

# Service Management Innovations



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An electronic newsletter, published quarterly, from NetSource Partners providing insightful and innovative topics related to IT Service Management.

## Change Management - Using Digital Signature in Service Desk 4.5 for Auditing and Regulatory Compliance

This article provides insight on how to incorporate digital signatures capabilities in the change management process for companies using the HP OpenView Service Desk 4.5 Change Management module.

Trace ability and authorization of changes are very important requirements for companies that have formal change management processes. Associating digital signatures at key points in the change management process will ensure that all changes will be appropriately authorized and will leave an audit trail for trace ability purposes. Before a person can initiate a change, the person must receive authorization from all authorized reviewers. The authorized reviewers would be able to use digital signatures to authorized the change.

A process centric change management solution can leverage digital signatures to help with Sarbanes-Oxley compliance. By using the issue management and workflow support provided by a change management solution directly, any existing business process including all software development processes could be automated with direct tracking and integration of all work completed with full audit trails. Digital signature authorization could be incorporated at key stages of each business process to ensure proper authorization. Companies with strategic IT governance initiatives, or those that have to meet auditing and regulatory compliance would benefit greatly.

For example, the FDA regulation 21 CFR part 11 provides a criteria for use of digital signatures with electronic records, where digital signatures executed on electronic records are equivalent to handwritten signatures executed on paper records. This will ensure authenticity and integrity of electronic records for FDA regulated companies who use closed systems to create, modify, maintain, or transmit electronic records. Below are the requirements that need to be met for FDA 21 CFR part 11 compliance:

- Key, Signature, and cipher text generating software (PGP, Entrust, etc.).
- The signer's public and private keys certified when used for business/government security.
  1. Identities are verified by a Registration Authority (VeriSign, management, etc.)
  2. Certificates are issued by a Certification Authority (Entrust, security personnel, etc.)
  3. The certificates are attached to the corresponding public key(s).
- A record/document (text or binary).
- A means of associating the digital signature with the record.



Several companies are using digital signatures to authorize IT changes.

*“Trace ability and authorization of changes are very important requirements for companies that have formal change management processes”*

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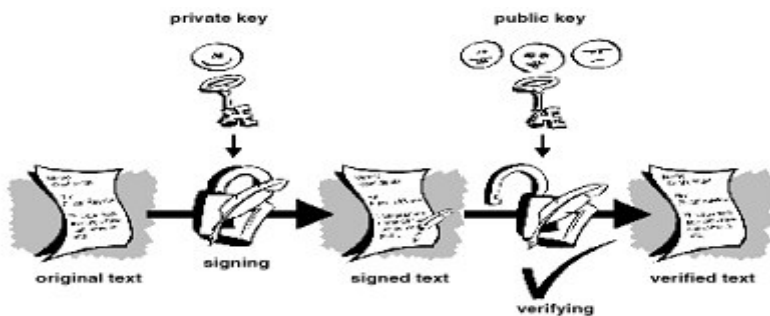
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The remainder of the article will discuss a solution and an approach developed by NetSource Partners to address FDA regulation 21 CFR part 11 for change management.

### Digital Signature Overview

Essentially, a text message is signed using a private key, which adds a digital signature to the text message. The digital signature and text message can be verified using the public key. The private key is something you keep only to yourself. You sign a document with your private key. Then, you give your public key to anyone who wants to verify your signature.

Below is a digital signature overview:



### Service Desk Digital Signature Implementation Overview

Below outlines an high level overview of digital signature implementation for Service Desk:

1. Implemented using HP Service Desk Web-APIs.
2. Current implementation relies on PGP software as cipher text generating software.
3. Allow multiple digital signatures (signers) per record.
4. Currently, allows the following fields on the change record as text to be signed:
  - ID
  - Description
  - Information
  - Solution
  - Status
  - Project
  - Manager
  - Configuration Item
  - Classification
  - Workaround

### Service Desk Administrative Tasks Overview

Below outlines an high level overview of the Service Desk administrative tasks:

1. For each organization, determine which fields will be used as part of the signed text.
2. Determine who will have the ability to sign/verify a change record.
3. Determine who will have the ability to display signers of a change record.



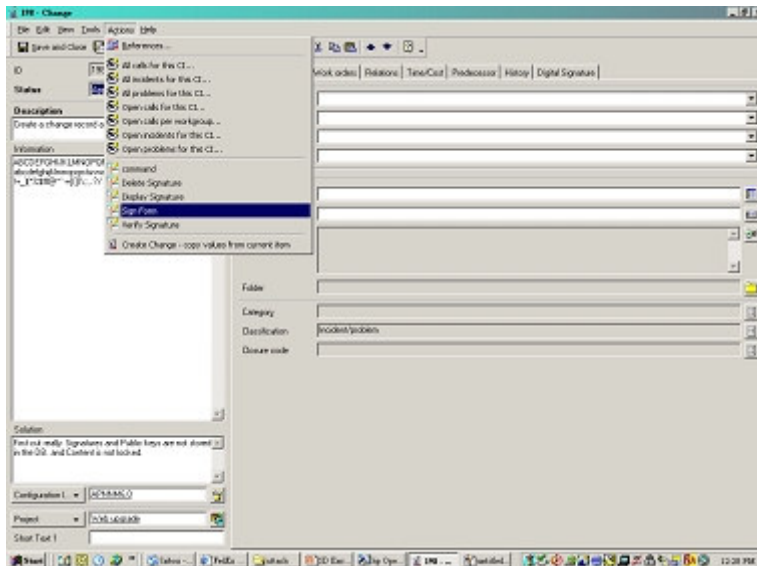
*“You sign a document with your private key. Then, you give the public key to anyone who wants to verify your signature”*

