



THOMAS J. VILSACK
GOVERNOR

SALLY J. PEDERSON
LT. GOVERNOR

INFORMATION TECHNOLOGY SERVICES
RICHARD J. VARN, CHIEF INFORMATION OFFICER

Memorandum

TO: Legislative Fiscal Committee

FROM: Richard Varn, Chief Information Officer 

DATE: December 28, 1999

SUBJECT: Enterprise Data Warehouse lease/purchase update.

A recent Attorney General's opinion found that Information Technology Services may enter into lease/purchase agreements separately. Director Haines has requested that the Department of General Services not be identified as the responsible entity for the lease purchase of the items necessary to implement the Enterprise Data Warehouse.

Information Technology Services accepts this responsibility and will proceed with the lease/purchase of these items from a current Department of General Services contract (#1868) with Bull Information Systems.

Call (1-3462) if you have questions or need additional information.

Thank you.

cc: Bret Mills, Office of the Treasurer
Grant Dugdale, Department of Justice
Richard Haines, Director, Dept. of General Services

Attachments:

Director Haines memorandum (12/14/99) to Rich Varn.
Attorney General's opinion (12/14/99) to Director Haines.
Prior Notification Forms.

RJV/jd

Thomas J. Vilsack
GOVERNOR
Sally J. Pederson
LT. GOVERNOR



MEMORANDUM

TO: Richard Varn, Director
Information Technology Services

Brett Mills
Office of the Treasurer

FROM: Dick Haines, Director *Dick Haines*

SUBJECT: Lease/Purchase Informal Legal Advice/Attorney General

DATE: December 14, 1999

Based on the advice provided by the Attorney General's office today with respect to the lease purchase of certain items for the enterprise data warehouse, please remove the Department of General Services from the applications. Based on the informal legal advice, Information Technology Services may enter into the agreements separately. Please do not identify the Department of General Services as the responsible entity.

If you have any questions, please do not hesitate to contact me at 1-3196. Thank you and good luck with your project.

RJH/jh



Department of Justice

THOMAS J. MILLER
ATTORNEY GENERAL

ADDRESS REPLY TO:
HOOVER BUILDING
DES MOINES, IOWA 50319
TELEPHONE: 515-281-5164
FACSIMILE: 515-281-4209

December 14, 1999

Mr. Richard J. Haines, Director
Iowa Department of General Services
Hoover State Office Building
L-O-C-A-L

Dear Director Haines:

This letter is in response to your request for informal legal advice concerning Information Technology Services (ITS). An application is currently pending with the State Treasurer pursuant to Iowa Code section 12.28 for the lease purchase of certain equipment and/or services by ITS. Section 12.28 centralizes the financing for state agency purchases of real impersonal property by means of lease purchase agreements and installment acquisition contracts with the Treasurer of State. Under this statute the maximum principal amount of financing for lease purchase arrangements is one million dollars per "state agency" in a fiscal year. Iowa Code § 12.28(6) (1999). A "state agency" for purposes of this million dollar cap, in turn, is defined as "a board, commission, bureau, *division*, office, department, or branch of state government." Iowa Code § 12.28(1)*b* (emphasis added).

The relationship between General Services and ITS is unclear. In recent years the General Assembly has appropriated money to ITS with express reference to ITS as a "division" of General Services. See, e.g., 1999 Iowa Acts, ch. 196, § 1. Nevertheless, you point out that as the Director of General Services you do not oversee or supervise the Director of ITS and do not exercise control - directly or indirectly - over the activities of ITS.

In light of these circumstances you ask our office whether ITS is a "state agency" for purposes of section 12.28, whether ITS has independent authority to enter into lease purchase agreements and, if not, what impact a lease purchase agreement by ITS will have on the authority of General Services to enter into additional lease purchase

Mr. Richard J. Haines

Page 2

arrangements during the current fiscal year. Although there are significant legal questions about the formation of ITS generally, we advise that ITS is a "state agency" for purposes of Iowa Code section 12.28, that the lease purchase cap should be separately calculated for ITS, and that General Services retains authority to enter into additional lease purchase agreements up to the one million dollar cap.

