Unified Communications & Collaboration Strategy
What If I Could?

Citizens are delivered innovative collaboration tools daily that find and connect people and data in ways that truly enable

So...

- What if I:
  - didn’t have to remember your phone number or look it up?
  - didn’t have to call to see if you are available?
  - could get my messages how best fits MY needs
  - could have the system automatically redirect me to the next expert?
  - could text you on SIPR from NIPR?
  - could communicate the way we BOTH want me to?
  - didn’t have to be there in person?

GoogleVoice, iPhone apps, VoIP, OnDemand, Telepresence…

We must catch-up and deliver a “Connected Airman”
What If I Was a Mobile-Enabled Airman?

• What if...
  – I didn’t have a desk phone?
  – I was GPS enabled?
  – I had my apps on my hip?
  – I could see “presence” wherever I was?
  – I ordered parts wherever I was
  – I saw all the tasks in my directorate
...

**We equipped every Airman with a mobile device for life?**
Overview

• Why UC?
• What is UC?
• The Requirements
• UC Roadmap

“... it’s about the power of networked organizations, rapid information flow, and self-synchronization to serve as force multipliers and enhance the operational art of maneuver.”

Accenture CTO
UC&C Strategy Objectives

**Vision:**
Enhance Warfighter effectiveness through seamless, secure and survivable unified communications and collaboration services.

**Mission:**
Provide a strategic roadmap for the synergistic convergence of fixed and mobile voice, video, messaging and collaboration services across AF, Joint, Coalition and civilian partners.

“It’s not one trend, but the convergence of several trends that creates the future”
BG Steve Spano, ACC/A6
Why UC?

**Warfighter Effectiveness**
(Reduce ATO cycles; streamlined Airmen comms; knowledge operations)

**Business Efficiencies**
(Opportunity costs across PBX Redux, Voicemail savings, mobile devices, IP-convergence)

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<table>
<thead>
<tr>
<th>Benefit</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay-back Period</td>
<td>2 months</td>
</tr>
<tr>
<td>Improved Productivity</td>
<td>13 min saved/day/employee</td>
</tr>
<tr>
<td>Saved Travel Costs</td>
<td>23% reduction</td>
</tr>
<tr>
<td>Reduced Time to Complete Projects</td>
<td>10% reduction</td>
</tr>
<tr>
<td>Shortened Sales Cycle</td>
<td>20% time saved</td>
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<tr>
<td>Reduced Dial-in Conferencing</td>
<td>50%</td>
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<tr>
<td>Reduced Telephony Charges</td>
<td>40% reduction</td>
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## Unified Communication and Collaboration: Creating an Agile Workplace

### The Enterprise UCC Reality: What is Valued?
- Rapid response to queries and tasks
- Cooperative decision-making
- Cross-workgroup coordination
- Custom and flexible problem resolution
- Quickly shifting tasks
- Finding the right expertise
- 18-hour availability

### In an Environment Characterized by:
- A heavily mobile workforce
- Cross-continent workgroups
- Premium on business cycle acceleration
- Dynamic team creation
- Teams that span companies
- Access to accurate and current information

### Communication Generation
- Internet Calls
- Video Calling
- Web-Conference
- E-mail and Scheduling
- E-mail

### Collaborate/Share Generation
- Instant Messaging
- Presence
- Shared Applications
- Audio Conferencing
- Blogs

- **Increased flexibility and social reach**

### Social Networking Generation
- Wikis
- Folksonomies
- Social Pages
- Predictive Markets
- Communities

*Source - Gartner*
“The Connected Airman”

- **Find**
  - Rapid ability to find intellect
  - Single, simple approach to discovering data

- **Fix (Connect)**
  - Seamless ability to connect to every Airman
  - Ubiquitous access regardless of device
  - Always available

- **Track**
  - Finds and responds to my “state”
  - Effortlessly integrated into my “workspace”
  - Delivers me information where I want it
  - Organizes my information

**UCC must provide Find/Fix/Track Services for our Airmen**
“It will move the command from our traditional hierarchical structure to a more flexible, less constrained organization with constructs that utilize all our talents and capabilities.”

– Gen (Ret) John D.W. Corley
Service Requirement

1. **Rich Presence**
   - Willingness, ability and preference of a users’ communication
   - Intelligent voice, messaging, time-sensitive task/doc routing
   - Cross Domain Presence (security, functional)

2. **Voice and Voice Conferencing**
   - Find contacts quickly, dial and easy escalation to VTC

3. **Video PtP and VTC**
   - Simple initiation/easy escalation to conf (desk top and suite)

4. **Desktop Collaboration**
   - Desktop sharing, briefings / presentations and file transfer
   - Cross Domain capability (security, functional)

5. **Unified Messaging**
   - Voicemail to email/vice versa; chat to e-mail

6. **Instant Messaging**
   - One-click access and easy escalation to chat, voice and VTC
   - Cross Domain interaction (security, functional)

7. **Mobile User Access**
   - Smartphone, LMR, Web, bandwidth tolerant

8. **Video Broadcast**
   - Commanders message, Emergency message, etc

- “Flexible, responsive net-centric operations”
- “Faster and improved decisions by fielding and integrating systems to increase the speed and accuracy of discovering, sharing, collaborating, and assessing info”
- “… effectively collaborate on an ad hoc and routine day-day basis to execute missions of global scope...”
- “capabilities for collaborative coordination, planning, analysis, and decision-making ... to support stabilization and reconstruction...”
- “capabilities required in the areas of command and control, logistics, information sharing, and knowledge management”
## Federated Approach