## Change Management - Using Digital Signature in Service Desk 4.5 for Auditing and Regulatory Compliance

### Sign Change Record Scenario

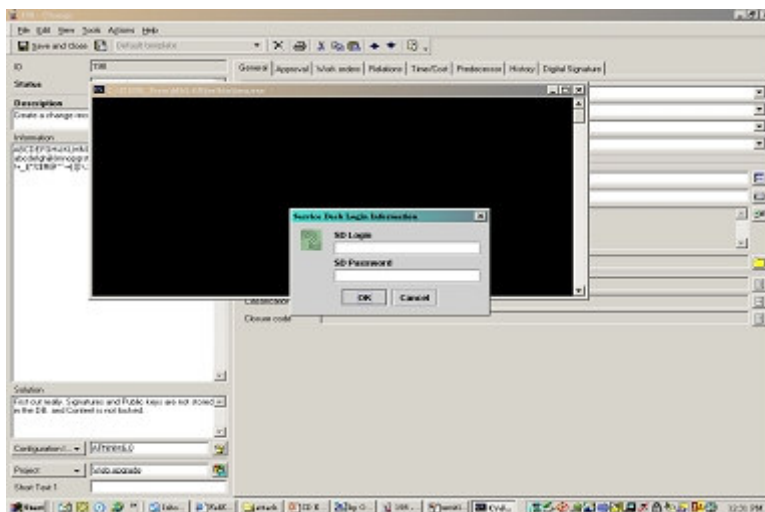
Below outlines the steps required to sign a change record:

1. A user fills out a change record in the usual way which typically includes any needed approval forms
  2. Typically, a series of reviews are needed to obtain all approvals.
  3. As part of the approval process, the reviewers sign the change record which will authorize the change.
- The user selects the “Sign Form” smart action from the Actions pull-down menu:



*“As part of the approval process, the reviewers sign the change record which will authorize the change”*

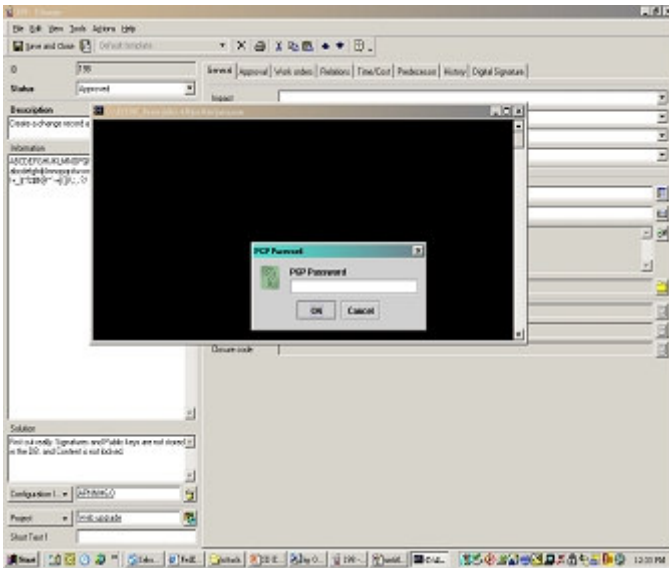
- The user enters their Service Desk login information:



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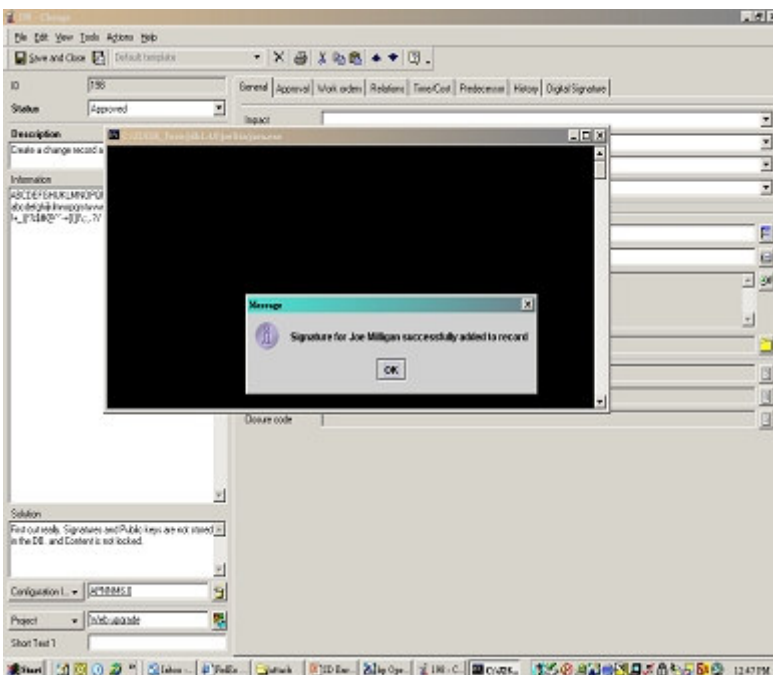


- The user then enters their PGP pass-phrase which will be used by PGP to authenticate them:



- The private key and the text from the change record will be used to generate a digital signature which is stored with the change record.

