



TACKLING
THE BIGGEST
CHALLENGES
IN HEALTH CARE

Kanban @ Optum

Jeanine M. McGuire | April 10, 2018



About me

- Software developer in the 1980s and consultant today
- Insurance, healthcare, telecommunications, finance and IT
- AKT, PMP, Six Sigma MBB, Lean Sensei
- Telecommute from Jacksonville, Florida



Jeanine.mcguire@optum.com
@qualitate13 on twitter

Session outline

- Background Information
- Change Management Approach
- Kanban Case Studies
- Lessons Learned

Our mission

UNITEDHEALTH GROUP

Ranked **6th**
of the Fortune 500

\$201.2B
FY17 revenue



A diversified enterprise with
complementary but distinct
business platforms



OUR MISSION

Helping people live healthier lives and helping make the health system work better for everyone

OUR VALUES

Integrity

Compassion

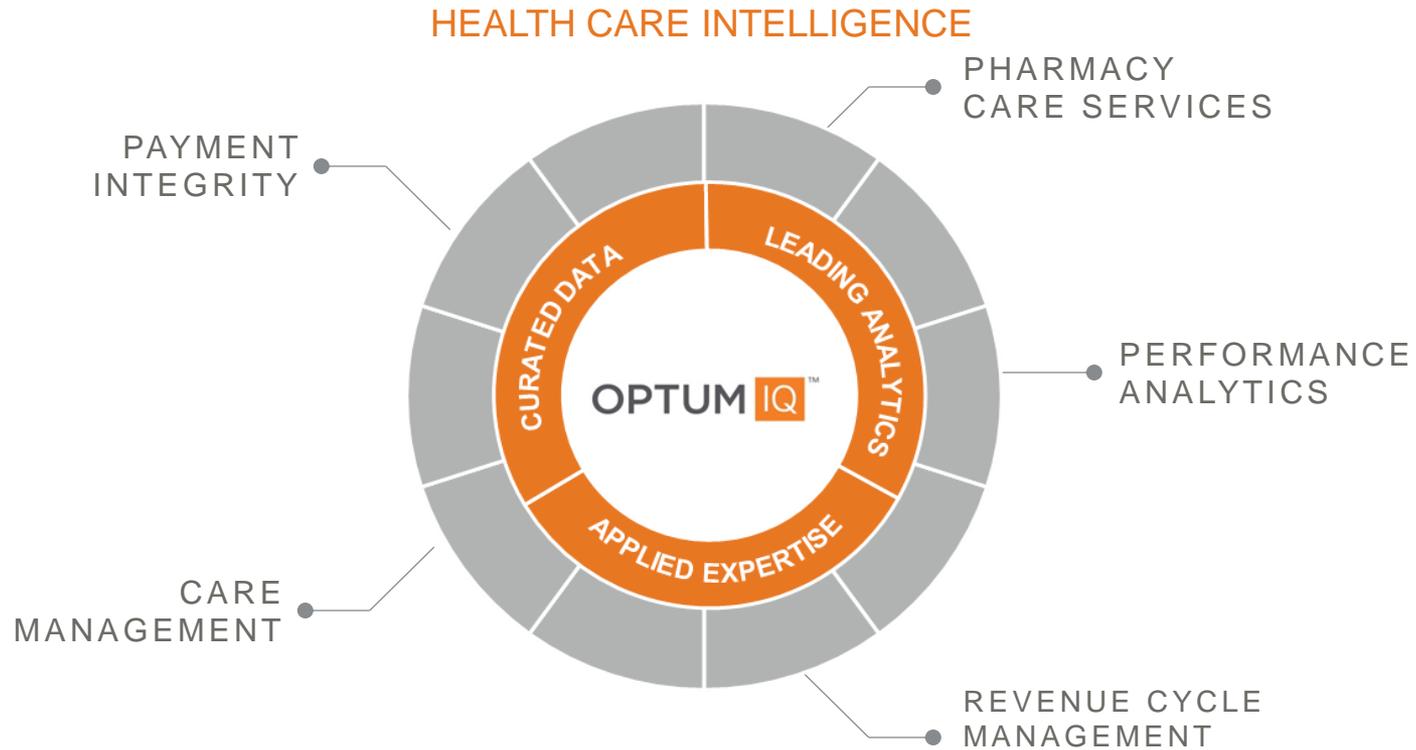
Relationships

Innovation

Performance



Powering intelligence across the health care system



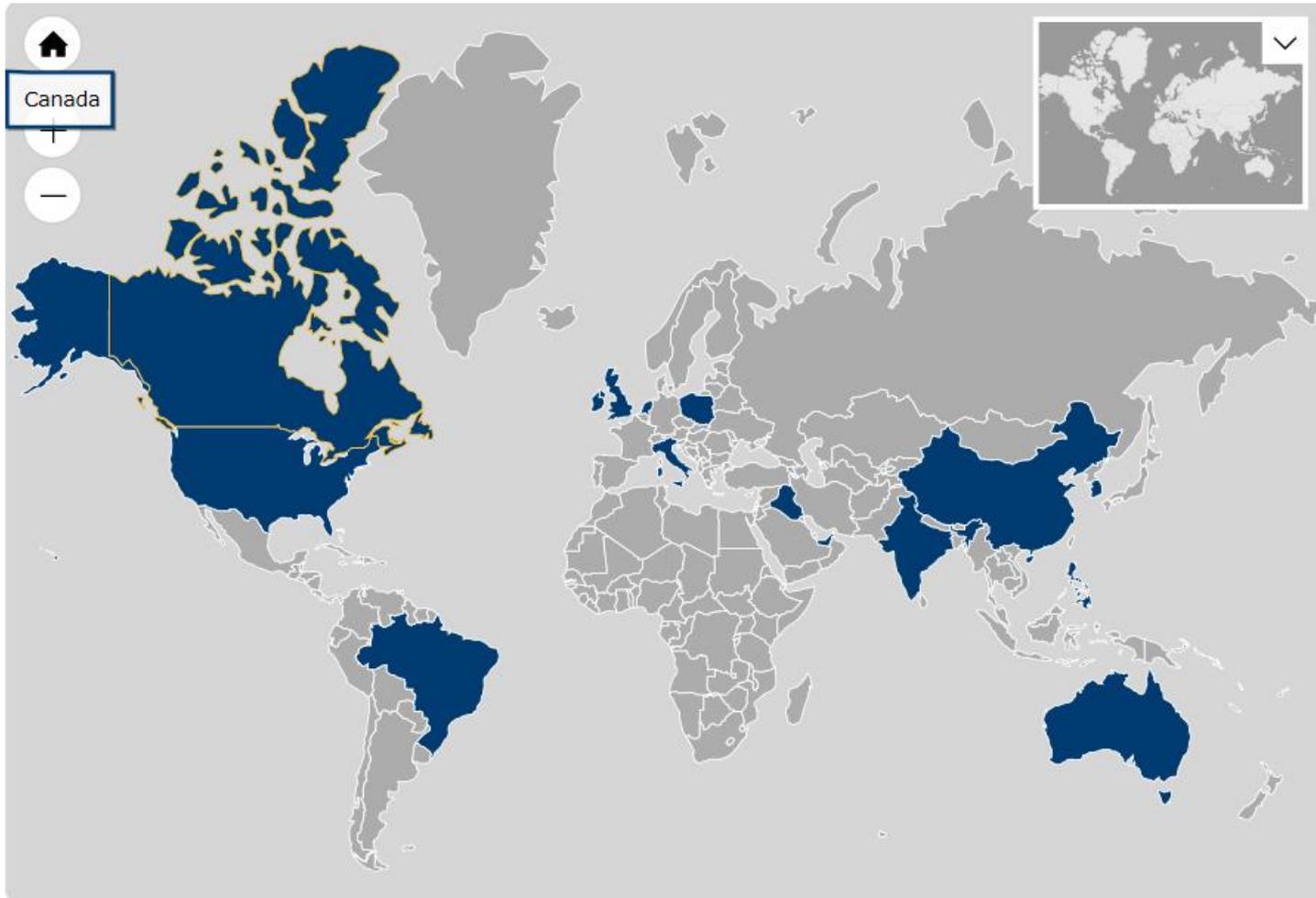
222M+ consumers,
~190M lives of claims data and
100M lives of clinical data

