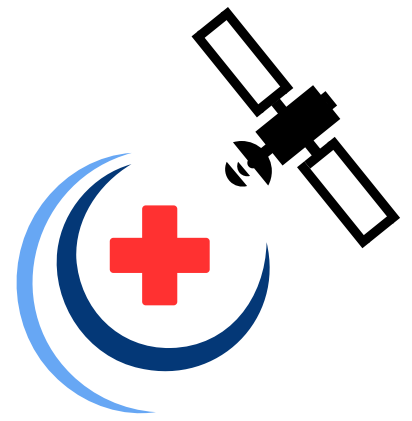


Downtime PACS™



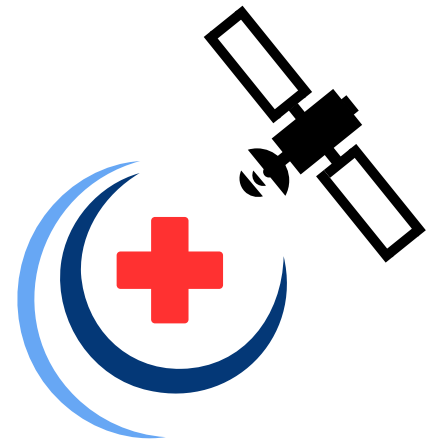
PRODUCT SUITE FAQs

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Fail Safe Radiology Backup

Downtime PACS™



PRODUCT SUITE FAQs

Failsafe PACS™

Portable PACS™

Parallel PACS™

Continuity PACS™

Failsafe
Radiology
Backup

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01

Administrators

(Hospital & Radiology Leadership)

GENERAL QUESTIONS

(Applies to All Products)

**What is Downtime PACS,
and what problem
does it solve?**

Downtime PACS is a suite of imaging continuity systems that ensures uninterrupted access to diagnostic images when your hospital or group's primary imaging infrastructure is down—due to power outages, cyberattacks, PACS failures, or network disruptions.

**Does it replace
our PACS, RIS,
or EMR?**

No—Downtime PACS is a non-integrated safety system. It is not a replacement for your enterprise PACS, RIS, or EMR. Instead, it works around them during failure, ensuring imaging continues and care is not delayed. Once systems are restored, any needed reintegration follows your existing downtime recovery process.



CURRENT IMAGING CHAIN VULNERABILITIES

To make the value of Downtime PACS clear, here's how most imaging workflows are dependent on a fragile web of tightly integrated systems:

| System Component | Dependency | What Happens During Downtime |
|--------------------------------------|---|---|
| Modalities (CT/MRI/XR) | Require routing targets | Imaging often stops if PACS is unreachable |
| PACS | Needs storage + database + viewer | Image access fails if PACS server goes down |
| RIS | Orders & scheduling | Orders can't be placed or retrieved |
| EMR | Report integration | Reports won't populate in the EMR |
| SAN/VNA | Centralized long-term storage | Images may not be retrievable |
| Routers/Firewalls | Image delivery & access | VPN or firewall issues block external reads |
| Network (ISP/Internet) | Cloud access + radiology group connection | Offsite reads become impossible |
| VPN / Citrix / Access Gateway | Radiologists rely on it | If VPN fails, no reads happen externally |

Most systems are brittle and interdependent. A single failure point can halt imaging and delay care. Downtime PACS is designed to keep imaging workflows alive when the rest of the chain is compromised.



REINTEGRATION & INTEROPERABILITY

What happens to images and reports created during downtime?

Downtime PACS captures and stores images locally and in the DTP Cloud PACS. Reports are created and also stored in the DTP Cloud PACS. Once your primary systems are restored, these can be exported and reconciled using standard DICOM or PDF formats, based on your organization's downtime recovery SOPs.

Does Downtime PACS integrate with our EMR, RIS, or HL7 messaging systems?

No—Downtime PACS does not participate in live integration or HL7 messaging. Its design purpose is to function independently, outside of these systems. This preserves stability and resilience when your infrastructure is compromised.



