

## Ensuring NAHMA Members Receive the Latest News and Analysis of Breaking Issues in Affordable Housing

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July 14, 2004

NAHMAanalysis 2004-0714

### From Regulation to Implementation:

#### How Regulatory Changes Affect the Software and Property Management Industries

##### I. Introduction

In an attempt to provide guidance and understanding to affordable housing industry stakeholders, the National Affordable Housing Management Association (NAHMA), with the assistance of its members, has developed a software development flowchart (see attachment) to demonstrate the major consequences that changes to federally mandated regulations can bring to the industry as a whole.

When regulatory changes take place at the occupancy, compliance or even financial data areas, changes in different systems need to be made to comply with the new mandates.

Depending on the types of changes, one or more systems may be affected by this action. Several examples of the impact of different types of changes follow:

1. *Example 1 – Changes to the Occupancy Lease text* – The software application at the management company level needs to be updated to reflect the new changes. If the change involves new data to be inserted into the document, additional changes to the software database may be needed. If the change has to do with wording, only the format of the form is affected. In this case only **ONE** system is affected by the change.
2. *Example 2 – Race and Ethnicity is required to be collected at the 50059 level* – The software application at the management company needs to implement the new collection routine; the Contract Administrator (CA) software needs to be prepared to receive and validate the new data; and the HUD TRACS system needs to be able to receive, validate and store the new data. In this case up to **THREE** different systems are affected.
3. *Example 3 – New Special Claims Process* – A new process for the calculation, reporting and acceptance of Special Claims is implemented by HUD. In this case the compliance and financial software at the management company, as well as the CA and HUD software are involved. A total of **FOUR** different software applications and/or areas may be affected by this change.

## II. A Guide to the Flowchart

The flowchart is divided into three major areas:

*Green* – Related to processes where HUD is the major driving force

*Red* – Related to processes where the software developers are the major driving force

*Yellow* – Related to processes where the owner/agent (O/A) is the major driving force

### 1. *The Green Process – Regulations are developed and finalized.*

This process can take significant time, depending on the amount of change and repercussions of the new or updated regulation. During this process, the industry as a whole participates and provides feedback to the government.

### 2. *The Red Process – Software developers at work.*

Since our industry is divided into three (3) very distinct business processes – HUD, contract administrators and owners/agents – there are three automated systems supporting this process (TRACS, CA Software and O/A Software). The “Red” and “Green” processes apply to all three software developers and all three systems of development need to be coordinated to be able to implement any applicable mandated change.

The key element and the driving force for this entire process is presented as Action 5 in our workflow chart. The end result of this action will establish the total level of effort needed to modify the existing system to comply with the regulatory changes. The activity at this level will depend on the complexity of the changes and how many potential systems and processes are affected. At the same time during this phase, software developers may also request clarification of the new specifications released by HUD to comply with the new regulations or in some cases, request clarification of the regulations themselves.

After the requirements and software specifications are prepared by the software development companies, the programming can begin, as per Action 6.

Software development companies operate differently but all of them have some type of internal Quality Assurance (QA) department which is in charge of testing and reporting potential flaws in the programming. The feedback from QA to developers and vice versa usually creates different versions of the new systems which are called “builds.” In most cases the technical writers are also involved through this process since they will need to incorporate the system changes in written documentation as well as release notes and installation guides.

If the changes affect the record layout or the transmission protocols between the O/A, CAs and HUD, there will also be a need to test the new software by submitting records to TRACS to make sure the system functions properly.

After the new software passes the internal QA process, a Beta version is released to a selected group of O/As (some software development companies’ use an ALPHA and BETA approach) as per Action 12. At this time the HUD and CA’s software applications need to be ready to receive records in the new format if so required. In the case of HUD, during this time it should be able to process records in either format since the industry will need at least 3 months from the moment the software is final to make the transition.

If the Beta users report issues back to the software developers, a new cycle is initiated as per Action 9 in the workflow chart.

The amount of time needed for the Beta trial will also depend on the amount of changes as well as how often during a monthly cycle the changes occur (for example changes to the vouchering area are more difficult to test real-time since it happens only once a month, while certifications, move-ins/outs happen several times a month).

If the software is distributed via CDs or floppy disks, a production effort is needed to prepare, produce and distribute the new version per [Action 14-15](#).

Documentation and instructions will need to be included with every new version sent, and the customer service departments (technical support) need to be prepared to receive a large amount of calls to support the new release. Therefore the beginning or end of the month is never a good time to send new software versions.

### *3. The Yellow Process – O/A needs to implement the new software version.*

As indicated by [Action 16](#), this process can also vary depending on the extent of the changes. Most companies try to deploy the system at a centralized level first to make sure they are prepared to support the property sites as the new version is rolled out. If data conversion is needed, some trial conversions will take place before going live. If other software systems in use by the O/A are also affected by the change, coordination will be necessary.

