



The Infinite Cloud: Bringing the Horizon to BBCRM

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TITLE

Sr. Software Engineer

AT BLACKBAUD

Fourteen years

HOMETOWN

Columbia, SC

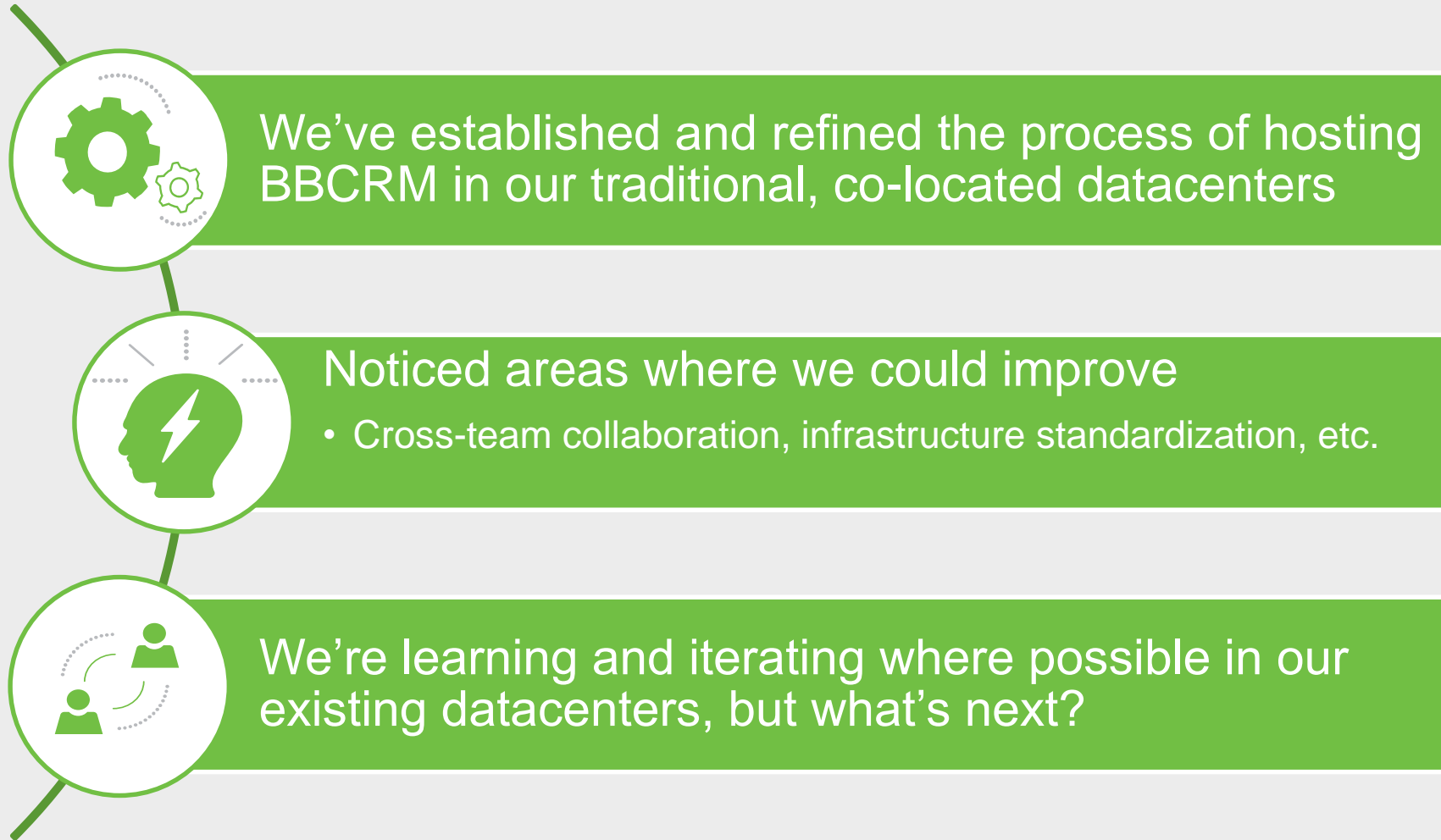


ABOUT ME

South Carolina native, educated in Corporate Communication at the College of Charleston where I met my wife Aundrea. We made Charleston our home with our 2 year old son Andrew. I love gaming, reading, spending time with family, and all things tech.



How Did We Get Here





DEVOPS

DevOps is defined as a set of software development practices that combines software development (*Dev*) and information technology operations (*Ops*) to shorten the systems development life cycle while delivering features, fixes, and updates frequently in close alignment with business objectives.

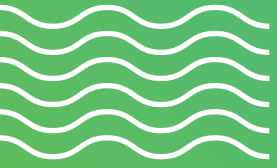
What Does DevOps mean for BBCRM?

Cross-team collaboration and a focus on automated processes

- Agile - Shared sprints, standups, and user stories
- Hosting solution is built from the ground up with a collaborative and automated approach

Direct Developer involvement

- Same developers responsible for coding BBCRM also contributed code to BBCRM Azure deployment/configuration



SOFTWARE DEFINED INFRASTRUCTURE

What is Software Defined Infrastructure?

