

Let's Talk Informatics

Artificial Intelligence (AI) - Chatbots

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Let's Talk Informatics

Artificial Intelligence (AI) - Chatbots

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Acknowledgement

We acknowledge we are gathered today
in Mi'kma'ki (*Mig-*maw*-gee), the traditional ancestral
unceded territory of the Mi'kmaq (*Mig-*maw*) people.

Informatics

Informatics utilizes health information and health care technology to enable patients to receive best treatment and best outcome possible.

Let's Talk Informatics Objectives

This series is designed to enable participants to:

- Identify knowledge and skills healthcare providers need in order to use information now, and in the future.
- Prepare health care providers through an introduction to concepts and experiences in Informatics.
- Acquire knowledge to remain current by becoming familiar with new trends, terminology, studies, data and news.
- Collaborate with a network of colleagues to establishing connections with leaders who can provide advice on business issues, best-practice and knowledge sharing.

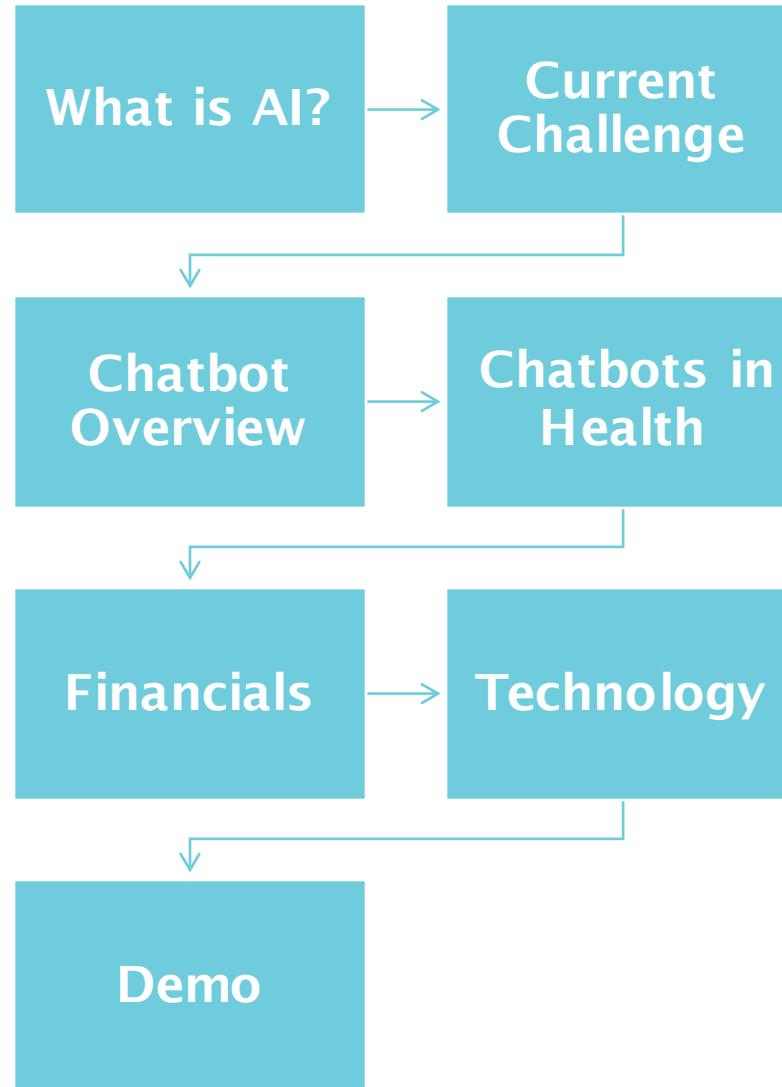
Conflict of Interest Declaration

We do not have an affiliation (financial or otherwise) with a pharmaceutical, medical device, health care informatics organization, or other for-profit funder of this program.

