

# Federal Forum 2022

## ServiceNow: Transforming the healthcare delivery model with the Digital Health Platform

Drew Koerner  
Healthcare CTO

Produced by:  
**MeriTalk**

# Transforming Healthcare with the Now Platform

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**Drew Koerner**  
ServiceNow

# Safe harbor notice for forward-looking statements

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# Trends in Healthcare and Life Sciences

## 1 Patient-centric healthcare



Personalization of pre, during or post care services



Value-based care shift beginning with the chronic & elder care



New entrants with competitive products



Interoperability between **provider**, **payer** and **member**

Source: McKinsey & Deloitte Insights

## 2 Change in Care Delivery Location

### ~50%

of all patients reported they are now getting home treatment instead of going to their healthcare provider's office

### 15 MM

patients and more than 600 million patient visits each year for provided remotely

### ~25%

cost savings vs. traditional inpatient care and drives greater patient satisfaction

Source: Accenture, John Hopkins

## 3 Patient Remote Monitoring

### 30 MM

US Patients are expected to use remote patient monitoring devices by 2024

### 47%

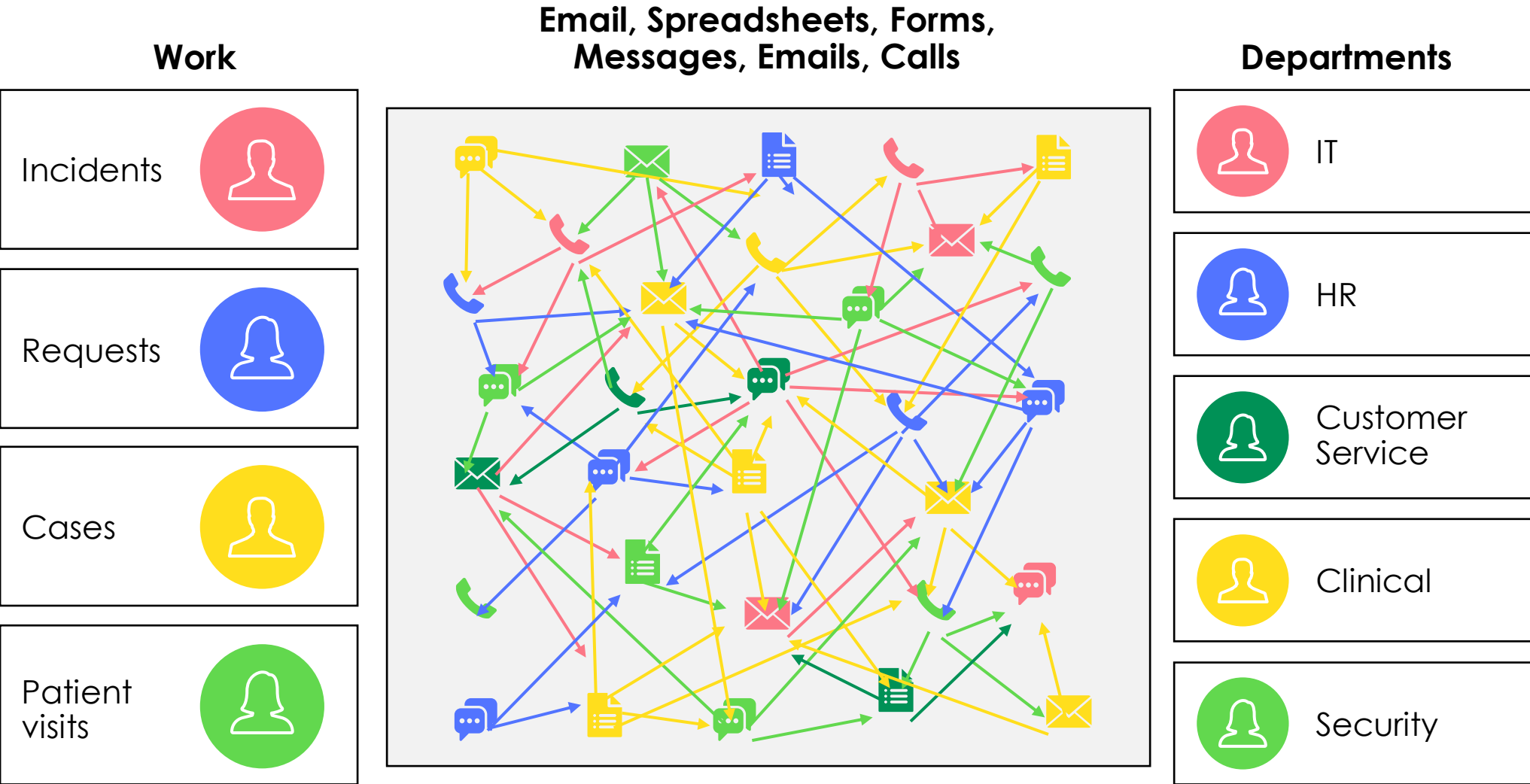
of home health patients will use IoT devices by 2024

### 82%

of organizations that have deployed medical IoT devices have experienced a cyberattack

Source: S&P Global

# Most companies stuck in an old work model

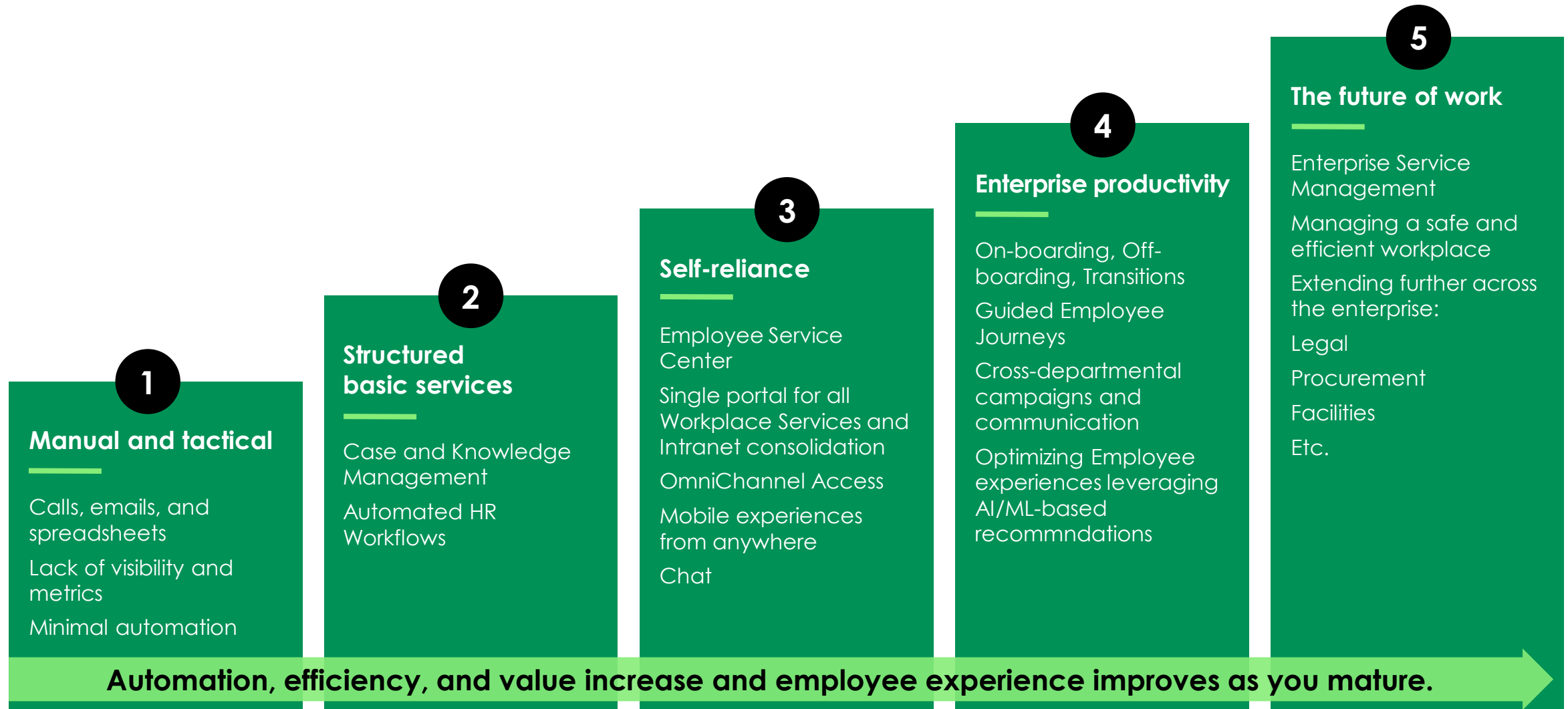


# Four outcomes driving healthcare






# Digital transformation maturity model



# Workflows for Healthcare Providers

Business Imperatives

<b>Patient and Clinician Workflows</b> 	<b>Risk &amp; Compliance Workflows</b> 	<b>Employee Workflows</b> 	<b>IT and Shared Services Workflows</b> 
Create consumer-grade experiences across the care continuum	Optimize care delivery by uniting teams and information	Manage healthcare risk, security, and cost	Create connected and engaging experiences for healthcare workers
			Improve departmental efficiency and reduce costs



Improving how care is delivered through a Single System of Action on Now Platform®

