

QARC – Current Status

- ACOSOG
- CALGB
- COG
- ECOG
- PBTC
- SWOG

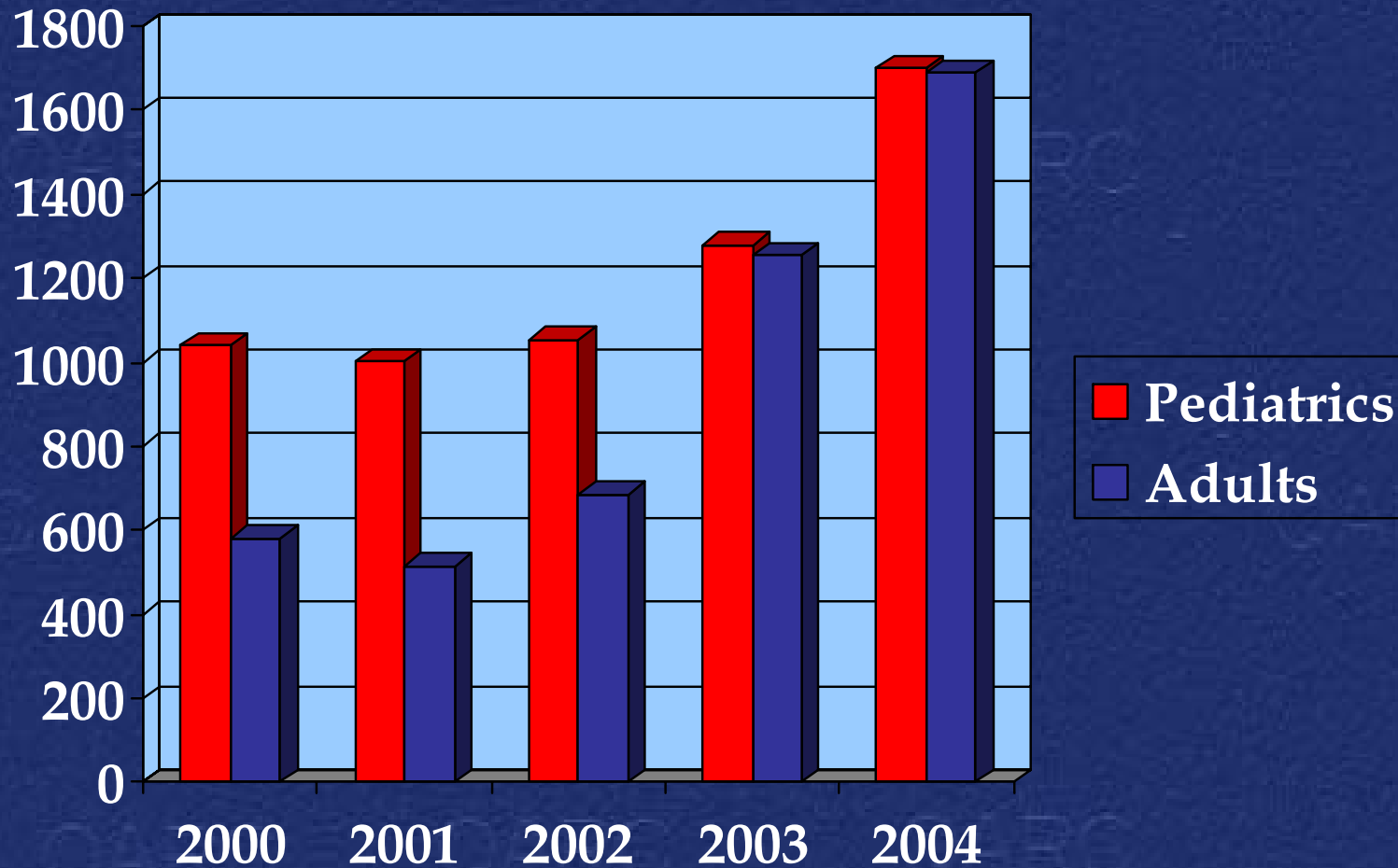
Industry Contracts with Sanofi-Aventis

QARC – Current Status

Group	Active/Open	Active/Total	In Development
ACOSOG	3	5	4
CALGB	14	18	3
COG	34	60	18
ECOG	8	17	6
PBTC	4	4	-
SWOG	8	9	9