PRODUCT SUMMARY

Failsafe PACS (Installed)

- Standalone system, locally deployed (rack or shelf mount)
- Operates without EMR, RIS, or PACS integration
- Viewer and reporting tools included
- 5G/LTE Cellular, Starlink satellite, and local ISP connectivity options
- Ideal for keeping care moving when your core systems are offline
- Not connected to existing hospital infrastructure
- Directly connected to modalities only when needed

Parallel PACS

- Always-on and resides on the hospital network
- Operates in parallel with existing PACS, sending studies to DTP Cloud PACS, radiology provider PACS, or both
- Does not replace your PACS or EMR—adds live resiliency and routing redundancy
- Maintains local copy of all routed studies for redundancy
- Optional structured reporting tools accessible via DTP Cloud PACS viewer
- Always connected to existing hospital infrastructure

Continuity PACS

- Combines Failsafe PACS + Parallel PACS, deployed as separate systems
- Allows real-time routing and offline survivability
- Maximizes operational uptime across all imaging functions

Portable PACS (Field Version)

- Same as Failsafe PACS but ruggedized and travel-ready
- Designed for emergency response, rural care, or humanitarian use
- Battery-supported, includes 5G/LTE and satellite connectivity
- Sets up in <15 minutes, usable anywhere



TAKEAWAY FOR ADMINS:

Your current imaging ecosystem likely depends on:

- 10–15 interdependent systems
- Multiple vendors
- Varying levels of IT support

Downtime PACS reduces that complexity when it matters most—during failure—and ensures that your:

- CT, X-ray, and Ultrasound or other modalities can continue scanning
- Radiologists can continue reading
- Clinicians can still see images and reports
- Compliance and care standards remain intact



02

IT Teams

(Hospital & Radiology Group Tech Staff)

GENERAL QUESTIONS

(Applies to All Products)

How does Downtime PACS integrate into our existing infrastructure?

It doesn't—in the best way possible. Downtime PACS was designed to function outside your hospital's PACS, RIS, EMR, or HL7 stack. This independence is deliberate: it ensures resilience when primary systems fail. Installation is simple, with minimal IT lift.

What systems do we need to configure for Downtime PACS to work?

You only need to configure your modalities to send a DICOM copy to the Downtime PACS edge device (i.e., configure it as an additional DICOM destination). No EMR integration, RIS linkage, or HL7 feeds are required or used.

Can you summarize how this interacts with our current PACS/RIS/EMR setup?

Think of it as a non-disruptive overlay:

- It receives DICOM directly from modalities
- It stores, displays, and can route images independently
- It does not touch HL7, patient orders, billing, scheduling, or ADT systems
- When your core systems go down, Downtime PACS kicks in



ARCHITECTURE & NETWORK QUESTIONS

How is Downtime PACS deployed on our network?

It depends on the system:

| System | Network Mode |
|-----------------|--|
| Failsafe PACS | Air-gapped or isolated VLAN |
| Portable PACS | Same as Failsafe PACS, in a portable form |
| Parallel PACS | On internal network (same subnet as primary PACS) |
| Continuity PACS | Both Failsafe PACS and Parallel PACS systems, but never interconnected |

What ports/protocols does it use?

Standard DICOM (C-STORE) over TCP/IP for receive and forward. HTTPS for the viewer and DTP Cloud PACS sync. Full port list provided during implementation, but typically <5 open ports are required.

Is Downtime PACS compatible with firewalls and VPN segmentation?

Yes—Edge devices can operate entirely within a designated VLAN or firewall zone, and outbound connectivity to the DTP Cloud PACS is via encrypted HTTPS/TLS. No inbound ports are required from external networks.



REINTEGRATION, HL7, RIS/EMR CONCERNS

What happens to patient orders, ADT, or modality worklists during downtime?

Downtime PACS does not interface with HL7 or MWL (modality worklist) systems. When primary systems are down, studies must be acquired using manual input on the modality console. This matches your standard downtime SOPs.

Can Downtime PACS reconcile reports or images with the EMR later?

Not directly—Our reports and images are exportable as PDF and DICOM files and are typically reconciled manually by HIM, PACS admin, or RIS staff post-recovery. Downtime PACS provides standard exports compatible with nearly all PACS/RIS.

Will this cause mismatches or duplicate studies in our PACS or EMR?

It can if reintegration is not managed per downtime policy. We do not attempt automated reconciliation to avoid data integrity risks. Facilities typically flag these studies with custom accession numbers or date markers.



CONNECTIVITY & FORWARDING QUESTIONS

What happens if our VPN or hospital internet goes down?

Downtime PACS systems (all versions) support ISP, satellite (e.g., Starlink), and LTE/5G connections. This allows image forwarding to the DTP Cloud PACS or radiology group PACS even if hospital networking is down.

Can Parallel PACS continue routing if PACS or network fails?

Yes—It's always on. It maintains a local DICOM copy of each study and can be configured to retry delivery or forward to alternate destinations. It does not rely on RIS or HL7 to do this—DICOM only.

