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REPORT
106–877

ELECTRONIC COMMERCE ENHANCEMENT ACT OF 2000

SEPTEMBER 21, 2000.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. SENSENBRENNER, from the Committee on Science, submitted the following

R E P O R T

[To accompany H.R. 4429]

[Including cost estimate of the Congressional Budget Office]

The Committee on Science, to whom was referred the bill (H.R. 4429) to require the Director of the National Institute of Standards and Technology to assist small and medium-sized manufacturers and other such businesses to successfully integrate and utilize electronic commerce technologies and business practices, having considered the same, report favorably thereon with amendments and recommend that the bill as amended do pass.

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The amendments are as follows:

79–006

I. AMENDMENT

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the "Electronic Commerce Enhancement Act of 2000".

TITLE I—ELECTRONIC COMMERCE

SEC. 101. FINDINGS.

The Congress finds the following:

(1) Commercial transactions on the Internet, whether retail business-to-customer or business-to-business, are commonly called electronic commerce.

(2) In the United States, business-to-business transactions between small and medium-sized manufacturers and other such businesses and their suppliers is rapidly growing, as many of these businesses begin to use Internet connections for supply-chain management, after-sales support, and payments.

(3) Small and medium-sized manufacturers and other such businesses play a critical role in the United States economy.

(4) Electronic commerce can help small and medium-sized manufacturers and other such businesses develop new products and markets, interact more quickly and efficiently with suppliers and customers, and improve productivity by increasing efficiency and reducing transaction costs and paperwork. Small and medium-sized manufacturers and other such businesses who fully exploit the potential of electronic commerce activities can use it to interact with customers, suppliers, and the public, and for external support functions such as personnel services and employee training.

(5) The National Institute of Standards and Technology's Manufacturing Extension Partnership program has a successful record of assisting small and medium-sized manufacturers and other such businesses. In addition, the Manufacturing Extension Partnership program, working with the Small Business Administration, successfully assisted United States small enterprises in remediating their Y2K computer problems.

(6) A critical element of electronic commerce is the ability of different electronic commerce systems to exchange information. The continued growth of electronic commerce will be enhanced by the development of private voluntary interoperability standards and testbeds to ensure the compatibility of different systems.

SEC. 102. REPORT ON THE UTILIZATION OF ELECTRONIC COMMERCE.

(a) ADVISORY PANEL.—The Director of the National Institute of Standards and Technology (in this title referred to as the "Director") shall establish an Advisory Panel to report on the challenges facing small and medium-sized manufacturers and other such businesses in integrating and utilizing electronic commerce technologies and business practices. The Advisory Panel shall be comprised of representatives of the Technology Administration, the National Institute of Standards and Technology's Manufacturing Extension Partnership program established under sections 25 and 26 of the National Institute of Standards and Technology Act (15 U.S.C. 278k and 278l), the Small Business Administration, and other relevant parties as identified by the Director.

(b) INITIAL REPORT.—Within 12 months after the date of enactment of this Act, the Advisory Panel shall report to the Director and to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on the immediate requirements of small and medium-sized manufacturers and other such businesses to integrate and utilize electronic commerce technologies and business practices. The report shall—

(1) describe the current utilization of electronic commerce practices by small and medium-sized manufacturers and other such businesses, detailing the different levels between business-to-retail customer and business-to-business transactions;

(2) describe and assess the utilization and need for encryption and electronic authentication components and electronically stored data security in electronic commerce for small and medium-sized manufacturers and other such businesses;

(3) identify the impact and problems of interoperability to electronic commerce, and include an economic assessment; and

(4) include a preliminary assessment of the appropriate role of, and recommendations for, the Manufacturing Extension Partnership program to assist

small and medium-sized manufacturers and other such businesses to integrate and utilize electronic commerce technologies and business practices.

(c) FINAL REPORT.—Within 18 months after the date of enactment of this Act, the Advisory Panel shall report to the Director and to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a 3-year assessment of the needs of small and medium-sized manufacturers and other such businesses to integrate and utilize electronic commerce technologies and business practices. The report shall include—

(1) a 3-year planning document for the Manufacturing Extension Partnership program in the field of electronic commerce; and

(2) recommendations, if necessary, for the National Institute of Standards and Technology to address interoperability issues in the field of electronic commerce.

SEC. 103. ELECTRONIC COMMERCE PILOT PROGRAM.

The National Institute of Standards and Technology's Manufacturing Extension Partnership program, in consultation with the Small Business Administration, shall establish a pilot program to assist small and medium-sized manufacturers and other such businesses in integrating and utilizing electronic commerce technologies and business practices. The goal of the pilot program shall be to provide small and medium-sized manufacturers and other such businesses with the information they need to make informed decisions in utilizing electronic commerce-related goods and services. Such program shall be implemented through a competitive grants program for existing Regional Centers for the Transfer of Manufacturing Technology established under section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k). In carrying out this section, the Manufacturing Extension Partnership program shall consult with the Advisory Panel and utilize the Advisory Panel's reports.

TITLE II—ENTERPRISE INTEGRATION

SEC. 201. ENTERPRISE INTEGRATION ASSESSMENT AND PLAN.

(a) ASSESSMENT.—The Director shall work to identify critical enterprise integration standards and implementation activities for major manufacturing industries underway in the United States. For each major manufacturing industry, the Director shall work with industry representatives and organizations currently engaged in enterprise integration activities and other appropriate representatives as necessary. They shall assess the current state of enterprise integration within the industry, identify the remaining steps in achieving enterprise integration, and work toward agreement on the roles of the National Institute of Standards and Technology and of the private sector in that process. Within 90 days after the date of the enactment of this Act, the Director shall report to the Congress on these matters and on anticipated related National Institute of Standards and Technology activities for the then current fiscal year.

(b) PLANS AND REPORTS.—Within 180 days after the date of the enactment of this Act, the Director shall submit to the Congress a plan for enterprise integration for each major manufacturing industry, including milestones for the National Institute of Standards and Technology portion of the plan, the dates of likely achievement of those milestones, and anticipated costs to the Government and industry by fiscal year. Updates of the plans and a progress report for the past year shall be submitted annually until for a given industry, in the opinion of the Director, enterprise integration has been achieved.

SEC. 202. DEFINITIONS.

For purposes of this title—

(1) the term "Director" means the Director of the National Institute of Standards and Technology;

(2) the term "enterprise integration" means the electronic linkage of manufacturers, assemblers, and suppliers to enable the electronic exchange of product, manufacturing, and other business data among all businesses in a product supply chain, and such term includes related application protocols and other related standards; and

(3) the term "major manufacturing industry" includes the aerospace, automotive, electronics, shipbuilding, construction, home building, furniture, textile, and apparel industries and such other industries as the Director designates.

Amend the title so as to read:

A bill to require the Director of the National Institute of Standards and Technology to assist small and medium-sized manufacturers and other such businesses

to successfully integrate and utilize electronic commerce technologies and business practices, and to authorize the National Institute of Standards and Technology to assess critical enterprise integration standards and implementation activities for major manufacturing industries and to develop a plan for enterprise integration for each major manufacturing industry.