## **III. How Much Time is Needed to Implement Regulatory Changes?**

Referring back to our three examples on page 1:

For a simple regulatory change where one system is affected, as in Example 1, the amount of time needed to implement the change after the regulation is final and all (or the majority) of the requested clarifications have been answered ([Action 5](#)) will **require a minimum of no less than 3 months**. This is the basic time table.

If the regulatory change affects the existing TRACS transmission, as in Example 2, the industry will need an *additional* 3 months on top of the basic time table, and therefore it will **require a minimum of no less than 6 months**. TRACS should also run at least 3 more months on parallel mode to allow time for all of the O/As to convert to the new version.

If the regulation affects all four areas, as in Example 3, the industry will need an additional 5 months to the basic time table, and therefore it will **require a minimum of no less than 8 months**. Again, TRACS should also run at least 3 more months on parallel mode to allow time for all of the O/As to convert to the new version.

## **IV. How Much Does it Cost to Implement Regulatory Changes?**

Every regulatory change has a cost attached to it and it affects several areas:

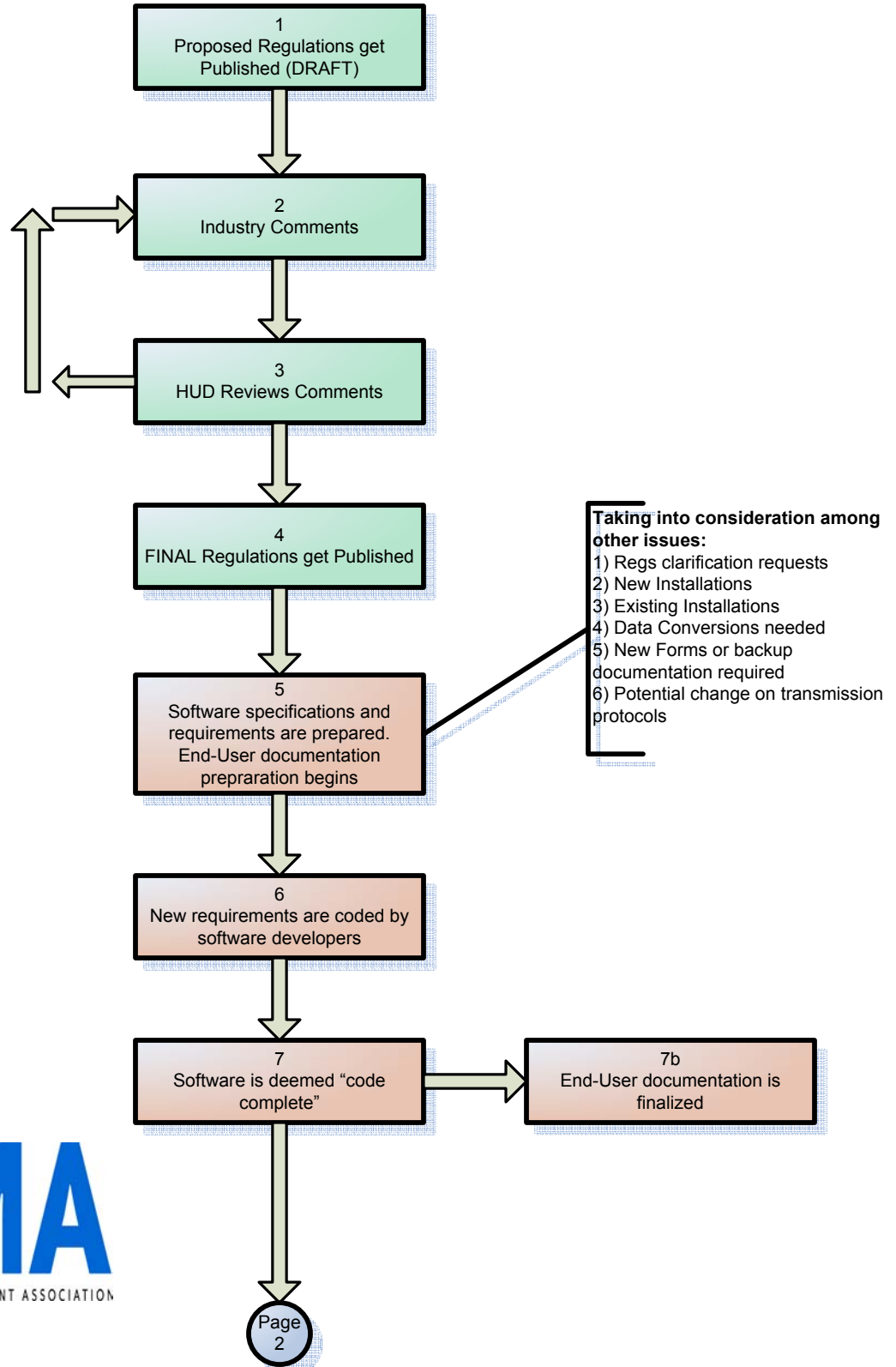
1. **HUD.** Changes to the TRACS system generates additional costs to the agency, therefore being able to consolidate many changes at once is imperative to minimize costs and save time.
2. **CA and OA Software Vendors.** Implementing changes increases development cost for the software vendors in charge of releasing new software versions to comply with the regulatory changes.
3. **CA and O/A.** Every time a new software release needs to be implemented there are costs that are implied by the potential need of re-training, procedure changes and data conversion.

