knowledge17

WORK at LIGHTSPEED

# Three Stages of CMDB Development: Run, Walk, Crawl

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servicenow



# INTRODUCTION

**Experience:** A total of 40 years experiencing the challenges of program analysis, software design, system architecture, programming, Quality Assurance and facilitating the use of ServiceNow.

**Expertise:** DevOps, System Architecture, Process Engineering, System Development

**Achievements:** Implemented processes and sofware to support the CMDB. Developed extensions to Change Management. Developed numerous web-apps, including several on ServiceNow‘s platform.

**Current Projects:** Driving additional uses of the CMDB, completing integrations with xMatters and xlRelease. Developing procedures to import thousands of documents into the KB.


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## Company Details

Name: OCLC Online Computer Library Center Inc.

Industry: Libraries, Education, Government.

Market Focus: OCLC serves over 16,000 libraries in 120 countries.

## Products & Solutions

- WorldShare - Provides a complete set of library management applications and platform services built on an open, cloud-based platform
- WorldCat - A database of over 388 million items held by libraries.
- Resource Sharing with Tipasa

## Making Breakthroughs Possible

OCLC is a global library cooperative that provides shared technology services, original research and community programs for its membership and the library community at large. We are librarians, technologists, researchers, pioneers, leaders and learners. With thousands of library members in more than 100 countries, we come together as OCLC to make information more accessible and more useful.



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# Objectives of this talk

Share the story of a 6 year odyssey to help IT teams manage their information.

What you will learn

- The 3 Epochs of CMDB Development.
- Why it was important to go through them backwards.
- How we coped with Demanding User/Use Cases.
- 4 ways to leverage your CMDB to better serve your IT teams.


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# External Challenges Impacting OCLC:

Reduce Costs

Need to Adopt New Technology

Serve a Global Marketplace

Users Demanding More and Better Services


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# OCLC Responded:

