



RESOURCE AND PATIENT MANAGEMENT SYSTEM

Dental/EDR Interface

(BADE)

Installation Guide and Release Notes

Version 1.0 Patch 7
July 2021

Office of Information Technology
Division of Information Technology

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Preface

This manual provides information and installation instructions for BADE Version 1.0 Patch 7 release for the Electronic Dental Record (EDR) interface. This patch includes the following Resource and Patient Management (RPMS) updates to the EDR interface:

1. Adds functionality to view dental notes in RPMS and EHR that were created in Dentrix.

<CR #08691 Kids build & CR #08696 XML for the Bade Production>

2. Adds functionality for new EDR sites to conduct a patient push by location. This is for new EDR site implementations only and does not affect existing EDR sites.

<CR #12020>

1.0 Release Notes

The EDR interface transmits dental data bi-directionally between RPMS and Dentrrix using HL7 formatted messages. The interface transmits patient and provider data from RPMS to Dentrrix to synchronize these records between the two systems. Dental data (dental procedures with necessary visit information) is transmitted to RPMS to create patient dental records (visits) in RPMS.

The following steps were added in RPMS to process dental notes (transmitted from Dentrrix):

- Added an MDM-T04 message type to the Ensemble BADE Production (BADE.EDR.HL7) to accept and process the new messages.
- Added routines to process the new incoming T04 messages (BADEHL5, BADEHL6, BADEHL7, BADEHL8).
- Added a menu option to setup the new NOTE TITLE called “BADE EDR DEFAULT DENTAL NOTE.”
- Added an entry to the TIU Document Definition file called BADE EDR DEFAULT DENTAL NOTE to be used for dental notes.
- Updated the HLO Application Registry file adding the MDM-T04 entry to process the new message type.
- Updated the Patient push routine to allow a selection by facility instead of a total patient push to Dentrrix. This option is for new EDR sites only and does not affect existing sites.

2.0 Installation Notes

Prefix: BADE

Current Version: 1.0

2.1 Contents of Distribution

Table 2-1: Contents of Distribution

File	Description
bade0100.07k	KIDS file
bade0100.07.xml	XML file for the Bade Production
bade0100.07i.pdf	Installation guide and release notes
bade0100.07u.pdf	User manual update

2.2 Required Resources

- Kernel v8.0 patch 1018 or later
- FileMan v22 patch 1018 or later
- Ensemble v2012.2.5 or HealthShare 2017.2 or higher
- BADE v1.0 patch 5 or BADE v1.0 patch 6 if using HealthShare
- HL7 v1.6 patch 1006 or later
- TIU v1.0 patch 1017 or later
- Dentrix Enterprise v 8.0.96.553 or later

2.3 Before You Begin: Installation Issues

This patch requires a KIDS installation, an Ensemble Integration Engine update (XML), and modifications to the Dentrix Enterprise Software setup files to function as designed. Although you may install this patch at any time, the new message type will not transmit or be processed in RPMS unless coordinated with Dentrix and their software has been updated to transmit the new message type to RPMS. To implement this enhancement, Dentrix Enterprise v 8.0.96.553 or later must be installed on the Dentrix system.

The following instructions include ensuring all authors (originator of the note) and signers of the note in Dentrix are setup in RPMS with electronic signature fields present and an associated title for Dental Hygienists or Assistants. Dentists utilized as providers in Dentrix should already be setup in RPMS but will need to ensure they have electronic signature fields present as well.

3.0 Installation Instructions

It is recommended that the terminal output during the installation be captured. This will ensure a printed audit trail if any problems should arise. In addition, it is strongly recommended that the output not be queued so that the post-install messages display.

Install the Kids Build

1. Log in as a system manager in RPMS and choose the following:
KERNEL INSTALLATION AND DISTRIBUTION.
2. Select the **Installation** menu, then **Load a Distribution.**
3. Verify the load using **Option 2** on the **KIDS Installation** menu.
4. Install the distribution using **Option 6**; the **Install Name** is **bade*1.0*7**.
 - The installation should take less than five minutes.
 - The Menu Trees ***will need*** to be rebuilt.
 - Logons do not need to be disabled.
 - Scheduled Options, Menu Options, or Protocols do not need to be disabled.