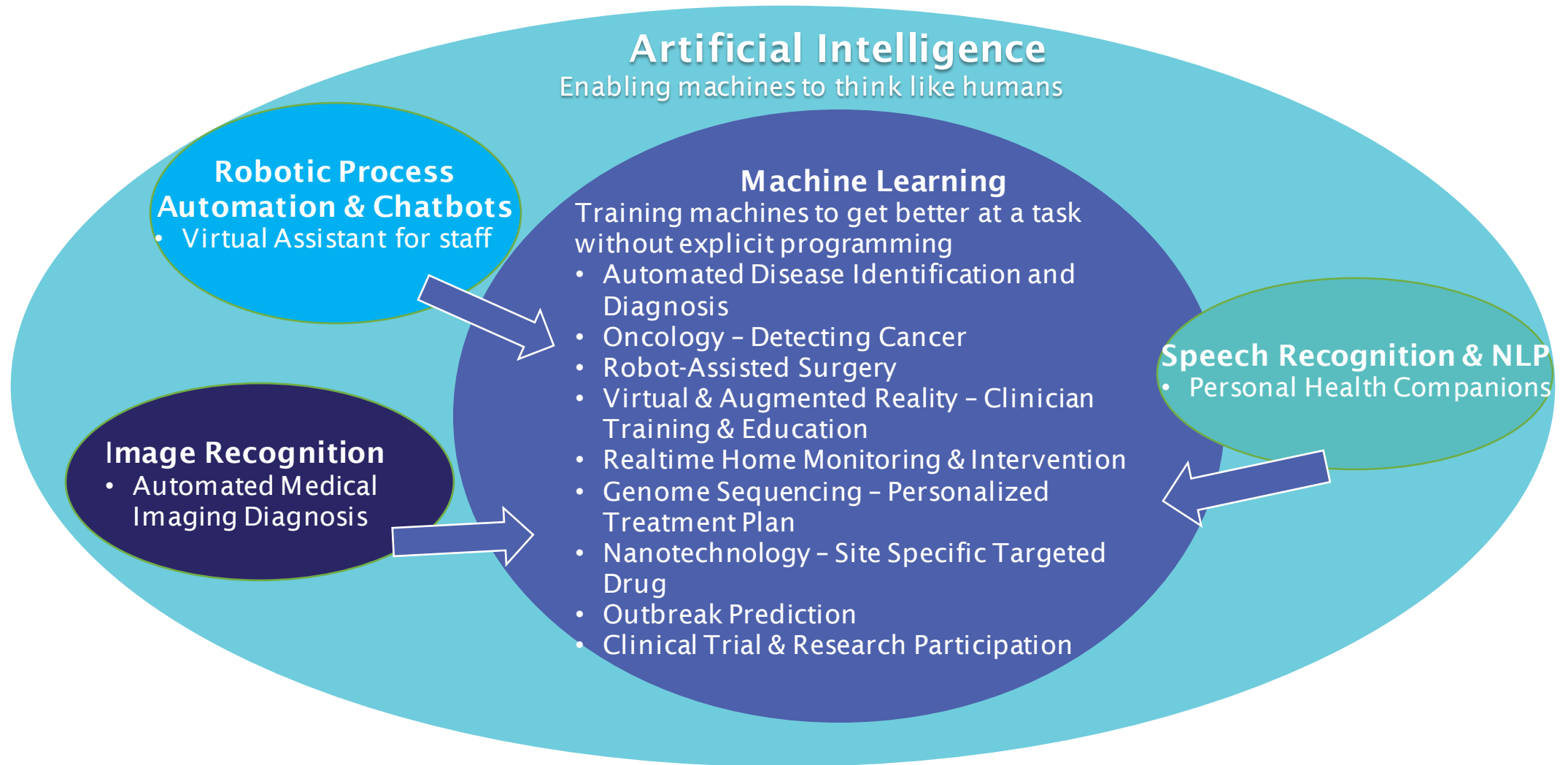
Session Specific Objectives

- **At the conclusion of this activity, you will be able to:**
 - Identify why and how chatbots can be used in health care
 - Understand high level technology and where bots can be deployed in Health
 - Identify potential uses cases for where Chatbots can enhance your current workflow

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What is AI?