<table>
<thead>
<tr>
<th>Executives</th>
<th>Roaming Users</th>
<th>Desk-Based</th>
<th>Disconnected</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core Needs:</strong></td>
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</tr>
<tr>
<td>- Flexible, adaptive</td>
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<td>- Rich Applications</td>
<td>- Connection</td>
</tr>
<tr>
<td>- High quality</td>
<td>- Mid quality</td>
<td>- Mid quality</td>
<td>- Basic capabilities</td>
</tr>
<tr>
<td>- Simplicity</td>
<td>- Connected</td>
<td>- Connected</td>
<td>- Low quality</td>
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<tr>
<td><strong>Key Technologies:</strong></td>
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<tr>
<td>- HiDef WebCam</td>
<td>- Unified messaging</td>
<td>- Unified Directory Svc</td>
<td>- Thin app</td>
</tr>
<tr>
<td>- IP Broadcast</td>
<td>- Unified Directory Svc</td>
<td>- Unified messaging</td>
<td>- Cross-domain</td>
</tr>
<tr>
<td>- Unified messaging</td>
<td>- Cell, LMR</td>
<td>- Sharepoint</td>
<td>- Chat/IM</td>
</tr>
<tr>
<td>- Cell, LMR</td>
<td>- Chat/IM</td>
<td>- WebCam</td>
<td>- Desktop/laptop</td>
</tr>
<tr>
<td>- Integrated Telephony</td>
<td>- Broadcast</td>
<td>- Streaming Video</td>
<td>- Cross Domain</td>
</tr>
<tr>
<td>- VTC – desk/suite</td>
<td>Desktop/laptop</td>
<td>- IP Broadcast</td>
<td>- SATCOM</td>
</tr>
<tr>
<td>- Desktop/laptop</td>
<td>- Cross Domain</td>
<td>- Integrated Telephony</td>
<td>- “Free License”</td>
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<tr>
<td><strong>Workgroups:</strong></td>
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</tr>
<tr>
<td>- Commanders</td>
<td>- Frequent Travelers</td>
<td>- Staff officers</td>
<td>- Air Platform</td>
</tr>
<tr>
<td>- Chiefs</td>
<td>- Hospital workers</td>
<td>- General workforce</td>
<td>- Flightline maintainers</td>
</tr>
<tr>
<td>- O-6s/GS-15s</td>
<td>- AF Contractors</td>
<td>- AOC Operator</td>
<td>- External contractors</td>
</tr>
</tbody>
</table>

“UC Strategy must adapt to the roles of the users… one size doesn’t fit all” - Gartner
The UC&C Service Oriented Model
Current AF UC&C Evolution
Comparing Current Services

- Ubiquitous access
- Bandwidth tolerant
- Flexible views
- File sharing

- Application Presence integration
- VoIP/VTC Integration
- UM
- Easy escalation from IM to voice to VTC
- Familiar look and feel
- Utilizes AF GAL to find contacts

**Gartner UC Tenets** (Bern Elliott, VP for Collaborative Services 2010)
- Leverage app-focused with comms-focused UC tools
- UC’s greatest strength is in leveraging synergy of tools
- Services-based approach provides the most value
UC&C SOA Model for DCS

- Centrally provided services
  - Economy of scale
  - Ensures interoperability
- **Heterogeneous Local Client**
  - Leverages current investments
  - User familiarity
  - Scope agility (add services as required)
  - Delivers breadth of services
- **Common Local Client**
  - Centrally provided as an option on expiration of current client
  - Must be configurable and scope agile

**Local Client Services**

- Email / Unified Messaging
- Instant Messaging
- Rich Presence
- Desktop Collaboration
- Voice / Conferencing
- Video Broadcast
- Video PtP / Conferencing
- Mobile User Access

**Service Providers**

- Rich Presence
- Directory Services
- Mobile Client Services
- VTC Services

**ESB**
AF UC&C Interim Solution

Replicated at all Bases (less OCS)

OCS/VoIP Interface

VoIP

PSTN

SDP

DISN

LAN

OCS

Web

Exchange

UM Tool

TDM

The Rich Presence experience and ease of use of OCS with the ubiquity and flexibility of DCO...

With the addition of Unified Messaging and one-click dialing from the desktop
UC&C Service Requirement

1. Rich Presence
   - Determine willingness, ability and preference of a users’ communication
   - Intelligent voice, messaging, time-sensitive task and document routing
   - Embedded, and interactive, within standard desktop applications (e.g. calendar, mail)
     — Cross Domain Presence (security, functional)

2. Voice and Voice Conferencing
   - Find contacts quickly, dial and easy escalation to conference, and VTC

3. Video PtP and VTC
   - Simple initiation and easy escalation to conference (desk top and suite)

4. Desktop Collaboration
   - Desktop sharing, briefings / presentations and file transfer
     — Cross Domain capability (security, functional)

5. Email
   - Including Unified Messaging (VM to email and vice versa – [text conversion and audio file] )

6. Instant Messaging
   - One-click access and easy escalation to chat, voice and VTC
     — Cross Domain interaction (security, functional)

7. Mobile User Access
   - Smartphone, LMR, Web, bandwidth tolerant

8. Video Broadcast
   - Commanders message, Emergency message et
UC Flight Plan

• TODAY – Cont. work on “federated” approach
  – Support Requirements document/concepts
  – Continue pilot to prove out federation concept

• TOMORROW – Leverage existing infrastructure
  – Refine federated approach to mitigate risk & continue UC extensions
  – Stay linked/integrated with HHQ/DoD strategies

• 2+ YEARS - Re-analyze business case
  – Re-address strategy to account for evolving DoD architecture

Federated Approach Meets These Requirements  
Today… And Positions AF for Tomorrow
Questions