~25K analytics experts,
spanning clinical, financial, actuarial
and technology domains

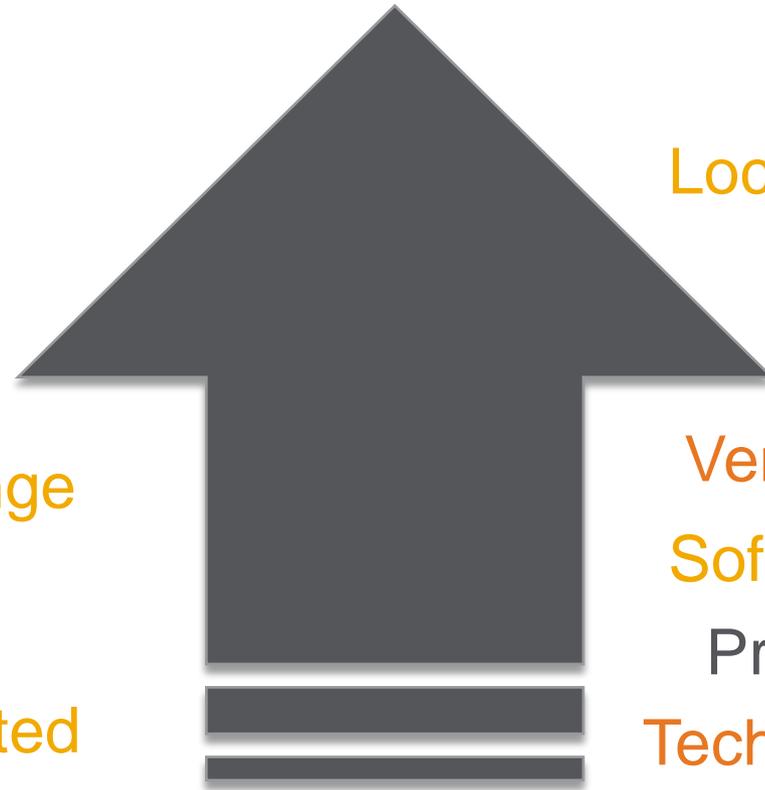
20 of the top 25
U.S. health plans
leverage Optum analytics

25+ research partners
collaboratively researching and
innovating with OptumLabs

United Health Group employee locations



The growth challenge



Projects
Help Desk Calls
Desktop Apps

Organizational Change
Teams Supported

Data
Employees Supported
Natural Disasters

Locations Supported
New Employees
Contractors

Vendors Supported
Software Supported
Printing Demand
Technical Complexity
Pace

Redefine
Quality



Drive
Change

Act With
Courage

Encourage
Growth



The Apex Program

6 LearnSource Modules

- Fundamentals
- Performance Management
- Work In Progress Management
- Optimization
- End-to-End Process Management
- Change Management

SharePoint Resources

A SharePoint repository provides tools, templates and additional learning resources while encouraging collaboration

Adoption Activities

Activities in LearnSource require usage of the tools introduced for the training

Expert Guidance & Support

Workshops and group discussion activities to support you as you use the tools and processes

Apex Program

Apex is about reaching the apex or pinnacle of performance through the use of best practices in Lean, Business Process Management and Kanban.

- The Evolving Marketplace
- The Customer Perspective
- Management by Objectives
- Visual Management

Fundamentals



- Performance Management
- KPIs
- Translating Requirements into KPIs
- Dashboards

Performance Management



- Work in Progress Management
- Kanban
- Managing the Work
- Other Visual Management Tools

Work in Progress Management



- PDCA
- Root Cause Analysis
- Problem-Solving Approaches and Resources

Optimization



- Quality Management Reviews
- Maturity Model
- Vision for Moving Forward

End to End Process Management



- The Value of Change Management
- ADKAR Model
- Roles in Change Management

Leading Change



Six
WBT
courses

30 – 45
minutes
each

Hub Connect: ongoing support

Module 3: Work In Progress Management

👤 📧

Objectives

The objectives of this module are to:

- Leverage Work In Process (WIP) Management to facilitate an effective and empowered workforce.
- Demonstrate Kanban as a visual, WIP management tool.
- Identify the best practices for WIP Management.
- Understand how WIP methods translate to increased employee engagement and ownership.
- Identify other potential visual management tools for use in the workplace.

Access The Course

Click [here](#) to access the course.

