



Student Systems Environment

The Student Systems at MIT, those maintained by Student Services Information Technology (SSIT), are responsible for providing a wide variety of services. The broad areas covered include: undergraduate and graduate admissions, registration, all student financial and accounting, grade processing, enrollment and the provision of basic services to students such as dining and housing.

The systems are built on four major platforms, supported by three shared databases. The legacy Mainframe Admissions Database contains admissions data for all students at MIT. The newer Admissions Database, using Oracle, is used by the Undergraduate Admissions system, and synchronizes admissions data with the mainframe admissions database. Lastly, the SIS database is the repository for the vast majority of student information.

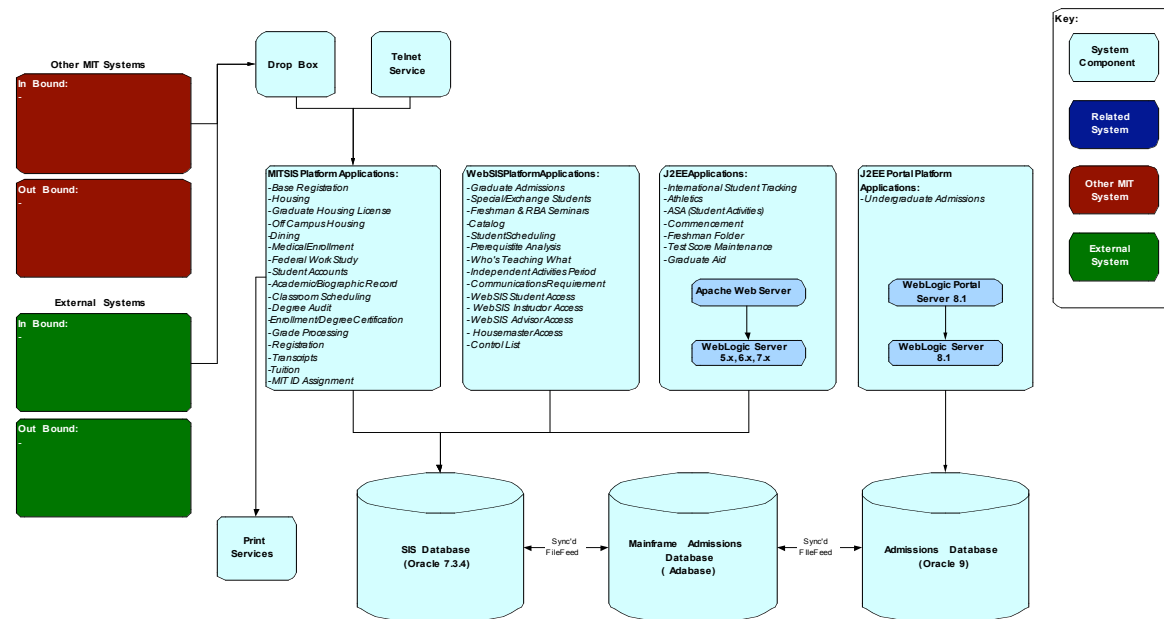
The MITSIS platform is the established legacy platform for developing applications within SSIT. It is based on a highly customized version of a purchased package called Banner, which is implemented in SQL*Forms 3.0 and an extensive set of batch jobs written primarily in Brio SQR and Pro*C. The MITSIS database is supported by Oracle 7.3.4 – the last version compatible with Oracle SQL*Forms 3.0 an SQL*Net 2 upon which the Banner package depends. The MITSIS platform supports a wide variety of applications for use within student services. In addition there are several vital PowerBuilder applications that, while not part of the MITSIS platform, are contemporary with it.

The WebSIS platform is an outgrowth of the MITSIS platform created for developing web-enabled applications. It is a mix of technologies mostly using CGI technology to present a web interface to applications. The WebSIS platform primarily consists of Brio SQR used as both a transactional and reporting CGI technology. Brio SQR contains embedded SQL and also calls upon an extensive library of business logic implemented as Oracle stored procedures.

More recently SSIT have been using J2EE technologies to implement applications. Commonly referred to as the J2EE Non-Portal Platform, is an aggregation of applications that have been built, for varying purposes and at varying times, on the J2EE platform, but remain separate applications.

The final platform, and most recent, is the J2EE portal platform. This platform leverages BEA WebLogic Server and WebLogic Portal Server to create unified architecture and presentation strategy for new applications. The first application to be developed under the J2EE portal platform is the Undergraduate Admissions Portal. It is expected that the technological and physical infrastructure put in to place for the Undergraduate Admissions Portal can be used to support future applications developed within SSIT. The J2EE portal platform was explicitly built with the twin goals of supporting the Admissions Portal and constructing a Services Oriented Architecture (SOA) migration target for all existing SSIT platforms.

Student Systems Logical Architecture Diagram



Student Systems Physical Architecture Diagram

