

NORTH
Dakota

Be Legendary.™

Information Technology

Team North Dakota

**EMPOWER PEOPLE
IMPROVE LIVES
INSPIRE SUCCESS**

Senate Appropriations Sub Committee
Bismarck, ND

Empower People | Improve Lives | Inspire Success



Topics for today

- Cybersecurity
 - How the 8FTE were filled
 - Plans for the 29 FTE
 - Salary Ranges for Jr., Sr., and Manager
 - What's needed to hire 2 managers for infrastructure and active defense
 - What a reasonable hiring timeline looks like
- SORN Budget
 - Project update
 - Funding for 2019-2021 and 2021-2023
 - Post Project Operational costs and funding
- Service Management
- Unification
 - Address the question around the document Levi created - JSND FTEs
 - Customer Success Management impact
- HIN - Proposed NDCC language change
- K-12, EduTech and GIS

Cyber Positions

Current Workforce

- 18 Full Time Employees
 - 8 positions were General Funded
 - Average time to fill was 60 Days
 - Average base salary of \$6,850
- 11 Contractors
 - Primarily funded with SIIF one-time funding
- 3 Temp positions

Proposed Additions

121,134 Total Incidents in Next Biennium

Prevents 72,680 Incidents Next Biennium, and Satisfies Compliance Requirements:

- 11 Governance Risk and Compliance (second level analysts - \$6,150 average base salary)
 - 6 Information Security Officers – Compliance and Risk
 - 5 Assessment and Risk– Compliance and Risk
- 6 Cyber Operations Center (mix of manager level and second level - \$7,500/\$6,150 a.b.s)
 - 3 Active Defense – Vulnerability Management
 - 3 Infrastructure – Secure Systems Design
- 2 Awareness and Education (second level analysts - \$6,150 average base salary)

Responds to 48,454 Incidents Next Biennium:

- 10 Cyber Operations Center (entry level analysts - \$5,814 average base salary)
 - Incident Response

CARES Operational Tail

- Security subscriptions for toolsets including:
 - Managed Threat Hunting – Helps identifying major incidents
 - XDR PRO (endpoint protection) – Helps prevent and respond to malware
 - Cortex Analytics – Helps Aggregate and Analysis Logs
 - Intrusion Detection – Finds Malicious Behavior on Network
 - Tenable Scanning and Analysis – Finds Vulnerability Identification and Management
 - On-call support – Professional Services
 - Demisto ProServe – Services
- Educational Training and Outreach
 - KnowBe4 – Security Awareness Training and Phishing Testing
 - SANS Institute, Udemy – Role Based Security Training for Analysts and IT Staff

SIRN

**Phase 1
Public Safety
Answering Point
(PSAPs)**

Phase 1 Group 1

5 PSAPs/Core Completed

Phase 1 Group 2

6 PSAPs Complete 2021-Q2

Phase 1 Group 3

7 PSAPs Target 2022 Q1

Phase 1 Group 4

5 PSAPs TBD

Budget

Estimate: \$15M (State & Local)

**Radio
Reimbursement**

20,000 Radios

- Portable – Mobile
- \$1,500.00 each

Budget

\$30M (Approx. State)

2020

2021

2022

2023

2024

2025

**North
Dakota
Statewide
Interoperable Radio
Network**

Portable
800 MHz
Go-Live

Mobile
800 MHz
Go-Live

Phase 2 Group 1

40 State Towers

Phase 2 Group 2

22 State / Lease Towers

Phase 2 Group 3

20 State / Lease Towers

Budget

\$50M (Approx. State)

Phase 3 Group 1

58 State / Lease Towers

Budget

\$35M (Approx. State)

**Phase 2
800 MHz Mobile
Coverage
(Towers)**

**Phase 3
800 MHz Portable
Coverage
(Towers)**

Cap Ex – Green
Op Ex - Risk

Legislation:
SB 2111
HB 1146

**COVID-19
Schedule Impact
Supply Chain Impact**

Firstnet/LTE
Interop

PSAP Direct
Communication

Budget Summary

- Total Budget:
 - \$207M- includes local radio devices
- State Budget
 - \$120M
- Total Spend
 - \$17.5M
 - Splits:
 - \$13.6 State
 - \$3.9 Local
- 911 Fee Revenue:
 - \$14.9M
 - \$4.5/Y Avg.