Gained ISO 9000 Certification

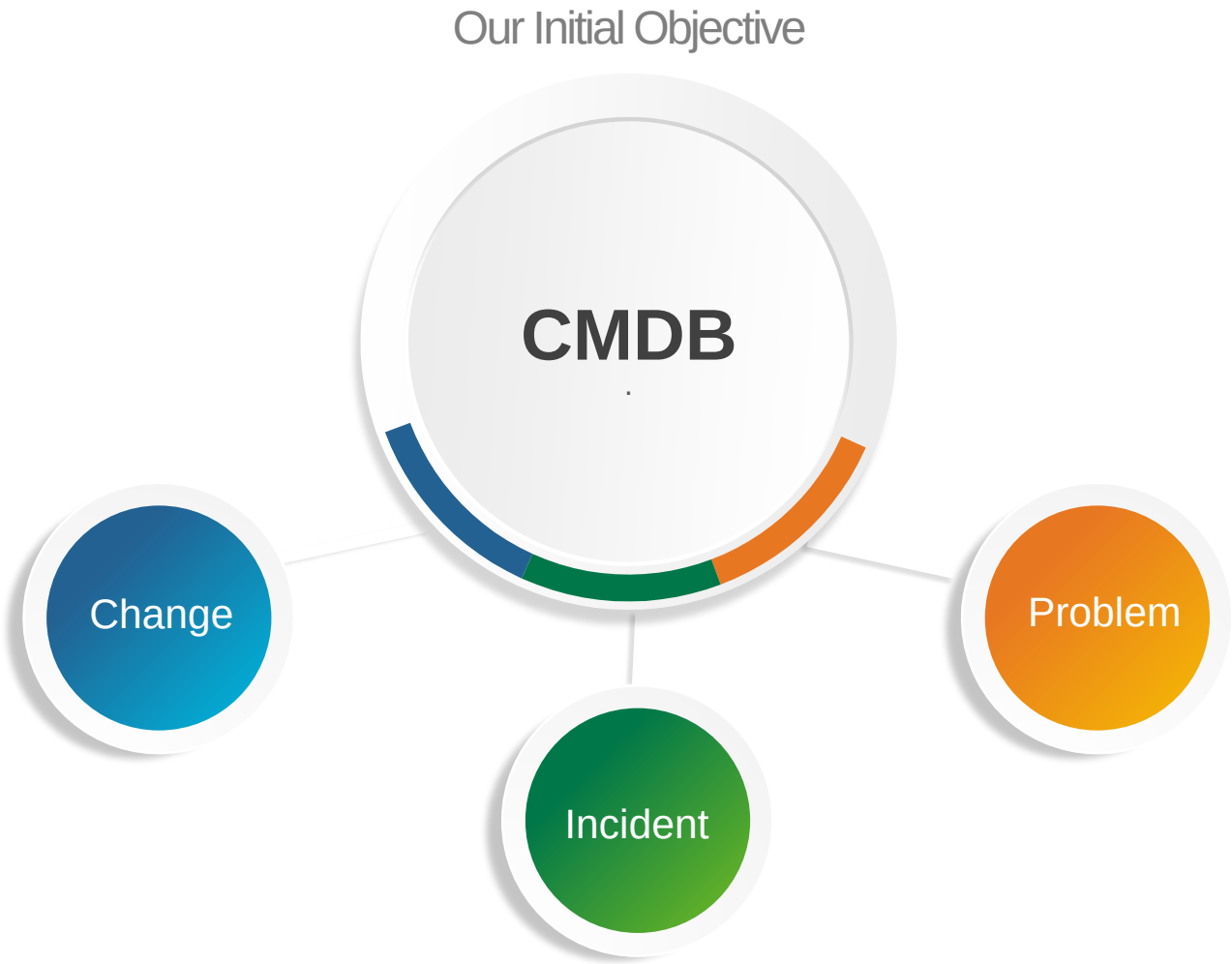
Decided to adopt the ITIL Framework

Committed to replacing our collection of existing tools


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# The Adventure Begins

In 2010, OCLC chose ServiceNow as its ITIL tool.





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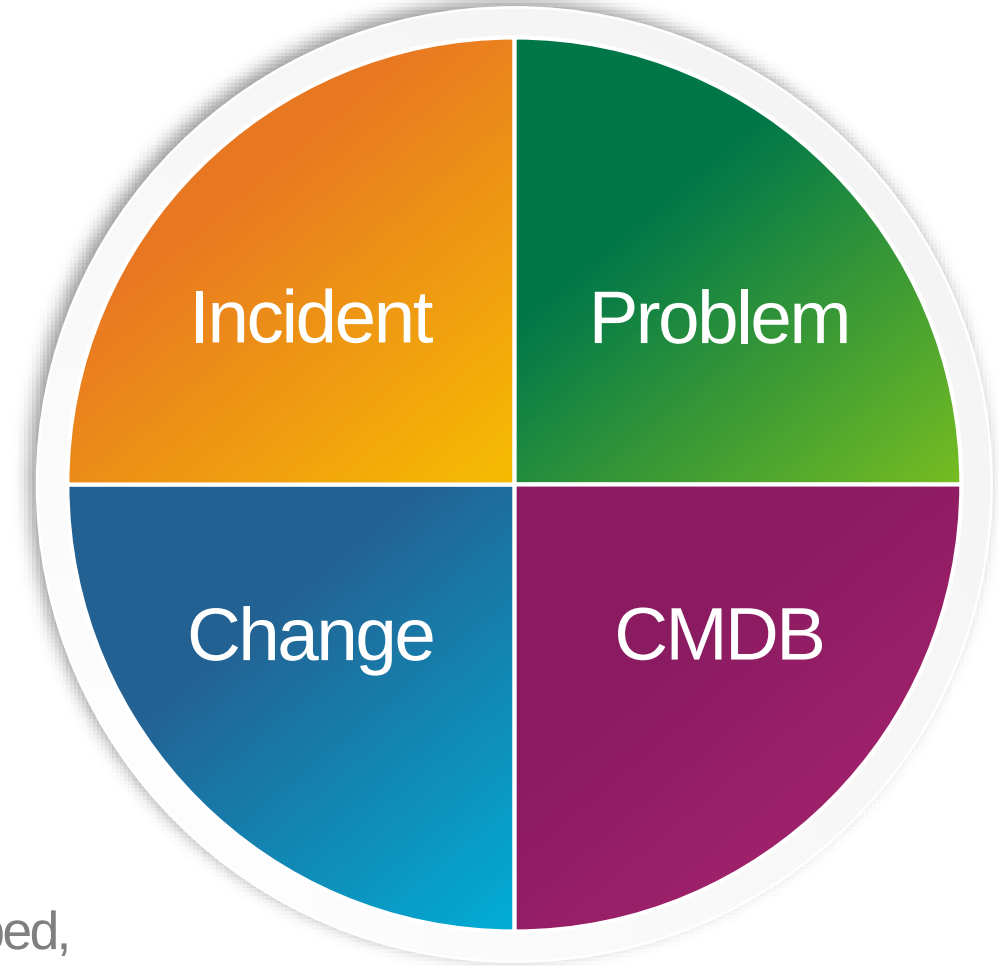
# The Plan, Running to the Finish Line

| Incident | Problem | Change | CMDB |
| --- | --- | --- | --- |
| July | September | November | January 2011 |

We took on an implementation partner to help us. We committed to an end date of about 8 months. 2 months for each application. The start date was May, 2010.


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# Jump Ahead - How did it end?




## Success!

We completed all of our milestones
on time and on budget!