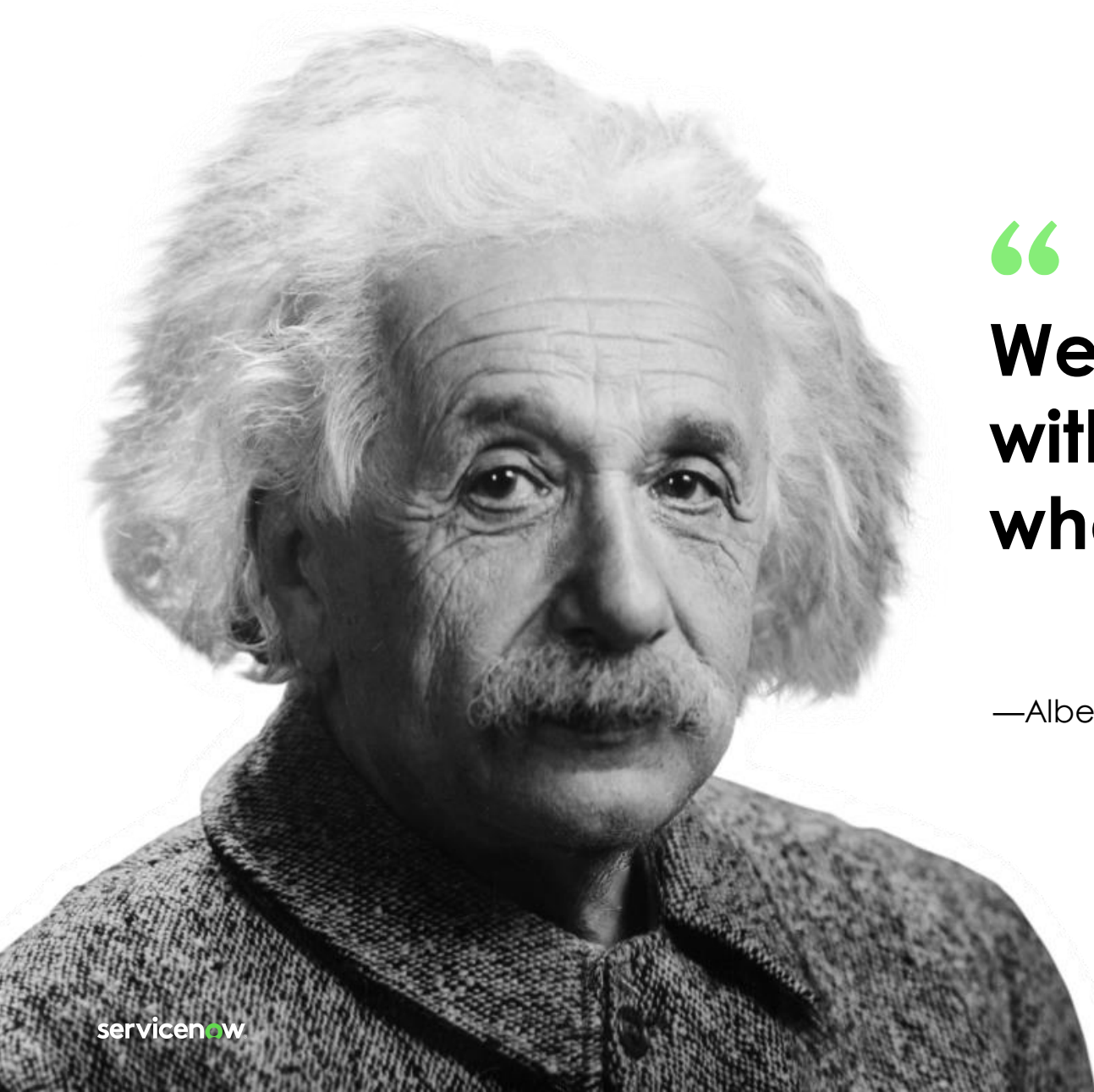


Workflow Optimization

<b>Patient Access &amp; Engagement</b> (e.g., Outreach, Scheduling, Check-in, Onboarding, Self-Management)	<b>Operational Risk and Resilience</b>	<b>Employee Service Delivery</b>	<b>IT Service Operations</b>
<b>Patient Care</b> (e.g., Bedside Assist, Clinician EMR Troubleshooting)	<b>Third Party Risk Management</b>	<b>Hybrid Workplace</b>	<b>Device Management</b> (BioMed and IT)
<b>Delivery of Care Anywhere</b> (e.g., Virtual, Telemedicine, Home, Remote)	<b>Business Continuity</b>	<b>Clinician Journeys</b> (e.g., Onboarding)	<b>Global Business Services</b>







“

**We cannot solve our problems  
with the same thinking we used  
when we created them.**

—Albert Einstein

# A better experience for your patients and providers



## Patient experience

Arm your patient facing employees with access to the necessary resources at the point of interaction to provide the patient with the best experience.

## Bedside assist

Improve patient care and efficiency of clinical staff with natural language processing requests made from patient bedside.

## Clinic managed services

Deliver shared services to support your extended provider community by providing access to critical resources and process documentation.

# BedsideASSIST

Patients can access the support and information they need 24/7 using conversational AI.

Immediately engages patients, confirming that they have been heard.

Supports nurses to deliver positive patient outcomes, providing insight into a patient's need, equipping them to respond effectively.

OrbitaASSIST also connects patients with entertainment services and can enable smart controls of the patient room.

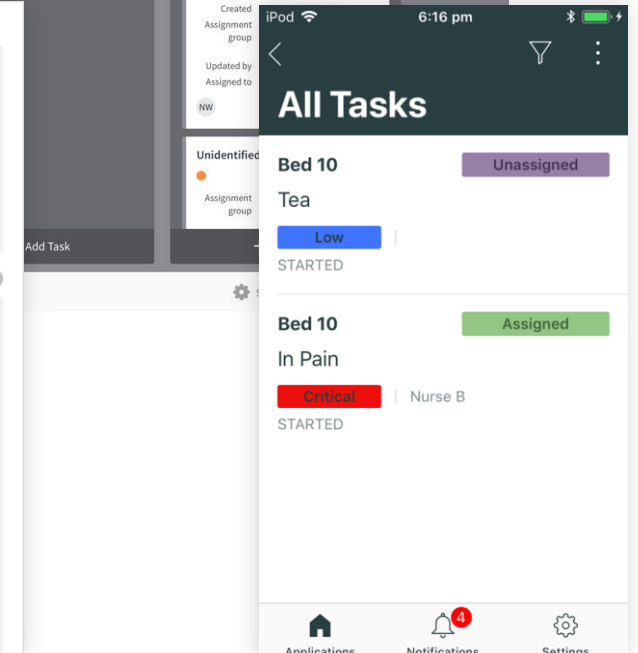
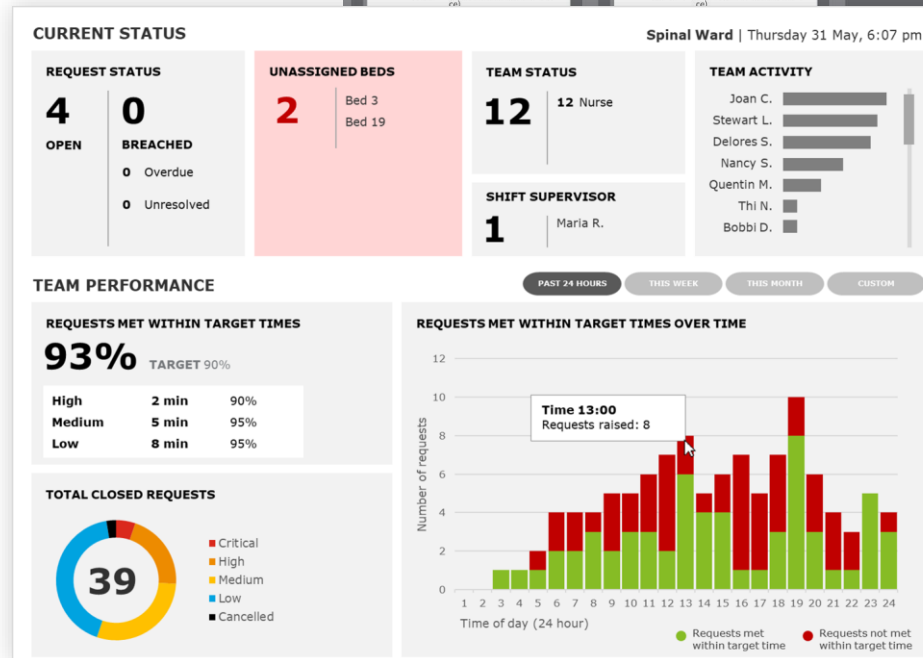
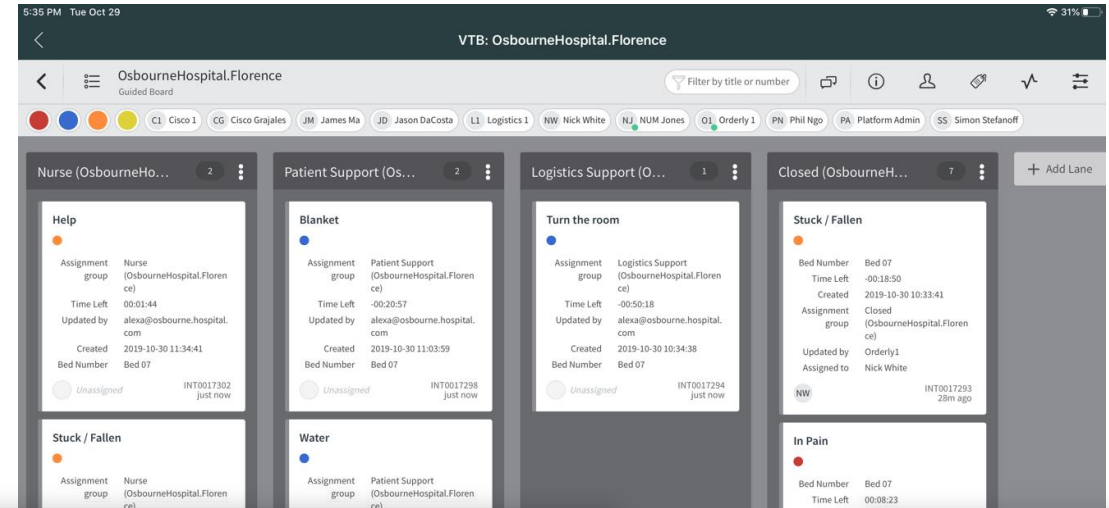
## Outcomes achieved

