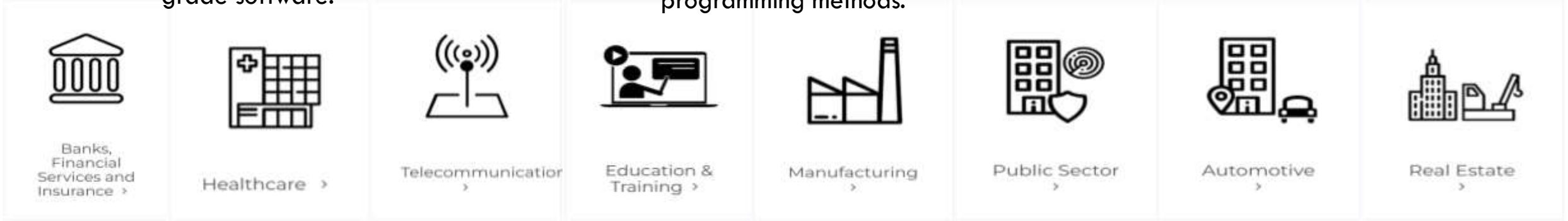
FASTER TIME-TO-MARKET

View app development in real-time. Deploy and update applications with a single click. Deliver software 10 times faster than traditional programming methods.

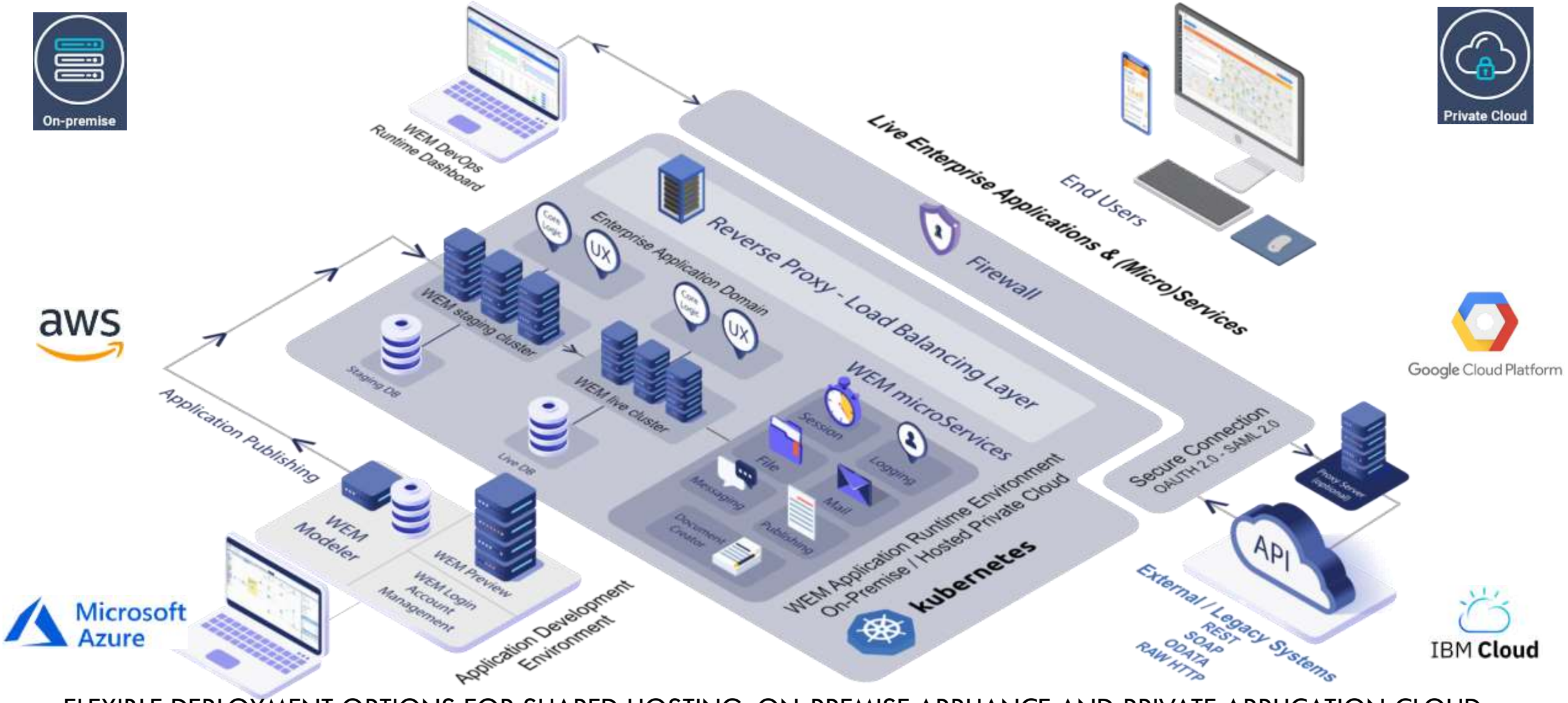
100%

ALIGNED TO BUSINESS

Translate innovative business ideas to custom software built with no code app builder at the speed of, and fully aligned with, business requirements.



SCALABLE, SECURE CLOUD ARCHITECTURE



FLEXIBLE DEPLOYMENT OPTIONS FOR SHARED HOSTING, ON-PREMISE APPLIANCE AND PRIVATE APPLICATION CLOUD

3rd Party LCNC Marketplace Product Evaluation

Criteria	WEM	Betty Blocks	Power Apps	OutSystems	Mendix
Category	No Code	Low code	Low code	Medium to high code	Low code
Platforms	Web, native apps	Web apps	Web, native apps	Web, native apps	Web, native apps
Data Model	Drag & Drop	Visual Editor	Tables	Visual Editor	Visual editor
Visual Editor	Web-based	For backend apps	Web-based	Many designer	Web-based, desktop-based
Workflows	Drag & Drop	Action Modeler	MS Flow	Visual modeler	Visual modeler
Look & Feel	Custom templates	Custom js/css/html	Customizable	Custom js/css	Custom js/css
Environment	Public, private cloud, on premise	Public cloud, on premise	Public, private cloud, on premise	Public, private cloud, on premise	Public, private cloud, on premise
Release Management	Fully	Fully	Partially	Fully	Fully
Integration	All API standards	JSON, SOAP/REST	Office365, REST	SOAP/REST	SOAP/REST

Use Case – Digital Transformation Order and Manufacturing Management System

This is a family business that is a manufacturer and installer of gates. It provides for the design, manufacture, and install of manual and automated gates such as single and double swing gates, sliding gates, as well as fences.

CUSTOMER CHALLENGES

- Complex algorithms to calculate the quantity of material to be purchased and how much was used in the manufacturing of gates needed to account for the fact that there were no standard gate dimensions or design