Category : Quick Reference (4)

📄	Instructions to Request Swift Kanban	June 8, 2016
📄	Keys To A Successful Gemba Walk Quick Reference	March 9, 2016
📄	Visual Management Quick Reference	April 5, 2017
📄	Ways to Manage Work and Address Bottlenecks	April 5, 2017

Category : Resources (1)

📄	Hub Connect Kanban Group	May 3, 2017
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Category : Tools & Templates (4)

📄	Huddle Agenda	April 5, 2017
📄	Huddle Option for Teams in Different Time Zones	April 5, 2017
📄	Kanban Board Template	May 4, 2016
📄	SIPOC Template	May 23, 2017

Category : Videos (1)

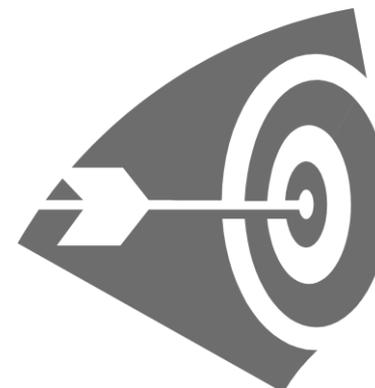
Apex Reading List

- Good To Great: Why Some Companies Make the Leap...And Others Don't
- KANBAN: Successful Evolutionary Change for Your Technology Business
- The Daily Edge
- Toyota Kata: Managing People for Improvement, Adaptiveness and Superior Results
- Zeigarnik Effect



Example Huddle Agenda

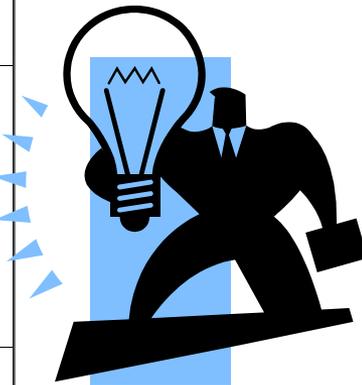
- **Review Kanban board and key metrics (5 minutes)**
 - Project backlog
 - Project exceptions
 - Expedited work
 - Cycle time
 - Blocked work
- **Identify obstacles (5 minutes)**
 - Data?
 - Resources?
 - Change Leadership?
 - Communication?
 - Process?
- **Take Action (5 minutes)**
 - Shift resources
 - Leadership action to resolved blocked work
 - Make process changes



Track action taken, who is responsible and when.

Virtual Huddle Process

Step	Action
1	At least once per month, send an email to your team and ask that each team member send to you their top five issues or pain points that impede the team's ability to achieve performance targets. Your question can be focused on any metric that is below goal or on your specific process.
2	<ul style="list-style-type: none"> • Collect the responses and cluster those that are similar. • Count the number of responses within each cluster as a way to weight them.
3	<ul style="list-style-type: none"> • Write a brief summary statement for each pain or waste cluster. • Start another virtual brainstorm session by emailing the highest weighted pain point to your team and asking them for solution ideas. • Summarize the solutions that you receive from your team. You can use a spreadsheet to create a grid that identifies the pain point and solutions. Assigning a number to each solution will help with the next step in this process.
4	<ul style="list-style-type: none"> • Send the solution grid to your team members and inform them that they have 20 virtual dollars to "buy" their favorite solutions. They can spend the dollars on any number of solutions, but cannot spend more than \$5 on any one solution, so will need to consider multiple solutions. • Ask team members to return the grid to you showing how they want to spend their dollars. • Create a slide with all of the solution numbers from your grid to tally the dollars spent by your team members in order to see the results.
5	Implement the ideas with the most dollars.



Kanban Group: collaboration

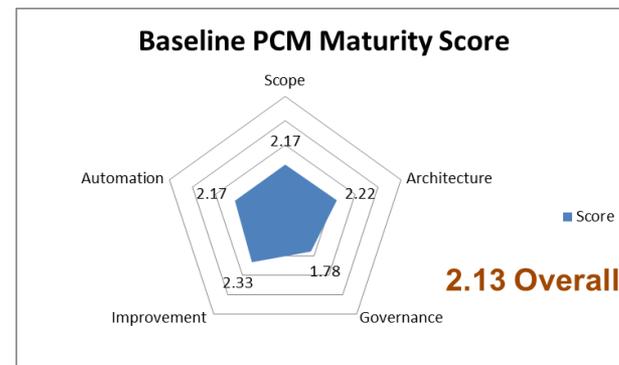
The screenshot displays a LinkedIn group page for "Kanban". The page is divided into several sections:

- GROUP OVERVIEW:** Includes a definition of Kanban: "Kanban (Pron. kambaN) kan, 看 / カン means 'visual' ban, 板 / バン means 'card' or 'board'". It also describes the group's purpose: "Kanban, or 'signboard' in Japanese, is a management methodology that allows us to achieve 'Flow' in a high demand business full of variation. This group is dedicated to better understanding Kanban with a capital 'K' as describe by David Anderson in his book 'Kanban: Successful Evolutionary Change for Your Technology Business'." It lists owners (Matthew Liscomb, Erik Gross, Alan Jenkins), tags (kanban, agile, lean, devops), group type (Open), and creation date (Dec 1, 2014).
- FEATURED CONTENT:** Shows a post titled "Websites: Kanban Resources" by Michael Blaha, 3 years ago. Below it is a discussion thread starting with "What's going on?". Another post asks "How do I gain access to Swift Kanban?" with a detailed question about outdated instructions and a link to a SharePoint request form.
- RECENT ACTIVITY:** Lists recent posts, including one by Winthrop Hayes (11 months ago) and one by Matthew Duggan (3 weeks ago) regarding a process change.
- ACTIONS:** A sidebar on the right offers various actions: Start a discussion, Write a document, Upload a file, Write a blog post, Create a poll, Create a project, Create a status update, Create by email, Invite people to join this group, Group feeds, Create a video, and Create an event.
- ASK KANBAN:** A section for asking questions with a text input field and an "Ask it" button.
- WATCH A TAG:** A section for items tagged with "kanban", listing resources like "Websites: Kanban Resources", "Servicenow link to Kanban", "Kanban Experience Presentation", "Is SAFe Agile?", and "New Kanban Certifications in My Professional Profile!".

Maturity Assessment

Building a vision and game plan for moving forward

- Leaders complete a maturity assessment and action plan for their organization.
- Scoring ranges from 1 to 5 to reflect level of optimization and integration through value stream
- Dimensions scored are:
 - Integration across the supply chain
 - Foundation in the form of process documentation, maps, SOPs etc.
 - Performance management facilitating data-based decision-making
 - Work in progress management including use of a Kanban system
 - Automation where possible and practical to increase quality and efficiency
 - Continuous improvement as a combination of innovation and incremental growth that improves delivery to the customer
- Keys to success included:
 - MBO goal
 - Project manager oversight
 - 1.5 hour web-based workshops



Maturity Snapshot

The assessment resulted in a snapshot of maturity within the organization.

Maturity Categories	Team 1	Team 2	Team 3	Team 4	Team 5	Team 6	Average Scores
Integration	2	2	2	2	3	3	2.4
Foundation	2	2	2	2	2	3	2.1
Performance Management	2	1	2	1	3	2	1.9
WIP Management	2	1	2	1	3	3	2.1
Automation	3	2	2	2	3	3	2.5
Continuous Improvement	3	2	2	2	3	2	2.3
Team Scores	2.3	1.6	2.0	1.9	2.8	2.7	2.2

Action Plans

Leaders also were required to submit action plans as part of maturity assessment.