Is image reintegration to primary PACS possible?

Yes—but is not automatic. Downtime PACS stores studies on its edge device as well as the DTP Cloud PACS. After recovery, those can be exported and re-ingested by your PACS admin or VNA manager using standard DICOM import workflows.



SECURITY, AUDIT, & COMPLIANCE

Is Downtime PACS HIPAA-compliant?

Yes—All stored and transmitted data is AES-256 encrypted, and our DTP Cloud PACS operates in a HIPAA-secure environment. Audit trails are maintained both on the edge device and within the DTP Cloud PACS viewer.

How is access managed?

Role-based access can be configured by the facility or through the DTP implementation team. The Linux laptop used for offline access is hardened and locked down with preloaded credentials.

What kind of user/device logging is available?

Every login, image access, report action, and export is logged locally and (when connected) synced to the DTP Cloud PACS for full traceability.



DEPLOYMENT & SUPPORT

How long does it take to install?

Typical install time:

- Failsafe PACS: ~1 day rack/shelf setup (wiring and antennas to be preinstalled)
- Portable PACS: ~15 min field-ready deploy
- Parallel PACS: ~1-4 days including network config
- Continuity PACS: Variable

Who provides support during a downtime event?

DTP support is available 24/7 for mission-critical issues. However, all systems are designed to function independently even without DTP Cloud PACS access or support intervention.



03

Clinicians

(Radiologists, Referring Providers)

GENERAL QUESTIONS

(Applies to All Products)

What is Downtime PACS, and why does it matter to me?

Downtime PACS ensures you can view and interpret imaging studies even when your hospital PACS, network, or RIS is down. Whether it's a cyberattack, power outage, or a routine network failure, Downtime PACS keeps your images available and your decisions moving forward.

Can I still access images if the PACS or VPN is down?

Yes—You can view studies using:

- Our browser-based DTP Cloud PACS viewer (when internet is available)
- A secure Linux laptop, preconfigured to access studies via the local DTP network (when internet is down)

Can I create a preliminary or final report from within the system?

Yes—The system includes structured reporting tools that allow you to generate and save reports. We do not offer voice dictation currently due to limitations of a no-install footprint. Reports can be:

- Viewed locally by clinical staff
- Exported later as PDFs
- Reconciled post-downtime by HIM or PACS teams



RADIOLOGISTS: READ-FLOW-SPECIFIC QUESTIONS

Failsafe PACS (Installed)

Will I be able to access studies if the entire hospital is offline?

Yes—Failsafe PACS is designed for total isolation scenarios—no VPN, no PACS, no network? It still works. You will use either a local workstation or Linux laptop to access DTP Cloud PACS through DTP network connections

How do I report exams?

You'll use the structured reporting interface built into the system. These reports are stored in the DTP Cloud PACS. They can be shared or exported via standard processes.

Portable PACS

Is this just for the military or field sites?

Not at all—Portable PACS is used by trauma centers, rural hospitals, and even as an ER-only “failsafe” device. It works exactly like Failsafe PACS but is packaged for rapid deployment.



Parallel PACS

How does this help me in a live hospital environment?

Parallel PACS receives a copy of every study as it's acquired and forwards it directly to your preferred PACS or the DTP Cloud PACS when it is asked (eliminating bandwidth concerns). If the hospital PACS or VPN fails, you'll still receive your images.

Will I need to log in to a new system?

You'll log into the same viewer you're used to if your PACS is functioning. If not, you can access the DTP Cloud PACS viewer via secure browser and continue reporting there.

Continuity PACS

What's the advantage of having both systems?

With Continuity PACS, you're covered in every scenario:

- If components of the primary PACS are not functioning → use Parallel PACS
- If everything crashes in a disaster or cybersecurity event → Failsafe PACS + cloud keeps you running



Referring Providers, ER Physicians, Surgeons

Will I be able to see the images when the network is down?

Yes—If internet is available, images and reports can be accessed through our secure web-based viewer. If there's no connectivity, you can still view them using the secure Linux laptop connected to the local DTP network.

How quickly are images available?

Imaging is available within seconds of transmission—via the DTP Cloud PACS.

How will I know if the system is in use?

Most facilities display “downtime mode” notices or alerts. Regardless, your team will have clear access to either the DTP Cloud PACS viewer or the local laptop during an outage.

Reporting, Reconciliation, & EMR

Will reports be in the EMR during downtime?

No—but they will be stored and retrievable. Any report created during downtime will be exported and reconciled with the EMR by your medical records or IT staff once systems are restored.

