# *CMCS Data/Meta-data Management*

Eric Stephan

eric.stephan@pnl.gov

Pacific Northwest National Laboratory

June 2002

# CMCS Data/Metadata Management

Goal: Provide data/metadata storage and management services to CMCS applications and infrastructure developers and end users.

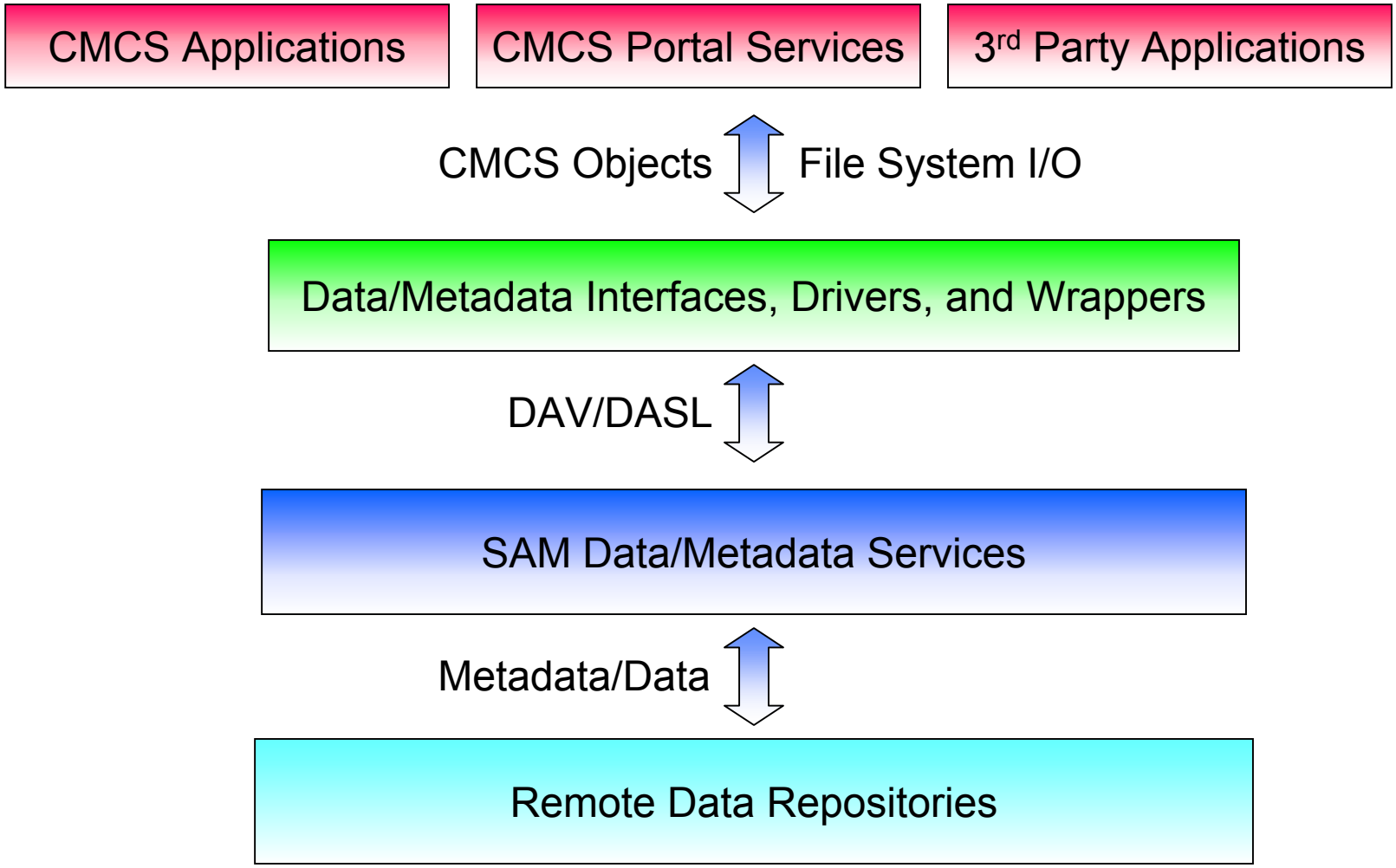
Team: Eric Stephan (lead), Brett Didier, Elena Mendoza, Carmen Pancerella, Theresa Windus