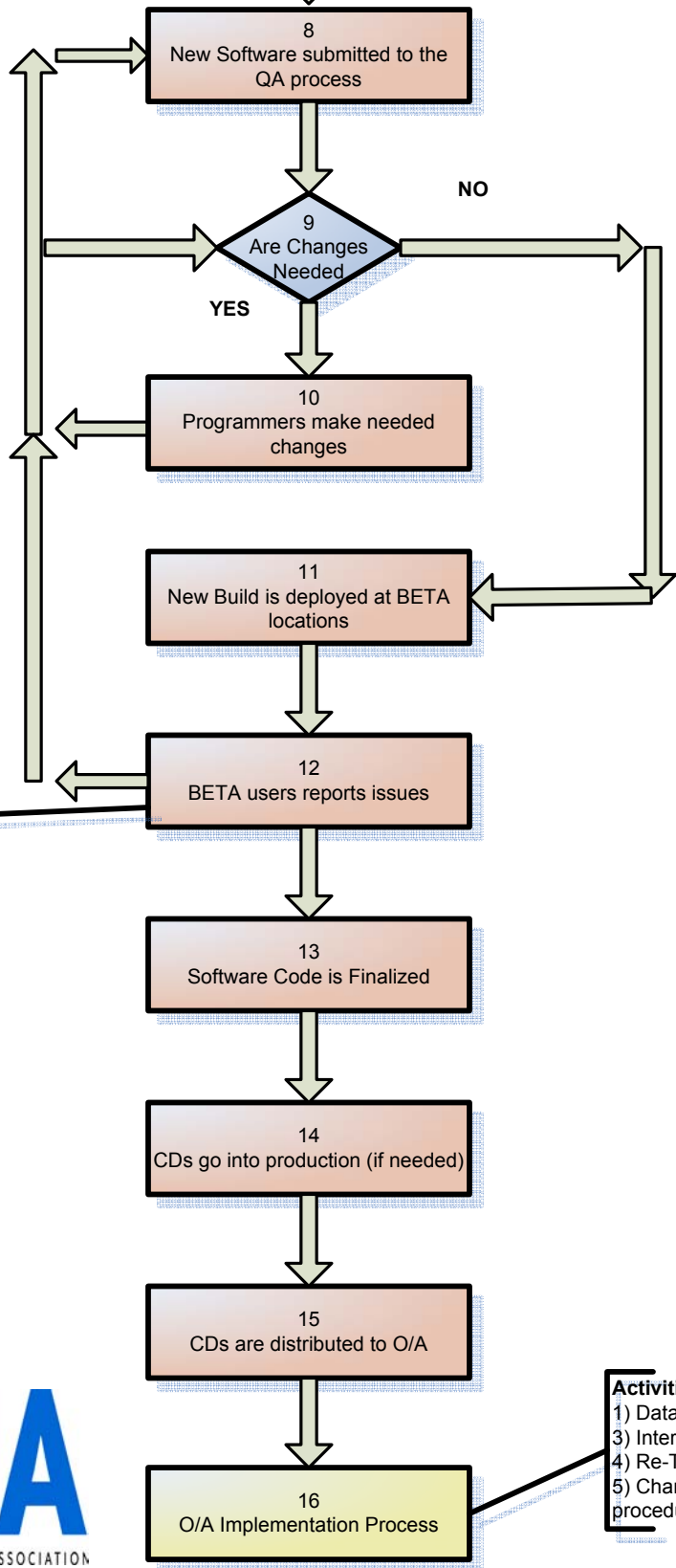
The total cost of every change varies depending on the type and complexity of the change. Also the timing of the change can create additional costs and a burden to the industry. For example, mandatory changes effective during the year-end audit or holiday season can create additional expenses and inconvenience to the industry as a whole and make the transition less transparent.

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6/24/2004





This process cycles back to Activity 9

- Activities may include:**
- 1) Data Conversion
  - 3) Internal Testing
  - 4) Re-Training
  - 5) Changes to Management procedures