II. PURPOSE OF THE BILL

The purpose of the bill is to require the Director of the National Institute of Standards and Technology (NIST) to assist small and medium-sized manufacturers to successfully integrate and utilize electronic commerce technologies and business practices, and to authorize NIST to assess critical enterprise integration standards and implementation activities for major manufacturing industries and to develop a plan for enterprise integration for each major manufacturing industry.

III. BACKGROUND AND NEED FOR THE LEGISLATION

Small and medium-sized manufacturers, typically defined as those with less than 500 employees, contribute greatly to our nation's economic growth, creating thousands of new jobs each year and providing all Americans with quality manufactured goods. According to statistics compiled by the National Association of Manufacturers and the Modernization Forum, small manufacturers make up over 98 percent of all U.S. manufacturers and employ 1 of every 10 American workers. In addition, it is estimated that over 90 percent of all exporting manufacturers are small to medium-sized firms. Recognizing the vital role these businesses play in the United States, 1999 was declared the "Year of the Small Manufacturer."

Commerical transactions on the Internet, whether it be business-to-customer or business-to-business, are most commonly referred to as electronic commerce, or eCommerce. It is estimated that sales in electronic commerce alone will reach nearly $3.2 trillion by the year 2003. Successfully implemented, eCommerce business strategies have the potential to significantly increase productivity and revenues for many small and medium-sized manufacturers. Electronic commerce can help small and medium-sized manufacturers develop new products and markets, interact more quickly and efficiently with suppliers and customers, and improve productivity by increasing efficiency and reducing transaction costs and paperwork. In addition, small and medium-sized manufacturers who fully exploit the potential of eCommerce can use it to interact with customers, suppliers, and the public, and for external support functions such as personnel services and employees training.

With all the benefits eCommerce has to offer, small and medium-sized manufacturers face numerous challenges in intergrating successful electronic commerce strategies. The first and most basic obstacle facing small and medium-sized manufacturers is access to basic information on assessing their eCommerce needs and evaluating different options. The high costs associated with implementing even the most basic eCommerce strategies coupled with the ever changing technology options leave small and medium-sized manufacturers at risk for investing in expensive systems which may soon be quickly rendered obsolete. In addition, many small and medium-sized manufacturers who have ventured into the eCommerce arena have found that they have invested in expensive

technology products only to discover that they are incompatible with those of their suppliers and customers.

In small and medium-sized manufacturers are going to continue to contribute significantly towards our nation's economic growth in the information age, many industry analysts agree that strategies must be developed now that will help these businesses address the challenges associated with integrating successful eCommerce policies. H.R. 4429 was introduced to help achieve this goal.

Enterprise integration may also play an important role in the future success of many small and medium-sized manufacturers. Enterprise integration involves the electronic linkage of manufacturers, assemblers, and suppliers to enable them to exchange product, manufacturing, and other business data within the supply chain. Many Industry analysts agree that more needs to be done to better determine the importance of enterprise integration for the manufacturing industry.

One federal program aimed at assisting small manufacturing is the National Institute of Standard and Technology's (NIST) Manufacturing and Extension Partnership (MEP). MEP is a national network of over 400 not-for-profit centers that provide small manufacturers with cost-effective access to a variety of services ranging from financial planning and product development to quality management and human resource direction. MEP centers are located in all 50 states, the District of Columbia, and Puerto Rico. Therefore, MEP centers have expertise to assist our small and medium-sized manufacturers, address the challenges of eCommerce, and assess the importance of enterprise integration.

Federal funding for the MEP centers are matched by state, local and private dollars with the federal share decreasing as the center matures. In the first three years of operation, the Federal Government supports 50 percent of a MEP center's operating costs. In year four it is 40 percent and limited to one third the total operating cost thereafter. Federal funding for the MEP program in Fiscal Year 2000 was $104.8 million.

IV. SUMMARY OF HEARINGS

On September 23, 1999, the Subcommittee on Technology held a hearing entitled "Small Manufacturers and the Challenges of the New Millenium." The hearing examined the challenges facing small manufacturers in the 21st Century and reviewed the appropriate role of government, industry, and academia in helping to ensure continued growth in the important sector of our economy. Witnesses included, The Honorable Ray Kammer, Director, National Institute of Standards and Technology, Gaithersburg, MD; Mr. Jerry Jasinowski, President, National Association of Manufacturers, Washington, DC; Mr. John Churchill, Quality Assurance Director, Wilcoxin Research, Gaithersburg, MD; Mr. Norm Braddock, President, Saginaw Remanufacturing, Saginaw, MI.

Mr. Raymond Kammer testified the National Institute of Standards and Technology (NIST), the National Association of Manufacturers Forum had recently convened a national summit on small manufacturing in Washington, DC. The Summit examined four topics of importance to small manufacturers: electronic commerce, workforce, international trade, and sustainable manufacturing. He also stated that NIST's Manufacturing Extension Partner (MEP)

program provides hands-on assistance to small manufacturers. He said that through the MEP network of local extension centers, which are each linked to public and private organizations with complementing expertise, small manufacturers have access to comprehensive sets of technology and business assistance. He also gave examples of specific small manufacturing companies that have been assisted by MEP. Finally, Mr. Kammer described other programs at NIST, such as the Measurements and Standards Laboratories, that help benefit small manufacturers.

Mr. Jerry Jasinowski discussed in detail the four topics addressed at the National Summit on Small Manufacturing. He said the number one issue facing small manufacturing is finding qualified workers to fill employment slots. He said many small manufacturers want to hire more minorities and older Americans but lack the resources to adequately train them. On the subject of eCommerce, Mr. Jasinowski suggested that NIST MEP institute a website that will provide small manufacturers with advice on getting started in eCommerce. Mr. Jasinowski testified that many small manufacturers were not participating to their fullest extent in international trade because of daunting trade barriers. He said programs such as the Export-Import bank were important for small manufacturers. Mr. Jasinowski also said that we need greater flexibility and cooperation in environmental quality enhancement between the Federal Government and the private sector. Finally, he stated that he supported the work of NIST MEP and looked forward to working in partnership with them to ensure small manufacturers continue to thrive.

Mr. John Churchill stated that he had utilized the services of his local MEP affilated office on many occasions. He testified that advise from the MEP affiliate helped to decrease his company's products failure rates and product warrant returns, thus affecting about 50 percent of their sales.

Mr. Norm Braddock described for the Subcommittee his experience with the Saginaw Valley State University's Center for Manufacturing Improvement (an affiliate of Michigan MEP). He stated that their expertise helped him to better understand how the production process contributes to the overall cost of the product, thus allowing him to provide more accurate quotes to potential customers. Mr. Braddock testified that he gained a great deal of knowledge from the national summit and appreciated the opportunity to discuss with other small manufacturers ways to improve their businesses. He also stressed the importance and difficulties facing small manufacturers coming "on-line."

