CA Endevor SCM
Agile Development & Continuous Delivery

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Abstract

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How the CA Endevor® Software Change Manager product team enhanced their development process to incorporate the Ideation, Agile, and Incremental Delivery methodologies to create and deliver the right product features at the right time.

Learn how you can get connected with these new processes!

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Agenda

1	**THE CHALLENGE, GOALS & OBSTACLES**
2	**MOVING TO NEW METHODOLOGIES**
3	**GLOBAL USER COMMUNITY IDEATION**
4	**ENDEVOR AGILE SCRUM PROCESSES**
5	**INCREMENTAL RELEASES & CONTINUOUS DELIVERY**
6	**GET INVOLVED!**

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The Challenge

Publish product enhancements that matter while they still matter…

- Due to the razor-sharp competitive environment, business needs won't wait / can't wait

- Vendor/application product enhancements required to meet those business needs must be delivered fast
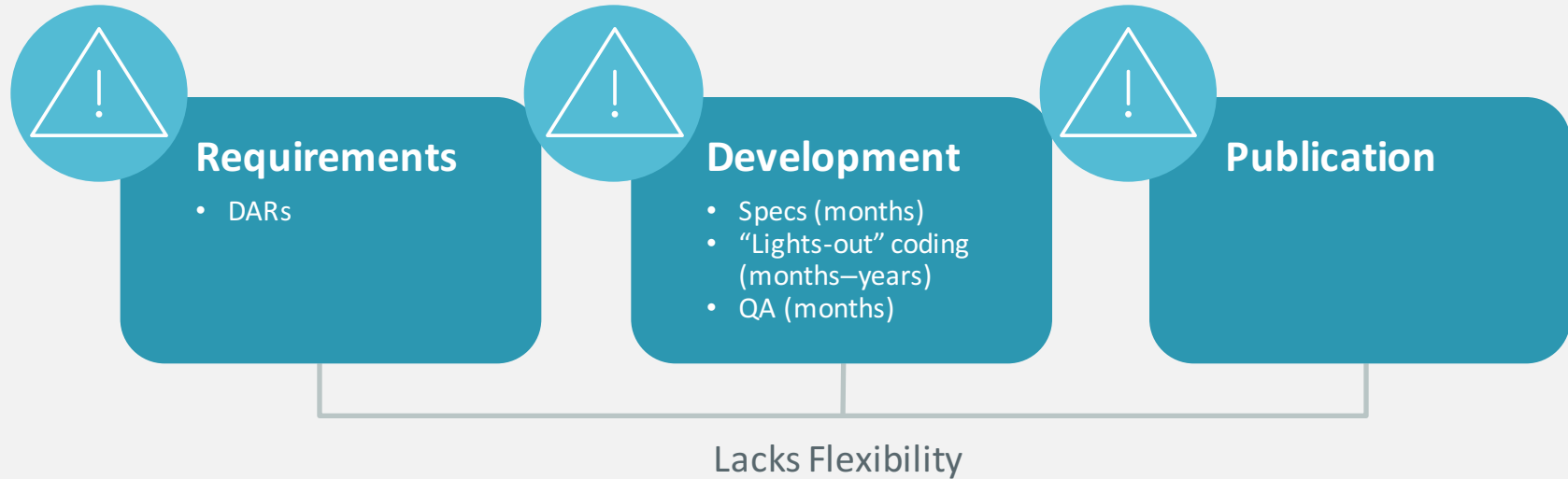
Goals to Meet the Challenge

"Deliver features that matter when it counts"

- The product team delivers product enhancements that:
  - Meet customer's business requirements
  - Are delivered on a timely basis
  - Are defect-free
  - Can be installed with minimal disruption

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Obstacles We Faced

Our old methodologies

Requirements

- DARs

Development

- Specs (months)
- "Lights-out" coding (months—years)
- QA (months)

Publication

Lacks Flexibility

Obstacle #1 – Feature Requirements Management

CA DAR process

- Customers submit enhancement requests that only to they and CA see
  - Lack of visibility made enhancement's overall value difficult to measure

