Impact of SOA Initiatives on Business-IT Alignment and Business Agility

SOA Conference
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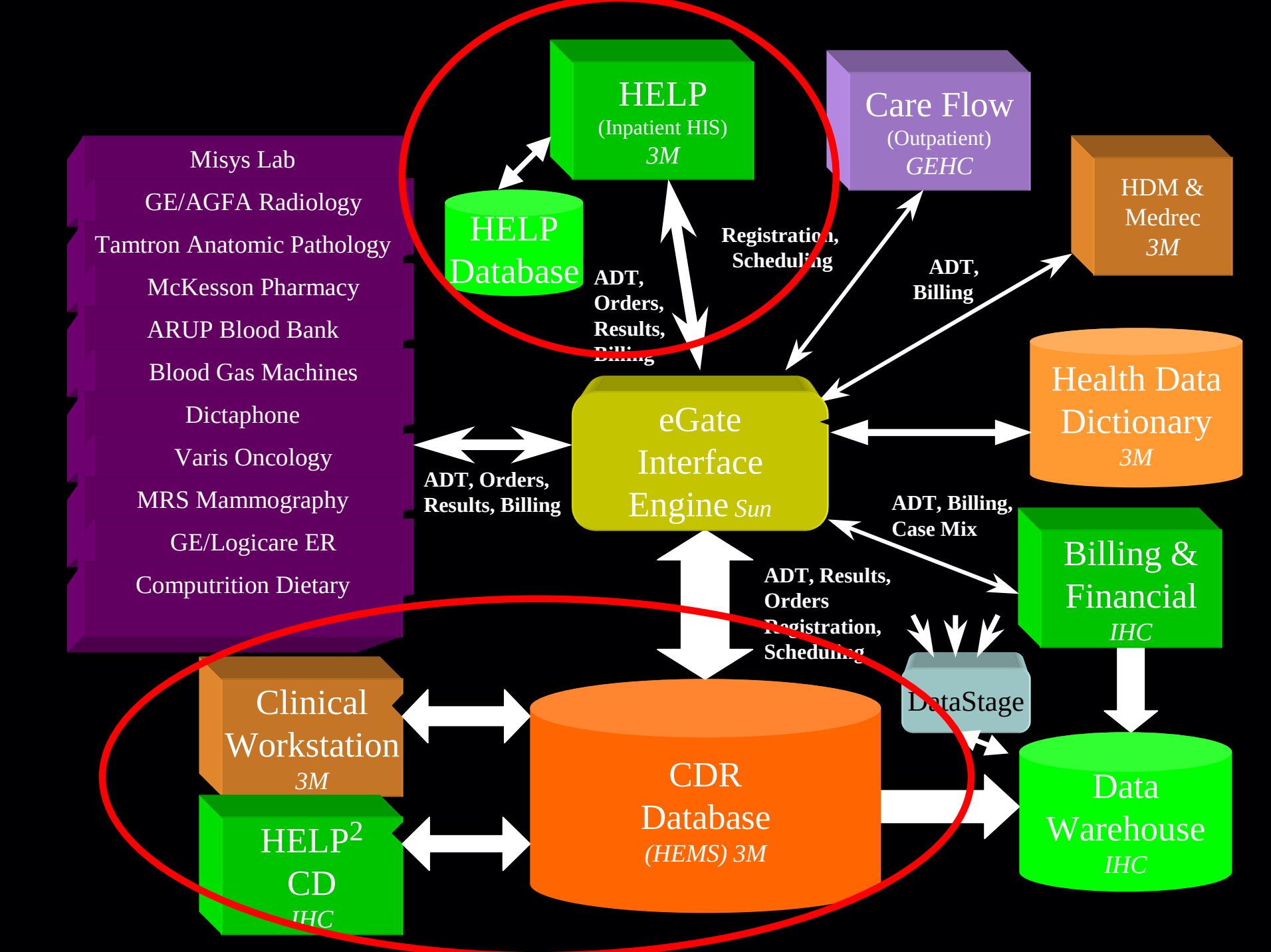
Intermountain Healthcare

- Health Delivery Network, not-for-profit
- Serving Utah and Southern Idaho
- 21 Hospitals/ 2105 beds/150 Clinics
- Medical Group of 550 employed physicians
- Insurance plan of 500,000 covered lives
- $85M/year charitable care exclusive of bad debt
- 27,000 employees
- Partner in the Utah Health Information Network

- Founded in 1975
- Based in Salt Lake City
- 21 hospitals:
  520 bed tertiary care,
  20 bed rural facilities
- More than 130 clinics in Utah and Southeastern Idaho
- Employs about 27,000, including 780 physicians; affiliated with another 2,500 physicians.
- Provides health insurance to more than 500,000 through its insurance branch, SelectHealth.