Install the XML

1. Stop the EDR Production in Ensemble (see Figure 4-1).
2. Open Ensemble Studio.
3. Change to the EDR namespace (ENSRPMS or EDRXXXX) by selecting **File | Change Namespace.**
4. Verify you are connected to the correct Ensemble instance listed in the Server box. ***Do not install the XML*** in your main production's namespace.
5. Import the patch by selecting **Tools | Import Local.**
6. In the **Open** dialog, select the import file named **bade0100.07.xml** and click **Open.**
7. In the **Import** dialog, ensure that all import items are checked, and **Compile Imported Items** is checked. Click **OK** to import the patch.
8. Start the Ensemble production.
 - a. Open Ensemble's Management Portal.
 - b. Navigate to **Ensemble | (EDR namespace) | Configure | Production.**
If it displays, click **Go.**

- c. On the **Production Configuration** screen, click the **Start** button. When it prompts **Do you wish to start this Production?** click **OK**.
- d. On the **Start Production** dialog, click **OK**.

4.0 Sample Installations

```
Select Installation <TEST ACCOUNT> Option:
```

- 1 Load a Distribution
- 2 Verify Checksums in Transport Global
- 3 Print Transport Global
- 4 Compare Transport Global to Current System
- 5 Backup a Transport Global
- 6 Install Package(s)
Restart Install of Package(s)
Unload a Distribution

```
Select Installation <TEST ACCOUNT> Option: 1 Load a Distribution
```

```
Enter a Host File: C:\temp\bade0100.07k
```

```
KIDS Distribution saved on Sep 08, 2020@10:04:38
```

```
Comment: DENTAL/EDR INTERFACE v1.0 PATCH 7
```

```
This Distribution contains Transport Globals for the following
```

```
Package(s): BADE*1.0*7
```

```
Distribution OK!
```

```
Want to Continue with Load? YES// Yes
```

```
Loading Distribution...
```

```
Build BADE*1.0*7 has an Environmental Check Routine
```

```
Want to RUN the Environment Check Routine? YES//
```

```
BADE*1.0*7
```

```
Will first run the Environment Check Routine, BADEENV7
```

```
Checking environment ....
```

```
Use INSTALL NAME: BADE*1.0*7 to install this Distribution.
```

- 1 Load a Distribution
- 2 Verify Checksums in Transport Global
- 3 Print Transport Global
- 4 Compare Transport Global to Current System
- 5 Backup a Transport Global
- 6 Install Package(s)
Restart Install of Package(s)
Unload a Distribution

```
Select Installation <TEST ACCOUNT> Option: 6 Install Package(s)
```

```
Select INSTALL NAME: bade*1.0*7 => DENTAL/EDR INTERFACE v1.0 PATCH 7 ;Created  
on
```

```
Sep 08, 2020@10:04:38
```

```
Checking Install for Package BADE*1.0*7
```

```
Will first run the Environment Check Routine, BADEENV7
```

```
Checking environment ....
```

```
Install Questions for BADE*1.0*7
```

```
Want KIDS to Rebuild Menu Trees Upon Completion of Install? YES//
```

```
Want KIDS to INHIBIT LOGONs during the install? NO//
```

```
Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//
```

```

Enter the Device you want to print the Install messages.
You can queue the install by enter a 'Q' at the device prompt.
Enter a '^' to abort the install.

DEVICE: HOME//

      Install Started for BADE*1.0*7 :
              Sep 09, 2020@13:25:42

      Build Distribution Date: Sep 08, 2020

      Installing Routines:
              Sep 09, 2020@13:25:42

      Installing PACKAGE COMPONENTS:

      Installing OPTION

      Installing PARAMETER DEFINITION

      Installing HLO APPLICATION REGISTRY
              Sep 09, 2020@13:25:42

      Running Post-Install Routine: POST^BADEENV7

      BEGIN Adding the BADE EDR DEFAULT DENTAL NOTE option.
              BADE EDR DEFAULT DENTAL NOTE Option added to the Bade Management
Menu

      BEGIN Adding the BADE EDR DEFAULT DENTAL NOTE TITLE TO File 8925.1

      Completed the addition of the Bade EDR Default Note to File 8925.1

      Updating Routine file...

      Updating KIDS files...

      BADE*1.0*7 Installed.
              Sep 09, 2020@13:25:42
      NO Install Message sent

```

Figure 4-1: Sample installation

4.1 Sample Cache Install

1. Stop the Ensemble BADE production. Make sure you know the **EDR** namespace before proceeding. It is usually named "ENSRPMS" or EDRXXXX, where XXXX denotes the site acronym.
2. Open the Management Portal and Navigate to: **Ensemble** | select the **EDR namespace** | **Configure** | **Production**.
3. Select the **Go** button to bring up the production (or use the shortcut on the right side of the main Ensemble page to get to the BADE Production).
4. On the **Production Configuration** screen, click **Stop** (Figure 4-2).