In 18 months over **8,000** conversational AI enabled requests were made to nurses.

**87%** of nurses reported feeling more confident to respond to patient requests.

**92%** of patients said they would recommend to friends or family

**100%** of patients would like it available if hospitalized again.







# A smoother employee experience



## Nurse on-/off-boarding

Provide visibility for nurses across the hiring process via a single portal, making orientation, onboarding, credentialing, and training more efficient.

## Physician on-/off-boarding

Expedite the HR onboarding process for physicians and provide access to key resources necessary to accelerate the delivery of care.

## Employee document management

Provide your clinicians and staff the ability to solve problems via an employee service center, minimizing HR support caseloads while increasing employee satisfaction.

# Clinician Onboarding

Out-of-the-box configurable onboarding workflows

Form/Enrollment application consolidation

Automated routing and assignment of tasks across the enterprise

Visibility into the process and progress tracking through dashboards

Integrations with 3<sup>rd</sup>-party applications and external service providers

Visibility and proactive recognition of process bottlenecks

## Outcomes achieved

Reduction in HR cases by **50%**

Increased efficiency in servicing HR cases by **30%**

Increased capacity equivalent to **48** full-time HR resources or **\$3.9 million** per year

– Christus Health

**servicenow.** Search

Knowledge Catalog Forums

**Request Onboarding - Nick Newman**  
HRC0001146 Ready Updated 1m ago [Cancel Request](#)  
[Description](#) [Attachments](#) [History](#)

**New Hire** Nick Newman  
**Hiring Manager** Maria Davies  
**Opened for** Maria Davies  
**HR Specialist** Roger Seid

**Employment Type** Full Time Employee  
**Department** Finance  
**Position** Analyst

**Timeline**

- Pre-Hire
- Pre-boarding
- Day 1
- Week 1

**Pre-Hire** 1/3 completed

All (3)

- Request Background Check - Nick Newman Ready
- Request Drug Screen - Nick Newman Ready
- Account Notification - Nick Newman Closed Complete

9:19

Hello, Abraham Lincoln

**Welcome to NowHealthcare!**  
[Learn More >](#)

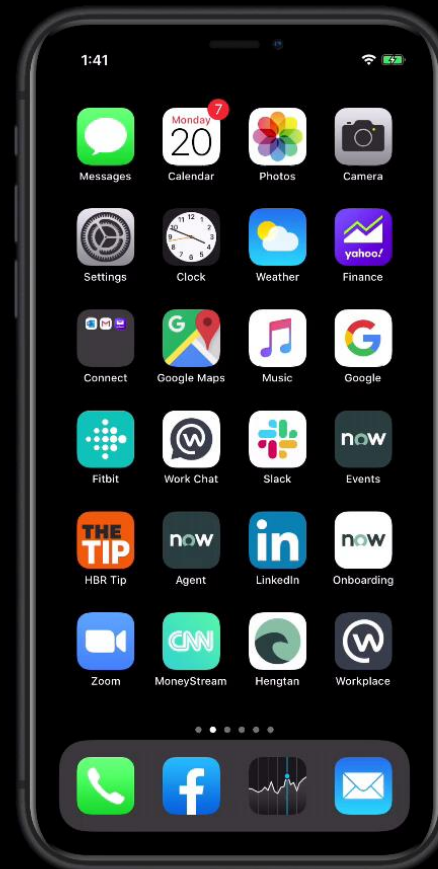
**My Tasks** [See All](#)

**Provide your licensing information**  
3 days ago  
Physician Onboarding case for Abraham Lincoln

**5 days from now**  
Physician Onboarding case for Abraham Lincoln

**Credentialing Form for Insurance Companies**  
1 week from now  
Physician Onboarding case for Abraham Lincoln

[Home](#) [Notifications 3](#) [Settings](#)







# Automate and optimize processes



## EMR Help Button

Optimize clinician time in delivering patient care by automating and routing EHR clinician specified service requests to the right teams.

## EMR Lifecycle Management

Deliver EHR upgrades and enhancements more effectively using standardized templates. View progress to stage gates, dependencies, and resources, while collaborating with the project team in a single view.

## Outsmart HER Outages

Ensure EHR uptime and availability, by mapping all related devices, apps, and configuration profiles.

# Create Request in Cerner

**Cerner**

**New Request** **My Requests**

Hello, Dr. Tibbs. We're here to help.

In order to best assist you, we need a few pieces of vital information that will make a timely solution possible.

If this is an urgent issue, contact the help desk: 1-866-221-8877.

**What can we help with?**

I am getting an error message in PowerChart.

Please provide a detailed description of your request. You may paste a screenshot into the description by taking a screenshot, clicking into the box and pressing Ctrl+V.

<b>Secure Data</b>	MRN: 10001715 FIN: 20002187 Encounter ID: 2447906	<a href="#">Edit</a>
<b>Type and Impact</b>	Type of Request: Cerner Scope of Impact: One person	<a href="#">Edit</a>
<b>Who is experiencing this issue?</b>	Adam Tibbs (816) 555-9616 adam@hospital.com	<a href="#">Edit</a>
<b>Who do we talk to?</b>	Adam Tibbs (816) 555-9616 adam@hospital.com	<a href="#">Edit</a>

[Create my request](#) [Reset](#)

## Automate and optimize processes

- 1 Clinician will click on "New Request" button within Cerner system and will fill information displayed on the form.
- 2 Once done, clinician will click on "Create my Request" button.
- 3 At this point, Cerner will call SN API to create the request and will pass the information.

# University Kentucky HC

## EMR help button results

Technical Dress Rehearsal (TDR)—  
Eliminated Manual spreadsheet tracking  
via Virtual Agent Auto Ticket Generation  
for HW/Applications

Automated 13,000 Log-in Labs, Verified  
User Access, tickets auto created  
for records

Auto Assigned Cases based on  
conversation (i.e., Security/Access issues)