1	Maturity Category	Description	Team	Theme(s)	Gap	Owner	Actions	Status	Start Date	End Date	Comments
54	Work in Progress Management	Leader standard work to empower and enable the organization to achieve peak efficiency and performance; Includes tools such as huddles, dashboards, Kanban cards, Kanban boards and other visual management tools	Team A	WIP	We use Rally and Kanban. We use work in progress limits in Rally but not Kanban.	Ken	Each team member needs to focus on tasks listed on the Kanban board and limit wip to 3 tasks.				
55	Work in Progress Management	Leader standard work to empower and enable the organization to achieve peak efficiency and performance; Includes tools such as huddles, dashboards, Kanban cards, Kanban boards and other visual management tools	Team B	WIP	Don't have a good process to push back on work intake. The current process requires that work is assigned shortly after it comes in to our queue.	Dave	Move our work intake process to a prioritization process so the team can pull the work versus pushing the work. This process should also allow our customers to see the backlog so they can understand the current priority of their request				
56	Work in Progress Management	Leader standard work to empower and enable the organization to achieve peak efficiency and performance; Includes tools such as huddles, dashboards, Kanban cards, Kanban boards and other visual management tools	Team A	WIP	No well defined method for tracking non-incident activities such as SLD tasks, adhoc requests from peer teams etc. Off-Shift team has limited efficiency regarding U.S. based incidents due to timezone gaps.	Suchi	Adopt Kanban into standard workflows where appropriate. Create and continue to refine team Kanban board. Striving to enhance collaborative hand-offs between international and U.S. based teams so work can better progress from shift to shift.	In progress - Yellow			

Kanban Adoption

Kanban Tools

CA Agile



Used by software developers following Agile method

Follows Agile work process

Kanban board integrated with Agile suite of tools

Over 1800 licensed users, including:

IT Support Areas

Release Management

Business Areas

Customizable by business process

Lower cost, fully featured Kanban solution

Swift
Sync

Kanban Training Curriculum

Apex Module 3

- Introduces Kanban with hands-on exercise
- On-demand availability

Kanban Essentials and Design Workshop (KMP I)

- 2-day session
- Course and trainers certified by Lean Kanban University

Tool-Specific Kanban Training

- CA Agile Kanban training organization
- Swift Kanban training

*KMP II available on request or recommendation.

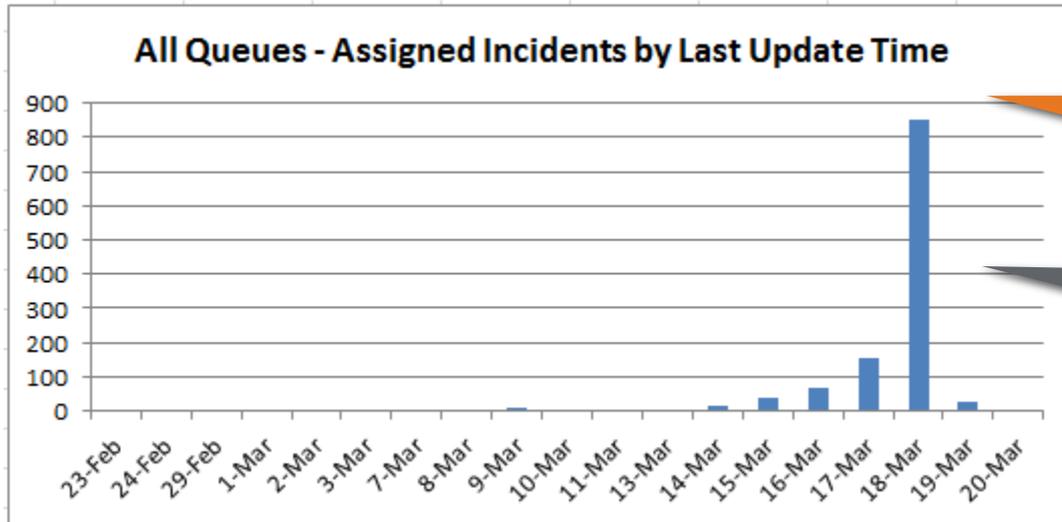
Technology Services Case Study

Responsible for workstation infrastructure support (i.e. OS, Citrix, connectivity)

The Problem

We are missing our SLAs related to cycle time.

- In this snapshot from 3/20/2016:
All Queues: 2335 active incidents.
1189 assigned to staff (51%).

