



August 8, 2008

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## **NBC Connects Overseas at the Olympics with RTS®**

***For the 2008 Olympics, NBC is using RTS® RVON VoIP technology combined with RTS® Intelligent Trunking to create a global communications network with an unprecedented level of connectivity.***

**August 8, 2008, Beijing, China** Recently I had the opportunity to speak with Bob Streeter, a communications veteran at NBC, about the intercom network they are using at the Olympic Games this year. Increased use of Trunking and RVON VoIP with an emphasis on remote manageability allows NBC to streamline overseas communication for a smoother production process.

In addition to providing the intercom equipment, RTS® has dedicated systems engineers deployed in Beijing during the Games.

### **Bryan: How many Olympic Games have you been involved with at NBC?**

Bob: I've been involved with the Olympics since the 1996 Atlanta summer Olympics.

### **What is your role at NBC in relation to the Games at Beijing?**

Me and my colleague Chris Papas support the stateside Olympic communications and also the interconnect to China.

### **In which locations are NBC's intercom systems connected?**

There will be four intercom systems tied together in Beijing: the boxing arena [The Worker's Gymnasium], the main sports IBC [International Broadcast Center], the NBC newsgathering facility, and also the locations where NBC's Today Show and Nightly News will broadcast from.

### **Do all of NBC's facilities use RTS®?**

The vast majority of all facilities being used for the Olympics coverage use RTS® and Telex® systems.

### **How many mobile units will be connected to the intercom system?**

There will be more than six and they will be connected via RVON-I/O [VoIP Analog Interface] at the venue.



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**How many users will be on NBC's intercom network?**

I'd say well over 500 users overall. There will be 30 intercom systems trunked together simultaneously and over a dozen directly involved with Olympics production.

**Describe a typical user scenario on the system during the Olympics.**

Most of our users will be on KP-32's [32-position keypanels], many with [EKP-32] expansion panels attached.

**How long did it take to setup the system?**

Obviously there's a great deal of planning that goes into a production like this. The planning part took more than a year, and installation & testing took about 2-3 months.

**Will NBC be interfacing with any older systems?**

The trunked intercom system at NBC in New York has 24 trunked intercom systems on daily basis normally, and the additional intercoms are added to this for the Olympics. As far as the older 9000 intercom systems, we don't use any of those.

**Will NBC be expanding its use of RVON VoIP in Beijing?**

We've been using RVON technology since inception. We had over 200 cards within months of its launch and we have built on RVON as long as it has existed. Our VoIP structure even predates RVON so we've been using the protocol for a long time. In past Olympics, the news venues had RVON since it was introduced. We didn't use it in the sports side until Torino. In Beijing, two of the sports venue intercoms and the two news venue intercoms have RVON.

**How important is remote manageability for an event of this scale, and what role does the intercom system play in that?**

Critical. Absolutely critical. Remote manageability is a key feature that gives us peace of mind and expedites our response to problems. We use it extensively- it's really an extension of what you do on a daily basis. The ability to have a tech login from anywhere and see what's happening is invaluable. Not a day goes by where me or Chris don't login and remotely manage the system with RTS® products.

**NBC is using AIO-16 cards which are new for the Beijing Olympics. What functionality is enabled by these components that NBC didn't have before?**

The smaller footprint allows for 50% less rackspace. This is a very important consideration.



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**How has NBC's communications network been improved since Torino?**

The introduction of trunking capabilities in Beijing is something that differs significantly and has allowed for interfacing needed communications due to the fact that some ops are stateside. Also, there is a lot more RVON VoIP than ever before.

**The Olympics are always a huge undertaking from a broadcast standpoint. Does NBC cover any events that come close in scale?**

It's difficult to compare, but I'd say election night probably comes the closest. But that's just one night though- the Olympics is three weeks long so its not really apples-to-apples. The passing of Pope John Paul II was a big one for us too. Considering the complexity & lack of time to prepare, it was just as challenging. In terms of magnitude, the Olympics is the biggest event. The Millennium was up there because we were covering that live from every time zone.

**Is there much down-time between the conclusion of the Beijing Olympics and the next big event you'll be working on?**

Not at all, in fact, midway through the Olympics we'll be adding yet another trunked intercom in Denver to our system for the news coverage of the Democratic Convention, and within days after that, adding the intercom in Minneapolis for the Republican Convention – three debates and Election Night follow closely thereafter; so no, there's not a lot of down-time this year.

RTS® Intercom Equipment that NBC is using at the 2008 Olympics includes:

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### **Matrix Frames**

- *ADAM* Advanced Digital Audio Matrix
  - *AIO-16* 16-Port Analog I/O Card Kit
  - *DBX-COAX* Dual-bus Expander Coax Card Kit
  - *MCII-E* Ethernet Master Controller Card Kit
  - *RVON-8* 8-Port VoIP via Ethernet Card Kit
  - *XCP-48-TELCO* TELCO™ Breakout Expansion Panel
  - *XCP-ADAM-MC* Breakout Panel

### **Keypanels**

- *KP-32* 32-Position Keypanel
  - *EKP-32* 32-Position Expansion Panel
  - *KP-32RC* GPIO Option Board
  - *RVON-1* VoIP Interface
- *LKP-957* Listen-Only Keypanel

### **Trunkmaster Series**

- *TM-2000* Trunkmaster
- *ICP-2000* Interconnect Panel
- *TM-SI-8* 8-Port RS-485 Serial Interface Card Kit

### **System Peripherals, Accessories, & Headsets**

- *BOP-220* Breakout Panel
- *IFB-828* 8-Channel IFB Panel with Volume Controls
- *MCP-90* Gooseneck Microphone
- *PH-44* Dual-Sided Headset with Flexible Dynamic Boom Mic
- *PH-88* Single-Sided Headset with Flexible Dynamic Boom Mic
- *PS-31* Two-Wire System Power Supply
- *RVON-I/O* 8-Port VoIP Analog Interface
- *SAP-1626* Source Assignment Panel
- *SSA-324* System-to-System Adapter
- *TIF-4000* Telephone Interface
- *UIO-256* 16 Input/16 Output GPI Interface

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