Information Systems Volumes

• Individuals with EHR	2M
• Inpatient admissions	120K/yr
• Ambulatory visits	5M/yr
• Point-to-point interfaces	800
• Clinical electronic transactions	2M/day
• Electronic medical record users	17K
• Affiliated, non-employed physicians with home or office EHR connectivity	500
• Community data sharing partners exchanging clinical information	2


HELP
(Inpatient HIS)
3M
HELP Database
Care Flow
(Outpatient)
GEHC
HDM & Medrec
3M
Misys Lab
GE/AGFA Radiology
Tamtron Anatomic Pathology
McKesson Pharmacy
ARUP Blood Bank
Blood Gas Machines
Dictaphone
Varis Oncology
MRS Mammography
GE/Logicare ER
Computrition Dietary
ADT, Orders, Results, Billing
Registration, Scheduling
ADT, Billing
ADT, Orders, Results, Billing
eGate Interface Engine Sun
Health Data Dictionary
3M
ADT, Billing, Case Mix
Billing & Financial
IHC
ADT, Results, Orders Registration, Scheduling
DataStage
Clinical Workstation
3M
HELP2 CD
IHC
CDR Database
(HEMS) 3M
Data Warehouse
IHC

GE Alliance history

- February 2004 - Marc Probst recruited as new CIO replacing Carvel Whiting
- Build versus buy evaluation
- June 2005 Alliance agreement with GE
  - Enterprise Clinical Information System (ECIS) Development
  - Comprehensive next generation EMR/EHR system