Contributors: Tom Allison, David Leahy

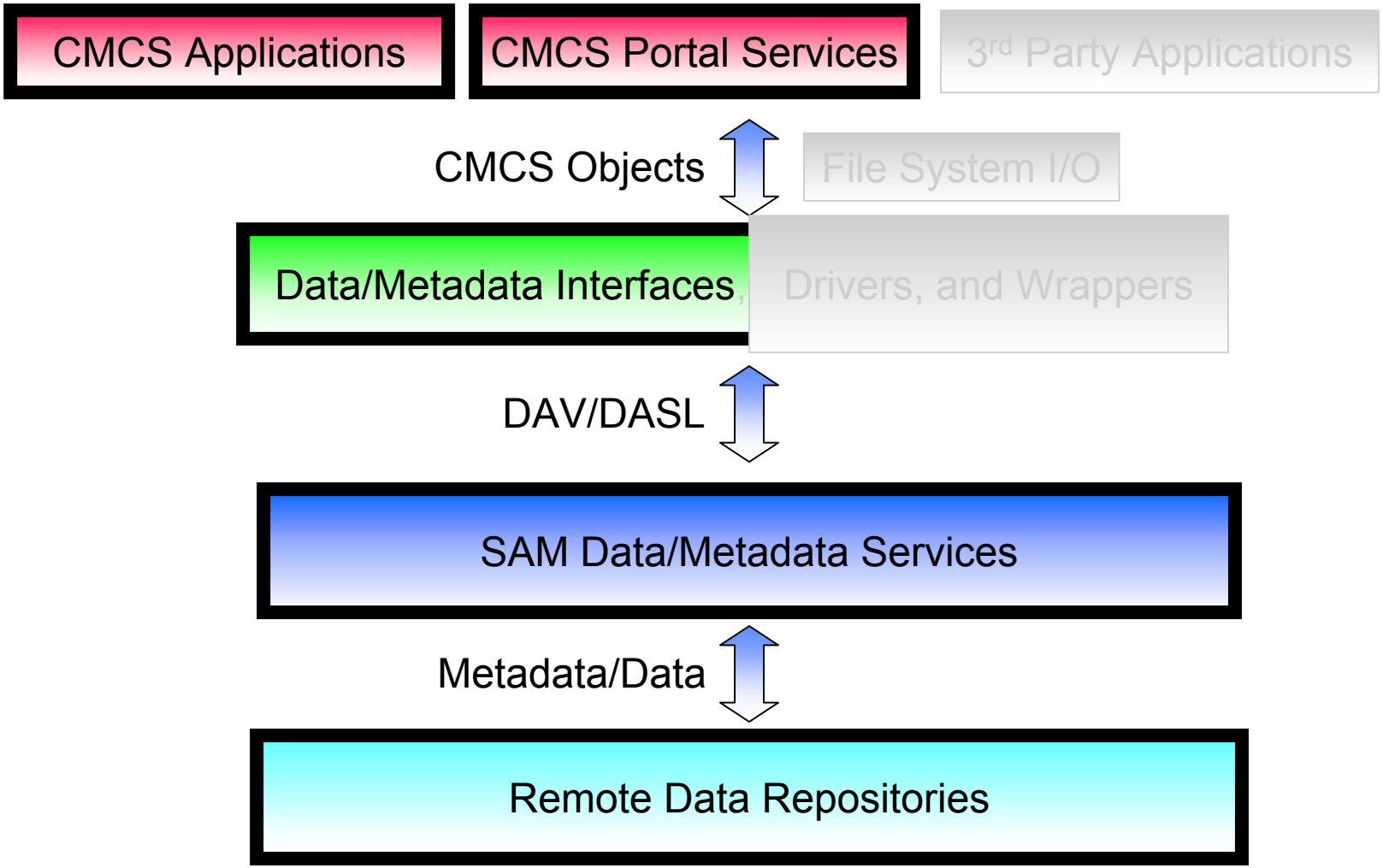
# *Why is Metadata Important?*

- Semantically describes data objects in the language of the scientist.
- Makes binary or text data objects quickly searchable.
- Can be used to show data object pedigree.
- Facilitates exchange (manual and automated) of data across scientific boundaries, makes data discoverable.
- Enables automatic translation and notification capabilities.

