

Data Virtualization Streamlines Project Management

Customer Case Study



Qualcomm realizes faster time to solutions, greater agility and lower infrastructure costs with Cisco Data Virtualization Suite.

EXECUTIVE SUMMARY

Customer Name: Qualcomm
Industry: Wireless Communications
Location: San Diego, CA
Number of Employees: 21,383

Challenge:

- Obtain a comprehensive view of the background, current status, and availability of all human assets
- Gain visibility into personnel and project information
- Create an uniform standard for running and managing ongoing and completed projects

Solution:

- Built a data virtualization layer, based on the Cisco Information Server, to combine information from multiple mixed sources, relational databases, and data warehouses

Results:

- Experienced a 10X faster data integration development cycle
- Achieved a 90% reduction in integration development costs
- Increased productivity in administration and project management

Challenge

In order to effectively manage the complex fabless process, Qualcomm program managers must have fast access to a wide range of logistics data. Fresh and accurate data allows program managers to meet their goals, complete tasks on time, and do so without reducing project scope or increasing costs.

Qualcomm built a portal called Oasis to aggregate all logistics information into a central location. This allowed each program manager to see a comprehensive view of all fabless activities in order to run programs smoothly.

The concept of the Oasis portal made sense, but the original underlying technology did not. Oasis was dependent on a data warehouse approach. Integration of three new systems took an entire year. After the project was completed, the information delivered was immediately out of date. This required yet another system to be consolidated to supply new data needed. Project deadlines could not be met, as overall visibility into fabless activities was not readily available.

Continuing the warehouse approach would require a very large team to be hired and the project timeline would be no less than five years. The labor-intensive development methods historically either forced reduction in scope or increased budget. These risks ultimately lead Qualcomm to look in a new direction for a solution.



“The key benefit of the Cisco Information Server was the layered architecture. We now have structured data that can be easily managed with the capability of reuse.”

Mark Morgan

Senior IT Manager, IT
Enterprise Architecture
Qualcomm

Solution

Qualcomm selected the Cisco Information Server for its data federation, query optimization and enterprise data sharing capabilities. Cisco was able to integrate data from multiple, disparate sources—anywhere across the extended enterprise—in a unified, logically virtualized manner for consumption by nearly any front end business solution, including portals, reports, applications, search, and more. The Cisco Information Server was deployed between distributed data source systems and data consumers.

Within Cisco, four different abstraction layers were implemented to simplify development as well as create efficient reuse of data.

The Physical Layer is established above data sources to onboard metadata that is required by the Data Virtualization layer in order to perform its mapping functions. The Formatting Layer sits above to provide simple tasks such as name aliasing, value formatting, data type casting, derived columns and light data mapping. Above this is the Business Layer, used to define a set of logical or standard views that represent the business. The top layer is the Mapping Layer which serves to map the Business Layer into the format the Oasis portal can use to consume data.



This layered approach to data architecture was extremely important to Qualcomm for the structure and management of data. The layered design made data services easier to build, reuse, and maintain. Cisco also provided an intuitive management console for tuning performance and administration.

With this solution, new capabilities and benefits are available to Qualcomm, including:

- Fast prototyping of data views for reporting and analytics
- Query optimization
- Reusability of data
- Easy-to-publish Web services
- Caching

Results

- Faster time to solutions – requests met in hours/days rather than 6–8 weeks
- Increased agility
- Minimized latency between creating data services and usage
- Lower infrastructure cost

For More Information

To find out more about Cisco Data Virtualization, go to:

<http://www.cisco.com/web/services/enterprise-it-services/data-virtualization/index.html>

Services List

- Cisco Data Virtualization



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San Jose, CA

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