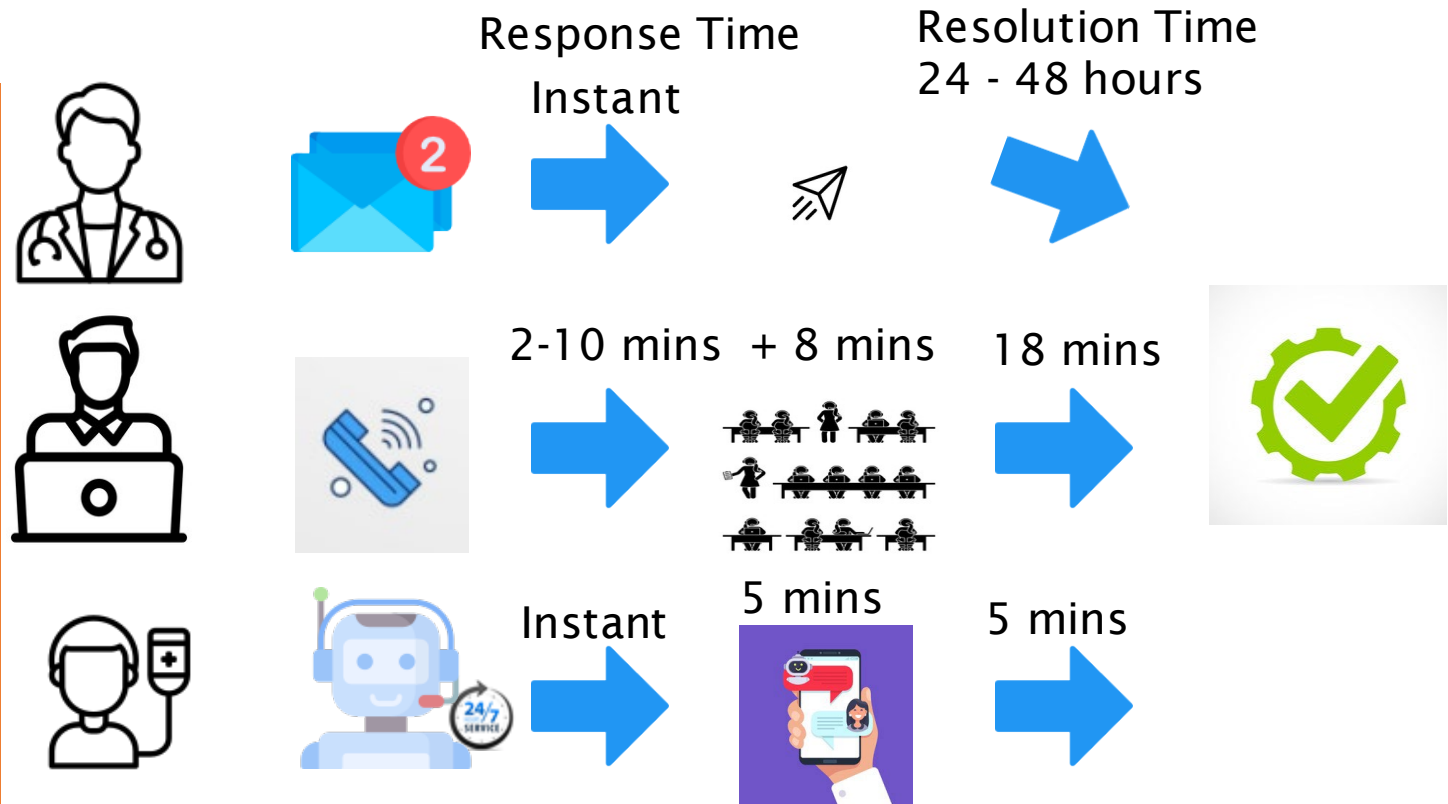


Current Challenge

Opportunity: Improve Customer Experience Increase Focus on Higher Value Work

Almost 2/3 of customers will not wait more than 2 minutes for assistance.

Forrester





Chatbot Overview



Why & When to Use Chatbots

When	Why
<ul style="list-style-type: none">• Should automate repetitive information requests, FAQs, tasks etc.	<ul style="list-style-type: none">• Always available.• Can process thousands of requests simultaneously.• Allows staff to focus on higher value work.• Allows clinicians to dedicate more time to patients.• Increases positive user and patient experience by decreasing waiting.

Guiding Principles for Responsible Chatbot Use



Fairness



Reliability and
safety



Privacy and
security



Inclusiveness



Transparency



Accountability

These principles are essential for a responsible and trustworthy approach to AI, as intelligent technology becomes more prevalent in the products and services that we use daily.

Types of Chatbots

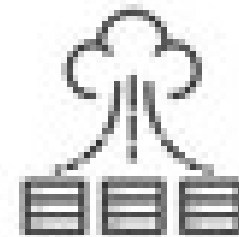
Conversational

- Scripted conversation between Bot and customer
- Used more for Q&A with predefined answers
- Information is **NOT** retrieved from a data source such as SAP, or Clinical Systems.



Transactional

- Conversations where information is retrieved from:
 - ❖ Internal Nova Scotia Health applications – SAP, Clinical Systems
 - ❖ External Web applications - Smartsheet



Where can Chatbots be Installed?