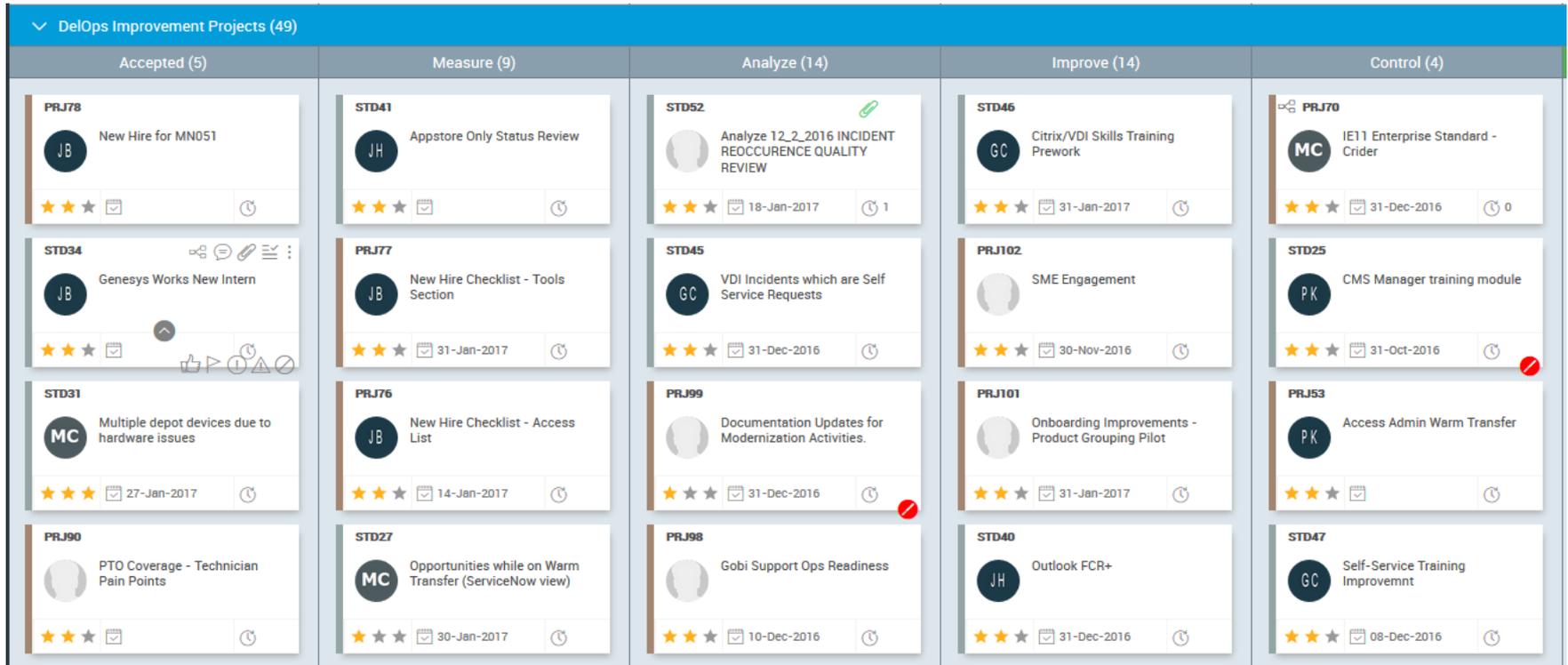


Over 40% of all work has stopped (restored or waiting)

25% over a week old

2017 Snapshot:
The 5 individuals with the most assigned incidents not updated in remote queues in the last 24 hours are also amongst those with the highest number of concurrent assigned tickets.

We Didn't Invent This!

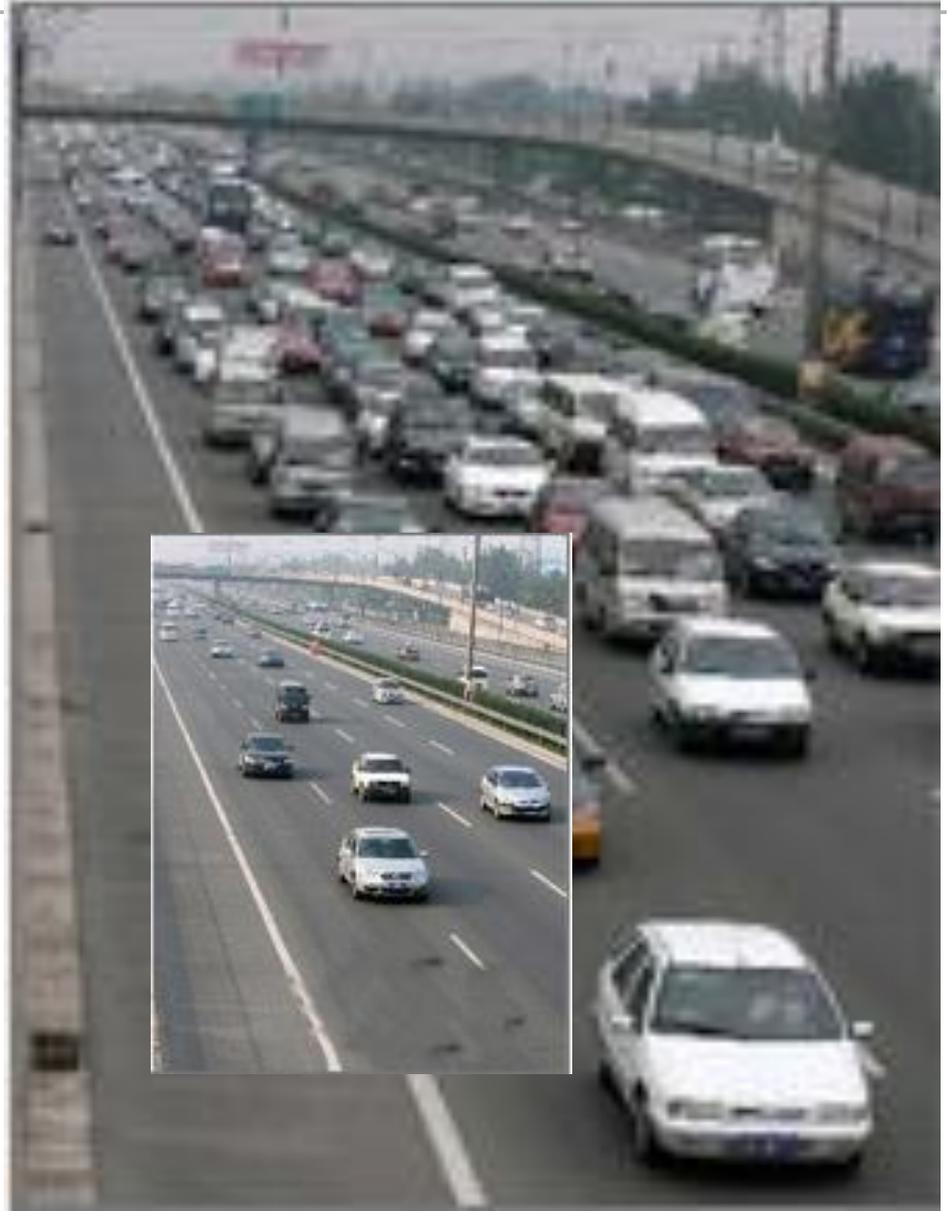


Adoption of a foundational Kanban principle

Traffic Jams & Work In Progress

High Demand – No Limits

High Demand – Flow Control



Benefits

Limiting Work in Progress

Ensures staff covering PTO won't be overloaded

Provides a better sense of accomplishment as work is completed instead of held

Can reduce overburdening when handing out escalations

Reduces stress from juggling too many items at once

Increases our flow as effort related to context switching is reduced

Improves our mean time to restore as cycle time per incident is reduce

We have adopted this concept as a WIP guideline, which is a visual queue to take action to complete work that has been started before starting new work.