### Outcomes achieved

>50% calls managed through  
Virtual Agent

54% First Call Resolution through  
Virtual Agent

**Automated** Haiku SW Load for  
Clinicians via Virtual Agent

– University Kentucky HC



Total Epic Incidents Since Go-Live

35,537

Open Criticals

0

Total Epic Open Incidents From Epic  
Go-Live

3,539

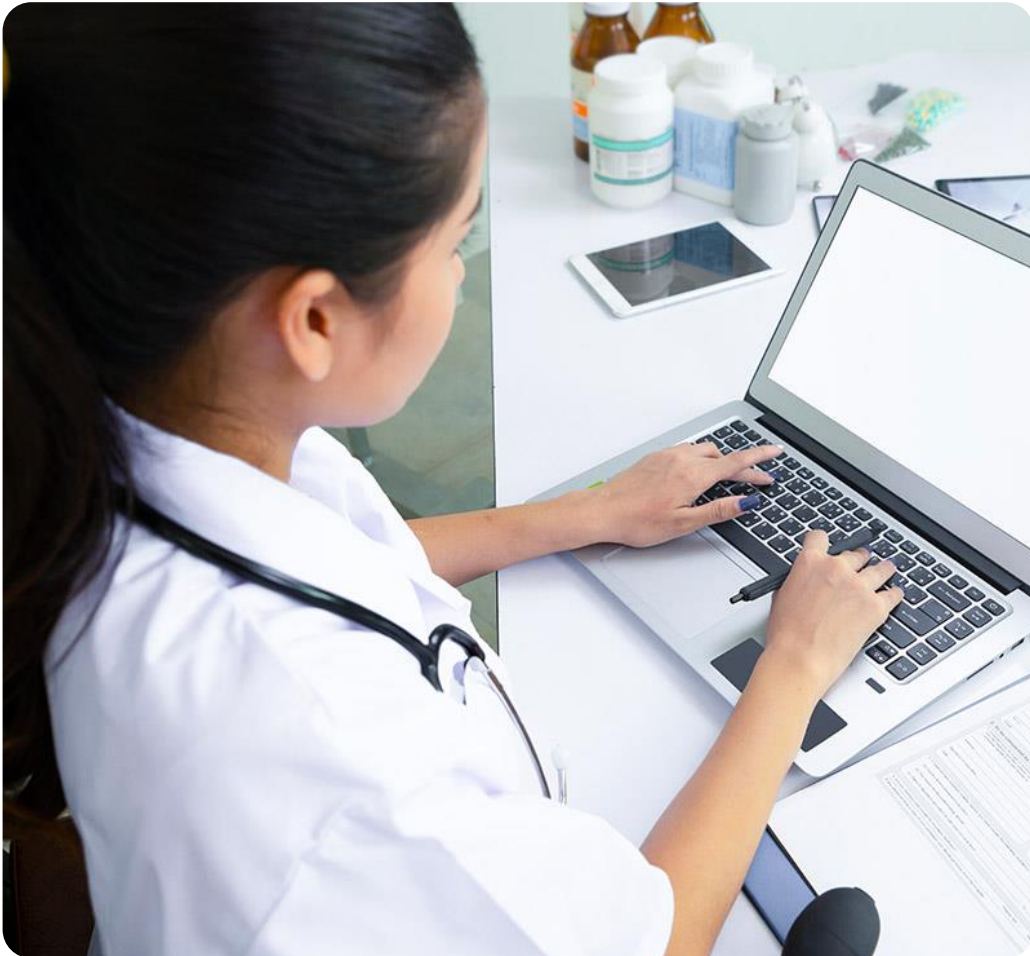
Phone – 17,265 FCR – 40%

VA – 18,272 FCR – 54%





## Stronger security and compliance



### Protect medical and financial data

Prioritize threats and vulnerabilities so teams can respond more efficiently.

### Improve compliance

Track compliance to regulations, improving security and protecting patient data, respond to issues, and effectively scope an audit engagement.

### Protect the integrity of medical devices

Identify critical vulnerabilities and automatically respond via pre-defined workflows.



# Full Clinical Device Lifecycle Management



## Asset Inventory

### Order Tasks

Stock ordering

Transfers

Thresholds

Inventory Audits

Loaner Asset Pool



## Asset Deployment

### Install/Deploy Tasks

Request

Provision

Configure

Inspections

Verification



## Asset Servicing

### Service and Repair Tasks

Upgrades

Break/Fix

Recalls

Planned Shutdowns

Preventive Maintenance



## Asset Decommissioning

### End-of-Life Tasks

Data Cleanse

Asset Disposal

Refurb and Sell

Shred and Scrap

Lease Return

Automated asset lifecycle activity, updates, reporting, and audit trail

# Federal Forum 2022

## Healthcare/Life Sciences Service Management roadmap

Produced by:

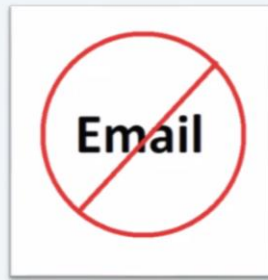




# Vision: Example UW Health

The Elevator Pitch...

*I want to save every UW Health Employee  
5 minutes 10x a day so that they can do the  
work they came to UW Health to do.*



**Saving employee time to  
focus on what's important**

- 1 Simple
- 2 Valuable
- 3 Broadly understood

## Provider Capability Model



# Who are we defining this for?

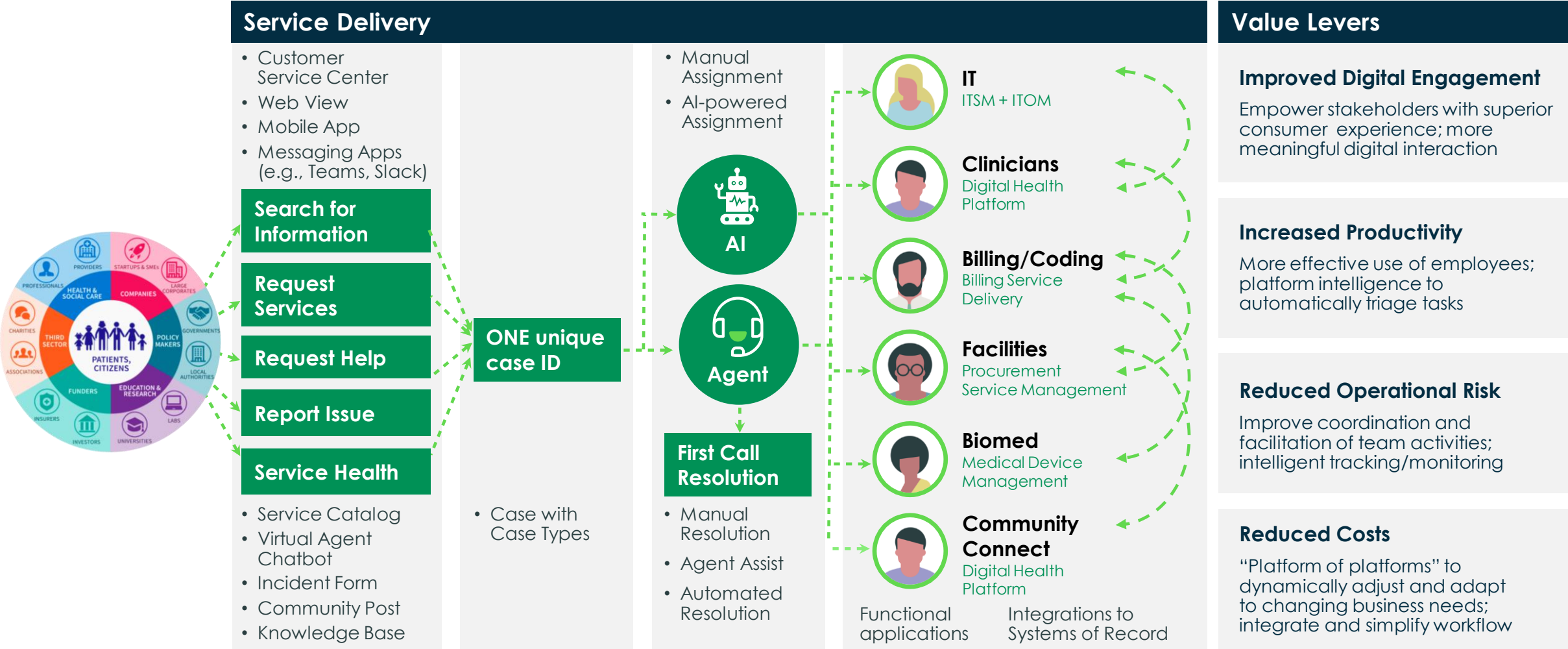
- **Patients/Veterans/Families**
- **Providers/Clinicians**
- **Expand into the Healthcare Ecosystem**  
A community consisting of patient and doctor, and all satellite figures involved in the medical care or hospital stay process.



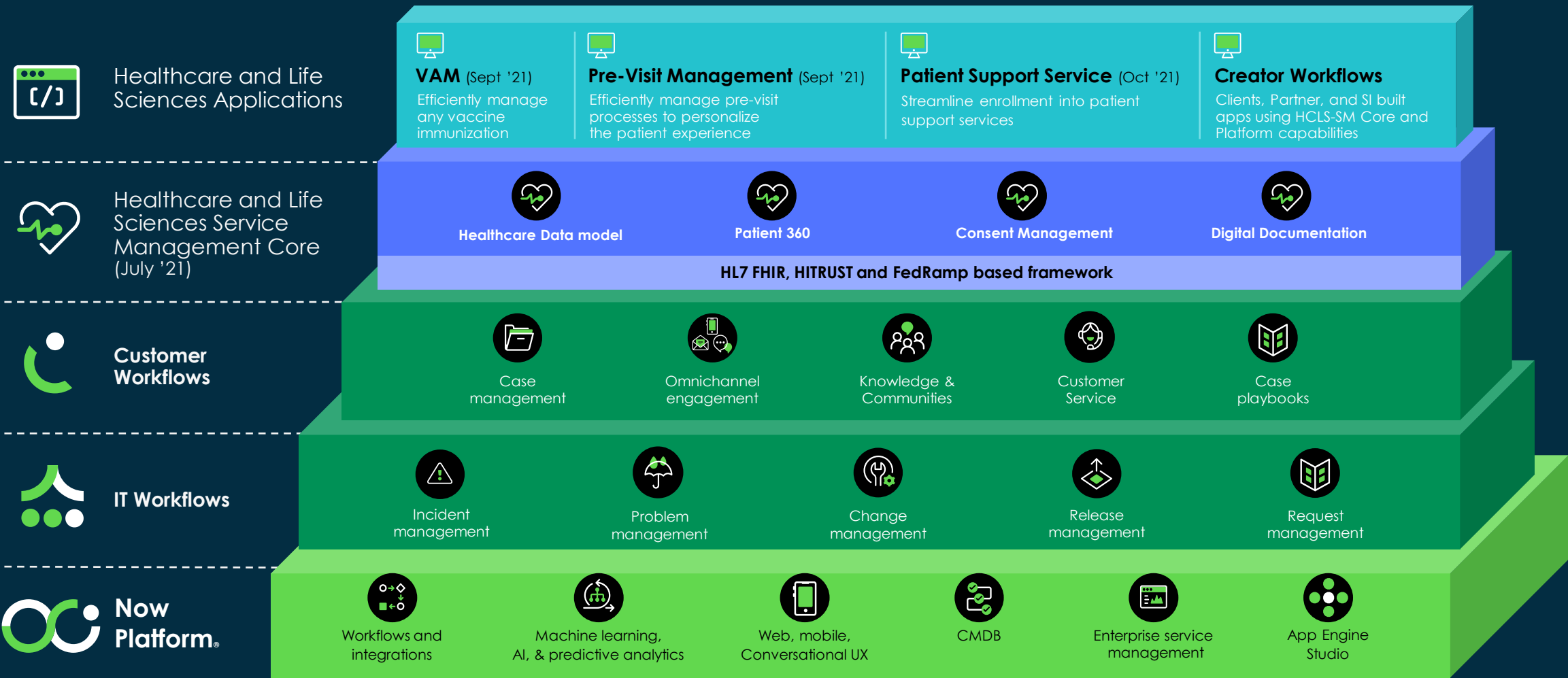
©ECHalliance

# Opportunity: ServiceNow can transform the healthcare experience

To a patient-, provider-, supplier-, partner-, vendor-focused approach to service delivery that unlocks productivity