If the button is greyed out, the production is already stopped, and no action is needed.

5. If prompted **Do you wish to stop this Production?** click **OK**.
6. On the **Stopping Production** dialog, click **OK** after ensuring there are no errors, and it states **Done**.

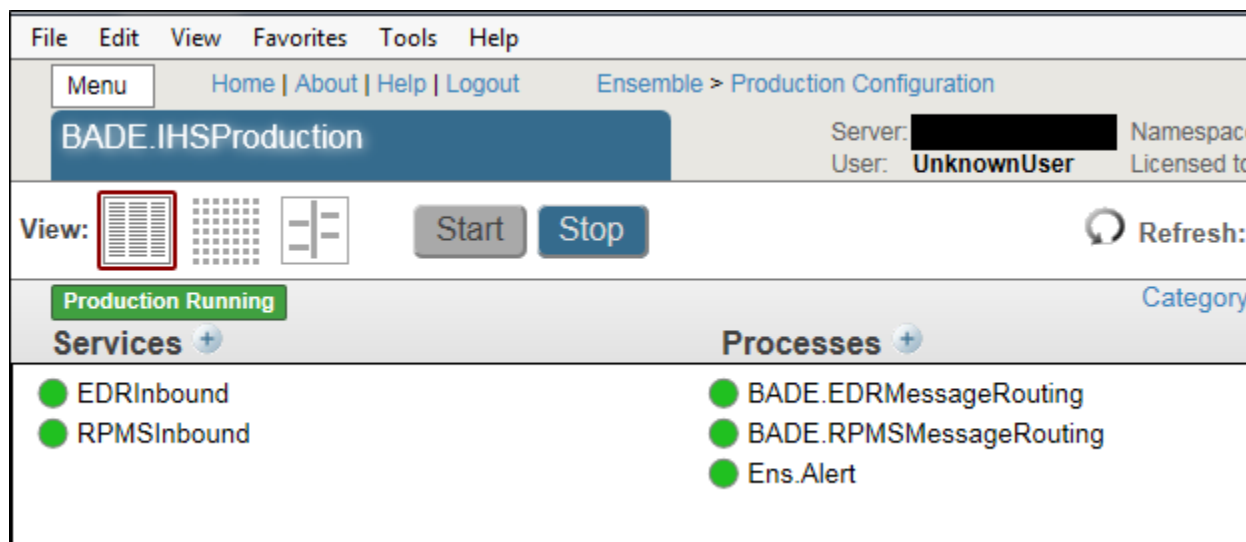


Figure 4-2: Production Configuration dialog

7. To install the Ensemble XML file, open Ensemble Studio.
8. Switch to the namespace that corresponds to your BADE Production by selecting **File | Change Namespace**. Verify you are connected to the correct Ensemble instance listed in the Server box. **Do not install the XML** in your RPMS main production namespace.
9. Import the patch by selecting **Tools | Import Local** (Figure 4-3).
10. In the **Open** dialog select the import file named **bade0100.07.xml** and click **Open**.