Software Defined Infrastructure (SDI)

- Software Defined Infrastructure (SDI) is a method of creating and managing infrastructure through code.
- The software is made up of modular parts. These parts are created with Windows PowerShell, by which we create modular commands called cmdlets.
- These cmdlets can be used independently or combined together in unique ways to build a complete system of SDI components.

Key Advantages

Agility

- Adapt quickly to changes and reduce time to market by eliminating IT dependencies.

Efficiency

- Software can be leveraged by many different teams.

Quality

When you bring all these advantages together, it brings us quality.

Consistency

- Codifying manual processes ensures we carry them out the same way every time.

Scalability

- When we need more, we create it.

HOST VS. GUEST CODE

HOST Code

- Interacts with APIs for creation of raw resources (network, disk, virtual machines)
- Application tags added to resources as key identifiers (product type, server role, etc.)

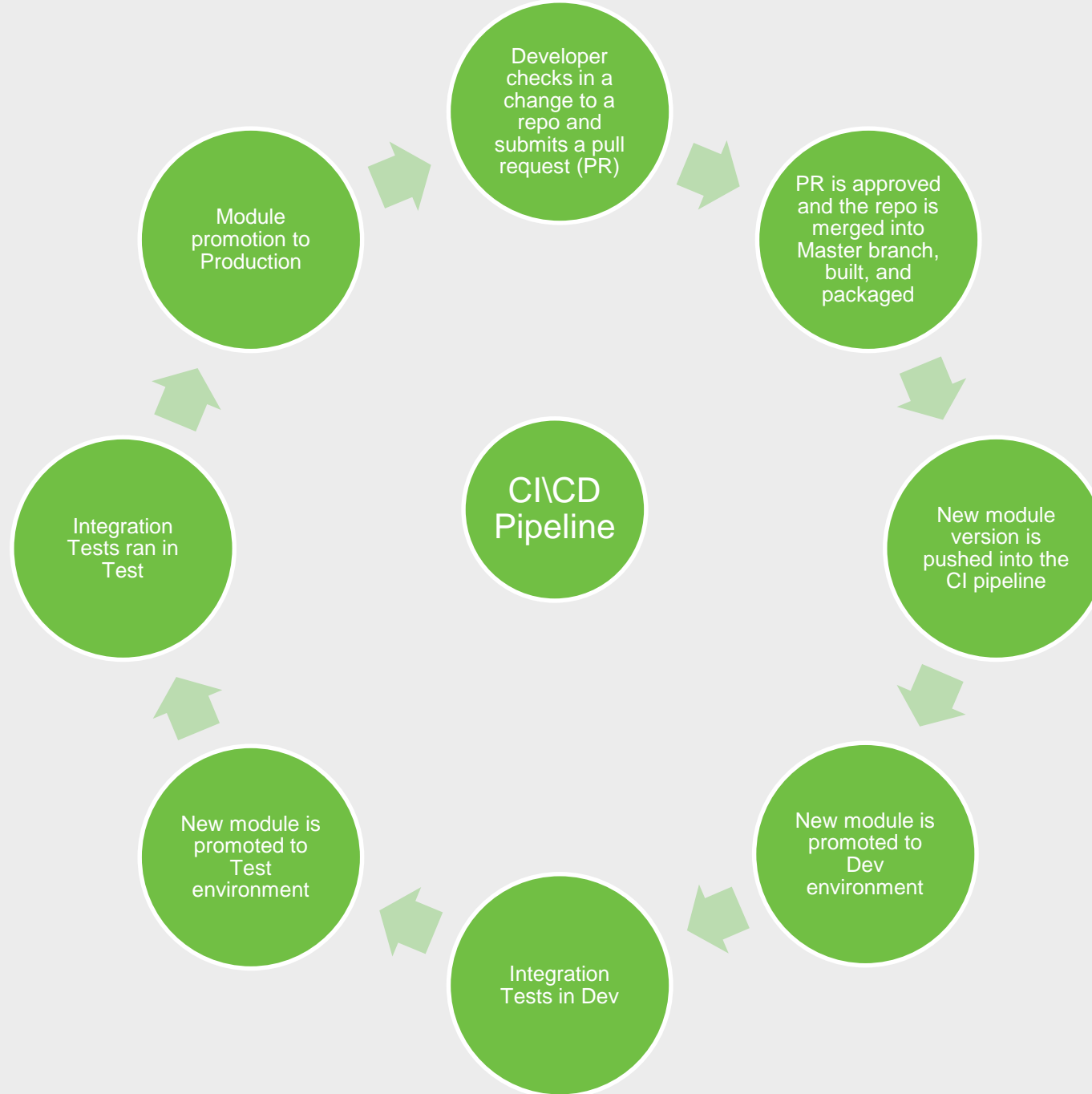
GUEST Code

- Used for the initialization and maintenance of resources
- Platform agnostic
- Site tests



CONTINUOUS INTEGRATION

Continuous integration is a DevOps software development practice where developers regularly merge their code changes into a central repository, after which automated builds and tests are run. Continuous integration most often refers to the build or integration stage of the software release process and entails both an automation component (e.g. a CI or build service) and a cultural component (e.g. learning to integrate frequently). The key goals of continuous integration are to find and address bugs quicker, improve software quality, and reduce the time it takes to validate and release new software updates.



THANK YOU!

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