Teams, Slack, Facebook and other
Messaging Platforms

SharePoint and Web Pages

Mobile Applications

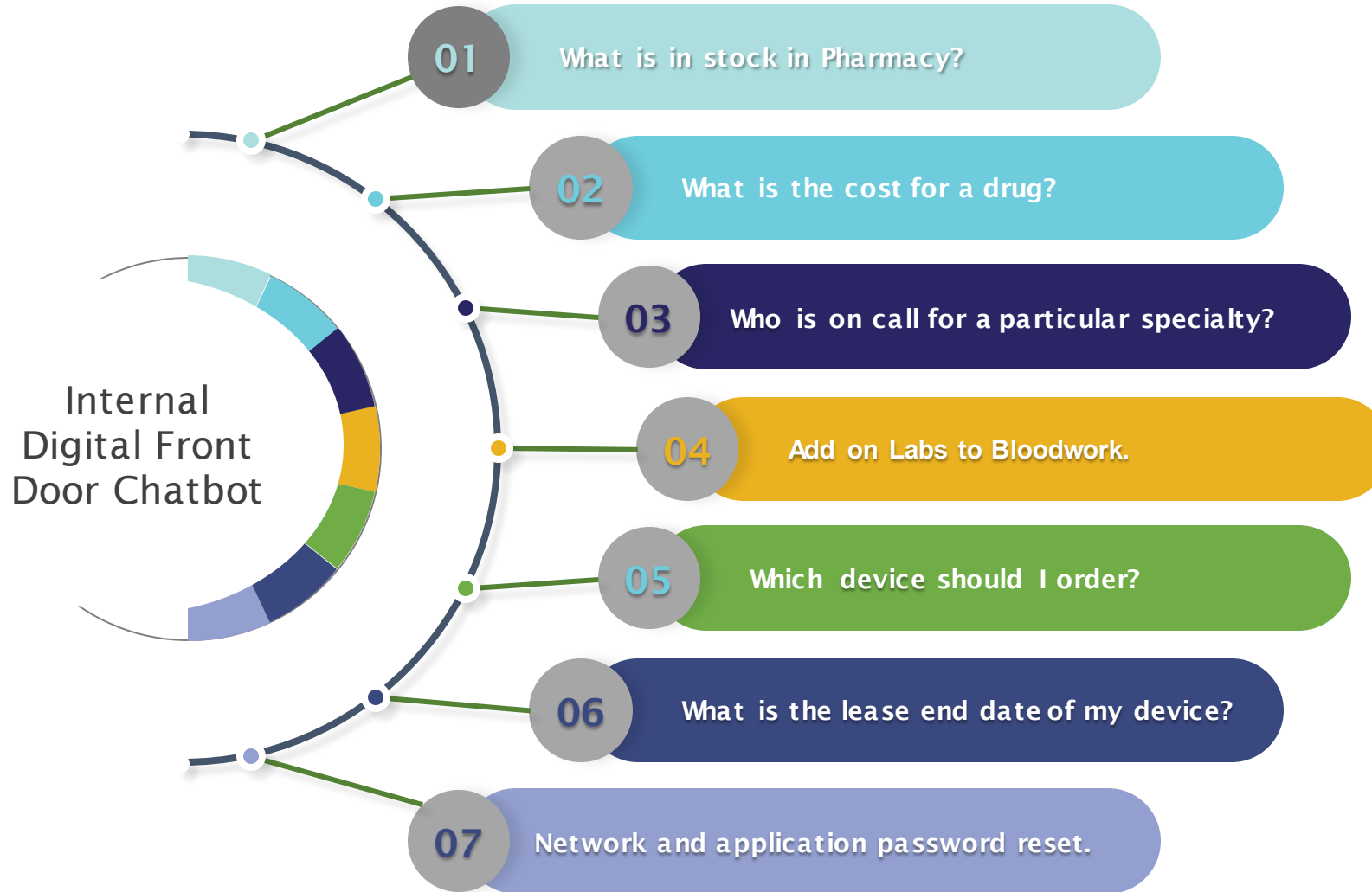
Native applications like SAP, assyst

Interface with Robotic Process
Automation

Chatbots in Health



Internal Chatbot Use Cases



Citizen Chatbot Use Cases

I am uninsured. What are the costs for specific procedures?



Scheduling appointments.



Q & A on COVID, procedures, testing.

Public
Digital
Front Door
Chatbot



DI exam prep helper bot.

