

Breakout Session 6:

Generation of an NIH-wide Clinical Database of Hearing and Balance Function

Dr. Christopher Zalewski
Clinical Research Audiologist, NIDCD, NIH

Generation of an NIH-wide Clinical Database of Hearing and Balance Function

Auditory and Vestibular Clinical Research Section

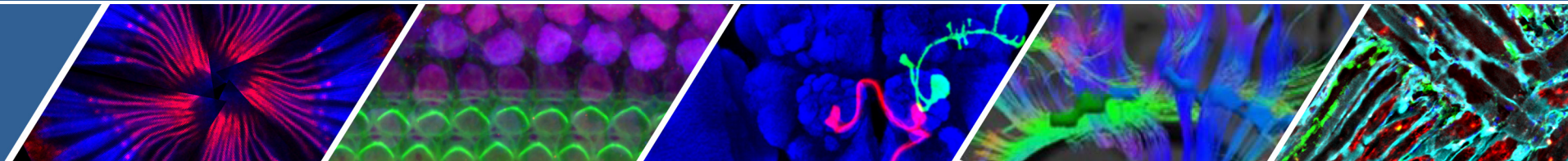
Neurotology Branch, NIDCD, NIH

***STRIDES* Team**

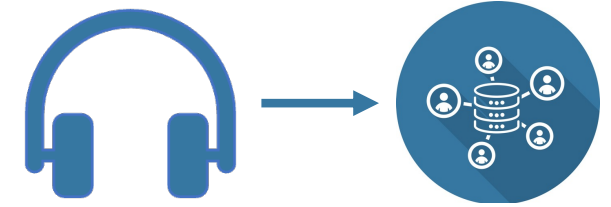
*NIH Science and Technology Research Infrastructure for Discovery, Experimentation, and Sustainability (**STRIDES**) Initiative*



National Institute on
Deafness and Other
Communication Disorders



NIDCD *STRIDES* / *nHEAR* Team



- NIDCD Audiology /
Neurotology

- Chris Zalewski
- Carmen Brewer
- Gayla Poling
- Ronna Hertzanno
- Kate Fernandez
- Antoinette Bethea
- Brandie Mack
- Alessandra Vidal

- University of Maryland

- Anup Mahurkar
- Jonathan Crabtree
- Akira Watanabe

- NIDCD ISMB Team

- Connie Latzko
- Vivek Kamath
- Teak Oh
- Ravi Kosuri
- Karunanithi Kandasamy
- Dan Berger
- Jeremy Burch
- Scot Ryder
- Jermel Mosley

- NIDCD Scientific Director / Admin Office

- Karen Fisher
- Lisa Cunningham
- Lynne Penn
- Deb Tucci

- AudSoft, Inc

- Sara RaynorRepko
- Gary Parlato

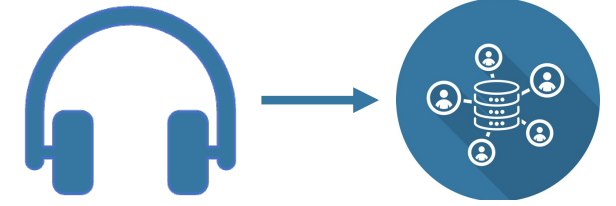
- Intelligent Hearing Systems

- Rafael Delgado

- NIH Department of Clinical Research
Informatics

- Mindy Nghiem
- Robert “Lee” Stehr
- Seth Carlson
- Inna Etin
- Andrea Beri
- Tricia Coffey
- Jon McKeeby
- Ryan Kennedy
- Charles Gibbs

Project Roadmap & Aims



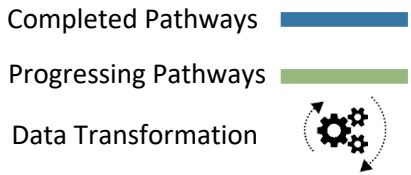
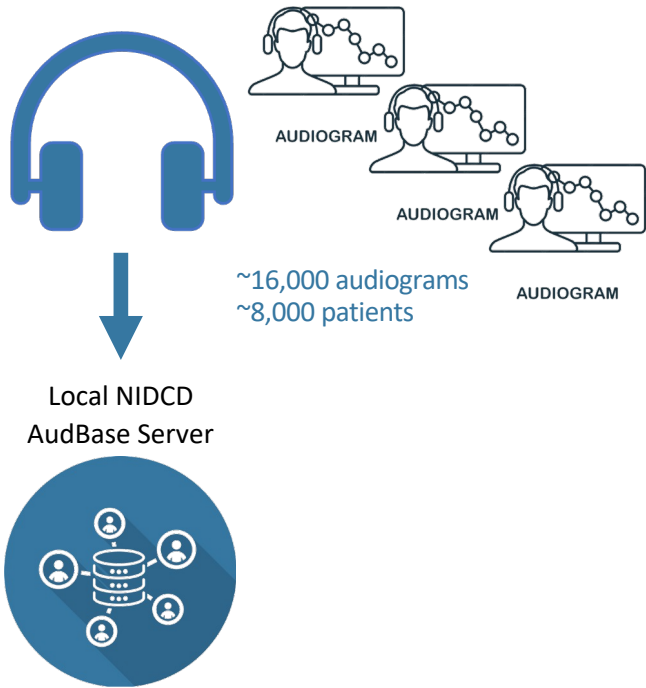
Make locally stored hearing data cloud-accessible

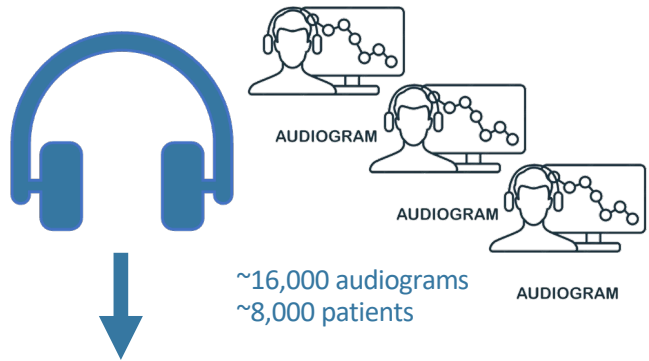
Interface hearing data with the electronic medical record (CRIS)

