



THEATER NETWORK OPERATIONS & SECURITY CENTER SOUTHWEST ASIA

Active Directory Implementation In Progress Review

Active Directory Summit
Reston, VA
5 NOV 2003





Agenda



- Purpose
- Theater background
- Current theater snapshot & AD status
- AD design concerns
- Proposed domain structure
- Road ahead





Purpose



- Provide NETCOM & PM BES a current snapshot of the Southwest Asia Theater of Operations from an operational perspective.
- Discuss issues/challenges impacting active directory implementation in the SWA theater.
- Leverage conference attendees expertise to assist with our planning.





Theater Background



- SWA theater is “immature” from a communications infrastructure perspective; very little fiber, lots of satellite.
- Theater Network Operations & Security Center is relatively new and not at full operational capability in personnel and equipment.
- Theater has experienced exponential growth since 9/11.





25 Countries (Syria not depicted here)



Current Theater Status



- Approximately 130,000 soldiers; large tactical network footprint, relatively small “garrison” footprint. Three supporting signal brigades (11th, 22^d, 160th)
- Major headquarters:
 - ❖ Coalition Land Forces Component Command (Atlanta/Camp Doha)
 - ❖ Combined Forces Command (Kabul)
 - ❖ CJTF-7 – Iraq; CJTF-180 – Afghanistan





Current Theater Status (cont.)



- 160th SIG BDE just activated – not fully operational.





Current AD Status



- Isolated “local” active directory implementations already exist.
- Currently more questions than answers from a theater perspective.
- AD planning is just beginning; many competing priorities.
- We are somewhere between “Don’t know what we don’t know” and “Know what we don’t know”.



Active Directory Design Concerns



- Satellite infrastructure
- Large tactical network footprint.
- C2 of CJTFs
- Integration of major USAR commands that are aligned with theater.
- CFLCC “information enterprise” requirement.



Active Directory Design Concerns (cont.)



- Commercialization
- Personnel





AD Design Concern: Satellite Infrastructure



- Some large pipes exist between major C2 nodes but utilization regularly spikes to to 60%+.
- BW between smaller nodes is generally 512k (or less) with high utilization.





AD Design Concern: Tactical Network Footprint



- Minimal forces assigned on a permanent basis to theater; rapid buildup in wartime.
- Currently the bulk of the network nodes are tactical. How do we treat them from an AD perspective if they regularly rotate?
- Relatively small tactical units often serve as the ARFOR for CJTFs.





AD Design Concern: C2 of CJTFs



- CJTF-7 (Iraq) & CJTF-180 (Afghanistan) report directly to CENTCOM. They do not have a command relationship with CFLCC or ARCENT.
- No information sharing requirement with CFLCC but they may have one with CENTCOM.
- Control issue – who is in charge from a AD CONOPS perspective – TNOSC/160th SIG BDE or CJTF-C6?





AD Design Concern: C2 of CJTFs (cont.)



- Must balance their information needs against signal community ability to support.





AD Design Concern: Integration of USAR HQ



- Many major USAR commands have a wartime relationship with ARCENT.
 - 377th TSC, 3rd PERSCOM, 416th EN CMD, 335th TSC, etc.
- Can we include them in our domain structure to allow them access to current operational information, etc.? Is a “train as you fight” issue.





AD Design Concern: CFLCC Information Enterprise



- ARCENT/CFLCC HQ is in Atlanta but it's focus is the Middle East. ARCENT users routinely travel among Atlanta, Qatar, and Kuwait.
- ARCENT/CFLCC CDR goal is a seamless information enterprise between all locations (shared file directories, “plug & play” laptops, etc.)