How do we know which Chatbots to build?





Financials



Saving Staff Time - Example

IM/IT team receives over 1000 request per year to check lease end dates for devices.

It takes 30 mins between requester and IM/IT staff to fulfill the request which is **500 hours** per year or ~\$20,000.

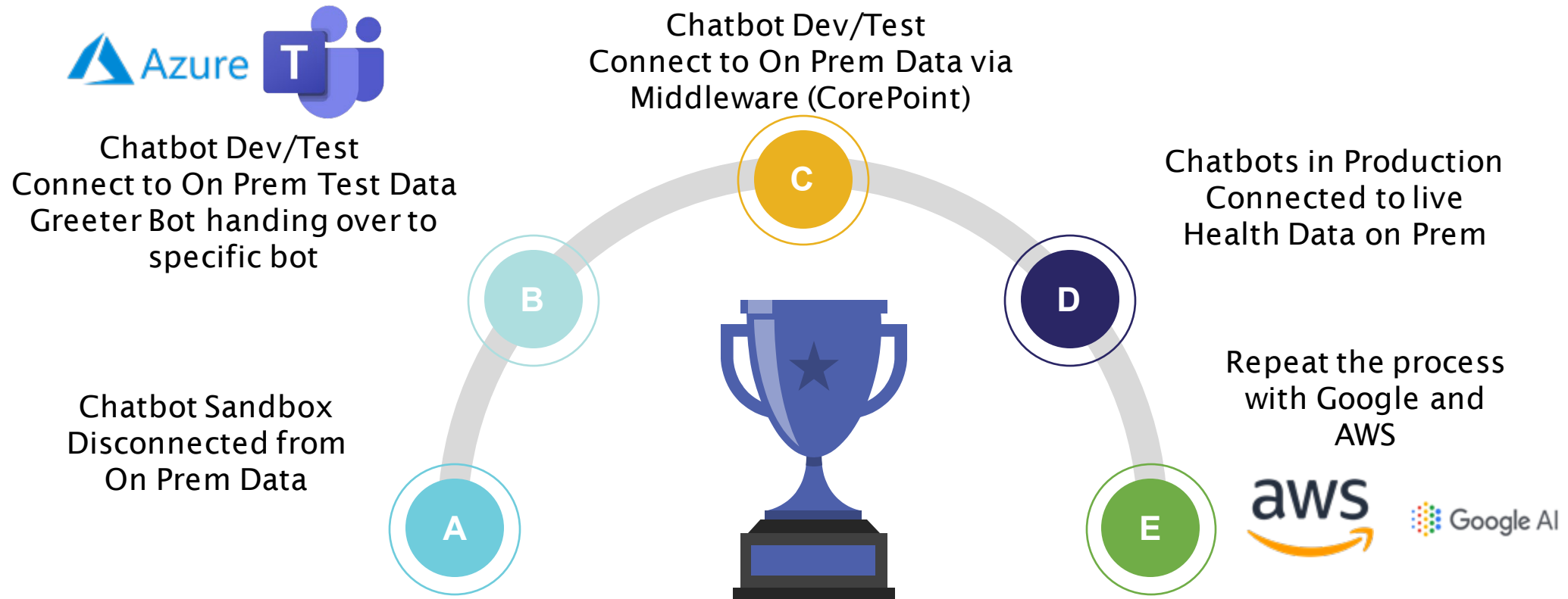
Activity	Financial (\$)
Bot build and Implementation	\$5,000
FTE Operations	\$2,000/year
Cloud Operations Cost	\$0.64/ea for first 2000 transactions \$0.58/ea after first 2000 transactions
Cloud Operation Cost (1000 Transactions)	\$640
Total Cost Year 1	\$7,640
Org Saving Year 1	\$12,360
Total Cost Year 2	\$2,640
Org Savings/year 2 +	\$17,360 or ~0.2 Digital FTE