## Success?

We were happy with our 3 ticketing applications,
but our CMDB was not used in the manner that we had hoped,
even though it contained information on over 2,000 computers!


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# Reasons for Non-Adoption of CMDB

- Poor understanding of ITIL principles in general and the CMDB in particular.
- Strong entrenchment of current process and procedures.
- No incentive provided to staff.
- ITIL principles not enforced.




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# Then, in 2014,  Opportunity Knocked!

- We started receiving complaints!

  We considered this the best indicator that we were succeeding.  It meant that people were actually using the CMDB.

- Our Service Desk asked for help to track the use and assignments of computers and laptops.

- Our Infrastructure Planning Group heard that ServiceNow could provide Business Service Maps.


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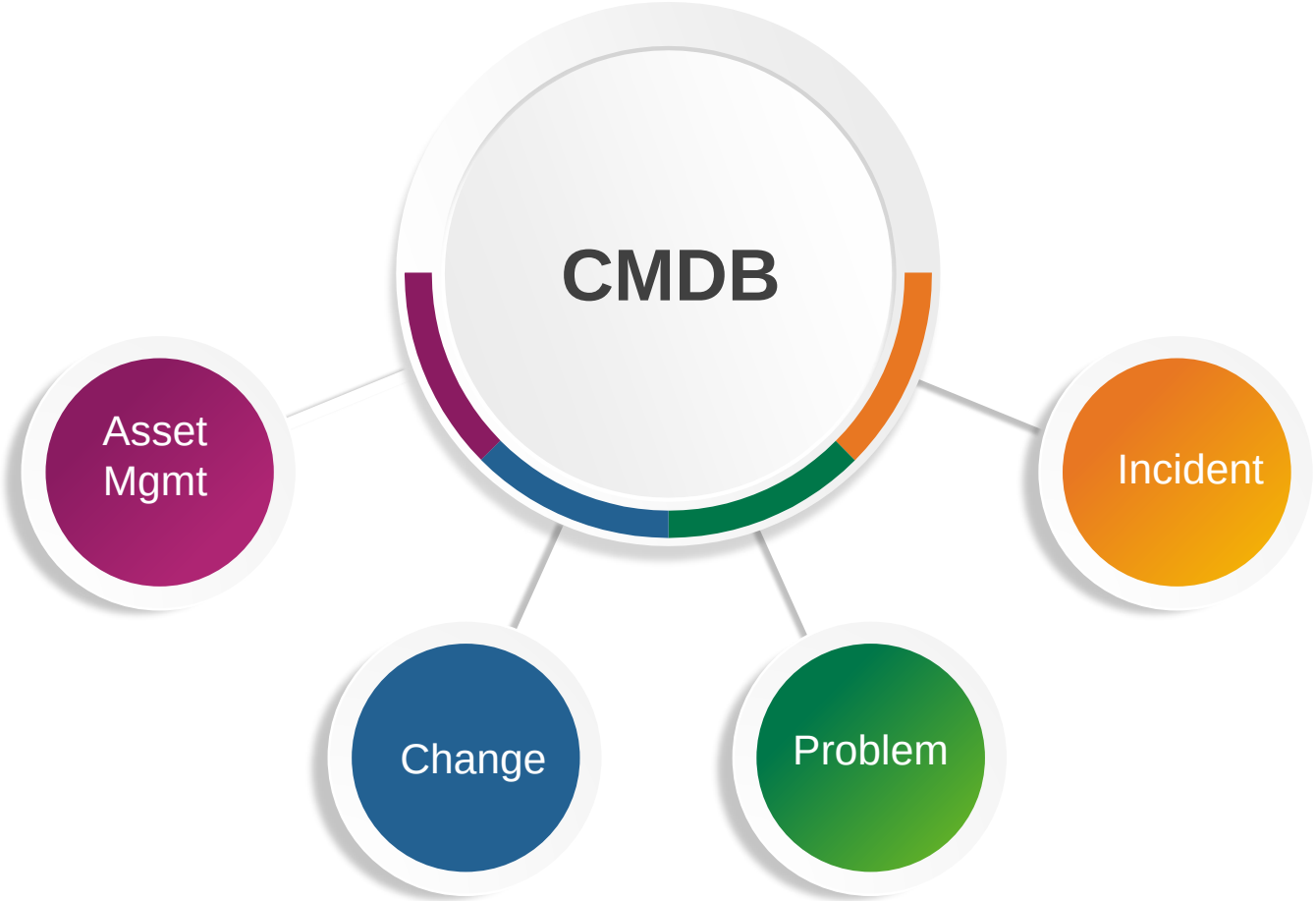
# Walking: Taking Time to Work with Our Users

- We engaged the Service Desk for use cases.
- We demonstrated the capabilities of Business Service Maps to our Infrastructure Planners.
- We initiated an effort to validate the CMDB.