Realtime visual analytics of data

Expand beyond hearing data

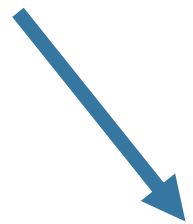
Extend database accessibility to greater hearing community





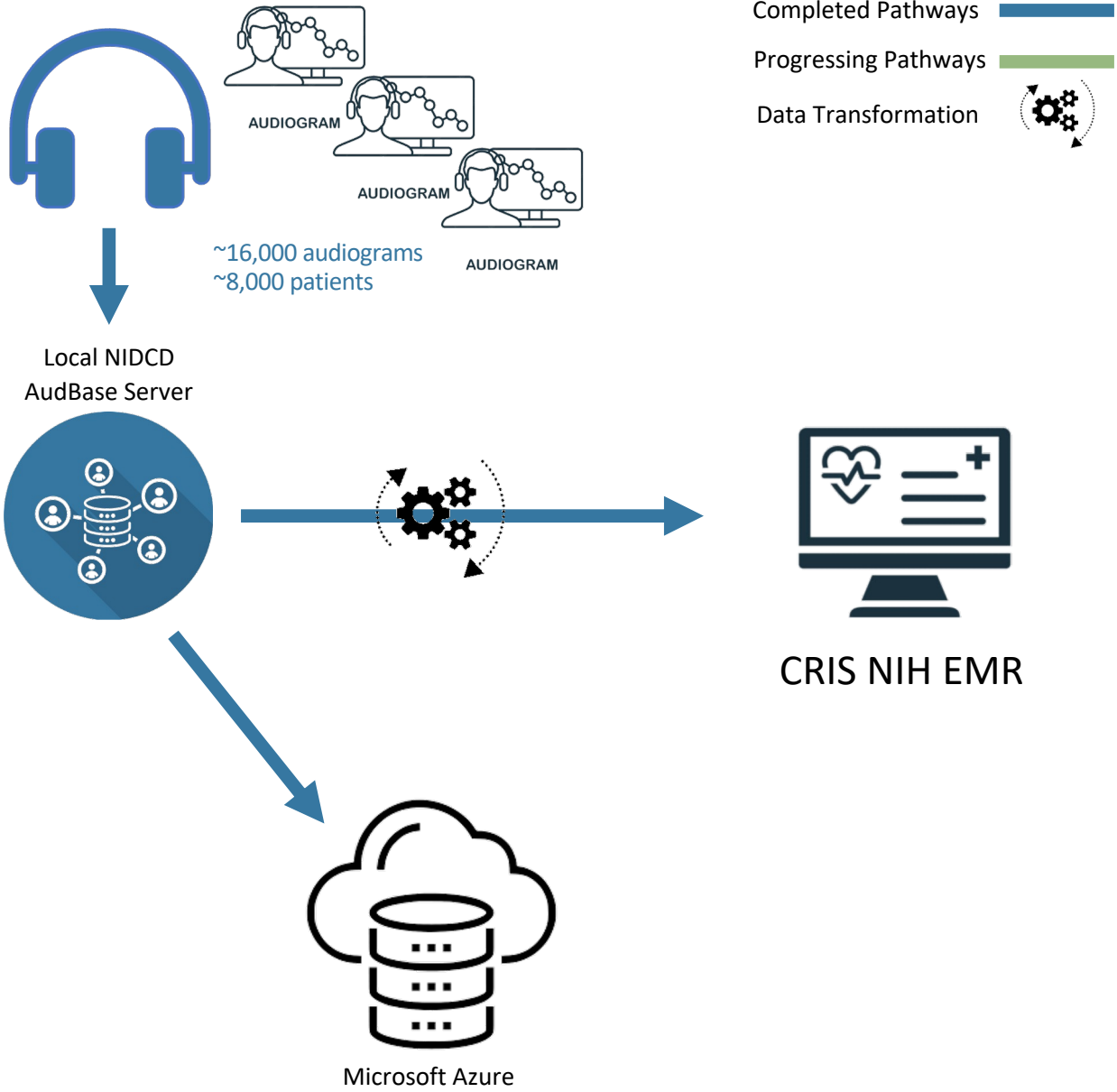
~16,000 audiograms