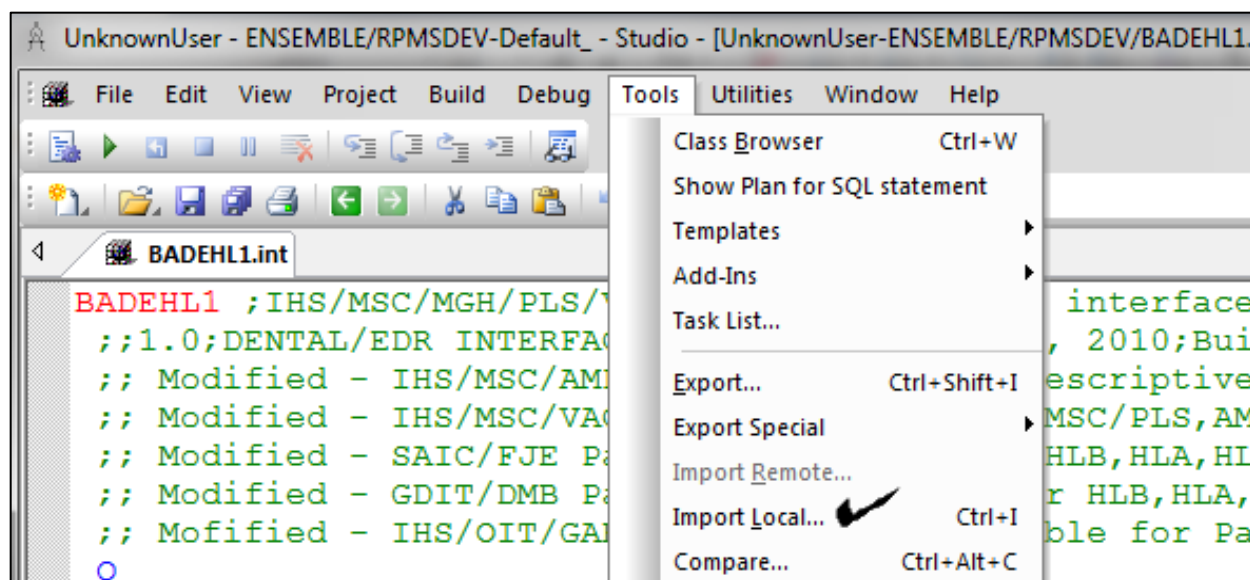


Figure 4-3: Tools menu display

11. In the **Import** dialog, ensure that all import items are checked, and **Compile Imported Items** is checked. Click **OK** to import the patch.

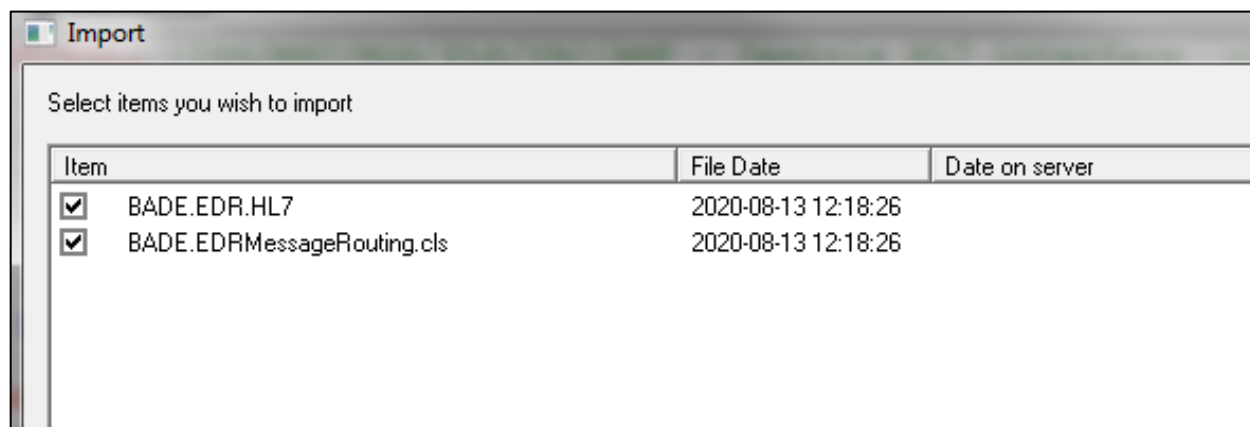


Figure 4-4: Import dialog

12. To start the Ensemble production open Ensemble's Management Portal.
13. Navigate to **Ensemble | (EDR namespace) | Configure | Production**. When it displays, click **Go**.
14. On the **Production Configuration** screen, click **Start**. If prompted **Do you wish to start this Production?** click **OK**.
15. On the **Start Production** dialog, click **OK**.

5.0 Installation Configuration

Post Install Instructions

From the **BADE EDR Main Menu** select the **Dental Interface Management** menu and choose the **NOTE** option.

You must have the BADEZMGR and BADEZSND keys to perform this task.