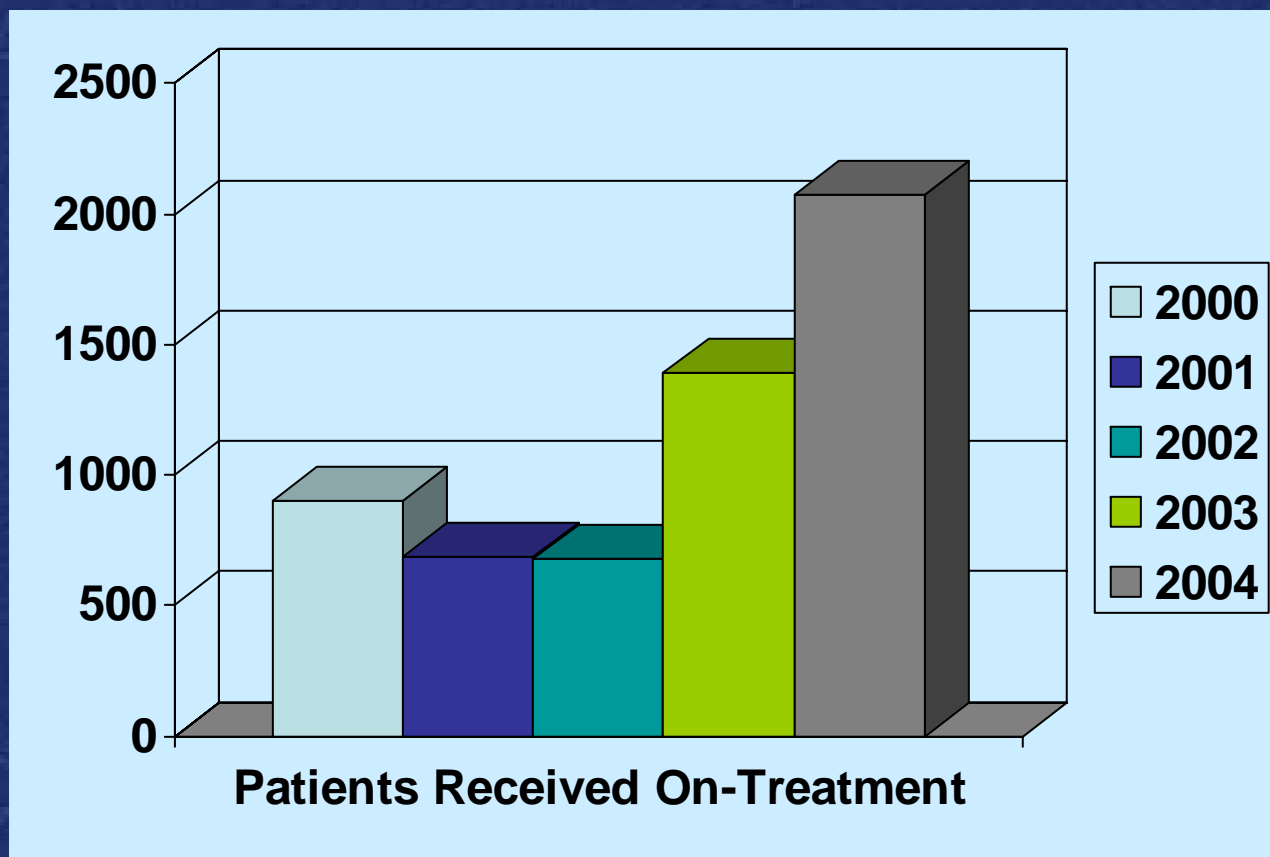
Total Active: 113

QARC – Current Status



QARC – Current Status

Interventional Reviews



QARC – Current Status

Impact of On-treatment Review

Impact of On-Treatment Code	Appropriate	Major Deviation	Minor Deviation	Total
1 Modification not required	72	3	23	102
2 Modifications required and made	14	0	3	25
3 Modifications required and not made		14	10	21
4 Multiple modifications required and made	5		2	7
5 Multiple modifications required and not made		9	2	12
6 Deviation subsequent or unrelated to on-treatment review		17	13	20
Total	91	43	53	187