~8,000 patients

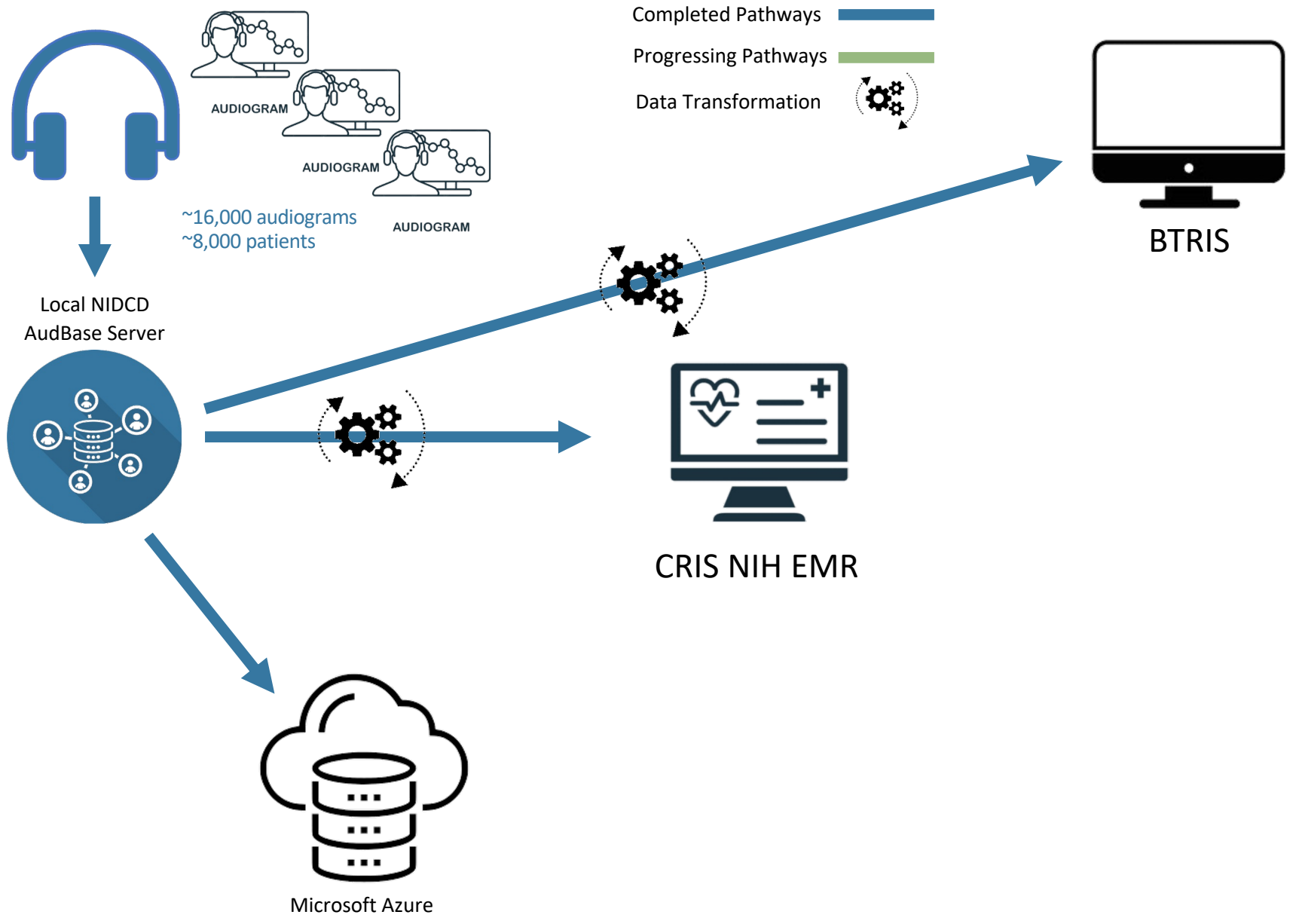
Local NIDCD
AudBase Server



Microsoft Azure

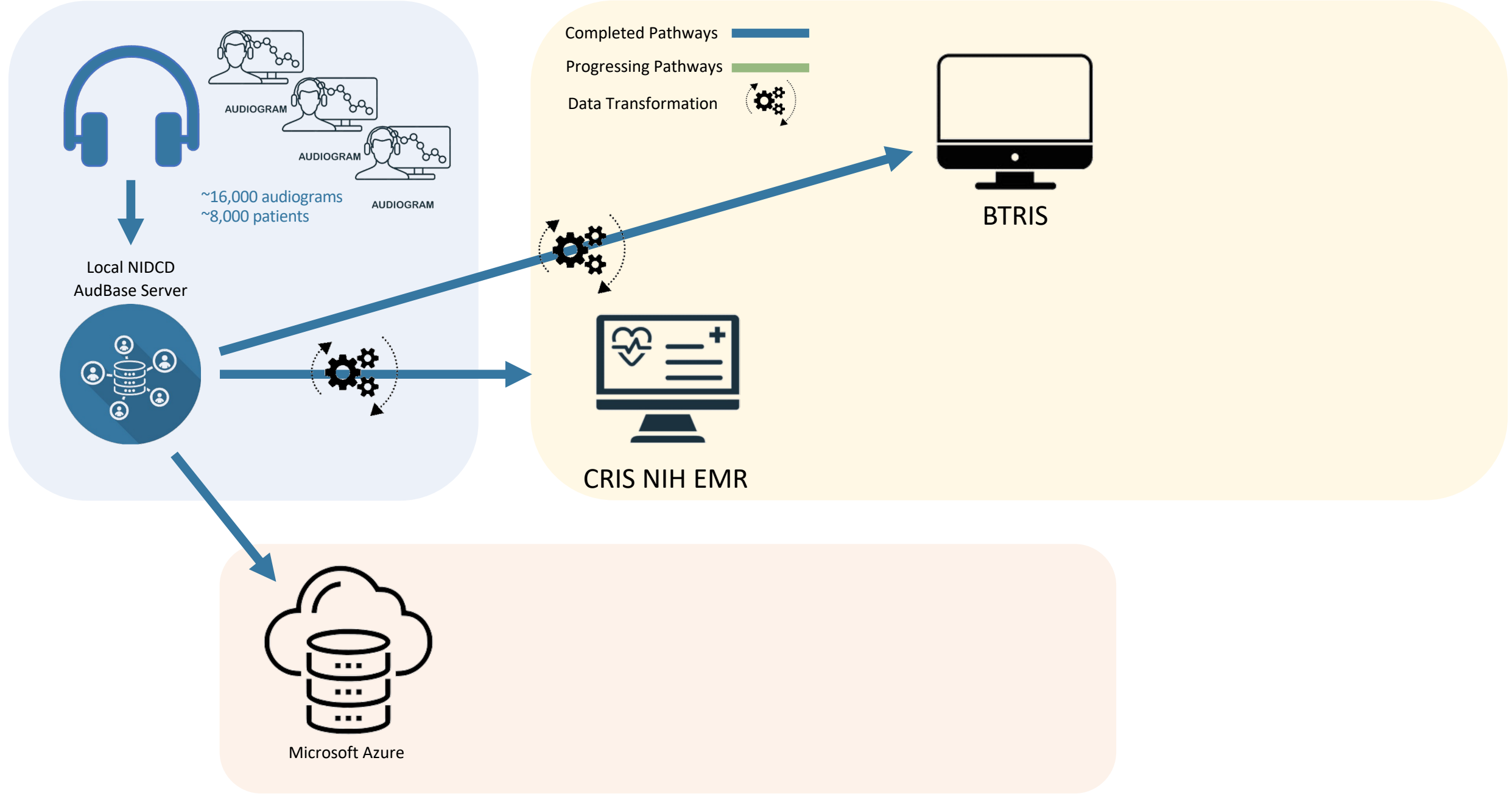






NIDCD Environment

End User Environment



~16,000 audiograms
~8,000 patients

Local NIDCD