- Similar complex algorithms to determine whether offcut stock could be reused depending on the dimensions and nature of the material.

WEM ADVANTAGES

- **Enabled quotes to be generated and sent to the customer upon site assessment without having to return to the office and manually calculate and prepare the quote**
- **Provided for offcut management to reduce the cost of materials required for manufacturing**
- **Enabled the recording of photos of the site to reduce the need for repeated site visits**
- **Use of existing data from legacy systems/integration with legacy systems**
- **Cloud solution offers flexible workspaces (not tied to a location)**
- **Easy to extend the application**
- **Fast return on investment**

PROBLEM

Quote to Installation was a manual process that was time-consuming and prone to error both in the determination of the material used and also in customer pricing. In addition, during the manufacturing of the gates, there was wastage because there was no stock control for the reuse of offcuts.

SOLUTION

The application enabled site assessment to capture details for dimensions, ground condition, electrical supply, gate/fence design, concreting requirements, etc. Quotes could be generated and emailed to the customer. Upon receipt of an order, a bill of materials was generated from templates and customized as needed, with purchase orders generated for supplier orders. Manufacturing instructions were prepared using algorithms to calculate any cuts needed with stock control maintained for the offcuts. Reuse of offcuts was taken into account in the preparation of the bill of materials. Invoices were immediately generated and sent to the customer. The algorithms used to calculate the required materials were complex and had to take into account the site conditions, gate designs, type of material required, and additional factors such as concrete. Despite this, our application was able to achieve all of the custom requests in a highly time-effective manner.

Representative WEM Enterprise Customers

Thank You

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