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# Implementing the Solution for Phase 2 of the CMDB.





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# The Genesis for the Next Effort Began in 2013

- Skip Pritchard became OCLC's 5th CEO.
- IT Management was revamped.
- We formed the ITSA group to drive ITSM processes. (2014)
- Management reviewed our computing infrastructure and decided to replace it all (2015)





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# The CMDB Took On Another Vital Role

- The goal of the project was to migrate thousands of servers from old hardware to a new “converged architecture”.

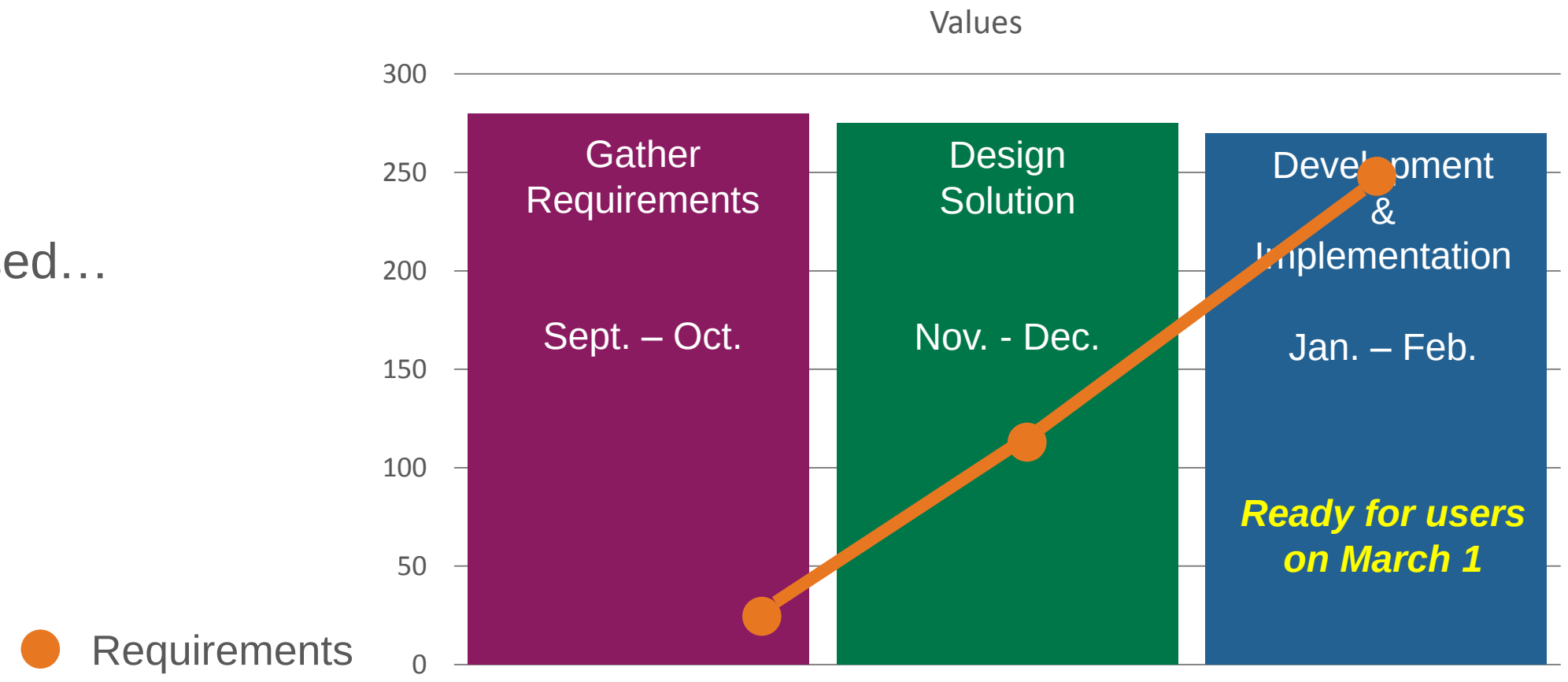
- We took on a task to eliminate “snowflakes”, the variance in configuration for servers with similar purpose.

- As a result, in 2015, we contacted Careworks Technologies to conduct sessions to help us define the requirements of the new CMDB to ensure that it would meet our needs.


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# Planning the Next Stage, Crawling Our Way to Success

Then we were surprised…





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# We Found Ourselves in a “Tough Mudder”

- The growth of requirements was out of control.
- Our design was invalidated before it was complete.
- Technical teams were not available as a group to resolve issues.
- We hit an unexpected technical problem, “the maximum record size exceeded”.