AD Design Concern: Commercialization



- 168 sites identified for commercialization; \$98.6 M approved for first increment of 30 sites.
- Lots of moving pieces; focus is on delivering equipment – not what to do with it or how to integrate it once it has arrived.
- Should greatly reduce the tactical footprint.
- Will drive OU & site architecture





AD Design Concern: Personnel



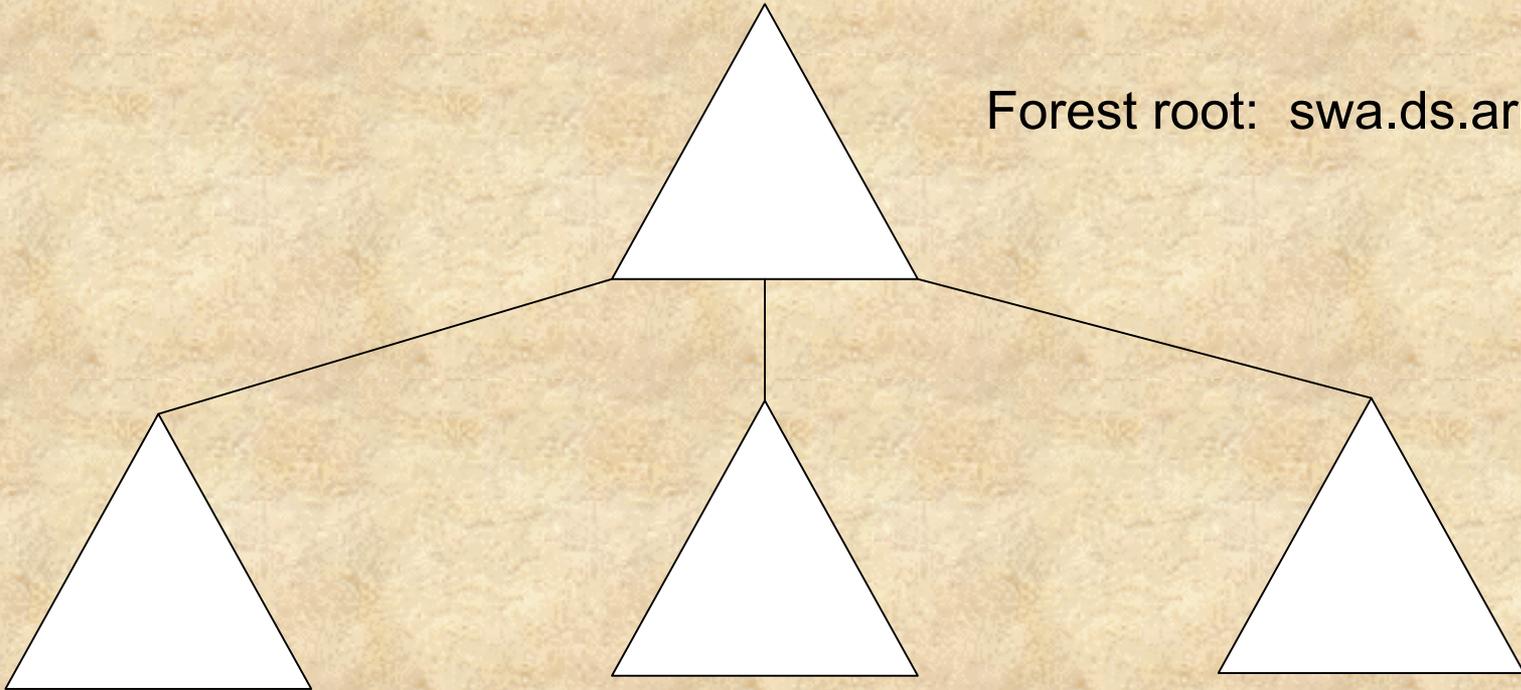
- 160th SIG BDE manning document based on pre-9/11 mission profile.
- TNOSC authorized only 13 active component personnel; bulk are reservists – many nearing end of two year mobilization.
- AC Soldiers are assigned for only 12 months; training issue.
- High contractor turnover.





Proposed Domain Structure

Forest root: swa.ds.army.mil



cflcc.swa.ds.army.mil

cfc.swa.ds.army.mil

cjtf7.swa.ds.army.mil



Proposed Domain Structure (cont.)