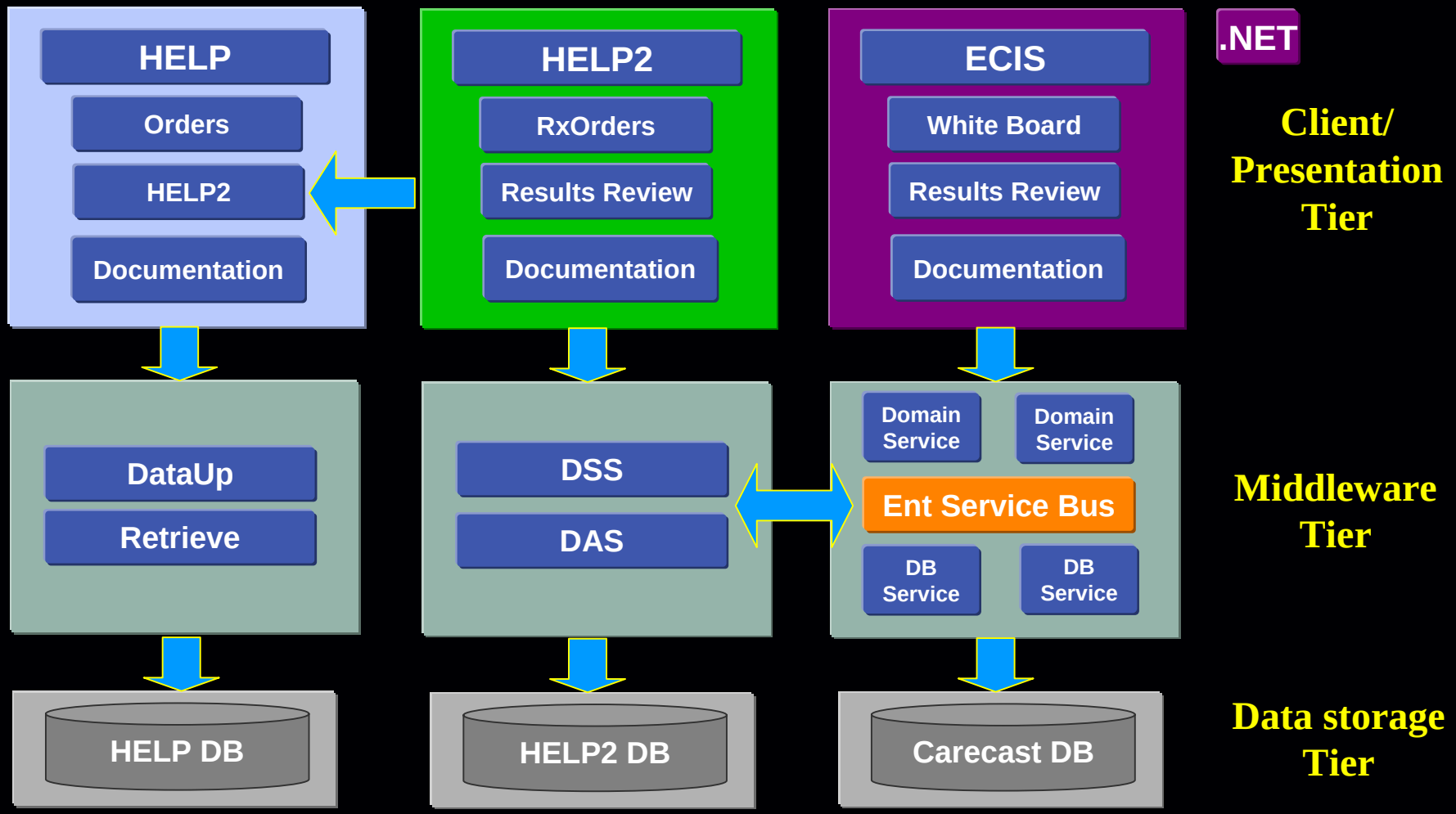
Infrastructure Vision

- Rapid application development environment
- Dynamic workflow configuration
- Standard data models and terminology
- Decision support authoring and execution
- Knowledge asset management
  - Rules, alerts, protocols, reminders, reports
- End user preferences
  - Common lists, Hot text
- Service Oriented Architecture/Enterprise Service Bus