On June 22, 2000 the Subcommittee on Technology held a hearing entitled, "E-commerce: A Review of Standards and Technology to Support Interoperability." This hearing examined the impact of standards and emerging technologies that support electronic commerce. Witnesses included: Dr. Karen Brown, Deputy Director, National Institute of Standards and Technology, Gaithersburg, MD; Mr. Keith Krach, Chief Executive Officer and Chairman of the Board, Ariba, Inc., Mountain View, CA; Mr. Ken Baker, President, ERIM, Ann Arbor, MI.

Dr. Karen Brown, Deputy Director, National Institute of Standards and Technology, discussed NIST's role in eCommerce, which is to work closely with the private sector and to provide tools such

as: measurements and standards for the hardware, software and networks that comprise the eCommerce infrastructure; direct hands-on assistance through MEP to U.S. small manufactures who need help to thrive in the eCommerce economy; and co-funding private sector research through the ATP to develop new technologies that will enable future advances in the eCommerce infrastructure. NIST is leading the global effort to develop the Advanced Encryption Standard, which will be used to ensure that encrypted sensitive documents can not be decoded by anyone but the intended parties. They are also helping to develop Public Key Infrastructure (PKI) standards that ensure accurate identification of the parties in an Internet transaction. Dr. Brown states that NIST has proposed a FY 2001 eCommerce initiative with three components: MEP eCommerce outreach ($9 million plus $6 million reprogramming, totaling $15 million), Manufacturing Interoperability ($4 million), and Wireless Technologies ($1 million).

Mr. Keith Krach, Chief Executive Officer and Chairman of the Board, Ariba Inc., stated that business to business eCommerce spending is necessary spending, not discretionary. It enables small companies to leverage the Internet economy by giving them a chance to work with larger businesses that they might have never encountered. Furthermore, Mr. Krach believes that the Federal Government could support business to business eCommerce by becoming a broad user of eCommerce and derive many of the same benefits that businesses gain. In closing Mr. Krach believes that Government's information technology spending should be directed towards implementing the infrastructure that will enable the Government to participate in the business-to-business marketplace.

Mr. Ken Baker, President, ERIM, testified that the problem of interoperability in the U.S. industrial supply chain costs the American automotive industry more than $1 billion each year. ERIM's center for Electronic Commerce has been working on interoperability issues for over 10 years. They have also worked with the Automotive Industry Action Group (AIAG) and NIST to conduct pilots to improve the quality and timeliness of data exchange among current automotive manufactures and their suppliers. Mr. Baker added that the industry lacks the third party leadership to reach common agreement on standards.

V. COMMITTEE ACTIONS

On July 26, 2000, the Committee on Science convened to mark-up H.R. 4429, The Electronic Commerce Enhancement Act of 2000. A substitute amendment was offered and adopted by voice vote. No additional amendments were offered to the substitute.

1. Mrs. Morella and Mr. Barcia offered a substitute amendment making several changes to the bill. The substitute streamlines the findings contained in the original text, modifies the make-up of the Advisory Panel to allow the Director of NIST to select relevant outside parties to participate on the Advisory Panel rather than name specific organizations in the bill, and better defines the goals of the electronic commerce pilot program. In addition, the substitute creates a new title to the bill to address the issue of enterprise integration. The new title requires the Director of NIST to conduct an assessment to identify critical enterprise integration standards and implementation activities for major manufacturing industries un-

derway in the United States and to report to Congress within 90 days of enactment on these matters. The new title also requires the Director of NIST within 180 days of enactment of the bill to submit a plan for enterprise integration for each major manufacturing industry, including milestones for NIST's part of the plan, and anticipated costs to the Government and industry by fiscal year. Finally, the new title requires yearly updates of these plans until the Director of NIST determines that enterprise integration for a particular industry has been achieved. The substitute was adopted by voice vote.

With a quorum present, Mr. Hall moved the H.R. 4429, as amended, be reported. The motion was adopted by a voice vote.

VI. SUMMARY OF MAJOR PROVISIONS OF THE BILL

Major provisions of H.R. 4429 are directed towards assisting small and medium-sized manufacturers to successfully integrate eCommerce into their business practices. The legislation:

1. Requires the Director of the National Institute of Standards and Technology (NIST) to establish an Advisory Panel to report on the challenges facing small and medium size manufacturers in integrating and utilizing electronic commerce technologies. The Advisory Panel is to be comprised of representatives of the technology Administration, the NIST's Manufacturing Extension Partnership (MEP) program, the Small Business Administration, and other relative parties as identified by the Director.

2. Requires the Advisory Panel to submit an initial report within 12 months from the date of enactment of the bill to the Director of NIST, the House Science Committee, and the Senate Committee on Commerce, Science, and Transportation detailing the Advisory Panel's preliminary findings and recommendations.

3. Requires the Advisory Panel to issue a final report to the Director of NIST, the House Science Committee, and the Senate Committee on Commerce, Science, and Transportation within 18 months of enactment of the Act. Requires the report to contain a three-year planning document for NIST's MEP program in the field of electronic commerce.

4. Allows the NIST MEP program, in conjunction with the Small Business Administration, to establish a pilot program to assist small and medium-sized manufacturers and other businesses in integrating and utilizing electronic commerce technologies and business practices. Requires the program to be implemented through a competitive grants program to be awarded among the existing MEP Regional Centers. Directs the MEP program to consult with the Advisory Panel and utilize the Advisory Panel's reports.

5. Requires the Director to conduct an assessment to identify critical enterprise integration standards and implementation activities for major manufacturing industries underway in the U.S. Working in consultation with industry representatives, the Director will identify the current state of enterprise integration within the industry and detail the remaining steps to be taken in achieving enterprise integration. Requires the Director within 90 days after the date of enactment of the bill to report to Congress on these matters and on anticipated related NIST activities for the current fiscal year.

6. Requires the Director within 180 days after the date of enactment of the bill to submit a plan to Congress for enterprise integration for each major manufacturing industry, including milestones for NIST's part of the plan, and anticipated costs to the Government and industry by fiscal year. Requires that updates of the plans and a progress report for the past year shall be submitted annually until for a given industry, in the option of the Director, enterprise integration has been achieved.

VII. SECTION-BY-SECTION ANALYSIS (BY TITLE AND SECTION)

Section 1. Short title

The Act's title is the "Electronic Commerce Enhancement Act of 2000."

Title I: Electronic Commerce

Section 101. Findings

The Congress finds the following:

(1) Commercial transactions on the Internet, whether retail business-to-customer or business-to-business, are commonly called electronic commerce.

(2) In the United States, business-to-business transactions between small and medium-sized manufacturers and other such business and their suppliers is rapidly growing, as many of these businesses begin to use Internet connections for supply-chain management, after-sales support, and payments.

(3) Small and medium-sized manufacturers and other such businesses play a critical role in the United States economy.

(4) Electronic commerce can help small and medium-sized manufacturers and other such businesses develop new products and markets, interact more quickly and efficiently with suppliers and customers, and improve productivity by increasing efficiency and reducing transaction costs and paperwork. Small and medium-sized manufacturers and other such businesses who fully exploit the potential of electronic commerce activities can use it to interact with customers, suppliers, and the public, for external support functions such as personnel services and employee training.