- Requests almost always seemed worthwhile and were given the status of "future" and placed in the "to-do" bucket

- Due to slow feature-delivery process (stay tuned), the enhancement requests typically aged on a growing to-do list

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Obstacle #2 – Waterfall Development Process

Waterfall development methodology can't keep up with changing requirements

- Strict process flow – Specifications, coding, unit testing, QA, Beta,
  - The feature specifications were completed and frozen at the beginning – inflexible, dated design
  - Features over-engineered – time spent (wasted) building things that don't matter
  - Defects discovered late in the process – expensive and inefficient
  - Customers don't see features until process complete – too late!!!

- Waterfall development methodology works ok for small enhancements - requirements are known and fixed, project is small and customer feedback is not needed

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Obstacle #3 – Release Publication Methodology

"Waterfall Delivery"

- As coding and unit-testing of new features completed, features held aside until <u>all</u> new release features had been completed

- QA tasks performed when last new feature completed
  - Every question and defect required added engineering research which delayed the process

- Beta sites validated the new release after all QA issues fixed
  - Typically few defects found - amount & quality of testing performed by beta sites unknown
  - Too late to incorporate customer feedback

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Customer-First: Helping you realize value now!

We've changed & continue to adjust our processes to deliver value faster

- **Ideation**
  - Ideas from anyone welcome
 - Reviewed and prioritized

- **Agile Scrum methodology**
  - Accepted ideas are placed into product/release/sprint backlog
  - When time and resources allow, taken from backlog
  - Developed collaboratively with validation partners

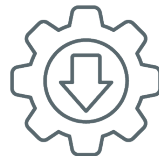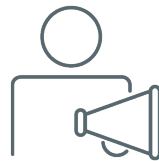- **Incremental Releases (Continuous Delivery)**
  - Features published (GA) as soon as development completed, changes approved and certified (regression-tested)

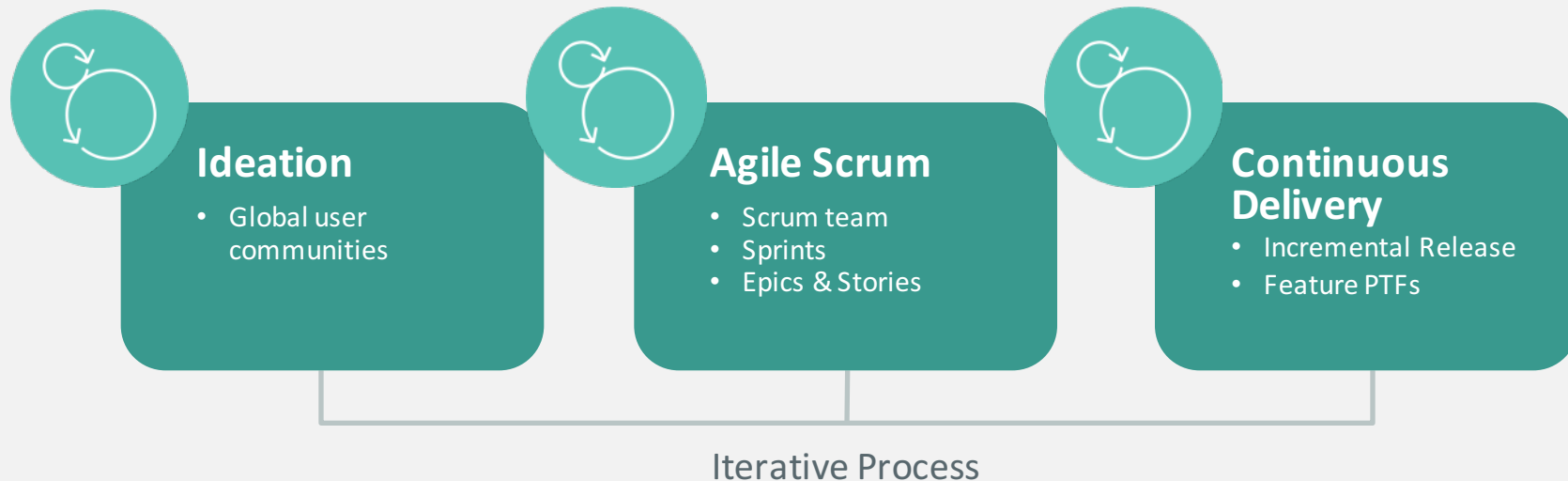**ca** technologies
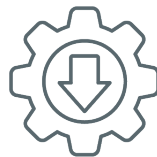
Agile Organization Roles