AudBase Server

Completed Pathways
Progressing Pathways
Data Transformation

BTRIS

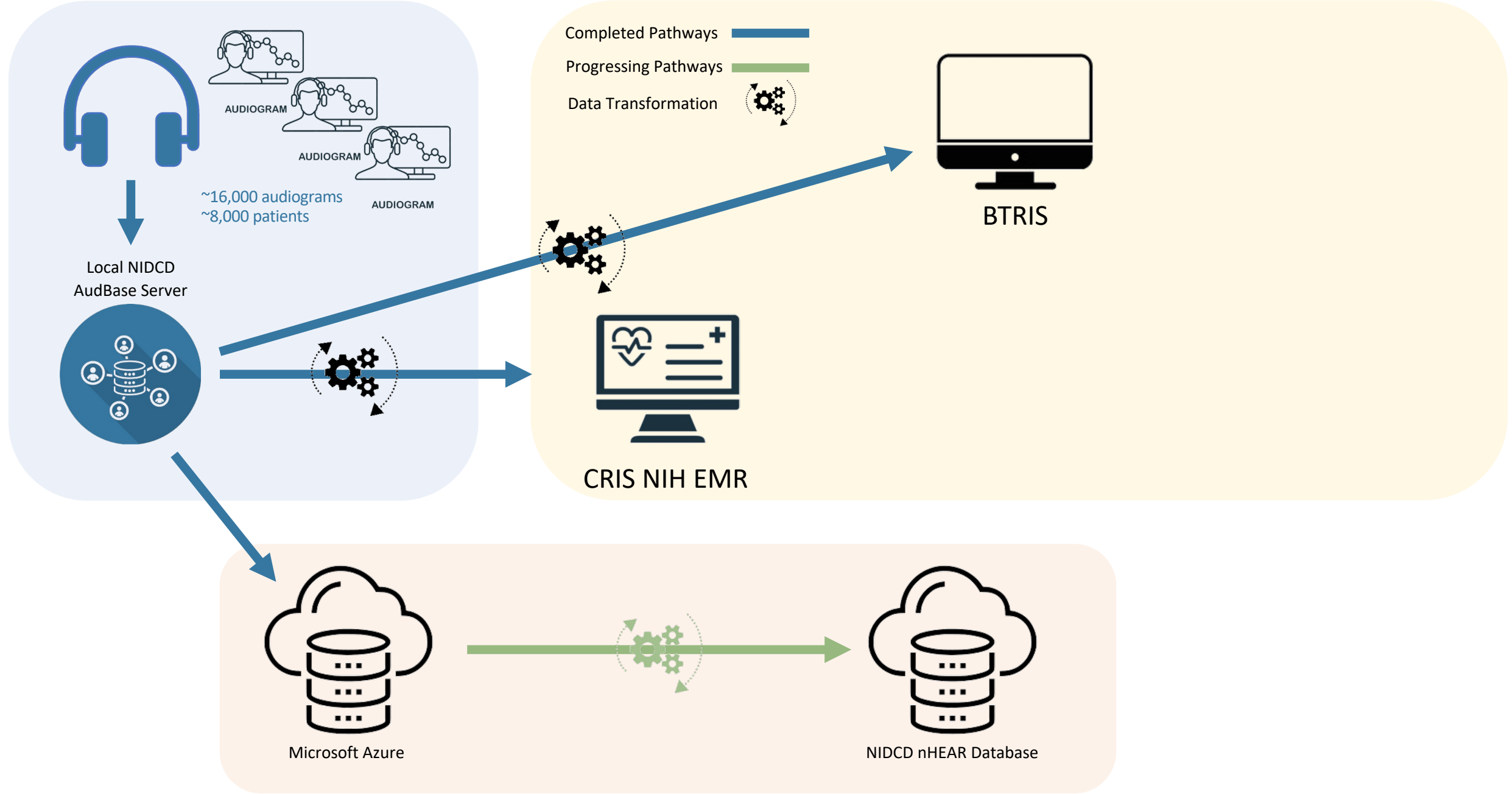
CRIS NIH EMR

Microsoft Azure

Cloud-Based Azure Environment

NIDCD Environment

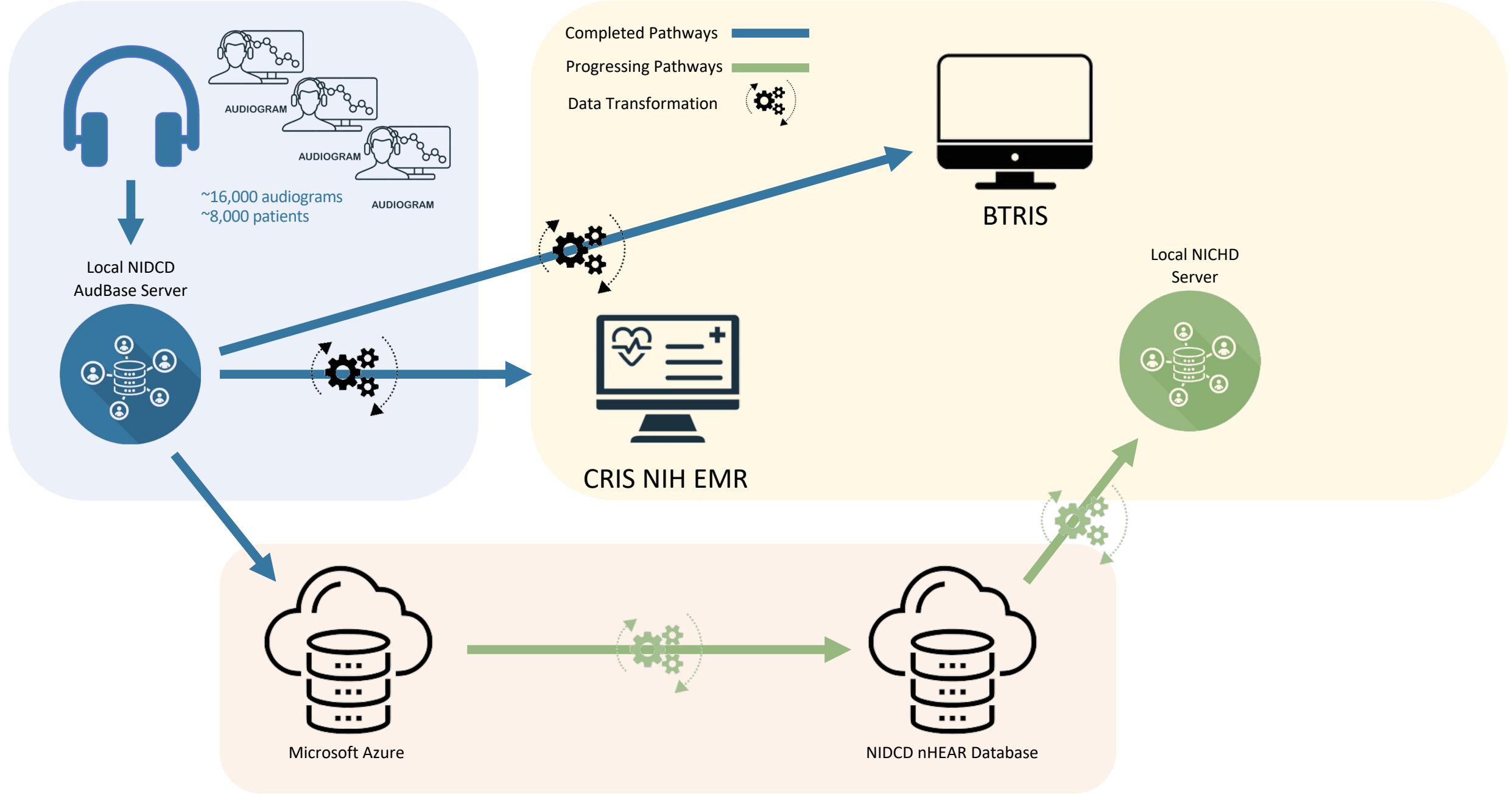