# Healthcare and Life Sciences Service Management



# Healthcare and Life Sciences Data Model

Foundation Data	Practitioner	Patient	Healthcare Insurance	Clinical	Revenue Cycle
Healthcare organization	Practitioner	Patient	Payer Plan	Condition	Claim Header
Healthcare location	Practitioner location	Household members	Member plan	Observation	Claim Line
Healthcare Code Set	Practitioner specialty	Appointment		Encounter	
	Practitioner location specialty			Procedure	
				Allergy intolerance	
				Immunization	
				Vaccine product	
				Medication	
				Medication product	

\$ Professional or Enterprise **servicenow** | Store

## Accelerate digital transformation

- 1 Extend the existing data model to support providers, payers, and life sciences organizations
- 2 Provide standardized objects and attributes across ecosystem
- 3 Drive faster time to value with pre-built integrations & connectors

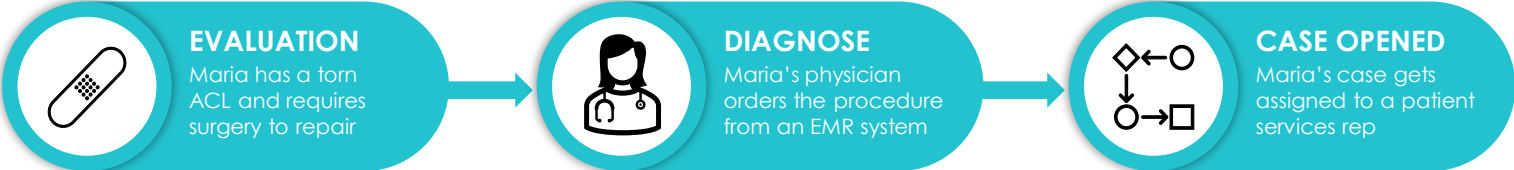


Maria's journey

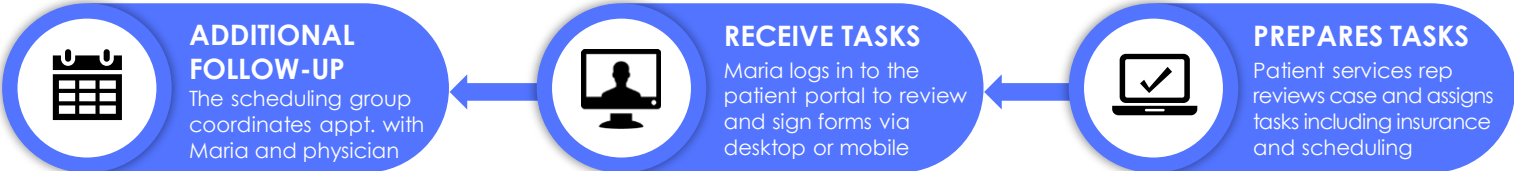


Healthy woman who tore her ACL playing soccer with her grandkids

Scheduling



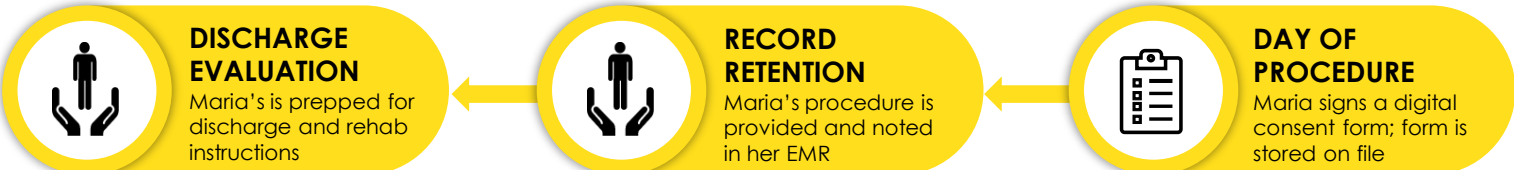
Pre-Registration



Pre-Visit



Service



Care Management



# Federal Forum 2022

## Out-of-the-box applications

Produced by:



# Enabling workflows across healthcare organizations

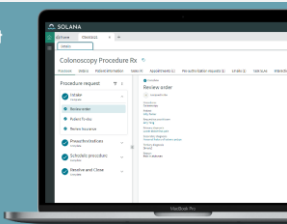
Prepackaged workflows exist but the platform can support workflows specific to your organization's challenges

## Out of Box

### Pre-visit management

A best practices workflow that replaces paper-based processes

- Streamline preauthorization and preapproval processes
- Enable proactive outreach to adjust schedules based upon status
- Increase visibility to unapproved or denied authorizations in advance
- Provide a guided, comfortable preadmission experience for patients



## Pre-visit Management

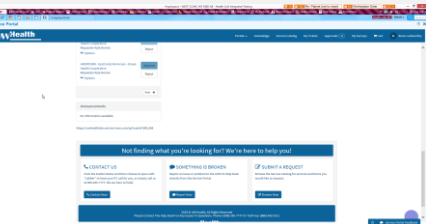
### Vaccine administration management

Access to care beyond Covid to improve the lives of millions of people around the world

- Manage Covid-19 and seasonal influenza vaccinations at scale
- Encourage prompt vaccination with appointments managed online
- Vaccinate efficiently and safely with clinician mobile access to patient and vaccine information
- Enhance population health with vaccine, efficient, controlled vaccination programs

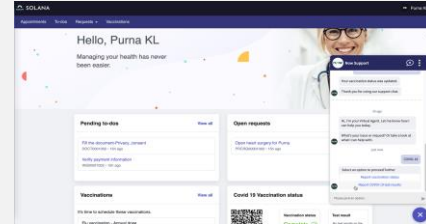


## Vaccine Admin Management



## EMR Help

## In-Development

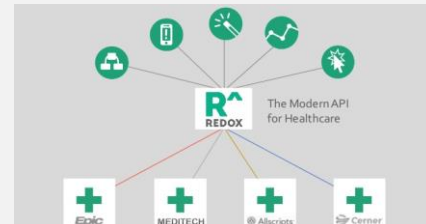


## Patient Portal

### Clinical Asset Management Roadmap Offerings



## Biomedical Device Management



## Redox Integrations for EHRs

## Extending the DHP to meet customer requests...

### ServiceNow transforms the customer experience

To a customer, supplier, partner, vendor-focused approach to service delivery that unlocks productivity



## Healthcare Ecosystem Management



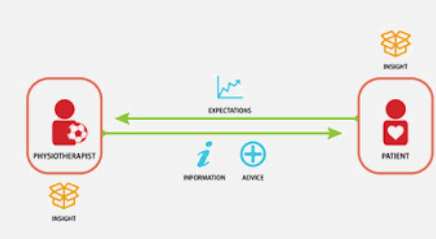
## ED Patient Flow Optimization (NSW)



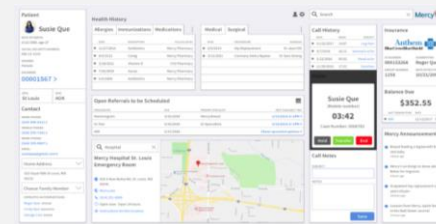
## Care at home



## Referral Management



## Clinical Pathways (Life Health)



## Vendor/Supplier Risk

# Organizations are finding challenges with optimizing device and service management

It costs between **\$4,000 to \$5,000** per bed per annum in lost/stolen equipment.  
For a 400-bed hospital that is a **\$1.6M** problem.



**10% to 20%**

of medical equipment  
hospitals misplace or  
lose annually



**\$5B**

is wasted annually from  
expired, lost, or uncaptured  
medical devices



**Up to 30%**

of medical employees'  
time is spent searching  
for equipment

Hospitals are spending **\$93 billion per year** on medical equipment  
lifecycle costs.