1. Select **Dental Interface Main Menu <TEST ACCOUNT> Option: Dental Interface Management.**

```
A28    Send a Single A28 Message
A31    Send a Single A31 Message
MFN    Send a Single MFN Message
REP    Reprocess an Inbound HL7 Message
RES    Resend an Outbound HL7 Message
CLN    Set Default Clinic
DTI    Set Default Time for Dental Visit
DUSR   Default User for Interface
DPR    Default Days to Save from Msg Purge
PRO    Dentist List
PUR    Manual Purge EDR HL7 Messages
NOTE  Set Default TIU Parameter
```

Figure 5-1: NOTE selection

2. Select **NOTE** and enter **BADE EDR DEFAULT DENTAL NOTE** for the **BADE DENTAL TITLE**.

```
Set Default TIU Parameter

---- Setting BADE EDR DENTAL TITLE for System: 2017-DEMO-HQ.ABQ.IHS.GOV ----
BADE DENTAL TITLE: BADE EDR DEFAULT DENTAL NOTE
```

Figure 5-2: BADE DENTAL TITLE entry

3. All authors and signers of the progress note in Dentrix must be setup in RPMS with an active user account, including a Title (for Dental Hygienists/Dental Assistants), and Electronic Signature fields. These fields are necessary to create the dental progress note in RPMS.

For Providers: Current providers being utilized in Dentrix should already be setup in RPMS but are also required to have an electronic signature code, Block Title, and Block Printed Name, or the note will not be created, and an alert will be sent.

For Dental Hygienist/Assistants: All others who originate or sign the dental note in Dentrix must have an active user account setup in RPMS that includes their title (Dental Hygienist or Dental Assistant) and an electronic signature code, Block Printed Name, and Block Title or the note will not be created, and an alert will be sent.

Use the **AVA Add/Edit New Persons** option in RPMS to create a new user, making sure you do not create a duplicate. All required fields must be entered such as the Service/Section. After the user (New Person) is created in RPMS, have the user login to RPMS and use **^TBOX** to add their electronic signature information as shown below.

The Signature Block Printed Name, Signature Block Title and an Electronic Signature Code must be present in RPMS in order to process dental notes for Providers, Dental Hygienists, and Dental Assistants who author or sign the notes in Dentrix.

```
Select User's Toolbox <TEST ACCOUNT> Option: electronic Signature code Edit
This option is designed to permit you to enter or change your Initials,
Signature Block Information, Office Phone number, and Voice and
Digital Pagers numbers.
In addition, you are permitted to enter a new Electronic Signature Code
or to change an existing code.

INITIAL: JK
SIGNATURE BLOCK PRINTED NAME: [REDACTED] KNUTSON//
SIGNATURE BLOCK TITLE: [REDACTED] KNUTSON
OFFICE PHONE:
VOICE PAGER:
DIGITAL PAGER:

Your typing will not show.
ENTER NEW SIGNATURE CODE:
RE-ENTER SIGNATURE CODE FOR VERIFICATION:
DONE
```

Figure 5-3: User's Signature Block Information

All RPMS users who will be reviewing the dental alerts must be added to the RPMS Dental MailMan group. Use Manage MailMan/Group Distribution Management/Mail Group Edit to add users to this group. See Figure 5-4.

```

Select Group/Distribution Management <TEST ACCOUNT> Option: mail group
  1   Mail Group Coordinator's Edit
  2   Mail Group Coordinator's Edit W/Remotes
  3   Mail Group Edit
CHOOSE 1-3: 3   Mail Group Edit

Select MAIL GROUP NAME:   RPMS DENTAL
MAIL GROUP NAME: RPMS DENTAL//
Select MEMBER: DEMO,DOCTOR//
  MEMBER: DEMO,DOCTOR//
  TYPE: INFO//
Select MEMBER: DEMO,PROVIDER MN      MAN
  Are you adding 'DEMO,PROVIDER MN' as a new MEMBER (the 6TH for this MAIL GROUP
)? No// y   (Yes)
  TYPE: I   INFO
Select MEMBER: ^

Do you wish to forward past mail group messages
to the user(s) you just added to the mail group(s)? No// n   NO

Select MAIL GROUP NAME: █

```

Figure 5-4: Adding users to Manage MailMan/Group distribution

4. Only completed/finalized, signed notes are transmitted from Dentrix to RPMS. No addendums are created in Dentrix that can be transmitted to RPMS.
5. An example of a processed dental note in RPMS EHR from a dental note created in Dentrix is shown in Figure 5-5.