(5) The National Institute of Standards and Technology's Manufacturing Extension Partnership program has a successful record assisting small and medium-sized manufacturers and other such businesses. In addition, the Manufacturing Extension Partnership program, working with the Small Business Administration, successfully assisted United States small enterprises in remediating their Y2K computer problems.

(6) A critical element of electronic commerce is the ability of different electronic commerce systems to exchange information. The continued growth of electronic commerce will be enhanced by the development of private voluntary interoperability standards and testbeds to ensure the compatibility of different systems.

Section 102. Report on the utilization of electronic commerce

(a) Requires the Director of the National Institute of Standards and Technology (NIST) to establish an Advisory Panel to report on the challenges facing small and medium size businesses in integrating and utilizing electronic commerce technologies. The advi-

sory Panel is to be comprised of representatives of the Technology Administration, the NIST's Manufacturing Extension Partnership (MEP) program, the Small Business Administration, and other relative parties as identified by the Director.

(b) Requires the Advisory Panel to submit an initial report within 12 months from the date of enactment of the bill to the Director of NIST, the House Science Committee, and the Senate Committee on Commerce, Science, and Transportation. The report should:

(1) describe the current utilization of electronic commerce practices by small and medium-size manufacturers and other businesses, detailing the different levels between business-to-retail customers and business-to-business transactions;

(2) describe and assess the utilization and need for encryption and electronic authentication technologies, and the security needs for electronically stored data in electronic commerce for small and medium-sized manufacturers and other businesses;

(3) identify the impact and problems of interoperability to electronic commerce, and include an economic assessment; and

(4) include a preliminary assessment of the appropriate role of, and recommendations for, NIST's MEP program to assist small and medium-sized manufacturers and other businesses to integrate and utilize electronic commerce technologies and business practices.

(c) Requires the Advisory Panel to issue a final report to the Director of NIST, the House Science Committee, and the Senate Committee on Commerce, Science, and Transportation within 18 months of enactment of the Act. The final report shall include:

(1) a three-year planning document for the NIST MEP program in the field of electronic commerce; and

(2) recommendations, if necessary, for NIST to address interoperability issues in the field of electronic commerce.

Committee views

The Committee believes that NIST can play an important role in assisting small and medium-sized manufacturers in integrating and utilizing electronic commerce technologies. By creating the Advisory Panel, the Committee intends this body to be an independent entity that can provide guidance to the Director of NIST in deciding the best programs and policies to implement that will be most beneficial to small and medium-sized manufacturers. The Committee believes that the Director should draw heavily on the expertise of outside, private sector entities in creating the Advisory Panel. The preliminary report required by the legislation should address the needs of the industry and should be relied upon in drafting a more complete plan for future NIST activities in this area. The Committee has included a requirement that the Advisory Panel include a three-year planning document for NIST in its final report. The Committee believes it is important for NIST to have a solid plan in place before moving forward with any initiatives to help small and medium-sized manufacturers in electronic commerce.

Section 103. Electronic Commerce Pilot Program

Allows the NIST MEP program, in conjunction with the Small Business Administration, to establish a pilot program to assist small and medium-sized manufacturers and other businesses in integrating and utilizing electronic technologies and business practices. Requires the program to be implemented through a competitive grants program to be awarded among the existing MEP Regional Centers. Directs the MEP program to consult with the Advisory Panel and utilize the Advisory Panel's reports.

Committee views

The purpose of the pilot program is to create a testbed for different practices and ideas to determine which work best. The pilot program should take into account the regional needs of different manufacturing sectors. Rather than put in place a one-size-fits-all federal program, the Committee believes the pilot program can be used to determine which practices work best in each geographic and industry sector. It is the intent of the Committee that no single MEP Regional Center is singled-out for participation in the pilot program through this legislation, but that the program is implemented through a competitive awards process. The Committee does not intend, nor does it support, the creation of any new MEP Regional Centers to take part in the pilot program. The legislation does not authorize new federal dollars to implement the pilot program and it is the intent of the Committee that it be funded utilizing existing MEP funding.

Title II—Enterprise Integration

Section 201. Enterprise integration assessment and plan

(a) Requires the Director to conduct an assessment to identify critical enterprise integration standards and implementation activities for major manufacturing industries underway in the U.S. Working in consultation with industry representatives, the Director will identify the current state of enterprise integration within the industry and detail the remaining steps to be taken in achieving enterprise integration. Requires the Director within 90 days after the date of enactment of the bill to report to Congress on these matters and on anticipated related NIST activities for the current fiscal year.

(b) Requires the Director within 180 days after the date of enactment of the bill to submit a plan to Congress for enterprise integration for each major manufacturing industry, including milestones for NIST's part of the plan, and anticipated costs to the Government and industry by fiscal year. Requires that updates of the plans and a progress report for the past year shall be submitted annually until for a given industry, in the opinion of the Director, enterprise integration has been achieved.

Committee views

Preliminary evidence indicates that adoption of electronic commerce based supply chains can significantly reduce business costs in the manufacturing industry. The Committee believes the assessment required in this section of the legislation will help to better determine the importance of enterprise integration and how it im-

pacts small and medium-sized manufacturers. Working together with industry, the Committee believes NIST should develop a concrete plan before moving forward with any enterprise integration initiatives. The legislation requires, and the Committee expects, NIST to submit its findings to Congress and to provide an annual update to Congress on any activities NIST plans to undertake in a given fiscal year regarding enterprise integration.

Section 202. Definitions

1. The term "Director" means the Director of the National Institute of Standards and Technology.

2. The term "enterprise integration" means the electronic linkage of manufacturers, assemblers, and suppliers to enable the electronic exchange of product, manufacturing, and other business data among all businesses in a product supply chain, and such terms include related application protocols and other related standards.

3. The term "major manufacturing industry" includes the aerospace, automotive, electronics, ship building, construction, home building, furniture, textile, and apparel industries and such other industries as the Director designates.

VIII. COST ESTIMATE

Rule XIII, clause 3(d)(2) of the House of Representatives requires each committee report accompanying each bill or joint resolution of a public character to contain: (1) an estimate, made by such committee, of the costs which would be incurred in carrying out such bill or joint resolution in the fiscal year in which it is reported, and in each of the five fiscal years following such fiscal year (or for the authorized duration of any program authorized by such bill or joint resolution, if less than five years); (2) a comparison of the estimate of costs described in subparagraph (1) of this paragraph made by such committee with an estimate of such costs made by any Government agency and submitted to such committee; and (3) when practicable, a comparison of the total estimated funding level for the relevant program (or programs) with the appropriate levels under current law. However, House rule XIII, clause 3(d)(3)(B) provides that this requirement does not apply when a cost estimate and comparison prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974 has been timely submitted prior to the filing of the report and included in the report pursuant to House rule XIII, clause 3(c)(3). A cost estimate and comparison prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974 has been timely submitted to the Committee on Science prior to the filing of this report and is included in this report pursuant to House rule XIII, clause 3(c)(3).