Separation of the "why" "what" and "how"

- Product Manager – Responsible for the "Why"
  Business-focus

- Product Owner - Responsible for the "What"
  Feature-Focus

- Scrum Team - Responsible for the "How"
  Technology-Focus

The Customer-First Approach
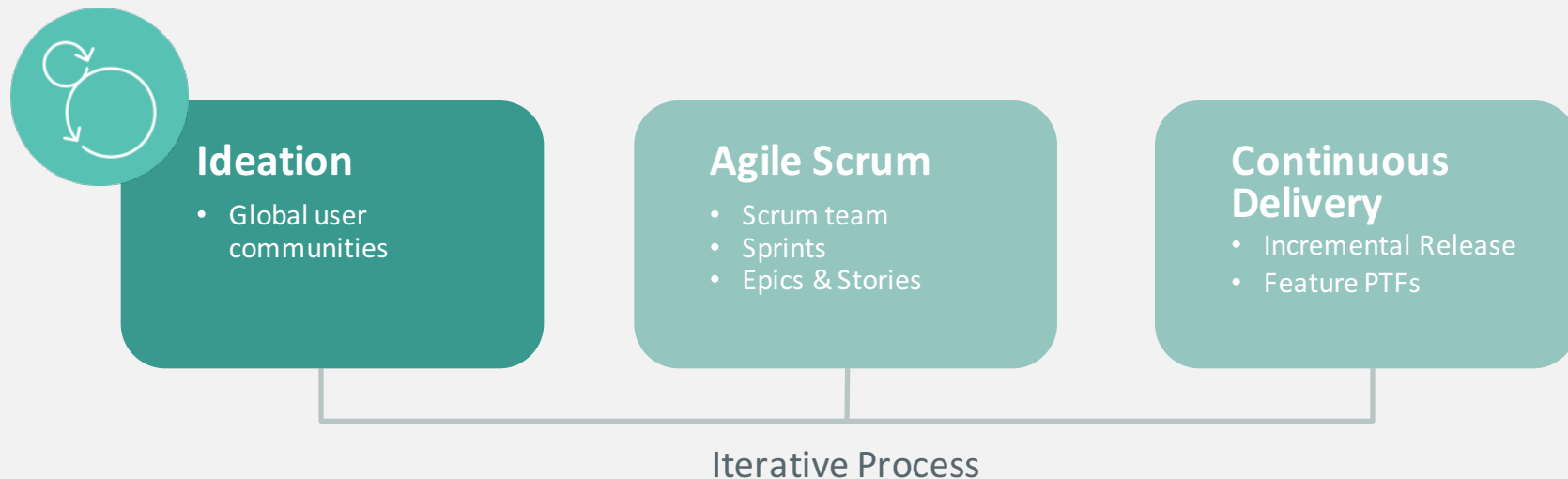
Faster delivery of features that *matter*

Ideation
- Global user communities

Agile Scrum
- Scrum team
- Sprints
- Epics & Stories

Continuous Delivery
- Incremental Release
- Feature PTFs

Iterative Process

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The Customer-First Approach - Ideation