- Domains correspond to operational boundaries
- Domain administration controlled by 160th SIG BDE
 - 25th SIG BN Afghanistan & Qatar
 - 54th SIG BN Kuwait & Iraq



Proposed Domain Structure

Pros/Cons



Pros:

- ✓ **Minimizes replication**
- ✓ Operationally focused
- ✓ Facilitates rapid build-up for combat

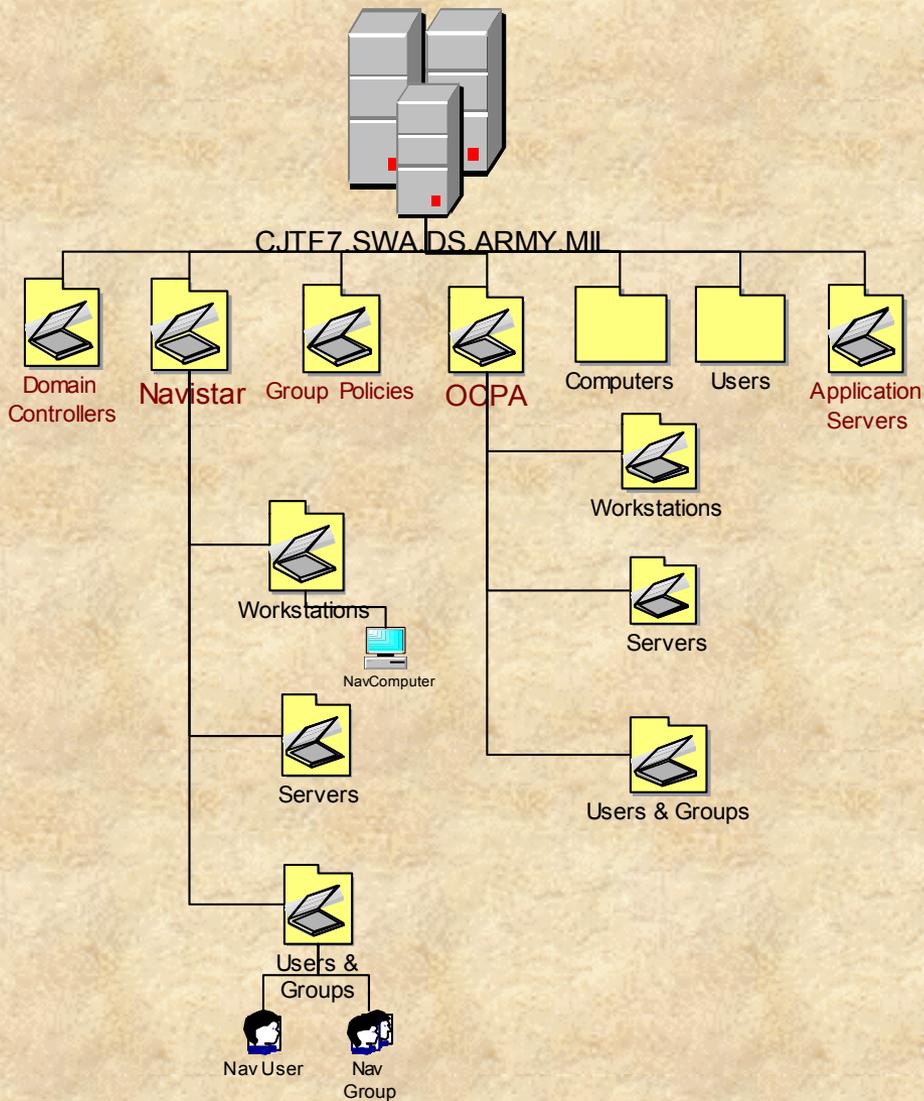
Cons:

- x Harder to support; more complexities
- x Harder for TNOSC & 160th to manage
- x Does not comply with existing AD CONOPS





Sample OU Structure





Proposed OU Structure



- Physical locations will be OUs; locations single threaded off a larger site will be part of the larger site OU.
- Supporting Direct Signal Support Teams (DSST) will act as OU administrators.





Road Ahead



- Get formal approval for domain structure.
- “Market” the plan to the users & various C6 staffs.
- Detailed planning:
 - Finalize OU structure
 - Develop standard groups, etc.
 - Document delegation of administration.
 - Develop migration strategy.





Road Ahead (cont.)



- Establish a lab.
- Establish the forest
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Summary



- The SWA theater has a many concerns & operational issues that need to be addressed during AD planning.
- We currently have the necessary expertise to do the planning but current operational requirements take precedence. Do not have the personnel to implement at this time.
- Theater will remain very dynamic for some time to come.