Current Spend Detail

	State	Local	Total
Core/PSAPS	\$2.4M	\$3.9M	\$6.3M
Towers	\$9M		\$9M
Radio Stipend	\$2.2M	N/A Yet	
Total	\$13.6M	\$3.9M	\$17.5M

Operation Funding

Revenue:

65th Legislative
Assembly – HB 1178:

- \$0.50 addition to the 911 fee
- Generates an average of **\$4.5M** per year

Cap Ex Funding:

66th Legislative
Assembly – HB 1435:

- \$20M SIIF
- \$20M BND Profits
- \$80M BND Line of Credit

Operating Expense:

- Program: \$6-\$10M / Y
- Loan Payment: \$5M / Y
- Issue 23-25 Biennium

Unification

- 65 FTE from 10 agencies
 - \$13,706,425 for Salaries & Wages
 - \$18,041,163 for Operational Expenses
 - Insurance Department and Retirement Investment Office have an interest in volunteering for unification.
- Cost savings will be recognized in streamlined processes and reduction in duplicative systems.
 - Labor cost \$39.00 per machine
 - Able to support 250:1 FTE to machines
 - Mobile Device Management

Prior Successful Unification Efforts

- StageNet – Statewide Network
- Server and Data Center Consolidation
- ConnectND Financial and HR system
- PowerSchool Student Information System

Customer Success Management



Customer Success Organization

Trusted Advisors

Customer Success Managers (CSM)

Business Analyst Account Managers

Skilled Subject Matter Experts

Business Analysts (BA)

Process Improvement (PI)

Project Managers (PM)

Digital Design

A Customer Success Manager:

- Is a **trusted advisor** who brings a "whole of government" approach to finding solutions from the breadth of technology options available
- Creates **ongoing agency partnerships** to deeply understand their business and connects resources within NDIT to support their technology needs
- Identifies **efficacy opportunities** through enterprise solutions and cost sharing opportunities
- Focuses on **improved citizen experiences** across agencies
- Delivers **shorter time-to-value** through technology launch support and change management leadership
- Provides services traditionally done by IT Coordinators within a single agency who typically had a narrow technology context

“Our ongoing Steering Committee meetings with NDIT are adding significant value in terms of strategy alignment and decision-making” - Arnie Strebe, CFO – Department of Human Services

Health Information Technology

Proposed amendment to SB 2021:

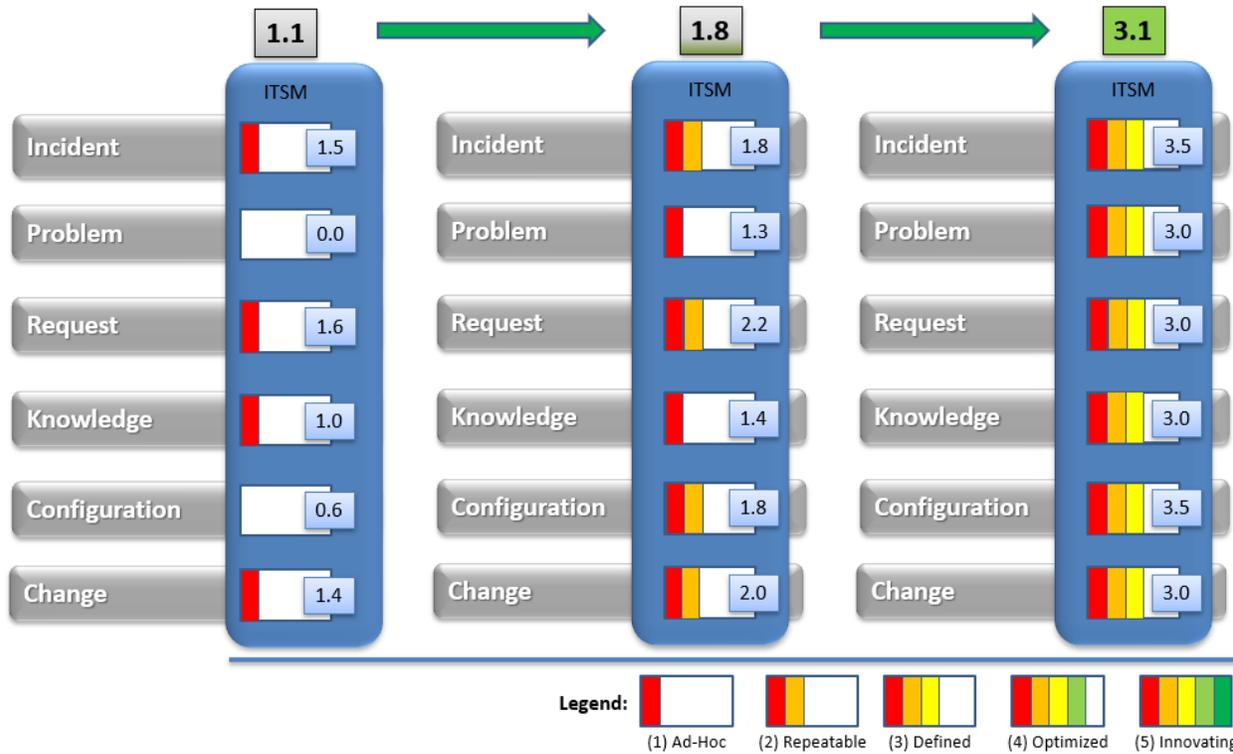
Page 2, after line 15, insert:

Section 4. Transfer of Funds. Any moneys held in the Bank of North Dakota for the health information technology planning loan fund that are not obligated for disbursement to a health care entity are hereby transferred to the information technology operating fund, of which \$_____ is for salaries and wages, and \$_____ is for operating expenses of the health information technology advisory committee and the health information technology office.