Enhancements that matter the most to you and others

Ideation
- Global user communities

Agile Scrum
- Scrum team
- Sprints
- Epics & Stories

Continuous Delivery
- Incremental Release
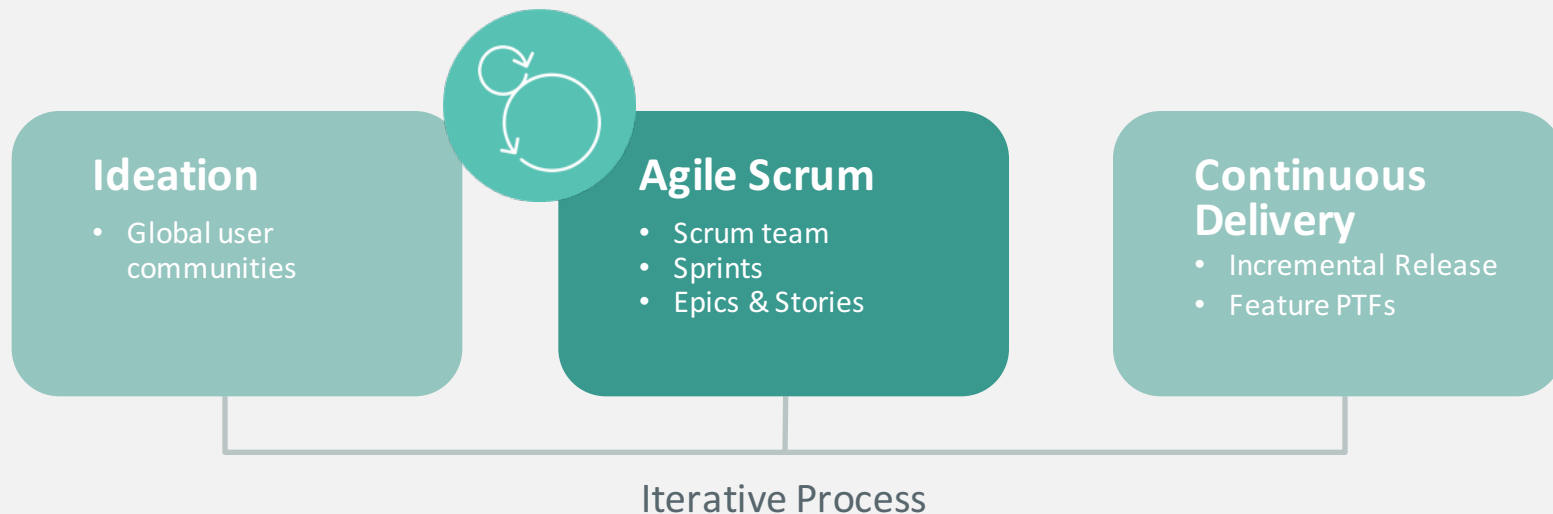- Feature PTFs

Iterative Process

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Global User Community Ideation

Gathering & prioritizing product enhancement requests

- Community members (you!) submit an product enhancement idea

- Community members can comment and vote (up or down) on other's enhancement ideas
  - Ideas are refined – broad community input clearly identifies overall business requirements
  - Popular ideas stand out – many positive votes and comments
  - One-off ideas also stand out – no votes or comments

- Product team members regularly review update Idea status, request clarification, etc.

- Enhancement requests flow from Ideation to Agile backlog

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The Customer-First Approach

Transitioning ideas that matter into features that fit your needs

Ideation
- Global user communities

Agile Scrum
- Scrum team
- Sprints
- Epics & Stories

Continuous Delivery
- Incremental Release
- Feature PTFs

Iterative Process

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Using Agile Scrum

Iterative development process based upon customer input & validation

- Agile Scrum methodology
  - Incremental, iterative process that includes frequent checkpoints with end-users
    - Customers are involved in every step to ensure the team is on the right track and can tell us when the feature is ready to publish
    - Team demonstrates their completed work and solicit feedback
    - Allows them change direction quickly and minimize wasted time

  - "People over process" (do what makes sense)
    - The "team" is self-organizing and determines how to best do their work (rather than managers pushing down)

Agile Scrum Development Methodology

- ## Agile Terms
  - Scrum team
  - Scrum master
  - Product owner

  - UX Designer
  - Agile Manager

  - Stories, Epics
  - Backlogs (product, release, sprint)
  - Story Grooming -
  - Acceptance criteria
  - Done criteria
  - Story Points
  - Sprints
  - Team velocity
  - Sprint Planning