End User Environment



Cloud-Based Azure Environment

NIDCD Environment

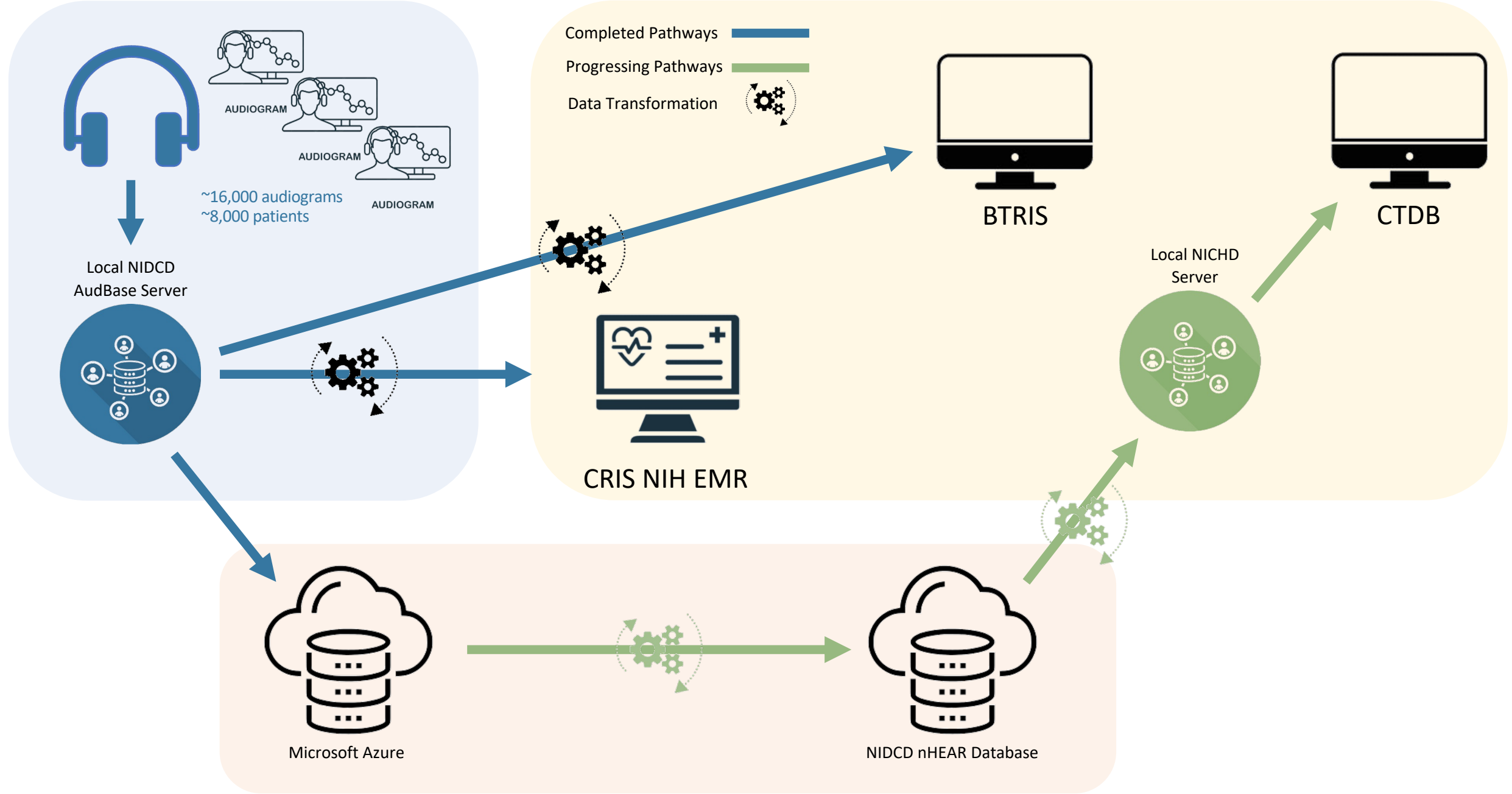
End User Environment



Cloud-Based Azure Environment

NIDCD Environment

End User Environment