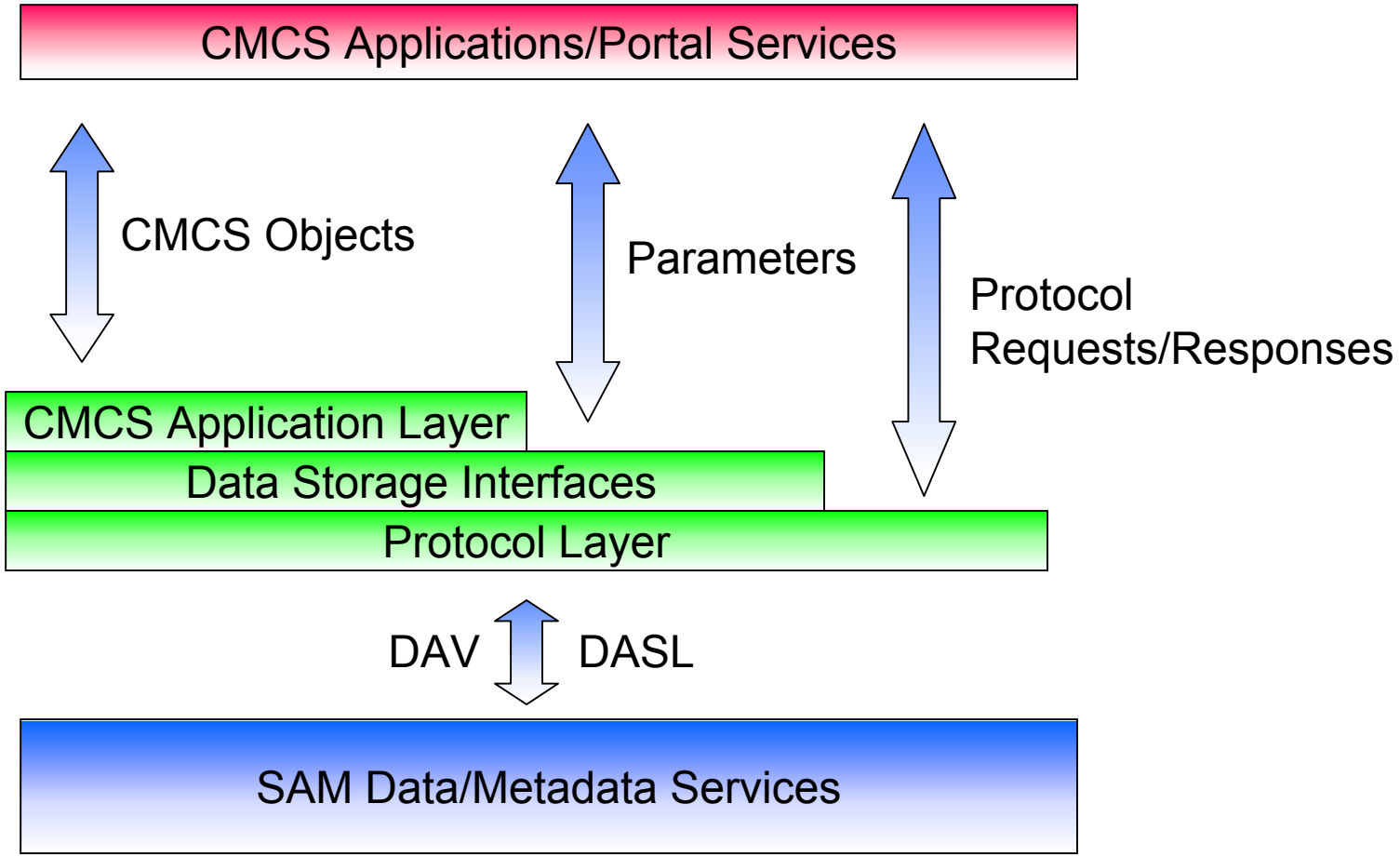
# Data/Metadata Management Services