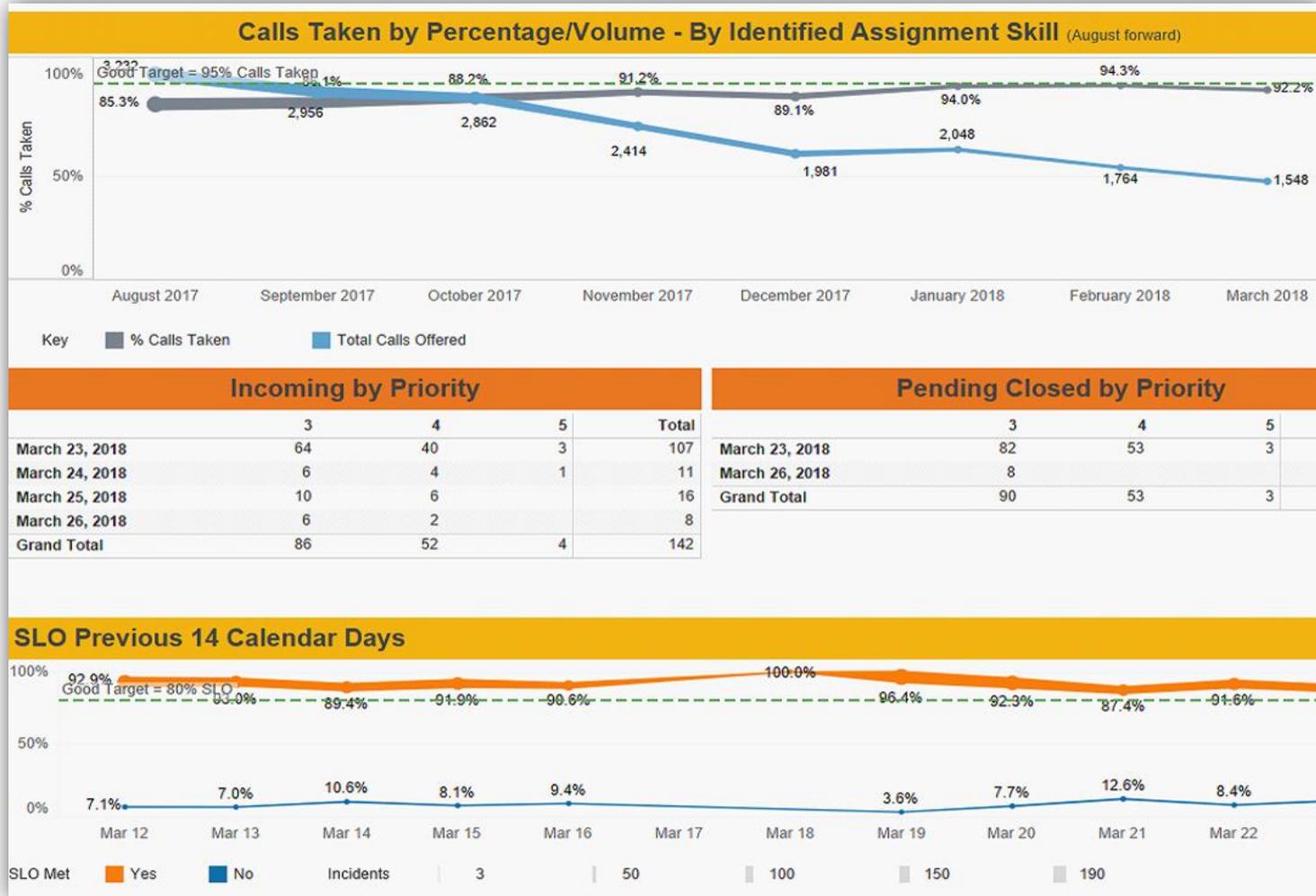
Comparing pre-to-post WIP Guidelines in incident queues:

Median Cycle time has decreased by one hour, or 18.5%

Median Lead time has decreased by 5.4 hours, or 16%

Average Effort has increased by 5.7 minutes

WIP Integration with Management Reporting (Part 1)



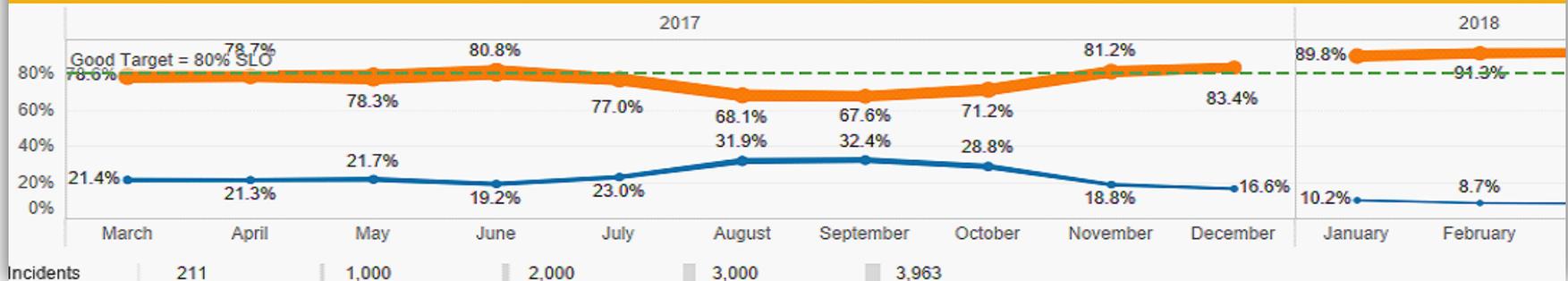
WIP Integration with Management Reporting (Part 2)

Carrying Load			Unassigned Volume		
	February 2018	March 2018	Grand Total	March 2018	
Restored	1	44	45	To Be Worked	48
To Be Worked		51	51	Waiting - Client	2
Waiting - Client	2	47	49	Grand Total	50
Waiting - IT		23	23		
Work In Progress		8	8		
Grand Total	3	173	176		

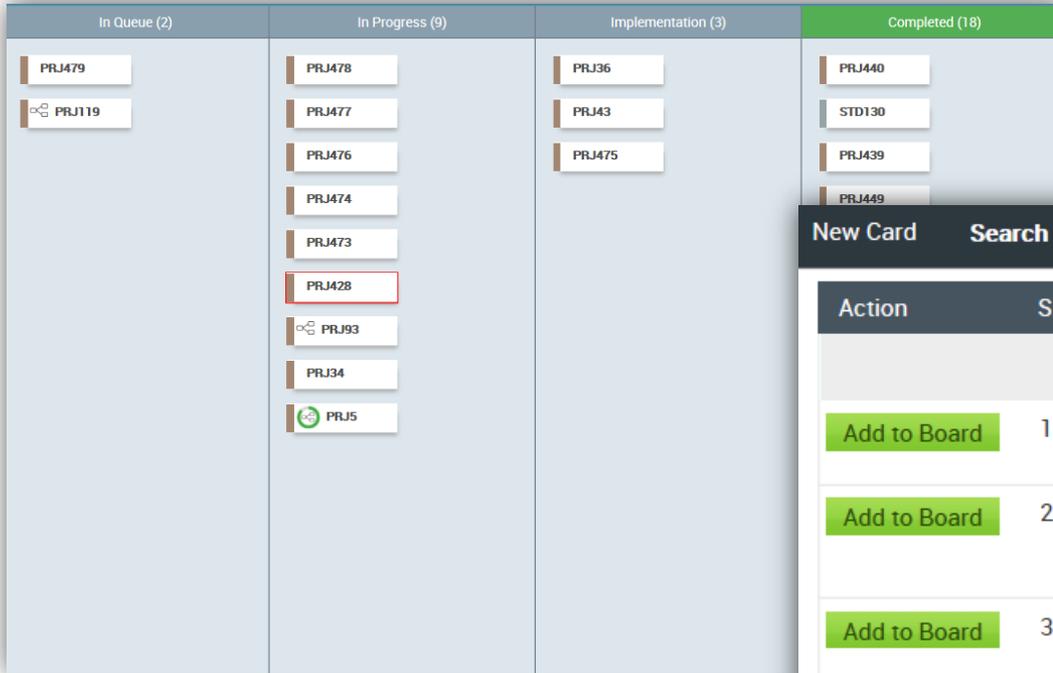
WIP Guidelines

Work In Progress	Waiting (Waiting Client + Waiting IT)	Restored	RCO_CONNECTIVITY
1	2	2	