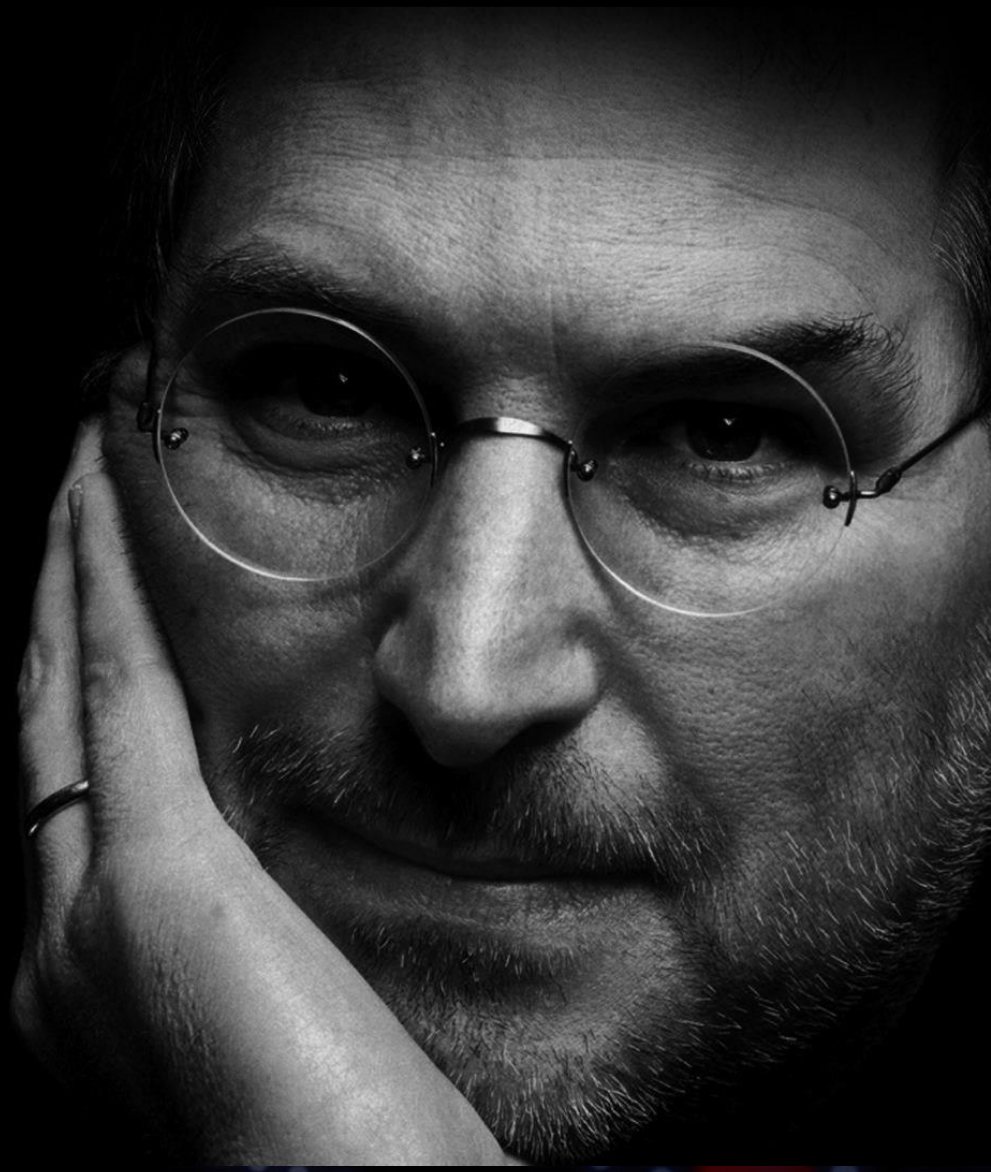

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# We Needed to Focus

People think focus means saying yes to the thing you've got to focus on. But that's not what it means at all. It means saying no to the hundred other good ideas that there are.

You have to pick carefully. I'm actually as proud of the things we haven't done as the things I have done. Innovation is saying no to 1,000 things.

Steve Jobs




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# Coping and Crawling Our Way to Success

- We adopted the Tao of agile, iterative development.
  We engaged teams one at a time.
- Wherever possible, we satisfied use cases
  with existing software.
- We built mini web-apps to satisfy  several
  demanding use cases.
- We tasked our Careworks expert to solve
  the problem with the record size.
- We combined data from the CMDB, AMP,
  and other databases to form a Master Manifest for our technical teams.