Renumber accordingly

Service Management

Service Management



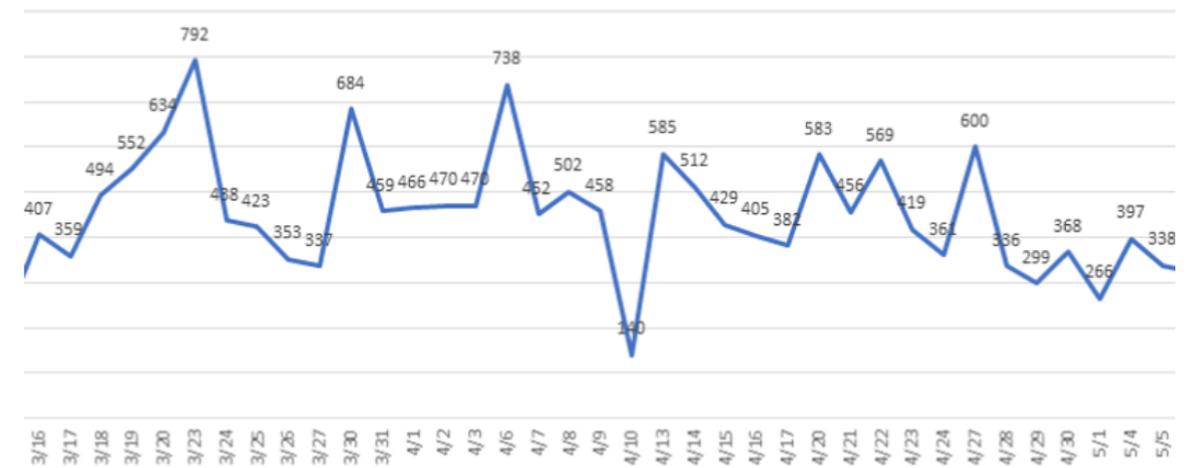
2.3
Target EOY 21

3.1
Target EOY 22

NDIT Call Center Volume

150% weekly average - 300% volume at peak

Sum Of Total Calls Per Day



- **Ad-Hoc** – Unpredictable and reactive
- **Repeatable** – Processes are managed but not standardized
- **Defined** – Processes are standardized across the organization
- **Optimized** – Visibility, predictability across organization
- **Innovating** – Strong governance for all process and functions

The screenshot shows a website header with a background image of a golf course. At the top, the text "How can we help?" is displayed in a large, white font. Below this is a white search bar containing the text "How can we help?" and a magnifying glass icon. The navigation menu below the search bar consists of four items, each with a red circular icon and a title:

- Request Something**: Browse the catalog for services and items you need. Icon: briefcase.
- Get Help**: Contact support to make a request, or report a problem. Icon: person with arms raised.
- My Tickets**: Click here to view the Tickets you have submitted. Icon: calendar with checkmark.
- Chat**: A blue circular icon with a white speech bubble and three horizontal lines, representing a chat function.



Voice Solution

Voice Solution:

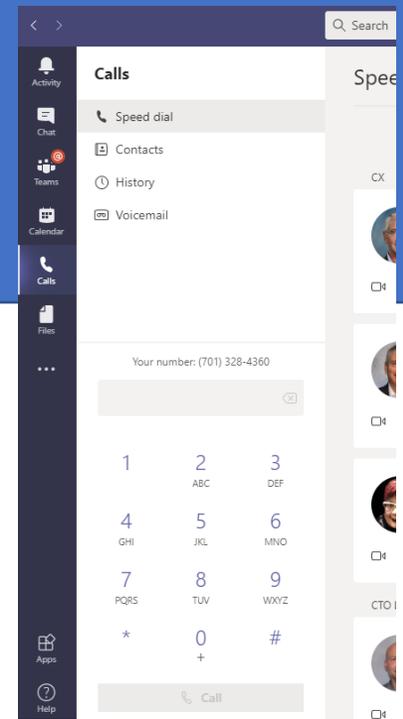
Avaya Voice:

- Traditional Voice Solution
- End of Life or near End of Life infrastructure
- Poor mobile and telework solution
- Limited integrations



Teams Voice:

- Modern Voice Solution
- Software part of the owned O365 bundle
- Significantly improved mobile and telework experience
- Integrated experienced with MS Teams that is already the standard collaboration tool
- Cost Avoidance:
 - \$1.4M estimated in desk phones (strongly encouraging softphones – desk phones are available)
 - \$1.2M estimated core infrastructure



Appendix Materials

NORTH Dakota

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Service Management Data

Feedback Methodology

Approach: As part of the overall maturity of the service management program all processes and approaches are being evaluated. In addition, the toolsets used to manage the program has been replaced to ensure we have both quality processes and toolsets.

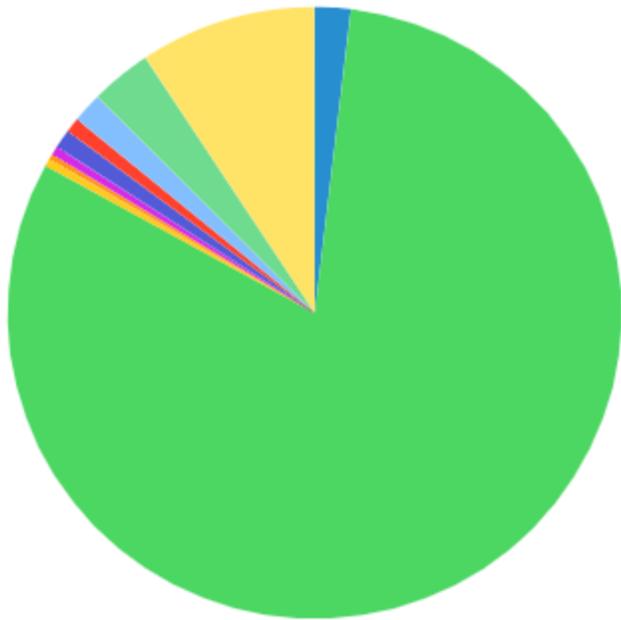
Current Approach: The new toolset went live July 2020. As such, the feedback approach was changed at that time. The current approach is a shorter survey and a request for feedback is not included with every incident. The best practice approach is to use a random sampling which currently equates to a 1 in 4 chance of being requested to complete a survey. This approach continues to be evaluated and has resulted in a higher percentage of surveys completed. Response rate is now 379 per month which is a 24% increase.

Prior Approach: The prior toolset and approach equated to a survey request for each and every incident. This approach included 5 questions which are on the slides below and resulted in an average of 304 responses.

Customer Feedback

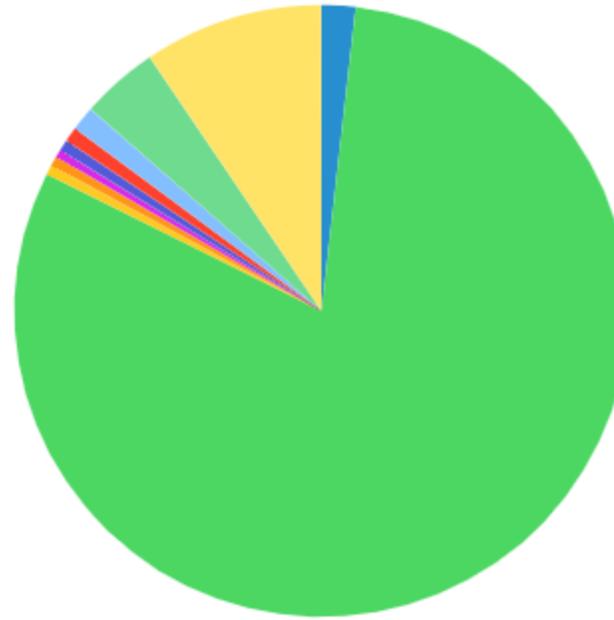
Customer feedback from July 2020-Jan 2021

How likely would you recommend to friend or colleague?



1 = 41 (1.89%)	10 = 1,764 (81.1%)	2 = 9 (0.41%)
3 = 6 (0.28%)	4 = 10 (0.46%)	5 = 22 (1.01%)
6 = 17 (0.78%)	7 = 34 (1.56%)	8 = 70 (3.22%)
9 = 202 (9.29%)		

How would you rate your overall satisfaction with the service you received?



1 = 39 (1.79%)	10 = 1,753 (80.6%)	2 = 11 (0.51%)
3 = 11 (0.51%)	4 = 9 (0.41%)	5 = 13 (0.6%)
6 = 17 (0.78%)	7 = 28 (1.29%)	8 = 89 (4.09%)
9 = 205 (9.43%)		

Would you like us to contact you?