QARC – Current Status

Diagnostic Imaging Data Submitted in Digital Format

2002	10 cases
2003	379 cases
2004	978 cases
2005	290 cases * as of 3/05

Patient Electronic
File Storage

Dec 03 15 Gb

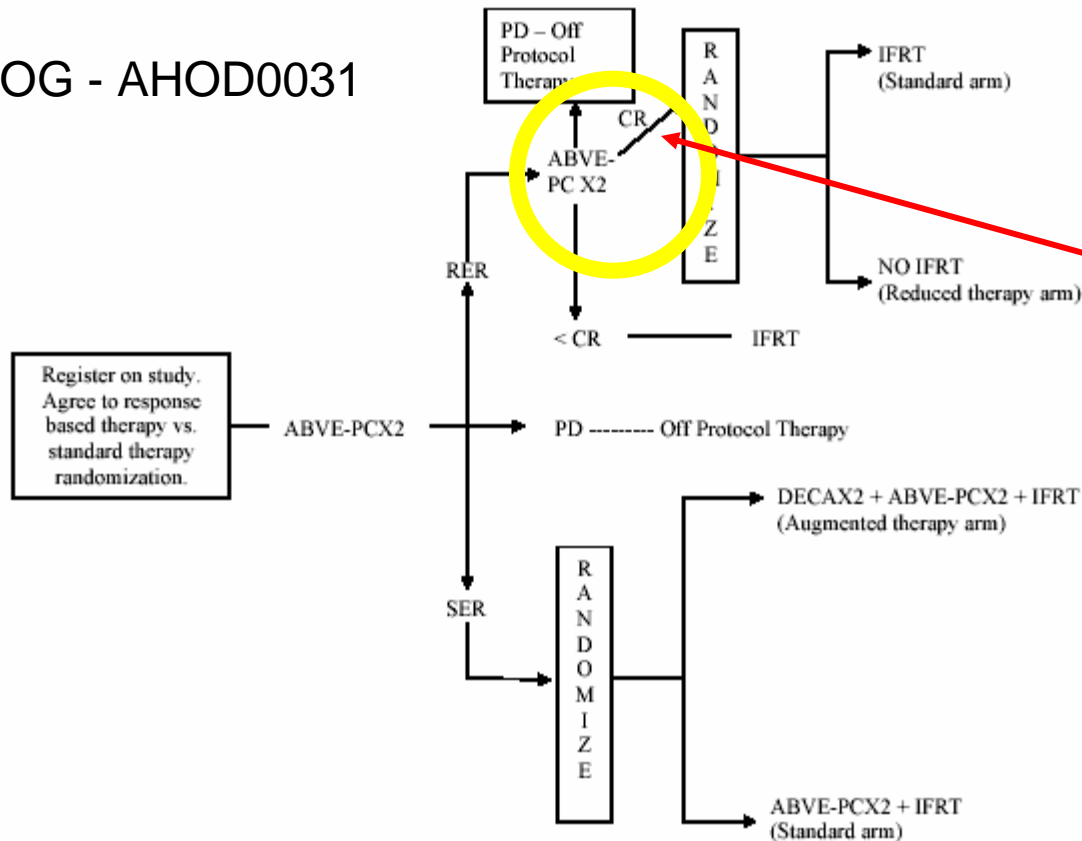
May 04 36 Gb

Aug 04 72 Gb

Feb 05 111 Gb

QARC – Current Status

COG - AHOD0031



QARC must confirm in real time that patient is in CR for randomization to occur

QARC – Current Status

Web-Ex Conferences

MAX Database - [frmPgDCommunicatorViewer : Form]

le Edit View Insert Format Records Tools Window Help




Image Activity Attributes Filter

QARC Number
LJAH01AAN*L

Coop Group COG
Protocol AH01A
Case Number 742165
Study Date 8/4/2004

Preset Unspecified
Format 1:1
Interpolation Original

Active Tool
 Scroll
 Select
 Flip/Rotate

Series
3/3 NECK

Image
Image

Status:

Pre-study

MAX Database - [frmPgDCommunicatorViewer : Form]

le Edit View Insert Format Records Tools Window Help




Image Activity Attributes Filter

QARC Number
LJAH01AAN*L

Coop Group COG
Protocol AH01A
Case Number 742165
Study Date 11/8/2004

Preset Unspecified
Format 1:1
Interpolation Original

Active Tool
 Scroll
 Win/Lev
 Select
 Zoom
 Flip/Rotate
 Measure

Series Navigation
2/3 NECK/CHEST/ABD

Image Navigation
Image 31 of 124

Status: Resolved

Post 4 cycles

QARC

	Gallium	PET
2002	90	10
2003	50	50
2004	30	70

Very few PET CT studies

Digital Image Submission to QARC

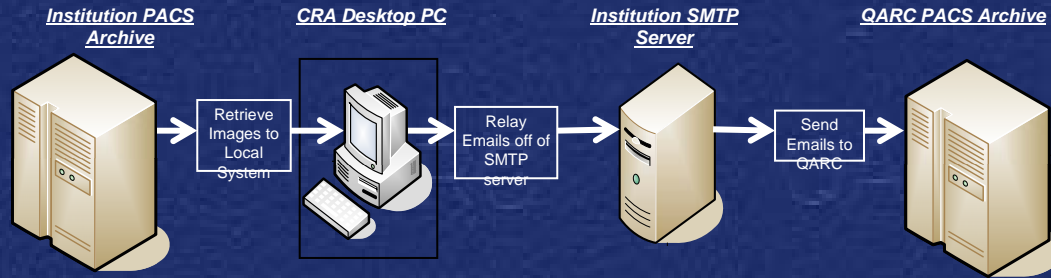
What is Dicommunicator?