SLO Previous 13 Months



Kanban Board for All Other Work



New Card Search and add from Backlog Search and add from Archive Search

Action	S. No.	ID	Card Type	Title	Priority
		<input type="text"/>	<input type="text"/>	<input type="text"/>	Priority
Add to Board	1	PRJ18	Project	EUTS Support	Low
Add to Board	2	PRJ118	Project	Workgroup Optimization - New Hire Voice	Medium
Add to Board	3	PRJ120	Project	Workgroup Optimization - Desktop Prov	Medium
Add to Board	4	PRJ121	Project	Workgroup Optimization - New Hire	Medium
Add to Board	5	STD23	Standard	DESKTOP Incident & Request Support	Medium

IT Engineering Example in SwiftKanban

Kanban Board

Work is managed via Kanban board.

Priority work (0)					
Standard work (42)					
Ready (9)	In Progress (23)		External Coordination/Effort (2)	Validation (2)	Complete (6)
	Active (11)	Long Running (12)			
B2BT37	RHM11	B2BT24	B2BT27	B2BT15	B2BT35
B2BT26	B2BT34	B2BT23	B2BT7	B2BT19	B2BT29
B2BT25	B2BT32	B2BT33			B2BT36
B2BT4	B2BT28	B2BT22			B2BT6
B2BT3	B2BT14	B2BT21			B2BT16
B2BT53	B2BT5	B2BT19			B2BT8
B2BT40	B2BT12	B2BT20			
B2BT2	B2BT11	B2BT18			
B2BT39	B2BT10	B2BT17			
	RHM10	B2BT31			
	RHM1	B2BT30			
		B2BT13			

← Expedited Lane

← Standard Work

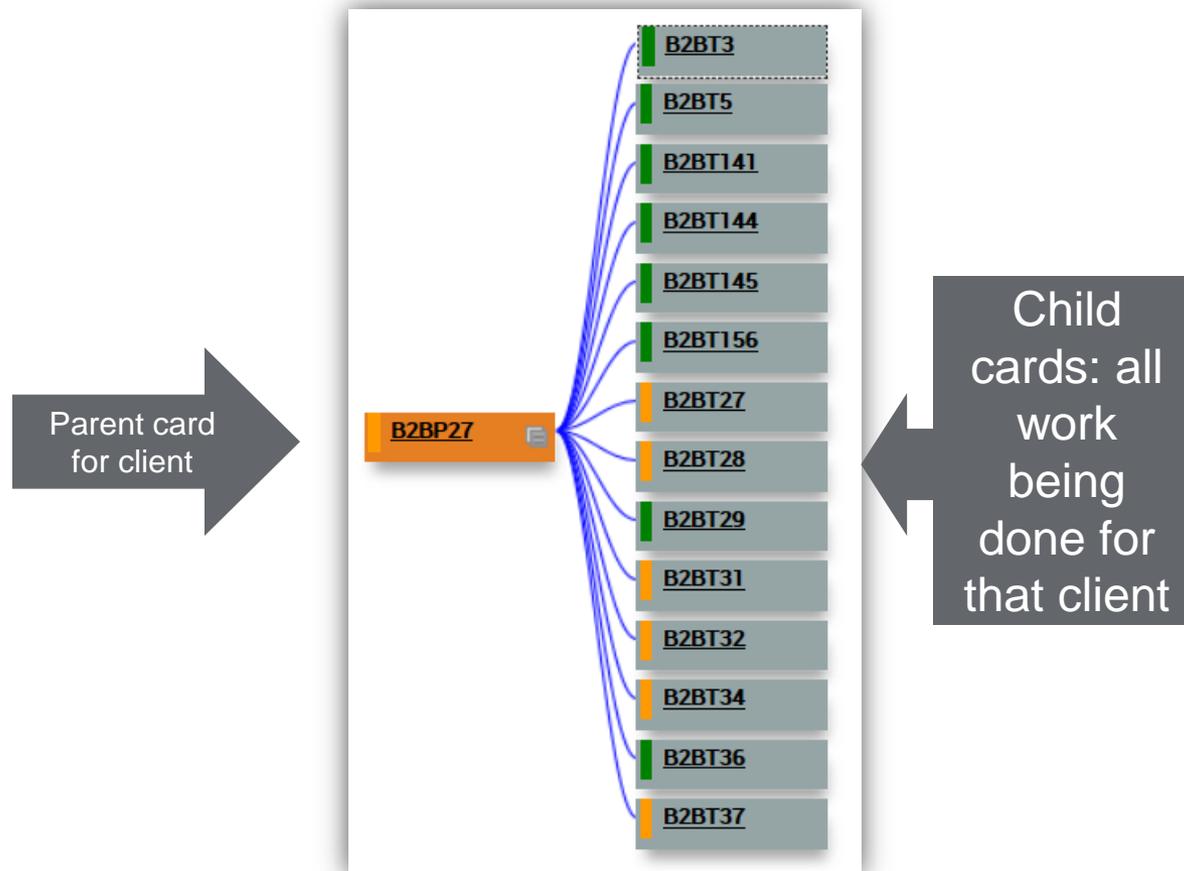
To Do List for Task Management

Template for each card automatically populates standard steps to be taken

Card Details		Comments (22)	To-Do (6/9)	Attachments	Activity Log	Movement Log
 Add	Total - 9	Pending - 3	In-Progress - 0	Completed - 6	66.67 %	
 	TOD01650	Complete VPN form	Completed ▾	In Progress#Active		
 	TOD01651	Navigator Request	Completed ▾	In Progress#Active		
 	TOD01652	ServiceNow Request	Completed ▾	In Progress#Active		
 	TOD01653	ECC sites folder	Completed ▾	In Progress#Active		
 	TOD01654	Network connectivity testing	Pending ▾	In Progress#Active		
 	TOD01655	Migrate Tunnel	Pending ▾	In Progress#Active		