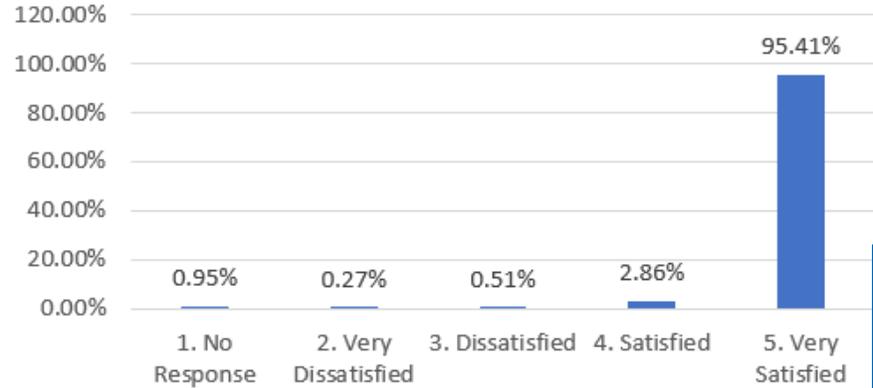


No = 2,074 (95.36%)	Yes = 101 (4.64%)
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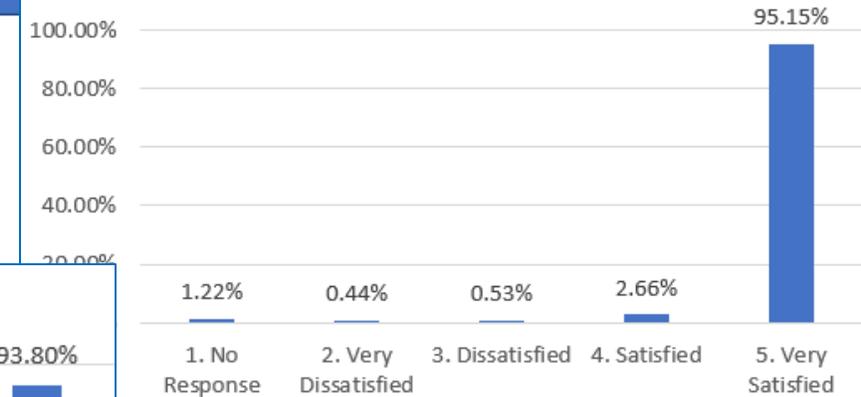
Customer Feedback