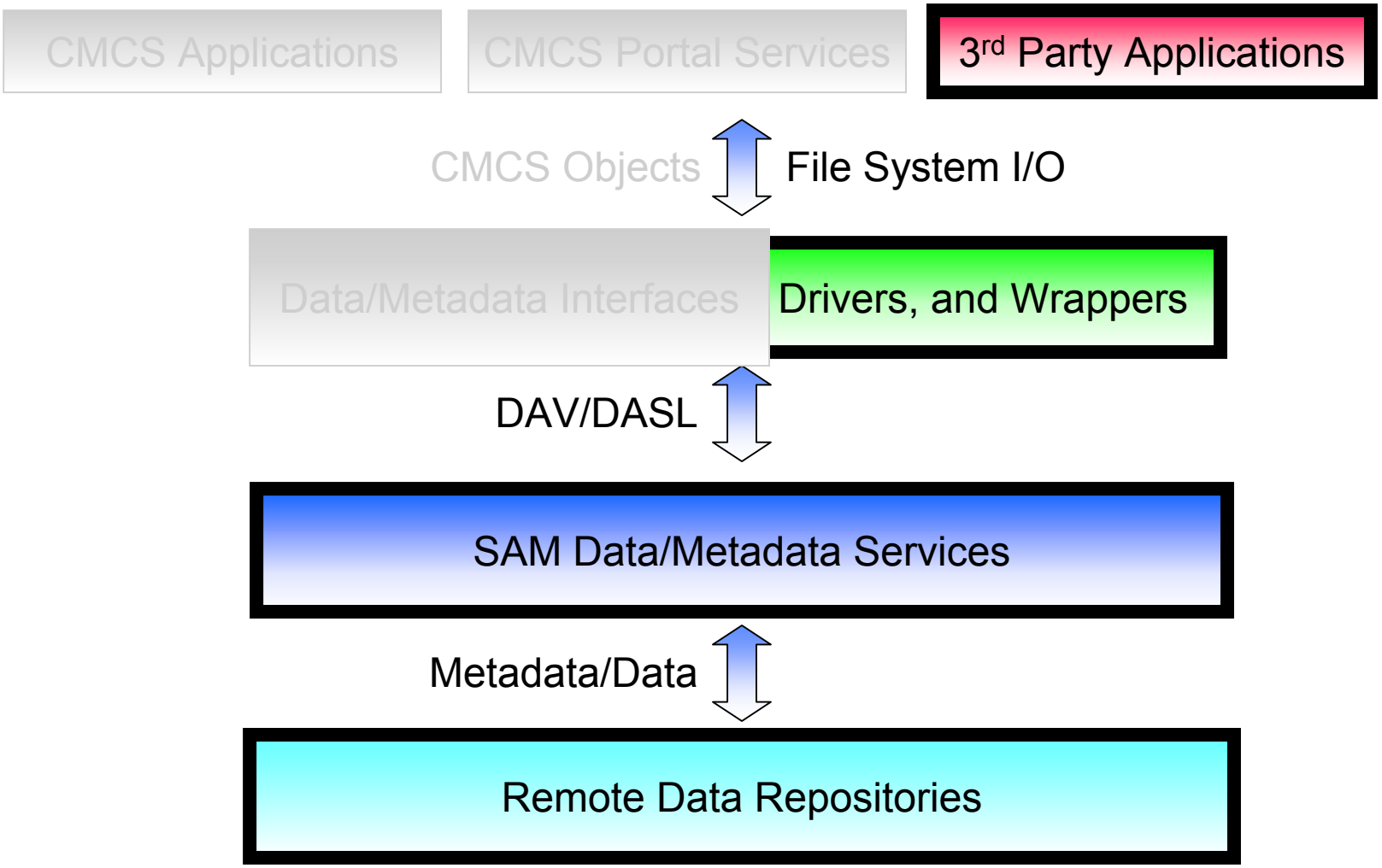
# Data/Metadata Interfaces