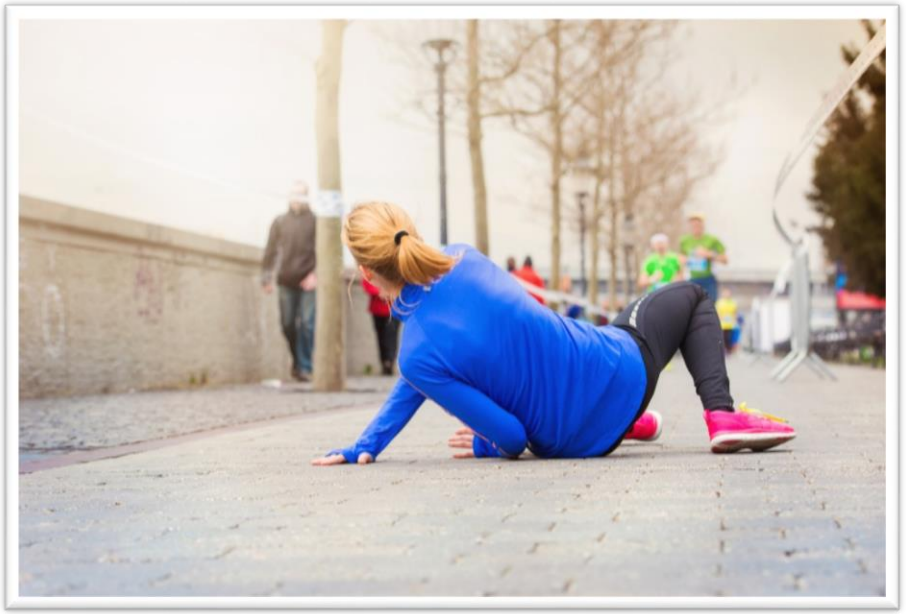

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# Crawling Our Way to Success, the Results

Installed our first iteration on Jan 28, 2016

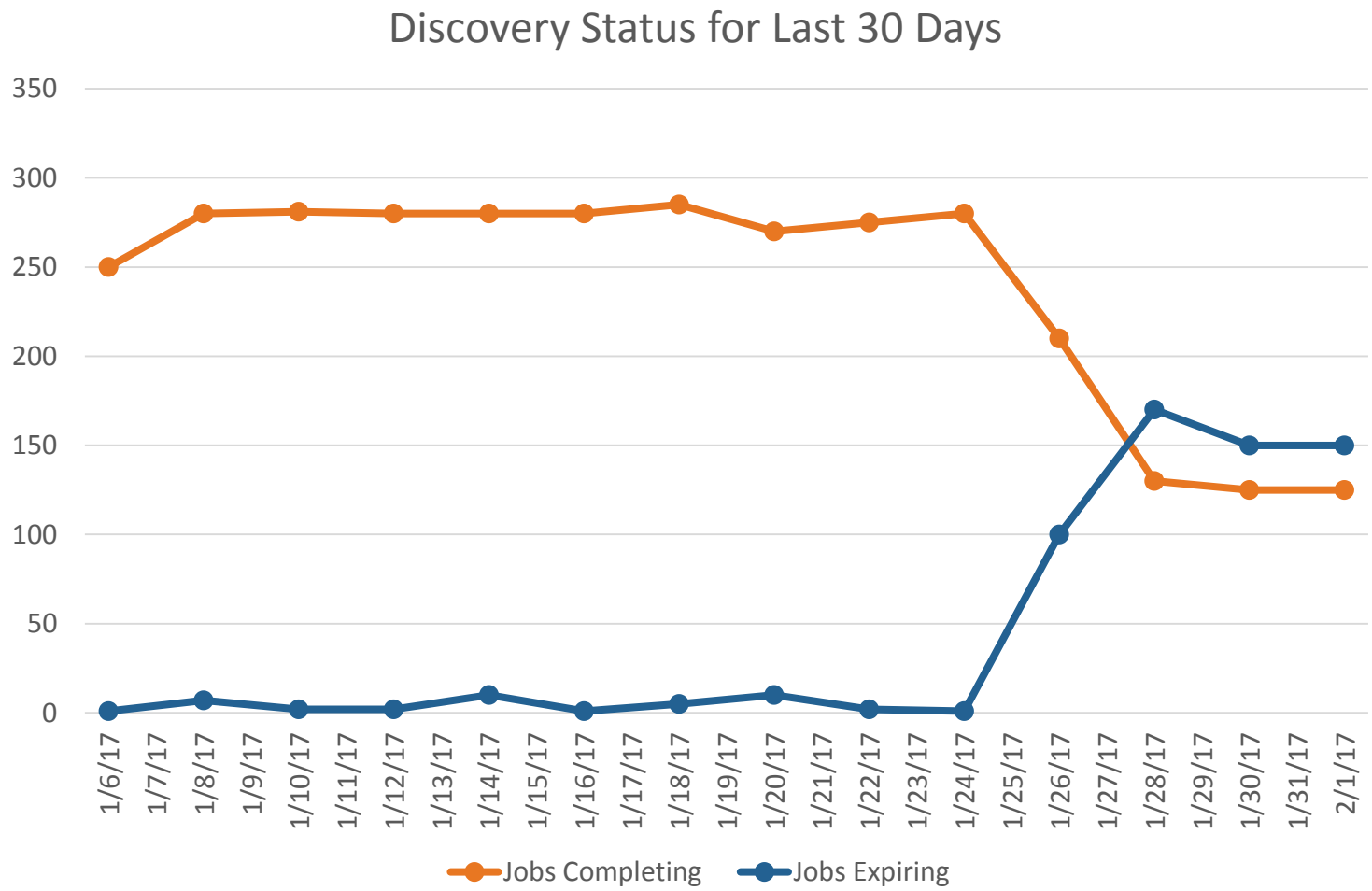
Our second iteration on Feb. 11, 2016.

