

## Case Study: Scheduling Iowa Soccer



Iowa Soccer is a non-profit organization whose membership is comprised of over 90 affiliate organizations, 35,000 youth and adult players, and 6,500 coaches. Through a variety of programming, benefits and services, Iowa Soccer's staff and Board aims to live its mission to create soccer opportunities.

One of the many competitions that Iowa Soccer offers is the statewide Iowa Soccer League (ISL). The ISL provides a competitive structure for premier and competitive teams to play against other teams from across the state.

In recent years, the ISL had experienced substantial growth. When the ISL Director retired in 2013, Iowa Soccer began a search for a more sophisticated solution that could better handle the data and scheduling needs of 350+ statewide teams. After researching several different options, Iowa Soccer selected TeamsCompete as its scheduling provider.

## Iowa Soccer League

The clubs that participate in the ISL are primarily located in three areas: Greater Des Moines, Iowa City/Cedar Rapids, and the Davenport/Muscatine area. The distance between these three regions complicates the scheduling process as Des Moines is two hours away from Iowa City/Cedar Rapids and two hours and forty five minutes away from Davenport. Additionally, the ISL also accommodates a number of different requests from clubs. These requests include permitting teams to play in tournaments that overlap season dates; requests to group teams to avoid conflicting game times, requests for additional games; and requests from Midwest Regional League teams who want to play a few friendlies against ISL teams.

To manage these issues, the ISL structures its season in the following manner:

- The ISL offers teams a minimum of 7 or 8 games and does not maintain standings.
- The ISL conducts its season over 10 weekends; providing a total of 20 playdates.
- To enable teams to play in tournaments, the ISL allows each team to blackout up to 8 play dates.
- The ISL permits clubs to manage their coaches and player schedules by allowing them to "block" (group) teams together. Blocked teams are scheduled to avoid timing conflicts.
- Travel distances are managed by limiting longer travel to teams U13 and older. Teams in these
  age groups are separated into two regions: Eastside (Cedar Rapids/Iowa City/Davenport) and
  Westside (Greater Des Moines). Teams that travel out of region, play two opponents on the
  same day with a rest period between games.

Combined, these requests generate a significant amount of data to collect, track, and process (see table). TeamsCompete provides a technology based service that manages Iowa Soccer's data and produces the schedule. The service is broken into 3 phases.

- **Phase 1:** *Collecting* and *Confirming* the required season data from clubs (teams, fields, etc)- including any special requests.
  - **Phase 2**: *Generating* and *Optimizing* the schedule. Special requests are applied during this phase.
    - **Phase 3**: *Reviewing* and *Adjusting* of the preliminary schedule based on feedback from clubs. The schedule is then published to coaches and parents.

ISL Fall 2014 Data

48

32

346

2329

101

25

108

1674

Divisions/Flights

Blackout Dates

Field Complex

Fields Used

Blocks (grouped teams)

Field Utilization Times

Clubs

Teams



## Case Study: Scheduling Iowa Soccer

"We run a very unique league, both philosophically and operationally," states Jenny Wood, Iowa Soccer's Director of Marketing and Communications. "Our members are given extreme latitude to select factors that most algorithms can't handle. Between blackout dates, sharing players and sharing coaches, in essence TeamsCompete is putting together custom schedules for nearly 400 teams. Every scheduler knows the two primary factors to get a game on a schedule are having teams available on common dates and available fields in the home team's area. TeamsCompete's sophistication is remarkable," finalized Wood.

The TeamsCompete technology has assisted the League Director in managing the many, and often competing, factors that create limits on scheduling options. The ISL has grown 10% to almost 400 teams in the Fall 2016 season.

## Iowa Soccer Recreational League

In the summer of 2016, Iowa Soccer launched a recreational league, the Iowa Soccer League Level 3 Central, for over 35 member clubs in central Iowa. Between the statewide ISL and the new league, nearly 40% of Iowa Soccer member clubs entered teams in both leagues in the fall of 2016.

Historically, the schedules for the State League and a previous Central Iowa rec league were created separately and field usage was not coordinated. The result was a significant number of double-booked fields for the clubs that had teams in both leagues; requiring many hours to adjust the games.

After launching the new rec league, Iowa Soccer reached out to TeamsCompete to see if their service could solve the double booking challenges and also minimize travel distance. These became the central principles for the new rec league. TeamsCompete achieved both objectives.

**Double Bookings**: TeamsCompete's scheduling technology was designed to manage facilities that are utilized by multiple clubs and leagues. For Iowa Soccer, TeamsCompete identified field usage imbalances before the start of scheduling and continually reviewed the fields as each schedule was optimized. By the time the review phase began for the Level 3 Central League, only .5 % of the shared fields were double booked. This small percentage of double booked games was resolved before the Level 3 Central schedule was released to coaches and parents.

**Travel:** TeamsCompete utilized its scheduling technology to enforce drive time limits for games. Iowa Soccer requested a 40-minute drive time limit for the Level 3 Central League, recognizing that a small number of clubs would exceed this limit. For the season, 92% of all teams were provided a schedule with an average away game drive time below the limit (see chart).

ISL Level 3 Central Team Travel Times	
< 25 Minutes	22%
25 – 30 minutes	34%
31 – 35 Minutes	19%
35 – 40 Minutes	17%
> 40 Minutes	8%

"We thought the use of TeamsCompete for this new league was a year or so away, but quickly realized we could make better use of resources - both ours and members' - by running the state and rec schedules together with TeamsCompete. The data show we hit on both objectives: hit the target for travel times for the rec league and almost no fields were double-booked," said Wood.

TeamsCompete's Scheduling Service has provided Iowa Soccer with a solution to the scheduling challenges it faced. In doing so, TeamsCompete has freed up valuable staff time at both Iowa Soccer and the individual clubs; time that can now be focused on improving the league experience for players and coaches.