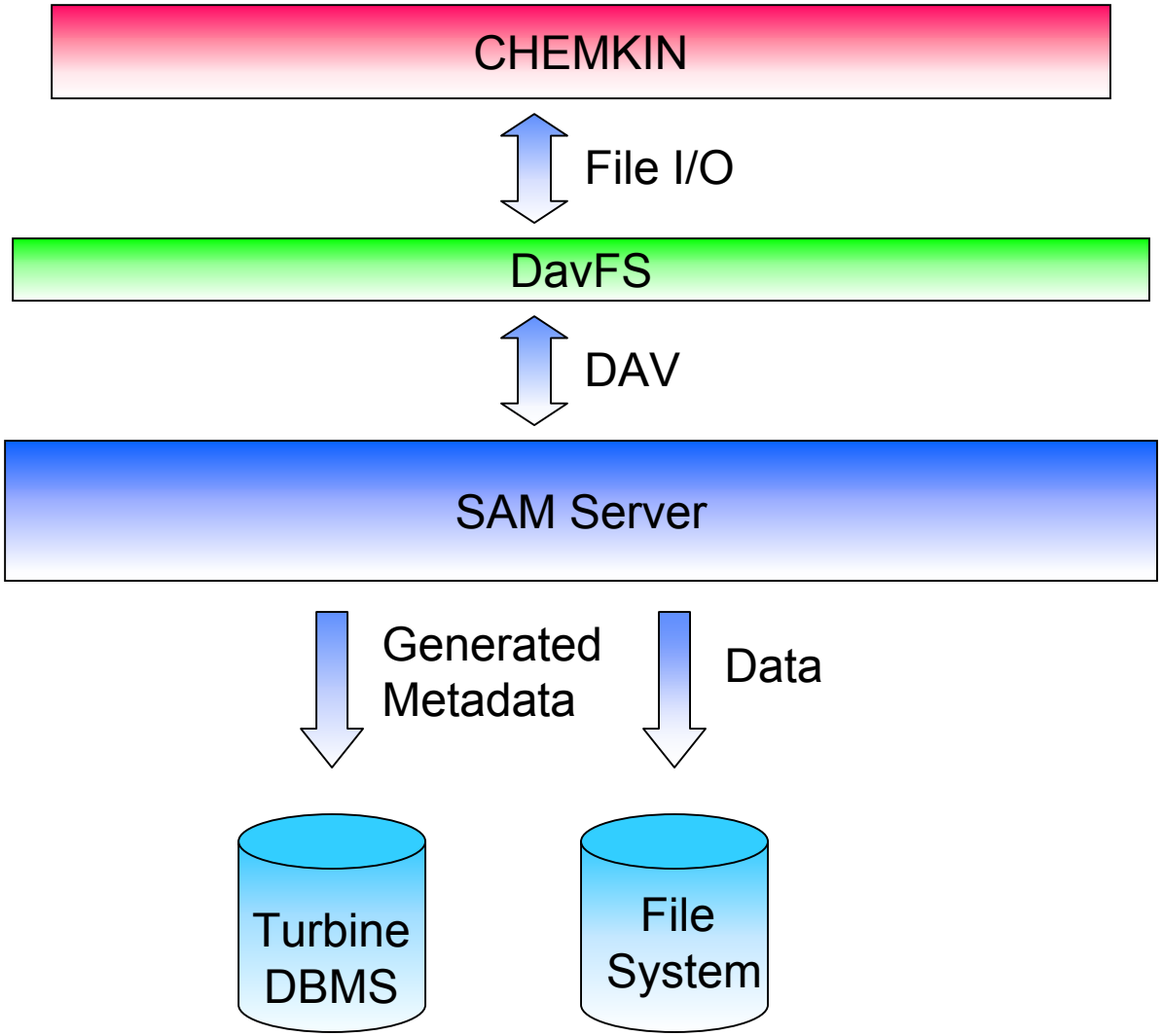
# Data/Metadata Interface Layer Breakdown