Our third iteration on Feb. 25, 2016




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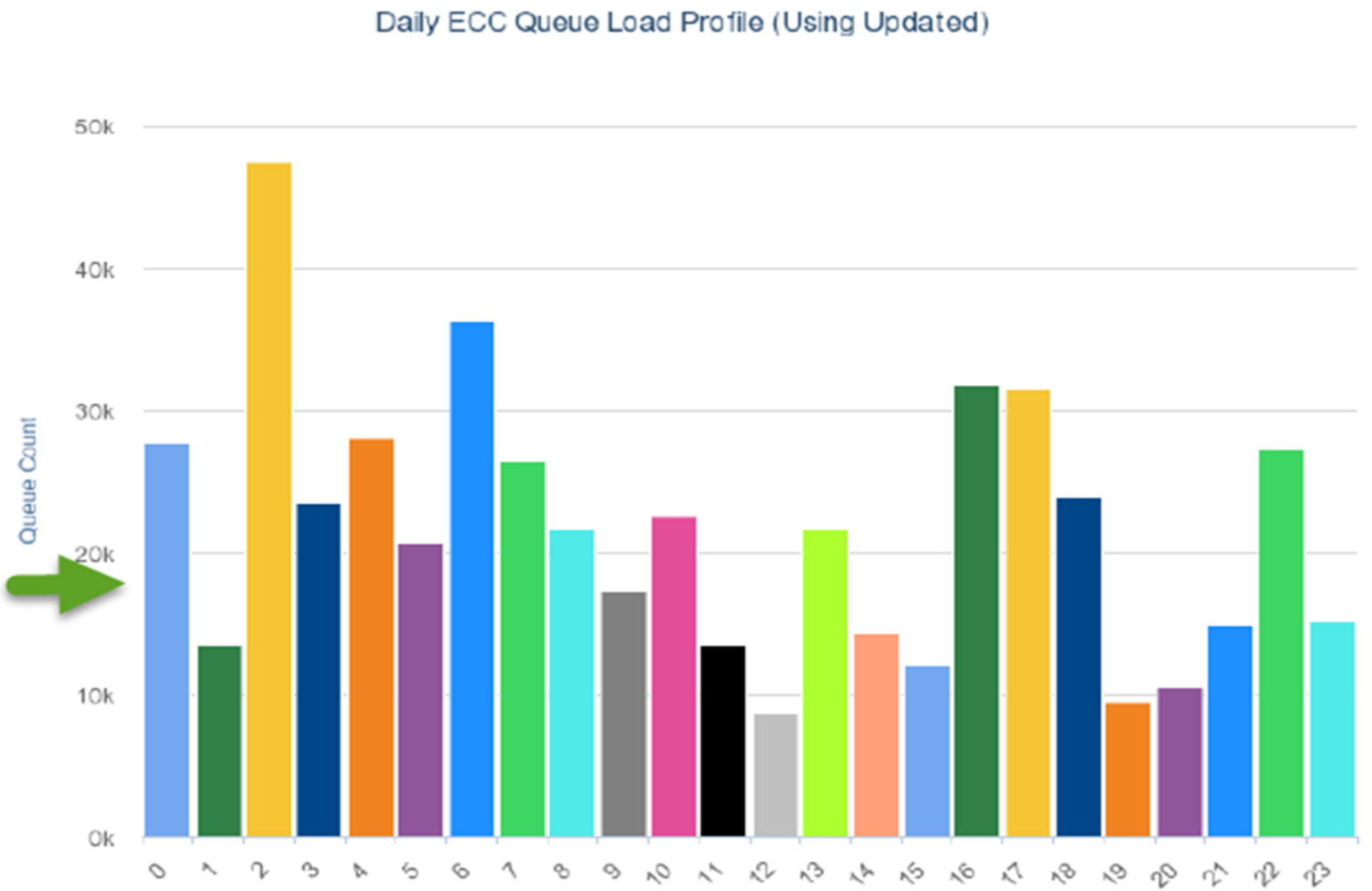
# Jumping The Gun:  Operational Issues





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# Off and Running Again





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# Lessons Learned

- Agile beats Waterfall when you have “squishy” requirements.
- Implement use cases, not requirements.
- Engage users only when they are ready.
- Instead of expanding the schedule, focus, say “no”, and reduce the scope.