Active Problem List

Problem	Date
Absence In Chronic Kidney Disease	16-Feb-2011
*BPH	23-Jun-2009
*CHRONIC LEFT TYMPANOMASTOIDITIS	23-Jun-2009
*CONSTIPAT	18-Jul-2012
*CONSTIPAT	03-Oct-2012
*ELEVATED PSA	23-Jun-2009
*CCO. UN. at initial Visit 2013	20-Jun-2013

Vitals

Vital	Value	Date
TMP	102.3 F (39.06 C)	04-May-2020 07:23
PU	87 mm	04-May-2020 07:23
PS	22 mm	04-May-2020 07:23
O2	87 %	04-May-2020 07:23
BP	158/99 mmHg	04-May-2020 07:23
HR	70 in (177.8 mm)	04-May-2020 07:23

Appointment/Visit

Appointment/Visit	Date	Status
EDR TEST	05-Oct-2020 11:38	AMBULATORY
DEMO CLINIC	11-Jun-2020 08:26	AMBULATORY
CLINIC DEMO-2	05-May-2020 10:50	AMBULATORY
DEMO CLINIC	04-May-2020 12:05	CHART REVIEW
DEMO CLINIC	04-May-2020 07:23	AMBULATORY
C2 TEST CLINIC	15-Mar-2020 09:00	AMBULATORY
C2 TEST CLINIC	20-Feb-2020 08:17	AMBULATORY

Appointment/Visit Detail

DO: 05-Oct-2020
BASE EDR: DEFAULT DENTAL NOTE
<Page 1>

AUTHOR: [blank] PATIENT NAME: [blank]
SIGNED BY: [blank] STATUS: COMPLETED
VISIT: OCT 05, 2020@11:38 LOCATION: EDR TEST

Medical Alert: [blank]
Medications: [blank]
Allergies: [blank]
Since Last Visit: Medical Alert: No Change
Medications: No Change
Allergies: No Change
Pain Scale Type: Numeric Pain Scale Pain Level: 0
Description: [blank]
Exam: Initial
SP 125/86

Chief Complaint: Patient presents with complaint of: none
Radiographs reviewed: QWEX
Oral Hygiene Status: Good
Periodontal Diagnosis: WNL
CPITN: [blank]
S1 2, S2 2, S3 1
S4 2, S5 2, S6 2
Enamel Defects: WNL
Orthodontic Need: No need
Tobacco Use: No
Soft Tissue Examination: WNL
TMJ: WNL
TX Plan discussed, reviewed and approved by patient: Yes
Additional treatment Cleaning: [blank]
Adult Prophyl: [blank]
Probed: See CPITN
Mechanized clean: Not Used
Prophy method: Hand scaled
Calculus: Localized
Bleeding: [blank]
Plaque: Localized and Moderate
Patient given needed oral health supplies: toothbrush
Hemostasis achieved
Patient released in stable condition
Recall: 6 months
NV: NV: exam and Cleaning

Figure 5-5: Dental note processed in RPMS EHR

- To complete the implementation of the Dental Note for EDR, you must contact Dentrix support by phone at 1-800-459-8067, select option 2, then select option 3 for support or email IHS-SUPPORT@HENRYSCHEIN.COM.

Note: You will need to provide your customer ID# and mention you are with the IHS EDR Program and you are requesting the addition of the Dental Clinical Note (MDM-T04) message type. Sites must have Dentrix Enterprise v 8.0.96.553 or later installed.

Acronym List

Acronym	Term Meaning
EDR	Electronic Dental Record
EHR	Electronic Health Record
HLO	Health Licensing Office
IHS	Indian Health Service
KIDS	Kernel Installation and Distribution System
MDM	Medical Document Management
RPMS	Resource and Patient Management System
TIU	Text Integration Utilities
XML	Extensible Markup Language

Contact Information

If you have any questions or comments regarding this distribution, please contact the IHS IT Service Desk.

Phone: (888) 830-7280 (toll free)

Web: <https://www.ihs.gov/itsupport/>

Email: itsupport@ihs.gov