Customer feedback from Jan 2019 – June 2020

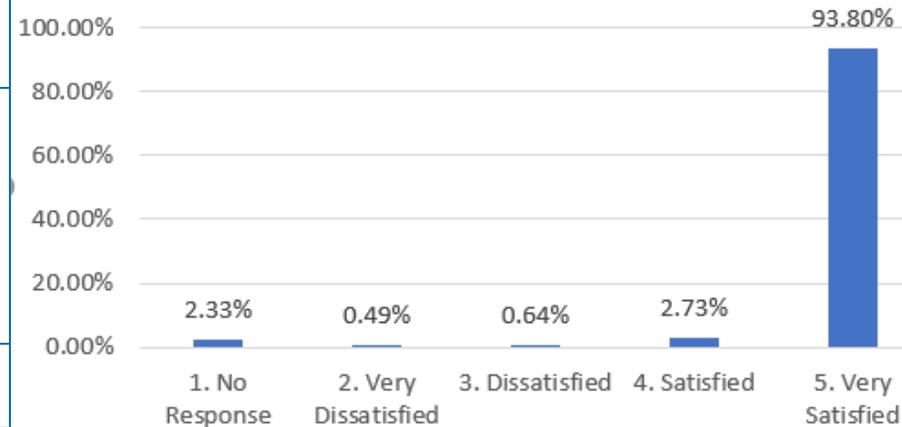
Skills and Knowledge



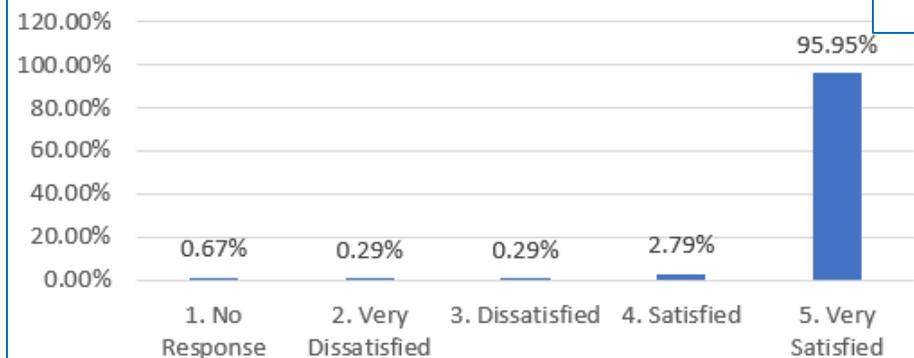
Quality



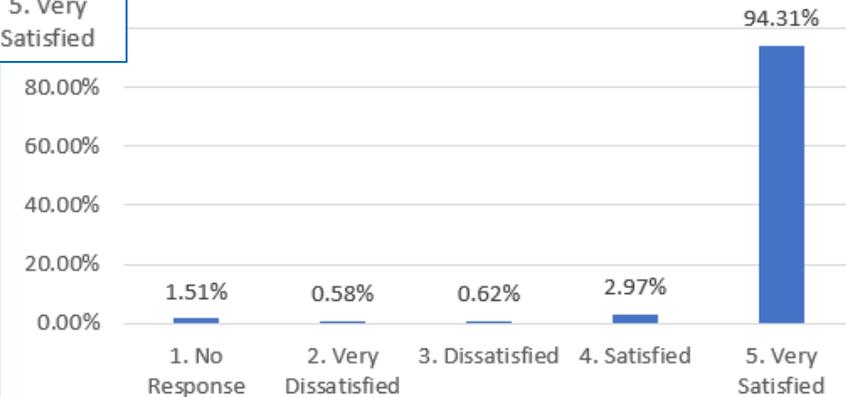
Experience Overall



Professionalism



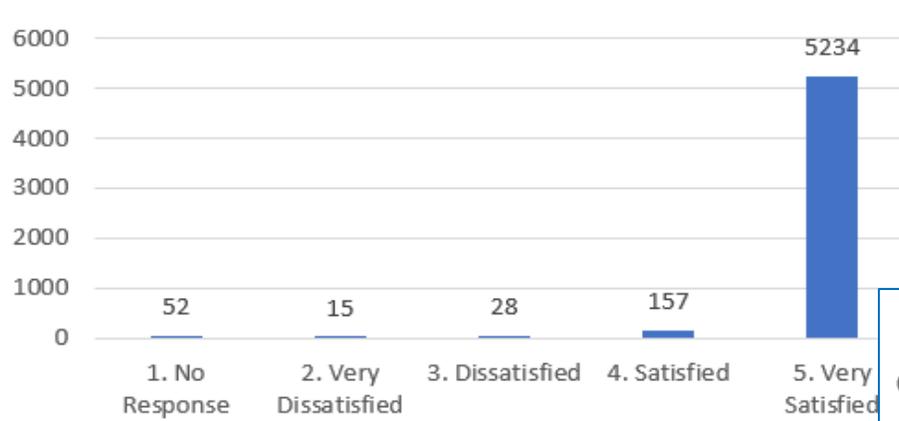
Timeliness



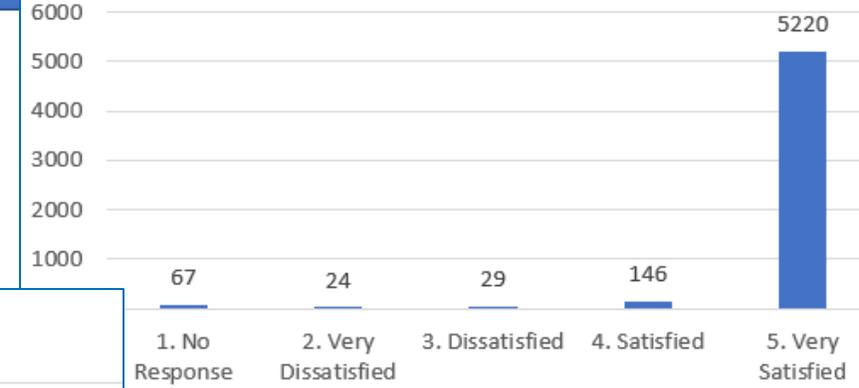
