

# Technical Proposal

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High-Score Ranking via  
the World-Wide Web and  
Internet E-mail

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# Technical Proposal

## PC High-Score Competition via the World-Wide Web and Internet E-mail

### Concept

Arcade game players have the satisfaction of being ranked against other players who have played on the same arcade machine. Home PC game players can rank themselves against family members or friends. What if game players could be ranked against other players from across the world?

### User Process

To the player, this new ability would be supported through the addition of a "Submit High Scores" menu option to all Windows 95 titles. Selecting this option would then present a dialog which allows the games' current high score list to be submitted via Internet E-mail or saved to disk for later submission to Atari (through snail-mail, BBS, or an alternative electronic provider).

An automated mail-server at Atari (for example, [highscores@atari.com](mailto:highscores@atari.com)) would collect internet mail submissions, compare scores, and, if necessary, update the current high score list and statistics on Atari's World-Wide Web server.

### Forgery Protection

To prevent against dishonest players, the E-mail process occurs completely behind-the-scenes. Assuming the user has a connection to the Internet the transfer of mail would happen invisibly to the user (with the exception of possibly prompting for a logon password for delivery).

Additionally, the high-score information "packet" would be encrypted using RSA or DES to prevent the user from forging high score information. This allows even non-Internet users to submit a simple text file via another method. The information looks like gibberish to the player and remains gibberish without the private decryption key held by Atari Corp.

A mock-up packet follows:

```
$HSS1.0$
$Atari Interactive High Score Submission Message$
$GameTitle$

$Encrypted Message Follows:$
FJKLDSTU0845WLKGLKSUT902U52LHJUDY (*& (*&Foudskt1wdhjt2o4857phj
dvjdso7902457pOLOIUY08W750P4U;LISHJGPO7NH0Ph1jFHRO7T04574P2OTJH
$End Message$
```

Encoded in this packet is the following information:

- Name or Handle of Submitter
- City and State of Submitter
- Game Title and Version
- E-mail Address
- Game high scores, completion level, difficulty settings, etc.

### **Return Notification**

After a submitted mail message is received by the Atari mail-server and a ranking is established, a return mail message can be automatically generated that informs the player of his ranking statistics. Some example return notifications follow:

To: joe@aol.com  
From: highscores@atari.com

Congratulations Joe!

You have placed among the top 50 Tempest 2000 players in the world. For more details on your ranking, visit the Atari World-Wide Web Site at <http://www.atari.com>

You're only 123,000 points away from being the best Tempest 2000 player alive!

Don't forget to check out FlipOut available at your local computer reseller.

Thanks for playing.

Or

To: joe@aol.com  
From: highscores@atari.com

Sorry Joe, you didn't rank among the top 100 FlipOut players but keep trying. The score to beat is 35,000 points. To see who you're competing against, visit the Atari World-Wide Web Site at <http://www.atari.com>

Don't forget to check out Tempest 2000 available at your local computer reseller.

Thanks for playing.

Messages could also be proactive as shown in the following example:

To: joe@aol.com  
From: highscores@atari.com

Don't give up now Joe!

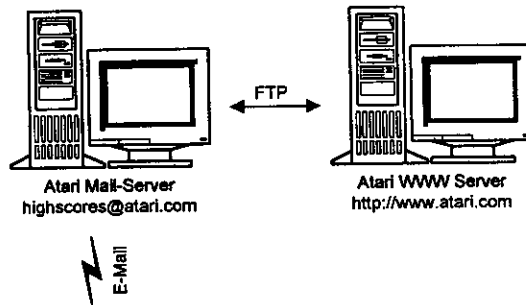
Your score of 122,000 points on FlipOut is yesterday's news. John Doe from Cupertino, CA just knocked you off the list. The new score to beat is 335,230 points.

To see the current rankings, visit the Atari World-Wide Web Site at <http://www.atari.com>

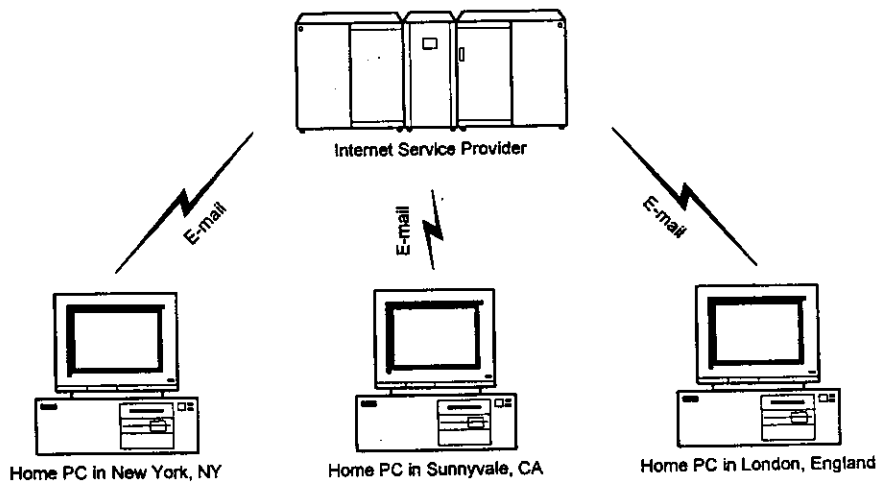
Don't forget to check out Tempest 2000 available at your local computer reseller.

Thanks for playing.

### Process



### Internet



## Considerations

Several factors could determine the exact manner in which this proposal is implemented as follows:

- 1) Given the suggested process, currently, any person having a subscription to an Internet service provider, direct Internet, CompuServe, or Microsoft Network connection could use this feature transparently. Users of other service providers like America Online would have to save the message to disk for import into their mail program. Users without an online subscription could be allowed to send submissions using their modem and an Atari BBS. Users without a modem could be allowed to send submissions via mail (this would require more work for ranking notification).
- 2) Though RSA is a far more secure method of encoding messages in a secure manner than DES, RSA can not be included in an product exported from the US without a special license. Atari, for example, has a special license for Jaguar.
- 3) Despite any encryption, forgery from a sophisticated source is always a possibility and contingency plans should be discussed. In addition, ranking reliability needs to be fully disclaimed.
- 4) Asking each of our developers to include code to implement this proposed idea would be costly. Instead, we should develop the client software as a Win32 DLL with hooks that games we develop can utilize.

## Marketing Benefits

Several marketing benefits are available to titles using the ideas in this proposal:

- 1) Game players are encouraged to visit the Atari WWW site often to compare their current rankings. This gives us the opportunity to present new title information to them as they enter.
- 2) Game players will want to purchase additional titles with this functionality.
- 3) Contests and other promotions can be offered to high ranking players.
- 4) We obtain the e-mail address of a large percentage of our users for the purposes of delivering marketing messages, patches, and ranking notices.
- 5) The technology and programming required to implement these ideas can also be used for automatic game registration with Atari.

## Company-Wide Benefits

- 1) Atari could continue to extend its support of Internet technologies.
- 2) The process is potentially *patentable* and definitely licensable.