Dicommunicator...

- Is a software package that facilitates the submission of electronic diagnostic imaging (DICOM files) to the Quality Assurance Review Center in Providence, RI
- Was originally developed and donated to COG by Keith White, MD of Primary Children's Medical Center in Salt Lake City, UT
- Is compliant with the DICOM standard which allows for query, retrieval, storage, printing, viewing and transfer of electronic images
- Allows the CRA to "Pull" or "Push" DICOM imaging from institution's PACS archive to CRA's local system
- Anonymizes and encrypts images before they are sent via email (images can also be burned to CD)

- Helps the CRA keep track of which studies s/he has sent to QARC

Dicommunicator software allows CRA to submit DICOM imaging to QARC in just a few easy steps



Dicommunicator can be configured to:

- "Pull" (Query/Retrieve) images directly from PACS to local system
- "Push" images from PACS to local system

CRA can use Dicommunicator to:

- View DICOM images
- Assign Protocol and COG Number to images
- Scrub patient demographics
- Burn imaging to a CD or Encrypt image files and email them to QARC

- Each study is sent as a number of sequential emails with corresponding image attachments
- Emails are relayed off of the institution's SMTP Server and sent out of the institution to QARC

- Emails with attached images are received at QARC Mail Server
- Images are decrypted and imported into the QARC PACS Archive using Dicommunicator application
- Each study is linked with its corresponding patient record
- Physicians at QARC are able view the images directly from the patient record in the QARC database

How Can I Get Dicommunicator?

1. Submit a PACS Questionnaire to QARC
2. Select and configure the system(s) that will house the Dicommunicator software

System Requirements:

- Running Microsoft Windows
 - At least 128MB of RAM
 - Microsoft Access version 2000 installed
 - Ability to send Email
 - CD burning capabilities
 - On the same network as the PAC's Archive
 - Ability to access the internet
 - Static IP address
 - AE title
 - The PAC's administrator needs to be available during the installation of Dicommunicator
 - CRA needs Administrative rights on the system
3. Purchase a Dicommunicator license for each system where you would like to install the software – one time fee of \$215 per workstation
 4. A CD containing the Dicommunicator software will be mailed to you
 5. Contact the Dicommunicator Application Specialist at QARC to set up an appointment to walk through the installation

For More Information...

Contact the **Quality Assurance Review Center:**

272 West Exchange Street,
Suite 101
Providence, RI 02903-1025
Phone # (401) 454-4301

Dicommunicator@QARC.org

www.qarc.org/cog_dicommunicator.htm



View DICOM Images from Desktop

Assign Protocol and COG Number to Images

Email Anonymized / Encrypted Images to QARC and Track Submissions

QARC – Future Status

- Developing relationship with other Image Centers
 - ACRIN
 - CALGB
 - COG

QARC – Current Status

- Imaging Import Wizard – transfers RT image data into powerpoint files. Powerpoint file linked to patient record in MAX database. All linked with patient record.

MAX Database - [Patient Data]