Parent-Child relationships

Cards for each client are tied together via a parent-child relationship



Results

Priority work (0)					
Standard work (42)					
Ready (9)	In Progress (23)		External Coordination/Effort (2)	Validation (2)	Complete (6)
	Active (11)	Long Running (12)			
B2BT37	RHM11	B2BT24	B2BT27	B2BT15	B2BT35
B2BT26	B2BT34	B2BT23	B2BT7	B2BT9	B2BT29
B2BT25	B2BT32	B2BT33			B2BT36
B2BT4	B2BT28	B2BT22			B2BT6
B2BT3	B2BT14	B2BT21			B2BT16
B2BT53	B2BT5	B2BT19			B2BT8
B2BT40	B2BT12	B2BT20			
B2BT2	B2BT11	B2BT18			
B2BT39	B2BT10	B2BT17			
	RHM10	B2BT31			
	RHM1	B2BT30			
		B2BT13			

Reduced administrative cost by \$330,000 annually since implementation of Kanban

Software Development Team in CA Agile Example

Development Team Example

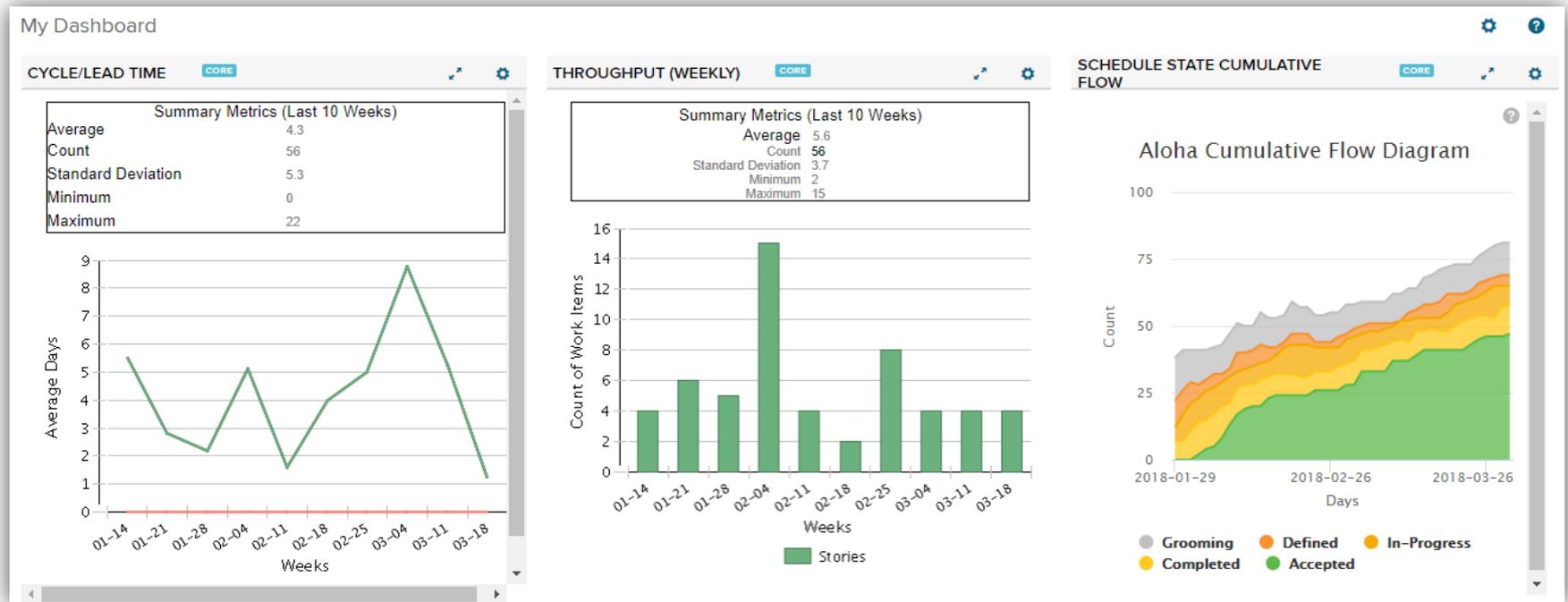
The screenshot displays a Kanban board with seven columns representing different stages of the development process. Each column has a header with a count of items and a detailed description of the state. Below the headers, individual work items (cards) are visible, each containing details like user story ID, assignee, tags, and test case status. A red box highlights the 'Active Development' column and its corresponding cards.

Grooming 7 of ∞	Defined 4 of ∞	Active Development 4 of 7	QA 1 of 6	UAT 2 of 5	Prod Ready 2 of ∞	Implemented 0 of ∞
Exit Agreement Creator of the story believes the user story is ready for team review.	Exit Agreement READY: Team has agreed the requirements of the user story are clear. EXIT: Developers begin development.	Exit Agreement READY: Development completed and ready to be tested. EXIT: Tester's ANI is mapped for any screen pop needs if applicable.	Exit Agreement READY: QA completed and signed off. **Redirects are QA'd and do not require UAT - changed 10/26 EXIT: Demoted to Product	Exit Agreement READY: User story demoted to or tested by business. **Redirects are QA'd and do not require UAT - changed 10/26 EXIT: Stakeholders agree development meets	Exit Agreement READY: Production deploy date determined. Change Control approved. UAT Production Checkout scheduled. EXIT: User story deployed into production. UAT Production Checkout passed.	Exit Agreement Green=ECD Pink=VCC Purple=Conversation Manager Yellow=multiple

Key Practices

- Agile work process
- Agreements/SOPs for each column
- Tagging of cards for reporting and analysis

Analytics Example



Cycle Time

Volume

Flow

Lessons learned

Strengths

- You get what you pay for in training. Investment in professional WBT development and voice talent paid dividends.
- Integration with existing channels – LearnSource, HubConnect helped spread the word.
- Investment in internal AKTs has strengthened our organizational knowledge and ability to deliver.
- Leadership buy-in helped drive change.

Opportunities

- Post-training there is a need for coaching. Without coaching, many teams fail to evolve from proto-Kanban.
- Internal sharing of case studies enables learning from each other and advancing as a company.
- Misperception exists that Kanban is an IT-only tool.
- Tools, such as SwiftSync and plug-in modules, require awareness and training. Lunch and learns have fulfilled this need.

Tackling the biggest challenges together



ENHANCING
VALUE



INNOVATING
SOLUTIONS



MANAGING
QUALITY & COST



ENABLING
COLLABORATION



DELIVERING
RESULTS

Thank you.

Contact information:

Jeanine M. McGuire

jeanine.mcguire@optum.com

@qualitate13 on Twitter