# Full Asset Lifecycle Management



## Asset Inventory

### Order Tasks

Stock ordering

Transfers

Thresholds

Inventory Audits

Loaner Asset Pool



## Asset Deployment

### Install/Deploy Tasks

Request

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Recalls

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Preventive Maintenance



## Asset Decommissioning

### End-of-Life Tasks

Data Cleanse

Asset Disposal

Refurb and Sell

Shred and Scrap

Lease Return

Automated asset lifecycle activity, updates, reporting, and audit trail

# HCLS Device Management: Vision and Use Case

## 4 Enable Patient Remote Monitoring

- Enable Connected Health empowering clinicians with patient's device data outside of traditional healthcare setting to improve care quality and reduce health inequities (SDOH)
- Reduce healthcare cost by real time decision making, reduce patient visits and proactive patient health management

## 3 Enable Device Care for Home Health

- Manage, service and maintain clinical devices used by patient at home/remote
- Provide Home health, Hospice care or Medical device an out-of-box solution to enable Home Health device management

## 2 Optimize Device Operations

- Track device's timing and availability, patient's usage and location to improve patient care
- Optimize device inventory and deployment to improve device efficiency
- Reduce hospital device total cost of ownership (TCO)

## 1 Manage Device Compliance

- Framework, process, and reporting to manage Hospital devices compliance maintenance and operations
- Exceed accreditation (TJC, HFAP, DNV\*) and regulatory (CMS, FDA, State Health dept.) standards
- Out-of-box Reporting and customized dashboards to provide real-time view in device compliance



Workflows



Experiences

Now Digital Health Platform.



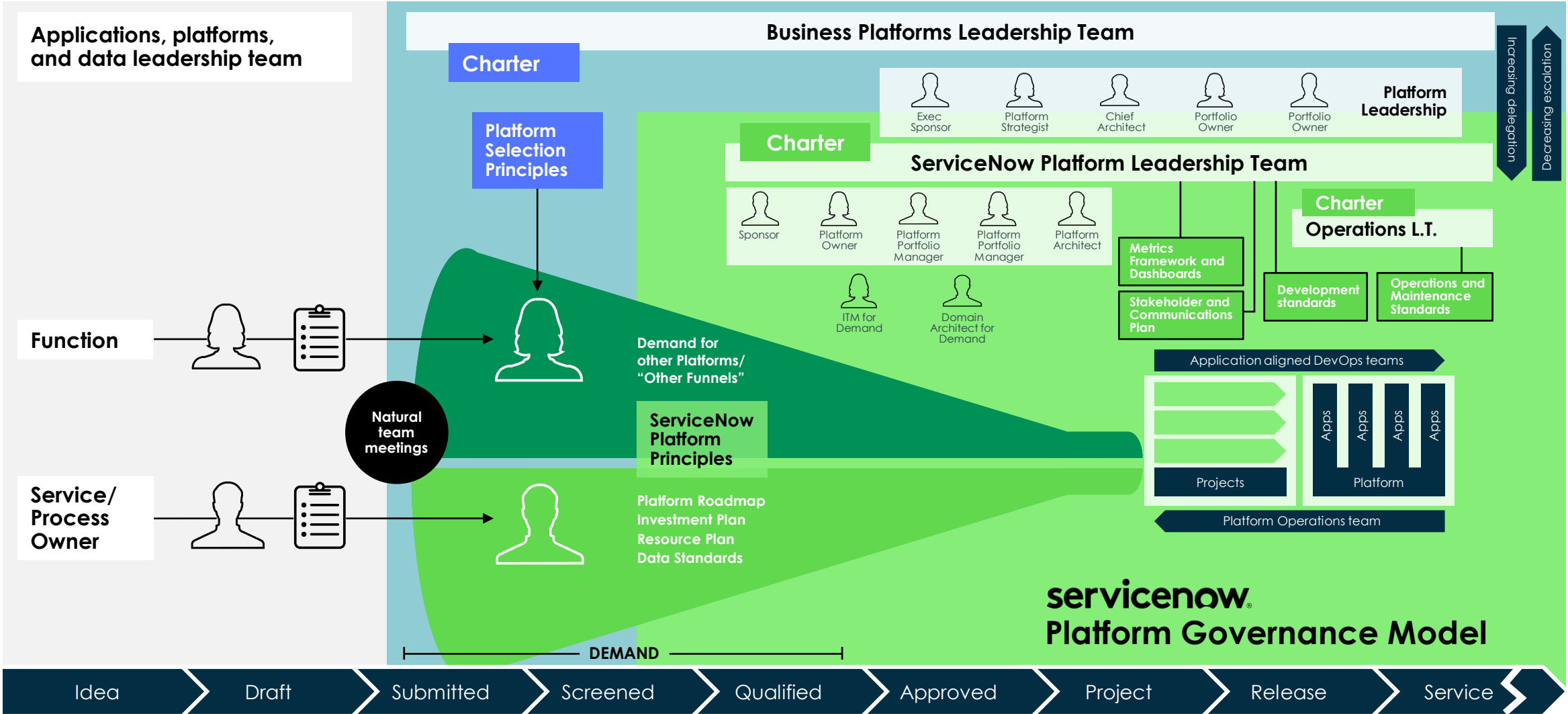
Intelligence



Integration



# Platform Governance Model



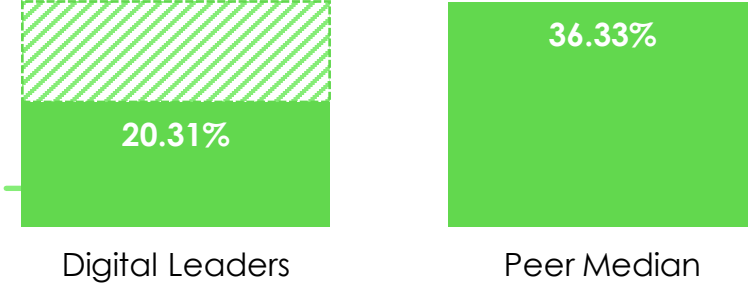


# Digital Transformation Leaders **outperforming** their peers in SG&A



## 2019 SG&A as % Sales

Lower is better



### ServiceNow's Digital Transformation Leaders

Organizations who are **maximizing** their investment in ServiceNow

- Broadly increasing the digitizing of their business workflows
- Moving beyond IT to include enterprise services
- Extending automation and adopting the Now Platform across the entire enterprise

These Digital Leaders realizing measurable financial improvement vs. their industry peers



**Executives are leveraging their ServiceNow investment to create One Connected Platform across their enterprise; in doing so, they are achieving greater financial performance vs. their industry peers**

Platform of Platforms: 4 key transformation imperatives for healthcare providers

- Smooth intake, great engagement
- Simplified and efficient processes
- Faster onboarding and access to information
- Protect privacy, ensure compliance



“ Headline from customer, vision statement, and mission.  
– Person, Title, Customer