File Edit View Insert Format Records Tools Window Help

Data Status DS 3C Review Data Clinical 1 Clinical 2 Mail eMaterials

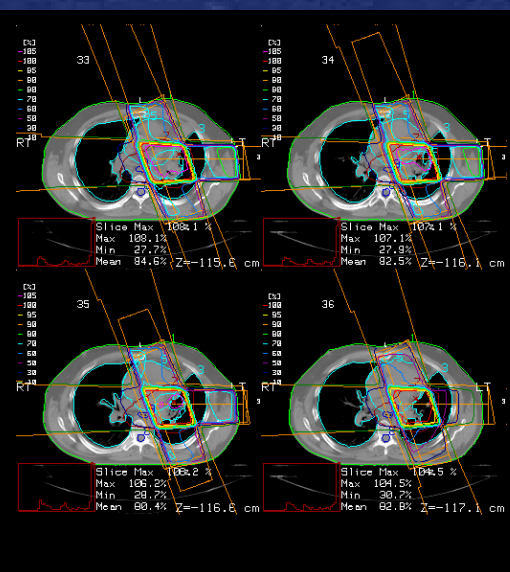
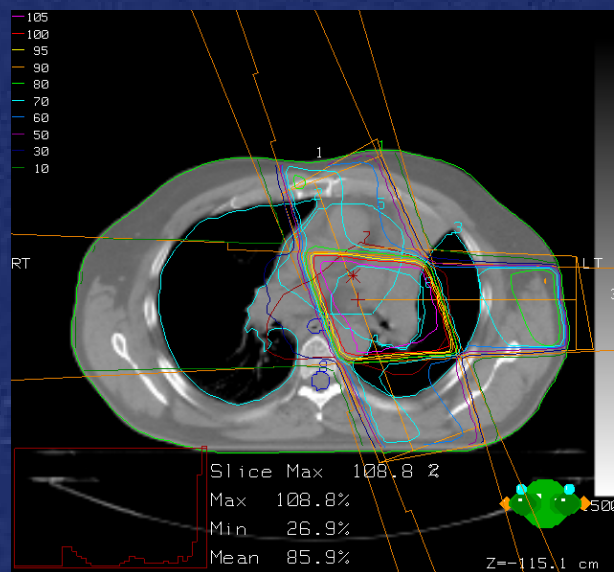
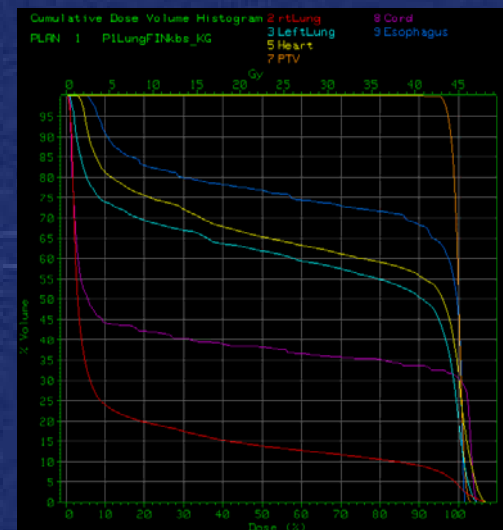
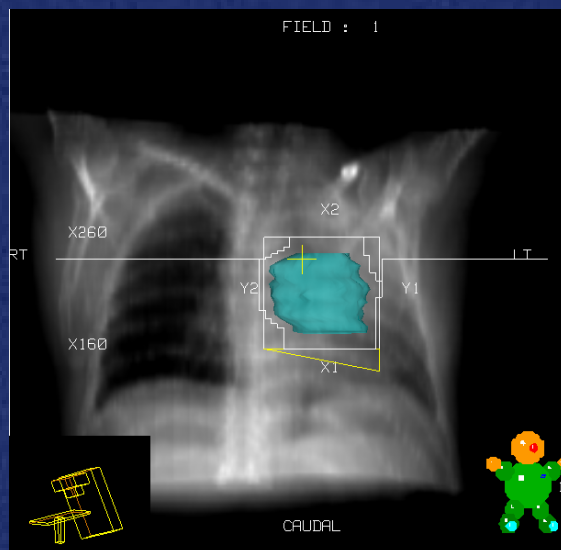
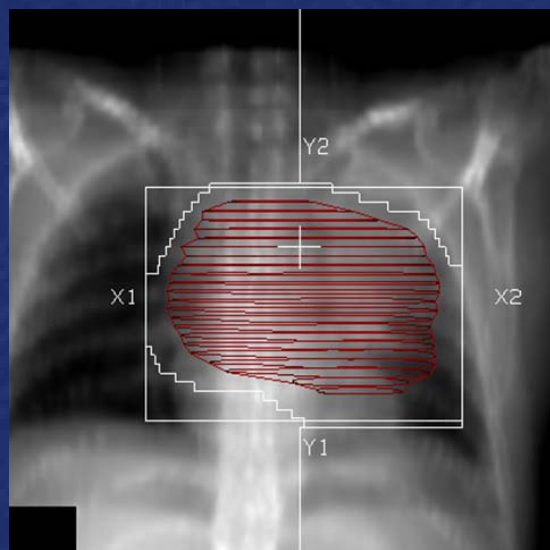
QARC Number: VICS0023JG*H