We find no statute expressly creating Information Technology Services - either as a separate state agency or as a division within General Services. An entity known as "Enterprise Wide Information Technology Services" was initially formed by a 28E agreement in 1996 as a unit within the Iowa Telecommunications and Technology Commission. Participating state agencies included the Department of General Services, the Department of Transportation, the Workforce Development Department, the Department of Management and the Iowa Telecommunications and Technology Commission. Under the terms of the 28E agreement the Iowa Telecommunications and Technology Commission and the participating department directors shared responsibility for the purchase of equipment and services. 28E Agreement, § 8.1. This agreement expired by its own terms on June 30, 1998. 28E Agreement, § 4.1.

Meanwhile, in July, 1997, Governor Branstad issued Executive Order No. 61 which provided for a Director of Information Technology Services to be appointed by the Governor and vested with authority "to coordinate disparate information technology and to provide enterprise-wide information technology services to the executive branch agencies." Enumerated duties include to: develop, implement and continuously update standards and policies; and prepare an enterprise-wide strategic information technology plan in accordance with goals for data integration, interactive communications and electronic access to records, information and services. Nothing in the Executive Order purported to create a separate state agency. Indeed, the Governor of Iowa does not have inherent power to create state agencies by executive order. 1982 Op. Att'y. Gen. 87.

Although there is a statutory procedure for creating divisions within an agency, ITS has not been created as a "division" in accordance with these laws. Chapter 7E provides for creation of divisions within departments. Divisions, as subunits of a department, may be created either by law or by the head of the department "for the more economic and efficient administration and operation of the programs assigned to the department." Iowa Code § 7E.4(7). Neither of these circumstances fit ITS. We find no statute creating ITS as a division of General Services. Based on the factual information that you have provided, it is also clear that ITS has not been created administratively by the Director of General Services.

Despite the ambiguous origins of ITS, the General Assembly has appropriated money to ITS as a "division" of the Department of General Services. 1999 Iowa Acts, ch. 207, § 4 ("There is appropriated from the general fund of the state to the division of information technology services of the department of general services for the fiscal year beginning July 1, 1999 . . ."); 1998 Iowa Acts, ch. 1224, § 5 ("There is appropriated from the general fund of the state to the division of information technology services of the department of general services for the fiscal year beginning July 1, 1998 . . .").¹

We must assess the significance of the appropriations language in construing whether ITS is indeed a "division" of the Department of General Services and, therefore, a separate "agency" for purposes of the one million dollar lease purchase cap under Iowa Code section 12.28 as a matter of statutory construction. In construing section 12.28, we are guided by legislative intent. Carlton Co. v. Board of Review, 572 N.W.2d 146, 154 (Iowa 1997); Harris v. Olson, 558 N.W.2d 408, 410 (Iowa 1997). The ultimate goal is to ascertain and give effect to the intention of the legislature. When more than one statute is pertinent to the inquiry, the statutes should be considered together in an attempt to harmonize them. American Asbestos Training Center, Ltd. v. Eastern Iowa Community College, 463 N.W.2d 56, 58 (Iowa 1990).

Applying these principles we conclude that, despite legal questions surrounding the creation of ITS, we should harmonize the appropriations which refer to ITS as a "division" with the term "division" as used in section 12.28(1)b. In our view, it is consistent with the appropriations to ITS as an express "division" of the Department of General Services to treat ITS as a division for the purposes of limiting expenditures for lease purchases under section 12.28. That is, to the extent that the General Assembly

¹ ITS is also referred to as a division of the Department of General Services in other sections of the Iowa Code and in additional sections of appropriations bills. See e.g., Iowa Code § 18.183(2) ("The division of information technology services shall not have authority to determine whether an individual government agency should automate records . . ."); 1999 Iowa Acts, ch. 196, § 1 ("There is appropriated from the rebuild Iowa infrastructure fund to the division of information technology services of the department of general services . . ."); 1999 Iowa Acts, ch. 146, § 20 ("[T]he commissioner shall consult with the office of the attorney general and representatives of the division of information technology services of the department of general services . . ."); 1999 Iowa Acts, ch. 198, § 2 ("The division of information technology services in the department of general services shall submit a report to the legislative fiscal bureau . . ."); 1998 Iowa Acts, ch. 1224, § 7 ("A reversion technology initiatives account is established in the office of the treasurer of state under the control of the division of information technology services of the department of general services. . .").