Customer  
logo here

### Strategic priorities

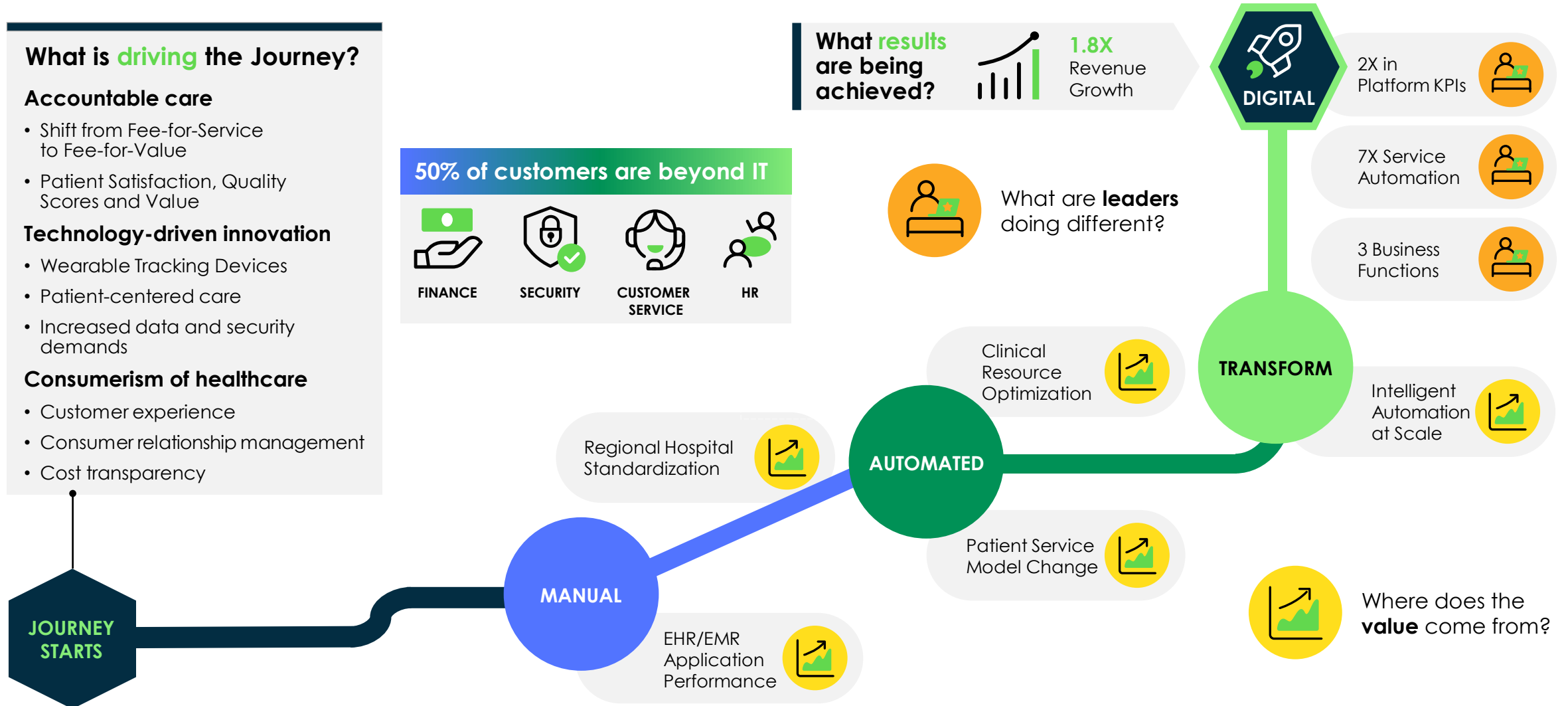
### CXO imperatives

### Business outcomes

### ServiceNow Platform alignment

Personalized care	Deliver an end-to-end service experience	Improve patient satisfaction scores by X% in 20XX	Patient workflows
	Smoother intake and greater engagement	Drive patient retention to X% by 20XX	Bedside Assist Provider Link
Seamless transitions	Enhanced delivery of care with knowledge and workflows	Employee retention improvement by X% over the next 2 years	Employee workflows
	Consistent experience with enhanced workflows	Reduce MTR for core systems by X% in 2 years	Onboarding and Offboarding EHR Easy Button
Streamlined and simple processes	Enhance the value of EMR systems	Automate resolution of service incidents by a factor of X by 20XX	Clinical workflows
	Prioritize and respond to vulnerabilities	Reduce active vulnerabilities by X days in the next X years	EHR Lifecycle Management Event Management
Protect patient privacy and meet compliance regulations	Protect medical and financial data	X% reduction in audit costs by 20XX	Security workflows
			Security Operations Governance, Risk & Compliance Asset Tracking

# Journey map: Company strategy, benchmarks, KPIs



# Now Value, our proven methodology to help you achieve exceptional outcomes

## 1. Envision Value

Agree on Digital Roadmap to deliver desired business outcomes.

## 2. Create Value

Achieve successful adoption of world-class platform.

## 4. Champion Success

Celebrate and promote our successful partnership.

## 4. Validate Value

Demonstrate achievements of business outcomes.





# Digital Transformation Leaders' response to COVID crisis

## Digitally mature customers demonstrated:

- Readiness by managing surge in business volumes from employees working remotely
- Resiliency by improving average resolution time despite the explosion of new demand

### Incident Volume Growth

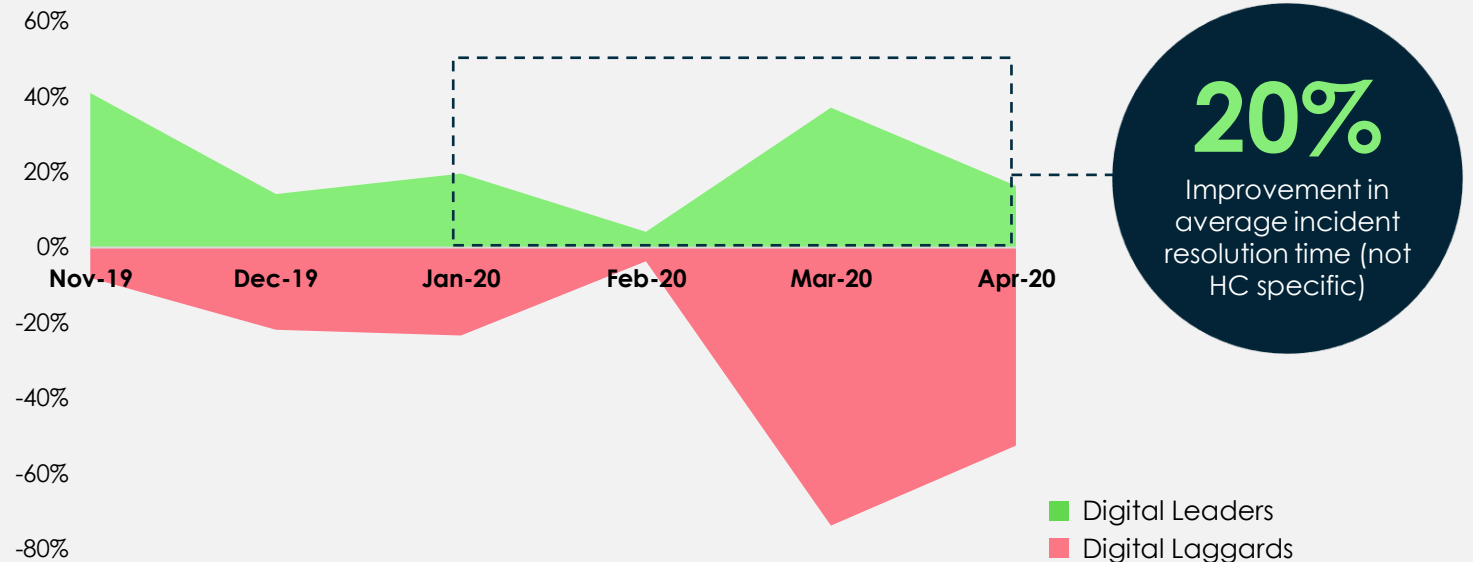
17%

increase in  
YOY incident  
volume

- Responding to COVID impacted all customers
- Increases in incident volumes were consistent regardless of digital maturity

\*Total Incidents for Jan–Apr 2020 vs 2019 (not HC specific)

### Improvement in Incident Resolution Time (%)



20%

Improvement in  
average incident  
resolution time (not  
HC specific)

Average resolution time for digital leaders **improved by 20%** when compared to Oct-19

Average resolution time **worsened by 38%** for laggards

# Ascension's COVID-19 rapid response

**17%**

New emergency  
response services  
**<3–5 days dev to launch**

**24/7**

Shared Service Model

**31**

New agents trained  
in 2 days

**17**

Patient safety Hotline  
responses

**80,000**

Knowledge Article views

**20,000**

myHR Portal views

**7,523**

Financial hardship/  
dependent care request

**5,500**

COVID-19 cases

**3,848**

HR Central calls

**1,015**

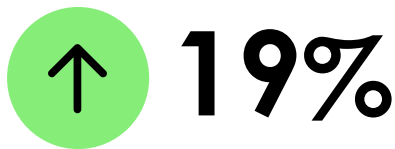
Live chats

# How is ServiceNow helping your industry peers?

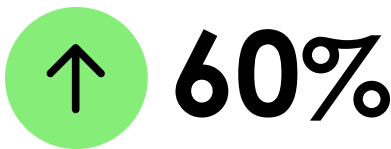
What characteristics do leading ServiceNow customers exhibit?



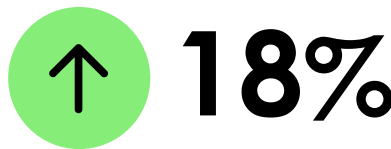
**Agility**  
Pace of Change



**Efficiency**  
Visibility across  
Business Environment



**Control**  
Reliability of Critical  
Business Services



Sample of DTI leading hospitals represented in peer group. Logos are trademarks or registered trademarks of their registered holders.

# Industry imperatives—Executive focus areas



## Operational

*Improving operational efficiency to reduce the cost of providing care*

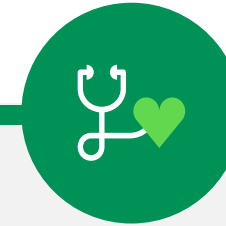
- **Patient and physician satisfaction** (CSAT, NPS, HCAHPS, RSRR)
- **Implementation of new technology** in the clinical and operational settings—mobile, Telehealth, IoT, cloud-based solutions, and data analytics
- **Data quality:** Improving the quality and use of operational data in support of predictive analytics strategy
- **Patients are living longer:** Aging patient population requiring non-traditional care delivery models over an extended period of time
- **Clinical Staff:** Recruit and maintain talented and high value clinical staff
- **Extended visibility:** Operational visibility and coordinated scheduling across multiple care teams
- **Improving ambulatory/primary care alignment:** Make the hospital-physician partnership a priority to enable mutual success under different payment and care-delivery models



## Financial

*Soaring operational and medical costs*

- **Minimizing cost duplication:** Providers are seeking solutions for improved visibility across the entire care continuum to minimize unnecessary cost
- **Maintaining a balanced payer mix:** As more patients are leveraging government-run programs margins continue to decline
- **Patients are living longer:** Adopting financial strategy to support aging population with extended life expectancy
- **Capture revenue from associated clinical services through partnerships or direct acquisition**
  - Revenue diversification
  - Cancer treatment facilities
  - Post acute, step down, and long term
  - M&A for a balanced portfolio
- **Invest in digital transformation to reduce cost and drive operational efficiency**
  - Analytics
  - IoT
  - Cloud transformation
  - Software reconciliation