1 Item(s) Exist

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Comment:					

eMaterials Types Delete Item Print View File Modify eMaterials Import eMaterials

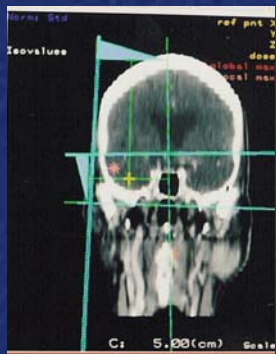
QARC – Current Status



QARC – Current Status

- Physics
 - Benchmarks
 - Protocol Development
 - Case Reviews

QARC Benchmarks



	Approved in 2004	Total Approved
3D	87	351
Prostate brachytherapy	2	43
TBI	4	102
CAX Blocked	11	287
Wedged Fields	11	287
Irregular Fields (Mantle)	11	287
CSI	11	287
IMRT	27	76*includes RTOG approved
Mixed Modality	0	88
Stereotactic (questionnaires)	7	65
total:	171	1866

QARC Benchmarks Developments in 2004

- IMRT Acceptability Criteria
- CT/MR Fusion
- Proton
- CT based Head & Neck

QARC Computing Infrastructure - Current

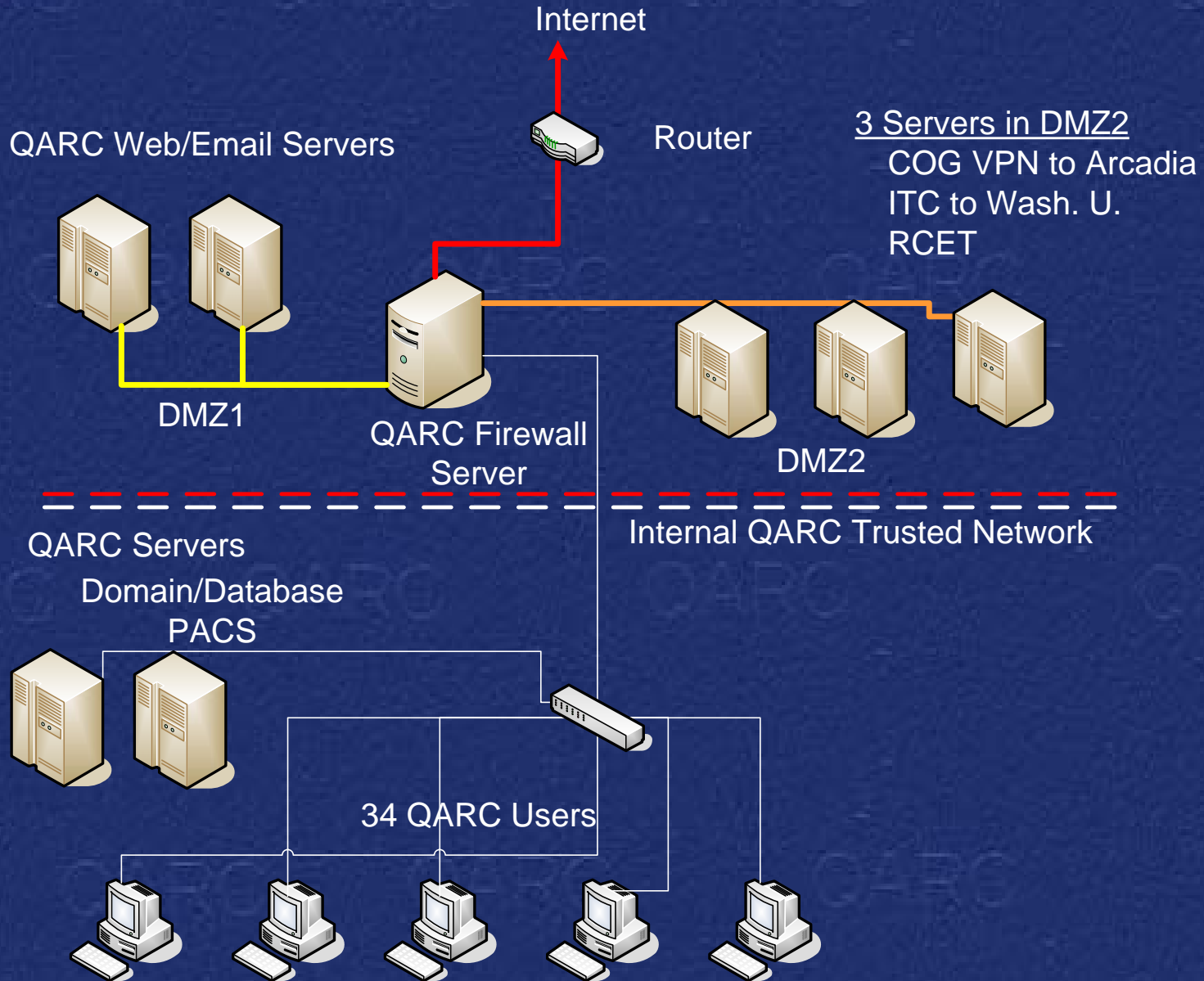
➤ QARC maintains its own networks, website, exchange email server, firewall/VPN server, domain server, PACS server, client systems and all associated peripherals