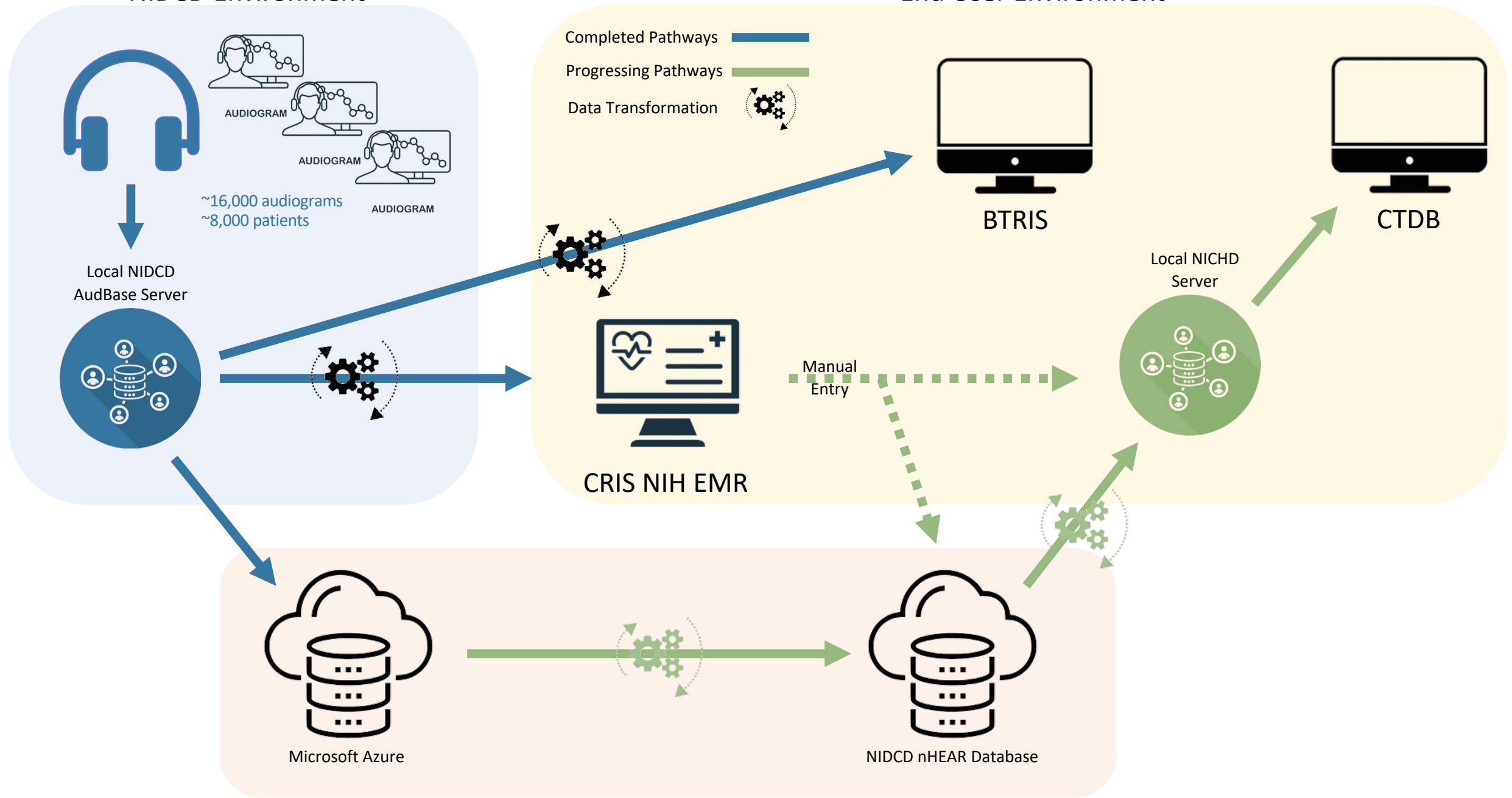


Cloud-Based Azure Environment

NIDCD Environment

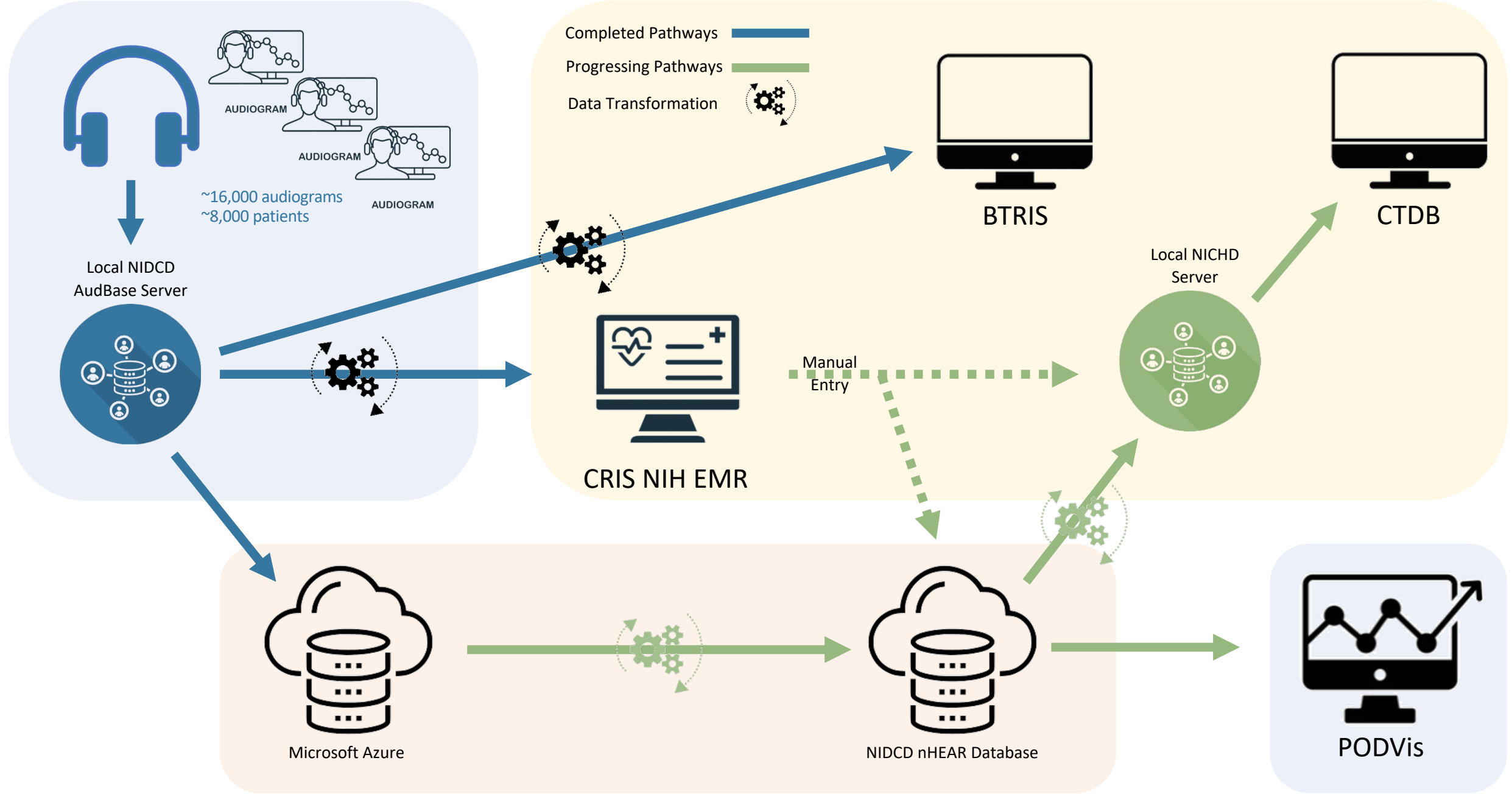
End User Environment

Cloud-Based Azure Environment



NIDCD Environment

End User Environment