Rule XIII, clause 3(c)(2) of the House of Representatives requires each committee report that accompanies a measure providing new budget authority (other than continuing appropriations), new spending authority, or new credit authority, or changes in revenues or tax expenditures to contain a cost estimate, as required by section 308(a)(1) of the Congressional Budget Act of 1974 and, when practicable with respect to estimates of new budget authority, a comparison of the total estimated funding level for the relevant program (or programs) to the appropriate levels under current law.

H.R. 4429 does not contain any new budget authority, credit authority, or changes in revenues or tax expenditures. H.R. 4429 does not authorize additional discretionary spending.

IX. CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, August 22, 2000.

Hon. F. JAMES SENSENBRENNER, Jr.,
Chairman, Committee on Science,
House of Representatives, Washington, DC.

DEAR MR. CHAIRMAN: As you requested, the Congressional Budget Office has prepared the enclosed cost estimate for H.R. 4429, the Electronic Commerce Enhancement Act of 2000.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contacts are Taman Morris and Kathleen Gramp.

Sincerely,

STEVEN LIEBERMAN
(For Dan L. Crippen, Director).

Enclosure.

H.R. 4429—Electronic Commerce Enhancement Act of 2000

Summary: H.R. 4429 would authorize the National Institute of Standards and Technology (NIST) to implement various initiatives related to electronic commerce. The bill would direct NIST to establish an advisory board on challenges facing small and medium-sized businesses in using electronic commerce technology and require that the board submit several reports within 18 months after enactment. The bill also would direct NIST to help small and medium-sized companies incorporate electronic commerce technologies in their business practices through a pilot program that would be implemented by grants to Manufacturing Extension Partnership (MEP) centers. Other provisions would direct NIST to assess standards and protocols for electronically integrating data among major manufacturing enterprises.

CBO estimates that implementing the bill would cost $10 million over the 2001–2005 period, assuming appropriation of the necessary amounts. H.R. 4429 would not affect direct spending or receipts; therefore, pay-as-you-go procedures would not apply. The bill contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would have no impact on state, local, or tribal governments.

Estimated cost to the Federal Government: The estimated budgetary impact of H.R. 4429 is shown in the following table. For this estimate, CBO assumes that H.R. 4429 will be enacted near the start of fiscal year 2001 and that the necessary amounts will be appropriated each year. Estimated outlays are based on historical spending patterns for NIST and information provided by the agency. The cost of this legislation would fall within budget function 370 (commerce and housing credit).

	By fiscal year, in millions of dollars—				
	2001	2002	2003	2004	2005
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
Estimated Authorization Level	6	4	0	0	0
Estimated Outlays	1	4	3	1	1

According to NIST, most of the activities authorized by this bill would be implemented in fiscal years 2001 and 2002 and would cost a total of about $10 million. Of that total, about $1 million would be used in 2001 to administer both the advisory board and the electronic commerce pilot program. CBO estimates that NIST would dedicate $4 million in each of the fiscal years 2001 and 2002 for grants to MEP centers as part of the pilot program. Finally, we estimate that another $1 million would be needed in 2001 to evaluate standards for data integration among industries.

Pay-as-you-go considerations: None.

Integovernmental and private-sector impact: H.R. 4429 contains no intergovernmental or private-sector mandates as defined in UMRA and would not affect the budgets of state, local, or tribal governments.

Estimate prepared by: Federal costs: Taman Morris and Kathleen Gramp; impact on State, local, and tribal governments: Victoria Heid Hall; impact on the private sector: Lauren Marks.

Estimate approved by: Peter H. Fontaine, Deputy Assistant Director for Budget Analysis.

X. COMPLIANCE WITH PUBLIC LAW 104–4

H.R. 4429 contains no unfunded mandates.

XI. COMMITTEE OVERSIGHT FINDINGS AND RECOMMENDATIONS

Rule XIII, clause 3(c)(1) of the House of Representatives requires each committee report to include oversight findings and recommendations required pursuant to clause 2(b)(1) of rule X. The Committee on Science's oversight findings and recommendations are reflected in the body of this report.

XII. OVERSIGHT FINDINGS AND RECOMMENDATIONS BY THE COMMITTEE ON GOVERNMENT REFORM

Rule XIII, clause 3(c)(4) of the House of Representatives requires each committee report to contain a summary of the oversight findings and recommendations made by the House Government Reform Committee pursuant to clause 4(c)(2) of rule X, whenever such findings and recommendations have been submitted to the Committee in a timely fashion. The Committee on Science has received no such findings or recommendations from the Committee on Government Reform.

XIII. CONSTITUTIONAL AUTHORITY STATEMENT

Rule XIII, clause 3(d)(1) of the House of Representatives requires each report of a committee on a bill or joint resolution of a public character to include a statement citing the specific powers granted to the Congress in the Constitution to enact the law proposed by the bill or joint resolution. Article I, section 8 of the Constitution

of the United States grants Congress the authority to enact H.R. 4429.

XIV. FEDERAL ADVISORY COMMITTEE STATEMENT

The functions of the advisory committee established by H.R. 4429 are not currently being nor could they be performed by one or more agencies or by enlarging the mandate of another existing advisory committee.

XV. CONGRESSIONAL ACCOUNTABILITY ACT

The Committee finds that H.R. 4429 does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104–1).

XVI. STATEMENT ON PREEMPTION OF STATE, LOCAL, OR TRIBAL LAW

This bill is not intended to preempt any state, local, or tribal law.

XVII. CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

Clause 3 of rule XIII of the Rules of the House of Representatives requires that changes in existing law made by the bill, as reported, be included in the report.

This bill makes no direct amendments to any Act.

XVIII. COMMITTEE RECOMMENDATIONS

On July 26, 2000, a quorum being present, the Committee on Science favorably reported H.R. 4299, The Electronic Commerce Enhancement Act of 2000, by a voice vote, and recommends its enactment.

XIX. PROCEEDINGS OF THE FULL COMMITTEE MARKUP

BUSINESS MEETING

WEDNESDAY, JULY 26, 2000

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE,
Washington, DC.

The committee met, pursuant to call, at 2:04 p.m. in room 2318, Rayburn House Office Building, Hon. F. James Sensenbrenner, Jr. [chairman of the committee] presiding.

Chairman SENSENBRENNER. The Committee on Science will come to order.

The Chair notes the presence of a working quorum. And pursuant to notice, the Committee on Science will consider today the following measures: First, H.R. 2413, the Computer Security Enhancement Act of 1999, as amended by the Subcommittee on Technology; H.R. 4429, the Electronic Commerce Enhancement Act of 2000; and H.R. 4271, the National Science Education Act.

At this time, I ask unanimous consent for the authority to recess at any point. And without objection, it is so ordered.

We will now consider H.R. 2413, the Computer Security Enhancement Act of 1999, as amended by the Subcommittee on Technology. And the Subcommittee Chair is not here.

So, we will try the next bill, which is H.R. 4429, the Electronic Commerce Enhancement Act of 2000. Does the gentleman from Texas move to adjourn?