There are two DMZ (Demilitarized Zones accessible via the internet)

*DMZ1 serves the general public providing web and email services

*DMZ2 serves specific groups, ATC and COG
Internal 1gb network

QARC Computing Infrastructure - Current



QARC Computing Infrastructure – Near Future

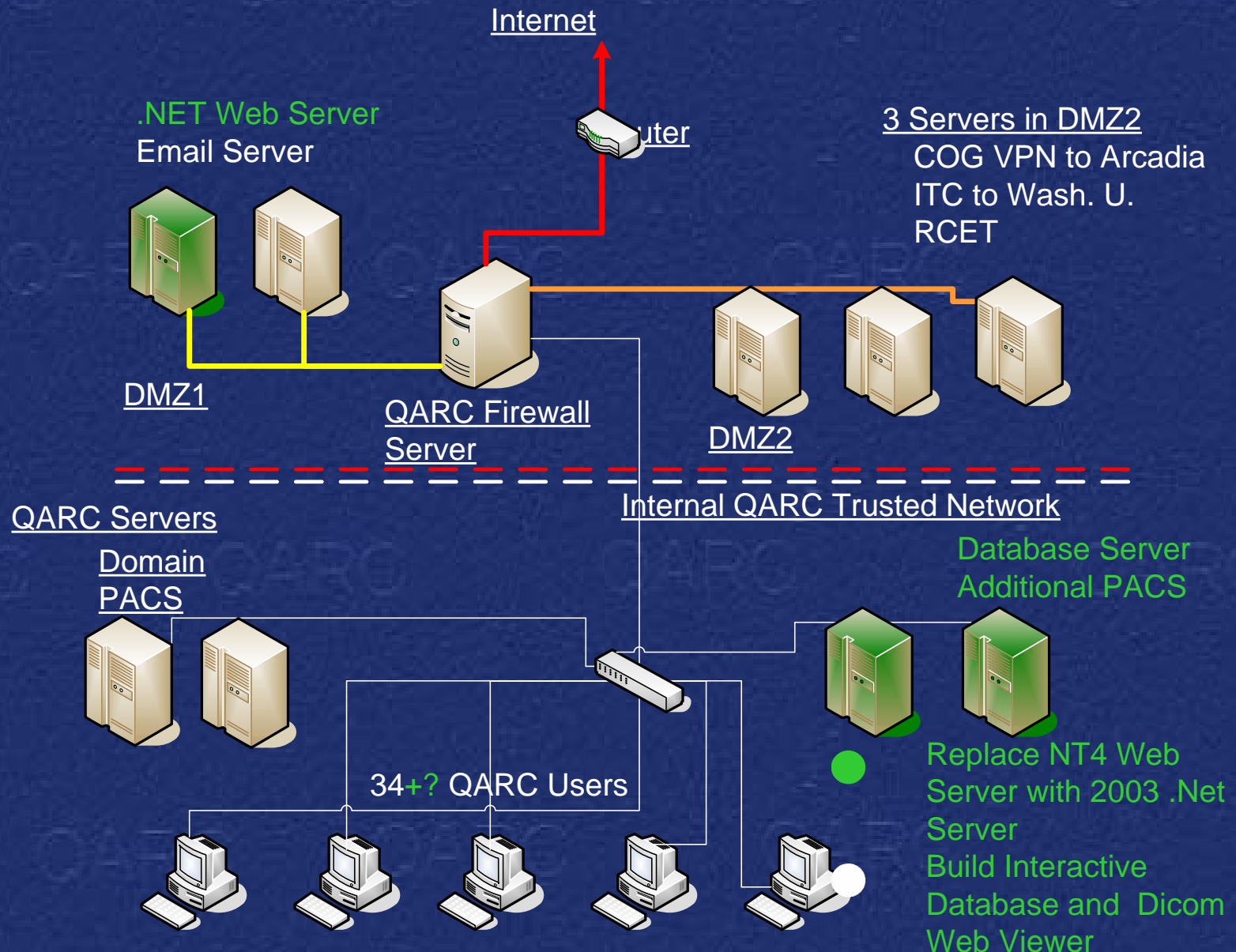
- Upgrade web server to .NET to accommodate web development – Dicom Web Viewer