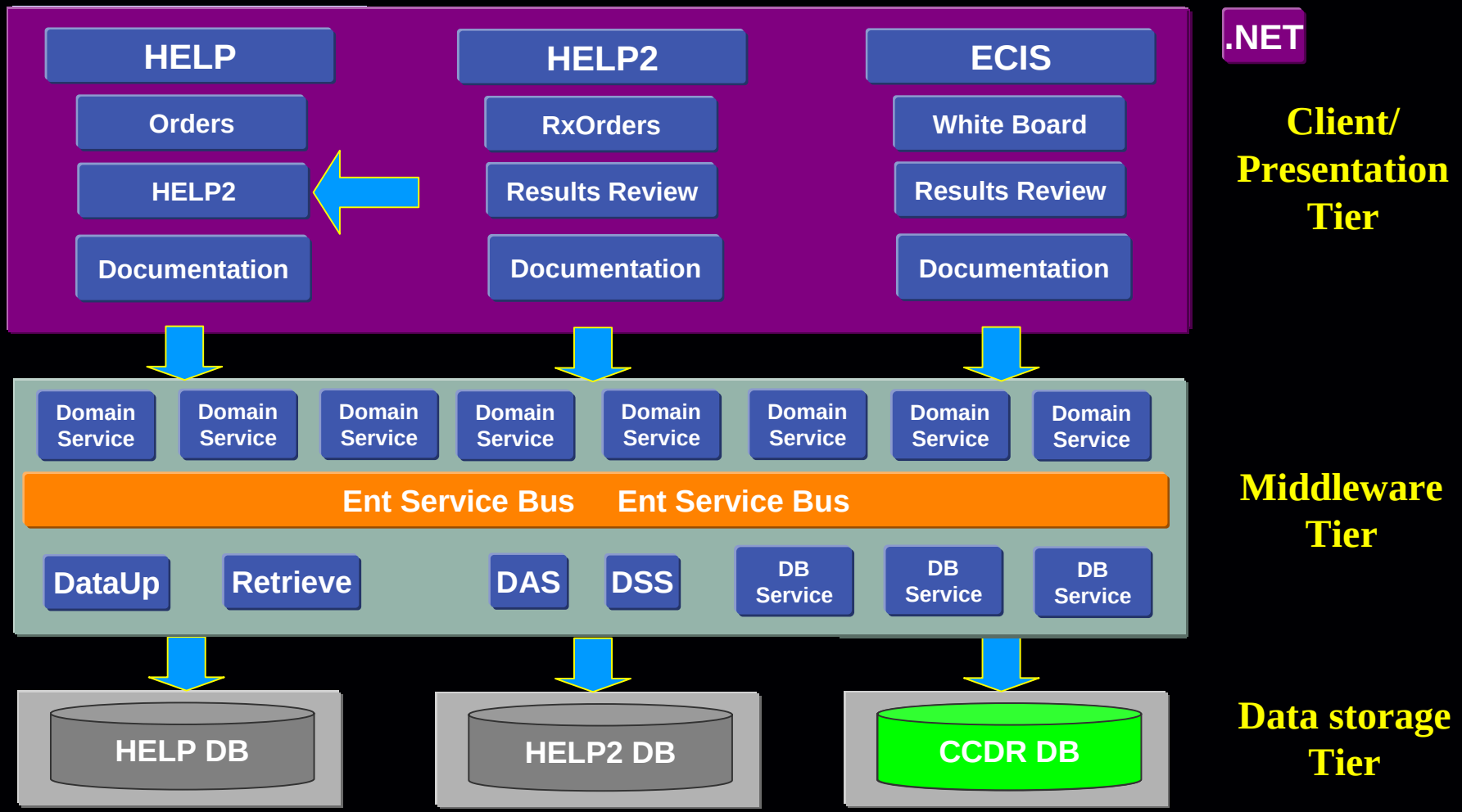
Goals

- Transition existing clinical applications to ECIS
  - Decommission HELP and HELP2
  - Turn off redundant interfaces
- No “big bang” changes
- Keep training to a minimum
- As little downtime as possible
- Get new functionality to users ASAP

Current State (simplified)



Future State (simplified)



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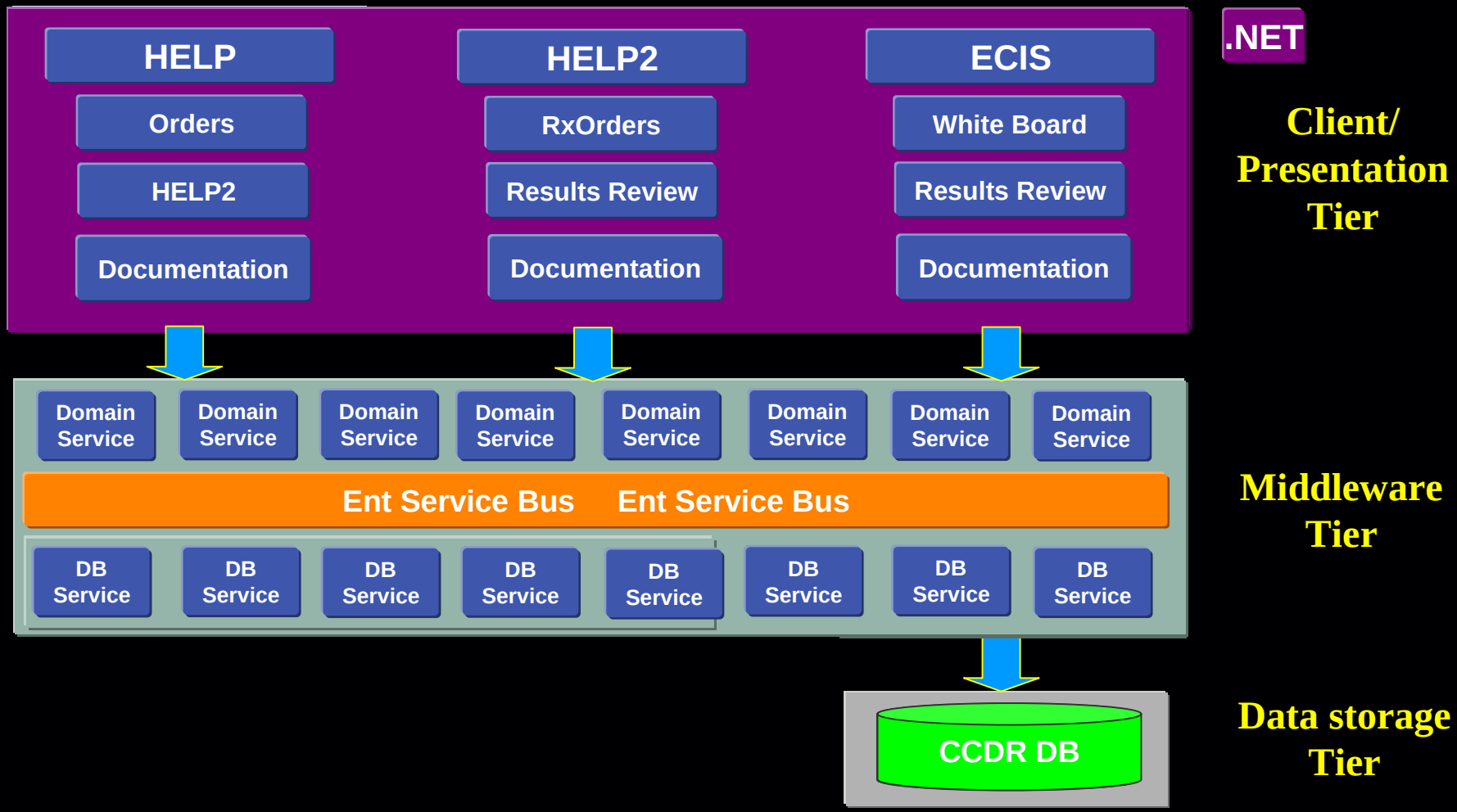