Mr. HALL. It would be a good idea. [Laughter.]

Chairman SENSENBRENNER. Well, let's do H.R. 4429. This should go fairly quickly. Yes? You are asking me to put aside a Democratic bill for a Republican bill? Let's do the Democratic bill, okay.

This bill was introduced by the Ranking Member of the Technology Subcommittee, Mr. Barcia, and the Chairman of the Energy and Environment Subcommittee, Mr. Calvert, on May 11th of this year. The legislation addresses the needs of small and medium-sized manufacturers in implementing the successful electronic commerce business practices. I would ask unanimous consent that all members may submit opening statements at this point.

[A copy of the bill H.R. 4429 follows:]

I

106TH CONGRESS
2D SESSION

H. R. 4429

To require the Director of the National Institute of Standards and Technology to assist small and medium-sized manufacturers and other such businesses to successfully integrate and utilize electronic commerce technologies and business practices.

IN THE HOUSE OF REPRESENTATIVES

MAY 11, 2000

Mr. BARCIA (for himself, Mr. DOYLE, Mr. UDALL of Colorado, and Mr. CALVERT) introduced the following bill; which was referred to the Committee on Science

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A BILL

To require the Director of the National Institute of Standards and Technology to assist small and medium-sized manufacturers and other such businesses to successfully integrate and utilize electronic commerce technologies and business practices.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Electronic Commerce Enhancement Act of 2000".

SEC. 2. FINDINGS.

The Congress finds the following:

(1) Commercial transactions on the Internet, whether retail business-to-customer or business-to-business, are commonly called electronic commerce.

(2) One of the fastest growing sectors of electronic commerce is business-to-business transactions. By 2003 it is expected that business-to-business transactions will amount to more than 10 times the amount of $131,000,000,000 estimated to have been reached in 1999.

(3) In the United States, business-to-business transactions between small and medium-sized manufacturers and other such businesses and their suppliers is rapidly growing, as many of these businesses begin to use Internet connections for supply-chain management, after-sales support, and payments.

(4) Small and medium-sized manufacturers and other such businesses play a critical role in the United States economy. The Federal Government should assist, as appropriate, small and medium-sized manufacturers and other such businesses in implementing electronic commerce technologies and business practices so they can be competitive in international markets.

(5) Electronic commerce can help small and medium-sized manufacturers and other such businesses develop new products and markets, interact more quickly and efficiently with suppliers and customers, and improve productivity by increasing efficiency and reducing transaction costs and paperwork. Small and medium-sized manufacturers and other such businesses who fully exploit the potential of electronic commerce activities can use it to interact with customers, suppliers, and the public, and for external support functions such as personnel services and employee training.

(6) The National Institute of Standards and Technology's Manufacturing Extension Partnership program has a successful record of assisting small and medium-sized manufacturers and other such businesses. In addition, the Manufacturing Extension Partnership program, working with the Small Business Administration, successfully assisted United States small enterprises in remediating their Y2K computer problems.

(7) A critical element of electronic commerce is the ability of different electronic commerce systems to exchange information. The continued growth of electronic commerce will be enhanced by the develop-

ment of private voluntary interoperability standards and testbeds to ensure the compatibility of different systems.

SEC. 3. REPORT ON THE UTILIZATION OF ELECTRONIC COMMERCE.

(a) ADVISORY PANEL.—The Director of the National Institute of Standards and Technology (in this Act referred to as the "Director") shall establish an Advisory Panel to report on the challenges facing small and medium-sized manufacturers and other such businesses in integrating and utilizing electronic commerce technologies and business practices. The Advisory Panel shall be comprised of representatives of the Technology Administration, the National Institute of Standards and Technology's Manufacturing Extension Partnership program established under sections 25 and 26 of the National Institute of Standards and Technology Act (15 U.S.C. 278k and 278l), the Small Business Administration, the Modernization Forum, the United States Chamber of Commerce, the National Association of Manufacturers, and other relevant parties as identified by the Director.

(b) INITIAL REPORT.—Within 12 months after the date of enactment of this Act, the Advisory Panel shall report to the Director and to the Committee on Science of the House of Representatives and the Committee on

Commerce, Science, and Transportation of the Senate on the immediate requirements of small and medium-sized manufacturers and other such businesses to integrate and utilize electronic commerce technologies and business practices. The report shall—

(1) describe the current utilization of electronic commerce practices by small and medium-sized manufacturers and other such businesses, detailing the different levels between business-to-retail customer and business-to-business transactions;

(2) describe and assess the utilization and need for encryption and electronic authentication components and electronically stored data security in electronic commerce for small and medium-sized manufacturers and other such businesses;

(3) identify the impact and problems of interoperability to electronic commerce, and include an economic assessment; and

(4) include a preliminary assessment of the appropriate role of, and recommendations for, the Manufacturing Extension Partnership program to assist small and medium-sized manufacturers and other such businesses to integrate and utilize electronic commerce technologies and business practices.

(c) FINAL REPORT.—Within 18 months after the date of enactment of this Act, the Advisory Panel shall report to the Director and to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a 3-year assessment of the needs of small and medium-sized manufacturers and other such businesses to integrate and utilize electronic commerce technologies and business practices. The report shall include—

(1) a 3-year planning document for the Manufacturing Extension Partnership program in the field of electronic commerce; and

(2) recommendations, if necessary, for the National Institute of Standards and Technology to address interoperability issues in the field of electronic commerce.

SEC. 4. ELECTRONIC COMMERCE PILOT PROGRAM.

The National Institute of Standards and Technology's Manufacturing Extension Partnership program, in consultation with the Small Business Administration, shall establish a pilot program to assist small and medium-sized manufacturers and other such businesses in integrating and utilizing electronic commerce technologies and business practices. Such program shall be implemented through a competitive grants program for existing

Regional Centers for the Transfer of Manufacturing Technology established under section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k). In carrying out this section, the Manufacturing Extension Partnership program shall consult with the Advisory Panel and utilize the Advisory Panel's reports.

Chairman SENSENBRENNER. And at this time, I yield to the gentleman from Texas, Mr. Hall, for whatever statement he would like to make.

Mr. HALL. Mr. Chairman, thank you. I also consider H.R. 4429 to be very important legislation and wish to compliment Congressman Barcia for his persistence in focusing the Committee on the impacts that electronic commerce is having on small business throughout our country.

Competing as a small businessman can be very tough under the best of circumstances, and it gets just that much harder during times of rapid change. Today, computers and e-commerce are turning many small businessmen's world on its head. And I compliment Mr. Barcia and his cosponsors for writing legislation to make sure that the small businesses have the information and expertise available to them through the Manufacturing Extension Program to make intelligent decisions as they move into the Internet.

Congressmen Barcia, Rivers, and Stabenow have also introduced H.R. 4906 this week that aggressively addresses another small business problem that is just around the corner. According to recent testimony before the Technology Subcommittee, European governments are spending over $45 million per year to develop standards that will permit companies to exchange manufacturing data instantaneously and, in effect, establish vital manufacturing enterprises.