Install Backup Domain Controller/Database Server

Install additional PACS server to load balance currently stressed system

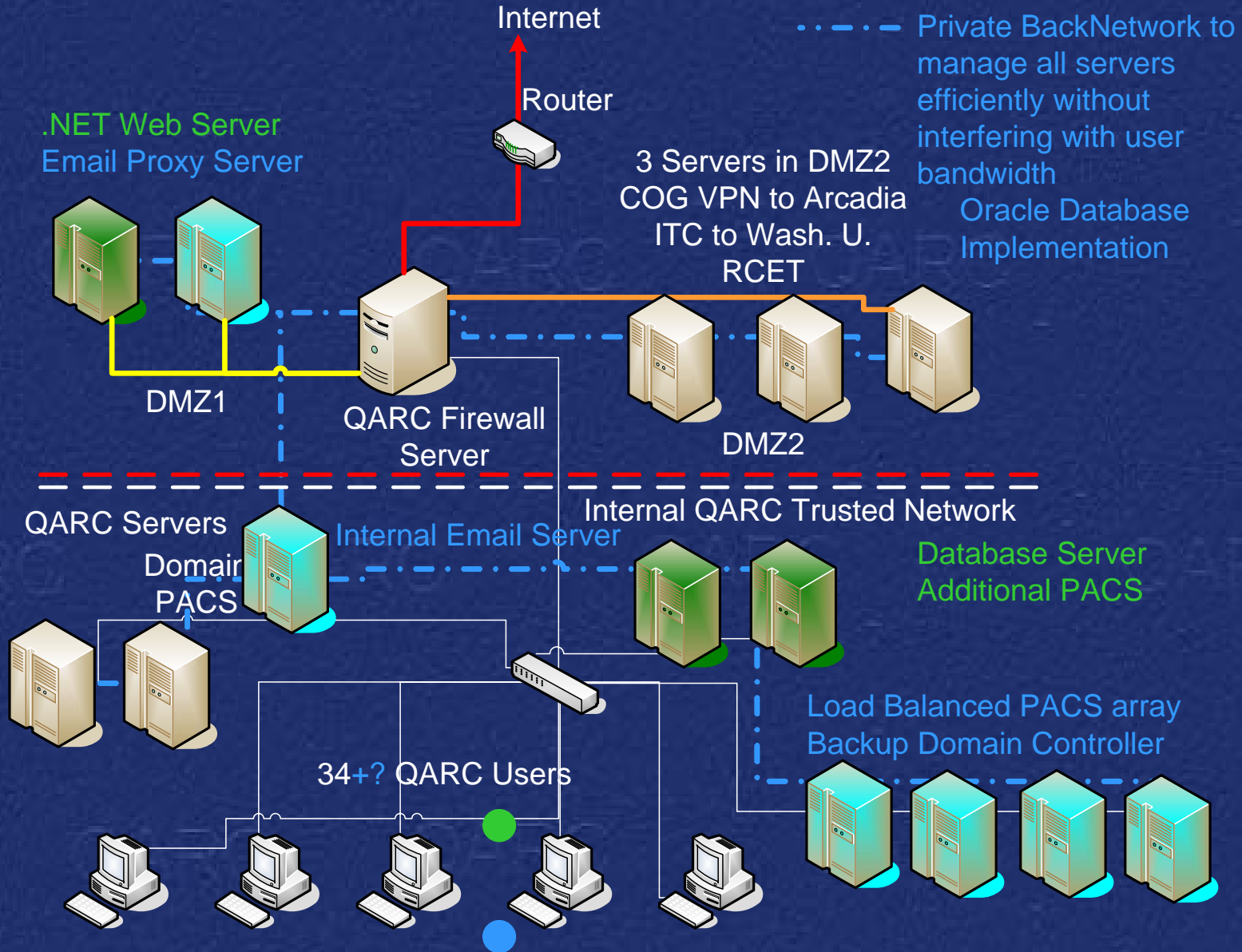
QARC Computing Infrastructure – Near Future

Green indicates updates



QARC Computing Infrastructure – Future

Blue indicates updates



QARC

- Strategy for Future Developments
- Continue to streamline front end data entry from primary investigators to QA centers
- Develop backend strategies for QA database synergy and data query
- Develop an ATC strategy for imaging