Agile Scrum Development Methodology

- ## Agile Meetings
  - Release Planning (once)
  - Story Grooming (weekly)
  - Sprint Planning (once per Sprint)
  - Stand-up (daily)
  - End-of-Sprint Review (monthly*)
  - Sprint Retrospective (monthly*)
  - Release Retrospective (once)

Agile Scrum Development Methodology

Epics & Stories

- ## Epics & Stories
  - A Story is a unit of work that can be completed during a Sprint period
  - A story has an end-user (persona), request, value
    - "As a developer, I need Endevor to allow embedded spaces in Element names so that I can manage my USS data files with Endevor."
  - An Epic is a large enhancement request that describes the "big picture" and is usually broken down into smaller stories
    - "As an IT Auditor, I need Endevor to record all Element action activity in z/OS SMF so that I can track all application changes at my site."

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Agile Scrum Development Methodology

Backlogs

- ## A backlog is a prioritized list of Epics and Stories
  - *Product* backlog – Epics/Stories not assigned to a Release
    - Updated when new enhancement requests are accepted
  - *Release* backlog - Epics/Stories not assigned to a Sprint
    - Updated during Release planning – Epics/Stories taken from Product backlog
  - *Sprint* backlog - stories assigned to the Sprint
    - Updated during Sprint planning – Stories taken from Release backlog

Agile Scrum Development Methodology
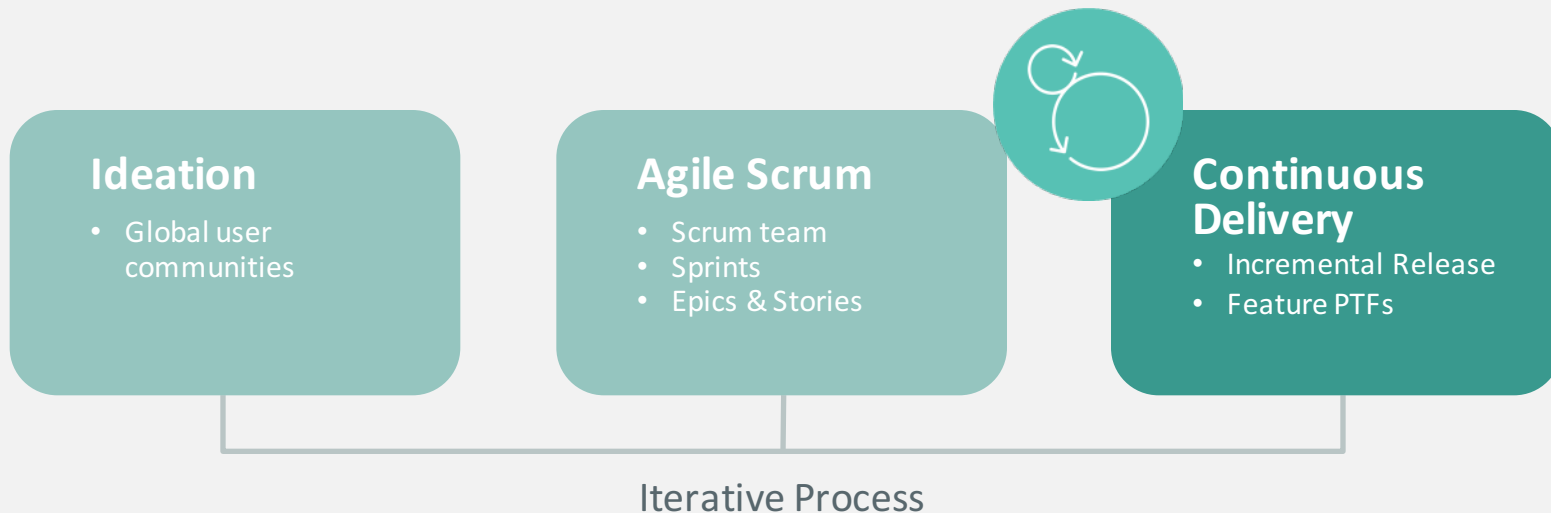
- ## The Agile process
  - A team of people work together on a "story" to deliver product enhancements that provide a specific value to a specific user (admin, developer, IT auditor)
  - When the story is complete, team demonstrates the enhancement to the customers and solicit comments like:
    - You missed the boat – start over
    - Looking good – but more work required
    - Looking good, MVP (minimum viable functionality) reached, I may make more requests later…
  - The cycle restarts:
    - The team takes in new stories from the backlog
    - Complete and demonstrate the stories to the end user