Mr. Richard J. Haines

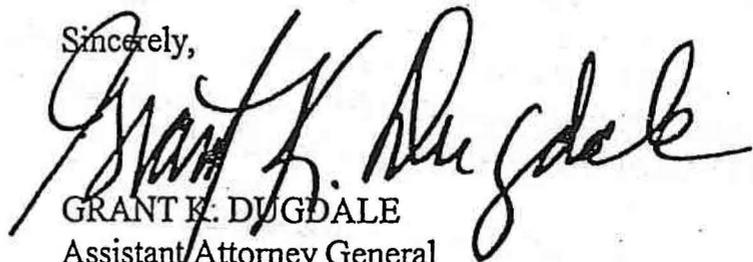
Page 4

has appropriated money to ITS expressly as a "division," it is reasonable to construe a statutory limitation on lease purchases applicable to divisions as applicable to ITS. If ITS is a division for purposes of money being appropriated, it should be considered a division for purposes of money being expended.

We emphasize that our conclusion is specific to the single issue whether ITS is a division of the Department of General Services for the limited purpose of calculating the one million dollar cap under section 12.28. We strongly recommend that ambiguity surrounding formation of ITS be resolved either legislatively or administratively by formally creating ITS as a division of the Department of General Services or legislatively by creating ITS as a separate state agency.

This letter constitutes informal advice and is not an opinion of the Attorney General. If our office can be of any further assistance on this matter, please feel free to contact me.

Sincerely,



GRANT K. DUGDALE
Assistant Attorney General

Tel: (515) 281-3395

Fax: (515) 281-7551

cc: Julie F. Pottorff

Janet Huston

✓ Richard Varn

LEASE-PURCHASE PRIOR NOTIFICATION

(FOR PURCHASES OF \$50,000 OR MORE)

For Reporting Requirements per Section 8.46, Code of Iowa

Agency Name: Department of General Services	Budget Unit/ Fund Name: Information Technology Services	Budget Unit/ Fund No.: 3330001C652020
--	--	--

ACQUISITION INFORMATION

Description of Acquisition:

See Attached

Type of Acquisition <input checked="" type="checkbox"/> New <input type="checkbox"/> Replacement <input type="checkbox"/> Continuation	Duration of Contract (Mo/Yr) Start: Dec '99 End: Nov '02	Contract Type: Lease/Purchase	Estimated Useful Life: 3 Years
Funding Sources	\$	Estimated Cost if Purchased Outright:	
General Fund	\$ 652,410.68	\$ 600,000.00	
Federal	\$	Principal:	
revolving Fund	\$	\$ 600,000.00	
Road Use Tax	\$	Finance Charge:	
Other (Specify)	\$	\$ 52,410.68	
Total	\$	Interest Rate: 5.250	

CASH FLOW

	FY 01	FY 02	FY 03	FY _____	FY _____	Total Cost
Principal	\$ 189,663.67	\$ 199,818.76	\$ 210,517.58			\$600,000.00
Interest	27,806.57	17,651.47	6,952.64			\$ 52,410.68
Total	217,470.24	217,470.25	217,470.22			\$652,410.68

JUSTIFICATION/CONSEQUENCES OF DELAY OR ABANDONMENT

Contact Person: Jim Day	Title: Procurement/Contracts	Phone Number: 281-5061
----------------------------	---------------------------------	---------------------------

Enterprise Data Warehouse Lease/Purchase

9/23/99

DESCRIPTION and JUSTIFICATION OF THE ACQUISITION:

This is a lease/purchase of additional hardware capacity to grow the computer originally acquired for the Justice Data Warehouse (see attached) which will be used to accommodate enterprise requirements. The Departments of Human Services and Revenue and Finance will both be implementing warehouse systems on this "Enterprise Data Warehouse" computer platform. Information Technology Services will charge Human Services and Revenue and Finance (DRF funds will not be available until their performance based procurement for Tax Gap produces revenue) for services and their use of this enterprise resource.