# Data/Metadata Drivers and Wrappers

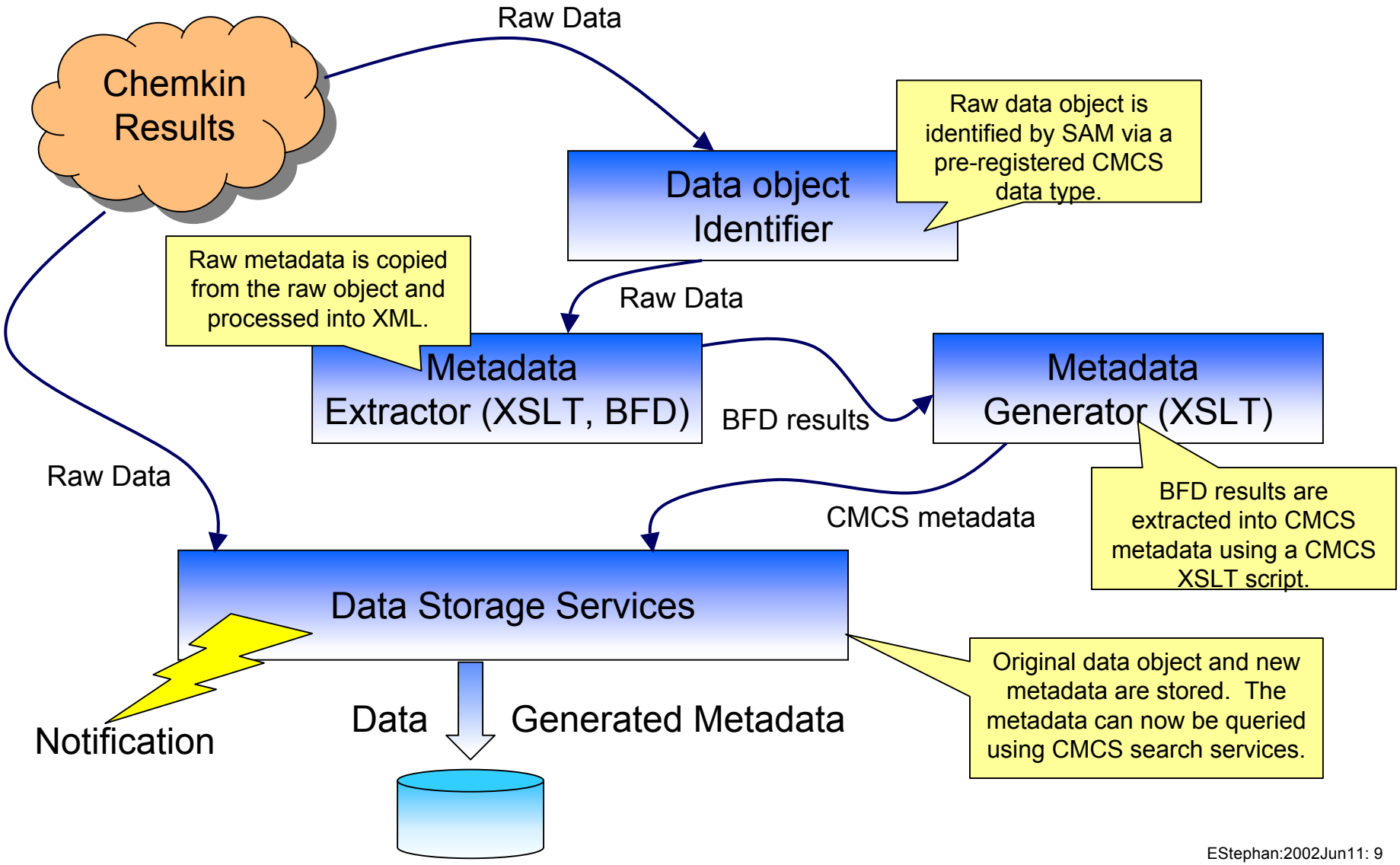


# CHEMKIN Example (1 of 2)



# CHEMKIN Example (2 of 2)

## CMCS Using SAM Metadata Generation



# Notification Tasks

Q1/Q2
FY2002

- ☑ Assess technology, make data server selection: SAM.
- ☑ Deploy WebDAV and SAM servers.
- ♻ Identify and develop client DAV interfaces.
- ♻ Assist prototype tasks
- ♻ Deploy Metadata Generation Services

# *Data/Metadata Tasks*

Q3/Q4
FY2002

- Connect to NIST Repository.
- Work with Search and Pedigree.
- Develop CMCS Translation.
- Create Portal Interface to SAM.
- Configure Slide 2 Server.