Customer Feedback

Customer feedback from Jan 2019 – June 2020

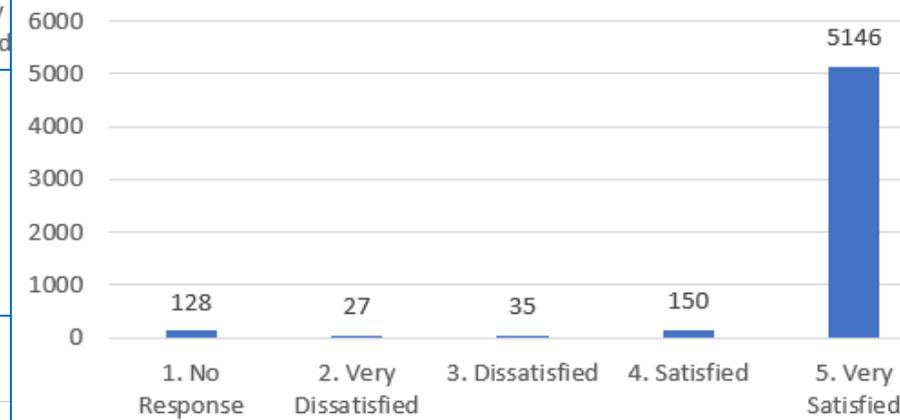
Skills and Knowledge



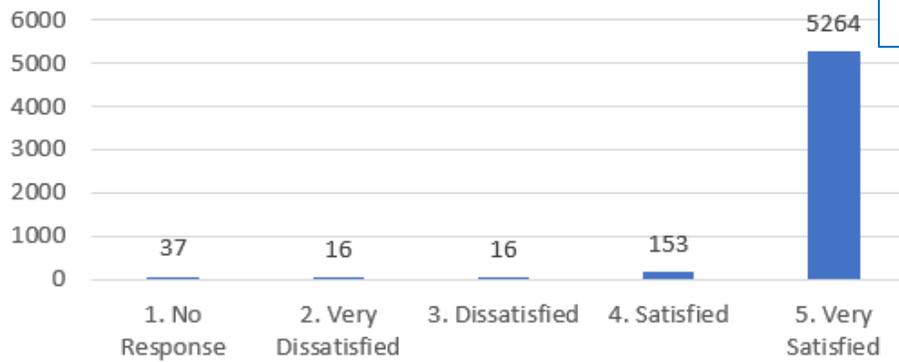
Quality



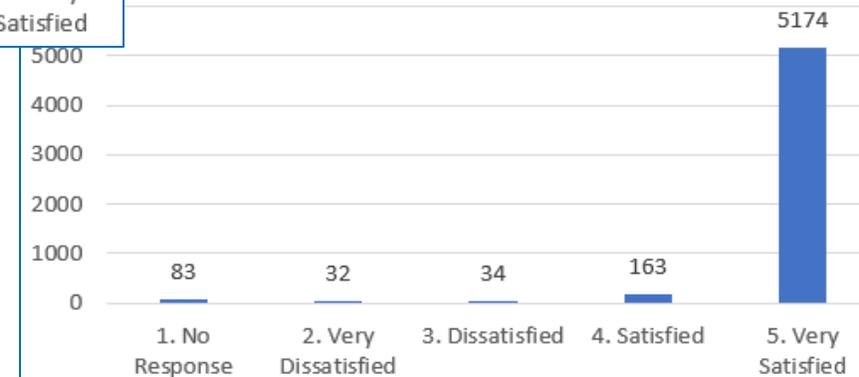
Experience Overall



Professionalism



Timeliness



Industry Benchmarks

How do we compare to other government organizations?