Agile Scrum Development Methodology

- The process continues…
  - Until all planned enhancements (and adjustments due to feedback) have been deemed complete (MVP) by our customers

The Customer-First Approach

Delivering features quickly!

Ideation
- Global user communities

Agile Scrum
- Scrum team
- Sprints
- Epics & Stories

Continuous Delivery
- Incremental Release
- Feature PTFs

Iterative Process

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Release Delivery Solution – Incremental Release Methodology

Continuous Publication & Delivery

- Incremental releases provide the means to deliver features

  to customers sooner

- Consistent with Agile methodology –
  - Based on validation partners' recommendation a feature is published only when it is deemed ready – unlike before, a feature is not held until all features have been completed

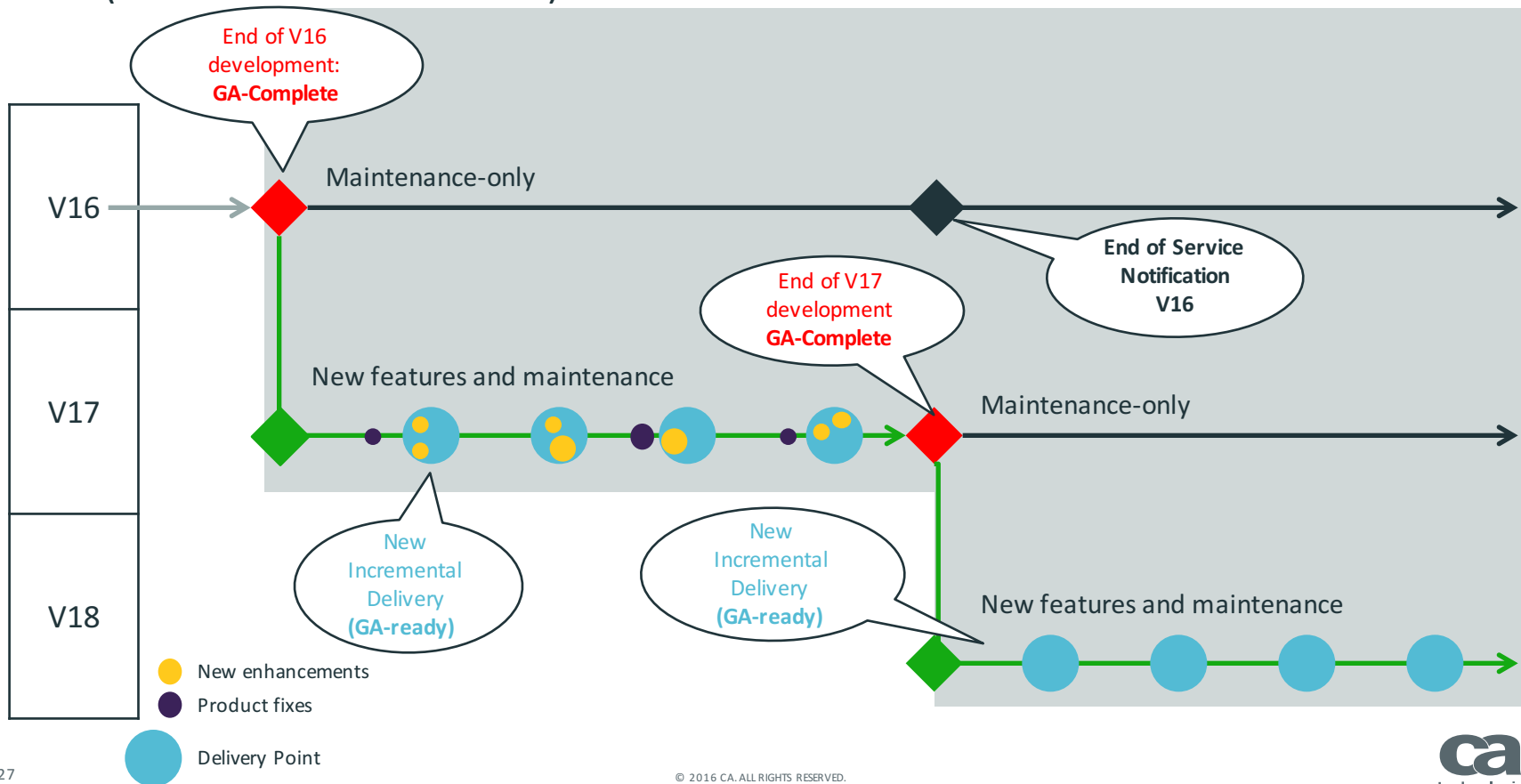- This process enables customers to quickly benefit from new features