CONSEQUENCES OF DELAY OR ABANDONMENT:

Not growing the current platform to accommodate enterprise requirements will result in redundant (identical) hardware and software, personnel, floor space, environmental, security, power, processes, procedures and the loss of economies of scale.

LEASE-PURCHASE PRIOR NOTIFICATION

(FOR PURCHASES OF \$50,000 OR MORE)

For Reporting Requirements per Section 8.46, Code of Iowa

Agency Name: DEPT. OF GENERAL SERVICES	Budget Unit/ Fund Name: INFORMATION TECHNOLOGY SERV.	Budget Unit/ Fund No.: 333000/c652020
---	---	--

ACQUISITION INFORMATION

Description of Acquisition:
SEE ATTACHED

PREVIOUSLY APPROVED

Type of Acquisition <input checked="" type="checkbox"/> New <input type="checkbox"/> Replacement <input type="checkbox"/> Continuation	Duration of Contract (Mo/Yr) Start: July 99 End: June 02	Contract Type: Lease/Purchase	Estimated Useful Life: 3 yr.
Funding Sources	\$	Estimated Cost if Purchased Outright:	
General Fund	\$963,621.23	872,000	
	\$	Principal:	
Revolving Fund	\$	872,000.00	
Road Use Tax	\$	Finance Charge:	
Other (Specify)	\$	91,621.23	
Total	\$	Interest Rate: 5.140	

CASH FLOW

	FY 00	FY 01	FY 02	FY	FY	Total Cost
Principal	56,251.91	397,460.71	418,287.36			871,999.98
Interest	43,748.09	34,349.90	13,523.26			91,621.25
Total	100,000.00	431,810.61	431,810.62			963,621.23

JUSTIFICATION/CONSEQUENCES OF DELAY OR ABANDONMENT

SEE ATTACHED

Contact Person:	Title: Procurement/Contracts	Phone Number: 281-5061
-----------------	---------------------------------	---------------------------

Justice Data Warehouse Lease/Purchase

7/20/99

DESCRIPTION OF THE ACQUISITION:

This is a lease/purchase of computer hardware and services (the system) required to implement the CJJP Justice Data Warehouse (JDW) partially funded by reversion money (HF 762). While it is anticipated that the Departments of Revenue and Finance, Human Services and others (the enterprise) will also utilize this data warehouse system - this lease is configured to support the JDW only. ITS will acquire the system, grow it as necessary to accommodate "enterprise" needs and bill user agencies for its use accordingly.

NOTE:

This paperwork assumes a July, 99 start date - actual start may be as late as October, 99, the interest rate may therefore be somewhat different.

JUSTIFICATION:

Use of the JDW provides the State of Iowa with a tool that is not currently available. The tool provides an analytical decision support system to analyze, track and evaluate state programs and services for the Departments of Human Rights (CJJP), Corrections, Public Safety and the Legislature. See attachment paper - Data Warehouse Technology.

CONSEQUENCES OF DELAY OR ABANDONMENT:

Loss of a sizable previous investment (development of the prototype), loss of use of the prototype (minimal functionality available) and the inability to project jail capacity, sentencing impact, indigent defense costs and other justice related functions. The ROI increases as we grow the system to support other agencies (enterprise).

DATA WAREHOUSE TECHNOLOGY

Executive Overview

Linda Plazak 281-6778

WHY A DATA WAREHOUSE?

Data warehousing is the means to business intelligence. The data collected by the State of Iowa for decades is one of its most valuable assets. As long term and data based decision making becomes critical to service delivery and program evaluation, the need to turn data into meaningful business intelligence information is mandatory.

Individual agencies have created silos of redundant data that reside on many different computer platforms, in many different data structures, different languages, and utilizing inconsistent values. Unfortunately, most of this valuable data exists in transaction (also called production or operational) systems and is not easily accessible to many managers and end users. This data can not easily be shared either within or by the agencies and departments.