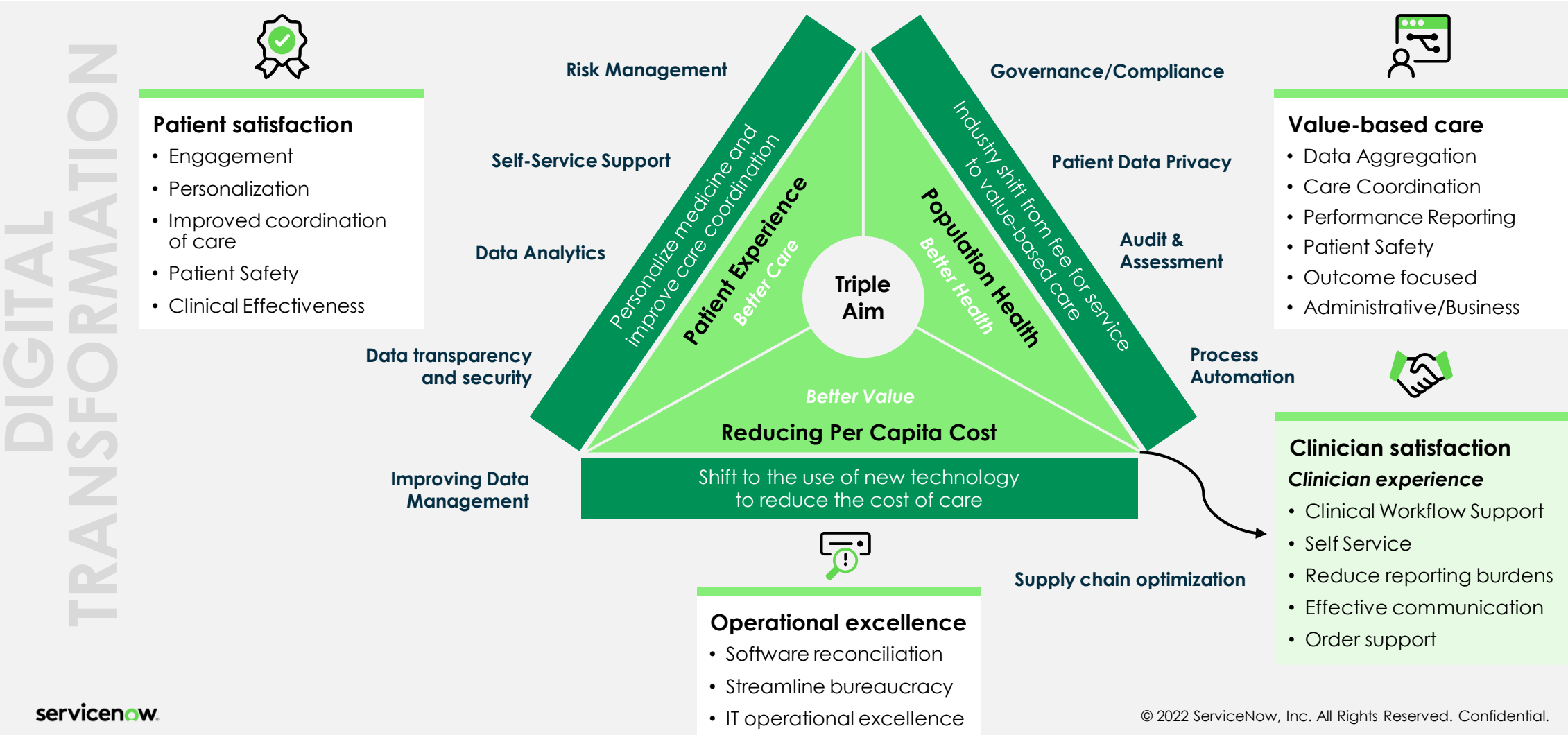
## Clinical

*Philosophical shift from treating illness to preventing illness*

- **Data, data, data:** Exchange and utilization of data across extended care continuum
- **Extend the point of care beyond the walls of the acute facility**
  - Mobile
  - Telehealth
  - IoT
- **Fee for service vs. value-based care:** Make the patient the focus and **not** billable services
- **Patient engagement:** Improve patient experience to better protocol adherence
- **Population health:** Redesign health services in support of a community approach to providing care
- **Optimize care management:** Improve care coordination to insure protocol adherence

# Focusing on Healthcare Quadruple Aim

Defined initially as Triple Aim; with the addition of Clinician Satisfaction, it is now referred to as Quadruple Aim industry wide





# How do we identify Digital Transformation Leaders?

## Methodology 101

### The Data

- Actual ServiceNow platform usage
- ~6300 customers
- 20 Industries and/or segments
- FY19 financial data (FactSet)
- 10 key KPIs

### The Index (DTI)

Composite measure of Digital Transformation maturity

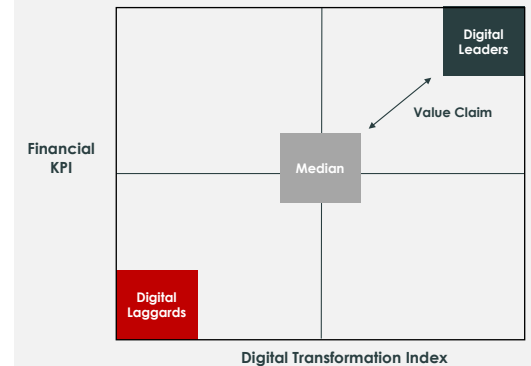
Measure components:

1. Reach as % of Total Employee Base
2. Business Workload Volumes per User
3. Automation Maturity in terms of platform adoption

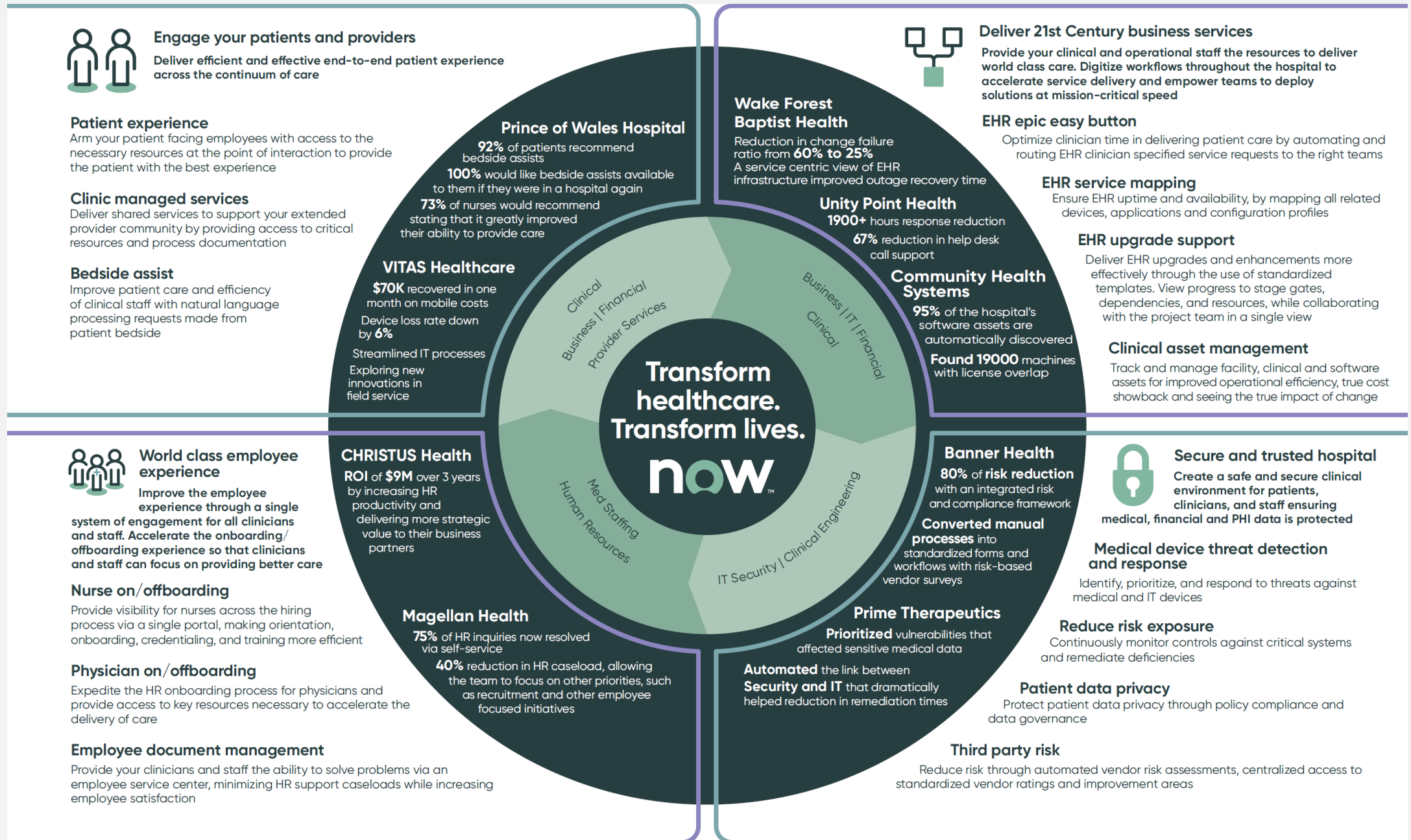
### The Insights

We split the customer base into a matrix of;

- Low to High DTI, and
- Low to High Financial KPI



**We measure value by evaluating operational and financial data across benchmark groups, e.g., Digital Leader, Laggards, etc.**



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