H.R. 4906 provides for a meaningful U.S. role in the development of these standards and for developing the tools that small businesses will need to participate in this new way of doing business. Two subsections from H.R. 4906 are being added to the bill before us, and we appreciate the Chairman's willingness to work with us further on this important problem as the legislation progresses.

At this time, I yield the balance of my time to Mr. Barcia.

[The prepared statement of Mr. Hall follows:]

STATEMENT OF HON. RALPH M. HALL

Mr. Chairman, I also consider H.R. 4429 to be very important legislation and wish to complement Congressman Barcia for his persistence in focusing this Committee on the impacts that electronic commerce is having on small businesses throughout this country. Competing as a small businessman can be tough under the best of circumstances and it gets just that much harder during times of rapid change. Today, computers and e-commerce are turning many small businessmen's worlds on their heads.

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I yield the balance of my time to Mr. Barcia.

Mr. BARCIA. Thank you very much, Ranking Member Hall. I want to begin by thanking Chairman Sensenbrenner, yourself, and Chairwoman Morella for bringing this bill before the Committee.

H.R. 4429, the Electronic Commerce Enhancement Act, is a bipartisan effort to assist small and medium-sized manufacturers bring their businesses on line. I introduced this bill, along with Representatives Calvert, Baird, Doyle, and Udall, earlier this year. This bill is the result of Technology Subcommittee hearings and a district event I held on the e-commerce needs of small and medium-sized manufacturers.

As large companies move their business transactions on line, small manufacturers must go on line, too. Unfortunately, many of these smaller manufacturers do not have the information they need to make informed decisions on e-commerce-related purchases and services. As one small manufacturer put it, "I know whether I need a $20,000 or a $30,000 truck. But I do not have any idea of whether I need a $5,000 or a $50,000 e-mail server."

The goal of this legislation is to provide our small businesses with the information and knowledge they need to make these business decisions. This bill builds upon the successful Manufacturing Extension Partnership, or MEP program. The bill authorizes the establishment of an advisory panel to determine the e-commerce needs of small businesses. The panel will then report to Congress on its findings and will prepare a planning document for the MEP to follow. The MEP, working with this advisory panel, will begin to establish a pilot program at MEP centers. The goal of this pilot program is to allow MEP centers to provide small manufacturers with the information they need to make informed purchases of e-commerce products and services.

I want to thank Chairwoman Morella for the series of hearings she has held on e-commerce during the past year. These hearings focused my attention on this issue and highlighted the challenges facing our small manufactures. I believe this bill represents sound and reasonable policy and builds upon the successful track record of the Manufacturing Extension Partnership program, and I urge my colleagues to support it. Thank you very much, Mr. Chairman.

Chairman SENSENBRENNER. The gentleman from Texas has 40 seconds left. Do you yield back?

Mr. HALL. Unless the gentleman wants to make a motion about his bill.

Chairman SENSENBRENNER. Well, we have got one amendment we have got to offer.

Mr. HALL. I yield back my time. Thank you, Mr. Chairman.

Chairman SENSENBRENNER. The one amendment the Chair is aware of is an amendment in the nature of a substitute by Mrs. Morella and Mr. Barcia. And at this time, the Chair recognizes the gentlewoman from Maryland in order to offer her substitute.

Mrs. MORELLA. Thank you, Mr. Chairman. I have an amendment at the desk.

Chairman SENSENBRENNER. The Clerk will report the amendment.

The CLERK. Amendment in the nature of a substitute to H.R. 4429, offered by Mrs. Morella and Mr. Barcia.

Mrs. MORELLA. Mr. Chairman, I move that the amendment be considered as read.

Chairman SENSENBRENNER. Without objection.

Mrs. MORELLA. Thank you.

Chairman SENSENBRENNER. The gentlewoman is recognized for five minutes.

Mrs. MORELLA. Thank you. I want to thank the Chairman for convening this markup of H.R. 4429, the Electronic Commerce Enhancement Act of 2000. I want to thank my colleague, Mr. Barcia, for the work that he has done and for introducing this important legislation, and the other cosponsors, and this Committee, and our Technology Subcommittee.

As amended by the substitute, H.R. 4429 seeks to help small and medium-sized manufacturers from across the country to fully integrate and utilize electronic commerce in their everyday business practices. Last fall, the Technology Subcommittee convened a hearing looking at the challenges and the opportunities facing small and medium-sized manufacturers in the coming decade, and implementing successful electronic commerce strategies emerged as one of the industry's top priorities. We had a number of small manufacturers testify as well as the president of the National Association of Manufacturers, Mr. Jerry Jazonowski. They all agreed that we need to address this issue and that NIST can play an important role in helping to achieve this goal.

So I urge my colleagues to join in supporting the Electronic Commerce Enhancement Act of 2000, this substitute amendment.

I yield back, Mr. Chairman.

[The amendment in the nature of a substitute offered by Mrs. Morella follows:]

Chairman SENSENBRENNER. Any further discussion on the amendment?

The gentleman from Michigan, Mr. Barcia?

Mr. BARCIA. Mr. Chairman, I want to just take——

Chairman SENSENBRENNER. You are recognized for five minutes.

Mr. BARCIA. I certainly won't take that long. I just want to thank Chairwoman Morella and yourself for working together on this amendment and I urge its adoption. I think it is a great improvement to the bill, and I thank both of you.

Chairman SENSENBRENNER. Does the gentleman yield back.

Is there further discussion on the amendment?

[No response.]

Chairman SENSENBRENNER. Hearing none, all those in favor of the amendment in the nature of a substitute will signify by saying aye.

[Chorus of ayes.]

Chairman SENSENBRENNER. Opposed, no.

[No response.]

Chairman SENSENBRENNER. The ayes appear to have it. The ayes have it, and the amendment is agreed to.

Are there any further amendments to the bill?

[No response.]

Chairman SENSENBRENNER. If not, the Chair recognizes the gentleman from Michigan to make a motion.

Mr. BARCIA. Yes, Mr. Chairman, I move that the Committee favorably report H.R. 4429, as amended, to the House with the recommendation that the bill as amended do pass.

Further, I move that staff be instructed to prepare the legislative report and make necessary technical and conforming amendments and that the Chairman take all necessary steps to bring the bill before the House for consideration.

Chairman SENSENBRENNER. Is there any discussion on the motion of the gentleman from Michigan?

[No response.]

Chairman SENSENBRENNER. If not, the Chair notes the presence of a reporting quorum. Those in favor will signify by saying aye.

[Chorus of ayes.]

Chairman SENSENBRENNER. Opposed, no.

[No response.]

Chairman SENSENBRENNER. The ayes appear to have it. The ayes have it, and the bill is reported.

Without objection, the Chair will be given authority to move to conference pursuant to Rule 20 of the Rules of the House of Representatives, Rule 22, excuse me.

Without objection, the staff will be given the authority to make any necessary technical and conforming changes. And pursuant to the rules, any member or the minority will have two calendar days in which to submit additional dissenting or supplemental views for the Committee Report.