Technology



Proof of Concept



Delivery & Support - 3 Phases

Phase I

- IT group/vendor

Phase II

- Standardize UX
- Standardize tools
- IT/Vendor supported

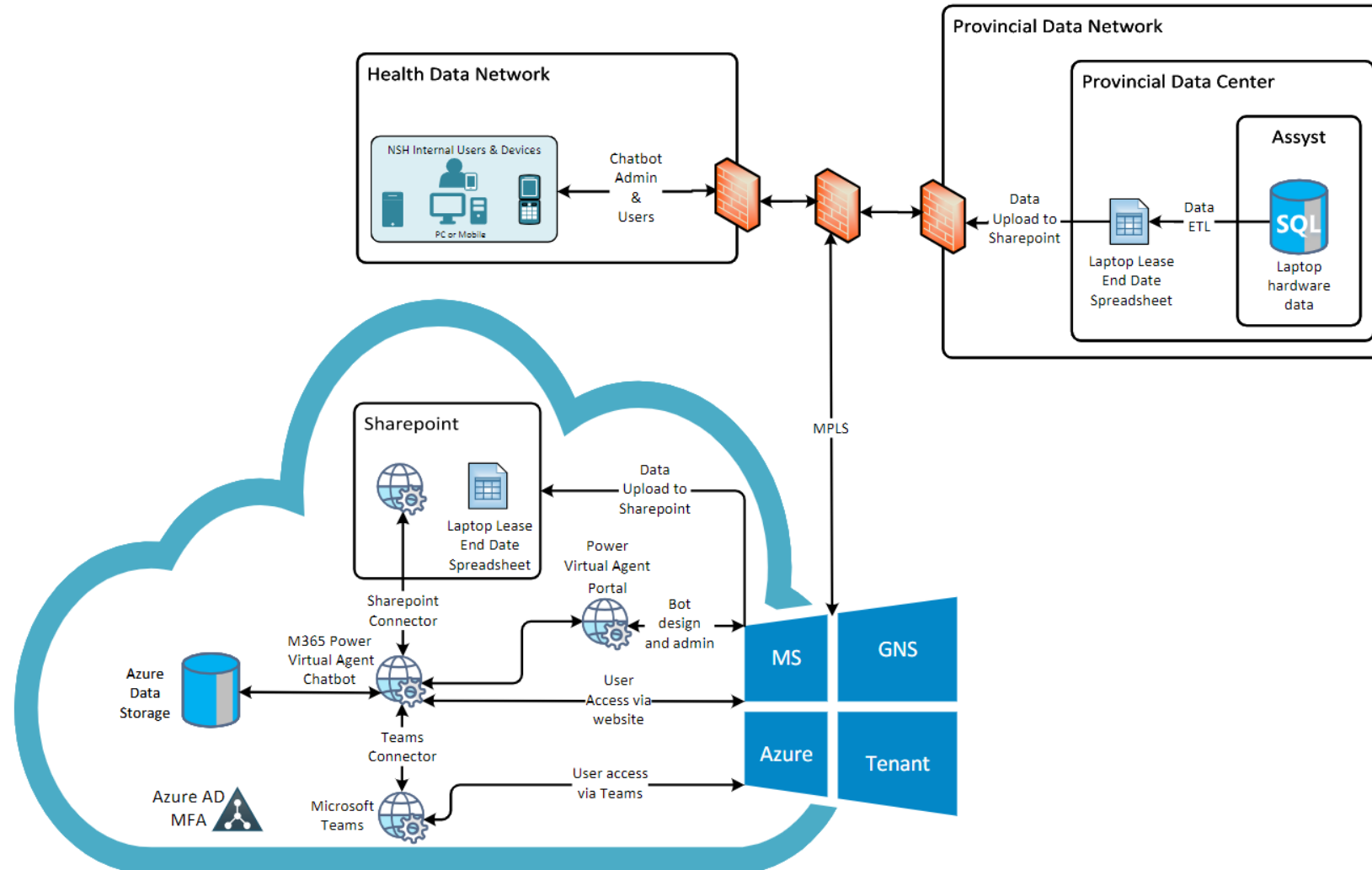
Phase III

- Departments build bots
- Support distributed between IT/vendor and department

Chatbot Architecture



NS Health Chatbot



Demo

Hi! I'm the **Nova Scotia Health ChatBot**.

I can help with the following topics.

[Supply chain inquiries](#)

[Check computer lease end date](#)

[Finance inquiries](#)

[Check what device to order](#)



Type your message





Thank you

Need More Info?

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Let's Talk Informatics Certifications

- **Digital Health Canada** - participants can claim 1 CE hour for each presentation attended.
- **College of Family Physicians of Canada and Nova Scotia Chapter** - participants can earn one Mainpro+ credit by providing proof of content aimed at improving computer skills applied to learning and access to information.
- **Canadian College of Health Information Management** - approves 1 CPE credit per hour for this series for professional members of Canada's Health Information Management Association (CHIMA).