

# Healthcare Data Management Solution for MEDITECH SCA

BridgeHead's Healthcare Data Management Solution for MEDITECH Scanning And Archiving (SCA) provides cost effective retention and protection of your critical MEDITECH Scanning and Archiving content.

## KEY FEATURES

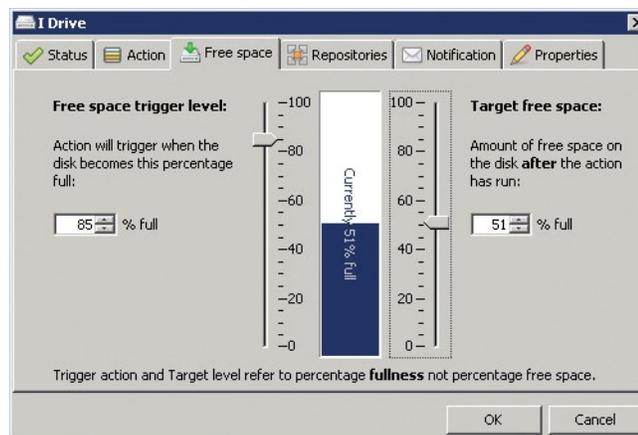
- ▶ Manage primary storage used by MEDITECH SCA module
- ▶ Reduce costs by enabling a tiered storage architecture
- ▶ Storage vendor agnostic & interfaces to (almost) any backend storage including Cloud appliances, secondary tier disk & tape
- ▶ Reduces the backup volume, backup recovery windows & resource consumption
- ▶ Eliminate manual file management with a sophisticated policy-based rules engine for archiving
- ▶ Enhance data protection with a multi-copy archive
- ▶ Integrates with the core Healthcare Data Management (HDM) Platform

## Introduction

MEDITECH's Scanning and Archiving (SCA) module is considered now, more than ever before, a critical part of the MEDITECH infrastructure as it manages the Electronic Medical Record/Electronic Patient Record. However, the SCA module poses some unique challenges for hospitals in terms of data management not least because it creates a vast amount of information. Retaining this large volume of data on primary storage is not an option - it is not economically viable and hard to secure. Backing up such a vast quantity of data using traditional backup is almost impossible - the backup, and particularly the restore times, are unacceptable. With the increasing reliance of hospitals on their electronic data, and as disaster recovery strategies become mandated, whether by Government or other bodies, backup alone cannot be the answer - the problem can only be alleviated using a co-ordinated archive and backup strategy.

Unfortunately, archiving, in this context, is not totally straight forward. MEDITECH SCA always creates large volumes of rarely changed or accessed data. But just as no two hospitals are the same, no two SCA installations are identical either - consequently, the archiving policies need to be tailored to each site.

Overcoming these challenges requires the creation of an archive policy set that matches the data lifecycle and synchronizes archive with backup to ensure full protection. BridgeHead Software has created a solution, using a combination of BridgeHead's Healthcare Data Management Platform, in conjunction with its File Archiving Agent and MEDITECH ISB Agent, supplemented by a Professional Services engagement, to offer hospitals the answer to their SCA data management issues.



# Technical Overview

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BridgeHead's Healthcare Data Management Solution For MEDITECH SCA comprises four core components:

1. Healthcare Data Management (HDM) Platform
2. File Archiving Agent (FileStore)
3. MEDITECH ISB Backup Agent
4. Professional Services

## 1. Healthcare Data Management (HDM) Platform

BridgeHead's Healthcare Data Management Solution for MEDITECH SCA is underpinned by the HDM Platform – a common element to all BridgeHead solutions. The HDM Platform contains the base functionality that is used in conjunction with BridgeHead Backup and Archiving Agents to transform and transport data to its final destination. It can optimize storage utilization and efficiency through technologies such as compression and single instancing, secure data using encryption, and has the ability to connect to any media whether disk, cloud, tape, optical or VTL, irrespective of vendor. For more information, please see the Healthcare Data Management (HDM) Platform datasheet.