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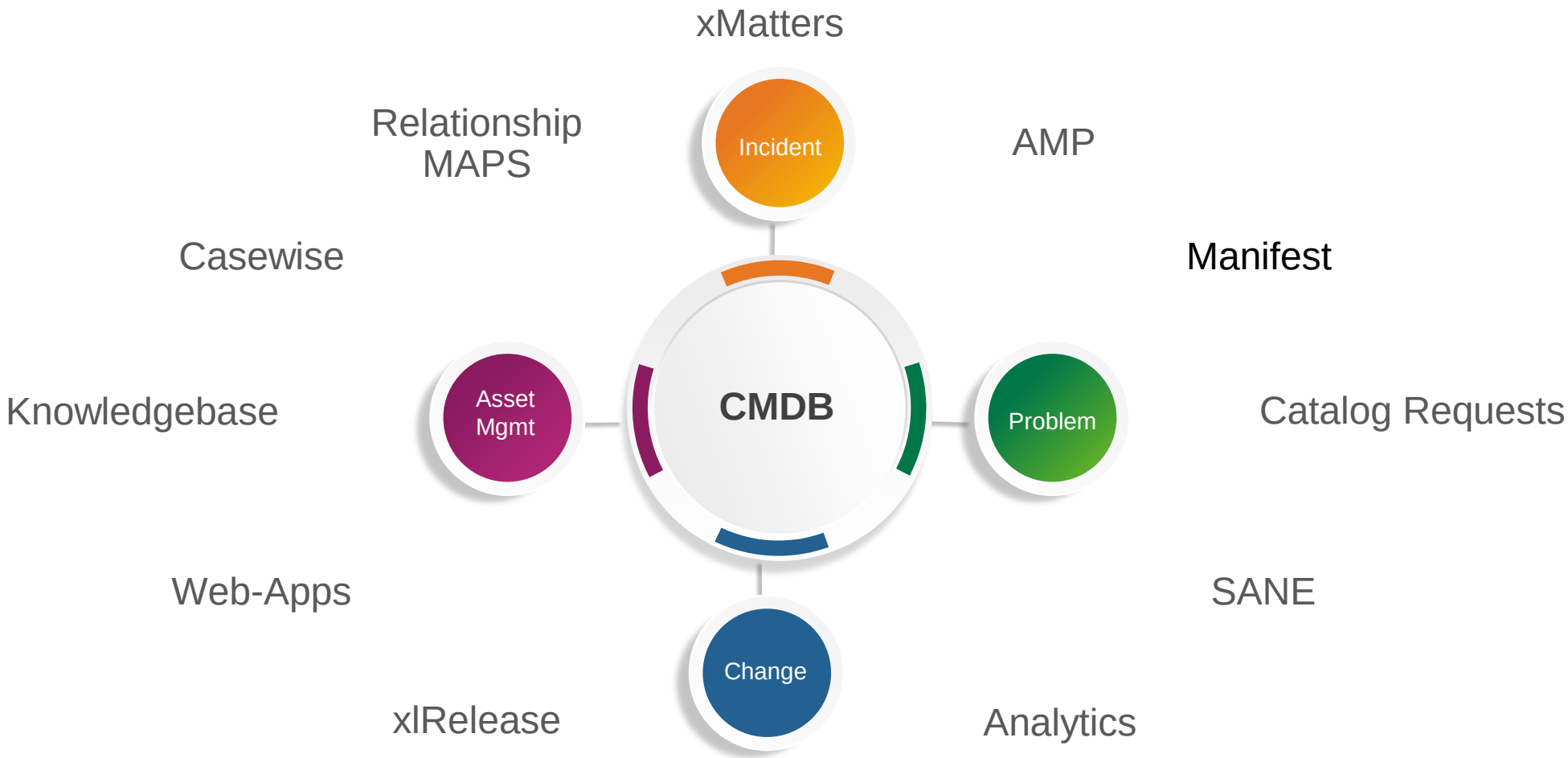
# Ways to Extend Your CMDB

- Add new tables and columns.
- Integrate with external software.
- Develop web-apps for demanding use cases.
- Permit use cases which go beyond traditional IT.




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# Run, Walk, Crawl, *Fly – The CMDB/CMS/SKMS*





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# Top Takeaways for Success:

The quality of the CMDB is important.  (but very hard to ensure)

Acceptance of the CMDB depends on your process  as much as it does your tool.

Be sure to have a technical heavy weight available to bail you out when needed.


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# ANY QUESTIONS?



Run if you can,

walk if you have to,

crawl if you must.

Just never give up.

- Dean Karnezes



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