How secure is the data?

All data is encrypted in transit and at rest. The Linux laptop is hardened, and all users are authenticated. We maintain detailed access logs, which are available for audit and review.



SUMMARY FOR CLINICIANS:

| Concern | Downtime PACS Response |
|-----------------------|---|
| PACS or VPN outage | Use browser-based or Linux viewer to read |
| RIS/EMR down | Still report using structured tools |
| Internet down | Local access available on Linux device |
| Report storage | Saved in the DTP Cloud PACS, exportable |
| Reconciliation to EMR | Done after the fact by HIM/PACS team |
| Image quality | Full diagnostic DICOM quality maintained |



04

Technologists (Rad Techs, Imaging Staff)

GENERAL QUESTIONS

(Applies to All Products)

What is Downtime PACS, and what does it mean for me as a technologist?

Downtime PACS allows you to keep scanning and saving studies even when your hospital's PACS, RIS, or network is down. It ensures that images are available to radiologists and clinicians even when the rest of the system fails.

Will I need to learn a whole new workflow?

No—The process is similar to what you do now—just with a few key changes depending on the system you're using. The core scanning workflow stays the same, and training is quick.



PRODUCT-SPECIFIC DETAILS

Failsafe PACS

How do I send images to Failsafe PACS if it's not on the hospital network?

Failsafe PACS is designed to be completely isolated from your hospital's network. This means one of two things must happen during a downtime event:

- Option 1: Wi-Fi (if configured) — If your scanner supports Wi-Fi and our local DTP Wi-Fi network is enabled, you'll switch over to that network and send the studies to Failsafe PACS.
- Option 2: Ethernet Cable Swap — Many modalities (like CT, MRI, or CR/DR systems) do not support multiple networks or Wi-Fi. In this case, you'll unplug the hospital network cable and connect the scanner directly to the Failsafe PACS network, typically via a labeled switch or port provided during implementation.

How do I know which scanner goes where?

Your site's downtime protocol will specify what to do during an event. In most cases, a laminated instruction card is placed on each modality showing exactly which port or switch to use for connecting to Downtime PACS.

Can I view studies after I scan them?

Yes—You or the radiologist can use the local Linux laptop to view images and confirm they were received. If internet access is available, authorized users can view them in the DTP Cloud PACS.



Portable PACS

Does Portable PACS require cable swapping too?

Yes—just like Failsafe PACS, Portable PACS is isolated from the hospital network. You'll either connect via local DTP Wi-Fi or plug into the provided ethernet switch. It functions the same way, just in a mobile form.

What if I'm working in a disaster tent or offsite location?

No problem—Portable PACS is designed for field use and includes LTE, satellite, or offline-only operation. The laptop and viewer are preconfigured—you'll just plug in the modality and go.

Parallel PACS

Will I need to swap cables or change networks?

No—Parallel PACS runs on the same hospital network as your PACS. Once configured, it appears as an additional DICOM destination and receives a live copy of every scan you acquire.

Will I even notice it's there?

Probably not—unless the main PACS fails. In that case, the radiologist can still view the study in the DTP Cloud PACS or their group PACS, and you can continue scanning without interruption.



Continuity PACS

**So now I have to deal
with two systems?**

Not quite—Here's how it works:

- In normal operations, Parallel PACS is active and invisible. You scan as usual.
- In a full outage, your team will direct you to switch over to the Failsafe PACS network (either by Wi-Fi or cable) and scan using that route.

Each system has a clearly defined role—and your site's protocol will walk you through exactly what to do when switching modes.



SUMMARY FOR TECHNOLOGISTS:

| Scenario | What You Do |
|-----------------------------------|--|
| PACS or RIS is down (network OK) | Keep scanning; Parallel PACS will forward |
| VPN/internet fails | Cloud browser based viewer fallback via LTE/Satellite (Parallel PACS) |
| Full network or ransomware outage | Unplug scanner from hospital network → plug into DTP network (Failsafe PACS) |
| Viewing confirmation needed | Use Linux laptop or browser-based viewer to verify |
| Orders/RIS unavailable | Enter MRN manually per downtime protocol |



SECURITY & SUPPORT

Is the system
secure?

Yes—All local storage is encrypted. Viewer access is password-protected. The system does not touch your hospital network, reducing exposure to attacks or malware.

Will I need to upload
anything after
the outage?

No—Techs are not typically responsible for reintegration. Imaging and reports will be exported and re-ingested by PACS or HIM teams using standard workflows.



Downtime PACS

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