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Incremental Release Methodology

The Incremental Release delivery process…

- Incremental deliveries -
  - Incremental "0" – foundation / base release
    - Equivalent current GA-complete release (V18.0.00 = GA V17 + maintenance)
  - Incremental deliveries – n (V18.0.01, V18.0.02, V18.0.03, V18.0.04, etc.)
    - Each published when validation partners declare feature(s) has "MVP"
    - Published as "feature" PTFs
- GA–Complete reached when Charter, Release Plan goals met
  - Same end result – GA-complete release delivered in 18-24 month timeframe
  - When a release is designated as "GA-Complete"
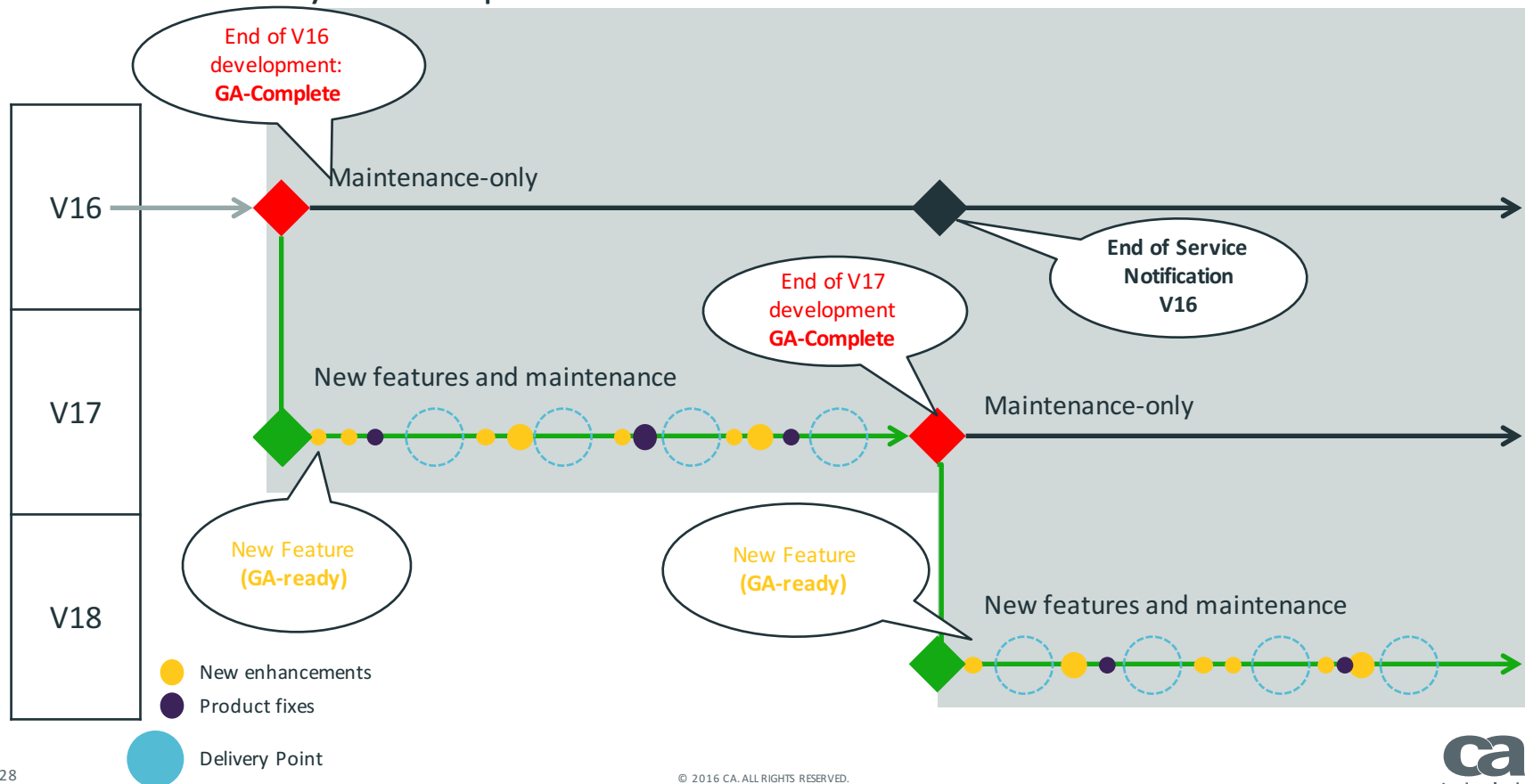   - End-of-Service notification issued for current "GA-Complete" release