IT Service Management

Summary: November 2020 | Your Industry: Government

ALL

INCIDENT

PROBLEM

CHANGE

SERVICE CATALOG

27.85
Percentile

0.7%

% of high priority incidents

1.1%

Benchmark



View trend

55.9
Percentile

73.2%

% of incidents resolved on first assignment

67.4%

Benchmark



View trend

44.95
Percentile

1.4%

% of reopened incidents

2.6%

Benchmark



View trend

66.46
Percentile

3 hours

Average time to resolve a high priority incident

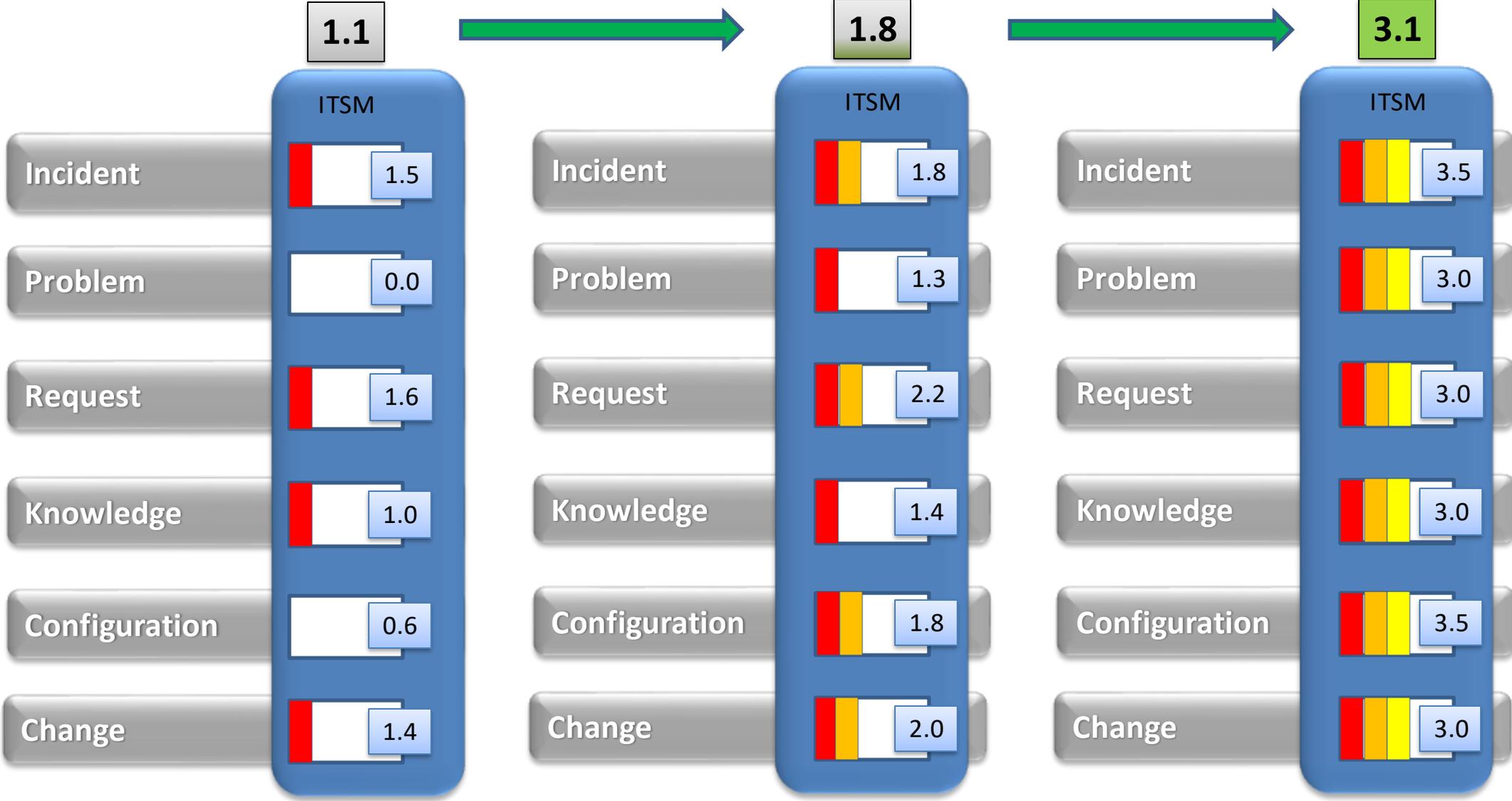
21d 20h

Benchmark

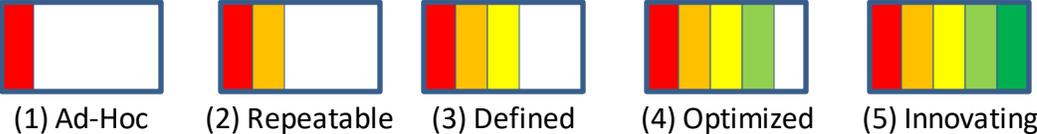


View trend

Service Management Maturity Assessment



Legend:



Incidents – First Call Resolution

First Call Resolution: The percentage of calls resolved without the need of escalation beyond first contact

Overview

% of incidents resolved without reassignment

July 8, 2020 - January 8 28d running AVG

January 8 ◀ ◆ ▶

71% ▲ 0(0.2%)



185	13k%	5%	6%	71%	64%	77%	⋮
No. of scores	Sum	Change	Change %	Average	Minimum	Maximum	



Search breakdowns and elements



Incidents – Mean Time to Resolve

When is an incident resolved?

- When the customer acknowledges resolution
- When confidence is high the incident is resolved but the customer is non-responsive

Overall

Overview

Average resolution time of resolved incidents

January 8 ◀ ◆ ▶

1.44 days
Average

0.01 days
Minimum

2.31 days
Maximum

Incidents created by calling the service desk

Overview

Average resolution time of resolved incidents > Contact Type = Phone

January 8 ◀ ◆ ▶

0.26 days
Average

0.00 days
Minimum

0.76 days
Maximum

First Call Resolution – Mean Time to Resolve

Overview

Average resolution time of resolved incidents > Assignment Group :

January 8 ◀ ◆ ▶

0.12 days
Average

0.00 days
Minimum

0.23 days
Maximum

Incidents created by emailing the service desk

Overview

Average resolution time of resolved incidents > Contact Type = Email

January 8 ◀ ◆ ▶

1.73 days
Average

0.03 days
Minimum

3.33 days
Maximum

** Resolution times increase when waiting on electronic confirmation from customers*