## 2. File Archiving Agent (FileStore)

BridgeHead's File Archiving Agent (also known as 'FileStore') works in conjunction with the HDM Platform to enable hospitals, using the MEDITECH SCA module, to profile their data and create actionable policies. These policies have been specifically designed for the SCA environment so that the data can be more effectively managed.

These actions include: quickly making an archive copy to fully protect the data and preserve all versions of files on secondary storage; stubbing (i.e. reducing files to pointers) of older data to reduce primary storage consumption (stub files are automatically re-populated on access); and compressing and encrypting data migrated to secondary storage.

The File Archiving Agent's Free Space Monitor keeps the SCA volumes with sufficient free space for new data to be added. For more information, please see the File Archiving Agent datasheet.

### Key Features

- ▶ Simple, effective policy engine to locate and action items
- ▶ Supports virtual files for maximum efficiency when integrating with applications
- ▶ Freespace monitor to reclaim space from archived files, when required
- ▶ Full content indexing for easy search & retrieval of files
- ▶ Web GUIs for easy content searching
- ▶ Creates data profile reports
- ▶ Inbuilt retention management & legal hold policy engine

## 3. MEDITECH ISB Backup Agent

The ability to quickly and efficiently backup and restore a Healthcare Information System (HIS) is critical in the event of a disaster, system outage, loss or corruption. Recognizing this, BridgeHead Software and MEDITECH co-designed the Integrated Serverless Backup (ISB) API in 2002 to allow both the backup and HIS applications to work together to produce a 'tried and tested' data protection solution. BridgeHead was not only the first partner to use this approach, but remains the only vendor that supports all MEDITECH certified storage arrays, offering hospitals choice over the storage technologies they employ. Naturally, MEDITECH chose BridgeHead's technology for its own data management.

In the case of the SCA, BridgeHead's MEDITECH ISB Backup Agent works in concert with the HDM Platform to create a consistent backup of the MEDITECH SCA application that can be swiftly restored to pre-defined 'recovery points' or 'points in time'. Because SCA generates many millions of small page images files, it is not practicable to backup at a file-by-file level. This is a key feature of ISB – by making a frozen Point-in-Time copy of the data, using advanced Storage Array features, the copy can be backed up as an entire disk – this is known as an Image Backup. Image Backups are fast because the disk is being read sequentially with no file open/close overhead and, most critically, can be restored just as fast as they can be written.

Without the data reduction that FileStore provides [see previous paragraph] even ISB would struggle - this is due to the fact that SCA grows to many terabytes in most hospitals. Using archiving to reduce the amount on primary storage, and ISB to quickly backup the online parts, allows a protection scheme with fast file and system based recovery to be created. For more information, please see the MEDITECH ISB Backup Agent datasheet.

### Key Features

- ▶ Supports ALL MEDITECH certified storage arrays
- ▶ Vendor independent data protection
- ▶ Leverages the full power of modern storage arrays
- ▶ No I/O performance impact on the MEDITECH server
- ▶ Complete disaster protection
- ▶ Fast operational recovery
- ▶ Block level backup and restore for speed
- ▶ ISB is certified and used by MEDITECH itself
- ▶ Graphical restore wizard
- ▶ Works in concert with other BridgeHead Backup and Archiving Agents

## 4. Professional Services

As already mentioned, no two MEDITECH SCA applications are implemented in the same way. This is entirely dependent on the needs of the specific healthcare facility. In terms of backup and archiving of SCA data, it's not a simple case of buying some tools and off you go. As there is so much variation in the size of the MEDITECH SCA application, which modules are deployed etc., BridgeHead's offering cannot be a software only solution. Consequently, BridgeHead's Professional Services team provide the consultancy to tailor an integrated approach to each particular SCA implementation.

As BridgeHead has worked closely with MEDITECH for over 10 years, the Professional Services team are experts in the data management of MEDITECH environments. Each team member has undergone rigorous training and been exposed to many different types of healthcare organization, large and small, single site to multiple site. As a result, they are best placed to help customers achieve their data management objectives for MEDITECH SCA.