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Incremental Deliveries

MVP! (Minimum Viable Product)

End of V16 development: **GA-Complete**

Maintenance-only

End of Service Notification V16

V16

End of V17 development **GA-Complete**

New features and maintenance

Maintenance-only

V17

New Incremental Delivery **(GA-ready)**

New Incremental Delivery **(GA-ready)**

New features and maintenance

V18

- 🟡 New enhancements
- 🟣 Product fixes
- 🔵 Delivery Point

Continuous Delivery

Install features at your own pace

User-Driven Ideation

Agile Development

Take the opportunity to influence our product development. Help ensure that we deliver is what you need and want.

Influencing Our Roadmap

CA Communities Ideation

- Submit your ideas on communities.ca.com
- Vote & comment on ideas that are important to you
- CA Product Management reviews ideas and updates status as they move through the lifecycle
- "Currently Planned" idea status indicates inclusion in Agile Backlog or Product Roadmap

Customer Validation

- Register to participate in:
  - Live Demos/End-of-Sprint Reviews
  - Private - Members Only - Online Community
  - Pre-Release Onsite Testing
  - Customer-driven MVP
  - How to participate: Rose.Sakach@ca.com

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Thank you!

- Learn more by visiting our website: ca.com/endevor

- There is no better time than now to voice your needs in the global ideation and customer validation communities! Visit: communities.ca.com/community/ca-endevor

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The Customer-First Approach

Delivering features quickly!

- The Continuous Delivery Process
  - At the end of each end-of-sprint feature demo, validation partners vote on "MVP" or not
  - Each "MVP" (Minimal Viable Product) are packaged (PTF) & published (GA) within weeks
  - An "Incremental Delivery PTF" is published when all "MVP" PTFs have been published
    - Prereq's all just-published MVP PTFs and all previous
    - Prereq's all published maintenance (fix) PTFs + Prereq's all prior "Incremental Delivery" PTFs
    - Increments Incremental Delivery sequence number in the product release identifier(e.g. 18.0.03, 18.0.04, etc.) (displayed on main ISPF panels, report headings, etc.)
  - When the most current Incremental Release Delivery PTF has been installed, you can be assured that you are up to date
  - We ask that you install the most current Incremental Delivery PTF before reporting an issue

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