While the daily operation of large systems is essential for conducting business, this data is housed on a computer platform that is accessed and updated millions of times each day. The ability to use this data to analyze trends, evaluate and benchmark programs, and perform outcome analysis is lost forever as new data is overlaid on the old, erasing the history associated with the information.

Data warehouse technology puts the detail data from many departments and agencies in a separate computer platform, using standard structures, language, and values. This data can be accessed easily and allows for the collection of historical data from multiple sources which provides both big picture and highly detailed views used for analysis and decision making.

BENEFITS OF AN ENTERPRISE DATA WAREHOUSE

- Evaluate program outcomes – what investments had the greatest impact?
- Identify trends and program options – what if?
- Standard hardware and software products
- Maximizes resource utilization compared to several smaller, independent data warehouses
- Enhances enterprise data sharing among all agencies (even the small, have-not agencies)
- Consistent data, from many sources for decision making
- Allows access to massive amounts of legacy data from multiple sources
- Data can be presented in many different views for many categories of users
- Complex queries will not compete with daily operational transactions for system resources

DATA WAREHOUSE RETURN ON INVESTMENT

The State of Minnesota Department of Human Services implemented a data warehouse to investigate medicaid fraud and abuse. The \$4 million two year investment paid for itself in less than two years.

The State of Michigan relates they have identified \$10 million in hard dollar savings with the implementation of a data warehouse project. The benefit is the ability to get a clearer picture of how money is being spent and what we are getting for it." The Michigan Medical Services Administration had a 25% reduction in administrative and medicaid recovery costs with the implementation of the data warehouse. The data warehouse reduces the time required to obtain information from 1-3 weeks to between 10 minutes and one hour.

applying geographical information system (GIS) tools to a data warehouse an even better return on investment realized as more users are able to analyze and overlay the data thus creating many views of the same data. A data warehouse can provide tangible hard dollar savings through cost recovering of fraud through abuse investigation and with audit selection increasing revenue generation. The biggest benefit with data warehousing is ability to make better program decisions and investments through the analysis of program outcomes.

WHAT IS A DATA WAREHOUSE?

A data warehouse is a process, not a product, that identifies business intelligence needs, extracts and catalogs data from multiple sources, and puts that data on a separate computer platform.

- It is subject oriented by multiple subjects (such as justice information, human service information, financial information)
- It is integrated from many different sources (ex. justice data provided by public safety, courts, and corrections)
- It is time-variant (a "snapshot" of the data at a point in time)
- It is historical (daily or weekly or monthly "snapshots" of the data)
- Data is appended, not replaced
- Data can be presented and accessed in many views

Data warehouse technology takes data from different sources and stores (warehouses) it on a stand alone hardware platform that can be accessed by different groups of people for different purposes. Using proper query and reporting tools, the data can be viewed many different ways. An example would be combining data from the Court system, Departments of Corrections and Public Safety to allow in depth analysis of indigent defense claims. In this example you can analyze data about the attorneys, the cost to defend, the judge, the defendant, the crimes, the sentencing, etc. In another example, inventory, purchasing, accounts payable, accounts receivable and vendor information could be stored and analysis conducted to determine vendor delivery activity, matching inventory to shipment (Walmart uses this to determine what is selling and what is not, and automatically orders what is selling), tracking late payments, etc. All of the information in both examples listed above would be "warehoused" on the same stand alone computer platform. This warehouse platform is used for analysis and decision support.

WHAT A DATA WAREHOUSE IS NOT?

This hardware platform is not the same platform (mainframe or server) that is used to conduct your daily business transactions. A data warehouse is not a shrink-wrapped software package that is sold off the shelf.

COMPONENTS OF A DATA WAREHOUSE

- Business requirements assessment
- Executive sponsorship
- Business analyst expertise
- Technical data base and data analyst expertise
- Training for business analysts, technical personnel and users

- A scaleable computer platform where all the data resides
- Standard software and hardware products
- Relational database software to store and organize the data
- Software tools and products to model, clean and normalize the data
- Metadata repository (data about the data – data element name, definition, format, source, owner, security, transformation rules, relationships, etc.)
- Software tools and products to populate the warehouse, query the database and produce reports