### Key Features

- ▶ Professional installers who understand healthcare data, clinical & administrative
- ▶ Trained in the full power of BridgeHead's HDM Solution
- ▶ Manage initial data ingest or LUN migration
- ▶ Tune policies to match the required SCA implementation

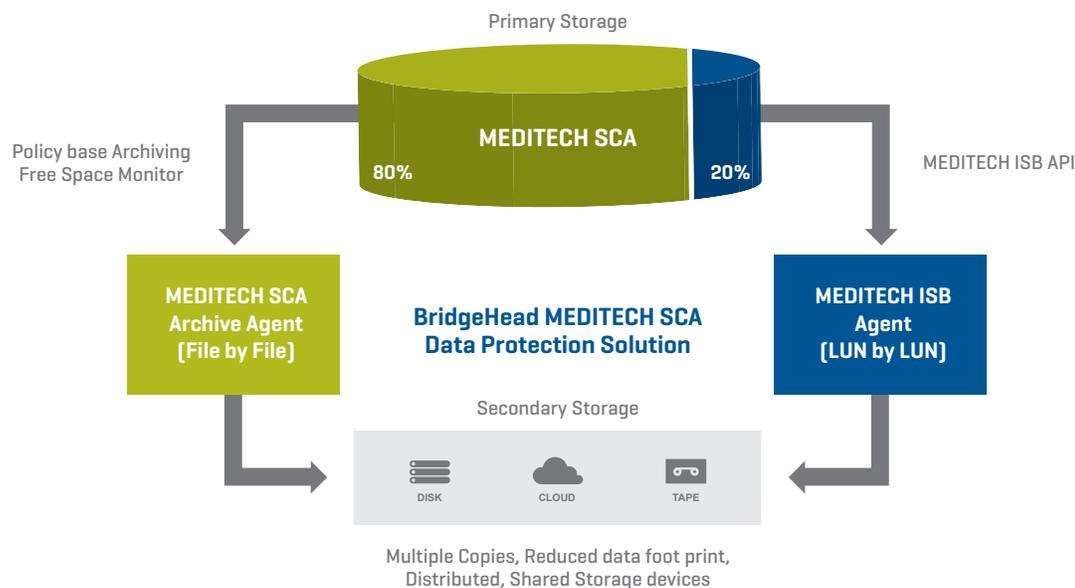


Figure 1 Illustrating that data protection is optimized if the file data [usually around 80% of the total] is protected from the archive and the systems data [the remaining 20%] is protected through backup.

# Functional Specification

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## File Archiving Agent [FileStore]

- ▶ Policies can be run over CIFS shares or locally
- ▶ Stubbing actions supported on the following environments:
  - ▶ Windows 2003/2008

## MEDITECH ISB Backup Agent

ISB and IDR options available for all MEDITECH supported storage arrays:

- ▶ Dell
  - ▶ Compellent
- ▶ EMC
  - ▶ Clariion CX/VNX
  - ▶ Clariion CX/VNX with RecoverPoint
  - ▶ Symmetrix DMX/VMAX
  - ▶ Symmetrix DMX/VMAX with RecoverPoint
- ▶ IBM
  - ▶ DS3/4/5000
  - ▶ DS8000
  - ▶ XIV
  - ▶ SVC/V7000
- ▶ HP
  - ▶ EVA
  - ▶ XP/P9000
  - ▶ 3PAR

Dell Compellent and HP 3PAR are supported using the latest MEDITECH MBF architecture  
(For more information, please see BridgeHead's MEDITECH ISB & IDR Backup Agents datasheet)



With 20 years' experience in data and storage management, and 10 years in healthcare, BridgeHead Software is trusted by over 1,000 hospitals worldwide.

Today, BridgeHead Software helps healthcare facilities overcome challenges stemming from rising data volumes and increasing storage costs while delivering peace of mind around how to **STORE**, **PROTECT** and **SHARE** clinical and administrative information.

BridgeHead's Healthcare Data Management (HDM) solutions are designed to work with any hospital's chosen applications and storage hardware, regardless of vendor, providing greater choice, flexibility and control over the way data is managed, now and in the future.

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