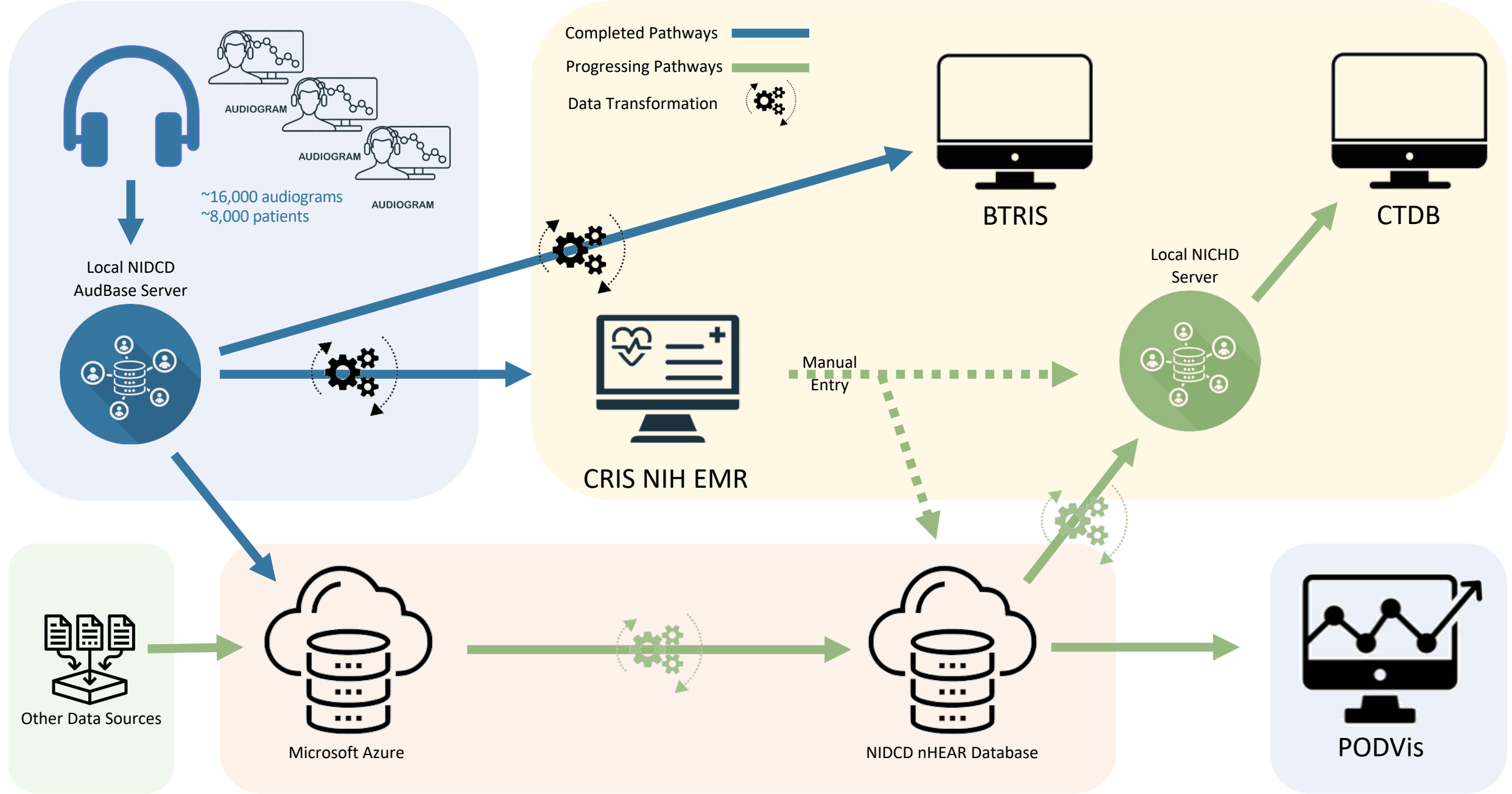


Cloud-Based Azure Environment

NIDCD Environment

NIDCD Environment

End User Environment

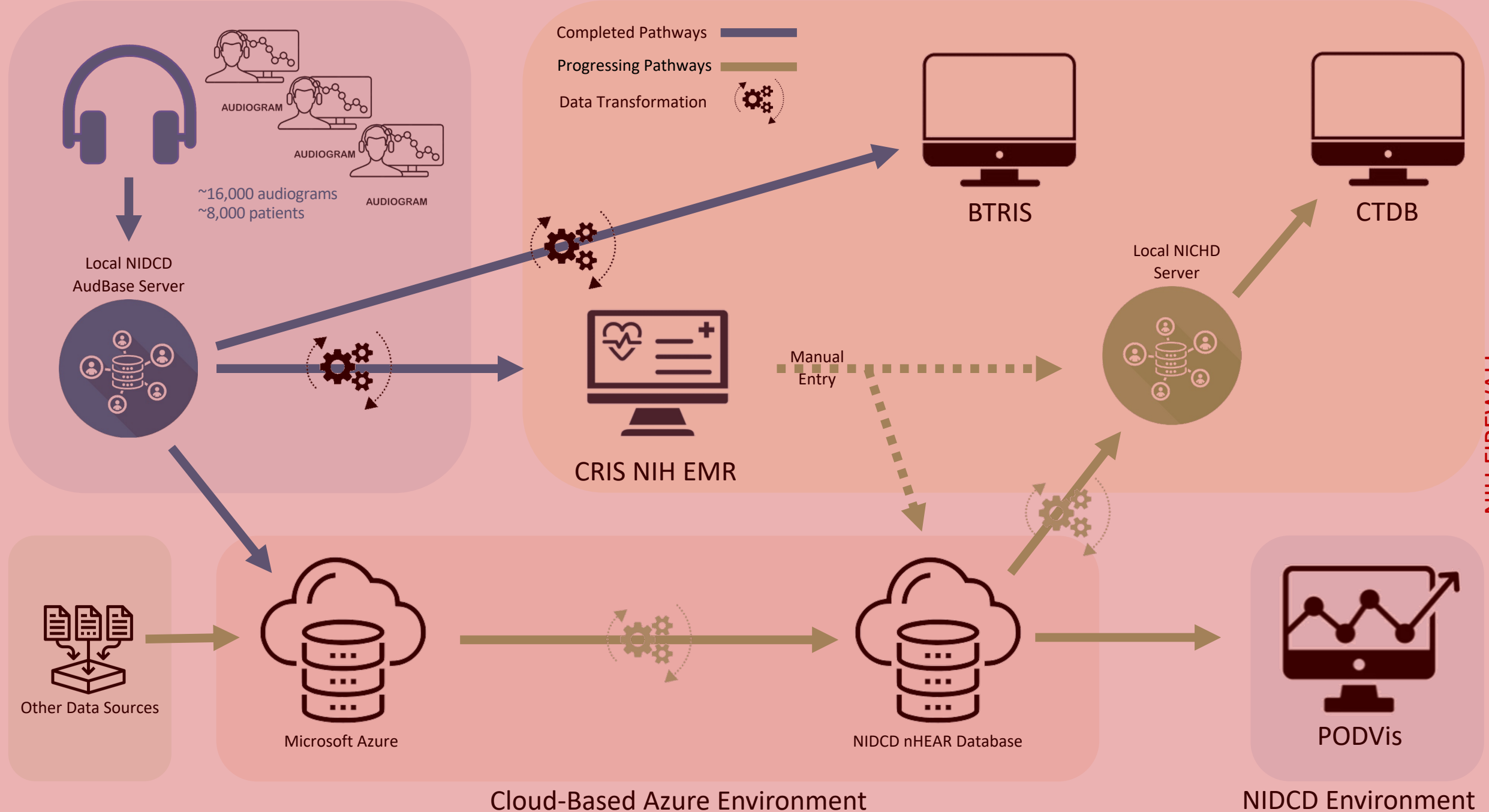


Cloud-Based Azure Environment

NIDCD Environment

NIDCD Environment

