



## Institute for Social and Economic Research



### INDUSTRY:

- Research and higher education

### CUSTOMER PROFILE:

- Produces analysis of longitudinal data
- Conducts British Household Panel Survey and its successor, Understanding Society
- Studies 100,000 individuals in 40,000 British households

### CHALLENGES:

- Sensitive research data exposure
- Compliance
- Complexity

### PKWARE SOLUTION:

- Secure movement of data
- Compliance with FIPS 140-2 and the Data Protection Act
- Standardized encryption

### RESULTS:

- Easier to receive grant funding
- Day-to-day research activities adhere to compliance regulations

### OVERVIEW

The Institute for Social and Economic Research (ISER) at the University of Essex specializes in the production and analysis of longitudinal data – evidence which tracks changes in the lives of the same people over time. ISER research makes a major contribution to the to the University of Essex’s top research ranking. Using longitudinal studies such as the British Household Panel Survey and its successor, Understanding Society, researchers at ISER focus primarily on the life-course of the individual and the changing nature of society. Their research makes a crucial contribution not just to the academic literature on these subjects, but to the decisions that are made by practitioners and policy makers around the world.

### BUSINESS GOALS

The ISER’s business goals are centered on securing sensitive research data. Understanding Society studies the socio-economic circumstances and attitudes of 100,000 individuals in 40,000 British households. The study also captures biomedical data on 20,000 participants and places it alongside rich social histories, helping weigh the extent to which peoples’ environment influences their health. Because of the sensitive nature of the data handled, security must be a part of the ISER business model. A breach or leakage of sensitive data would be disastrous to their reputation.

The ISER works closely with government departments who require compliance with FIPS 140-2. In addition, the ISER must comply with the Data Protection Act in Europe and the UK; however it didn’t want to compromise the productivity of its researchers and employees in the process of securing data to meet compliance.

## CHALLENGES

### Sensitive Research Data Exposure

As the ISER prepares the raw data for release; they apply quality control measures and make the data anonymous. The UK Data Archive, the United Kingdom's largest collection of digital research data in the social sciences and humanities, then distributes the data to the research community. While anonymity removes the risk of exposure in the main datasets that are distributed, the risk of exposure is higher in specialized datasets that are released under more stringent conditions. Over time, the ISER built a significant pool of respondents for Understanding Society who trusted them to use their information in a certain way. The reputation of the research was on the line. ISER needed to protect sensitive data from the outside.

### Compliance

FIPS 140-2 requires government agencies and organizations that exchange sensitive information with those agencies use cryptographic-based security systems to protect sensitive information. The Data Protection Act has similar encryption requirements. Collaboration with government partners would cease if the ISER couldn't prove FIPS compliance. ISER needed a solution that supports the various industry and government security regulations.

### Complexity

The ISER researchers did not want their daily workflow to be disrupted by added encryption processes. In order to reduce complexity, any added security measures needed to be streamlined into the everyday workflow of ISER researchers and employees.

## PKWARE SATISFIES THE NEED

### Secure Movement of Data

Data is securely shared within the ISER and externally with The UK Data Archive. With SecureZIP for Windows® Desktop, ISER researchers will be able to encrypt sensitive data saved on internal systems, and shared externally via email and portable media like USB drives. Strong encryption using X.509 digital certificates and/or passphrases allows the ISER flexibility in encryption options. SecureZIP provides an advantage to the ISER because it integrates into their policy framework. Administrators can easily set and enforce encryption use to align with internal governance.

## PKWARE SATISFIES THE NEED CONT...

### Compliance

With SecureZIP, the ISER will be compliant with FIPS 140-2 and the Data Protection Act. SecureZIP strongly encrypts the data itself rather than the storage device so data remains protected even if placed on removable media that is lost or stolen during transit.

### Streamlined Solution

SecureZIP was a straightforward solution. It was easy to standardize on SecureZIP as the encryption format for the movement of sensitive research data. Integration with Outlook® and Microsoft® Office helped to streamline the use of encryption. Researchers will be able to easily save documents containing sensitive data in alignment with ISER encryption requirements.

## RESULTS

The ISER will be able to tell their funders that they are using FIPS compliant encryption, making it easier to receive research grants. When the rollout to SecureZIP is complete, the ISER expects its researchers will easily be compliant with complex regulations that they may not necessarily understand because encryption functionality is integrated into the Microsoft Office tools they already use.

“ Our reputation is built on integrity of our research and the quality of our data. We must uphold our ethics responsibility to our research subjects by following the privacy principles and guidelines that were outlined for them. We can say with confidence that sensitive research data is now secure. ”

- Randy Banks, Head of Information and Data Systems/Information Security Officer



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