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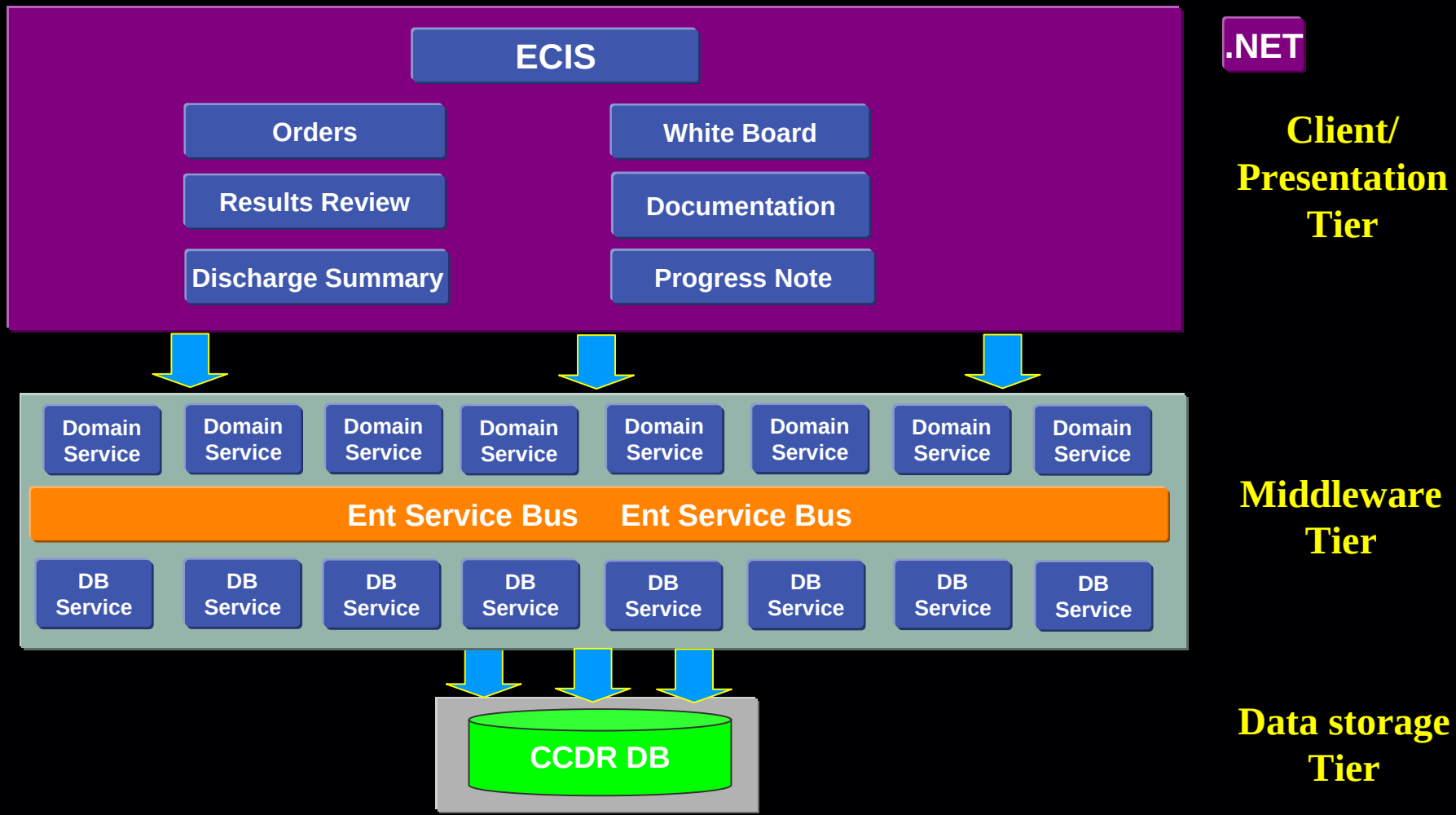

Potential Benefits

- Low risk
- Incremental changes - no “big bang” changes
- Gradual implementation of ESB
- Transition based on particular modules
  - Results review, text documents, allergies, documentation, order entry
- Slowly increasing use of the new database
  - Opportunity to tune performance

Questions?