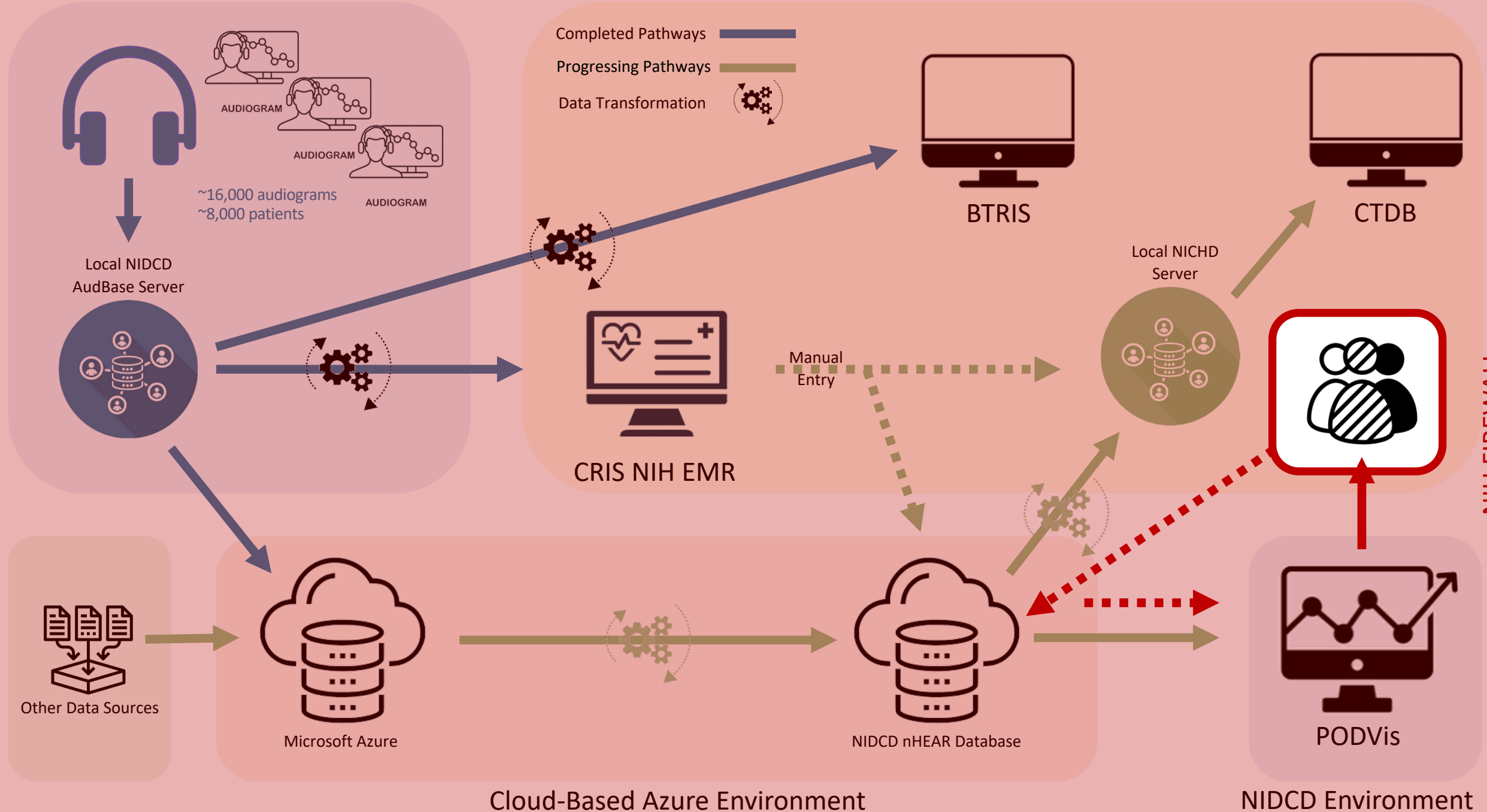
End User Environment



NIDCD Environment

End User Environment

Credit: Teak Oh (ISMB)



Thank you

zalewski@nidcd.nih.gov
gayla.poling@nih.gov



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