COMMITTEE ON SCIENCE FULL COMMITTEE MARKUP, JULY 26, 2000—AMENDMENT ROSTER FOR H.R. 4429, ELECTRONIC COMMERCE ENHANCEMENT ACT OF 2000

No. and Sponsor, description, results:
1. Mrs. Morella and Mr. Barcia, amendment in the nature of a substitute to H.R. 4429, adopted by a voice vote.

AMENDMENT IN THE NATURE OF A SUBSTITUTE TO H.R. 4429 OFFERED BY MRS. MORELLA AND MR. BARCIA

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the "Electronic Commerce Enhancement Act of 2000".

TITLE I—ELECTRONIC COMMERCE

SEC. 101. FINDINGS.

The Congress finds the following:

(1) Commercial transactions on the Internet, whether retail business-to-customer or business-to-business, are commonly called electronic commerce.

(2) In the United States, business-to-business transactions between small and medium-sized manufacturers and other such businesses and their suppliers is rapidly growing, as many of these businesses begin to use Internet connections for supply-chain management, after-sales support, and payments.

(3) Small and medium-sized manufacturers and other such businesses play a critical role in the United States economy.

(4) Electronic commerce can help small and medium-sized manufacturers and other such businesses develop new products and markets, interact more quickly and efficiently with suppliers and customers, and improve productivity by increasing efficiency and reducing transaction costs and paperwork. Small and medium-sized manufacturers and other such businesses who fully exploit the potential of electronic commerce activities can use it to interact with customers, suppliers, and the public, and for external support functions such as personnel services and employee training.

(5) The National Institute of Standards and Technology's Manufacturing Extension Partnership program has a successful record of assisting small and me-

dium-sized manufacturers and other such businesses. In addition, the Manufacturing Extension Partnership program, working with the Small Business Administration, successfully assisted United States small enterprises in remediating their Y2K computer problems.

(6) A critical element of electronic commerce is the ability of different electronic commerce systems to exchange information. The continued growth of electronic commerce will be enhanced by the development of private voluntary interoperability standards and testbeds to ensure the compatibility of different systems.

SEC. 102. REPORT ON THE UTILIZATION OF ELECTRONIC COMMERCE.

(a) ADVISORY PANEL.—The Director of the National Institute of Standards and Technology (in this title referred to as the "Director") shall establish an Advisory Panel to report on the challenges facing small and medium-sized manufacturers and other such businesses in integrating and utilizing electronic commerce technologies and business practices. The Advisory Panel shall be comprised of representatives of the Technology Administration, the National Institute of Standards and Technology's Manufacturing Extension Partnership program established under sections 25 and 26 of the National Institute of Standards and Technology Act (15 U.S.C. 278k and 278l), the Small Business Administration, and other relevant parties as identified by the Director.

(b) INITIAL REPORT.—Within 12 months after the date of enactment of this Act, the Advisory Panel shall report to the Director and to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on the immediate requirements of small and medium-sized manufacturers and other such businesses to integrate and utilize electronic commerce technologies and business practices. The report shall—

(1) describe the current utilization of electronic commerce practices by small and medium-sized manufacturers and other such businesses, detailing the different levels between business-to-retail customer and business-to-business transactions;

(2) describe and assess the utilization and need for encryption and electronic authentication components and electronically stored data security in electronic commerce for small and medium-sized manufacturers and other such businesses;

(3) identify the impact and problems of interoperability to electronic commerce, and include an economic assessment; and

(4) include a preliminary assessment of the appropriate role of, and recommendations for, the Manufacturing Extension Partnership program to assist small and medium-sized manufacturers and other such businesses to integrate and utilize electronic commerce technologies and business practices.

(c) FINAL REPORT.—Within 18 months after the date of enactment of this Act, the Advisory Panel shall report to the Director and to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a 3-year assessment of the needs of small and medium-sized manufacturers and other such businesses to integrate and utilize electronic commerce technologies and business practices. The report shall include—

(1) a 3-year planning document for the Manufacturing Extension Partnership program in the field of electronic commerce; and

(2) recommendations, if necessary, for the National Institute of Standards and Technology to address interoperability issues in the field of electronic commerce.

SEC. 103. ELECTRONIC COMMERCE PILOT PROGRAM.

The National Institute of Standards and Technology's Manufacturing Extension Partnership program, in consultation with the Small Business Administration, shall establish a pilot program to assist small and medium-sized manufacturers and other such businesses in integrating and utilizing electronic commerce technologies and business practices. The goal of the pilot program shall be to provide small and medium-sized manufacturers and other such businesses with the information they need to make informed decisions in utilizing electronic commerce-related goods and services. Such program shall be implemented through a competitive grants program for existing Regional Centers for the Transfer of Manufacturing Technology established under section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k). In carrying out this section, the Manufacturing Extension Partnership program shall consult with the Advisory Panel and utilize the Advisory Panel's reports.

TITLE II—ENTERPRISE INTEGRATION

SEC. 201. ENTERPRISE INTEGRATION ASSESSMENT AND PLAN.

(a) ASSESSMENT.—The Director shall work to identify critical enterprise integration standards and implementation activities for major manufacturing industries underway in the United States. For each major manufacturing industry, the Director shall work with industry representatives and organizations currently engaged in enterprise integration activities and other appropriate representatives as necessary. They shall assess the current state of enterprise integration within the industry, identify the remaining steps in achieving enterprise integration, and work toward agreement on the roles of the National Institute of Standards and Technology and of the private sector in that process. Within 90 days after the date of the enactment of this Act, the Director shall report to the Congress on these matters and on anticipated related National Institute of Standards and Technology activities for the then current fiscal year.

(b) PLANS AND REPORTS.—Within 180 days after the date of the enactment of this Act, the Director shall submit to the Congress a plan for enterprise integration for each major manufacturing industry, including milestones for the National Institute of Standards and Technology portion of the plan, the dates of likely achievement of those milestones, and anticipated costs to the Government and industry by fiscal year. Updates of the plans and a progress report for the past year shall be submitted annually until for a given industry, in the opinion of the Director, enterprise integration has been achieved.

SEC. 202. DEFINITIONS.

For purposes of this title—

(1) the term "Director" means the Director of the National Institute of Standards and Technology;

(2) the term "enterprise integration" means the electronic linkage of manufacturers, assemblers, and suppliers to enable the electronic exchange of product, manufacturing, and other business data among all businesses in a product supply chain, and such term includes related application protocols and other related standards; and

(3) the term "major manufacturing industry" includes the aerospace, automotive, electronics, shipbuilding, construction, home building, furniture, textile, and apparel industries and such other industries as the Director designates.

Amend the title so as to read: "A bill to require the Director of the National Institute of Standards and Technology to assist small and medium-sized manufacturers and other such businesses to successfully integrate and utilize electronic commerce technologies and business practices, and to authorize the National Institute of Standards and Technology to assess critical enterprise integration standards and implementation activities for major manufacturing industries and to develop a plan for enterprise integration for each major manufacturing industry.

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