*“Allow multiple digital signatures (signers) per record”*



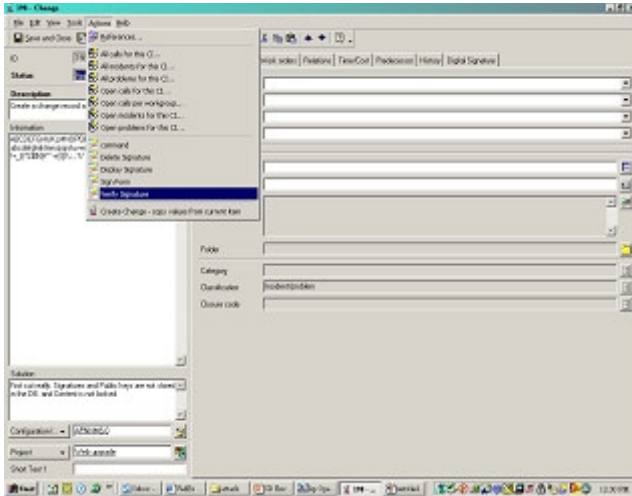
# Change Management - Using Digital Signature in Service Desk 4.5 for Auditing and Regulatory Compliance



## Verify Signature Scenario

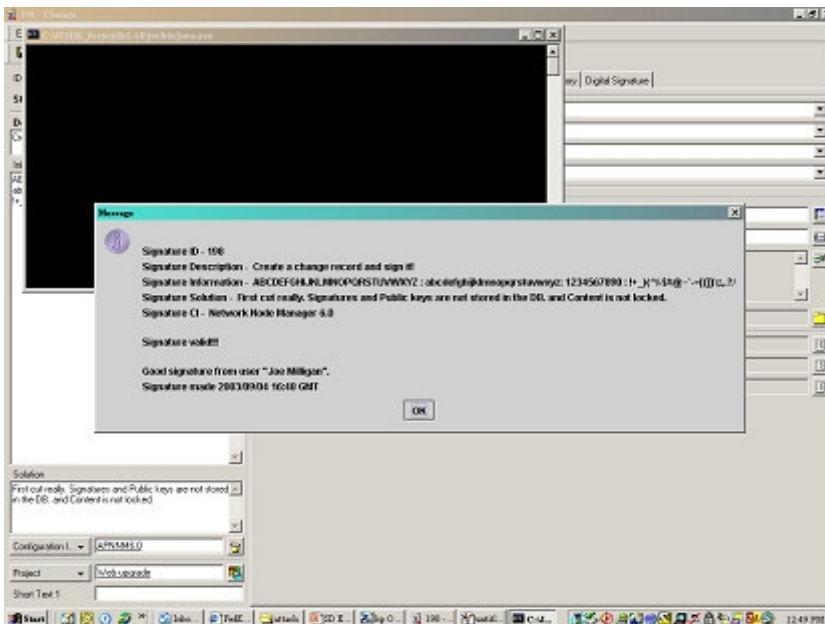
Below outlines the steps required to verify a change record:

- The user selects the “Verify Signature” smart action from the “Actions” Menu:



- The user enters their Service Desk login information (See Page 3).
- The user then enters their PGP pass-phrase which will be used by PGP to authenticate them (See Page 4)
- Displayed are the fields and their values that were used to create the signature.

*“The private key and the text from the change record will be used to generate a digital signature which is stored with the change record.”*



## Company Information

Established in 1996, NetSource Partners LLC is a privately held company that develops large scale IT Service Management (ITSM) and enterprise management solutions for fortune 1000 companies seeking high value, reasonably priced solutions. We specialize in helping clients develop ITSM processes and systems that enable them to build and operate their mission critical applications to serve their customers better. To serve our clients better, We utilize best-of-breed standards and technology to deliver the highest quality solution on time and on budget.

Our client list includes Knights of Columbus Insurance Company, AT&T, Hoffman-LaRoche, Lucent, Ford Motor Company, FedEx, Time Warner, and the U.S. Navy to name a few. Additionally, we have been a systems integration partner for Hewlett-Packard. We have been the primary consultants on some of the largest deployments of HP-Openview products here in the United States.



## Contact Information

If there any questions, or if there are topics that you would like to see in this newsletter, feel free to contact us. Our contact information is below.



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*"We utilize best-of-breed standards and technology to deliver the highest quality solution on time and on budget"*